CITY OF ROSEVILLE CALIFORNIA

DEVELOPMENT SERVICES DEPARTMENT–PLANNING DIVISION

311 Vernon St, Roseville, CA 95678 (916) 774-5276

ADDENDUM TO THE 2035 GENERAL PLAN ENVIRONMENTAL IMPACT REPORT (SCH #2019080418, CERTIFIED ON AUGUST 5, 2020)

Project Title/File Number:	2021 Housing Element
Project Location:	Citywide
Project Description:	The project is an update to the City's 2013 Housing Element, which is a required component of the City's General Plan. The purpose of the Housing Element is to identify current and projected housing needs, and set goals, policies, and programs to address those needs. The updated 2021 Housing Element covers the planning period of 2021 to 2029.
Project Applicant:	City of Roseville
Property Owner:	City of Roseville
Lead Agency Contact:	Lauren Hocker, 916-774-5272

An Addendum to a previously certified environmental impact report may be prepared for a project if only minor technical changes or additions are necessary or none of the conditions calling for the preparation of a subsequent EIR have occurred (California Environmental Quality Act Guidelines [CEQA] Section 15164). Consistent with CEQA Guidelines Section 15164, the below analysis has been prepared in order to demonstrate that none of the conditions described in Section 15162 of the CEQA Guidelines calling for preparation of a subsequent EIR have occurred and that only minor technical changes or additions are necessary in order to deem the adopted or certified prior environmental document adequate to describe the impacts of the proposed project. CEQA Guidelines Section 15164 also states that an addendum need not be circulated for public review, but can be included in or attached to the adopted or certified environmental document for consideration by the hearing body. This Addendum focuses only on those aspects of the project or its impacts which require additional discussion.

Table of Contents

Project Description **3**

Scope of Addendum **12**

Initial Study Checklist

I.	Aesthetics	**17**
II.	Agricultural & Forestry Resources	**19**
III.	Air Quality	**20**
IV.	Biological Resources	**25**
V.	Cultural Resources	**30**
VI.	Energy	**35**
VII.	Geology and Soils	**35**
VIII.	Greenhouse Gases	**39**
IX.	Hazards and Hazardous Materials	**42**
X.	Hydrology and Water Quality	**45**
XI.	Land Use and Planning	**48**
XII.	Mineral Resources	**49**
XIII.	Noise	**50**
XIV.	Population and Housing	**53**
XV.	Public Services	**54**
XVI.	Recreation	**55**
XVII.	Transportation	**56**
XVIII.	Tribal Cultural Resources	**61**
XIX.	Utilities and Service Systems	**63**
XX.	Wildfire	**65**
XXI.	Mandatory Findings of Significance	**67**

Environmental Determination **69**

Attachments **69**

PROJECT DESCRIPTION

Project Location

The Housing Element is a long-range planning document which applies citywide. Roseville is the largest city in Placer County and is located 15 miles northeast of downtown Sacramento. Roseville is surrounded by agricultural uses to the west, the cities of Rocklin to the north and Citrus Heights to the south, and the unincorporated communities of Antelope to the southwest and Granite Bay to the east. Figure 1 shows Roseville in its regional context.

According to State law, within its General Plan each city must include all territory within the boundaries of the incorporated area, as well as "any land outside its boundaries [that] in the planning agency's judgment bears relation to its planning" (California Government Code Section 65300). The Planning Area for the proposed Project includes all areas within the City's General Plan, which includes the City limits and those areas outside City limits that are within the City's Sphere of Influence (SOI). The SOI is a boundary that encompasses lands that are expected to ultimately be annexed by the City. While it does not have any land use entitlement authority, Placer Local Agency Formation Commission (LAFCO) is the entity empowered to review and approve proposed boundary changes and annexations by incorporated municipalities, including changes to spheres of influence.

The Planning Area is approximately 29,000 acres or 45 square miles in total land area. The City's Sphere of Influence and Planning Area are shown in Figure 2. The project site is the Planning Area.

Figure 1: Regional Location

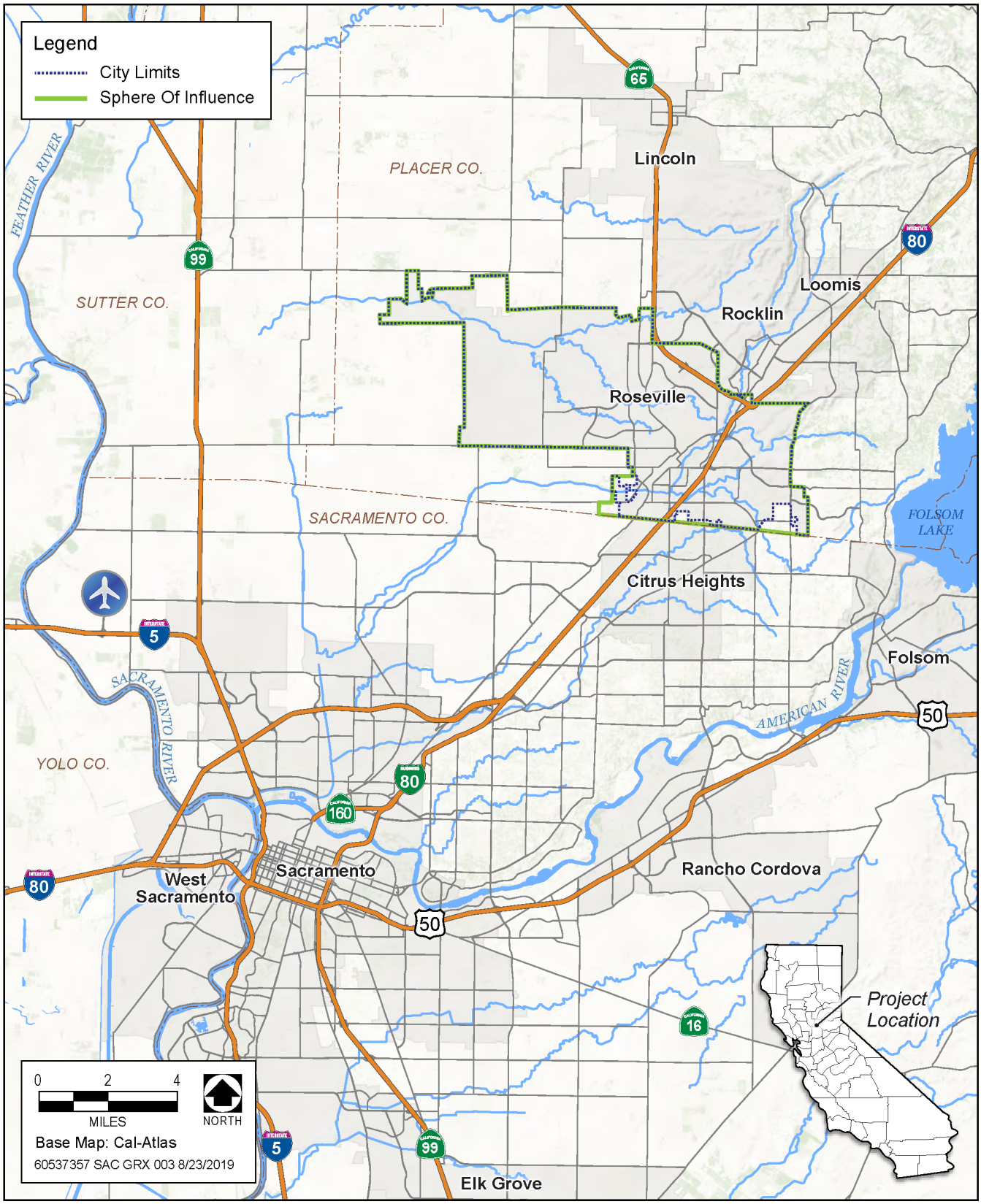
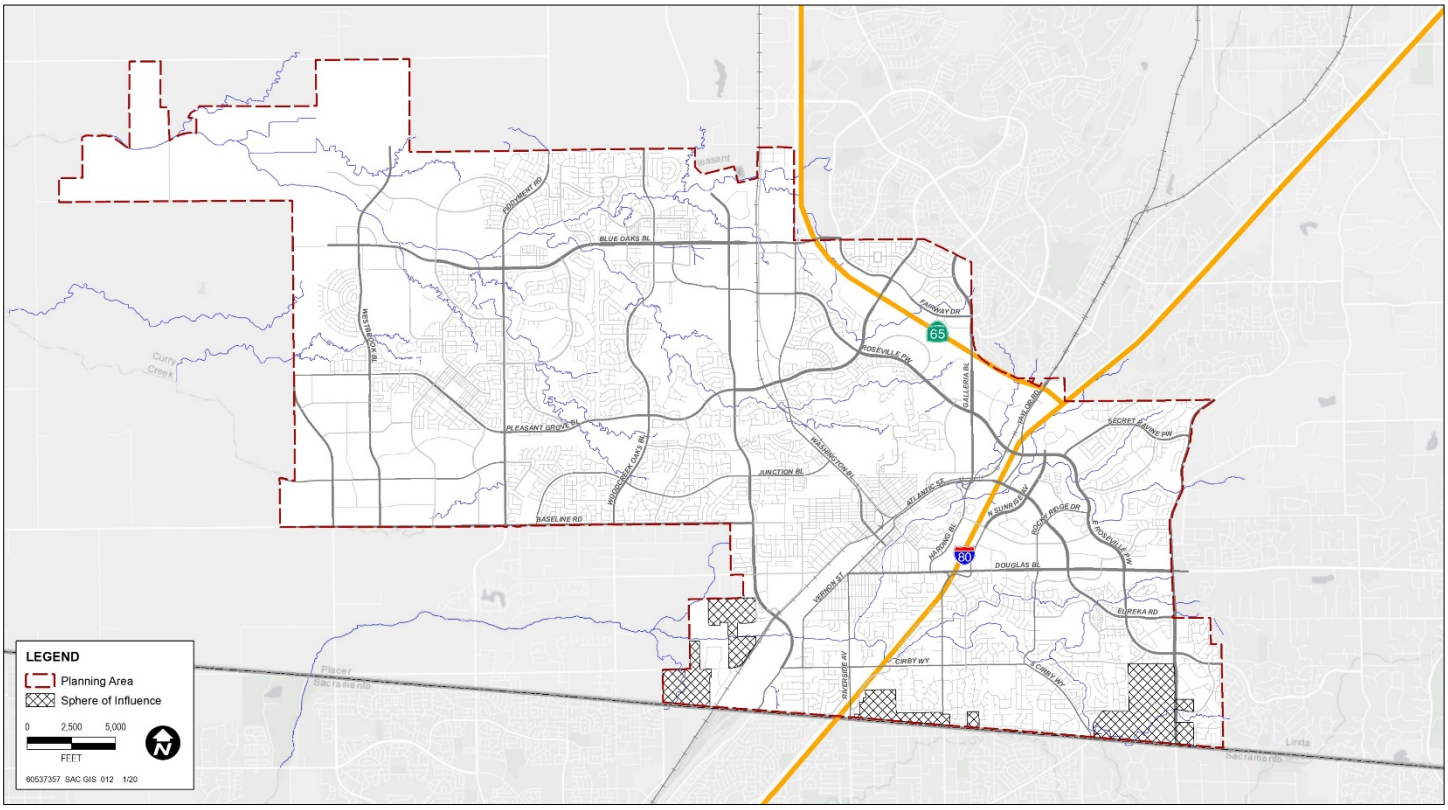


Figure 2: Planning Area and Sphere of Influence



Background

Since 1969, California has required that all cities and counties adequately plan to meet the housing needs of everyone in the community. This is accomplished through a Housing Element, which is a required component of a local government's General Plan. The purpose of a Housing Element is to identify current and projected housing needs, and set goals, policies, and programs to address those needs. Compliant Housing Elements are updated on eight-year cycles, which are defined by the California Housing and Community Development Department (HCD). The current Housing Element was adopted by City Council in 2013 and covers the period from 2013 to 2021. The proposed Project is the City's sixth cycle Housing Element, which covers the period from 2021 to 2029.

The foundation of the Housing Element is the Regional Housing Needs Allocation (RHNA), which begins with a determination of housing need issued by HCD. HCD determined the Sacramento Area Council of Governments (SACOG) planning area needed to provide capacity for 153,512 total housing units. SACOG is required to prepare and adopt a methodology for allocating those units to each member jurisdiction[i]. The Regional Housing Needs Plan was adopted by SACOG on March 19, 2020. Under the SACOG plan, the City must accommodate 12,066 housing units to meet its "fair share" of the State's housing need. This allocation is equivalent to an annual need of 1,508 units for the eight-year planning period.

The determination of housing needs is in two parts, as required by State law:

Overall Allocation: The total number of units which must be accommodated by each jurisdiction.

Income Category Distributions: The total broken up into four income levels.

- very low income (less than 50 percent median family income [MFI])

- low income (51 to 80 percent MFI)
- moderate income (81 to 120 percent MFI)
- above moderate income (above 120 percent MFI).

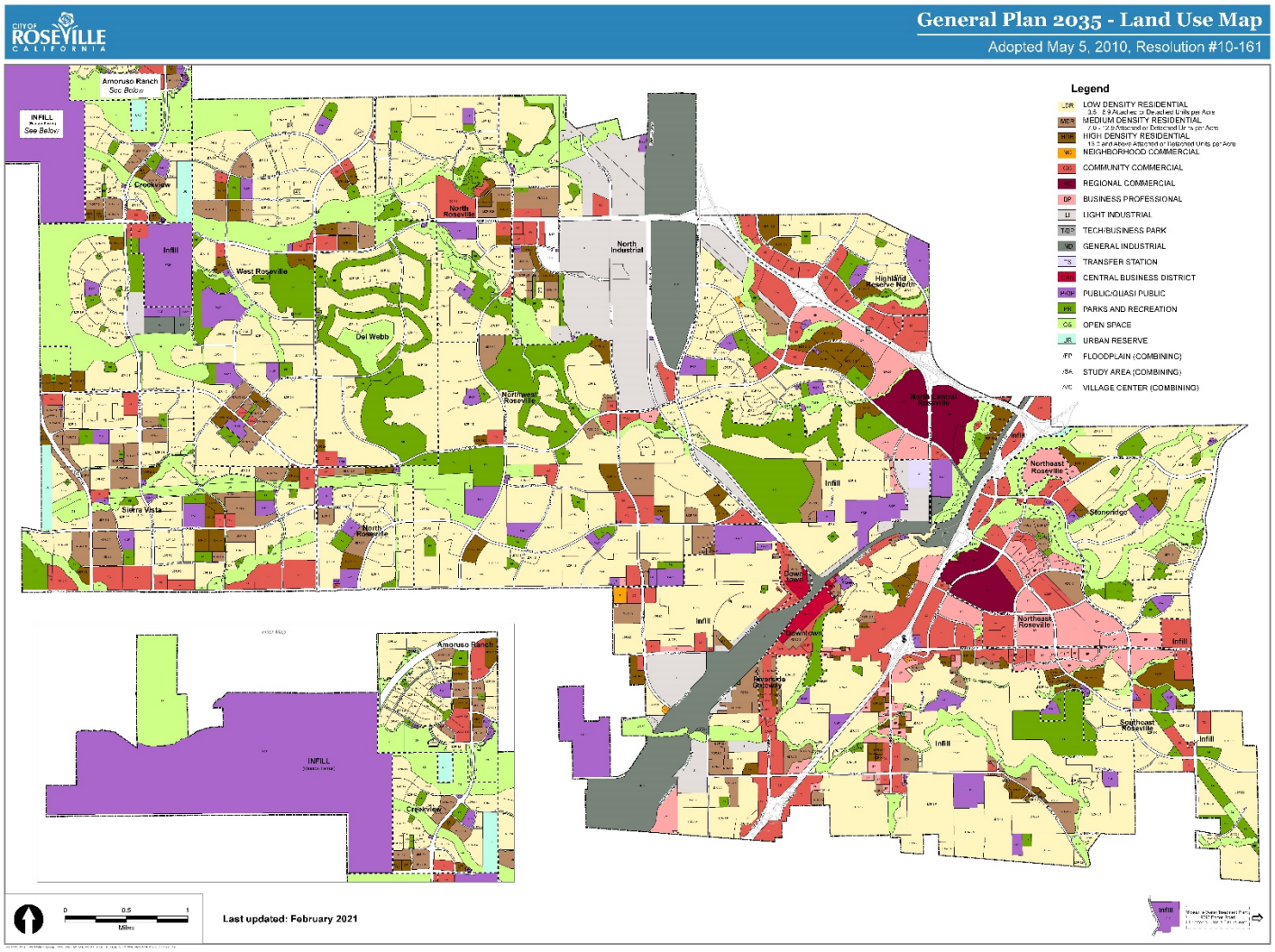
The four income categories listed above must be addressed in a jurisdiction's Housing Element. Specifically, a jurisdiction must provide sufficient zoning capacity to accommodate the projected housing need in each income category. The intent of housing element law is to ensure that jurisdictions do not impede the construction of housing in any income category.

Environmental Setting

Within the City's Planning Area, existing residential development occupies approximately 30 percent of the total land area and vacant land accounts for another 20 percent. Public uses, open space, and recreational uses are developed on approximately 20 percent of the Planning Area. Approximately 15 percent of the Planning Area is developed with roads, sidewalks, and landscape corridors. Commercial and industrial uses are developed on approximately 10 percent of the Planning Area.

The City's existing General Plan Land Use map is shown in Figure 3; the land use map depicts the planned uses at full buildout of the City. Approximately 50 percent of the Planning Area has a residential land use designation; 12 percent has a commercial or office land use designation; 9 percent has an industrial land use designation; and 29 percent has an open space, parks and recreation, or public/quasi-public land use designation.

Figure 3: General Plan Land Use Map



Proposed Project

The goal of the project is to adopt a Housing Element which complies with state law. This includes the following objectives:

- Provide adequate sites suitable for housing at all income levels.
- Promote the development of adequate housing for very low-, low-, and moderate-income households.
- Remove constraints to the availability and affordability of housing for all income groups.
- Conserve and improve older housing and neighborhoods.
- Preserve affordable housing.
- Promote equal housing opportunity.
- Promote sustainable development and sustainable communities.

As discussed above, the City must accommodate 12,066 new housing units during the planning period. The allocation from SACOG breaks the City's RHNA into income categories, as follows:

- Very low income: 3,855 units
- Low income: 2,323 units
- Moderate income: 1,746 units
- Above moderate income: 4,142 units

The units described as "affordable" are those in the very low income and low income categories, which together are called lower income units. The City must accommodate 6,178 lower income units.

The Housing Element includes the required "adequate sites inventory" identifying the parcels in the City which will accommodate the RHNA, and the number of units at each income level the parcels are planned to accommodate. State housing law does not require the City to construct the allocated units within the planning period but does require the City to maintain the required allocation at all times.

For the purposes of future planning HCD uses density (defined by number of units per acre) as a measure of affordability. HCD requires lower income units to be on land designated for a minimum "default density," unless a jurisdiction can demonstrate a lower density is appropriate. The default density for a jurisdiction of Roseville's size is 30 units per acre or greater, but the City has provided evidence and justification to support inclusion of densities 23 units per acre or greater.

Using these land use densities, the City prepared an inventory of existing adequate sites, to determine how many additional units would need to be accommodated to comply with the RHNA allocation. As shown in Table 1 below, the City has a surplus of moderate- and above moderate-income housing capacity but has insufficient lower income housing capacity to meet the RHNA allocation. The proposed Project includes a rezone program (referred to herein as Program 14) to provide the needed lower income housing capacity.

Table 1: Summary of Existing Adequate Sites Inventory

Income Category	Unit Capacity Required	Existing Unit Capacity	Deficit or Surplus[4]
Lower Income[1]	6,178	3,985	-1,791
Moderate Income[2]	1,746	4,676	+3,006
Above Moderate Income[3]	4,142	4,644	+503
Total	**12,066**	**13,305**	**+1,718**

Source: Sacramento Area Council of Governments; City of Roseville 2021
[1] Capacity based on sites with a density of 23 du/acre or greater and/or a lower income affordable housing obligation
[2] Capacity based on sites with a density of 7–22.9 du/acre
[3] Capacity based on sites with a density of less than 7 du/acre
[4] This number is derived from the current existing housing unit capacity minus the regional housing need number for the planning period.

The rezone program includes four strategies. Each strategy describes two figures: the total capacity and the realistic capacity. The total capacity describes the total number of units which could result from full implementation of the strategy, and is not considered realistic or feasible. The realistic capacity is a smaller number of units and represents the units the rezone program will realistically achieve. The detailed analysis supporting the realistic capacity is included as Appendix E of the 2021 Housing Element. The rezone program has generally been designed to operate as a menu, identifying a broad array of sites which could accommodate units from which to select in order to achieve the RHNA obligation.

1. **Commercial Corridors:** The City has identified three commercial corridors for revitalization. The Douglas Boulevard/Harding Boulevard Corridor includes a mix of single-family residential properties, single-family residences which have been converted to businesses, aging hotels, and many older commercial properties with large, minimally improved parking fields. The Douglas Boulevard/Sunrise Avenue Corridor includes a mix of land uses, including commercial businesses and business professional offices with large, minimally improved parking fields and single-family homes, duplexes, and apartments. The Atlantic Street Corridor includes a mix of uses along the street frontage, with residential uses to the rear; many of the residential properties contain more than one housing unit, or room for additional units. The Commercial Corridors strategy will consist of the preparation of Specific Plans for each corridor, the establishment of mixed-use land use and zoning designations to provide more opportunities for redevelopment and reuse, more flexible zoning and development standards, and streamlined approval processes. The City anticipates adding capacity for a minimum of 400 lower income residential units, which represents both the total and realistic capacity.

2. **Infill Intensification**: The central core of Roseville where development occurred prior to the 1980s is known as the City's "Infill Area," and is approximately 8,500 acres. This older area of the City is not within a Specific Plan, and much of the development occurred prior to the adoption of the City's General Plan or Zoning regulations. Consequently, inconsistencies between a property's land use and zoning designations are relatively common, and the land use designation density typically reflects the built conditions rather than planned future conditions. These factors have presented regulatory barriers to development and redevelopment. The City would amend the land use and zoning designation of selected properties in the Infill Area, to remedy inconsistencies between land use and zoning and to increase the permitted residential densities. This program has the potential to add capacity for 832 units at all levels of affordability. The realistic capacity of this program is 186 units, based on the assumption that vacant or significantly underutilized sites are most likely to develop. This program will include a replacement program, to ensure that if units are demolished and replaced the residents are not displaced and at least as many homes are rebuilt as were removed.

3. **Opportunity Sites**: Staff examined vacant sites throughout the City to find properties with the potential to be converted to a high density residential land use designation. After screening out sites due to the presence of approved entitlements, Development Agreements, or significant environmental constraints (floodplain, wetland preserves, etc), the City has identified potential sites for evaluation as part of this rezone program. Additional sites may be identified as the City develops this option and sites on this list may be removed due to constraints. The current list of sites has the potential to add a total capacity of 1,350 lower income (high density) residential units. The realistic capacity of this strategy is 600 lower income (high density) units.

4. **Vacant Sites–Residential Intensification**: The western areas of the City include multiple vacant sites with High Density Residential land uses at densities below 25 units per acre. Increasing the land use density of these sites to 30 units per acre would yield additional units. As part of this strategy the City would develop and adopt a Land Use Amendment Policy requiring all Specific Plan Amendment projects involving land use changes to also amend the land use of High Density Residential sites the applicant/property owner controls to between 25 and 30 units to the acre. If all of the sites were amended to 30 units per acre the total capacity is 1,880 high density units. However, the realistic capacity is 900 units.

The above rezone program has a realistic capacity of 2,086 lower income (high density) units, which is more units than the City needs to address the 1,718-unit deficit. In adopting this program the City is approving a menu of strategies which may be pursued, and providing evidence for the realistic capacity which could be added by each. In implementing the rezone program, the City may choose to implement one, all, or portions of these, based on need and to the extent necessary to ensure the City achieves the minimum required RHNA capacity, which currently requires the addition of 1,718 lower income units. The City's rezone program, in combination

with other programs, will result in the City's achievement and maintenance of the minimum required capacity of 6,178 lower income units. The word "maintenance" is key, because current Housing Law indicates that if a site designated as lower income develops as moderate or above-moderate units, the City must make up the capacity loss. Therefore, the City's rezone program must provide sufficient capacity to both address the deficit and provide a surplus of capacity, to avoid issues with net loss of unit capacity. The Project includes the addition of all 2,086 lower income units of realistic capacity, in order to meet these goals.

The addition of 2,086 *lower income* units is not equivalent to adding 2,086 total units to the City's cumulative buildout conditions. The Opportunity Sites strategy reduces non-residential buildout capacity by approximately 20 acres (or 261,000 square feet of commercial building based on the General Plan average Floor Area Ratio of 0.30) and adds 600 units of High Density Residential land use in its place. The Vacant Sites–Residential Intensification strategy includes moving units from the moderate income category to the lower income category by increasing land use densities above the lower-income threshold density of 23 units per acre. For example, a 10-acre site with an existing land use density of 20 units per acre has 200 moderate-income units. Increasing the land use density to 30 units per acre would move all of the units on the site from a moderate-income classification to a lower-income classification, thereby adding 300 lower-income units while only adding 100 total units to buildout conditions. The strategy includes six sites identified as moderate income, and if these sites are used to gain the 900 units of lower income capacity only 377 total units would be added to buildout conditions.

Based on the discussion above, the Project would add capacity for 1,563 high density residential units and remove approximately 261,000 square feet of non-residential building capacity. In addition, the Project includes new and modified housing goals, policies, and programs to the Housing Element. The goals, policies, and programs of the 2021 Housing Element do not commit the City to the approval or development of specific housing projects or sites. These changes were evaluated to determine if any programs had the potential to result in physical effects. Except the rezone program described above, the remaining programs do not have any potential to result in physical environmental impacts, because they are general policy and procedure-making activities; supportive service programs such as homelessness outreach teams, housing discrimination legal services, and funding programs which offer assistance to individuals and households; or they are programs which describe existing City procedures and processes. Some programs direct the focus of funding, services, or other programing into census tracts in Roseville where those services are most needed.

Program revisions generally fall into one of three categories: changes for consistency or clarity; modifications in response to Housing Element analysis; and new programs. All programs were modified to include an objective statement. Changes to the Housing Element programs is summarized below.

Consistency or clarity changes are summarized as follows:

- Program 2 (Density Bonus), Program 3 (Accessory Dwelling Unit), Program 5 (Streamline Project Processing) were updated to reflect the City's current adopted ordinances.
- Program 4 (Condominium Conversion Ordinance) is unchanged, except for the inclusion of an objective statement and timeframe.
- Program 6 (Review of Subdivision Improvement Standards) was deleted because it duplicated Program 31, and subsequent programs were renumbered.
- Program 7 (Public/Private Partnerships), Program 8 (Affordable Housing Agreements), and Program 30 (Process and Fee Structure Review) were modified to include more detail on how these existing programs operate.
- Program 31 (Review of Subdivision Improvement Standards and Zoning Ordinances) was modified to describe updates to the Zoning Ordinance needed in order to reflect current state law.
- Program 32 (Public Education Program) was modified slightly to explain the purpose of the public education program.
- Program 33 (Public Participation) was modified to include more detail describing how the City's existing public participation procedures work.

- Program 34 (Special Needs Housing Laws) was added to reflect changes needed to the City's codes in order to reflect current state law.
- Program 35 (Roseville Electric Program) and Program 36 (New Construction Efficiency Measures) were updated to be consistent with the current operation of these programs.

Where the review of previous programs, housing needs assessment, special needs housing evaluation, or fair housing assessment identified issues of concern, programs have been modified to be responsive to those issues, and to be responsive to public comments, as follows:

- Program 1 (Housing Choice Vouchers) was modified to provide more detail on how the existing housing choice voucher program operates, including who is eligible to receive vouchers. The program was also modified to direct funding through the City's existing owner-occupied housing rehabilitation program (which provides financial aid for home repairs) to households in disadvantaged areas of the City, and outreach for the City's existing first-time homebuyer program into disadvantaged areas of the City. Focusing funding or outreach in areas where the need is greatest does not result in physical changes to the environment.
- Program 6 (Specific Plan Areas) was modified to include a substantial amount of additional detail on how this program operates and how effective this program has been. It was also modified to include an explicit statement that the program is intended to avoid concentrated areas of affluence.
- Program 9 (In-Lieu Fees) disburses money to assist affordable housing projects. The program has been modified to prioritize funding for projects in high opportunity areas or in areas at risk of displacement. Essentially, if more than one project is competing for this funding, a project in a high opportunity area or area at risk of displacement will receive a higher score and be more likely to receive the funding. This program responds to projects which are already proposed and the funding program already exists; changing the funding scoring metrics does not result in physical environmental effects.
- Program 10 (Non-Residential Construction Fee) would establish a fee for non-residential projects, the funding for which would be used in the same manner as Program 9.
- Program 11 (Preservation of Affordable Housing) incudes procedures to identify properties with affordable housing deed restrictions in danger of expiration, and incentivize those property owners to enter into new agreements that would keep the units affordable. This is an administrative program with no potential to result in physical environmental effects.
- Program 12 (Housing Successor Agency) describes the City's existing Housing Successor Agency role and how funding is typically disbursed. Like Program 9, this program was changed to prioritize funding for projects in high opportunity areas or in areas at risk of displacement.
- Program 19 (Federal and State Programs) was modified to provide greater detail on how the program operates, and to state that use of the programs would be prioritized for affordable housing for extremely low income households and special needs households. Like Program 9, focusing the program in this way does not result in physical changes to the environment.
- Program 20 (Homeless Prevention and Rapid Rehousing) was modified to include additional program details and to include an annual tracking requirement to ensure homelessness services are being used and accessed equitably. This is an administrative program with no potential to result in environmental effects.
- Program 21 (Roseville Community Grant Funds) describes multiple funding sources used to provide community grants, and was modified to provide greater detail.

New programs were included to address changes in state law and to respond to public comments on the Housing Element, as follows:

- Program 13 (Residential Capacity Monitoring) requires the City continuously monitor the adequate sites inventory, as required by existing state law.
- Program 14 (Rezone Program) was previously described. The program will add housing capacity to the City, and therefore has the potential to result in physical environmental changes.

- Program 15 (Affordable Housing Streamlining) was added to reflect an existing, adopted City process which provides a ministerial approval process for qualified affordable housing projects.
- Program 16 (Prioritize Affordable Housing) establishes that the City will prioritize affordable housing projects which are proposed (for example, by providing shortened review timeframes), and will also develop a program to further streamline affordable housing projects by providing ministerial processing for lot line adjustments, parcel maps, and similar entitlements that are needed as part of an affordable housing project. These entitlements are already exempt from CEQA, because they generally do not cause environmental effects.
- Program 17 (Housing Replacement Program) was added to reflect an existing state law that is already in effect.
- Program 18 (Accessory Dwelling Unit Outreach) would promote the use of accessory dwelling units on existing multifamily housing sites. The program would advise property owners of their existing rights and opportunities under the law. Advising people of existing regulations with the intent that they could develop their properties pursuant to those regulations is not an environmental impact.
- Program 22 (Address Significant Disparities and Increase Opportunities) is a fair housing program that is administrative and procedure-making, and focuses on homelessness services, rental assistance, and other service program and preservation programs.
- Program 23 (Homeless Outreach), Program 24 (Family Mobile Team), and Program 25 (Family Reunification Program) are all homelessness outreach programs to connect people struggling with homelessness with services and support. These administrative and service programs do not have the potential to result in an environmental effect.
- Program 27 (Fair Housing and Housing Discrimination Legal Services) provides legal advice for individuals who have experienced housing discrimination, and is an administrative program.
- Program 28 (Support for Housing for Persons with Development Disabilities) is an outreach program for disability services and housing, and also includes changing the procedures for community care homes to require a staff level approval instead of a public hearing. Changing the administrative procedures for approval of community care homes is not a physical effect on the environment.
- Program 29 (Allow Shared Housing) is an administrative program which allows voucher holders to share housing.

As described above, the only program with the potential to result in environmental effects is Program 14 (Rezone Program). The potential impacts of implementing this program are described in this Addendum. Attachment 3 of this Addendum includes the complete list of Housing Element goals, policies, and programs, with additions shown in **bold, underlined** text and deletions shown in ~~strikethrough~~. The Redlines – Adoption Draft 2021 Housing Element is available online at www.roseville.ca.us/housingelementupdate on the Documents tab, and includes all changes proposed to the Housing Element.

SCOPE OF ADDENDUM

This Addendum tiers from the 2035 General Plan Environmental Impact Report (GP EIR), which analyzed the impacts of full buildout of the City's General Plan land uses and implementation of its policies. The GP EIR is available for review on the City's website at www.roseville.ca.us/planning https://www.roseville.ca.us/cms/One.aspx?portalId=7964922&pageId=8774544 The GP EIR evaluated the following topical sections, as numbered below:

Chapter 4.0. Introduction to the Environmental Analysis

- Section 4.1. Land Use and Agriculture
- Section 4.2. Population, Employment, and Housing
- Section 4.3. Transportation
- Section 4.4. Air Quality
- Section 4.5. Greenhouse Gas Emissions

- Section 4.6. Noise and Vibration
- Section 4.7. Geology, Soils, and Paleontological Resources
- Section 4.8. Biological Resources
- Section 4.9. Cultural and Tribal Cultural Resources
- Section 4.10. Hazards, Hazardous Materials, and Wildfire
- Section 4.11. Public Services and Recreation
- Section 4.12. Utilities and Service Systems
- Section 4.13. Hydrology and Water Quality
- Section 4.14. Aesthetics
- Section 4.15. Energy

The Planning Area analyzed in the GP EIR included all areas within the City limits and those areas that are within the City's Sphere of Influence. The GP EIR included a comprehensive analysis of the impacts of City buildout compared to baseline physical conditions and conservatively assumed that developable sites would be fully developed. During the initial scoping phase of this Project it was assumed that either a Supplemental or a Subsequent EIR could be required because at the time, it was forecast that the rezone program would need to add upwards of 3,000 high density units and because of the potential for the Project's changes to affect vehicle miles traveled (VMT) and transportation-dependent analyses (e.g. air quality and greenhouse gases) by changing the location and distribution of residential units. For this reason a Notice of Preparation was circulated on November 10, 2020. In response, the City received letters from the Department of Toxic Substance Control, the Central Valley Regional Water Quality Control Board, and from the Native American Heritage Commission. These were standard letters which the City typically receives in response to environmental document notices; there were no Project-specific comments. The letters are included as Attachment 1 of this Addendum.

Subsequent to the release of the NOP, further refinements to the Project description substantially reduced the amount of units which would be included in the rezone program. The City directed the preparation of a VMT analysis which was completed in the spring, and found that VMT impacts were within the scope of the GP EIR; impacts were decreased, not increased. Therefore, the City acting as Lead Agency determined that neither a Supplemental nor a Subsequent EIR would be required, and have instead prepared this Addendum.

The environmental setting relevant to a project's impacts and the origin of those impacts varies depending on the issue topic. Some impacts are driven primarily by the physical act of construction and development, which are often referred to as ground-disturbing activities, while other impacts are driven primarily by the type of use (residential, commercial, etc) which will be built. For impacts tied to the type of use, the environmental setting varies based on the needs and nature of the analysis. For example, the environmental setting for air quality impacts related to ozone is the relevant Air Basin. For impacts tied to ground disturbance, the environmental setting is typically defined by the geographic scope of the construction area and its immediate surroundings, and the scope or intensity of the impacts is determined by the amount of grading or other ground-disturbance.

The proposed Project does not change the boundaries of the Planning Area or propose construction within areas that had not previously been anticipated for construction within the GP EIR. Therefore, the Project does not include any changes which would affect the GP EIR analyses which result directly from ground disturbance and general development. Impact topics in this category are:

- Section 4.7 Geology, Soils, and Paleontological Resources
- Section 4.8. Biological Resources
- Section 4.9. Cultural and Tribal Cultural Resources
- Section 4.10. Hazards, Hazardous Materials, and Wildfire
- Section 4.13. Hydrology and Water Quality
- Section 4.14. Aesthetics

The Addendum provides a summary of the GP EIR analysis and its basis for determining impacts for each of the above topical sections, to clearly show that the Project does not change these impact evaluations.

The GP EIR identified the following impacts as significant and unavoidable:

- Vehicle Miles Traveled impacts
- Air Quality – Construction
- Air Quality – Operational
- Air Quality – Pollutant Concentrations
- Greenhouse Gases
- Noise and Vibration (short-term and long-term)
- Historical Resources
- Archeological Resources
- Disturbance of Human Remains
- Tribal Cultural Resources
- Construction of Utilities (indirect impacts)
- Aesthetics
- Light and Glare

All of the above impacts were also found to be significant and unavoidable cumulative impacts, along with the following:

- Biological Resources – Special-status plants, riparian habitat/sensitive natural communities, or wetlands and other waters
- Biological Resources – Special-status wildlife species and habitats

The analyses below rely on the GP EIR analysis with minor supplements or technical updates where appropriate. As of 2019 GP EIR baseline conditions, the City had approximately 21,000 units of residential development capacity before reaching buildout conditions (this figure is currently approximately 19,000 units). However, development assumptions within the GP EIR included the addition of between 20,000 and 25,000 units from existing conditions to buildout conditions. A range was used in order to provide flexibility for future projects which could affect City buildout, ensuring that some future project changes could still fall within the scope of the GP EIR. Therefore, the Project's addition of a program to add 1,563 residential units is well within the range of development analyzed within the GP EIR.

The increase in housing units falls within the buildout range described within the GP and within the same development footprint, but the Project would affect the General Plan's mix of uses by increasing residential intensity in certain areas and removing non-residential capacity. Therefore, while the Project is not anticipated to change ground-disturbing impacts or the general effects of urban development it has the potential to influence impacts related to the type and intensity of development, such as VMT.

PURPOSE AND USE OF ADDENDUM

No housing projects or land use amendments would be approved with the adoption of the Project. This is a policy-level document, establishing the framework for future actions. The rezone program identifies potential sites but does not commit the City to rezone or land use modification of these specific sites; the rezone program commits the City to accommodating its RHNA obligation. After the 2021 Housing Element is adopted the City would begin identifying sites and taking specific land use actions, at which time an environmental review process will be needed to determine the physical effects which would result from those actions. To streamline that future environmental review, this Addendum evaluates the physical effects of implementing the rezone program to the extent reasonable and practicable, based on the Project description above.

In preparing this Addendum it is the intent of the City to create a foundation upon which future, project-specific CEQA documents can build. Tiering refers to the concept of a multi-level approach to preparing documents set forth in Public Resources Code Section 21083.3 and Section 15152 of the CEQA Guidelines. Project-level environmental analysis can be streamlined to limit the scope of site-specific approvals following the preparation of an EIR for a general plan, specific plan, or zoning action. This streamlining provision applies to site-specific approvals for projects that are consistent with these earlier approvals. Future projects consistent with the City's Housing Element and the evaluation within this Addendum will only be required to provide the level of environmental review necessary to address site-specific conditions, if any.

Section 15152 of the CEQA Guidelines provides that where a first-tier EIR has "adequately addressed" the subject of cumulative impacts, such impacts need not be revisited in second- and/or third-tier documents. According to Section 15152(f)(3), significant effects identified in a first-tier EIR have been adequately addressed, for purposes of later approvals, if the lead agency determines that such effects have been either:

A) "mitigated or avoided as a result of the prior [EIR] and findings adopted in connection with that prior [EIR]"; or

B) "examined at a sufficient level of detail in the prior [EIR] to enable those effects to be mitigated or avoided by site-specific revisions, the imposition of conditions, or by other means in connection with the approval of the later project."

The GP EIR is a program EIR and helps determine the need for subsequent environmental documentation, as well as dictates the scope of project level CEQA review. According to Section 15168(d) of the CEQA Guidelines, a program EIR can be used to simplify the task of preparing future environmental documents on later activities in the program. A program EIR can:

1) "Provide the basis in an Initial Study for determining whether the later activity may have any significant effects.

2) Be incorporated by reference to deal with regional influences, secondary effects, cumulative impacts, broad alternatives, and other factors that apply to the program as a whole.

3) Focus an EIR on a later activity to permit discussion solely of new effects which had not been considered before."

The GP EIR explicitly stated that it was to be used to streamline future environmental review and approval of private and public projects, as well as implementation actions, such as updates to zoning, the City's CEQA Implementing Procedures, the Capital Improvement Program, and other implementing documents and plans that are consistent with the General Plan. The City will make use of existing streamlining provided by CEQA, and will make use of emerging streamlining techniques, as appropriate, to ensure implementation of the Housing Element provides adequate and appropriate environmental review.

ENVIRONMENTAL CHECKLIST FOR ADDENDUM ENVIRONMENTAL REVIEW

The purpose of this checklist is to evaluate the categories in terms of any "changed condition" (i.e. changed circumstances, project changes, or new information of substantial importance) that may result in a changed environmental result. A "no" answer does not necessarily mean there are no potential impacts relative to the environmental category, but that there is no change in the condition or status of the impact since it was analyzed and addressed in prior environmental documents.

EXPLANATION OF CHECKLIST EVALUATION CATEGORIES

Where Impact was Analyzed
This column provides a cross-reference to the pages of the prior environmental documents where information and analysis may be found relative to the environmental issue listed under each topic.

Do Proposed Changes Involve New Significant Impacts?
Pursuant to Section 15162(a)(1) of the CEQA Guidelines, this column indicates whether the changes represented by the current project will result in new significant impacts that have not already been considered and mitigated by the prior environmental review documents and related approvals, or will result in a substantial increase in the severity of a previously identified impact.

Any new Circumstances Involving New Impacts?
Pursuant to Section 15162(a)(2) of the CEQA Guidelines, this column indicates whether there have been changes to the project site or the vicinity (circumstances under which the project is undertaken) which have occurred subsequent to the certification or adoption of prior environmental documents, which would result in the current project having new significant environmental impacts that were not considered in the prior environmental documents or that substantially increase the severity of a previously identified impact.

Any new Information Requiring New Analysis or Verification?
Pursuant to Section 15162(a)(3)(A–D) of the CEQA Guidelines, this column indicates whether new information of substantial importance which was not known and could not have been known with the exercise of reasonable diligence at the time the previous environmental documents were certified or adopted is available requiring an update to the analysis of the previous environmental documents to verify that the environmental conclusions and mitigation measures remain valid. Either "yes" or "no" will be answered to indicate whether there is new information showing that: (A) the project will have one or more significant effects not discussed in the prior environmental documents; (B) that significant effects previously examined will be substantially more severe than shown in the prior environmental documents; (C) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) that mitigation measures or alternatives which are considerably different from those analyzed in the prior environmental documents would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative. If "no," then no additional environmental documentation (supplemental or subsequent EIR) is required.

Mitigation Measures Implemented or Addressing Impacts
Pursuant to Section 15162(a)(3) of the CEQA Guidelines, this column indicates whether the prior environmental documents provide mitigation measures to address effects in the related impact category. In some cases, the mitigation measures have already been implemented. In any instance where mitigation was included, regardless of whether the mitigation has been completed at this time, the response will include the mitigation measure number. If "none" is indicated, this environmental analysis concludes a significant impact does not occur with this project, no mitigation was previously included, and no mitigation is needed.

DISCUSSION AND MITIGATION SECTIONS

Discussion
A discussion of the elements of the checklist is provided under each environmental category in order to clarify the answers. The discussion provides information about the particular environmental issue, how the project relates to the issue and the status of any mitigation that may be required or has already been implemented.

Mitigation Measures
Applicable mitigation measures from the prior environmental review that apply to the project are listed under each environmental category.

Conclusions
A discussion of the conclusion relating to the analysis contained in each section.

CHECKLIST

I. Aesthetics

	Where Impact Was Analyzed in Prior Environmental Documents	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a. Have a substantial adverse effect on a scenic vista?	Page 4.14-18	No	No	No	None
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Page 4.14-18	No	No	No	None
c. In non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Page 4.14-19	No	No	No	None
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	Page 4.14-24	No	No	No	None

Discussion: Aesthetics and visual resources are subjective by nature, and therefore the extent of visual impact associated with adoption and implementation of development evaluated at a program level is difficult to quantify. The GP EIR analysis was conducted qualitatively, assessing the potential implications of full buildout of the Planning Area.

There are no designated or eligible state scenic highways within in or near the Planning Area, nor is the Planning Area visible from such a highway, so the GP EIR concluded there were no impacts with respect to this topic (GP EIR page 4.14-18). This evaluation remains adequate and is applicable to this Project.

Impacts related to substantial adverse effects on a scenic vista were found to be less than significant (GP EIR page 4.14-18) because there are no scenic vistas in the Planning Area. This evaluation remains adequate and is applicable to this Project.

Impacts related to, in a non-urbanized area, substantially degrading the visual character or quality of public views of the site and its surroundings, and in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality, were found to be significant (GP EIR page 4.14-19). The significance determination was driven by the impacts to non-urbanized areas, where buildout of the Planning Area will convert large areas of open, undeveloped land to urban uses. The conversion of these grasslands and other areas on the western edge of the City are within Specific Plans, and those Specific Plan EIRs concluded that aesthetic impacts related to open space conversion would be significant. The GP

EIR concludes that aesthetic impacts related to this criteria are significant and unavoidable due to the conversion of open space in a non-urbanized area. No mitigation measures were available, because conversion of open space is an unavoidable consequence of urbanization.

The Project includes a program to increase the residential density on vacant sites with an existing High Density Residential land use designation and to change the land use designation of some vacant sites with a non-residential land use designation to High Density Residential land use. These strategies affect land in the non-urbanized (western) portion of the Planning Area. However, the aesthetic impact is not driven by the type of development proposed; it is the result of converting grasslands and other open space to urban uses of any kind. Therefore, the proposed Project does not result in new or substantial increases in significant effects related to aesthetic impacts in non-urbanized areas.

In an urbanized area, the criteria for evaluation is whether a project will conflict with zoning or other regulations governing scenic quality. The GP EIR discusses the effects of infill and redevelopment at length, acknowledging that new development in infill settings may result in some buildings that are taller or of a greater scale than the current development in the local neighborhood. However, the analysis indicates that new development will be required to comply with the City's Zoning Ordinance, General Plan policies, and as applicable with the City's Community Design Guidelines, and that these are intended to foster development which is compatible and complementary with the existing development. Furthermore, the GP EIR notes that allowing for greater density and intensity can improve the character of neighborhood centers and corridors, that taller or larger buildings do not necessarily constitute a visual impact, and that adding uses and density typically improves visual quality by developing vacant or underused properties and improving maintenance of existing structures and yards.

The Project includes a program to increase the residential density on some infill sites with an existing multifamily zoning designation, Medium Density Residential land use designation, or High Density Residential land use designation. The program also includes the identification of three existing commercial corridors targeted for a Specific Plan process which would introduce mixed use zoning and up to 400 additional residential units, to spur redevelopment and reinvestment. These strategies were actually included as part of the Infill Housing Alternative evaluated in the GP EIR (Section 6), and the alternative states that a conflict with applicable zoning and other regulations governing scenic quality would not occur under the Alternative and that this is consistent with the conclusion in the Aesthetics section of the GP EIR. Therefore, the Project does not result in new or substantial increases in significant effects related to aesthetic impacts in urbanized areas.

Mitigation Measures: None.

II. Agricultural & Forestry Resources

	Where Impact Was Analyzed in Prior Environmental Documents	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	4.1-17	No	No	No	None
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	4.1-17	No	No	No	None
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	N/A	No	No	No	N/A
d) Result in the loss of forest land or conversion of forest land to non-forest use?	N/A	No	No	No	N/A
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	4.1-17	No	No	No	None

Discussion: The GP EIR indicates approximately 20 acres of Prime Farmland borders Pleasant Creek within Reason Farms. The remainder of the Planning Area is designated by the Placer County Important Farmland map as Farmland of Local Importance, Grazing Land, Other Land, and Urban and Built-Up Land (California Department of Conservation 2016). These designations are not considered Important Farmland under CEQA (Public Resources Code Sections 21060.1 and 21095 and CEQA Guidelines Appendix G). The areas of Prime Farmland with Reason Farms is

not proposed for conversion to urban land uses. Therefore, the GP EIR concluded buildout of the General Plan would not convert Important Farmland to nonagricultural uses and no impact would occur. This evaluation remains adequate and is applicable to this Project.

The Planning Area is not zoned for agricultural uses and no parcels are under Williamson Act contracts (Placer County 2020). Therefore, the GP EIR concluded buildout of the General Plan would not conflict with existing zoning for agricultural uses or a Williamson Act contract and no impact would occur. This evaluation remains adequate and is applicable to this Project.

The Planning Area does not contain any forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)), and therefore there are no impacts related to forest land.

Mitigation Measures: None.

III. Air Quality

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Conflict with or obstruct implementation of the applicable air quality plan?	Page 4.4-25	No	No	No	MM 4.4-2a, MM 4.4-2b, and MM 4.4-3
b) Result in a cumulatively considerable net increase of any criteria for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	Page 4.4-26 & 4.4-29	No	No	No	MM 4.4-2a and MM 4.4-2b
c) Expose sensitive receptors to substantial pollutant concentrations?	Page 4.4-36	No	No	No	MM 4.4-3
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Page 4.4-49	No	No	No	MM 4.4-5

Discussion: The GP EIR evaluated construction-related activities, which would result in temporary emissions of criteria air pollutants (e.g., PM_{10}, $PM_{2.5}$, CO) and ozone precursors (e.g., ROG and NO_X) from ground-disturbing activities (e.g., excavation, grading, and clearing); exhaust emissions from use of off-road equipment, material delivery, and construction worker commutes; building construction; asphalt paving; and

application of architectural coatings. The GP EIR also evaluated activities associated with the operation of General Plan land uses, which would generate criteria air pollutant and precursor emissions from mobile, energy, and area sources. The California Emissions Estimator Model (CalEEMod) was used to estimate emissions resulting from both construction-related activities and operational activities. The Project does not change the location or extent of land area which will be disturbed by construction, nor does it increase the amount of building area which would be constructed (as discussed previously, the units added by the Project fall within the scope of units evaluated by the GP EIR). Therefore, the project will result in no change to the construction-related analysis in the GP EIR, which concluded that emissions would exceed the adopted Placer County Air Pollution Control District significance thresholds, and that even after application of mitigation these impacts would remain significant and unavoidable. This evaluation remains adequate and is applicable to this Project.

For operational emissions, while the Project does not change the total units analyzed it does change the location and density of uses, which can have an effect on operational emissions related to transportation. An updated analysis of vehicle miles traveled (VMT) was prepared for the Project; the details and findings of this VMT analysis are discussed in greater detail in the Transportation section of this Addendum. However, to summarize, the updated analysis found the Project has a beneficial effect on VMT generation. The updated analysis found existing conditions (2020) have an average citywide VMT of 15.7 VMT/resident and cumulative conditions (2035) have an average citywide VMT of 14.7 VMT/resident. This is an increase of baseline (existing conditions) VMT, which the GP EIR found to be 15.1 VMT/resident, but is a decrease of cumulative conditions VMT, which the GP EIR found to be 15.5 VMT/resident (with transportation facilities constrained) or 14.9 VMT/resident (with transportation facilities unconstrained). Given that the Project will reduce citywide VMT, it will also reduce all criteria pollutant emissions associated with transportation. The GP EIR found that emissions related to operation were significant and unavoidable, because VMT would exceed the significance threshold of 12.8 VMT/resident after the application of mitigation. This evaluation remains adequate and is applicable to this Project.

For substantial pollutant concentrations, the GP EIR found construction and operation of the General Plan would generate localized air pollutant emissions that could affect existing and proposed sensitive receptors. Construction activities would generate diesel particulate matter (diesel PM) emissions. Existing regulations and policies, as well as revised policies were found to reduce potential exposure to substantial pollutant concentrations, but impacts related to diesel particulates were found to be significant and unavoidable. The Project would not change the location or extent of construction activities, so would result in no change to this analysis. This evaluation remains adequate and is applicable to this Project.

Buildout of the General Plan would also contribute vehicles to local intersections that could cause a CO hotspot (i.e., exceedance of the CO ambient air quality standard). However, due to requirements for cleaner vehicle emissions, proposed land use and transportation goals and policies, and use of intelligent transportation system equipment, the GP EIR concluded the General Plan's land uses would not contribute substantial vehicle volumes to existing or future intersections that could cause a CO hotspot. Existing regulations and policies, as well as revised policies were found to reduce potential exposure to substantial pollutant concentrations related to CO hotspots to a less than significant level. The Project included an updated Level of Service analysis (see the Transportation section of this Addendum) which found that the Project would not change trip distribution in a manner that would cause the City's Level of Service policy to be exceeded, nor would contribute significant trips to intersections already operating at acceptable levels, and therefore the GP EIR analysis related to CO hotspots remains adequate and is applicable to this Project.

For other emissions, the GP EIR found that buildout of the General Plan could involve actions which would expose people to objectionable odors. Construction-related activities would generate odors from the use of diesel-powered equipment and from paving and architectural coating activities.

However, these odorous emissions would be temporary and disperse rapidly with distance from the source; therefore, construction-generated odors would not result in the frequent exposure of receptors to objectionable odor emissions. Future land uses could result in the operation of new land use that generates objectionable odors or the siting of sensitive receptors in proximity to existing odor-generating land uses within the Planning Area. Therefore, development under the General Plan could result in the exposure of receptors to objectionable odor emissions. Because buffer distances and implementation of specific technology- and design-based measures cannot be known at this time, it was conservatively assumed that sensitive receptors could be exposed to substantial odor-generating emissions, and the GP EIR found impacts to be significant and unavoidable after the application of mitigation. The Project does not change the location and extent of urban development, and though it includes the potential placement of residential uses in locations which are currently designated for commercial uses, all of these commercial locations are already adjacent to existing or proposed residential uses—they are not located in areas of the City where residential uses were not anticipated, nor are they located in areas which are exposed to significant odor sources. Therefore the GP EIR evaluation remains adequate and is applicable to this Project.

Mitigation Measures: All of the mitigation measures below were effectuated through inclusion in the City's 2035 General Plan Appendix A: Implementation Measures, but are included here for reference.

Mitigation Measure 4.4-2a – ***The proposed General Plan Update should be amended as follows:***

Implementation Measure

Projects that could have a potentially significant effect, as demonstrated by exceedance of the PCAPCD-recommended thresholds of significance, shall incorporate applicable PCAPCD-recommended standard operational mitigation measures, as listed below or as they may be updated in the future, or those design features determined by the City to be as effective:

- Wood burning or pellet stoves shall not be permitted. Natural gas or propane fired fireplaces shall be clearly delineated on plans submitted to obtain building permits.
- Where natural gas is available, gas outlets shall be provided in residential backyards for use with outdoor cooking appliances such as gas barbeques.
- Electrical outlets should be installed on the exterior walls of both the front and back of residences to promote the use of electric landscape maintenance equipment.
- All newly constructed residential buildings including one- and two-family dwellings, townhomes, and multi-family units in low-rise and high-rise residential buildings shall comply with the California Green Building Standards Code (CalGreen).
- Covenants, Conditions & Restrictions (CC&Rs) shall include the required distribution of educational information on how homeowners can increase energy efficiency and conservation in their new homes. The information shall be delivered as part of a "move-in" packet prior to occupancy of the residence.

- Streets should be designed to maximize pedestrian access to transit stops.
- Site design shall maximize access to transit, to accommodate bus travel, and to provide lighted shelters at transit access points.
- A pedestrian access network shall link complementary land uses.
- Provide bicycle storage to promote bicycling.
- Vanpool parking only spaces and preferential parking for carpools should be required for employment-generating uses.
- Consider using concrete or other non-polluting materials for paving parking lots instead of asphalt.
- Landscaping should be designed to eventually shade buildings and parking lots.

Mitigation Measure 4.4-2b – ***The proposed General Plan Update should be amended as follows:***

Implementation Measure

If, following implementation of Mitigation Measure 4.4-2a, a project's operational emissions would still exceed PCAPCD-recommended thresholds of significance, the City would require the project to offset remaining project emissions in excess of thresholds by establishing off-site mitigation or participation in PCAPCD's Off-site Mitigation Program.

Mitigation Measure 4.4-3 – The proposed General Plan Update should be amended as follows:

Implementation Measure

- The City shall require, as part of plans for development within the Planning Area, the implementation of ARB's *Air Quality and Land Use* Handbook*: A Community Health Perspective* guidance concerning land use compatibility and recommended setback distances with regard to sources of TAC emissions and sensitive land uses, or related guidance as it may be updated in the future.
- As an alternative to these buffer distances, proposed sensitive receptors, uses that involve substantial truck trips, and large gas stations may provide a site-specific health risk assessment, using methods consistent with applicable guidance from the Office of Environmental Health Hazard Assessment, with mitigation, if necessary, to demonstrate compliance with applicable PCAPCD-recommended health risk thresholds. When health risk impacts exceed PCAPCD-recommended thresholds, feasible on-site mitigation measures to reduce TAC exposure shall be implemented to mitigate health risk impacts below PCAPCD-recommended thresholds. On-site measures could include but are not limited to providing enhanced filtration systems (e.g., MERV 13 or greater) for near-by sensitive receptor buildings, use of solid barriers to pollution, and vegetation to reduce pollutant concentrations, changes to the TAC emission source's operation (e.g. technology or management practices that reduce harmful emissions at the Rail Yard), and positioning of exhaust and intake for ventilation systems to minimize exposure, among others.

- The City shall require, as part of development of land uses associated with sensitive receptors within 500 feet of high-volume roadways (defined as roadways carrying an average of 100,000 or more vehicles per day), the *incorporation* of feasible design measures to reduce exposure by sensitive receptors of substantial emissions of TACs from nearby high-volume roadways and operation of the Roseville Rail Yard. Design measures shall include recommended strategies from the ARB Technical Advisory, as listed below or as they may be updated in the future, or those design features determined by the City to be as effective:

  - Design that promotes air flow and pollutant dispersion along street corridors, including the use of wider sidewalks, bicycle lanes, and dedicated transit lanes, which create space for better air flow and pollutant dispersion along with increasing active transportation and mode shift;
  - Installation of solid barriers, particularly in the downwind direction. Note that consideration of this strategy should also weigh the negative effect of dividing neighborhoods and obscuring sightlines.
  - Installation of vegetation for pollutant dispersion; maximum benefit of this strategy is typically seen when combined with solid barriers.
  - Installation of indoor high-efficiency filtration systems and devices to remove pollutants from the air. If this strategy is selected, a plan for ongoing operation and maintenance of the systems must also be developed to ensure long-term efficiency is achieved as intended by the system.

Mitigation Measure 4.4-5 – *The proposed General Plan Update should be amended as follows:*

Implementation Measure

All new Specific Plans and proposed amendments to Specific Plans shall be evaluated for odor impacts using the SMAQMD-recommended screening distances for odor sources, or the most current adopted or recommended version. If the minimum buffer distance is not feasible, as an alternative to these buffer distances, technology- and design-based measures shall be evaluated as part of the Specific Plan design guidelines to minimize, contain, or prevent the generation of odor-causing emissions and the dispersion of such emissions to nearby sensitive receptors. For example, in the case of siting odor-producing sources, activities could be maintained within an enclosed space and appropriate air filtration systems could be implemented to reduce odors expelled from the building. For developments that would host sensitive receptors, design would include air site layout, landscaping, indoor air filtration systems, or other appropriate measures to minimize exposure of proposed sensitive receptors to odors.

IV. Biological Resources

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	Page 4.8-60 (plants), 4.8-64 (wildlife),	No	No	No	MM 4.8-1 and 4.8-2
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Page 4.8-70	No	No	No	MM 4.8-1, 4.8-2, and MM 4.8-3
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Page 4.8-73	No	No	No	MM 4.8-1, 4.8-2, MM 4.8-3, and MM 4.8-4
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	4.8-76	No	No	No	MM 4.8-1, 4.8-2, MM 4.8-3, and MM 4.8-4
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Page 4.8-79	No	No	No	None

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	Page 4.8-80	No	No	No	None

Discussion*:* The biological resources information presented in the GP EIR was based on review of the following sources: previous studies conducted for the West Roseville, Sierra Vista, Creekview, and Amoruso Ranch Specific Plan Areas and associated EIRs; a comment letter received from CDFW in response to the NOP; biological resource databases, including the United States Fish and Wildlife Service (USFWS) Information, Planning, and Conservation System (IPaC), USFWS Critical Habitat Mapper, USFWS National Wetlands Inventory (NWI) Wetlands Mapper, the California Natural Diversity Database (CNDDB) and Biogeographic Information and Observation System (BIOS), and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants; aerial photography interpretation; and the draft Western Placer County Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP).

Impacts related to the loss and degradation of special-status plants and their habitats were found to be potentially significant (GP EIR page 4.8-60) as were impacts to special-status wildlife and their habitats (GP EIR page 4.8-64), impacts to riparian habitat or other sensitive natural communities (GP EIR page 4.8-70), impacts to protected wetlands and other waters (GP EIR page 4.8-73), and impacts to wildlife movement corridors and nursery sites (GP EIR page 4.8-76) because buildout of the General Plan could result in direct removal or take of special-status species; modification or removal of sensitive habitats, wildlife corridors, nursery sites, protected waters, and habitats suitable for special-status species; indirect effects to species or habitats that may result from construction-related runoff, sedimentation, erosion, and introduction of invasive weeds; and the introduction of new sources of noise and light. Implementation of mitigation, combined with General Plan policies and existing laws and regulations, were found to reduce impacts to less than significant levels, because new development would be required to identify, avoid, and preserve sensitive habitats, wildlife corridors, nursery sites, protected waters, and habitats which may support special-status populations to the extent feasible, and compensate for the loss of these resources through preservation, compensation, or other appropriate measures in coordination with state and federal agencies. Furthermore, the City's Specific Planning process has already resulted in the creation of connected open space corridors throughout the Planning Area which contain much of the sensitive habitat in the Planning Area.

Impacts related to conflicts with local ordinances protecting biological resources were found to be less than significant (GP EIR page 4.8-79) because while buildout of the Planning Area would result in impacts to biological resources, all development would be subject to and consistent with the city's ordinances and policies such as the Tree Preservation Ordinance. Therefore, impacts related to conflict with local ordinances were found to be less than significant.

Impacts related to conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved Conservation Plan were found to be less than significant because there are no adopted plans which apply to the Planning Area.

All of the analyses described above are based on the potential impacts of grading and general development within the Planning Area, and the Project neither changes the boundaries of the Planning Area nor the locations of potential grading and development within the Planning Area. Therefore, the GP EIR analyses of biological resources adequately and appropriately describe the potential impacts of the Project, and the Project does not result in new or substantial increases in significant effects.

Mitigation Measures: All of the mitigation measures below were effectuated through inclusion in the City's 2035 General Plan Appendix A: Implementation Measures, but are included here for reference.

Mitigation Measure 4.8-1 The proposed General Plan Update should be amended as follows:

Implementation Measure for Special-Status Plants and Habitat

As appropriate to each individual project or Specific Plan, the following actions or those determined to be equally as effective by the City shall be implemented where there may be an adverse impact on special-status plants or habitat:

a. In conjunction with environmental review pursuant to CEQA, for projects that could directly affect special-status plants or habitat, the City shall require that resource field surveys, including special-status plant surveys, be submitted concurrent with development applications inventorying the type, quantity, and quality of existing open space resources and conditions. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed, is within an adopted specific plan area, or contains resources considered less than significant.

b. The City and project proponents will identify feasible opportunities to preserve special-status plant species occurrences and sensitive habitats through design and planning.

c. If the City determines it is reasonable and feasible to do so, the City will require preservation of occupied special-status plant species habitat and sensitive habitat types as a condition of project approval. If adverse effects cannot be avoided, project proponents shall be required to mitigate all adverse effects in accordance with guidance from the appropriate state or federal agency charged with the protection of the subject species and habitat, including surveys conducted according to applicable standards and protocols, where necessary, implementation of impact minimization measures based on accepted standards and guidelines and best available science, and compensatory mitigation for unavoidable loss of special-status plant species and sensitive habitats.

d. If the project would result in take of state or federally listed species, the City will require project proponent/s to obtain take authorization from the USFWS and/or the CDFW, as appropriate, depending on species status, and comply with all conditions of the take authorization.

e. The City will require project proponents to develop and implement a mitigation and monitoring plan reflective of permit conditions required by State and/or federal regulatory agencies, to compensate for effects to or loss of special-status species and sensitive habitats. The mitigation and monitoring plan will describe in detail how impacts to special-status species or sensitive habitats shall be avoided or offset, including details on restoration and creation of habitat, compensation for the temporal loss of habitat, management and monitoring to avoid indirect habitat degradation (e.g., management of invasive plant species, maintenance of required hydrology),

success criteria ensuring that habitat function goals and objectives are met and target special-status species cover and density parameters are established, performance standards to ensure success, and remedial actions if performance standards are not met. The plan will include detailed information on the habitats present within the preservation and mitigation areas, the long-term management and monitoring of these habitats, legal protection for the preservation and mitigation areas (e.g., conservation easement, declaration of restrictions), and funding mechanism information (e.g., endowment).

f. If available, purchase of mitigation credits at an agency-approved mitigation bank (i.e., approved by the agency with jurisdiction over the affected species or habitat) in Placer County, will be acceptable for compensatory mitigation for special-status species.

Mitigation Measure 4.8-2 – ***The proposed General Plan Update should be amended as follows:***

Implementation Measure for Special-Status Wildlife

If feasible, the City will require preservation of occupied special-status wildlife species habitat and sensitive habitat types as a condition of project approval. If adverse effects cannot be avoided, project proponents shall be required to mitigate all adverse effects in accordance with guidance from the appropriate state or federal agency charged with the protection of the subject species and habitat, including surveys conducted according to applicable standards and protocols, where necessary, implementation of impact minimization measures based on accepted standards and guidelines and best available science, and compensatory mitigation for unavoidable loss of special-status wildlife species and sensitive habitats.

Mitigation Measure 4.8-3 – ***The proposed General Plan Update should be amended as follows:***

Implementation Measure for Riparian Habitat and Sensitive Natural Communities

If a proposed project would result in fill or alteration of a waterway or any body of water supporting riparian forest habitat, the City will require project proponent/s to notify the California Department of Fish and Wildlife, obtain a Lake and Streambed Alteration Agreement if determined necessary by the California Department of Fish and Wildlife, and comply with all conditions of the Lake and Streambed Alteration Agreement. Measures for riparian habitat and sensitive natural communities protection include, but are not limited to, avoid impacts by establishing a buffer zone between adjacent land uses and riparian habitat and sensitive natural communities; protect and preserve riparian habitat and sensitive natural communities to the extent feasible; and compensate for loss of riparian habitat and sensitive natural communities by creating, restoring, or preserving off-site habitat in coordination with the applicable resource agencies.

Mitigation Measure 4.8-4 – ***The proposed General Plan Update should be amended as follows:***

Implementation Measure for Wetlands and Other Waters

If a project would result in ground disturbance on sites containing waterways or other aquatic habitats, the City will require project proponent/s to complete a delineation of waters of the United States according to U.S. Army Corps of Engineers' methods, and to submit the completed delineation to the U.S. Army Corps of Engineers for jurisdictional determination. If the project would result in fill of wetlands or other waters of the United States, the City will require project proponent/s to obtain a Section 404 Clean Water Act permit from the U.S. Army Corps of Engineers and water quality certification from the Regional Water Quality Control Board pursuant to Section 401 of the Clean Water Act. If the project involves work in areas containing waters disclaimed by the USACE, project applicants shall obtain a Waste Discharge Requirement permit from the Regional Water Quality Control Board pursuant to the Porter Cologne Act. Project applicants shall be required to obtain all needed permits prior to project implementation, to abide by the conditions of the permits, including all mitigation requirements, and to implement all requirements of the permits in the timeframes required therein.

V. Cultural Resources

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Cause a substantial adverse change in the significance of an historic resource pursuant to in Section 15064.5?	Page 4.9-30	No	No	No	MM 4.9-1a
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	Page 4.9-33	No	No	No	MM 4.9-2a and 4.9-2b
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	Page 4.9-37	No	No	No	MM 4.9-3 and 4.9-4

Discussion: In order to identify known and potential historical resources to determine whether any buildings, structures, objects, districts, or sites had been previously recorded or evaluated in the Planning Area for the GP EIR, Historic Property Data Files for Placer County were examined, along with the current and previous General Plan, various Specific Plans and their environmental documents and technical appendices, and the City of Roseville Municipal Code. In addition to these standard sources of information, summaries of Record Search results for selected specific plans and projects were also used. A similar process was used for archaeological resources, including the evaluation of studies completed for Specific Plans and other projects.

Impacts related to adverse changes to the significance of a historical resource were found to be significant, as were adverse changes in the significance of an archeological resource and adverse impacts related to the disturbance of human remains because the Planning Area is known to contain resources and is also sensitive for the undiscovered presence of historic resources, archeological resources, and human remains. Although the General Plan, the City's Specific Plans, and the City's Zoning Ordinance contain goals and policies which require identification and assessment of potential resources in advance of development, impacts to resources could nonetheless occur. Grading and site development within the Planning Area has the potential to impact undiscovered subsurface historic and archeological resources, as well as human remains – particularly remains which are interred outside of formal cemeteries. The GP included policy revisions to further strengthen protections and the GP EIR included mitigation measures to address these impacts, but nonetheless impacts could still occur. Therefore impacts to historic resources, archeological resources, and human remains were found to remain significant and unavoidable.

All of the analyses described above are based on the potential impacts of grading and general development within the Planning Area, and the Project neither changes the boundaries of the Planning Area nor the locations of potential grading and development within the Planning Area.

Therefore, the GP EIR analyses of cultural resources adequately and appropriately describe the potential impacts of the Project, and the Project does not result in new or substantial increases in significant effects.

Mitigation Measures: All of the mitigation measures below were effectuated through inclusion in the City's 2035 General Plan Appendix A: Implementation Measures, but are included here for reference.

Mitigation Measure 4.9-1a – The General Plan Update should be amended as follows:

Implementation Measure

As appropriate to each individual project or Specific Plan, the following actions or those determined to be equally as effective by the City shall be implemented where there may be an adverse impact on potential historical resources:

a. Consult the City's Master List of Historical Resources Inventory and, as necessary, seek updated information from the North Central Information Center or other applicable data repositories to determine whether the project area has been surveyed, and whether historic built environment resources were identified.

b. If a survey of the property or the area in which the property is located has not been conducted, a qualified architectural historian shall conduct a study of the project area for the presence of historic built environment resources.

c. If a study is required, it will evaluate the significance of built environment resources greater than 45 years in age that may be directly or indirectly impacted by project activities. The study may include a field survey; background, archival and historic research; and consultation with local historical societies, museums or other interested parties; as necessary.

d. If necessary, the qualified architectural historian's study will recommend appropriate protection or mitigative treatment, if any, and include recordation of identified built environment resources. Recommended treatment for historical resources identified in the report shall be implemented.

e. If no significant historic built environment resources are identified in the study or prior survey of the project area that may be directly or indirectly impacted by project activities, there is no adverse change to documented built environment historical resources and no further action is required.

f. If a significant built environment historical resource could be directly or indirectly impacted by project activities, avoidance shall be considered the primary mitigation option. If avoidance is not feasible, then the maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation, or reconstruction of the historical resource, conducted in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties will reduce impacts to an acceptable level. If adherence to the Secretary of the Interior's Standards

cannot avoid materially altering in an adverse manner the physical characteristics or historic character of the surrounding environmental setting that contribute to a resource's historic significance, additional mitigation may be required.

g. If avoidance is not feasible and minimizing impacts through adherence to the Secretary of the Interior's Standards for the Treatment of Historic Properties is not feasible, documentation is required using, as appropriate, Historic American Buildings Survey (HABS), Historic American Engineering Record (HAER), and/or Historic American Landscapes Survey (HALS) guidelines before the property is potentially altered during project activities.

Mitigation Measure 4.9-2a – The proposed General Plan Update should be amended as follows:

Implementation Measure

Projects that could have significant adverse impacts to potentially significant archaeological resources shall be required to assess impacts and provide feasible mitigation. The following steps, or those determined to be equally as effective by the City, will be followed:

a. Request information from the California Native American Heritage Commission to obtain a review of the Sacred Lands File and a list of local Native American groups and individuals that may have specific knowledge of cultural resources in the area that could be affected by project implementation. Each Native American group and individual identified by the Native American Heritage Commission will be contacted to obtain any available information on cultural resources in the project area. Additional consultation with relevant tribal representatives may be appropriate, depending on the relative level of cultural sensitivity, as identified by Native American groups or individuals.

b. Request updated information from the North Central Information Center of the California Historical Resources Information System (California State University, Sacramento) to determine whether the project area has been previously surveyed and whether archaeological resources were identified. In the event the records indicate that no previous survey has been conducted or existing survey data is greater than five years old, the applicant will retain the services of a qualified archaeologist to assess the adequacy of the existing data (if any) and assess the archaeological sensitivity of the project area. If the survey did not meet current professional standards or regulatory guidelines, or relies on outdated information, a qualified archaeologist will make a recommendation on whether a survey is warranted based on the sensitivity of the project area for archaeological resources.

c. If a survey is warranted, it will include all necessary background research, including that resulting from consulting with traditionally and culturally affiliated California Native American tribes in addition to an archaeological pedestrian survey. Based on findings of the survey, additional technical studies may be required, such as geoarchaeological sensitivity analysis, or other analysis scaled according to the nature of the individual project. A report will document the results of the survey and provide appropriate management recommendations, and include recordation of identified archaeological resources on appropriate California Department of Parks and Recreation site record forms and cultural resources reports.

d. Management recommendations may include, but are not limited to additional studies to evaluate identified sites or archaeological monitoring at locations determined by a qualified archaeologist in consultation with culturally affiliated California Native American tribes to be sensitive for subsurface cultural resource deposits. The City will determine the need for tribal monitoring based upon the guidance provided in Volume I of the City's Internal Guidance for Management of Tribal Cultural Resources and Consultation.

e. Once approved by the City, provide the North Central Information Center with appropriate California Department of Parks and Recreation site record forms and cultural resources reports for any resources identified. Any subsequent reports completed as a result of additional technical work will likewise be submitted to the Northcentral Information Center.

f. If no archeological resources, including those which are TCRs or are associated with a TCR, are identified that may be directly or indirectly impacted by project activities, mitigation is complete as there would be no adverse change to documented archeological resources. The exception would be in the event of the discovery of a previously unknown archaeological site inadvertently exposed during project implementation. In such an event, a qualified archaeologist will be retained to assess the discovery and provide management recommendations as necessary, in accordance with the City's Internal Guidance for Management of Tribal Cultural Resources and Consultation Section 3.2.

g. When a project will impact a known archaeological site, including those determined to be a TCR, and avoidance is not a feasible option, a qualified archaeologist, in consultation with traditionally and culturally affiliated California Native American tribes, shall evaluate the eligibility of the site for listing in the California Register of Historical Resources. If the archaeological site is found to be a historical resource as per CEQA Guidelines Section 15064.5 (a)(3), the qualified archaeologist shall recommend further mitigative treatment, which could include preservation in place or data recovery, consistent with Internal Guidance for Management of Tribal Cultural Resources and Consultation Section 3.2.4.

h. If a site to be tested is prehistoric, the City should determine the need for tribal monitoring based upon the guidance provided in Volume I of the Internal Guidance for Management of Tribal Cultural Resources and Consultation Section 2.4.4.

i. Appropriate mitigation may include curation of artifacts removed during subsurface testing, consistent with the City's Internal Guidance for Management of Tribal Cultural Resources and Consultation.

j. If significant archaeological resources that meet the definition of historical or unique archaeological resources, including those determined by the City to be TCRs, are identified in the project area, the preferred mitigation of impacts is preservation in place. If impacts cannot be avoided through project design, appropriate and feasible treatment measures are required, which may consist of, but are not limited to actions, such as data recovery excavations. If only part of a site will be impacted by a project, data recovery will only be necessary for that portion of the site. Data recovery will not be required if the implementing agency determines prior testing and studies have adequately recovered the scientifically consequential information from the resources. Studies and reports resulting from the data recovery shall be

deposited with the North Central Information Center. Archaeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 of the Health and Safety Code, as outlined in the City's Internal Guidance for Management of Tribal Cultural Resources and Consultation.

Mitigation Measure 4.9-2b – The General Plan Update should be amended as follows:

Implementation Measure

Projects that could have significant adverse impacts to undiscovered, potentially significant archaeological resources and/or TCRs which may be discovered during construction shall be required to implement the Post-Review Discovery Procedures within Volume II Part C of the City's Internal Guidance for Management of Tribal Cultural Resources and Consultation, or those determined to be equally as effective by the City.

Mitigation Measure 4.9-3 – The General Plan Update should be amended as follows:

Implementation Measure

Management of Tribal Cultural Resources and Consultation

Projects that could have significant adverse impacts to human remains or potential human remains shall implement the applicable procedures and recommended mitigation within the City's Internal Guidance for Management of Tribal Cultural Resources and Consultation.

Mitigation Measure 4.9-4

Implement Mitigation Measure 4.9-3 (Projects that could have significant adverse impacts to human remains or potential human remains shall implement the applicable procedures and recommended mitigation within the City's Internal Guidance for Management of Tribal Cultural Resources and Consultation).

VI. Energy

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Page 4.15-9	No	No	No	None
b) Conflict with or obstruct a state or local plan for renewable energy or energy inefficiency?	Page 4.15-18	No	No	No	None

Discussion: The GP EIR analyzed energy impacts by assessing energy usage associated with the construction and operation of projects developed as part of buildout of the General Plan. Energy demand was calculated consistent with the greenhouse gases (GHG) emissions modeling (see Greenhouse Gases section of this Addendum). The analysis found that fuel consumed by construction would be temporary and would not represent a significant demand, and further concluded that there are no anticipated unusual characteristics of buildout that would necessitate the use of equipment that is less energy-efficient than for other comparable projects. For building energy use, energy efficiency requirements will become more stringent over time, as they have in the past, so new projects will be more efficient than existing projects of the same type on the Planning area. Therefore, buildout will reduce the per-resident average energy use. These conclusion remain appropriate to describe the Project, because the Project does not change the location or extent of construction, the added units are within the scope of the buildout analysis, and multi-family residential is a typical building use that does not result in unusual energy demand characteristics.

Transportation energy would be required in the form of fuel, and the average demand for fuel per resident will decrease over buildout conditions, because the transportation analysis shows that VMT per resident will decrease at buildout conditions compared to existing conditions. The updated transportation analysis prepared for this Project (see the Transportation section of this Addendum) indicates this will remain true after implementation of the Project, and that the Project will actually further reduce VMT per resident.

The GP EIR found all projects within the Planning Area would be required to comply with the California Energy Code and California Green Building Standards Code in effect at the time of building permit application, and would therefore not conflict with or obstruct a state or local plan for renewable energy or energy efficient. This would remain true of development consistent with the Project.

The GP EIR concluded that buildout would not result in significant impacts due to wasteful, inefficient, or unnecessary project construction, and impacts would be less than significant. This conclusion and the supporting analysis remains appropriate and applicable to the Project.

Mitigation Measures: None.

VII. Geology, Soils, and Paleontological Resources

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:		No	No	No	None
i) Ruptures of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)	Page 4.7-27	No	No	No	None
ii) Strong seismic ground shaking?	Page 4.7-28	No	No	No	None
iii) Seismic-related ground failure, including liquefaction?	Page 4.7-27	No	No	No	None
iv) Landslides?	Page 4.7-27	No	No	No	None
b) Result in substantial soil erosion or the loss of topsoil?	Page 4.7-29	No	No	No	None
c) Be located in a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	Page 4.7-31	No	No	No	None
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	Page 4.7-31	No	No	No	None

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	Page 4.7-27	No	No	No	None
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	Page 4.7-32	No	No	No	MM 4.7-4

Discussion: The analysis prepared for the GP EIR relied on published geologic literature and maps, NRCS soil survey data, and a records search performed at the University of California Museum of Paleontology (UCMP). The information obtained from those sources was reviewed and summarized to present the existing conditions and to identify potential environmental impacts. The GP EIR indicated impacts due to surface fault rupture, liquefaction, landslides, or the use of septic systems did not require analysis because these risks were not evident (GP EIR page 4.7-27). The Planning Area does not include fault traces, soils subject to liquefaction or landslide hazards, and new development is required to connect to sewer systems.

Impacts due to strong seismic ground shaking were found to be less than significant (GP EIR page 4.7-28) because the evidence indicates strong shaking is unlikely and implementation of existing General Plan Seismic and Geologic Hazards goals and policies, in combination with compliance with the geologic and seismic requirements in the California Building Code (which the City has adopted), and the City's site-specific Design Review process (as set forth in the City's Design Standards Section 2, General Requirements), would reduce the potential for adverse impacts to people or structures related to seismic shaking.

Impacts due to soil erosion were found to be less than significant (GP EIR page 4.7-29) because compliance with existing stormwater, grading, and erosion control regulations and implementation of policies in the existing General Plan and proposed General Plan Update would reduce the soil erosion impact by requiring applicants to implement BMPs based on the City's *Stormwater Quality BMP Guidance Manual for Construction*, develop and implement a SWPPP, comply with the City's Grading Ordinance, comply with the City's Design and Construction Standards, and comply with the avoidance and minimization measures contained in the Open Space Preserve Overarching Management Plan, all of which are specifically designed to minimize construction-related soil erosion and degradation of water quality to the maximum extent feasible.

Impacts due to unstable and expansive soils were found to be less than significant (GP EIR page 4.7-31) because implementation of General Plan Seismic and Geologic Hazards goals and policies and compliance with existing laws and regulations, including Section 111 (Grading) of the City's Design and Construction Standards related to soil testing for earthwork and backfill, would address issues related to unstable and expansive soils by requiring new construction to prepare site-specific geotechnical reports to identify areas of unstable soil and shrink-swell potential, and to follow design specifications contained in the CBC and standard engineering practices to prevent adverse impacts associated with these limitations.

Impacts related to the damage or destruction of unique paleontological resources or unique geologic features were found to be potentially significant (GP EIR page 4.7-32) because the Planning Area contains geologic formations known to be sensitives for paleontological resources and grading could damage these resources. As mitigation, General Plan Goal OS4.1 was revised and Policy OS4.11 was added to provide guidance and protection for paleontological resources. After mitigation impacts were found to be less than significant.

All of the analyses described above are based on the potential impacts of grading within the Planning Area, and the Project neither changes the boundaries of the Planning Area nor the locations of potential grading within the Planning Area. Therefore, the GP EIR analyses of geology, soils,

and paleontological resources adequately and appropriately describe the potential impacts of the Project, and the Project does not result in new or substantial increases in significant effects.

Mitigation Measures: The mitigation measure below was effectuated through inclusion in the City's 2035 General Plan Appendix A: Implementation Measures, but is included here for reference.

Mitigation Measure 4.7-4 ***– The proposed General Plan Update should be amended as follows:***

Implementation Measure

Paleontological Resources

Where there is potential for a significant impact to paleontological resources:

1. Consult the Paleontological Sensitivity Map.
2. For projects located in geologic units that are not identified as paleontologically sensitive and which do not involve ground disturbance to a depth greater than 5 feet below the ground surface, no further actions related to paleontological resources shall be required.
3. For projects that would be located in paleontologically sensitive geologic units, or those that would be located in non-paleontologically sensitive surficial units but would involve ground disturbance to a depth greater than 5 feet, provide a site-specific analysis of the project's potential to damage or destroy unique paleontological resources, and measures designed to protect unique paleontological resources, as needed and appropriate. Such measures may include, but are not limited to, construction worker personnel training, periodic monitoring during construction activities, stopping work within 50 feet of any fossil that is discovered, evaluation of the fossil by a qualified paleontologist, and proper recordation and curation of the specimen.

VIII. Greenhouse Gases

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Page 4.5-18	No	No	No	MM 4.4-2a, MM 4.3-1, and MM 4.5-1c
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Page 4.5-18	No	No	No	MM 4.4-2a, MM 4.3-1, and MM 4.5-1c

Discussion: The GP EIR used CalEEMod to estimate GHG emissions which would result from construction and operation of completed land uses consistent with General Plan buildout. The construction emissions were summed and then amortized over a 30-year operational lifetime and added to the operational emissions associated with buildout. Thresholds of significance were developed for the GP EIR based on statewide demographics and data adjusted for land uses relevant in the City of Roseville. The GP EIR evaluation found existing conditions emissions of 5.13 MT CO_2e per service population (a combination of residents and employees) and that this would be reduced slightly to 5.12 MT CO2e per service population in cumulative buildout conditions. This value exceeds the significance thresholds for the years 2020, 2035, and 2050 (5.07, 2.25, and 0.83 MT CO_2e per service population, respectively). The evaluation further found that mobile emissions from transportation sources account for approximately 67% of citywide emissions and that emissions resulting from the operation of buildings (energy) were the next-largest sector, at approximately 19% of citywide emissions.

While the Project does not change the total units analyzed it does change the location and density of uses, which can have an effect on operational emissions related to transportation. An updated analysis of vehicle miles traveled (VMT) was prepared for the Project; the details and findings of this VMT analysis are discussed in greater detail in the Transportation section of this Addendum. However, to summarize, the updated analysis found the Project has a beneficial effect on VMT generation. The updated analysis found existing conditions (2020) have an average citywide VMT of 15.7 VMT/resident and cumulative conditions (2035) have an average citywide VMT of 14.7 VMT/resident. This is an increase of baseline (existing conditions) VMT, which the GP EIR found to be 15.1 VMT/resident, but is a decrease of cumulative conditions VMT, which the GP EIR found to be 15.5 VMT/resident (with transportation facilities constrained) or 14.9 VMT/resident (with transportation facilities unconstrained). Given that the Project will reduce citywide VMT, it will also reduce transportation sector GHG emissions. The GP EIR found that GHG emissions were significant and unavoidable after the application of mitigation. The GP EIR analyses of GHG adequately and appropriately describes the potential impacts of the Project, and the Project does not result in new or substantial increases in significant effects.

Mitigation Measures: The mitigation measures below were effectuated through inclusion in the City's 2035 General Plan Appendix A: Implementation Measures, but is included here for reference.

Mitigation Measure 4.5-1a: Implement Mitigation Measure 4.4-2a.

Mitigation Measure 4.5-1b: Implement Mitigation Measure 4.3-1.

Mitigation Measure 4.5-1c. The proposed General Plan Update should be amended as follows:

Implementation Measure

Area Sources

- The City shall utilize electric landscape maintenance equipment to the extent feasible on parks and public/quasi-public lands.
- The installation of wood-burning fireplaces or appliances in new development shall not be permitted.

Energy

- The City will pursue within existing and future City facilities and may partner with other public agencies and organizations to promote replacement of appliances and office equipment with energy-efficient models with a priority from highest to lowest in terms of typical GHG reductions, on: water heater, vending machine, copier, refrigerator, printer, dishwasher, water cooler, computer, and clothes washer.
- The City will pursue improvements to existing and future City facilities and may partner with other public agencies and organizations to implement comprehensive building efficiency improvements, inclusive of, but not limited to, implement lighting efficiency upgrades, improved building temperature controls, building air sealing, duct air sealing and duct replacement, upgrading and/or insulating water heaters, ensuring proper functioning and efficiency of heating and air conditioning systems, reducing heat loss through and around windows, installation of cool roofs, and implementing energy conservation education.
- The City will support education and outreach to promote rebates, incentives, and other programs (as they become available) which would promote reductions in greenhouse gas emissions, and use available information on rebates used by consumers to determine where to focus education and outreach, including programs designed to promote electric appliances and replace natural gas appliances, and programs related to lighting.
- The City will promote the U.S. Department of Housing and Urban Development Energy Efficient Mortgage (EEM) program and similar programs that assist buyers in purchasing homes meeting energy-efficiency criteria.

- The City will partner with other agencies and organizations to expand the City's urban forest to promote sequestration, but also with a focus on selection and placement that reduces the need for air conditioning and the urban heat island effect.

Land Use and Transportation

- The City will direct its own investments and review proposed development projects to reduce vehicular travel demand, promote non-vehicular travel, and facilitate local purchase and use of electric vehicles.
- The City will continue to direct its own investments and pursue outside funding for infrastructure and operational programs to promote ease and convenience of pedestrian, bicycle, and transit travel for daily trips.
- The City will integrate its land use and transportation planning and review and condition proposed projects to better situate residents in proximity to workplaces, goods and services, and recreational opportunities, making updates to implementing plans, such as the Capital Improvement Program, Bicycle Master Plan, Pedestrian Master Plan, Transportation Systems Management program, transportation impact fee program, and transit plans.
- The City will support applications for affordable housing funds from agencies that reward and incentivize good planning, such as infill housing and housing built close to jobs, transportation, and amenities.
- The City will partner with other agencies and proposed developments to expand bicycle parking and other facilities, pedestrian facilities and amenities, and electric vehicle charging stations, with a focus on daily destinations.
- The City will support a reduction of parking requirements for projects with a location, design, surrounding mix of uses, access to non-vehicular transportation facilities, and/or ongoing travel demand management programs that would reduce the need for vehicular trips.

IX. Hazards and Hazardous Materials

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Page 4.10-20	No	No	No	None
b) Create a significant hazard to the public or the environment though reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Page 4.10-20	No	No	No	None
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Page 4.10-21	No	No	No	None
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	Page 4.10-23	No	No	No	None
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	Page 4.10-19	No	No	No	None
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Page 4.10-26	No	No	No	None

g) Expose people or structures either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?	Page 4.10-27	No	No	No	None

Discussion*:* The GP EIR analyses in this section considered the range and nature of foreseeable hazardous materials use, storage, and disposal resulting from implementation of the General Plan, and identified the primary ways that hazardous materials could expose individuals or the environment to health and safety risks.

The GP EIR included a preliminary review of environmental risk databases, but because the analysis is at the programmatic level it did not include sampling, site specific review, laboratory analysis, or inspection of buildings or site surfaces. Sites within the Planning Area with potential environmental hazards were identified based on information obtained from the Cortese List (including SWRCB's GeoTracker database and DTSC's EnviroStor database), the Pipeline and Hazardous Materials Safety Administration (PHMSA) Public Map Viewer, and a review of California Important Farmlands mapped by the Department of Conservation. In addition, the Placer County Department of Environmental Health maintains lists of hazardous material sites, releases, and accident occurrences. The methodology for determining wildfire hazards included a review of aerial photographs, and a review of CAL FIRE's fire hazard severity zone maps.

Impacts related to airport safety and noise hazards were found to be less than significant because the nearest airport is approximately 6.3 miles southwest of the Planning Area. This remains correct, and therefore the impacts of the Project are consistent with this conclusion.

Impacts related to the creation of significant hazard through routine transport, use, or disposal or possible release of hazardous materials from upset or accident conditions were found to be less than significant because while population growth and new businesses in the Planning Area would increase the potential for exposure to impacts, implementation of General Plan policies combined with compliance with existing federal and state regulations would ensure impacts would not be substantial. The same conclusion was reached for impacts related to handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Regulations governing the transport, use, disposal, and handling of hazardous materials, substances, or waste, are detailed and stringent at both the federal and state level, and are developed and adopted to ensure that adverse health and safety impacts are prevented. In addition, the Planning Area does not contain any existing or planned industrial uses (those most likely to handle or use acutely hazardous materials) in proximity to an existing or proposed school.

Impacts related to public health hazards resulting from locating project development on a known hazardous materials site were found to be less than significant. Several sites within the City are listed on the state's Cortese List of known hazardous materials sites, and there are approximately 70 known listed hazardous materials sites in the City, most of which have been remediated and closed. The largest hazardous materials site in Roseville is associated with the former Southern Pacific Railyard, which is now the Union Pacific Railyard (Railyard), where cleanup and mitigation for contamination is ongoing and may affect surrounding properties.

The GP EIR indicated that most new development was not planned to occur on listed sites, but there were redevelopment and infill sites within areas with existing hazardous materials issues. For redevelopment or infill development areas with existing hazardous materials issues, General Plan goals and policies, in addition to application of current regulations, would not absolutely prevent exposure to hazards and hazardous materials, but would use existing facility information to identify areas of hazardous materials use. In a programmatic analysis such as the GP EIR and the Addendum for the Project, site-specific review is not conducted, because the potential for impacts depends heavily on the exact nature and design of proposed construction, which cannot be known at this time. The GP EIR indicated that while there is the potential for future exposure due to

construction of infill and redevelopment sites, site-specific investigations would be required where applicable to address these conditions as part of project-level environmental review.

Buildout of the General Plan would add additional traffic and residences requiring evacuation in case of an emergency. The GP EIR found implementation of proposed General Plan Update policies was found to ensure conformance with local emergency-response programs and continued cooperation with emergency-response service providers. In addition, while buildout of the General Plan was found to have a potential to increase risk to fire for both people and property, implementation of proposed General Plan Update policies and actions, along with existing regulations was found to ensure that people and structures would not be exposed to a significant risk of loss of injury involving fires. Impacts were found to be less than significant. The Project does not change the location or extent of uses in a manner that would affect local emergency response programs, nor are there any areas of the City which are at increased risk of wildfire hazard. Therefore, the GP EIR conclusion related to emergency response plans and wildfire hazard remain appropriate and applicable to describe the impacts of the Project.

The nature of general plans, consistent with state law and common practice, is that specific uses or developments normally are not identified at a project level. Rather, categories of land use are defined that would allow a wide range of specific uses. The specific types of businesses allowed, and whether or not they would generate or use hazardous materials, cannot be known at the programmatic level, though the analysis can make assumptions about the typical range of hazardous materials used by business such as gasoline service stations and dry cleaners. In short, the GP EIR indicated that development in the Planning Area could involve a variety of land uses, including residences, commercial uses, industrial uses, utilities and transportation facilities, office space, and public services facilities (i.e., educational and institutional uses), and the analysis assumed and evaluated a range of potential uses that could handle hazardous materials, and a broad range of potential hazardous materials that could be used, in order to reach conclusions as to impacts. The Project does not change these assessments or conclusions, because it does not introduce new types of uses not previously analyzed and the Project would add residential unit capacity, which is not associated with significant use, transport, or disposal of hazardous materials.

As it relates to hazardous materials sites, the majority of the Project affects properties already designated for residential use and contemplates increasing the allowable number of units on those properties. As discussed in the GP EIR, the infill and redevelopment sites may include sites affected by on-site or nearby hazardous materials conditions, and these conditions would require assessment, disclosure, and mitigation as part of future project-level environmental review, depending on the site. The Project does include one strategy which contemplates converting land with a non-residential land use designation to a residential land use designation. Furthermore, the Commercial Corridors strategy could involve some redevelopment of commercial property with residential uses. While the potential impacts related to general construction remain the same for residential and non-residential construction, the operational exposure sensitivity of residential uses is greater than for non-residential uses. However, the conclusion of the GP EIR remains appropriate. If the City elects to move forward with a rezone of any property, then assessment, disclosure, and mitigation of any hazardous materials conditions, if applicable, would be required as part of future project-level environmental review.

In combination with existing required federal and state regulations pertaining to hazardous site cleanup, ongoing remedial activities at known contamination sites, site-specific environmental site assessments prior to site-specific earthmoving activities and as part of project-level environmental review, and implementation of existing and General Plan policies, would ensure the potential impacts of future development related to hazardous materials would be less than significant. This analysis and conclusion remains appropriate and adequate to describe the potential impacts of the Project, and the Project does not result in new or substantial increases in significant effects.

Mitigation Measures: None.

X. Hydrology and Water Quality

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	page 4.13-27	No	No	No	None
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	page 4.13-30	No	No	No	None
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:		No	No	No	None
i) result in substantial erosion or siltation on or off-site;	page 4.13-33	No	No	No	None
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	page 4.13-35	No	No	No	None
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater systems or provide substantial additional sources of polluted runoff; or	page 4.13-35	No	No	No	None

iv) impede or redirect flood flows?		No	No	No	
d) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	page 4.13-27	No	No	No	None
e) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?		No	No	No	None
f) In flood hazard, tsunami, or seiches zones, risk release of pollutants due to project innundation?	page 4.13-41	No	No	No	None

Discussion: The GP EIR described potential impacts related to surface and groundwater hydrology and water quality, along with flooding, in the Planning Area. The analysis used the City's floodplain mapping (which includes Federal Emergency Management Agency floodplains); the 303(d) list of waterbodies impaired by pollution according to the State Water Resources Control Board; and a review of applicable watershed management, groundwater management, and restoration plans; and the environmental documentation provided for the City's Specific Plans.

Impacts related to violation of water quality standards or conflict with a water quality control plan were found to be less than significant because while buildout of the Planning Area would introduce uses which could result in additional discharges of pollutants, the policies of the General Plan combined with current land use stormwater, grading, and erosion control laws, along with regulations and permit conditions would ensure that significant impacts associated with violation of standards or conflicts with water quality control plans would not occur.

Impacts related to substantial interference with groundwater recharge or decrease in water supplies that would impede implementation of a sustainable groundwater management plan were found to be less than significant because while buildout of the Planning Area would result in additional impervious surfaces and therefore could reduce infiltration to groundwater, the Planning Area soils are substantially impermeable and only provide low levels of groundwater recharge. In addition, while development would result in the use of additional water, some of which could be from groundwater sources, the City's Urban Water Master Plan and the Western Placer County Groundwater Management Plan provide for sustainable management of groundwater supplies.

Impacts related to substantial alteration of drainage patterns resulting in substantial erosion or siltation were found to be less than significant because while construction and grading could result in runoff of soils and soil erosion, implementation of General Plan policies and existing regulations will ensure that substantial impacts do not result.

Impacts related to substantial alteration of drainage patterns resulting in runoff that would exceed the capacity of stormwater systems, cause an increase in flooding, or provide additional sources of polluted runoff were found to be less than significant because while buildout of the Planning Area would increase impervious surfaces and contribute to increased runoff, which could contribute additional pollutants, result in hydromodification, or increased flood potential, implementation of General Plan policies combined with current drainage and flood control regulations ensures that impacts are not substantial.

Impacts related to release of pollutants in flood hazard, tsunami, or seiche zones were found to be less than significant because General Plan policy and the City's development regulations do not permit permanent storage of materials within flood hazard zones, and temporary storage is only permitted with a Flood Encroachment Permit, part of the purpose of which is to ensure there will be no impacts to the floodplain or water quality. In addition, the Planning Area is not near any water bodies which pose a tsunami or seiche hazard.

The analyses described above are based on the potential impacts of grading and general development within the Planning Area, and the Project neither changes the boundaries of the Planning Area nor the locations of potential grading and development within the Planning Area. Therefore, the GP EIR analyses of hydrology and water quality adequately and appropriately describe the potential impacts of the Project, and the Project does not result in new or substantial increases in significant effects.

Mitigation Measures: None.

XI. Land Use and Planning

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Physically divide an established community?	Page 4.1-18	No	No	No	None
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation of an agency adopted for the purpose of avoiding or mitigating an environmental effect?	Page 4.1-19	No	No	No	None

Discussion: The GP EIR found that buildout of the General Plan would not physically divide the community, because the City's land use designations, roadway locations, transit systems, and pedestrian and bicycle pathways have been and will continue to be planned (per General Plan policy) comprehensively through the Specific Plan process to provide connected communities. Impacts were found to be less than significant. The Project does not include changes to any of the City's existing or planned roads, other paths of travel, or community connectivity.

The GP EIR included an analysis of potential inconsistencies between the General Plan and other land use plans, policies, or regulations, including with the Sacramento Area Council of Governments (SACOG) 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), SACOG Blueprint, Placer County Local Agency Formation Commission, new Specific Plans, the Zoning Ordinance, and the Roseville/Placer County Memorandum of Understanding. In all cases, it was determined there were no inconsistencies between the General Plan and other plans that would result in significant impacts; impacts were found to be less than significant. The land use changes contemplated by the Project would increase allowable densities on sites already designated for multifamily residential uses or convert some non-residential land use designations to mixed use or residential land use designations. These are minor and common land use changes, and would not result in any conflicts with regional or local plans. Increasing density and increasing densities within the City's infill areas—particularly within the City's core—are actions supported by both the SACOG MTP/SCS and SACOG Blueprint.

Based on the foregoing, the GP EIR analyses of potential land use impacts adequately and appropriately describe the potential impacts of the Project, and the Project does not result in new or substantial increases in significant effects.

Mitigation Measures: None.

XII. Mineral Resources

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	4.7-1	No	No	No	None
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	4.7-1	No	No	No	None

Discussion: The City of Roseville does not overlie any known deposits of economically valuable mineral resources (Loyd 1995), and the City does not have a Surface Mining and Reclamation Act (SMARA) permit. No mining activities are currently underway nor does the City anticipate that any mining activities will take place in the future. Therefore, mineral resources were not evaluated in the GP EIR and need not be evaluated within this Addendum.

Mitigation Measures: None.

XIII. Noise

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Page 4.6-43 and 4.6-46	No	No	No	None
b) Generation of excessive ground borne vibration of ground borne noise levels?	Page 4.6-66	No	No	No	None
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	Page 4.6-43	No	No	No	None

Discussion: The GP EIR identified noise conditions for new noise-sensitive developments within areas with the potential to be affected by substantial existing or future transportation noise sources and stationary noise sources. Existing conditions were compared to cumulative buildout conditions, based on existing and future General Plan land uses. The methodology used for this analysis was consistent with approaches recommended by the Federal Transit Administration (FTA), the California Department of Transportation (Caltrans), and the City of Roseville. Noise modeling was conducted using the Federal Highway Administration's (FHWA) traffic noise prediction model (FHWA-RD-77-108) and the FTA's Transit Noise and Vibration Impact Assessment Guidance Manual (2018). Stationary-source noise levels were obtained from manufacturer specifications and industry-standard technical reports. Traffic data from the traffic impact analysis prepared for buildout of the General Plan were used to model existing and future traffic noise levels.

The Planning Area does not intersect with any military bases, special use airspaces, or low-level flightpaths and is not located in safety zones or noise contours associated with airfields or airports that are a concern for land use compatibility planning. The Planning Area is not located within 2 miles of a public or private airstrip. Therefore, impacts due to these issues were found to be less than significant without the need for detailed analysis. This evaluation does not require updating and is adequate.

The GP EIR evaluated the potential for temporary, short-term noise and vibration impacts due to construction. The analysis found that while buildout of the General Plan would involve noise associated with construction and some level of vibration due to typical construction practices, the City's Noise Ordinance limits construction to daytime hours, because these are outside of the recognized sleep hours for residents and are also outside of evening and early morning hours and time periods when residents are most sensitive to noise and vibration. The analysis recognizes that the City's Noise Ordinance and General Plan policy ensure that the impact of construction is reduced to the extent practicable, given that construction cannot be avoided and is a necessary part of development. The GP EIR concluded that vibration levels from construction were less than significant, because large-scale projects with extensive excavation and pile driving are not contemplated near vibration-sensitive uses. However, construction noise could cause significant impacts, and additional mitigation is not available. Construction noise impacts were found to be significant and unavoidable. The Project does not change the location or intensity of construction activities within the City and does not affect the maximum daily noise generation. Maximum daily noise is based on the maximum amount of land area or building area that can feasibly be developed during any given day, so while the addition of units may increase the duration of a construction project, it does not change the amount of construction per day or the intensity of construction.

The GP EIR analysis of permanent or long-term noise impacts due to transportation and non-transportation noise included evaluations of roadway noise in existing and cumulative buildout conditions; landscape and building maintenance activities; mechanical equipment; solid waste collection; parking lots; commercial, office, and industrial activities; and residential, school, and recreation activities and events. The evaluation considered the impacts of these noise sources on sensitive receptors, including on residential uses. The analysis evaluated the potential for residential sites to be exposed to undue noise because of proximity to non-residential uses or other noise-generating sources, including an assessment of the cumulative noise generated by all of the City's higher-capacity roadways, and concluded that the City's General Plan includes extensive policies related to noise which are designed to reduce exposure to unacceptable noise volumes to the extent feasible. Nonetheless, the GP EIR concluded impacts would remain significant and unavoidable, since the City cannot demonstrate that adverse noise impacts will be absolutely prevented.

The Project converts some non-residential land to residential uses or allows residential uses on non-residential sites and adds additional housing development to existing residential sites. Potential noise exposure has already been evaluated in the GP EIR and in the City's Specific Plans for existing residential sites, and the addition of further units on these sites does not change these evaluations. However, allowing residential uses on non-residential sites could expose sensitive receptors to noise, the most common of which is roadway noise. The Project contemplates allowing multi-family residential development near several higher-volume roadways, including Douglas Boulevard, Sunrise Avenue, Atlantic Street, Harding Boulevard, Blue Oaks Boulevard, and Highway 65. The GP EIR noise analysis indicates these roadways will generate cumulative exterior noise volumes above 65 dBA L_{dn} at a point 100 feet from the roadway centerline, which exceeds the City's Conditionally Acceptable noise standard. Therefore, multifamily development in these areas will require feasible noise shielding for any common outdoor spaces, which is typically provided in these developments by placing the outdoor area on the other side of the apartment building from the noise source or within an interior courtyard. Interior spaces may also require some level of shielding to achieve the City's noise standards, which is achieved through the use of window treatments, insulation, and other construction methods. The City's existing Building Permit process includes review for compliance with the City's Noise Ordinance and the California Noise Insulation Standards (CCR Title 24, Part 2), to ensure interior noise meets the City's standard of 45 dBA L_{dn}. Compliance with the City's existing policies and ordinances related to noise will ensure that noise impacts are reduced to the extent feasible, consistent with the GP EIR analysis.

In addition to noise affecting residential uses, development of residential sites can have indirect effects on noise through the generation of traffic. Although the Project does not increase the total units beyond the scope of the GP EIR analysis, changes to the location and density of uses can have an effect on the distribution of traffic. Therefore, the Project could affect traffic volumes—and therefore noise—on the City's roadways. A transportation analysis was completed for this Addendum, which included both a VMT analysis and a Level of Service analysis to determine consistency with the City's transportation policies. The VMT analysis demonstrated that the Project would reduce the overall amount of travel on the City's roadways, and the LOS analysis found the Project would maintain consistency with the City's policies. While the Project does redistribute traffic, it generally does so in a manner that reduces travel, and therefore would result in noise consistent with the volumes evaluated in the GP EIR.

The GP EIR anticipated the potential for vibration-sensitive land uses to be developed in areas with some amount of existing vibration, such as near the Union Pacific Railroad. General Plan policy requires all feasible measures necessary, as a part of proposed development and public infrastructure projects, to avoid structural damage to adjacent structures and avoid substantial annoyance for adjacent vibration-sensitive uses, consistent with California Department of Transportation and Federal Transit Agency guidance—guidance that is specifically designed to avoid annoyance to vibration-sensitive uses and structure damage. Impacts due to vibration were found to be less than significant.

Based on the foregoing, the GP EIR analyses of potential noise impacts adequately and appropriately describe the potential impacts of the Project, and the Project does not result in new or substantial increases in significant effects.

Mitigation Measures: None.

XIV. Population and Housing

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents Mitigation Measures Implemented or Addressing Impacts.
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, though extension of roads or other infrastructure)?	Page 4.2-10	No	No	No	None
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Page 4.2-15	No	No	No	None

Discussion: The General Plan analyzed in the GP EIR did not include changes to land use, the Sphere of Influence, or new growth. Furthermore, the majority of the vacant land adjacent to the City's boundaries are within existing adopted Specific Plans within Placer County which contemplate urbanization and development. Therefore, the GP EIR concluded the General Plan did not induce substantial population growth either directly or indirectly, and impacts were found to be less than significant. The Project includes approximately additional residential units, but these units fall within the scope of the GP EIR analysis. Therefore, while the Project will ultimately add capacity for 1,563 high density residential units (and remove approximately 262,000 square feet of non-residential building capacity) may include an additional increment of growth compared to the City's existing land use plan, this increment of growth is neither substantial nor unplanned.

The General Plan analyzed in the GP EIR did not involve converting established residential areas to a non-residential land use or redeveloping existing residential areas with new residences by removing existing dwelling units, and displacement impacts were thus found to be less than significant. The Project also does not convert established residential areas to non-residential use; on the contrary, the project does the opposite by identifying non-residential sites to convert to residential use and identifying developed commercial properties which could be redeveloped to include both commercial uses and residential uses. The infill intensification strategy includes increasing the permitted land use density on existing high density or multi-family sites in the City's infill area, and development of these sites may involve the demolition of existing units in order to rebuild more units. Therefore, Housing Element Program 14 (Rezone Program) includes states that the infill intensification strategy will include a replacement program, to ensure that residents are not displaced and at least as many units are rebuilt as were demolished. Therefore, the Project will not result in significant impacts related to the displacement of a substantial number of existing people or housing.

Based on the foregoing the GP EIR analyses of potential growth inducement impacts and displacement adequately and appropriately describe the potential impacts of the Project, and the Project does not result in new or substantial increases in significant effects.

Mitigation Measures: None.

XV. Public Services

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents Mitigation Measures Implemented or Addressing Impacts.
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any the public services:					
a) Fire protection?	Page 4.11-23	No	No	No	None
b) Police protection?	Page 4.11-22	No	No	No	None
c) Schools?	Page 4.11-25	No	No	No	None
d) Parks?	Page 4.11-27	No	No	No	None
e) Other public facilities?	N/A	N/A	N/A	N/A	N/A

Discussion: The GP EIR evaluated police, fire, school, and park facility/service demands resulting from buildout of the General Plan. The analysis indicated that all of these services would require additional facilities and/or staff, but that each of the City's adopted Specific Plans had anticipated and planned for these needs and had included the identification of sites and financing mechanisms. The EIRs for each Specific Plan had already evaluated the potential physical impacts of constructing the facilities. Therefore, the GP EIR concluded that the General Plan would not result in substantial adverse physical impacts associated with the provision of new or altered facilities, and impacts were found to be less than significant. The Project is within the scope of the above GP EIR analysis, and the units contemplated are spread throughout the Planning Area. The Project would not add total units which would change the GP EIR analysis, nor would it redistribute units in a manner that

would concentrate service demands in an unanticipated location. Based on the foregoing, the GP EIR analyses of potential public service impacts adequately and appropriately describe the potential impacts of the Project, and the Project does not result in new or substantial increases in significant effects.

Mitigation Measures: None.

XVI. Recreation

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents Mitigation Measures Implemented or Addressing Impacts.
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that physical deterioration of the facility would occur or be accelerated?	Page 4.11-27	No	No	No	None
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Page 4.11-27	No	No	No	None

Discussion: The GP EIR indicated that buildout of the General Plan would add residents to the City, and these residents would increase the use of existing parks and recreational facilities, and would require the construction or expansion of recreational facilities, but that each of the City's adopted Specific Plans had anticipated and planned for these needs and had included the identification of sites and financing mechanisms. The EIRs for each Specific Plan had already evaluated the potential physical impacts of constructing the facilities and the City's policies ensure that adequate parkland acreage is developed and maintained. Therefore, the GP EIR concluded that the General Plan would not result in substantial adverse physical impacts associated with the provision or maintenance of recreation facilities, and impacts were found to be less than significant. The Project is within the scope of the above GP EIR analysis, and the units contemplated are spread throughout the Planning Area. The Project would not add total units which would change the GP EIR analysis, nor would it redistribute units in a manner that would concentrate service demands in an unanticipated location. Based on the foregoing, the GP EIR analyses of potential public service impacts adequately and appropriately describe the potential impacts of the Project, and the Project does not result in new or substantial increases in significant effects.

Mitigation Measures: None

XVII. Transportation

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents Mitigation Measures Implemented or Addressing Impacts.
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	Page 4.3-43	No	No	No	None
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	Page 4.3-33	No	No	No	MM4.3.1
c) Substantially increase hazards due to a geometric design feature(s) (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Page 4.3-42	No	No	No	None
d) Result in inadequate emergency access?	Page 4.10-27 and 4.3-42	No	No	No	None

Discussion: The GP EIR included a transportation analysis which estimated VMT using Roseville's travel forecasting model, and reported VMT both in per capita (per resident) and per service population. The analysis also included the development of a VMT threshold of significance based on a reduction of 15% below baseline conditions. The City's baseline VMT was found to be 15.1 VMT per resident and the resulting threshold was 12.8 VMT per resident. Per resident VMT includes VMT for trips produces by a home's residents, such as to work school or to shop, and any trips where one end of the trip was at the home.

The transportation analysis found that the City's buildout VMT would be 15.5 VMT per resident in constrained conditions and 14.9 VMT per person in unconstrained conditions. Constrained conditions assumed a transportation network which only included future facilities with identified funding sources that were certain to be constructed by 2035, and was a worst-case evaluation provided to ensure the GP EIR did not underestimate any impacts. The unconstrained conditions included all facilities included in the SACOG 2020 MTP/SCS project list.

In addition to the citywide average VMT, the GP EIR also included a VMT evaluation by Specific Plan area. This evaluation showed that certain areas of the City are "low-VMT areas," which are defined in the EIR as areas of the City with VMT below the significance threshold. This analysis was based on the constrained conditions, so even under worst-case conditions the following areas were found to be low-VMT: the Downtown Specific Plan, Del Webb Specific Plan, North Central Roseville Specific Plan, Northeast Roseville Specific Plan, and Riverside Gateway Specific Plan.

The Project is within the scope of the GP EIR analysis, but because it alters the distribution and mix of uses it has the potential to affect trip distribution. Therefore, an updated VMT analysis was prepared by Fehr and Peers Transportation Consultants to evaluate VMT impacts resulting from the Project (see Attachment 2). This analysis updated the baseline conditions to February 2020 in order to ensure the baseline represented normal conditions, unaffected by COVID, and used constrained conditions for the cumulative analysis. The analysis found the City's baseline VMT has increased to 15.7 VMT per resident due to the fact that ¾ of new development since the prior analysis has occurred in the western area of the City, in Specific Plans with the highest VMT per resident. However, the cumulative conditions (2035) analysis found citywide VMT decreases to 14.7 VMT per resident with the Project, which is both a reduction from baseline and a reduction compared to the GP EIR analysis of cumulative (2035) conditions. The Specific Plan analysis found that the same list of planning areas are low-VMT, plus the Highland Reserve North Specific Plan. While Project VMT remains above the City's adopted significant threshold of 12.8 VMT per resident, it is lower than VMT reported in the GP EIR.

Per service population VMT includes all per resident VMT plus VMT from all other sources, including trips from homes outside the area to work or shop and trips inside the City with neither trips at the home (from work to shopping). The service population analysis of the GP EIR was included for informational purposes to provide a coarse assessment of how non-home-based trips change over time. The GP EIR stated that appropriate methodologies for service sector VMT were still being developed and the resulting data was less reliable. For this reason, a significance threshold for service population VMT was not developed. This conclusion remains current, as stated in the updated transportation analysis prepared for this Addendum. The GP EIR found that in existing conditions the citywide average was 29 VMT per service population while the cumulative conditions citywide average would be 33 VMT per service population (constrained) or 32.4 VMT per service population (unconstrained). An updated service sector analysis was provided for the Project, but it used an updated methodology and therefore cannot be directly compared to the results reported in the GP EIR. The service sector analysis calculated that in existing conditions the citywide average is 32.5 VMT per service population and the cumulative conditions citywide average is 35.1 VMT per service population. While the numbers from the GP and Project analysis cannot be compared, the trend can: in both analyses, the citywide average service sector VMT is anticipated to increase over time rather than decrease. This means that while trips generated by residents of the City will be traveling less over time (as measured by per resident VMT) it is expected that all trips will be traveling more over time.

Both the GP EIR and the updated analysis for this Project included a Level of Service (LOS) analysis, provided for informational purposes. While LOS is not an impact under CEQA, the City maintains an LOS policy requiring that 70% of intersections operate at LOS C or better during both the a.m. and p.m. peak hours. The GP EIR found that 83.5% of intersections would operate acceptably during a.m. peak hours and 71.9% would operate acceptably during p.m. peak hours. The updated Project analysis found that 80.5% of intersections would operate acceptably during a.m. peak hours and 72.9% would operate acceptably during p.m. peak hours. The minor changes in results are mainly due to model updates, which included updates for the future and base year in the City of Rocklin based on that City's current circulation and development plans and roadway network updates based on current plans and data. However, in both the GP EIR analysis and the Project analysis, the LOS analysis found that the City's intersections operate at LOS consistent with City policy.

The GP EIR evaluated hazards due to design features, incompatible uses, or inadequate emergency access. The City's transportation networks have been comprehensively planned through the Specific Plan process to conform to the City's Design and Construction Standards. The City's Design and Construction Standards establish appropriate and safe designs, including minimum signal and driveway spacing, sidewalk and pedestrian crossing designs, bicycle lane designs, and other features which ensure a safe and reliable network. The City also maintains standards requiring minimum roadway widths, turnaround areas, and turning radii to ensure that emergency vehicles maintain access. Finally, the City's construction standards also provide for and regulate the use of temporary traffic controls at construction sites, including signage and flaggers. The City's comprehensive planning process also ensures that uses are compatible and do not increase hazards. The GP EIR concluded impacts were less than significant.

Finally, the GP EIR evaluation found the General Plan does not conflict with adopted policies, plans, or programs for transit, bicycle, or pedestrian facilities nor would it adversely affect performance or safety of such facilities; impacts were found to be less than significant. The General Plan contains provisions that will enhance these modes to encourage greater use of transit and more walking and bicycling in the future. All new facilities and facility improvements contained in the circulation diagram would be constructed to applicable design standards, including the City's Design and Construction Standards (City of Roseville 2020), which have been created to minimize the potential for conflicts or collisions. The Project does not change this conclusion, as it does not introduce any programs or policies which would conflict with transportation plans. On the contrary, increased densities are generally transit-supportive.

Based on the foregoing, the GP EIR analyses of potential transportation impacts adequately and appropriately describe the potential impacts of the Project, and the Project does not result in new or substantial increases in significant effects.

Mitigation Measures: The mitigation measure below was effectuated through inclusion in the City's 2035 General Plan Appendix A: Implementation Measures, but is included here for reference.

Mitigation Measure 4.3.1 – ***The proposed General Plan Update should be amended as follows:***

Implementation Measure

Proposed development projects that could have a potentially significant VMT impact shall consider reasonable and feasible project modifications and other measures during the project design and environmental review stage of project development that would reduce VMT effects in a manner consistent with state guidance on VMT reduction. The below list of potential measures is not intended to be exhaustive, and not all measures may be feasible, reasonable, or applicable to all projects. The purpose of this list is to identify options for future development proposals, not to constrain projects to this list, or to require that a project examine or include all measures from this list. Potential measures include:

- improve or increase access to transit;
- increase access to common goods and services, such as groceries, schools, and daycare;
- incorporate affordable housing into the project;
- incorporate neighborhood electric vehicle network;
- orient the project toward transit, bicycle and pedestrian facilities;
- improve pedestrian or bicycle networks, or transit service;
- provide traffic calming;

- provide bicycle parking;
- unbundle parking costs;
- provide parking cash-out programs;
- implement roadway pricing;
- implement or provide access to a commute reduction program;
- provide car-sharing, bike sharing, and ride-sharing programs;
- provide transit passes;
- shifting single occupancy vehicle trips to carpooling or vanpooling, for example providing ride-matching services;
- providing telework options;
- providing incentives or subsidies that increase the use of modes other than single-occupancy vehicle;
- providing on-site amenities at places of work, such as priority parking for carpools and vanpools, secure bike parking, and showers and locker rooms;
- providing employee transportation coordinators at employment sites;
- providing a guaranteed ride home service to users of non-auto modes;
- locate the project near transit;
- increase project density;
- increase the mix of uses within the project or within the project's surroundings;
- increase connectivity and/or intersection density on the project site; and/or
- deploy management strategies (e.g., pricing, vehicle occupancy requirements) on roadways or roadway lanes.

The City shall evaluate the feasibility of a local or regional VMT impact bank or exchange. Such an offset program, if determined feasible, would be administered by the City or a City-approved agency, and would offer demonstrated VMT reduction strategies through transportation demand management programs, impact fee programs, mitigation banks or exchange programs, in-lieu fee programs, or other land use project conditions that reduce VMT in a manner consistent with state guidance on VMT reduction. If,

through on-site changes, a subject project cannot demonstrate consistency with state guidance on VMT reduction, the project can contribute on a pro-rata basis to a local or regional VMT reduction bank or exchange, as necessary, to reduce net VMT impacts.

XVIII. Tribal Cultural Resources

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents Mitigation Measures Implemented or Addressing Impacts.
Would the project cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:					
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	Page 4.9-39	No	No	No	MM 4.9-4
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1 the lead agency shall consider the significance of the resource to a California Native American tribe.	Page 4.9-39	No	No	No	MM 4.9-4

Discussion: For the GP EIR the City of Roseville contacted the Native American Heritage Commission, pursuant to SB 18 and AB 52 consultation requirements, asking for a list of individuals that might have knowledge of the Planning Area. The City used this list to circulate a letter dated April 3, 2017 providing the opportunity to participate in consultation to ensure consideration of Tribal Cultural Resources in the context of local land use policy. The United Auburn Indian Community (UAIC) responded to the request for consultation and provided information on the presence of tribal cultural resources as well as historic resources (cultural resources) within the Planning Area.

Impacts related to substantial adverse changes in the significance of a tribal cultural resources were found to be significant (GP EIR page 4.9-39) because the Planning Area is known to contain these resources and is sensitive for the presence of undiscovered or undocumented resources. In addition, some tribal cultural resources may also be cultural resources. The UAIC has indicated tribal cultural resources of significant value to the tribe are present in the Planning Area and could be impacted by grading, excavation, or other ground-disturbing activities associated with buildout of the Planning Area. The General Plan included policy revisions to further strengthen protections, the GP EIR included mitigation measures to address these impacts, and the City adopted new Internal Guidance for Management of Tribal Cultural Resources and Consultation, all of which were developed within input from the UAIC. Nonetheless, impacts could still occur. After mitigation impacts were found to be significant and unavoidable.

Notice of the Project was distributed pursuant to SB 18 and, since it was anticipated an EIR could be required, notice pursuant to AB 52 was also distributed. Both were distributed in letters dated September 22, 2020. No requests for consultation were received. The analysis described above is based on the potential impacts of grading and general development within the Planning Area, and the Project neither changes the boundaries of the Planning Area nor the locations of potential grading and development within the Planning Area. Therefore, the GP EIR analyses of tribal cultural resources adequately and appropriately describe the potential impacts of the Project, and the Project does not result in new or substantial increases in significant effects.

Mitigation Measures: Mitigation consisted of the implementation of Mitigation Measures 4.9-4, previously stated in the Section V. Cultural Resources evaluation.

XIX. Utilities and Service Systems

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents Mitigation Measures Implemented or Addressing Impacts.
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Page 4.12-21	No	No	No	None
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	Page 4.12-24	No	No	No	None
c) Result in a determination by the wastewater treatment provider which serves the project that it has adequate capacity to serve the project's projected demand in addition of the provider's existing commitments?	Page 4.12-26	No	No	No	None
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	Page 4.12-30	No	No	No	None
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Page 4.12-30	No	No	No	None

Discussion: The GP EIR evaluation of utility services was based on full buildout of the General Plan, and capacity evaluation used the metrics appropriate to the impact area, as follows: for water, dwelling units or dwelling unit equivalents (edu); for wastewater, demand factors based on acreage by land use type; and for waste, total population and employees. The GP EIR also evaluated the potential for facility expansions, including the planned expansion of the Dry Creek wastewater treatment plant; off-site construction of the Ophir water treatment plant by the Placer County Water Agency; a new planned substation and 60-kilovolt overhead transmission lines within the Creekview Specific Plan; and construction of water lines, sewer lines, electrical lines, and supporting facilities (e.g pump stations). Except for the Ophir water treatment plant, expanded and new utilities and service systems would be within the Planning Area, and impacts associated with these facilities have already been identified and mitigated through Specific Plan EIRs. Therefore, with the exception of the Ophir plant, impacts were found to be less than significant. Construction of the Ophir plant was addressed in the Foothill Phase II Water Treatment Plan and Pipeline EIR, discussed in the GP EIR, and it found that construction air quality impacts would be significant and unavoidable. The GP EIR concluded that buildout of the General Plan would indirectly contribute to this significant and unavoidable impact. The Project is within the scope of the GP EIR analyses of capacity (see below) and would not require new facilities beyond those already identified.

Under buildout conditions, the City has a total water demand of 48,762 acre feet per year (afy), and has surplus water supply during normal years and during multiple-dry years 1 and 2. However, during a single-dry year there is an approximate 9,000-afy deficit and during multiple-dry year 3 there is an approximate 2,000-afy deficit. The City's conservation measures are sufficient during dry years to offset the deficit. Therefore, impacts were found to be less than significant. The Project is within the scope of the total dwelling units analyzed within the GP EIR, and is therefore within the scope of analysis of the water evaluation; no changes or updates to this analysis are required.

The City's buildout demands on the wastewater system were reported in Table 4.12-7 of the GP EIR as 8.9 million gallons per day (mgd) of average dry weather flow, while the Pleasant Grove wastewater treatment plant's effective treatment capacity is 9.5 mgd, with plans to expand capacity to 12 mgd and the Dry Creek wastewater treatment plan has a permitted capacity of 18 mgd (note that treatment plants have service boundaries that include the City and other areas). The evaluation found there would be adequate capacity to serve full buildout of the City and impacts were found to be less than significant. The wastewater evaluation was based on the total acreage of citywide land uses, with approximately 13,000 acres of residential land use and 3,100 acres of commercial/office land use. The Project will change the acreage of residential compared to commercial land uses, removing up to 20 acres of commercial land use and replacing it with up to 20 acres of residential land use (in all other cases the Project will increase the allowed density on existing residentially-designated acreage). Table 4.12-7 of the GP EIR indicates that sewage demand for commercial sites is 850 gallons per day per acre, while for residential it is only 190 gallons per day per acre. Therefore, the land use change contemplated by the Project would reduce wastewater system demands. However, in the context of the citywide demands the difference is negligible, and does not change the total average dry weather flow of 8.9 mgd.

The City's additional waste demands were calculated based on the increase in population and employees between existing conditions and buildout conditions, and used CalRecycle solid waste disposal rates of 4.8 pounds per day (ppd) per resident and 8.2 ppd per employee. Based on these rates, buildout of the General Plan was found to generate an additional 428 ppd of solid waste. The EIR noted that this estimate was extremely conservative, as it does not account for recycling or waste diversion. The estimated increase in waste would be within the maximum daily throughput of the Western Regional Sanitary Landfill, and therefore impacts were found to be less than significant.

The Project is within the scope of the population and employees analyzed within the GP EIR, and is therefore within the scope of analysis of the waste evaluation; no changes or updates to this analysis are required.

In addition, future development accommodated under the General Plan would be required to comply with applicable federal, State, or local solid waste regulations or statues, including the City's Construction and Demolition and Recycling Ordinance, 2016 CALGreen Code, and AB 1826 (mandatory commercial organics recycling). Furthermore, the City would continue to comply with AB 1601, which requires implementation of a commercial solid waste recycling program. Therefore, impacts related to compliance with regulations pertaining to solid waste were found to be less than significant. The Project has no effect on this analysis or conclusion.

Based on the foregoing, the GP EIR analyses of utility services impacts adequately and appropriately describe the potential impacts of the Project, and the Project does not result in new or substantial increases in significant effects.

Mitigation Measures: None.

XX. Wildfire

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents Mitigation Measures Implemented or Addressing Impacts.
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	Page 4.10-27	No	No	No	None
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	Page 4.10-27	No	No	No	None
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	Page 4.10-27	No	No	No	None
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Page 4.10-27	No	No	No	None

Discussion: The Planning Area is not located in or near state responsibility areas or land classified as very high fire hazard severity zones. The Planning Area is designated by CAL FIRE as a Local Responsibility Area, and there are no Very High Fire Hazard Severity Zones in or adjacent to the Planning Area. Therefore, the GP EIR concluded the wildfire hazard risk for the City is low. The City's comprehensive planning has ensured that existing and planned fire stations are distributed through the Planning Area, and the City maintains and plans connected transportation networks consistent with the City's Design and Construction Standards to ensure adequate emergency access and evacuation routes. The City maintains a Multi-Hazard Mitigation Plan and Emergency Operations Plan, and the GP EIR found that the General Plan was consistent and supportive of these emergency planning documents. The proposed Project does not affect the foregoing analysis. The Project is within the scope of the above GP EIR analysis, and the units contemplated are spread throughout the Planning Area. The Project would not add total units which would change the GP EIR analysis of emergency services needs, nor would it redistribute units in a manner that would concentrate emergency service demands in an unanticipated location. Based on the foregoing, the GP EIR analyses of wildfire impacts adequately and appropriately describe the potential impacts of the Project, and the Project does not result in new or substantial increases in significant effects.

Mitigation Measures: None.

XXI. Mandatory Findings of Significance

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents Mitigation Measures Implemented or Addressing Impacts.
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, threatened or rare species, or eliminate important examples of the major periods of California history or prehistory?	Chapter 5.0	No	No	No	None

b) Does the project have impacts which are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	Chapter 5.0	No	No	No	None
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Chapter 5.0	No	No	No	None

Discussion: Chapter 5.0 of the GP EIR includes an evaluation of cumulative impacts, growth inducing impacts, significant irreversible environmental changes, and a section on the significant and unavoidable impacts evaluated within the EIR. No new mitigation measures beyond those already identified in the topical sections of Chapter 4.0 were identified. As discussed in the sections above, the GP EIR found that General Plan buildout would result in significant and unavoidable impacts to biological resources, cultural resources, and tribal cultural resources. The analysis found the following impacts would also be cumulatively considerable: greenhouse gas emissions; VMT; construction and operational air quality emissions; exposure to substantial pollutant concentrations (long-term); operational noise due to traffic and stationary sources; biological resources including special status plants, riparian habitat/sensitive natural communities, wetlands, and loss of habitat and special status wildlife species; both cultural and tribal cultural resources; indirect impacts due to construction of the Ophir water treatment plant; visual quality; and creation of substantial light and glare. These significant cumulative impacts have the potential to cause adverse impacts on human beings. As described in the foregoing analyses, the Project is within the scope of all impacts evaluated by the GP EIR and appropriately describe the potential impacts of the Project.

ENVIRONMENTAL DETERMINATION:

In reviewing the site specific information provided for this project and acting as Lead Agency, the City of Roseville, Development Services Department, Planning Division has analyzed the potential environmental impacts created by this project and determined that the findings of CEQA Section 15162 concerning the decision not to prepare a subsequent EIR or negative declaration and the findings of CEQA Section 15164 concerning the decision to prepare an Addendum can be made. As supported by substantial evidence within the Addendum to the 2035 General Plan Environmental Impact Report (SCH #2019080418), certified on August 5, 2020, the Lead Agency makes the following findings:

[**X**] No substantial changes are proposed in the project which would require major revisions of the previous EIR or Mitigated Negative Declaration.

[**X**] No substantial changes have occurred with respect to the circumstances under which the project is undertaken.

[**X**] There is no new information of substantial importance which was not known and could not have been known with the exercise of due diligence at the time the previous EIR was certified as complete or the Mitigated Negative Declaration was adopted.

[**X**] Only minor technical changes or additions are necessary in order to deem the adopted environmental document adequate.

Addendum Prepared by:

_____

Lauren Hocker, Senior Planner
City of Roseville, Development Services–Planning Division

Attachments:

1. NOP Letters
2. VMT Analysis
3. Goal, Policy, and Program Revisions

[i] The Sacramento Area Council of Governments (SACOG) is an association of local governments in the six-county Sacramento region. Its members include the counties of El Dorado, Placer, Sacramento, Sutter, Yolo, Yuba and the 22 cities within.

Addendum Attachment 1

Department of Toxic Substances Control

Jared Blumenfeld
Secretary for
Environmental Protection

Meredith Williams, Ph.D.
Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Gavin Newsom
Governor

November 16, 2020

Ms. Lauren Hocker, Senior Planner
City of Roseville
311 Vernon Street, Planning Division
Roseville, CA 95678
LHocker@roseville.ca.us

NOTICE OF PREPARATION OF SUPPLEMENT TO GENERAL PLAN UPDATE ENVIRONMENTAL IMPACT REPORT OR SUBSEQUENT ENVIRONMENTAL IMPACT REPORT FOR THE 2021 HOUSING ELEMENT – DATED NOVEMBER 10, 2020 (STATE CLEARINGHOUSE NUMBER: 2020110169)

Ms. Hocker:

The Department of Toxic Substances Control (DTSC) received a Notice of Preparation (NOP) for a Supplement to the General Plan Environmental Impact Report (EIR) or a Subsequent EIR for the 2021 Housing Element (Project). The Lead Agency is receiving this notice from DTSC because the Project includes one or more of the following: groundbreaking activities, work in close proximity to a roadway, work in close proximity to mining or suspected mining or former mining activities, presence of site buildings that may require demolition or modifications, importation of backfill soil, and/or work on or in close proximity to an agricultural or former agricultural site.

DTSC recommends that the following issues be evaluated in the Supplement to the EIR or Subsequent EIR. Hazards and Hazardous Materials section:

1. The Supplement to the EIR or Subsequent EIR should acknowledge the potential for historic or future activities on or near the project site to result in the release of hazardous wastes/substances on the project site. In instances in which releases have occurred or may occur, further studies should be carried out to delineate the nature and extent of the contamination, and the potential threat to public health and/or the environment should be evaluated. The Supplement to the EIR or Subsequent EIR should also identify the mechanism(s) to initiate any required investigation and/or remediation and the government agency who will be responsible for providing appropriate regulatory oversight.
2. Refiners in the United States started adding lead compounds to gasoline in the 1920s in order to boost octane levels and improve engine performance. This

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practice did not officially end until 1992 when lead was banned as a fuel additive in California. Tailpipe emissions from automobiles using leaded gasoline contained lead and resulted in aerially deposited lead (ADL) being deposited in and along roadways throughout the state. ADL-contaminated soils still exist along roadsides and medians and can also be found underneath some existing road surfaces due to past construction activities. Due to the potential for ADL-contaminated soil DTSC, recommends collecting soil samples for lead analysis prior to performing any intrusive activities for the project described in the Supplement to the EIR or Subsequent EIR.

3. If any sites within the project area or sites located within the vicinity of the project have been used or are suspected of having been used for mining activities, proper investigation for mine waste should be discussed in the Supplement to the EIR or Subsequent EIR. DTSC recommends that any project sites with current and/or former mining operations onsite or in the project site area should be evaluated for mine waste according to DTSC's 1998 Abandoned Mine Land Mines Preliminary Assessment Handbook (https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/11/aml_handbook.pdf).

4. If buildings or other structures are to be demolished on any project sites included in the proposed project, surveys should be conducted for the presence of lead-based paints or products, mercury, asbestos containing materials, and polychlorinated biphenyl caulk. Removal, demolition and disposal of any of the above-mentioned chemicals should be conducted in compliance with California environmental regulations and policies. In addition, sampling near current and/or former buildings should be conducted in accordance with DTSC's 2006 *Interim Guidance Evaluation of School Sites with Potential Contamination from Lead Based Paint, Termiticides, and Electrical Transformers* (https://dtsc.ca.gov/wpcontent/uploads/sites/31/2018/09/Guidance_Lead_Contamination_050118.pdf).

5. If any projects initiated as part of the proposed project require the importation of soil to backfill any excavated areas, proper sampling should be conducted to ensure that the imported soil is free of contamination. DTSC recommends the imported materials be characterized according to *DTSC's 2001 Information Advisory Clean Imported Fill Material* (https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/09/SMP_FS_Cleanfill-Schools.pdf).

6. If any sites included as part of the proposed project have been used for agricultural, weed abatement or related activities, proper investigation for organochlorinated pesticides should be discussed in the Supplement to the EIR or Subsequent EIR. DTSC recommends the current and former agricultural lands be evaluated in accordance with DTSC's 2008 *Interim Guidance for Sampling Agricultural Properties (Third Revision)* (https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/09/Ag-Guidance-Rev-3-August-7-2008-2.pdf).

DTSC appreciates the opportunity to comment on the NOP. Should you need any assistance with an environmental investigation, please submit a request for Lead Agency Oversight Application, which can be found at: https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/09/VCP_App-1460.doc. Additional information regarding voluntary agreements with DTSC can be found at: https://dtsc.ca.gov/brownfields/.

If you have any questions, please contact me at (916) 255-3710 or via email at Gavin.McCreary@dtsc.ca.gov.

Sincerely,



Gavin McCreary
Project Manager
Site Evaluation and Remediation Unit
Site Mitigation and Restoration Program
Department of Toxic Substances Control

cc: (via email)

Governor's Office of Planning and Research
State Clearinghouse
State.Clearinghouse@opr.ca.gov

Mr. Dave Kereazis
Office of Planning & Environmental Analysis
Department of Toxic Substances Control
Dave.Kereazis@dtsc.ca.gov

STATE OF CALIFORNIA Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION

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Chumash

COMMISSIONER
[Vacant]

COMMISSIONER
[Vacant]

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

November 10, 2020

Lauren Hocker, Senior Planer
City of Roseville
311 Vernon Street, Planning Division
Roseville, CA 95678

Re: 2020110169, 2021 Housing Element Project, Placer County

Dear Ms. Hocker:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- **a.** A brief description of the project.
- **b.** The lead agency contact information.
- **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- **a.** Alternatives to the project.
- **b.** Recommended mitigation measures.
- **c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- **a.** Type of environmental review necessary.
- **b.** Significance of the tribal cultural resources.
- **c.** Significance of the project's impacts on tribal cultural resources.
- **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- **a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
- **b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Nancy.Gonzalez-Lopez@nahc.ca.gov.

Sincerely,



Nancy Gonzalez-Lopez
Cultural Resources Analyst

cc: State Clearinghouse

11 December 2020

Lauren Hocker
City of Roseville
Street Planning Division
311 Vernon Street
Roseville, CA 95678

COMMENTS TO REQUEST FOR REVIEW FOR THE NOTICE OF PREPARATION FOR THE SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT, 2021 HOUSING ELEMENT PROJECT, SCH#2020110169, PLACER COUNTY

Pursuant to the State Clearinghouse's 10 November 2020 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Notice of Preparation for the Supplemental Environmental Impact Report* for the 2021 Housing Element Project, located in Placer County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of

Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:
https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits[1]

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ. For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic

[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

Waste Discharge Requirements – Discharges to Waters of the State

If USACE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at:https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources Control Board website at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at: http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf

Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/help/permit/

If you have questions regarding these comments, please contact me at (916) 464-4709 or Greg.Hendricks@waterboards.ca.gov.

Greg Hendricks
Environmental Scientist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

Transportation Impact Study for the Roseville Housing Element Update

Prepared for:
City of Roseville

May 19, 2021

RS20-3972

FEHR PEERS

Table of Contents

Introduction **1**

Travel Demand Forecasting Model Update **2**

Model Scenarios 2

Data Collection 2

Validation of 2020 Existing Conditions Model 2

Vehicle Miles Traveled 4

Intersection Level of Service 9

Proposed Roseville Housing Element Update **12**

Analysis Scenarios 12

VMT Analysis 13

Intersection Level of Service 14

Impacts and Mitigation Measures 16

Appendices

Appendix A: City of Roseville Travel Forecasting Model Update Development Report

Appendix B: Technical Data

List of Figures

Figure 1: Existing Signalized Intersections 10
Figure 2: General Plan Buildout Signalized Intersections 11
Figure 3: Project Scenario Signalized Intersections 15

List of Tables

Table 1: 2020 Existing Conditions Model Validation Results 3
Table 2: VMT: 2020 Existing Conditions 6
Table 3: VMT: 2035 General Plan Buildout Conditions 7
Table 4: Citywide VMT Summary 8
Table 5: Signalized Intersections Operating at LOS C or Better 9
Table 6: Land Use Changes Compared to 2035 General Plan Buildout Conditions, by Scenario 13
Table 7: Home-Based Production VMT per Resident Analysis, by 2035 General Plan Scenario 13
Table 8: VMT per Service Population Analysis, by 2035 General Plan Scenario 14
Table 9: Signalized Intersections Operating at LOS C or Better, Project Scenario 16

Introduction

Fehr & Peers has completed the transportation impact study for the proposed update to the City of Roseville General Plan Housing Element. This study included two main components:

- Update of the Roseville travel forecasting model to reflect existing conditions as of February 2020
- Analysis of the land use changes reflecting proposed updates to the General Plan Housing Element

Travel Demand Forecasting Model Update

The Roseville travel demand forecasting model was updated to reflect existing land use and roadways as of February 2020. The previous version of the model, used for the General Plan Update Environmental Impact Report (EIR) completed in 2020, was developed for the 2016 Amoruso Ranch Specific Plan EIR and represents approximately 2014 conditions. This update makes the model reflective of recent conditions typical of travel immediately prior to the COVID-19 pandemic.

Model Scenarios

The model update included two scenarios:

- **2020 Existing Conditions**: Land use and roadway configurations representative of February 2020 conditions, prior to the COVID-19 pandemic.
- **2035 General Plan Conditions**: Land use and roadway network representative of buildout of the General Plan Update completed in 2020. This scenario was based on the model used for the recent General Plan Update, with changes made to reflect 2020 existing conditions updates.

Data Collection

Data used for the model update was obtained from the following sources.

- **Traffic volumes**: Turning movement volumes for signalized intersections within the City were downloaded from the Roseville traffic count database for mid-week days of February 20, 25, and 26, 2020. Where data from this source were unavailable, count data from other recent projects in the City of Roseville were used.
- **Land use data**: A parcel data snapshot from April of 2020 was provided by the City of Roseville. This data was the closest available to February 2020.

These data were supplemented by examination of aerial, map, and Streetview observations from Google Maps as necessary to verify existing land use and roadway system conditions.

Validation of 2020 Existing Conditions Model

The 2020 Existing Conditions model was validated using industry accepted practices. The 2017 Regional Transportation Plan (RTP) Guidelines specify that travel demand models to be used in the preparation of RTPs should undergo a series of diagnostic tests to determine their ability to accurately estimate traffic volumes and other travel parameters. Fehr & Peers interprets this guidance to also extend to travel demand models being developed for other purposes such as fee programs, capital improvement

programs (CIPs), LOS policy development, infrastructure studies, etc. In accordance with this guidance, the model's performance was evaluated using criteria described in the Caltrans *Travel Forecasting Guidelines*, 1992; *Travel Model Improvement Program (TMIP) Model Validation and Reasonableness Checking Manual*, 1997; and Fehr & Peers' internal standards. In particular, the following validation measures were evaluated:

- **Percent of Links Within Caltrans Deviation Allowance** – calculated as the difference between the model and actual traffic count divided by the actual traffic count. Result is then evaluated against prescribed deviation thresholds.
- **Percent Root Mean Square Error** – the square root of the model volume minus the actual count squared divided by the number of counts. It is a measure similar to standard deviation in that it assesses the accuracy of the entire model.
- **Correlation Coefficient** – estimates the correlation (strength and direction of the linear relationship) between the actual traffic counts and the estimated volumes from the model.
- **Volume-to-Count Ratio** – divides the model volume by the actual traffic count for individual roadways throughout the model.

The model validation tests are performed for daily, AM peak hour, and PM peak hour conditions for a typical weekday in which schools are in session. The PM peak hour is generally the busiest hour of the day. Fehr & Peers identified 119 roadway segments within the City for use in the validation tests. The intersection turning movement count data discussed above was used to determine volumes for these roadway segments.

The model met validation standards for the daily, AM peak hour, and PM peak hour time periods. These results are summarized in Table 1. The full model development report, providing additional details of how the model was developed and validated, is provided in Appendix A.

Table 1: 2020 Existing Conditions Model Validation Results

Time Period	Segments Within Caltrans Deviation Allowance	Root Mean Square Error	Correlation Coefficient	Volume-to-Count Ratio
Standard	≥ 75 percent	≤ 40 percent	≥ 0.88	Not Defined
Daily	76 percent	24 percent	0.94	1.07
A.M. Peak Hour	77 percent	29 percent	0.92	1.04
P.M. Peak Hour	80 percent	22 percent	0.94	1.01

Source: Fehr & Peers.

Vehicle Miles Traveled

By definition, one vehicle mile traveled (VMT) occurs when one vehicle is driven on a roadway for one mile. Regardless of how many people are traveling in the vehicle, each vehicle traveling on a roadway generates one VMT for each mile it travels. For the purposes of this study, VMT is estimated and projected for a typical weekday. VMT values in this analysis represent the full length of a given trip and are not truncated at jurisdiction boundaries. Additionally, these VMT values are for trips beginning or ending in the City. Trips passing through the City without stopping are not included in these VMT estimates, as the City has little control over such trips.

VMT is used to measure performance of the existing transportation network and to evaluate potential transportation impacts. Although the absolute amount of VMT is reported, impact analysis is typically based on VMT normalized to population as "per resident" and "per service population" rates. VMT is often expressed as an efficiency metric, on a "per resident" ("per capita"), "per employee," or "per service population" basis to understand the relative efficiency of a project. These metrics provides a measure of travel efficiency and helps depict whether people are traveling more or less by vehicle over time, across different areas, or across different planning scenarios. A per resident or per service population decline in VMT over a baseline condition indicates that the transportation network is operating more efficiently, and that people have more travel choices.

Two measures of VMT are used in this analysis.

- **Home-based production VMT** includes VMT for trips produced by a home's residents, such as to work, school, or shop, and with one end of the trip at the home.
- **Total VMT** includes home-based production VMT plus VMT from all other sources, including trips from homes outside the City into the City for work, shopping, or other purposes and trips with neither end at the home (such as from work to shopping).

Although the absolute amount of VMT is reported, VMT is also normalized to residents ("per capita") and per service population rates as described above.

The Roseville travel demand forecasting model was used to estimate VMT for the City. Inherent potential limitations exist when using current travel demand models for this purpose as rapid changes in travel behavior and transportation systems occur in response to emerging trends, new technologies, and evolving user preferences. Some of these new travel options and technologies are discussed below. Additionally, information about how technology is affecting travel is accumulating over time. Some of these emergent changes that could influence future travel forecasts include:

- Substitution of internet shopping and home delivery for some shopping or meal-related travel.
- Substitution of telework for commute travel.
- Other long-term changes in travel in response to the COVID-19 pandemic.

- New travel modes and choices. Transportation networking companies (TNCs such as Uber and Lyft), car share, bike share, scooter share, and on-demand micro transit have increased the travel options available to travelers and have contributed to changes in traditional travel demand relationships.
- Automated and connected vehicles.

Like most models, the Roseville travel demand model does not explicitly capture the above-mentioned new modes of travel and emerging trends in travel behavior. Significant uncertainties exist at the present time that prevent explicit modeling of these new modes and emerging trends.

The impact of new modes on individual and household travel behavior also is not fully understood and is the subject of ongoing research. Limitations on accessing utilization data directly from TNC vendors, in particular, constrains the ability to fully understand the impact of those services. Regulatory and legislative efforts to address the limits on access are underway in California and elsewhere, but these efforts will take time. Only a few household travel surveys (HTSs), including the 2018 SACOG HTS, have surveyed TNC use in detail, and the e-assist JUMP bikes were introduced partway through the 2018 SACOG HTS. Other major research studies focused on TNC use and TNC driver behavior have recently begun in California, but results are not yet available. Until this research is completed, there is no effective way to incorporate even the known new modes into travel demand models.

VMT estimates for Existing (2020) conditions are shown in Table 2 and for General Plan (2035) conditions are shown in Table 3. Total VMT, home-based production VMT and home-based production VMT per resident are shown by Specific Plan Area. The resident per dwelling unit rates from the General Plan Update were used to calculate the number of residents. Note that calculations include full length of trips, so that trips between two different Specific Plan Areas will be counted in each area. Therefore, the sum of VMT for each Specific Plan Area does not equal citywide VMT. In contrast, home-based production VMT for all Specific Plans Areas is nearly equal to the citywide total for this metric because home-to-home trips productions are rare. The length of those trips that leave the Planning Area are included in their entirety.

Based on these results, home-based production VMT per resident increased from 15.1 (as reported in the General Plan Update EIR) to 15.7 in 2020. This result is consistent with the fact that 74 percent of the residential growth in the City over that time period occurred in the three specific plan areas (West Roseville, Sierra Vista, and North Roseville) with the highest home-based VMT per resident.

Table 2: VMT: 2020 Existing Conditions

Specific Plan Area	Total VMT[1]	Home-Based Production VMT	Residents	Home-Based Production VMT / Resident
City of Roseville	**6,277,800**	**2,202,000**	**140,629**	**15.7**
Del Webb	80,900	47,400	4,804	9.9
Downtown	109,400	11,000	875	12.5
Highland Reserve North	310,100	55,400	4,330	12.8
Infill	1,752,800	593,400	41,657	14.2
North Central Roseville	954,700	135,100	11,224	12.0
North Industrial	717,100	55,200	3,204	17.2
North Roseville	353,800	269,000	14,302	18.8
Northeast Roseville	1,098,900	32,900	2,896	11.4
Northwest Roseville	578,700	365,000	23,355	15.6
Riverside Gateway	25,900	2,400	181	13.3
Sierra Vista	70,900	61,300	2,415	25.4
Southeast Roseville	370,100	99,100	7,688	12.9
Stoneridge	171,800	97,100	6,988	13.9
West Roseville	457,400	377,700	16,711	22.6

Note: [1]Total VMT calculations include full length of trips, so that trips between two different Specific Plan Areas will be counted in each area. Therefore, the sum of VMT for each Specific Plan Area exceeds citywide VMT.
Source: Fehr & Peers.

Home-based production VMT per resident in 2035 decreased from 15.5 VMT per resident as calculated for the General Plan Update EIR to 14.7 VMT per resident. This result is driven in part, by shorter trip distances in the updated model, resulting from increased land use absorption assumed in north Rocklin east of State Route 65.

Table 3: VMT: 2035 General Plan Buildout Conditions

Specific Plan Area	Total VMT[1]	Home-Based Production VMT	Residents	Home-Based Production VMT / Resident
City of Roseville	**9,740,200**	**2,802,000**	**190,491**	**14.7**
Amoruso Ranch	261,400	150,800	7,756	19.4
Creekview	139,100	94,300	5,193	18.2
Del Webb	97,900	40,900	4,824	8.5
Downtown	254,100	26,700	2,386	11.2
Highland Reserve North	394,700	52,700	4,333	12.2
Infill	2,222,400	587,500	42,769	13.7
North Central Roseville	1,578,300	133,200	11,930	11.2
North Industrial	1,265,200	72,600	5,023	14.4
North Roseville	364,400	228,100	14,499	15.7
Northeast Roseville	1,343,900	42,800	3,804	11.2
Northwest Roseville	599,600	332,400	23,452	14.2
Riverside Gateway	65,100	3,400	290	11.8
Sierra Vista	848,200	375,800	22,410	16.8
Southeast Roseville	462,400	99,800	7,709	13.0
Stoneridge	217,900	96,900	7,074	13.7
West Roseville	753,300	464,100	27,039	17.2

Note: [1]Total VMT calculations include full length of trips, so that trips between two different Specific Plan Areas will be counted in each area. Therefore, the sum of VMT for each Specific Plan Area exceeds citywide VMT.
Source: Fehr & Peers.

A comparison of Table 2 and Table 3 shows that home-based VMT per resident decreases from 15.7 under 2020 conditions to 14.7 under 2035 conditions. This is caused by several factors including the placement of complementary (e.g., jobs, retail, recreational, etc.) land uses to support the large number of residences on the west side of the City.

Table 4 summarizes citywide VMT results, including both the per resident analysis presented above and also the service population analysis. The employees per land use rates from the General Plan Update were used to calculate the number of employees. As noted in the General Plan Update EIR, the service population analysis is provided for informational purposes, to provide a coarse assessment of how trips which are not home-based affect reported VMT efficiency. Precise methodologies for calculating this metric in traffic impact studies are still being developed and are therefore less reliable. The VMT per service population metric includes all per resident trips, but also includes all trips into or out of the City, even if these do not originate from a home in the City. The per service population metric provides another measure of travel efficiency and helps depict whether people are traveling by vehicle more or less over time and can also be used to compare the efficiency of different areas. The mix of residential land use and

employment land uses will affect the results of the analysis. When using service population methodology, the incremental addition of one added resident adds about 3.2 daily trips; in contrast, one added office employee adds about 4.4 trips and one added retail employee generates about 12 trips (added trips include trips by the resident/employee, as well as customers and others utilizing the development).[1] When daily trips are then converted into VMT by multiplying by the trip length, the same trend occurs.

The VMT calculations accompanying this model update include improvements to the service population methodology used for the General Plan Update EIR. With the improved methodology, VMT per service population does not equal total VMT divided by service population; to keep VMT per service population for trips with both ends inside the area being measured comparable to those with one end inside the measured area and one outside, VMT for trips with both ends inside the City are counted twice. Trips with both the origin and destination internal to the City (II trips) have both the resident and employee as part of the City's service population. Trips with the origin but not the destination in the City (IX trips) have the resident as part of the service population, but not the employee at the destination. Trips with the destination but not the origin in the City (XI trips) have the employee but not the resident as part of the service population. Counting VMT twice for II trips allows VMT per service population to be compared to that for IX and XI trips.

Table 4: Citywide VMT Summary

Measure	Service Population Methodology		Per Resident Methodology	
	2020	2035	2020	2035
VMT Produced	6,277,800	9,740,200	2,202,000	2,802,000
Residents	140,629	190,491	140,629	190,491
Employees	80,350	123,405	NA[1]	NA
Service Population	220,979	313,896	NA	NA
Efficiency Metric[2]	32.5	35.1	15.7	14.7

Note: [1]NA = not applicable
[2]Service population efficiency metric not directly calculable from VMT produced divided by service population.
Source: Fehr & Peers.

Supporting data for the VMT analysis is provided in Appendix B, Technical Data.

[1] Calculated as follows:
- Residential: 8.6 daily trips per unit / 2.7 persons per unit = 3.2 trips per person (based on blended average of single-family and multi-family residential trip rates and average household size)
- Office: 17 daily trips per ksf / 4 employees per ksf = 4.4 trips per employee (City of Roseville model trip rate)
- Retail: 35 daily trips per ksf / 3 employees per ksf = 12 trips per employee (City of Roseville model trip rate)

Intersection Level of Service

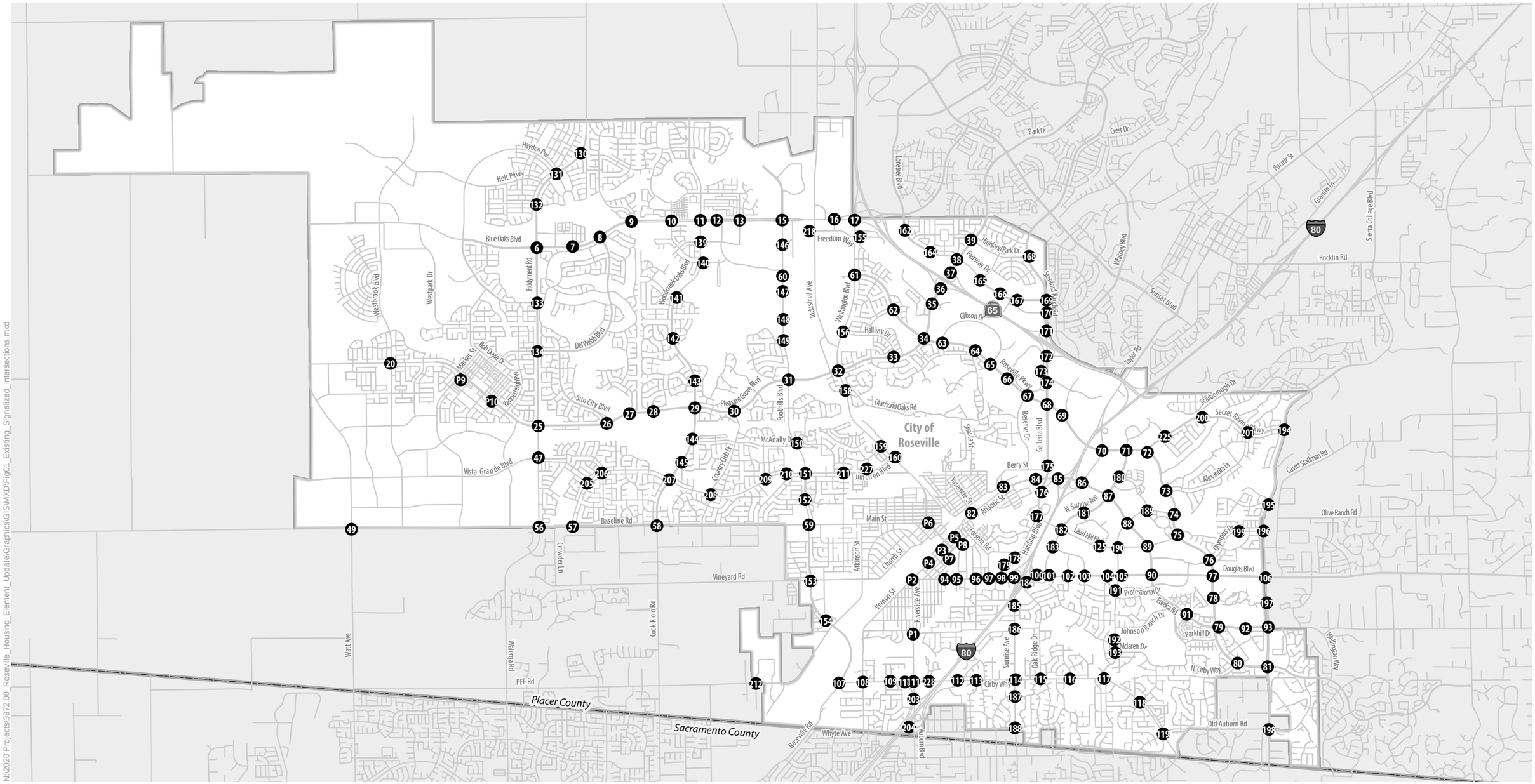
The General Plan includes a policy within the Transportation Element which requires maintenance of a level of service (LOS) standard at a minimum of 70 percent of all signalized intersections (excluding Pedestrian Districts) in the City during the a.m. and p.m. peak hours. Though LOS is no longer a CEQA significance metric, an analysis of LOS has been provided in order to demonstrate consistency with General Plan policy. Figure 1 shows the location of all the signalized intersections in the City under Existing Conditions, and Figure 2 shows the locations under General Plan Buildout Conditions. Table 5 presents these results. As shown, at least 70 percent of intersections would perform at LOS C or better in all scenarios.

Table 5: Signalized Intersections Operating at LOS C or Better

Scenario	A.M. Peak Hour	P.M. Peak Hour
2020 Existing Conditions	88.4 percent	83.1 percent
2035 General Plan Buildout	80.9 percent	72.9 percent

Note: Excludes Pedestrian Districts.
Source: Fehr & Peers.

Supporting data for the LOS analysis is provided in Appendix B, Technical Data.



Existing Signalized Intersections

N

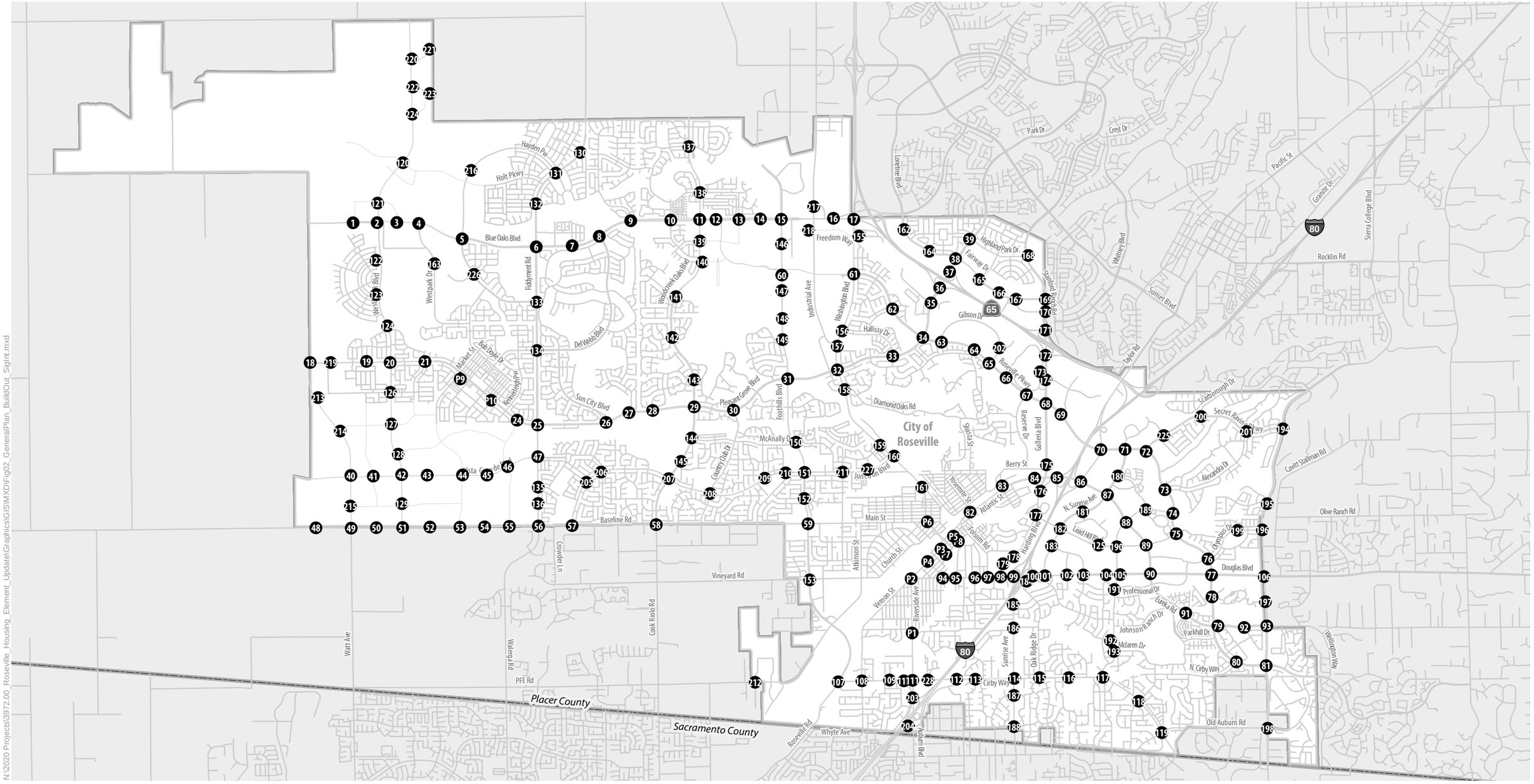
Figure 1

Existing Signalized Intersections

Addendum Attachment 2

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Existing Signalized Intersections

N

Figure 2

General Plan Buildout Signalized Intersections

Addendum Attachment 2

Proposed Roseville Housing Element Update

The City has developed proposed changes to the General Plan Housing Element to accommodate its most recent Regional Housing Needs Allocation. To add needed lower income units, City staff has identified multiple potential strategies. The strategies with the greatest unit potential include Commercial Corridors, Infill Intensification, Residential Conversion, and Residential Intensification. The first two strategies focus on the City's developed core while the other two strategies are focused on vacant land, most of which is located on the western side of the City. Using these strategies, City staff has created four alternatives:

1. **Project**; All four options are maximized for a total added capacity of approximately 2,000 units located in both the infill and developing areas of the City. This is the Project for purposes of CEQA, and includes 400 units from the Commercial Corridors, 186 units from Infill Intensification, 600 units from Residential Conversion, and 900 units from Residential Intensification.
2. **Vacant Land Emphasis Alternative**: The vacant land options are emphasized for a total added capacity of 1,500 units. Approximately 500 units from Residential Conversion, 600 units from Residential Intensification, and 400 units from Commercial Corridors.
3. **Infill Land Emphasis Alternative**: The commercial corridor and infill intensification options are emphasized for a total added capacity of 1,500 units. Approximately 400 units from Commercial Corridors, 186 units from Infill Intensification, 464 units from Residential Conversion, and 450 units from Residential Intensification.
4. **Minimized Alternative**: A hybrid option where all four options are selected but the added capacity from each is reduced to achieve the minimum necessary capacity of 1,000 units. Approximately 300 units from the Commercial Corridors, 100 units from Infill Intensification, 300 units from Residential Conversion, and 300 units from Residential Intensification.

Analysis Scenarios

Because some units in each alternative are from conversion of non-low-income multi-family dwelling units in the current General Plan to low income multi-family dwelling unit, the total number of units added to the model relative to the General Plan is less than described above. Additionally, some non-residential land uses were reduced compared to the 2035 model scenario to accommodate the additional dwelling units. These land use changes are summarized in Table 6.

Table 6: Land Use Changes Compared to 2035 General Plan Buildout Conditions, by Scenario

Land use	Units	Project Scenario	Vacant Land Emphasis Scenario	Infill Land Emphasis Scenario	Minimized Scenario
Multi-Family	Dwelling Units	1,624	1,037	1,215	809
Retail	KSF	-49	-49	-49	-49
Office	KSF	-83	-83	-83	0
Industrial	KSF	-81	-81	-81	0
Public/Quasi-Public High	KSF	-97	-97	-97	-97

Note: KSF = thousand square feet
Source: Fehr & Peers.

VMT Analysis

Consistent with the analysis performed for the General Plan Update, a threshold of 15 percent below baseline VMT per resident was used for the analysis of each alternative described above. Baseline VMT per resident as analyzed using the 2020 Existing Conditions model and shown in Table 2 was 15.7 VMT per resident, resulting in a threshold of 13.3 VMT per resident (i.e., 85 percent of 15.7 VMT per resident)

Results of the analysis of home-based production VMT for each scenario are shown in Table 7. As shown in this table, although citywide VMT per resident would be less than existing conditions, and only slightly more than in 2035 General Plan Buildout conditions, none of the scenarios would meet the VMT threshold described above.

Table 7: Home-Based Production VMT per Resident Analysis, by 2035 General Plan Scenario

Measure	General Plan Buildout Scenario	Project Scenario	Vacant Land Emphasis Scenario	Infill Land Emphasis Scenario	Minimized Scenario
Home-Based Production VMT	2,802,000	2,868,100	2,844,900	2,849,000	2,836,600
Residents	190,491	194,258	192,897	193,309	192,368
Home-Based Production VMT per Resident[1]	**14.7**	**14.8**	**14.7**	**14.7**	**14.7**

Note: [1]BOLD = Exceeds threshold
Source: Fehr & Peers.

VMT per service population analysis was also performed for informational purposes. The results of this analysis are shown in Table 8. In each scenario, VMT per service population is greater than the 32.5 VMT

per service population calculated for 2020 Existing conditions and slightly lower than the 35.1 VMT per service population calculated for 2035 General Plan Buildout conditions. This small improvement compared to 2035 General Plan Buildout conditions is likely due to a more favorable mix of residents and employees.

Table 8: VMT per Service Population Analysis, by 2035 General Plan Scenario

Measure	General Plan Buildout Scenario	Project Scenario	Vacant Land Emphasis Scenario	Infill Land Emphasis Scenario	Minimized Scenario
Total VMT	9,740,200	9,749,900	9,738,800	9,727,000	9,746,600
Residents	190,491	194,258	192,897	193,309	192,368
Employees	123,405	122,893	122,893	122,893	123,259
Service Population	313,896	317,151	315,789	316,202	315,626
Total VMT per Service Population[1]	35.1	34.9	34.9	34.9	35.0

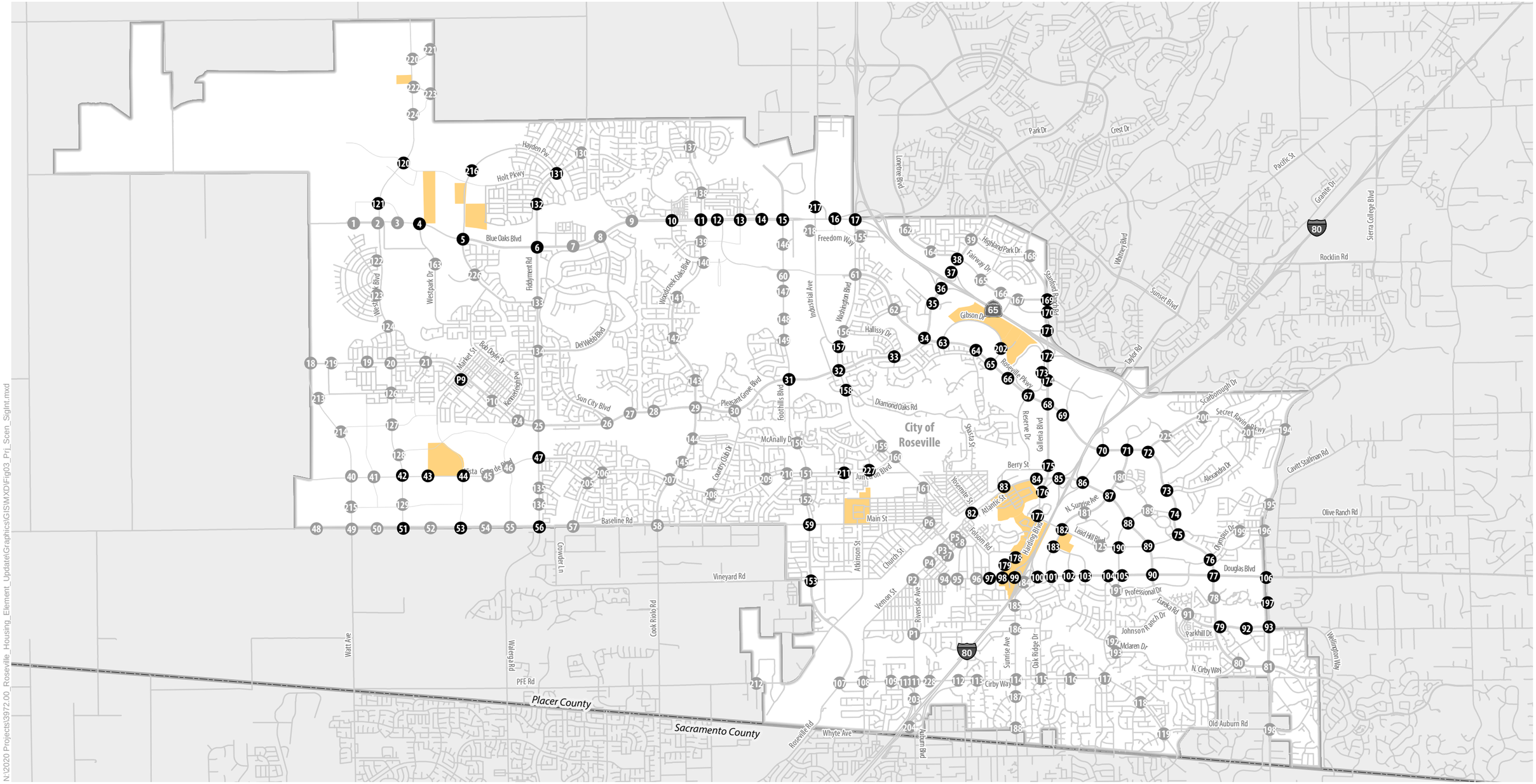
Note: [1]Service population efficiency metric not directly calculable from total VMT divided by service population.
Source: Fehr & Peers.

Intersection Level of Service

LOS was analyzed for signalized intersections to determine if the proposed Housing Element Update would conflict with the City's General Plan policy of at least 70 percent of signalized intersections (excluding Pedestrian Districts) operating at LOS C or better during the a.m. and p.m. peak hours. Intersections that were likely to have LOS substantially affected by the land use changes were analyzed. These intersections, shown in Figure 3, were identified as follows (a map is included in Appendix B):

- Adjacent to traffic analysis zones (TAZs) that would gain 50 or more new multi-family dwelling units
- At intersections located along roadway segments with 50 or more additional vehicles in the a.m. or p.m. peak hour
- Near the transition between LOS C and D

Table 9 presents the updated summary of Citywide LOS results. As shown, at least 70 percent of intersections would perform at LOS C or better during the a.m. and p.m. peak hours. Though there were some small changes in delay, and a few intersections had different LOS results, there was no change in the number of intersections meeting the City policy as compared to 2035 General Plan conditions as shown in Table 5.



Intersections Analyzed

Intersections Not Analyzed

TAZ with an Increase of 50 or More Multi-Family Dwelling Units

N

Figure 3

Project Scenario Signalized Intersections

Addendum Attachment 2

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Table 9: Signalized Intersections Operating at LOS C or Better, Project Scenario

Scenario	A.M. Peak Hour	P.M. Peak Hour
Project	80.9 percent	72.9 percent

Note: Excludes Pedestrian Districts.
Source: Fehr & Peers.

The other three analysis scenarios are subsets of the Project scenario and have fewer additional dwelling units. Because the number of intersections operating at LOS C or better was identical under 2035 General Plan conditions and Project conditions, the Vacant Land Emphasis, Infill Land Emphasis, and Minimized scenarios can be reasonably expected to perform similarly, if not slightly better. Thus, at least 70 percent of intersections in each of these scenarios are also expected to perform at LOS C or better during the a.m. and p.m. peak hours.

Impacts and Mitigation Measures

Impacts of the Housing Element Update were analyzed consistent with the methodology and thresholds of significance used for the recent General Plan Update

Impact TR-1: VMT Per Resident Exceeds the Threshold of 13.3 VMT Per Resident. The VMT generated by buildout of the proposed Housing Element Update to the General Plan is 14.8 VMT per resident under 2035 conditions. This impact is considered **significant**.

Mitigation Measure TR-1: Proposed housing projects that could have a potentially significant VMT impact shall consider reasonable and feasible project modifications and other measures during the project design and environmental review stage of project development that would reduce VMT effects in a manner consistent with state guidance on VMT reduction. The below list of potential measures is not intended to be exhaustive, and not all measures may be feasible, reasonable, or applicable to all projects. The purpose of this list is to identify options for future development proposals, not to constrain projects to this list, or to require that a project examine or include all measures from this list. Potential measures include:

- improve or increase access to transit;
- increase access to common goods and services, such as groceries, schools, and daycare;
- incorporate affordable housing into the project;
- orient the project toward transit, bicycle and pedestrian facilities;
- improve pedestrian or bicycle networks, or transit service;
- provide bicycle parking;
- unbundle parking costs;
- provide car-sharing, bike sharing, and ride-sharing programs;

- provide transit passes;
- providing incentives or subsidies that increase the use of modes other than single-occupancy vehicle;
- locate the project near transit;
- increase project density; and
- increase the mix of uses within the project or within the project's surroundings.

Conclusion: Implementing Mitigation Measure TR-1 will help to reduce VMT, but the City cannot demonstrate definitively at this time that implementation of these policies would achieve VMT reductions to meet the threshold of 13.3 VMT per resident. This impact is **significant**.

Impact TR-2: No Increased Hazards Due to a Design Feature, Incompatible Uses, or Inadequate Emergency Access. The proposed Housing Element update would not increase hazards due to a design feature, incompatible uses, or inadequate emergency access. All projects developed in accordance with the Housing Element update would be constructed according to the City's Design and Construction Standards, which have been created to ensure a safe and reliable multi-modal network. This impact is **less than significant**.

Mitigation Measures: No mitigation is required.

Conclusion: The City's Design and Construction Standards establish appropriate and safe designs, including minimum signal and driveway spacing, sidewalk and pedestrian crossing designs, bicycle lane designs, and other features which ensure that roadway, pedestrian, and bicycle facilities are appropriately designed and constructed and that all roadway/pedestrian/bicycle uses are compatible. The City also maintains standards requiring minimum roadways widths, turnaround areas, and turning radii to ensure that emergency vehicles maintain access during construction and operation. Finally, the City's Construction Standards (Section 12) also provide for and regulate the use of temporary traffic controls at construction sites including signage and flaggers and may also require preparation and implementation of a traffic control plan (at the discretion of the City), for larger projects that require traffic controls over a longer period of time. The proposed Housing Element update would not increase hazards due to a design feature or incompatible uses. This impact is **less than significant**.

Impact TR-3: No Conflict with Adopted Policies, Plans, or Programs Regarding Public Transit, Bicycle, or Pedestrian Facilities, or Create or Exacerbate Disruptions to the Performance or Safety of these Systems. Land use and transportation network changes would not result in conflicts with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. This impact is **less than significant.**

Mitigation Measures: No mitigation is required.

Conclusion: The proposed Housing Element update does not conflict with adopted policies, plans, or programs for transit, bicycle, or pedestrian facilities nor would it adversely affect performance or safety of such facilities. All new development would be constructed to applicable design standards, including the City's Design and Construction Standards, which have been created to minimize the potential for conflicts or collisions. Implementation of the proposed Housing Element update would not disrupt any existing, or interfere with any planned, transit, bicycle, or pedestrian facilities or services. This impact is **less than significant**.

Appendices

Appendix A: City of Roseville Travel Forecasting Model Update Development Report

Appendix B: Technical Data

Appendix A: City of Roseville Travel Forecasting Model Update Development Report

Transportation Impact Study for the Roseville Housing Element Update

May 19, 2021

FEHR PEERS

City of Roseville Travel Demand Model

Model Development Report

Prepared for:
City of Roseville

May 2021

RS20-3972

FEHR PEERS

Table of Contents

Introduction **1**

TDF Model Background 1

What is a TDF model? 1

How is a TDF model useful? 1

How do we know if the TDF model is accurate? 1

Is the TDF model consistent with standard practices? 1

How can the TDF model be used? 2

Study Area 2

What updates were made to this version of the TDF model? 4

Model Input Data **5**

Data Collection 5

Traffic Analysis Zone System 5

Land Use 8

Roadway Network 9

Model Estimation and Calibration **11**

Trip Generation 11

Trip Purposes 12

Travel Modes 13

Trip Assignment 13

Time Periods 13

Turn Penalties 13

Model Validation **14**

Future Year Model **15**

Land Use 15

Roadway Network 15

Vehicle Miles Traveled **19**

Appendices

Appendix A: City of Roseville Base Year (2020) TDF Model Land Use by TAZ

Appendix B: City of Roseville Future Year (2035) TDF Model Land Use by TAZ

Appendix C: City of Roseville Service Population Estimates

List of Figures

Figure 1 – Model Area 3
Figure 2 - Existing (2020) Number of Travel Lanes 6
Figure 3 - City of Roseville TAZs and Subareas 7
Figure 4 - Future Year (2035) Number of Travel Lanes 17
Figure 5 – Lane Increases 18

List of Tables

Table 1: Model Land Use Categories and Existing 2020 City of Roseville Land Use Totals 8
Table 2: Model Roadway Facility Types 9
Table 3: Master Network Link Variables 10
Table 4: Master Network Node Variables 10
Table 5: Daily Vehicle Trip Generation Rates 12
Table 6: 2020 Existing Conditions Model Validation Results 14
Table 7: Future Year 2035 City of Roseville Land Use Totals 16
Table 8: VMT 2020 Existing Conditions 21
Table 9: VMT 2035 General Plan Buildout Conditions 22
Table 10: Citywide VMT Summary 23

Introduction

This report presents the Travel Demand Forecasting (TDF) model updated for the City of Roseville in preparation of the 2021 City of Roseville General Plan Housing Element Update. This report describes the model development and update process from the previous travel demand forecasting model version, including the data sources used to develop key model inputs.

TDF Model Background

What is a TDF model?

A TDF model is a computer program that simulates traffic levels and travel patterns for a specific geographic area. The program consists of input files that summarize the area's land uses, roadway network, travel characteristics, and other key factors. Using this data, the model performs a series of calculations to determine the number of trips generated, the beginning and ending location of each trip, and the route taken by each trip. The model's output includes projections of traffic volumes on major roads, peak hour turning movement volumes at key intersections, and important metrics such as vehicle miles traveled (VMT) needed for emissions forecasts and environmental impact analysis.

How is a TDF model useful?

The travel demand model can be used to estimate the average daily and peak hour traffic volumes on the arterial and collector streets in response to planned population and employment growth, changes in transportation infrastructure and certain policy assumptions. It also provides a consistent platform to analyze different land use and transportation scenarios.

How do we know if the TDF model is accurate?

To be deemed accurate for projecting traffic volumes in the future, a model must first be calibrated to a year in which actual land use data and traffic volumes are available and well documented. A model is accurately validated when it replicates the actual traffic counts on the major roads within certain ranges of error established in the 2017 California Regional Transportation Plan Guidelines (California Transportation Commission [CTC], 2017) and it demonstrates stable responses to varying levels of inputs. The Roseville travel model has been calibrated and validated to 2020 base year (pre-COVID-19) conditions using actual traffic counts and land use data compiled by Fehr & Peers and City of Roseville staff.

Is the TDF model consistent with standard practices?

The City of Roseville TDF model is consistent in form and function with standard travel forecasting models used in transportation planning. The model includes a land-use based trip generation module, a gravity-based trip distribution model, and a capacity-constrained equilibrium traffic assignment process. The model uses Citilabs Cube Version 6.4.3 transportation planning software, which is also used by many models for local jurisdictions in California and throughout the nation.

How can the TDF model be used?

The City of Roseville TDF model can be used for many purposes related to the planning and design of Roseville's transportation system. The following is a partial listing of the potential uses of the model.

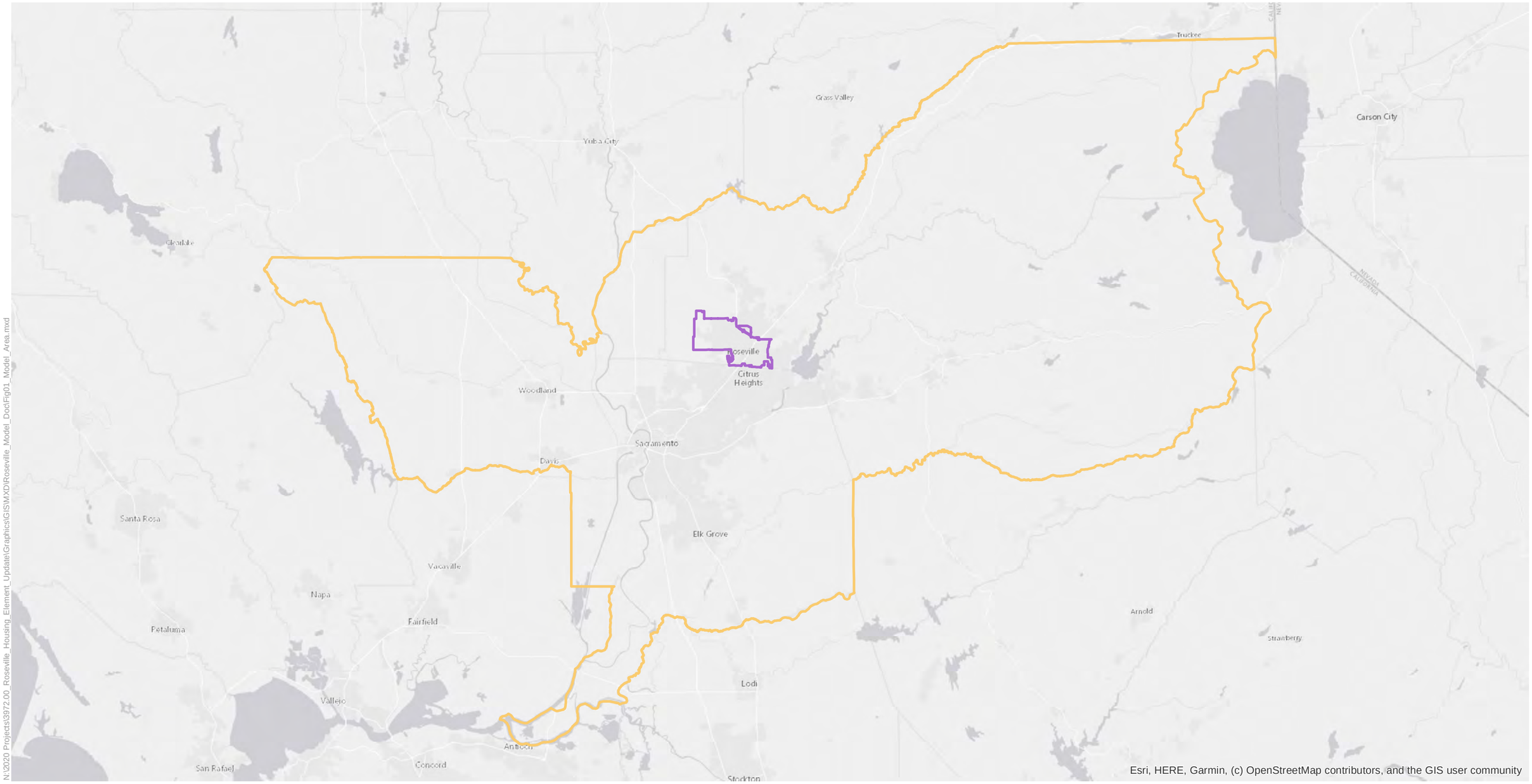
- To estimate VMT for emissions analysis and SB 743 compliant transportation impact studies
- To develop the land use and circulation elements of the city general plan
- To prepare a transportation mitigation fee program
- To evaluate the traffic impacts of area-wide land use plan alternatives
- To evaluate the shift in traffic resulting from a roadway improvement
- To evaluate the traffic impacts of land development proposals
- To determine trip distribution patterns of land development proposals

Study Area

The study area for this update is the City of Roseville, which is modeled in a high level of detail.

The model area also encompasses western Placer County in a high level of detail. This includes the cities of Rocklin, Lincoln, Auburn, and Town of Loomis. In addition, the model includes large zones with a lower level of detail for most other areas of the SACOG region. These areas encompass the counties of El Dorado, Sacramento, and Yolo, and the southern portion of Sutter County. Yuba County and the area of Yuba City in Sutter County are excluded. However, the model was not calibrated or validated for areas outside the City of Roseville.

The model area is shown in Figure 1.



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Roseville Area

Model Area

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Figure 1

Model Area

Addendum Attachment 2

What updates were made to this version of the TDF model?

The current version of City of Roseville TDF Model originates from the Placer County TDF Model that was developed in 2008. Since then, several versions of the Roseville TDF model have tiered off the Placer County TDF Model for updates to the base and future land use and roadway network within the City of Roseville. The following updates were made for this version.

- The model base year land use was updated to reflect April 2020 parcel data from the City of Roseville. Associated updates were also made to the future year model land use.
- The model base year roadway network for the City of Roseville was updated to February 2020 conditions (pre-COVID-19).
- Land use was updated for the base and future year in the City of Rocklin based on the latest land use assumptions from the ongoing City of Rocklin Circulation Element Update and other studies in the City that increased development yields in northwest Rocklin.
- The previously separate base year and future year roadway networks were combined into a master network, with extensive review and refinement of roadway network settings (e.g., lanes, speeds, and capacities).
- Count data from the City of Roseville traffic count database from February 2020, along with recent pre-COVID-19 counts collected for other projects, was used to recalibrate the model.

Model Input Data

Data Collection

Data used for the model update was obtained from the following sources.

- **Traffic volumes**: Turning movement volumes for all signalized intersections within the City were downloaded from the Roseville traffic count database for the mid-week days of February 20, 25, and 26, 2020. Where data from this source were unavailable, count data from other recent projects in the City of Roseville were used.
- **Land use data**: A parcel data snapshot from April of 2020 was provided by the City of Roseville. This data was the closest available to February 2020.

These data were supplemented by examination of aerial, map, and Streetview observations from Google Maps as necessary to verify existing land use and roadway system conditions. Figure 2 shows the existing roadway network within the City.

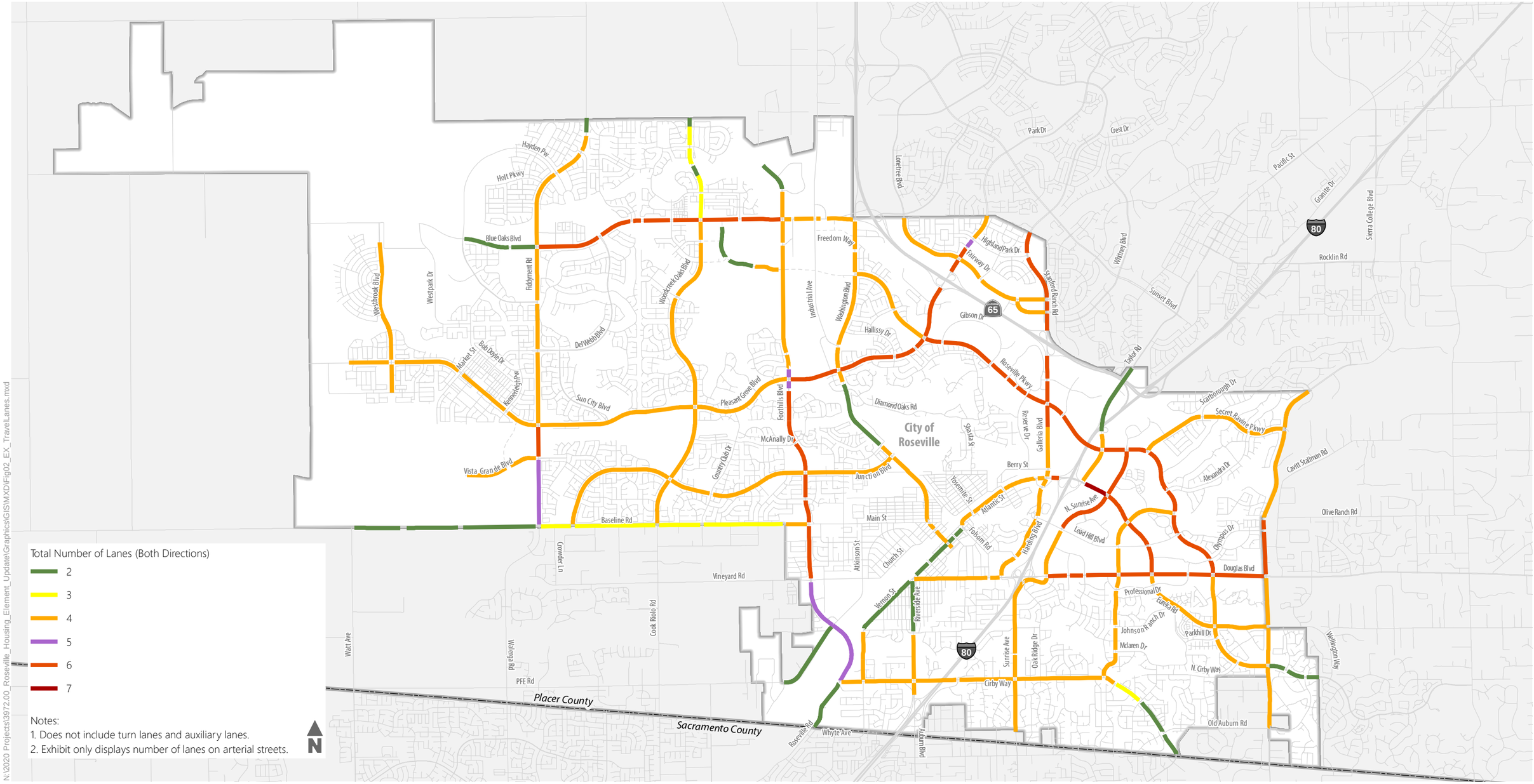
Traffic Analysis Zone System

Traffic analysis zones (TAZs) represent geographic areas containing land uses that produce or attract vehicle-trip ends. Travel models use TAZs to connect land uses to the roadway network. The TAZ boundaries for the City of Roseville TDF model were originally developed from the City of Roseville and other Placer County parcel layer databases. The TAZ boundaries from the previous model version were maintained for this update.

TAZs within the City of Roseville are categorized by specific plan area:

- Del Webb
- Downtown
- Highland Reserve North
- Infill
- North Central Roseville
- North Industrial
- North Roseville
- Northeast Roseville
- Northwest Roseville
- Riverside Gateway
- Sierra Vista
- Southeast Roseville
- Stoneridge
- West Roseville

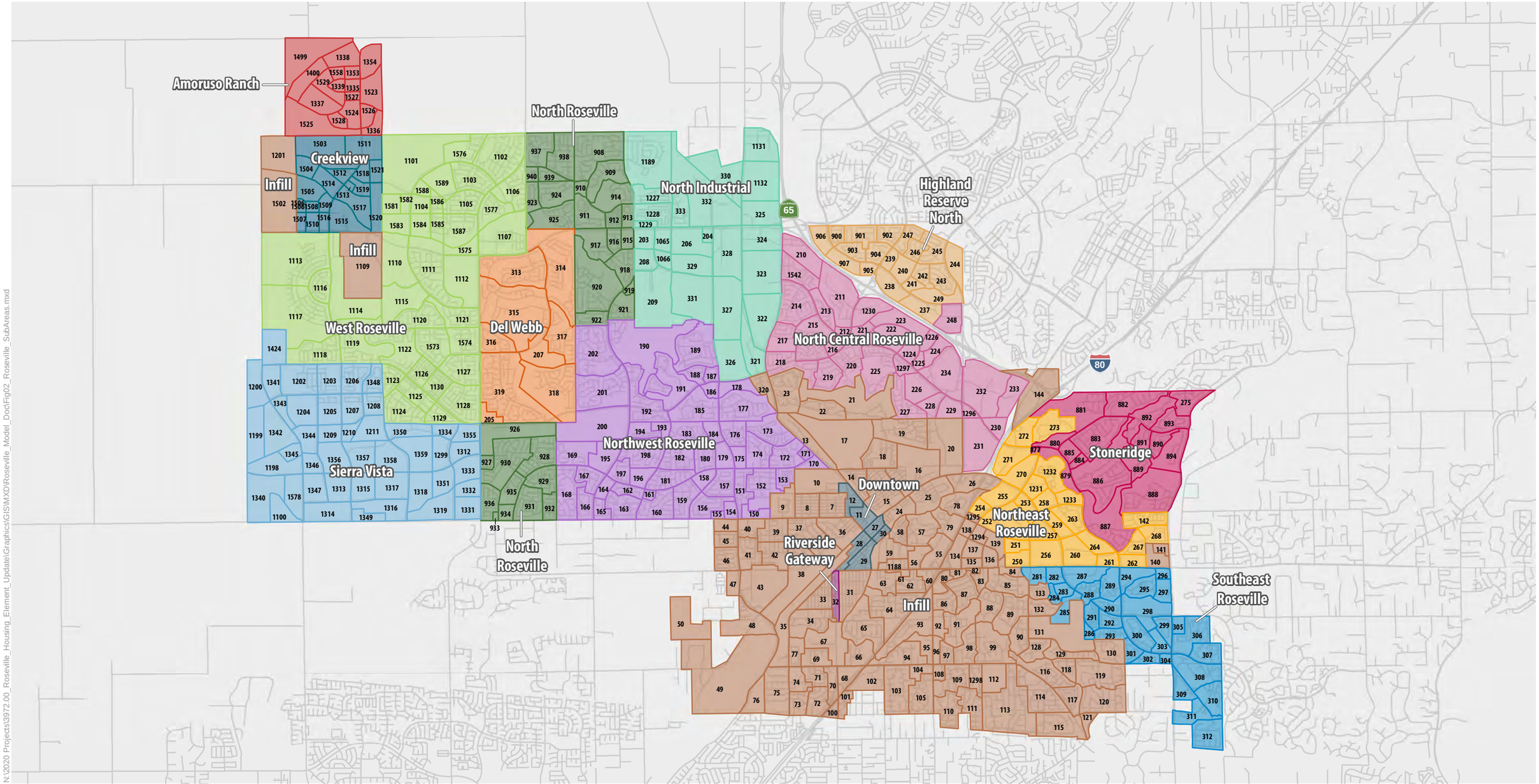
The model includes 505 zones in the City of Roseville and 1,344 total zones model-wide. Figure 3 shows the TAZs within the City of Roseville.



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Figure 2

Existing (2020) Number of Travel Lanes



Amoruso Ranch
Creekview
Del Webb
Downtown
Highland Reserve North
Infill
North Central Roseville
North Industrial
North Roseville
Northeast Roseville
Northwest Roseville
Riverside Gateway
Sierra Vista
Southeast Roseville
Stoneridge
West Roseville
XXX TAZ Number

N

Figure 3

City of Roseville Traffic Analysis Zones (TAZ) and Subareas

Land Use

Land use data is one of the primary inputs to the City of Roseville TDF Model and is instrumental in estimating trip generation. The land use data in the model is divided into 23 land use categories, consistent with the previous version of the model. The updated land use inventory includes development that has occurred since the previous 2016 base year. Table 1 displays the existing 2020 land use totals within the City of Roseville for each land use category. Land use for each TAZ in the City is provided in Appendix A.

Table 1: Model Land Use Categories and Existing 2020 City of Roseville Land Use Totals

Land Use Type	Model Land Use ID	Units	City of Roseville Total
Single Family Residential	SFDU	Dwelling Units	39,574
Multi-Family Residential	MFDU	Dwelling Units	12,278
Age-Restricted Residential	ARDU	Dwelling Units	4,140
Retail	RET	Thousand Square Feet (KSF)	10,053
Mall	MALL	Thousand Square Feet (KSF)	1,685
Office	OFF	Thousand Square Feet (KSF)	8,503
Industrial	IND	Thousand Square Feet (KSF)	7,425
High-Tech Industrial	HTI	Thousand Square Feet (KSF)	3,436
Convention Center	CC	Thousand Square Feet (KSF)	0
Church/Worship Center	CHURCH	Thousand Square Feet (KSF)	986
Lodging	LODGE	Thousand Square Feet (KSF)	47
Medical Office/Clinics	MED	Thousand Square Feet (KSF)	935
Hospital	HOSP	Thousand Square Feet (KSF)	1,953
Convalescent Home	CONV	Thousand Square Feet (KSF)	353
Hotel	HOTEL	Rooms	1,922
Public/Quasi-Public Low	PQPL	Thousand Square Feet (KSF)	322
Public/Quasi-Public High	PQPH	Thousand Square Feet (KSF)	903
School (K-12)	SCHOOL	Students	25,230
Golf Course	GOLF	Acres	812
Park	PARK	Acres	1,134
Cemetery	CEM	Acres	20
Fairgrounds	FAIR	Acres	29
University	UNIV	Students	0

Source: Fehr & Peers, 2021.

Total dwelling units for the City is 55,922, which slightly more than the California Department of Finance total of 55,720 for January 1, 2020, and slightly less than the U.S. Census American Community Survey 2019 1-year estimate of 56,494. The model value is within 185 units of the mid-point of those two estimates.

Roadway Network

This version of the City of Roseville TDF model is set up as a master network, which combines all the roadway facilities that exist during base year 2020 and future year 2035. The master network allows roadway attributes for each segment to be set to represent the conditions for each model year. Development of the master network included appropriately sorting and merging all the roadway link data from the separate networks in the previous model version, checking roadway link consistency between the previous separate networks, reviewing current aerial maps for network settings (lanes, speeds, capacity classification), and refining the network for implementation into the model structure.

The roadway facilities included within the master network focuses on the most used facility types, which include all freeways, arterials, and collectors in the higher detailed Placer County area, and all freeways and arterials in the remaining model area. The master network facility types, along with the initial roadway speeds and capacities used for each roadway classification, are shown in Table 2.

Table 2: Model Roadway Facility Types

Facility Type ID	Facility Classification	Speed Range (MPH)	Lane Capacity Range (vphpl)[1]
1	Freeway General Purpose Lanes	55-65	2,000
2	Rural Road	25-60	1,000
3	Major Arterial	25-45	850
4	Minor Arterial	25-45	800
5	Collector	25-40	700
6	Freeway Ramp	20-45	1,000
7	Rural Road	25-55	1,200
8	Freeway HOV lane	60-65	2,000
9	Freeway GP/HOV Connector	65	1,500
10	Centroid Connector[2]	20	5,000
51	Freeway Auxiliary Lane >=1 mile	55-65	2,000
56	Freeway Auxiliary Lane <1 mile	55-65	1,500

Notes:
1. vphl – vehicles per hour, per lane
2. Centroid connectors are abstract representations of the starting and ending point of each trip, and therefore have no capacity constraints

Source: Fehr & Peers, 2021.

The roadway master network database includes the network link attributes identified in Table 3. Roadway network attributes for number of lanes, speeds, and capacity classification are identified for base year 2020 conditions with the suffix "20", and for future year 2035 conditions with the suffix "35".

Table 3: Master Network Link Variables

Attribute	Description
A	Link A Node Number
B	Link B Node Number
NAME	Roadway Name
DISTANCE	Distance (in miles)
DIR	Direction (0 = two-way, 1 = one-way)
CAPCLASS20	Capacity Classification under Year 2020 conditions
CAPCLASS35	Capacity Classification under Year 2035 conditions
LANES20	Number of Lanes under Year 2020 conditions
LANES35	Number of Lanes under Year 2035 conditions
SPEED20	Roadway Speed under Year 2020 conditions
SPEED35	Roadway Speed under Year 2035 conditions
CNT_INTID	Intersection Count ID (based on Roseville Signalized Intersection Count Database)
CNT_INTLEG	Intersection Leg Direction (based on Roseville Signalized Intersection Database)
CNT_DAYV	Daily Roadway Count - Directional Volume
CNT_DAYT	Daily Roadway Count - Two-Way Total Volume (ADT)

Source: Fehr & Peers, 2021.

In addition, the master network is also represented by nodes at the end of each roadway link. The node attributes for the master network are presented in Table 4.

Table 4: Master Network Node Variables

Attribute	Description
N	Node number
X	X coordinates
Y	Y coordinates
CNT_INTID	Intersection Count ID (based on Roseville Signalized Intersection Count Database)
STUDY_ID	Study location number used to record turning movements when non-zero

Source: Fehr & Peers, 2021.

The model network also includes intersection turning movement prohibitions (e.g., no left turn).

Model Estimation and Calibration

This section describes the model estimation and calibration, and reasonableness checks performed during the update to the model.

Model estimation is the term used to describe the process by which model inputs (e.g., trip rates) are used for application in the model calculations.

Model calibration refers to the adjustment of the model parameters to better replicate observed travel behavior and traffic volumes in the region. Calibration improves model accuracy and is a required step to ensure that the model reflects existing data, is sensitive to the type of projects for which it will be applied, and meets the model validation criteria.

Trip Generation

Trip generation rates relate the number of vehicle trips going to and from a site to the type of land use intensity and diversity of that particular site. Vehicle trip generation rates were not changed in this update. These rates are presented in Table 5. These rates differ slightly from published rates in the *Trip Generation Manual* (Institute of Transportation Engineers, 2017). However, they have been in use for multiple versions of the City's model and have been found to calibrate well to existing conditions.

Table 5: Daily Vehicle Trip Generation Rates

Land Use Type	Model Land Use ID	Units	Daily Vehicle Trip Rate
Single Family Residential	SFDU	Dwelling Units	9.0
Multi-Family Residential	MFDU	Dwelling Units	6.5
Age-Restricted Residential	ARDU	Dwelling Units	3.3
Retail	RET	Thousand Square Feet (KSF)	35.0
Mall	MALL	Thousand Square Feet (KSF)	26.0
Office	OFF	Thousand Square Feet (KSF)	17.7
Industrial	IND	Thousand Square Feet (KSF)	7.6
High-Tech Industrial	HTI	Thousand Square Feet (KSF)	10.5
Convention Center	CC	Thousand Square Feet (KSF)	132.2
Church/Worship Center	CHURCH	Thousand Square Feet (KSF)	9.3
Lodging	LODGE	Thousand Square Feet (KSF)	19.0
Medical Office/Clinics	MED	Thousand Square Feet (KSF)	36.1
Hospital	HOSP	Thousand Square Feet (KSF)	17.6
Convalescent Home	CONV	Thousand Square Feet (KSF)	5.0
Hotel	HOTEL	Rooms	5.6
Public/Quasi-Public Low	PQPL	Thousand Square Feet (KSF)	9.0
Public/Quasi-Public High	PQPH	Thousand Square Feet (KSF)	25.0
School (K-12)	SCHOOL	Students	1.0
Golf Course	GOLF	Acres	8.3
Park	PARK	Acres	2.2
Cemetery	CEM	Acres	4.2
Fairgrounds	FAIR	Acres	1.59
University	UNIV	Students	1.4

Source: Fehr & Peers, 2021.

Trip Purposes

Trip generation rates are initially defined for total trips and later split by trip purpose. Each trip has two ends, a "production" and an "attraction." By convention, trips with one end at a residence are defined as being "produced" by the residence and "attracted" to the other use (workplace, school, retail store, etc.), and are called "home-based" trips. There are seven primary trip purposes used in the City of Roseville TDF Model:

- **Home-Based Work (HBW):** trips between a residence and workplace
- **Home-Based Shop (HBS):** trips between a residence and retail destination



- **Home-Based School (HBSC):** trips between a residence and a school
- **Home-Based Other (HBO):** trips between a residence and any other destination
- **Work-Other (WO):** trips between a workplace an any non-residential destination, such as traveling from a workplace to a restaurant
- **Other-Other (OO):** any other trips that do not begin or end at a residence or workplace

The proportion of trips that represent each purpose are unchanged from the previous model version.

Travel Modes

The City of Roseville TDF Model estimates vehicle travel only. Vehicle travel in the model includes estimation of single occupant vehicles (SOV) and high occupancy vehicles (HOV). This model does not provide any distinction of truck traffic within the vehicle volumes. These characteristics are unchanged from the previous model version.

Trip Assignment

The trip assignment process determines the route each vehicle trip takes from a particular origin to a particular destination. It uses an iterative, capacity-restrained assignment routine to determine a travel path that minimizes travel time, while considering congestion delays caused by the other simulated trips in the model.

The general assignment process includes the following steps.

- Assign all trips to the links along their selected paths.
- After all assignments, examine the volume on each link and adjust its impedance based on the volume-to-capacity ratio.
- Repeat the assignment process for a set number of iterations or until specified criteria related to minimizing travel delays are satisfied.

Calibration of the roadway network included modification of the centroid connectors to more accurately represent the location that traffic accesses local roads; adjustment of speeds from posted speed limits to reflect the attractiveness of the route and the prevailing speed of traffic; and adjustment of capacities to reflect the attractiveness of the route.

Time Periods

The model estimates travel for the average weekday (Tuesday through Thursday) for Daily, AM peak hour, and PM peak hour assignments.

Turn Penalties

Turn penalties are inputs in the model used to prohibit certain turning movements. This version of City of Roseville TDF Model includes updates and refinements to the turn penalties to reflect one-way streets, raised medians that restrict driveway movements to right-turns, and other prohibited movements.

Model Validation

The 2020 base year of the City of Roseville TDF Model was validated using industry accepted practices. The 2017 Regional Transportation Plan (RTP) Guidelines specify that travel demand models to be used in the preparation of RTPs should undergo a series of diagnostic tests to determine their ability to accurately estimate traffic volumes and other travel parameters. Fehr & Peers interprets this guidance to also extend to travel demand models being developed for other purposes such as fee programs, capital improvement programs (CIPs), LOS policy development, infrastructure studies, etc. In accordance with this guidance, the model's performance was evaluated using criteria described in the Caltrans *Travel Forecasting Guidelines*, 1992; *Travel Model Improvement Program (TMIP) Model Validation and Reasonableness Checking Manual*, 1997; and Fehr & Peers' internal standards. In particular, the following validation measures were evaluated:

- **Percent of Links Within Caltrans Deviation Allowance** – calculated as the difference between the model and actual traffic count divided by the actual traffic count. Result is then evaluated against prescribed deviation thresholds.
- **Percent Root Mean Square Error** – the square root of the model volume minus the actual count squared divided by the number of counts. It is a measure similar to standard deviation in that it assesses the accuracy of the entire model.
- **Correlation Coefficient** – estimates the correlation (strength and direction of the linear relationship) between the actual traffic counts and the estimated volumes from the model.
- **Volume-to-Count Ratio** – divides the model volume by the actual traffic count for individual roadways throughout the model.

The model validation tests are performed for daily, AM peak hour, and PM peak hour conditions for a typical weekday in which schools are in session. Within Roseville, the PM peak hour is the busiest hour of the day. Fehr & Peers identified 119 roadway segments within the City for use in the validation tests. The intersection turning movement count data discussed above was used to determine volumes for these roadway segments. The model met validation standards for the daily, AM peak hour, and PM peak hour time periods. These results are summarized in Table 6.

Table 6: 2020 Existing Conditions Model Validation Results

Time Period	Segments Within Caltrans Deviation Allowance	Root Mean Square Error	Correlation Coefficient	Volume-to-Count Ratio
Standard	≥ 75 percent	≤ 40 percent	≥ 0.88	Not Defined
Daily	76 percent	24 percent	0.94	1.07
A.M. Peak Hour	77 percent	29 percent	0.92	1.04
P.M. Peak Hour	80 percent	22 percent	0.94	1.01

Source: Fehr & Peers, 2021.

Future Year Model

Once the base year model calibration and validation was complete, a future year model scenario was updated to represent City of Roseville 2035 General Plan conditions.

Land Use

Future year land use data for this model update was mostly unchanged from the previous version, which was developed in 2020 for the General Plan Update. Updates to the future land use were made where appropriate to reflect the existing conditions changes described above. Table 7 reports the land use totals for the City of Roseville in future year 2035, along with the growth projection from existing 2020 conditions. Land use for each TAZ in the City is provided in Appendix B.

Additionally, the future year land use projections for adjacent City of Rocklin TAZs were updated based on the latest modeling for the Rocklin Circulation Element Update.

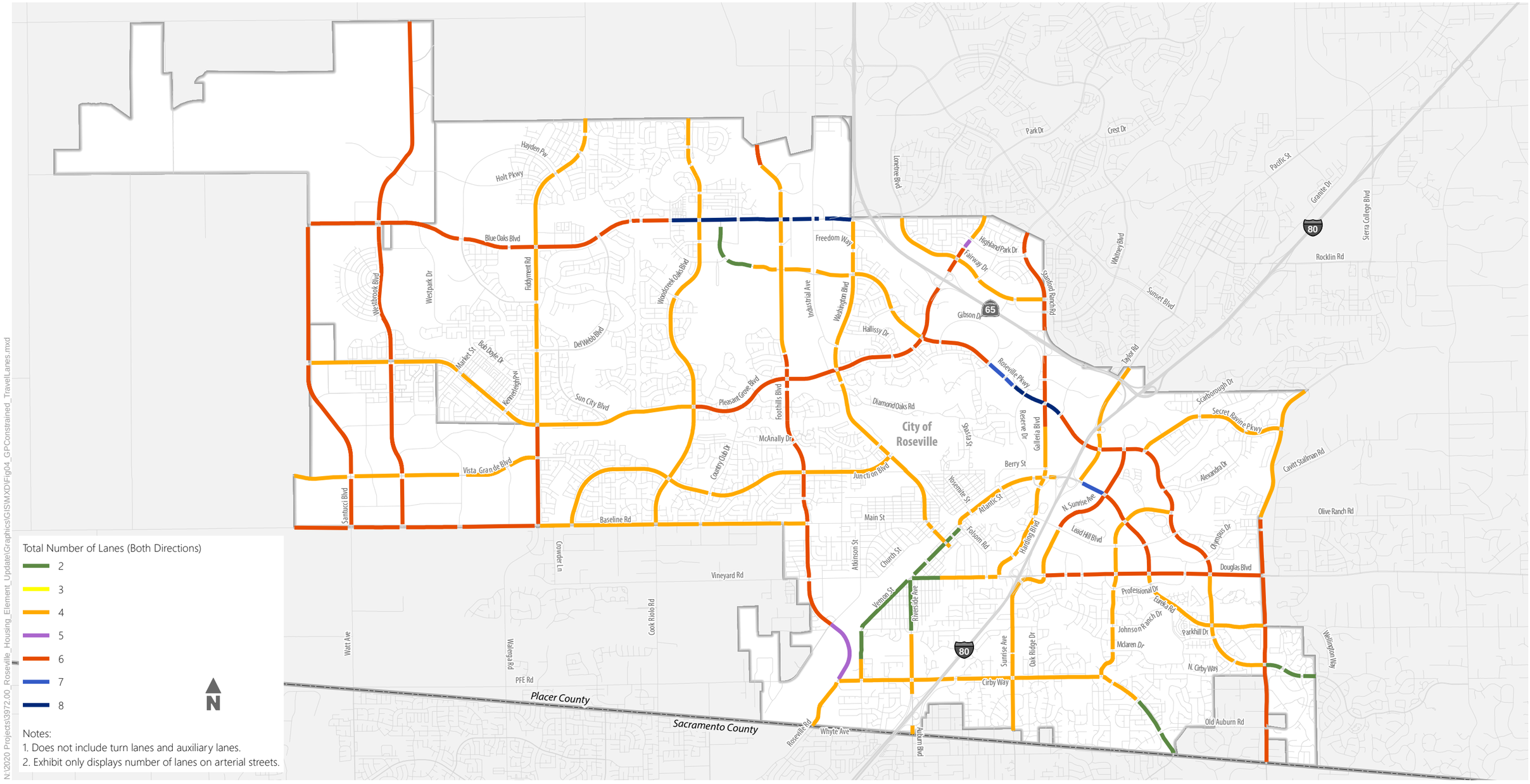
Roadway Network

The 2035 roadway network was based on the planned transportation improvements as outlined in the City of Roseville General Plan and shown in Figure 4 and Figure 5. Regional transportation network improvements as identified in the SACOG Metropolitan Transportation Plan (MTP) are also incorporated, including I-80 / SR 65 interchange improvements and construction of Placer Parkway.

Table 7: Future Year 2035 City of Roseville Land Use Totals

Land Use Type	Model Land Use ID	Units	City of Roseville Future Year 2035 Total	Growth from 2020
Single Family Residential	SFDU	Dwelling Units	51,452	+11,878
Multi-Family Residential	MFDU	Dwelling Units	19,971	+7,693
Age-Restricted Residential	ARDU	Dwelling Units	4,263	+123
Retail	RET	Thousand Square Feet (KSF)	17,684	+7,631
Mall	MALL	Thousand Square Feet (KSF)	1,755	+70
Office	OFF	Thousand Square Feet (KSF)	13,553	+5,050
Industrial	IND	Thousand Square Feet (KSF)	12,544	+5,119
High-Tech Industrial	HTI	Thousand Square Feet (KSF)	5,175	+1,739
Convention Center	CC	Thousand Square Feet (KSF)	0	+0
Church/Worship Center	CHURCH	Thousand Square Feet (KSF)	1,274	+288
Lodging	LODGE	Thousand Square Feet (KSF)	49	+2
Medical Office/Clinics	MED	Thousand Square Feet (KSF)	935	+0
Hospital	HOSP	Thousand Square Feet (KSF)	1,953	+0
Convalescent Home	CONV	Thousand Square Feet (KSF)	415	+62
Hotel[1]	HOTEL	Rooms	2,327	+405
Public/Quasi-Public Low	PQPL	Thousand Square Feet (KSF)	534	+212
Public/Quasi-Public High	PQPH	Thousand Square Feet (KSF)	1,379	+476
School (K-12)	SCHOOL	Students	33,230	+8,000
Golf Course	GOLF	Acres	812	+0
Park	PARK	Acres	1,486	+352
Cemetery	CEM	Acres	20	+0
Fairgrounds	FAIR	Acres	34	+5
University	UNIV	Students	0	+0

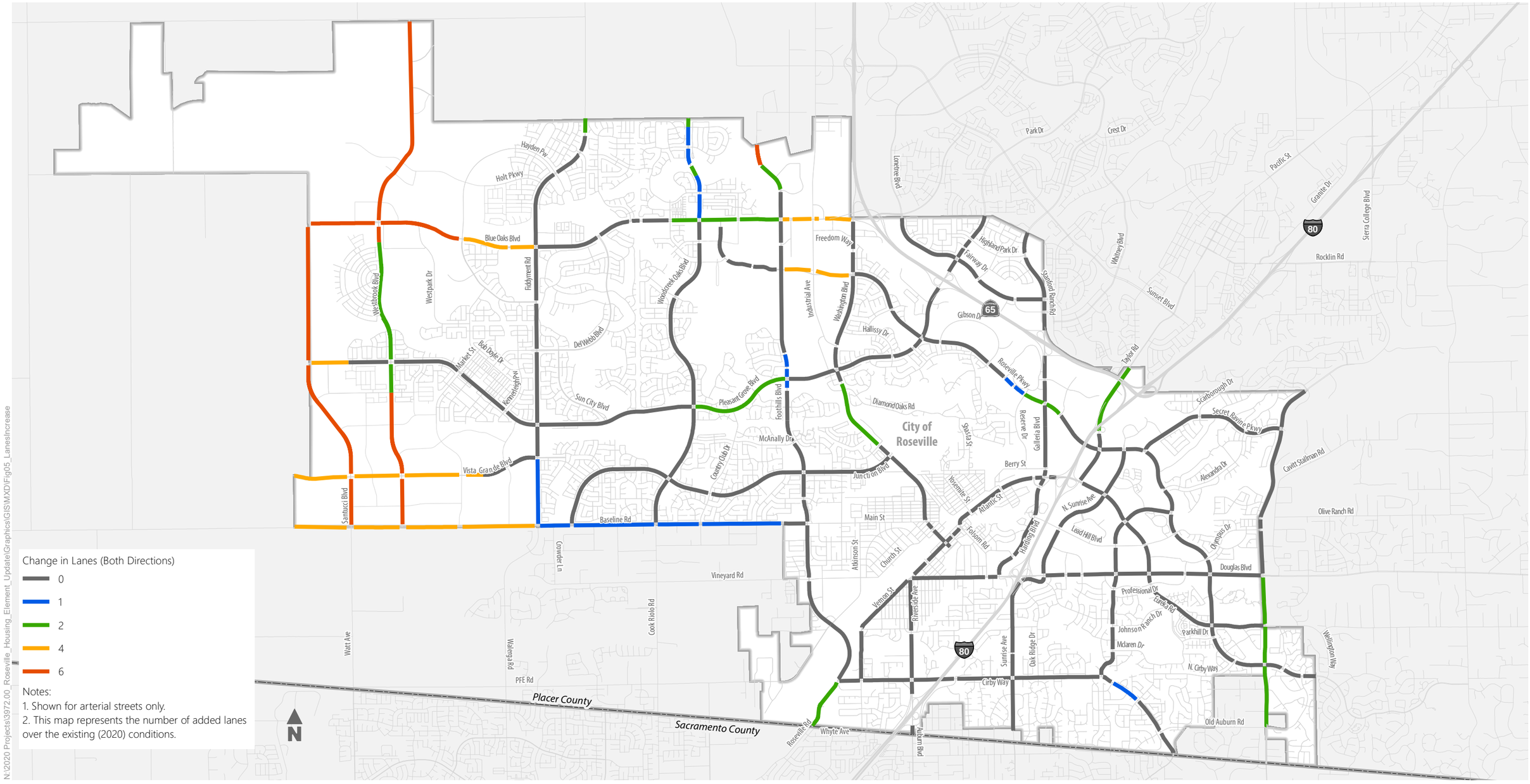
Note: [1]Additional hotels may be developed on parcels assumed as generic retail space.
Source: Fehr & Peers, 2021.



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Figure 4

Future Year (2035) Number of Travel Lanes


Change in Lanes (Both Directions)
0
1
2
4
6
Notes:
1. Shown for arterial streets only.
2. This map represents the number of added lanes over the existing (2020) conditions.
N
City of Roseville
Placer County
Sacramento County
Hayden Pw
Holt Pkwy
Blue Oaks Blvd
Westbrook Blvd
Westpark Dr
Fiddyment Rd
Woodcreek Oaks Blvd
Freedom Way
Industrial Ave
Washington Blvd
Del Webb Blvd
Market St
Bob Doyle Dr
Kenneth Ave
Sun City Blvd
Pleasant Grove Blvd
Foothills Blvd
McAnally Dr
Country Club Dr
Vista Grande Blvd
Santucci Blvd
Baseline Rd
Crowder Ln
Vineyard Rd
Watt Ave
Walerga Rd
PFE Rd
Cook Riolo Rd
Diamond Oaks Rd
Hallissy Dr
Gibson Dr
Roseville Pkwy
Reserve Dr
Galleria Blvd
Shasta St
Berry St
Junction Blvd
Yosemite St
Atlantic St
Main St
Church St
Atkinson St
Folsom Rd
Harding Blvd
Vernon St
Riverside Ave
Sunrise Ave
Oak Ridge Dr
Cirby Way
Roseville Rd
Whyte Ave
Auburn Blvd
N. Sunrise Ave
Lead Hill Blvd
Professional Dr
Eureka Rd
Johnson Ranch Dr
Mclaren Dr
Parkhill Dr
N. Cirby Way
Old Auburn Rd
Douglas Blvd
Olympus Dr
Alexandra Dr
Olive Ranch Rd
Cavitt Stallman Rd
Scarborough Dr
Secret Ravine Pkwy
Taylor Rd
Rocklin Rd
Sierra College Blvd
Granite Dr
Pacific St
Crest Dr
Park Dr
Loomis Blvd
Whitney Blvd
Sunset Blvd
Stanford Ranch Rd
Fairway Dr
Highland Park Dr
Wellington Way
65
80

Vehicle Miles Traveled

By definition, one vehicle mile traveled (VMT) occurs when one vehicle is driven on a roadway for one mile. Regardless of how many people are traveling in the vehicle, each vehicle traveling on a roadway generates one VMT for each mile it travels. For the purposes of this study, VMT is estimated and projected for a typical weekday. VMT values in this analysis represent the full length of a given trip and are not truncated at jurisdiction boundaries. Additionally, these VMT values are for trips beginning or ending in the City. Trips passing through the City without stopping are not included in these VMT estimates, as the City has little control over such trips.

VMT is used to measure performance of the existing transportation network and to evaluate potential transportation impacts. Although the absolute amount of VMT is reported, impact analysis is typically based on VMT normalized to population as "per resident" and "per service population" rates. VMT is often expressed as an efficiency metric, on a "per resident" ("per capita"), "per employee," or "per service population" basis to understand the relative efficiency of a project. These metrics provides a measure of travel efficiency and helps depict whether people are traveling more or less by vehicle over time, across different areas, or across different planning scenarios. A per resident or per service population decline in VMT over a baseline condition indicates that the transportation network is operating more efficiently, and that people have more travel choices.

Two measures of VMT are reported here.

- **Home-based production VMT** includes VMT for trips produced by a home's residents, such as to work, school, or shop, and with one end of the trip at the home.
- **Total VMT** includes home-based production VMT plus VMT from all other sources, including trips from homes outside the City into the City for work, shopping, or other purposes and trips with neither end at the home (such as from work to shopping).

Although the absolute amount of VMT is reported, VMT is also normalized to residents ("per capita") and per service population rates as described above.

The Roseville travel demand forecasting model was used to estimate VMT for the City. Inherent potential limitations exist when using current travel demand models for this purpose as rapid changes in travel behavior and transportation systems occur in response to emerging trends, new technologies, and evolving user preferences. Some of these new travel options and technologies are discussed below. Additionally, information about how technology is affecting travel is accumulating over time. Some of these emergent changes that could influence future travel forecasts include:

- Substitution of internet shopping and home delivery for some shopping or meal-related travel.
- Substitution of telework for commute travel.
- Other long-term changes in travel in response to the COVID-19 pandemic.

- New travel modes and choices. Transportation networking companies (TNCs such as Uber and Lyft), car share, bike share, scooter share, and on-demand micro transit have increased the travel options available to travelers and have contributed to changes in traditional travel demand relationships.
- Automated and connected vehicles.

Like most models, the Roseville travel demand model does not explicitly capture the above-mentioned new modes of travel and emerging trends in travel behavior. Significant uncertainties exist at the present time that prevent explicit modeling of these new modes and emerging trends.

The impact of new modes on individual and household travel behavior also is not fully understood and is the subject of ongoing research. Limitations on accessing utilization data directly from TNC vendors, in particular, constrains the ability to fully understand the impact of those services. Regulatory and legislative efforts to address the limits on access are underway in California and elsewhere, but these efforts will take time. Only a few household travel surveys (HTSs), including the 2018 SACOG HTS, have surveyed TNC use in detail, and the e-assist JUMP bikes were introduced partway through the 2018 SACOG HTS. Other major research studies focused on TNC use and TNC driver behavior have recently begun in California, but results are not yet available. Until this research is completed, there is no effective way to incorporate even the known new modes into travel demand models.

VMT estimates for Existing (2020) conditions are shown in Table 8 and for General Plan (2035) conditions are shown in Table 9. Total VMT, home-based production VMT and home-based production VMT per resident are shown by Specific Plan Area. The resident per dwelling unit rates from the General Plan Update were used to calculate the number of residents. Note that calculations include full length of trips, so that trips between two different Specific Plan Areas will be counted in each area. Therefore, the sum of VMT for each Specific Plan Area does not equal citywide VMT. In contrast, home-based production VMT for all Specific Plans Areas is nearly equal to the citywide total for this metric because home-to-home trips productions are rare. The length of those trips that leave the Planning Area are included in their entirety.

Based on these results, home-based production VMT per resident increased from 15.1 in 2014 (as reported in the General Plan Update EIR) to 15.7 in 2020. This result is consistent with the fact that 74 percent of the residential growth in the City over that time period occurred in the three specific pan areas (West Roseville, Sierra Vista, and North Roseville) with the highest home-based VMT per resident.

Table 8: VMT 2020 Existing Conditions

Specific Plan Area	Total VMT[1]	Home-Based Production VMT	Residents	Home-Based Production VMT / Resident
City of Roseville	**6,277,800**	**2,202,000**	**140,629**	**15.7**
Del Webb	80,900	47,400	4,804	9.9
Downtown	109,400	11,000	875	12.5
Highland Reserve North	310,100	55,400	4,330	12.8
Infill	1,752,800	593,400	41,657	14.2
North Central Roseville	954,700	135,100	11,224	12.0
North Industrial	717,100	55,200	3,204	17.2
North Roseville	353,800	269,000	14,302	18.8
Northeast Roseville	1,098,900	32,900	2,896	11.4
Northwest Roseville	578,700	365,000	23,355	15.6
Riverside Gateway	25,900	2,400	181	13.3
Sierra Vista	70,900	61,300	2,415	25.4
Southeast Roseville	370,100	99,100	7,688	12.9
Stoneridge	171,800	97,100	6,988	13.9
West Roseville	457,400	377,700	16,711	22.6

Note: [1]Total VMT calculations include full length of trips, so that trips between two different Specific Plan Areas will be counted in each area. Therefore, the sum of VMT for each Specific Plan Area exceeds citywide VMT.
Source: Fehr & Peers.

Home-based production VMT per resident in 2035 decreased from 15.5 VMT per resident as calculated for the General Plan Update EIR to 14.7 VMT per resident. This result is driven by shorter trip distances in the updated model, resulting in part from increased non-residential land use growth assumed in northwest Rocklin east of State Route 65.

Table 9: VMT 2035 General Plan Buildout Conditions

Specific Plan Area	Total VMT[1]	Home-Based Production VMT	Residents	Home-Based Production VMT / Resident
City of Roseville	**9,740,200**	**2,802,000**	**190,491**	**14.7**
Amoruso Ranch	261,400	150,800	7,756	19.4
Creekview	139,100	94,300	5,193	18.2
Del Webb	97,900	40,900	4,824	8.5
Downtown	254,100	26,700	2,386	11.2
Highland Reserve North	394,700	52,700	4,333	12.2
Infill	2,222,400	587,500	42,769	13.7
North Central Roseville	1,578,300	133,200	11,930	11.2
North Industrial	1,265,200	72,600	5,023	14.4
North Roseville	364,400	228,100	14,499	15.7
Northeast Roseville	1,343,900	42,800	3,804	11.2
Northwest Roseville	599,600	332,400	23,452	14.2
Riverside Gateway	65,100	3,400	290	11.8
Sierra Vista	848,200	375,800	22,410	16.8
Southeast Roseville	462,400	99,800	7,709	13.0
Stoneridge	217,900	96,900	7,074	13.7
West Roseville	753,300	464,100	27,039	17.2

Note: [1]Total VMT calculations include full length of trips, so that trips between two different Specific Plan Areas will be counted in each area. Therefore, the sum of VMT for each Specific Plan Area exceeds citywide VMT.
Source: Fehr & Peers.

A comparison of Table 8 and Table 9 shows that home-based VMT per resident decreases from 15.7 under 2020 conditions to 14.7 under 2035 conditions. This is caused by several factors including the placement of complementary (e.g., jobs, retail, recreational, etc.) land uses to support the large number of residences on the west side of the City.

Table 10 summarizes citywide VMT results, including both the per resident analysis presented above and also the service population analysis. The employees per land use rates from the General Plan Update were used to calculate the number of employees. As noted in the General Plan Update EIR, the service population analysis is provided for informational purposes, to provide a coarse assessment of how trips which are not home-based affect reported VMT efficiency. Precise methodologies for calculating this metric in traffic impact studies are still being developed and are therefore less reliable. The VMT per service population metric includes all per resident trips, but also includes all trips into or out of the City, even if these do not originate from a home in the City. The per service population metric provides another measure of travel efficiency and helps depict whether people are traveling by vehicle more or less over time and can also be used to compare the efficiency of different areas. The mix of residential land use and

employment land uses will affect the results of the analysis. When using service population methodology, the incremental addition of one added resident adds about 3.2 daily trips; in contrast, one added office employee adds about 4.4 trips and one added retail employee generates about 12 trips (added trips include trips by the resident/employee, as well as customers and others utilizing the development).[1] When daily trips are then converted into VMT by multiplying by the trip length, the same trend occurs.

This difference likely contributes to the increase in VMT per service population from 32.5 in 2020 to 35.1 in 2035. While the number of residents increases 35 percent over this period, the number of employees increases 54 percent. Additionally, with the additional employment land use, more employees and customers will be traveling from outside the City to inside it, increasing VMT per service population as described above, and overall VMT by 55 percent.

Table 10: Citywide VMT Summary

Measure	Service Population Methodology		Per Resident Methodology	
	2020	2035	2020	2035
VMT Produced	6,277,800	9,740,200	2,202,000	2,802,000
Residents	140,629	190,491	140,629	190,491
Employees	80,350	123,405	NA[1]	NA
Service Population	220,979	313,896	NA	NA
Efficiency Metric[2]	32.5	35.1	15.7	14.7

Note: [1]NA = not applicable
[2]Service population efficiency metric not directly calculable from VMT produced divided by service population.
Source: Fehr & Peers.

The VMT calculations accompanying this model update include improvements to the service population methodology used for the General Plan Update EIR. With the improved methodology, VMT per service population does not equal total VMT divided by service population; to keep VMT per service population for trips with both ends inside the area being measured comparable to those with one end inside the measured area and one outside, VMT for trips with both ends inside the City are counted twice. Trips with both the origin and destination internal to the City (II trips) have both the resident and employee as part of the City's service population. Trips with the origin but not the destination in the City (IX trips) have the resident as part of the service population, but not the employee at the destination. Trips with the destination but not the origin in the City (XI trips) have the employee but not the resident as part of the

[1] Calculated as follows:
- Residential: 8.6 daily trips per unit / 2.7 persons per unit = 3.2 trips per person (based on blended average of single-family and multi-family residential trip rates and average household size)
- Office: 17 daily trips per ksf / 4 employees per ksf = 4.4 trips per employee (City of Roseville model trip rate)
- Retail: 35 daily trips per ksf / 3 employees per ksf = 12 trips per employee (City of Roseville model trip rate)

service population. Counting VMT twice for II trips allows VMT per service population to be compared to that for IX and XI trips.

Service population calculations are provided in Appendix C, City of Roseville Service Population Estimates.

Appendix A:
City of Roseville Base Year (2020) TDF Model Land Use by TAZ

TAZ	JURISD	SUBAREA	SFDU	MFDU	ARDU	RET	MALL	OFF	IND	HTI	CC	CHURCH	LODGE	MED	HOSP	CONV	HOTEL	PQPL	PQPH	SCHOOL	GOLF	PARK	CEM	FAIR	UNIV
7	ROSEVILLE	Infill	229	50	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
8	ROSEVILLE	Infill	184	8	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	ROSEVILLE	Infill	133	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	ROSEVILLE	Infill	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	94	0	277	0	0	0	29	0
11	ROSEVILLE	Downtown	26	105	0	101	0	7	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
12	ROSEVILLE	Downtown	76	0	0	27	0	10	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0
13	ROSEVILLE	Infill	0	0	0	5	0	10	279	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	ROSEVILLE	Infill	158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	ROSEVILLE	Infill	282	27	0	0	0	0	48	0	0	3	0	0	0	0	0	0	0	0	0	3	0	0	0
16	ROSEVILLE	Infill	98	0	0	0	0	0	42	0	0	0	0	0	0	0	0	0	0	2192	0	0	19	0	0
17	ROSEVILLE	Infill	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	191	0	0	0	0
18	ROSEVILLE	Infill	187	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	413	0	0	0	0	0
19	ROSEVILLE	Infill	247	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0
20	ROSEVILLE	Infill	49	0	0	14	0	197	167	0	0	0	0	0	0	0	0	8	0	0	0	0	1	0	0
21	ROSEVILLE	Infill	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	117	0	0	0	0
22	ROSEVILLE	Infill	141	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	ROSEVILLE	Infill	205	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	ROSEVILLE	Infill	77	0	0	20	0	3	0	0	0	0	0	0	0	0	0	0	0	109	0	0	0	0	0
25	ROSEVILLE	Infill	169	31	0	34	0	1	0	0	0	49	0	0	0	0	0	1	0	0	0	13	0	0	0
26	ROSEVILLE	Infill	0	0	0	8	0	4	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	ROSEVILLE	Downtown	1	0	0	102	0	0	0	0	0	0	0	0	0	0	0	0	0	51	0	0	0	0	0
28	ROSEVILLE	Downtown	0	60	0	74	0	13	0	0	0	22	0	0	0	0	0	0	100	0	0	0	0	0	0
29	ROSEVILLE	Downtown	66	4	0	21	0	31	0	0	0	4	0	0	0	0	0	0	50	0	0	1	0	0	0
30	ROSEVILLE	Downtown	0	13	0	6	0	3	3	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0
31	ROSEVILLE	Infill	300	41	0	19	0	11	0	0	0	17	0	0	0	0	0	0	3	146	0	0	0	0	0
32	ROSEVILLE	Riverside Gatew	32	41	0	121	0	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	ROSEVILLE	Infill	263	77	0	5	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0
34	ROSEVILLE	Infill	227	62	0	3	0	1	38	0	0	8	2	0	0	0	0	0	0	0	0	1	0	0	0
35	ROSEVILLE	Infill	0	0	0	15	0	0	372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	ROSEVILLE	Infill	179	79	0	15	0	12	23	0	0	5	4	0	0	0	0	0	0	0	0	2	0	0	0
37	ROSEVILLE	Infill	371	30	0	9	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	ROSEVILLE	Infill	214	48	0	7	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	ROSEVILLE	Infill	201	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	ROSEVILLE	Infill	68	0	0	43	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0
41	ROSEVILLE	Infill	215	0	0	26	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42	ROSEVILLE	Infill	212	0	0	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	ROSEVILLE	Infill	0	0	0	234	0	119	232	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	ROSEVILLE	Infill	0	0	0	40	0	0	199	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0
45	ROSEVILLE	Infill	184	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	ROSEVILLE	Infill	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	ROSEVILLE	Infill	0	280	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48	ROSEVILLE	Infill	61	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	ROSEVILLE	Infill	0	0	0	5	0	0	78	0	0	0	0	0	0	0	0	0	0	208	0	0	0	0	0
50	ROSEVILLE	Infill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0
55	ROSEVILLE	Infill	0	0	0	186	0	32	0	0	0	0	0	0	0	0	97	0	0	0	0	0	0	0	0
56	ROSEVILLE	Infill	0	0	0	186	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57	ROSEVILLE	Infill	165	72	0	2	0	12	0	0	0	25	0	0	0	0	0	0	0	0	0	5	0	0	0
58	ROSEVILLE	Infill	112	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
59	ROSEVILLE	Infill	208	62	0	0	0	1	0	0	0	9	5	0	0	0	0	8	0	0	0	6	0	0	0
60	ROSEVILLE	Infill	0	0	0	41	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61	ROSEVILLE	Infill	3	0	0	24	0	2	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0
62	ROSEVILLE	Infill	100	0	0	3	0	7	0	0	0	0	0	0	0	0	0	0	0	130	0	3	0	0	0
63	ROSEVILLE	Infill	95	71	0	0	0	5	0	0	0	9	0	0	0	0	0	0	0	0	0	7	0	0	0
64	ROSEVILLE	Infill	282	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	380	0	11	0	0	0
65	ROSEVILLE	Infill	287	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	325	0	0	0	0	0
66	ROSEVILLE	Infill	75	128	0	0	0	0	58	0	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0
67	ROSEVILLE	Infill	0	0	0	105	0	62	136	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68	ROSEVILLE	Infill	0	0	0	0	0	0	0	0	0	0	0	0	150	0	0	0	0	0	0	0	0	0	0
69	ROSEVILLE	Infill	116	186	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	ROSEVILLE	Infill	0	0	0	60	0	42	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0
71	ROSEVILLE	Infill	119	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
72	ROSEVILLE	Infill	129	0	0	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
73	ROSEVILLE	Infill	141	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74	ROSEVILLE	Infill	74	0	0	0	0	0	0	0	0	28	0	0	0	0	0	0	0	0	0	4	0	0	0
75	ROSEVILLE	Infill	220	0	0	11	0	38	170	0	0	0	0	0	0	0	0	0	0	236	0	0	0	0	0
76	ROSEVILLE	Infill	6	0	0	0	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	ROSEVILLE	Infill	252	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	ROSEVILLE	Infill	0	126	0	0	0	62	0	0	0	0	0	0	0	0	0	0	0	1485	0	0	0	0	0

TAZ	JURISD	SUBAREA	SFDU	MFDU	ARDU	RET	MALL	OFF	IND	HTI	CC	CHURCH	LODGE	MED	HOSP	CONV	HOTEL	PQPL	PQPH	SCHOOL	GOLF	PARK	CEM	FAIR	UNIV
79	ROSEVILLE	Infill	0	228	0	59	0	43	0	0	0	0	0	4	0	0	247	5	0	0	0	0	0	0	0
80	ROSEVILLE	Infill	0	0	0	11	0	144	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81	ROSEVILLE	Infill	0	0	0	29	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
82	ROSEVILLE	Infill	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83	ROSEVILLE	Infill	25	72	0	8	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
84	ROSEVILLE	Infill	0	0	0	153	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	ROSEVILLE	Infill	178	314	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
86	ROSEVILLE	Infill	135	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87	ROSEVILLE	Infill	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88	ROSEVILLE	Infill	149	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	905	0	0	0	0	0
89	ROSEVILLE	Infill	182	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90	ROSEVILLE	Infill	86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
91	ROSEVILLE	Infill	132	0	0	0	0	4	0	0	0	6	0	0	0	40	0	0	0	502	0	5	0	0	0
92	ROSEVILLE	Infill	0	200	0	6	0	56	0	0	0	68	0	0	0	0	0	0	0	0	0	0	0	0	0
93	ROSEVILLE	Infill	152	218	0	17	0	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94	ROSEVILLE	Infill	104	292	0	22	0	0	0	0	0	0	0	0	0	43	0	0	0	0	0	4	0	0	0
95	ROSEVILLE	Infill	2	187	0	35	0	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	ROSEVILLE	Infill	0	0	0	91	0	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
97	ROSEVILLE	Infill	164	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98	ROSEVILLE	Infill	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99	ROSEVILLE	Infill	214	0	0	28	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0
100	ROSEVILLE	Infill	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101	ROSEVILLE	Infill	1	0	0	45	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102	ROSEVILLE	Infill	15	124	0	122	0	13	61	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0
103	ROSEVILLE	Infill	219	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
104	ROSEVILLE	Infill	3	0	0	27	0	53	0	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0
105	ROSEVILLE	Infill	158	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
108	ROSEVILLE	Infill	0	0	0	80	0	0	50	0	0	0	1	0	0	0	0	5	0	0	0	0	0	0	0
109	ROSEVILLE	Infill	158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	ROSEVILLE	Infill	219	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111	ROSEVILLE	Infill	186	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
112	ROSEVILLE	Infill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2131	0	0	0	0	0
113	ROSEVILLE	Infill	570	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	478	0	0	0	0	0
114	ROSEVILLE	Infill	239	236	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115	ROSEVILLE	Infill	153	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0
116	ROSEVILLE	Infill	184	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
117	ROSEVILLE	Infill	6	128	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
118	ROSEVILLE	Infill	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
119	ROSEVILLE	Infill	196	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	447	0	5	0	0	0
120	ROSEVILLE	Infill	226	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
121	ROSEVILLE	Infill	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
128	ROSEVILLE	Infill	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
129	ROSEVILLE	Infill	97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130	ROSEVILLE	Infill	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131	ROSEVILLE	Infill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	124	0	0	0
132	ROSEVILLE	Infill	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
133	ROSEVILLE	Infill	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
134	ROSEVILLE	Infill	0	0	0	68	0	26	0	0	0	0	0	0	0	0	179	0	0	0	0	0	0	0	0
135	ROSEVILLE	Infill	0	0	0	117	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
136	ROSEVILLE	Infill	0	0	0	153	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
137	ROSEVILLE	Infill	0	0	0	215	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0
138	ROSEVILLE	Infill	0	0	0	166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
139	ROSEVILLE	Infill	0	0	0	0	0	211	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
140	ROSEVILLE	Infill	0	0	0	27	0	205	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141	ROSEVILLE	Infill	0	0	0	9	0	22	142	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
142	ROSEVILLE	Northeast	254	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
144	ROSEVILLE	Infill	1	0	0	119	0	7	200	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0
150	ROSEVILLE	Northwest	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	331	0	0	0	0	0
151	ROSEVILLE	Northwest	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
152	ROSEVILLE	Northwest	242	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0
153	ROSEVILLE	Northwest	123	103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
154	ROSEVILLE	Northwest	0	0	0	128	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155	ROSEVILLE	Northwest	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0
156	ROSEVILLE	Northwest	239	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
157	ROSEVILLE	Northwest	220	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
158	ROSEVILLE	Northwest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	581	0	7	0	0	0
159	ROSEVILLE	Northwest	205	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
160	ROSEVILLE	Northwest	249	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TAZ	JURISD	SUBAREA	SFDU	MFDU	ARDU	RET	MALL	OFF	IND	HTI	CC	CHURCH	LODGE	MED	HOSP	CONV	HOTEL	PQPL	PQPH	SCHOOL	GOLF	PARK	CEM	FAIR	UNIV
161	ROSEVILLE	Northwest	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
162	ROSEVILLE	Northwest	71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
163	ROSEVILLE	Northwest	178	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
164	ROSEVILLE	Northwest	0	328	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165	ROSEVILLE	Northwest	76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
166	ROSEVILLE	Northwest	165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
167	ROSEVILLE	Northwest	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
168	ROSEVILLE	Northwest	389	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0
169	ROSEVILLE	Northwest	122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170	ROSEVILLE	Northwest	0	0	0	2	0	0	97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
171	ROSEVILLE	Northwest	71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
172	ROSEVILLE	Northwest	205	334	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
173	ROSEVILLE	Northwest	0	319	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
174	ROSEVILLE	Northwest	186	173	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0
175	ROSEVILLE	Northwest	0	0	0	93	0	4	0	0	0	0	0	0	0	106	0	0	0	0	0	0	0	0	0
176	ROSEVILLE	Northwest	0	416	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
177	ROSEVILLE	Northwest	299	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
178	ROSEVILLE	Northwest	0	0	0	43	0	103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
179	ROSEVILLE	Northwest	0	0	0	200	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0
180	ROSEVILLE	Northwest	183	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
181	ROSEVILLE	Northwest	210	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
182	ROSEVILLE	Northwest	241	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0
183	ROSEVILLE	Northwest	175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
184	ROSEVILLE	Northwest	0	268	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
185	ROSEVILLE	Northwest	195	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0
186	ROSEVILLE	Northwest	0	0	0	25	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
187	ROSEVILLE	Northwest	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
188	ROSEVILLE	Northwest	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0
189	ROSEVILLE	Northwest	321	185	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
190	ROSEVILLE	Northwest	186	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	248	3	0	0	0
191	ROSEVILLE	Northwest	83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	0	0	0	0
192	ROSEVILLE	Northwest	333	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
193	ROSEVILLE	Northwest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
194	ROSEVILLE	Northwest	85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
195	ROSEVILLE	Northwest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2135	0	0	0	0	0
196	ROSEVILLE	Northwest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	982	0	8	0	0	0
197	ROSEVILLE	Northwest	89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
198	ROSEVILLE	Northwest	275	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200	ROSEVILLE	Northwest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84	0	0	0
201	ROSEVILLE	Northwest	447	80	0	89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
202	ROSEVILLE	Northwest	429	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	597	0	5	0	0	0
203	ROSEVILLE	North Ind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
204	ROSEVILLE	North Ind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
205	ROSEVILLE	Del Webb	0	100	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0
206	ROSEVILLE	North Ind	0	0	0	0	0	308	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
207	ROSEVILLE	Del Webb	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0
208	ROSEVILLE	North Ind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
209	ROSEVILLE	North Ind	0	176	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0
210	ROSEVILLE	North Cen	0	0	0	89	0	0	0	0	0	0	0	0	0	0	209	0	0	0	0	0	0	0	0
211	ROSEVILLE	North Cen	248	0	0	350	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
212	ROSEVILLE	North Cen	0	0	0	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
213	ROSEVILLE	North Cen	101	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
214	ROSEVILLE	North Cen	367	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
215	ROSEVILLE	North Cen	255	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	410	0	24	0	0	0
216	ROSEVILLE	North Cen	0	0	0	128	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
217	ROSEVILLE	North Cen	121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	934	0	8	0	0	0
218	ROSEVILLE	North Cen	228	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
219	ROSEVILLE	North Cen	149	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220	ROSEVILLE	North Cen	216	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	1	0	0	0
221	ROSEVILLE	North Cen	0	184	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222	ROSEVILLE	North Cen	0	602	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
223	ROSEVILLE	North Cen	0	272	0	0	0	291	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224	ROSEVILLE	North Cen	0	0	0	15	0	0	0	0	0	0	0	0	0	0	151	0	0	0	0	0	0	0	0
225	ROSEVILLE	North Cen	197	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	553	1	6	0	0	0
226	ROSEVILLE	North Cen	0	236	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	0	0	0
227	ROSEVILLE	North Cen	204	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
228	ROSEVILLE	North Cen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
229	ROSEVILLE	North Cen	0	0	0	326	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TAZ	JURISD	SUBAREA	SFDU	MFDU	ARDU	RET	MALL	OFF	IND	HTI	CC	CHURCH	LODGE	MED	HOSP	CONV	HOTEL	PQPL	PQPH	SCHOOL	GOLF	PARK	CEM	FAIR	UNIV
230	ROSEVILLE	North Cen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231	ROSEVILLE	North Cen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
232	ROSEVILLE	North Cen	0	0	0	624	0	883	0	0	0	0	0	0	0	0	200	0	0	0	0	0	0	0	0
233	ROSEVILLE	North Cen	0	560	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0
234	ROSEVILLE	North Cen	0	0	0	22	1685	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
237	ROSEVILLE	Highlands	0	0	0	286	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
238	ROSEVILLE	Highlands	0	0	0	351	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
239	ROSEVILLE	Highlands	0	0	0	134	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
240	ROSEVILLE	Highlands	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	444	0	0	0	0	0
241	ROSEVILLE	Highlands	0	244	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
242	ROSEVILLE	Highlands	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
243	ROSEVILLE	Highlands	119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
244	ROSEVILLE	Highlands	0	0	0	0	0	0	0	0	0	125	0	0	0	0	0	0	0	0	0	0	0	0	0
245	ROSEVILLE	Highlands	174	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
246	ROSEVILLE	Highlands	77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
247	ROSEVILLE	Highlands	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
248	ROSEVILLE	North Cen	0	0	0	405	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
249	ROSEVILLE	Highlands	0	0	0	147	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
250	ROSEVILLE	Northeast	0	0	0	257	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
251	ROSEVILLE	Northeast	0	0	0	151	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
252	ROSEVILLE	Northeast	0	0	0	535	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253	ROSEVILLE	Northeast	0	0	0	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
254	ROSEVILLE	Northeast	0	0	0	161	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
255	ROSEVILLE	Northeast	0	0	0	294	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
256	ROSEVILLE	Northeast	0	0	0	0	0	0	0	0	0	0	0	434	962	0	0	0	0	0	0	0	0	0	0
257	ROSEVILLE	Northeast	0	0	0	13	0	345	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
258	ROSEVILLE	Northeast	0	0	0	41	0	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
259	ROSEVILLE	Northeast	0	0	0	149	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
260	ROSEVILLE	Northeast	0	0	0	0	0	727	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
261	ROSEVILLE	Northeast	0	0	0	0	0	216	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
262	ROSEVILLE	Northeast	0	0	0	18	0	258	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
263	ROSEVILLE	Northeast	0	465	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
264	ROSEVILLE	Northeast	0	0	0	0	0	296	0	0	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0
267	ROSEVILLE	Northeast	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0
268	ROSEVILLE	Northeast	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	491	0	0	0	0	0
270	ROSEVILLE	Northeast	0	0	0	48	0	108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
271	ROSEVILLE	Northeast	0	0	0	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
272	ROSEVILLE	Northeast	0	0	0	13	0	0	0	0	0	0	0	0	0	0	500	0	0	0	0	0	0	0	0
273	ROSEVILLE	Northeast	0	28	0	5	0	251	0	0	0	0	0	475	841	0	0	0	0	0	0	0	0	0	0
275	ROSEVILLE	Stoneridg	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
281	ROSEVILLE	Southeast	0	0	0	149	0	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
282	ROSEVILLE	Southeast	0	0	0	0	0	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
283	ROSEVILLE	Southeast	0	319	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
284	ROSEVILLE	Southeast	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
285	ROSEVILLE	Southeast	0	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	411	0	15	0	0	0
286	ROSEVILLE	Southeast	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0
287	ROSEVILLE	Southeast	0	0	0	0	0	458	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
288	ROSEVILLE	Southeast	0	262	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0
289	ROSEVILLE	Southeast	137	0	0	0	0	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
290	ROSEVILLE	Southeast	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
291	ROSEVILLE	Southeast	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
292	ROSEVILLE	Southeast	92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
293	ROSEVILLE	Southeast	106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
294	ROSEVILLE	Southeast	0	0	0	0	0	346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
295	ROSEVILLE	Southeast	0	612	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
296	ROSEVILLE	Southeast	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
297	ROSEVILLE	Southeast	0	0	0	227	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
298	ROSEVILLE	Southeast	0	56	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	501	0	15	0	0	0
299	ROSEVILLE	Southeast	87	0	0	0	0	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300	ROSEVILLE	Southeast	146	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
301	ROSEVILLE	Southeast	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
302	ROSEVILLE	Southeast	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
303	ROSEVILLE	Southeast	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
304	ROSEVILLE	Southeast	7	0	0	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
305	ROSEVILLE	Southeast	0	0	0	33	0	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
306	ROSEVILLE	Southeast	178	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0
307	ROSEVILLE	Southeast	121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
308	ROSEVILLE	Southeast	121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0

TAZ	JURISD	SUBAREA	SFDU	MFDU	ARDU	RET	MALL	OFF	IND	HTI	CC	CHURCH	LODGE	MED	HOSP	CONV	HOTEL	PQPL	PQPH	SCHOOL	GOLF	PARK	CEM	FAIR	UNIV
309	ROSEVILLE	Southeast	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
310	ROSEVILLE	Southeast	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
311	ROSEVILLE	Southeast	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0
312	ROSEVILLE	Southeast	208	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
313	ROSEVILLE	Del Webb	0	0	468	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	9	0	0	0
314	ROSEVILLE	Del Webb	0	0	496	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	0	0	0	0
315	ROSEVILLE	Del Webb	0	0	482	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	78	2	0	0	0
316	ROSEVILLE	Del Webb	0	0	172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0
317	ROSEVILLE	Del Webb	0	0	322	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0
318	ROSEVILLE	Del Webb	0	0	395	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	154	0	0	0
319	ROSEVILLE	Del Webb	0	0	774	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	9	0	0	0
320	ROSEVILLE	Infill	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
321	ROSEVILLE	North Ind	0	0	0	46	0	96	198	40	0	0	0	0	0	0	0	0	17	0	0	0	0	0	0
322	ROSEVILLE	North Ind	0	0	0	0	0	2	348	143	0	231	0	0	0	0	0	0	0	0	0	0	0	0	0
323	ROSEVILLE	North Ind	0	0	0	0	0	0	1557	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324	ROSEVILLE	North Ind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	129	0	0	0	0	0	0	0
325	ROSEVILLE	North Ind	0	0	0	0	0	0	780	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
326	ROSEVILLE	North Ind	0	0	0	0	0	0	0	1141	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
327	ROSEVILLE	North Ind	0	0	0	0	0	0	308	304	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
328	ROSEVILLE	North Ind	0	0	0	21	0	0	539	3	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0
329	ROSEVILLE	North Ind	0	0	0	0	0	0	0	317	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
330	ROSEVILLE	North Ind	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
331	ROSEVILLE	North Ind	0	0	0	0	0	0	0	1216	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
332	ROSEVILLE	North Ind	0	0	0	15	0	179	813	139	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0
333	ROSEVILLE	North Ind	148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
877	ROSEVILLE	Stoneridg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0
879	ROSEVILLE	Stoneridg	0	0	0	45	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0
880	ROSEVILLE	Stoneridg	0	0	0	0	0	0	0	0	0	0	0	10	0	75	0	8	0	0	0	0	0	0	0
881	ROSEVILLE	Stoneridg	159	274	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
882	ROSEVILLE	Stoneridg	159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0	0	0
883	ROSEVILLE	Stoneridg	346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
884	ROSEVILLE	Stoneridg	0	156	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0
885	ROSEVILLE	Stoneridg	0	0	0	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
886	ROSEVILLE	Stoneridg	295	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
887	ROSEVILLE	Stoneridg	127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0
888	ROSEVILLE	Stoneridg	369	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0
889	ROSEVILLE	Stoneridg	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	645	0	8	0	0	0
890	ROSEVILLE	Stoneridg	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
891	ROSEVILLE	Stoneridg	67	230	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
892	ROSEVILLE	Stoneridg	91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
893	ROSEVILLE	Stoneridg	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
894	ROSEVILLE	Stoneridg	93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
900	ROSEVILLE	Highlands	242	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
901	ROSEVILLE	Highlands	167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
902	ROSEVILLE	Highlands	145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
903	ROSEVILLE	Highlands	64	167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
904	ROSEVILLE	Highlands	96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
905	ROSEVILLE	Highlands	0	0	0	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
906	ROSEVILLE	Highlands	0	0	0	40	0	0	0	0	0	0	0	0	0	0	239	0	0	0	0	0	0	0	0
907	ROSEVILLE	Highlands	0	0	0	258	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
908	ROSEVILLE	North Ros	393	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	586	0	4	0	0	0
909	ROSEVILLE	North Ros	108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
910	ROSEVILLE	North Ros	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
911	ROSEVILLE	North Ros	0	0	277	0	0	0	0	0	0	0	0	0	0	89	0	0	0	0	0	0	0	0	0
912	ROSEVILLE	North Ros	215	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
913	ROSEVILLE	North Ros	115	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914	ROSEVILLE	North Ros	102	0	0	21	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0
915	ROSEVILLE	North Ros	0	131	0	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
916	ROSEVILLE	North Ros	103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
917	ROSEVILLE	North Ros	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	882	0	3	0	0	0
918	ROSEVILLE	North Ros	203	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
919	ROSEVILLE	North Ros	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
920	ROSEVILLE	North Ros	291	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	479	0	26	0	0	0
921	ROSEVILLE	North Ros	136	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0
922	ROSEVILLE	North Ros	139	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
923	ROSEVILLE	North Ros	71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
924	ROSEVILLE	North Ros	149	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925	ROSEVILLE	North Ros	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0

TAZ	JURISD	SUBAREA	SFDU	MFDU	ARDU	RET	MALL	OFF	IND	HTI	CC	CHURCH	LODGE	MED	HOSP	CONV	HOTEL	PQPL	PQPH	SCHOOL	GOLF	PARK	CEM	FAIR	UNIV
926	ROSEVILLE	North Ros	99	0	49	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
927	ROSEVILLE	North Ros	92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
928	ROSEVILLE	North Ros	286	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
929	ROSEVILLE	North Ros	190	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
930	ROSEVILLE	North Ros	354	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	756	0	12	0	0	0
931	ROSEVILLE	North Ros	203	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
932	ROSEVILLE	North Ros	102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
933	ROSEVILLE	North Ros	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
934	ROSEVILLE	North Ros	0	0	0	0	0	0	0	0	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0
935	ROSEVILLE	North Ros	129	222	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
936	ROSEVILLE	North Ros	170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
937	ROSEVILLE	North Ros	282	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0
938	ROSEVILLE	North Ros	364	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
939	ROSEVILLE	North Ros	73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
940	ROSEVILLE	North Ros	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1065	ROSEVILLE	North Ind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1066	ROSEVILLE	North Ind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1100	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1101	ROSEVILLE	West Rose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1102	ROSEVILLE	West Rose	422	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	694	0	2	0	0	0
1103	ROSEVILLE	West Rose	289	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1104	ROSEVILLE	West Rose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1105	ROSEVILLE	West Rose	161	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
1106	ROSEVILLE	West Rose	167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1107	ROSEVILLE	West Rose	224	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1109	ROSEVILLE	Infill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0
1110	ROSEVILLE	West Rose	0	156	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	1	0	0	0
1111	ROSEVILLE	West Rose	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0
1112	ROSEVILLE	West Rose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	96	0	0	0
1113	ROSEVILLE	West Rose	306	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	871	0	0	0	0	0
1114	ROSEVILLE	West Rose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1115	ROSEVILLE	West Rose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44	0	0	0
1116	ROSEVILLE	West Rose	192	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1117	ROSEVILLE	West Rose	303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1118	ROSEVILLE	West Rose	256	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0
1119	ROSEVILLE	West Rose	216	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1120	ROSEVILLE	West Rose	262	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
1121	ROSEVILLE	West Rose	176	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
1122	ROSEVILLE	West Rose	251	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	979	0	8	0	0	0
1123	ROSEVILLE	West Rose	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1124	ROSEVILLE	West Rose	284	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1125	ROSEVILLE	West Rose	194	152	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	17	0	0	0
1126	ROSEVILLE	West Rose	226	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
1127	ROSEVILLE	West Rose	0	0	326	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0
1128	ROSEVILLE	West Rose	0	0	378	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1129	ROSEVILLE	West Rose	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1130	ROSEVILLE	West Rose	232	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
1131	ROSEVILLE	North Ind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	384	0	0	0	0	0
1132	ROSEVILLE	North Ind	0	0	0	0	0	0	293	133	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1188	ROSEVILLE	Infill	63	0	0	6	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1189	ROSEVILLE	North Ind	351	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0
1198	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1199	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1200	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1201	ROSEVILLE	Infill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1202	ROSEVILLE	Sierra Vista	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1203	ROSEVILLE	Sierra Vista	142	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1204	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1205	ROSEVILLE	Sierra Vista	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1206	ROSEVILLE	Sierra Vista	209	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1207	ROSEVILLE	Sierra Vista	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1208	ROSEVILLE	Sierra Vista	84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1209	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1210	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1211	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1224	ROSEVILLE	North Cen	0	259	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1225	ROSEVILLE	North Cen	0	0	0	17	0	15	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
1226	ROSEVILLE	North Cen	0	0	0	0	0	89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TAZ	JURISD	SUBAREA	SFDU	MFDU	ARDU	RET	MALL	OFF	IND	HTI	CC	CHURCH	LODGE	MED	HOSP	CONV	HOTEL	PQPL	PQPH	SCHOOL	GOLF	PARK	CEM	FAIR	UNIV
1227	ROSEVILLE	North Ind	144	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1228	ROSEVILLE	North Ind	400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
1229	ROSEVILLE	North Ind	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1230	ROSEVILLE	North Cen	0	0	0	58	0	229	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1231	ROSEVILLE	Northeast	0	0	0	0	0	282	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1232	ROSEVILLE	Northeast	186	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
1233	ROSEVILLE	Northeast	0	0	0	0	0	226	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1294	ROSEVILLE	Infill	0	0	0	0	0	83	81	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0
1295	ROSEVILLE	Infill	0	0	0	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1296	ROSEVILLE	North Cen	0	0	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1297	ROSEVILLE	North Cen	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1298	ROSEVILLE	Infill	83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1299	ROSEVILLE	Sierra Vista	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1312	ROSEVILLE	Sierra Vista	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1313	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1314	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1315	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1316	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1317	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1318	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1319	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1331	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1332	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1333	ROSEVILLE	Sierra Vista	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1334	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1335	ROSEVILLE	Amoruso	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1336	ROSEVILLE	Amoruso	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1337	ROSEVILLE	Amoruso	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1338	ROSEVILLE	Amoruso	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1339	ROSEVILLE	Amoruso	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1340	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1341	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1342	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1343	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1344	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1345	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1346	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1347	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1348	ROSEVILLE	Sierra Vista	154	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1349	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1350	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1351	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1353	ROSEVILLE	Amoruso	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1354	ROSEVILLE	Amoruso	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1355	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1356	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1357	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1358	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1359	ROSEVILLE	Sierra Vista	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1400	ROSEVILLE	Amoruso	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1424	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1499	ROSEVILLE	Amoruso	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1502	ROSEVILLE	Infill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1503	ROSEVILLE	Creekview	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1504	ROSEVILLE	Creekview	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1505	ROSEVILLE	Creekview	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1506	ROSEVILLE	Creekview	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1507	ROSEVILLE	Creekview	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1508	ROSEVILLE	Creekview	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1509	ROSEVILLE	Creekview	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1510	ROSEVILLE	Creekview	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1511	ROSEVILLE	Creekview	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1512	ROSEVILLE	Creekview	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1513	ROSEVILLE	Creekview	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1514	ROSEVILLE	Creekview	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1515	ROSEVILLE	Creekview	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1516	ROSEVILLE	Creekview	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1517	ROSEVILLE	Creekview	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TAZ	JURISD	SUBAREA	SFDU	MFDU	ARDU	RET	MALL	OFF	IND	HTI	CC	CHURCH	LODGE	MED	HOSP	CONV	HOTEL	PQPL	PQPH	SCHOOL	GOLF	PARK	CEM	FAIR	UNIV
1518	ROSEVILLE	Creekview	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1519	ROSEVILLE	Creekview	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1520	ROSEVILLE	Creekview	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1521	ROSEVILLE	Creekview	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1522	ROSEVILLE	Creekview	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1523	ROSEVILLE	Amoruso	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1524	ROSEVILLE	Amoruso	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1525	ROSEVILLE	Amoruso	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1526	ROSEVILLE	Amoruso	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1527	ROSEVILLE	Amoruso	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1528	ROSEVILLE	Amoruso	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1529	ROSEVILLE	Amoruso	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1542	ROSEVILLE	North Cen	217	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
1558	ROSEVILLE	Amoruso	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1573	ROSEVILLE	West Rose	258	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	762	0	0	0	0	0
1574	ROSEVILLE	West Rose	198	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0
1575	ROSEVILLE	West Rose	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1576	ROSEVILLE	West Rose	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1577	ROSEVILLE	West Rose	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1578	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1581	ROSEVILLE	West Rose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1582	ROSEVILLE	West Rose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1583	ROSEVILLE	West Rose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1584	ROSEVILLE	West Rose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1585	ROSEVILLE	West Rose	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1586	ROSEVILLE	West Rose	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1587	ROSEVILLE	West Rose	89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1588	ROSEVILLE	West Rose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1589	ROSEVILLE	West Rose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Appendix B:
City of Roseville Future Year (2035) TDF Model Land Use by TAZ

TAZ	JURISD	SUBAREA	SFDU	MFDU	ARDU	RET	MALL	OFF	IND	HTI	CC	CHURCH	LODGE	MED	HOSP	CONV	HOTEL	PQPL	PQPH	SCHOOL	GOLF	PARK	CEM	FAIR	UNIV
7	ROSEVILLE	Infill	229	74	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
8	ROSEVILLE	Infill	187	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	ROSEVILLE	Infill	133	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	ROSEVILLE	Infill	13	0	0	0	0	0	30	0	0	0	0	0	0	0	0	217	0	277	0	0	0	34	0
11	ROSEVILLE	Downtown	26	105	0	147	0	7	0	0	0	13	6	0	0	0	0	2	0	0	0	0	0	0	0
12	ROSEVILLE	Downtown	71	59	0	30	0	8	0	0	0	0	0	0	0	0	14	9	0	0	0	0	0	0	0
13	ROSEVILLE	Infill	0	0	0	5	0	0	318	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	ROSEVILLE	Infill	159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	ROSEVILLE	Infill	279	27	0	0	0	0	46	0	0	3	0	0	0	0	0	0	0	0	0	3	0	0	0
16	ROSEVILLE	Infill	96	0	0	0	0	0	42	0	0	0	0	0	0	0	0	0	0	2192	0	0	19	0	0
17	ROSEVILLE	Infill	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	191	0	0	0	0
18	ROSEVILLE	Infill	193	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	413	0	0	0	0	0
19	ROSEVILLE	Infill	249	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0
20	ROSEVILLE	Infill	49	0	0	14	0	197	197	0	0	0	0	0	0	0	0	8	0	0	0	0	1	0	0
21	ROSEVILLE	Infill	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	117	0	0	0	0
22	ROSEVILLE	Infill	142	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	ROSEVILLE	Infill	204	1	0	0	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	ROSEVILLE	Infill	70	55	0	19	0	3	0	0	0	10	0	0	0	0	0	0	0	109	0	0	0	0	0
25	ROSEVILLE	Infill	167	57	0	37	0	1	0	0	0	49	0	0	0	0	0	1	0	0	0	14	0	0	0
26	ROSEVILLE	Infill	0	0	0	11	0	4	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	ROSEVILLE	Downtown	2	19	0	145	0	57	0	0	0	0	0	0	0	0	0	0	91	0	0	0	0	0	0
28	ROSEVILLE	Downtown	0	102	0	124	0	199	0	0	0	22	0	0	0	0	0	0	100	0	0	0	0	0	0
29	ROSEVILLE	Downtown	70	337	0	72	0	185	0	0	0	4	0	0	0	0	0	0	104	0	0	1	0	0	0
30	ROSEVILLE	Downtown	14	195	0	31	0	53	8	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0
31	ROSEVILLE	Infill	324	70	0	66	0	10	0	0	0	17	0	0	0	0	0	0	3	146	0	0	0	0	0
32	ROSEVILLE	Riverside Gatew	13	110	0	214	0	143	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	ROSEVILLE	Infill	263	77	0	6	0	0	2	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0
34	ROSEVILLE	Infill	228	75	0	14	0	1	51	0	0	12	2	0	0	0	0	0	0	0	0	1	0	0	0
35	ROSEVILLE	Infill	0	0	0	15	0	0	372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	ROSEVILLE	Infill	178	134	0	26	0	13	18	0	0	14	4	0	0	0	0	0	0	0	0	2	0	0	0
37	ROSEVILLE	Infill	363	30	0	11	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	ROSEVILLE	Infill	233	68	0	6	0	0	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	ROSEVILLE	Infill	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	ROSEVILLE	Infill	68	0	0	71	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0
41	ROSEVILLE	Infill	215	0	0	50	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42	ROSEVILLE	Infill	224	0	0	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	ROSEVILLE	Infill	0	0	0	216	0	114	399	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	ROSEVILLE	Infill	0	0	0	40	0	0	199	0	0	18	9	0	0	0	0	0	0	0	0	0	0	0	0
45	ROSEVILLE	Infill	184	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	ROSEVILLE	Infill	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	ROSEVILLE	Infill	0	280	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48	ROSEVILLE	Infill	61	0	0	23	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	ROSEVILLE	Infill	0	0	0	5	0	0	412	0	0	0	0	0	0	0	0	0	0	344	0	0	0	0	0
50	ROSEVILLE	Infill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	0	0	0	0	0
55	ROSEVILLE	Infill	0	0	0	251	0	17	0	0	0	0	0	0	0	0	97	0	0	0	0	0	0	0	0
56	ROSEVILLE	Infill	0	0	0	202	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57	ROSEVILLE	Infill	173	72	0	2	0	16	0	0	0	25	0	0	0	0	0	0	0	0	0	5	0	0	0
58	ROSEVILLE	Infill	114	22	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0
59	ROSEVILLE	Infill	204	112	0	0	0	1	0	0	0	19	5	0	0	0	0	8	0	0	0	26	0	0	0
60	ROSEVILLE	Infill	0	0	0	73	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61	ROSEVILLE	Infill	2	1	0	26	0	2	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0
62	ROSEVILLE	Infill	100	2	0	3	0	7	0	0	0	0	0	0	0	0	0	0	0	130	0	3	0	0	0
63	ROSEVILLE	Infill	94	72	0	0	0	5	0	0	0	9	0	0	0	0	0	0	0	0	0	7	0	0	0
64	ROSEVILLE	Infill	282	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	380	0	11	0	0	0
65	ROSEVILLE	Infill	288	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	325	0	0	0	0	0
66	ROSEVILLE	Infill	97	128	0	0	0	0	58	0	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0
67	ROSEVILLE	Infill	6	0	0	183	0	62	162	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68	ROSEVILLE	Infill	0	0	0	0	0	0	0	0	0	0	0	0	150	0	0	0	0	0	0	0	0	0	0
69	ROSEVILLE	Infill	115	186	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	ROSEVILLE	Infill	0	0	0	60	0	38	0	0	0	14	7	0	0	0	0	0	0	0	0	0	0	0	0
71	ROSEVILLE	Infill	125	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
72	ROSEVILLE	Infill	129	0	0	37	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
73	ROSEVILLE	Infill	145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74	ROSEVILLE	Infill	74	0	0	0	0	0	0	0	0	28	0	0	0	0	0	0	0	0	0	4	0	0	0
75	ROSEVILLE	Infill	220	0	0	11	0	31	179	0	0	0	0	0	0	0	0	0	0	236	0	0	0	0	0
76	ROSEVILLE	Infill	6	1	0	0	0	275	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	ROSEVILLE	Infill	252	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	ROSEVILLE	Infill	0	126	0	0	0	62	0	0	0	0	0	0	0	0	0	0	0	1485	0	0	0	0	0

TAZ	JURISD	SUBAREA	SFDU	MFDU	ARDU	RET	MALL	OFF	IND	HTI	CC	CHURCH	LODGE	MED	HOSP	CONV	HOTEL	PQPL	PQPH	SCHOOL	GOLF	PARK	CEM	FAIR	UNIV
79	ROSEVILLE	Infill	0	231	0	98	0	43	0	0	0	0	0	4	0	0	247	5	0	0	0	0	0	0	0
80	ROSEVILLE	Infill	0	0	0	11	0	144	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81	ROSEVILLE	Infill	0	0	0	58	0	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
82	ROSEVILLE	Infill	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83	ROSEVILLE	Infill	25	96	0	27	0	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
84	ROSEVILLE	Infill	0	0	0	169	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	ROSEVILLE	Infill	178	314	0	12	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
86	ROSEVILLE	Infill	135	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87	ROSEVILLE	Infill	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88	ROSEVILLE	Infill	149	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	905	0	0	0	0	0
89	ROSEVILLE	Infill	182	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90	ROSEVILLE	Infill	86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
91	ROSEVILLE	Infill	134	0	0	0	0	22	0	0	0	6	0	0	0	40	0	0	0	502	0	5	0	0	0
92	ROSEVILLE	Infill	0	200	0	6	0	76	0	0	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0
93	ROSEVILLE	Infill	159	218	0	21	0	198	0	0	0	0	0	0	0	5	0	1	0	0	0	0	0	0	0
94	ROSEVILLE	Infill	105	292	0	22	0	0	0	0	0	0	0	0	0	43	0	0	0	0	0	6	0	0	0
95	ROSEVILLE	Infill	3	187	0	53	0	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	ROSEVILLE	Infill	1	0	0	91	0	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
97	ROSEVILLE	Infill	164	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98	ROSEVILLE	Infill	157	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0
99	ROSEVILLE	Infill	218	0	0	28	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0
100	ROSEVILLE	Infill	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101	ROSEVILLE	Infill	1	0	0	45	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102	ROSEVILLE	Infill	15	124	0	132	0	44	61	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0
103	ROSEVILLE	Infill	218	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
104	ROSEVILLE	Infill	0	0	0	27	0	55	0	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0
105	ROSEVILLE	Infill	158	0	0	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
108	ROSEVILLE	Infill	0	0	0	91	0	0	50	0	0	2	1	0	0	0	0	10	0	0	0	0	0	0	0
109	ROSEVILLE	Infill	159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	ROSEVILLE	Infill	219	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111	ROSEVILLE	Infill	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
112	ROSEVILLE	Infill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2131	0	0	0	0	0
113	ROSEVILLE	Infill	571	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	478	0	0	0	0	0
114	ROSEVILLE	Infill	241	236	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115	ROSEVILLE	Infill	153	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0
116	ROSEVILLE	Infill	184	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
117	ROSEVILLE	Infill	6	128	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
118	ROSEVILLE	Infill	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
119	ROSEVILLE	Infill	196	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	447	0	5	0	0	0
120	ROSEVILLE	Infill	226	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
121	ROSEVILLE	Infill	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
128	ROSEVILLE	Infill	91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
129	ROSEVILLE	Infill	125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130	ROSEVILLE	Infill	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131	ROSEVILLE	Infill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	124	0	0	0
132	ROSEVILLE	Infill	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
133	ROSEVILLE	Infill	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
134	ROSEVILLE	Infill	0	0	0	233	0	21	0	0	0	0	0	0	0	0	260	0	0	0	0	0	0	0	0
135	ROSEVILLE	Infill	0	0	0	142	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
136	ROSEVILLE	Infill	0	0	0	161	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
137	ROSEVILLE	Infill	0	0	0	235	0	8	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0
138	ROSEVILLE	Infill	0	0	0	178	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0
139	ROSEVILLE	Infill	0	0	0	0	0	247	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
140	ROSEVILLE	Infill	0	0	0	41	0	243	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141	ROSEVILLE	Infill	0	0	0	9	0	22	142	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
142	ROSEVILLE	Northeast	258	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
144	ROSEVILLE	Infill	2	0	0	119	0	7	200	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0
150	ROSEVILLE	Northwest	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	331	0	0	0	0	0
151	ROSEVILLE	Northwest	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
152	ROSEVILLE	Northwest	242	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0
153	ROSEVILLE	Northwest	123	103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
154	ROSEVILLE	Northwest	0	0	0	124	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155	ROSEVILLE	Northwest	0	0	0	0	0	0	0	0	0	10	0	0	0	7	0	0	0	0	0	0	0	0	0
156	ROSEVILLE	Northwest	239	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
157	ROSEVILLE	Northwest	219	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
158	ROSEVILLE	Northwest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	581	0	7	0	0	0
159	ROSEVILLE	Northwest	205	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
160	ROSEVILLE	Northwest	249	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TAZ	JURISD	SUBAREA	SFDU	MFDU	ARDU	RET	MALL	OFF	IND	HTI	CC	CHURCH	LODGE	MED	HOSP	CONV	HOTEL	PQPL	PQPH	SCHOOL	GOLF	PARK	CEM	FAIR	UNIV
161	ROSEVILLE	Northwest	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
162	ROSEVILLE	Northwest	73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
163	ROSEVILLE	Northwest	184	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
164	ROSEVILLE	Northwest	0	328	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165	ROSEVILLE	Northwest	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
166	ROSEVILLE	Northwest	165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
167	ROSEVILLE	Northwest	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
168	ROSEVILLE	Northwest	390	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0
169	ROSEVILLE	Northwest	123	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170	ROSEVILLE	Northwest	1	0	0	2	0	0	97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
171	ROSEVILLE	Northwest	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
172	ROSEVILLE	Northwest	205	334	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
173	ROSEVILLE	Northwest	0	319	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
174	ROSEVILLE	Northwest	186	173	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0
175	ROSEVILLE	Northwest	0	0	0	93	0	4	0	0	0	0	0	0	0	127	0	0	0	0	0	0	0	0	0
176	ROSEVILLE	Northwest	0	416	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
177	ROSEVILLE	Northwest	299	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
178	ROSEVILLE	Northwest	0	0	0	55	0	103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
179	ROSEVILLE	Northwest	0	0	0	211	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0
180	ROSEVILLE	Northwest	183	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
181	ROSEVILLE	Northwest	210	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
182	ROSEVILLE	Northwest	241	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0
183	ROSEVILLE	Northwest	175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
184	ROSEVILLE	Northwest	0	268	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
185	ROSEVILLE	Northwest	195	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0
186	ROSEVILLE	Northwest	0	0	0	25	0	24	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0
187	ROSEVILLE	Northwest	24	29	0	147	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
188	ROSEVILLE	Northwest	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
189	ROSEVILLE	Northwest	321	185	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
190	ROSEVILLE	Northwest	187	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	248	5	0	0	0
191	ROSEVILLE	Northwest	85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	7	0	0	0
192	ROSEVILLE	Northwest	330	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
193	ROSEVILLE	Northwest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
194	ROSEVILLE	Northwest	86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
195	ROSEVILLE	Northwest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2135	0	0	0	0	0
196	ROSEVILLE	Northwest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	982	0	8	0	0	0
197	ROSEVILLE	Northwest	77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
198	ROSEVILLE	Northwest	287	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200	ROSEVILLE	Northwest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	102	0	0	0
201	ROSEVILLE	Northwest	449	80	0	89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
202	ROSEVILLE	Northwest	427	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	597	0	5	0	0	0
203	ROSEVILLE	North Ind	0	120	0	125	0	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
204	ROSEVILLE	North Ind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
205	ROSEVILLE	Del Webb	0	100	0	89	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0
206	ROSEVILLE	North Ind	0	0	0	0	0	308	0	637	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
207	ROSEVILLE	Del Webb	0	0	1	0	0	0	0	0	0	104	0	0	0	0	0	0	0	0	11	0	0	0	0
208	ROSEVILLE	North Ind	250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
209	ROSEVILLE	North Ind	324	176	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
210	ROSEVILLE	North Cen	0	0	0	496	0	486	0	0	0	0	0	0	0	0	209	0	0	0	0	3	0	0	0
211	ROSEVILLE	North Cen	249	0	0	419	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
212	ROSEVILLE	North Cen	0	0	0	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
213	ROSEVILLE	North Cen	101	0	0	14	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
214	ROSEVILLE	North Cen	367	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
215	ROSEVILLE	North Cen	255	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	410	0	24	0	0	0
216	ROSEVILLE	North Cen	0	0	0	128	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
217	ROSEVILLE	North Cen	121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	934	0	8	0	0	0
218	ROSEVILLE	North Cen	228	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
219	ROSEVILLE	North Cen	149	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220	ROSEVILLE	North Cen	217	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	1	0	0	0
221	ROSEVILLE	North Cen	0	184	0	127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222	ROSEVILLE	North Cen	0	632	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
223	ROSEVILLE	North Cen	0	272	0	0	0	633	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224	ROSEVILLE	North Cen	0	0	0	257	0	694	0	0	0	0	0	0	0	0	151	0	0	0	0	13	0	0	0
225	ROSEVILLE	North Cen	197	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	553	1	6	0	0	0
226	ROSEVILLE	North Cen	0	285	0	40	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	33	0	0	0
227	ROSEVILLE	North Cen	204	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
228	ROSEVILLE	North Cen	0	0	0	81	0	198	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
229	ROSEVILLE	North Cen	0	0	0	316	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TAZ	JURISD	SUBAREA	SFDU	MFDU	ARDU	RET	MALL	OFF	IND	HTI	CC	CHURCH	LODGE	MED	HOSP	CONV	HOTEL	PQPL	PQPH	SCHOOL	GOLF	PARK	CEM	FAIR	UNIV
230	ROSEVILLE	North Cen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231	ROSEVILLE	North Cen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
232	ROSEVILLE	North Cen	0	0	0	624	0	883	0	0	0	0	0	0	0	0	236	0	0	0	0	0	0	0	0
233	ROSEVILLE	North Cen	0	560	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0
234	ROSEVILLE	North Cen	0	0	0	37	1755	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
237	ROSEVILLE	Highlands	0	0	0	283	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
238	ROSEVILLE	Highlands	0	0	0	360	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
239	ROSEVILLE	Highlands	0	0	0	146	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
240	ROSEVILLE	Highlands	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	444	0	20	0	0	0
241	ROSEVILLE	Highlands	0	244	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
242	ROSEVILLE	Highlands	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
243	ROSEVILLE	Highlands	119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
244	ROSEVILLE	Highlands	0	0	0	0	0	0	0	0	0	125	0	0	0	0	0	0	0	0	0	0	0	0	0
245	ROSEVILLE	Highlands	158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
246	ROSEVILLE	Highlands	77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
247	ROSEVILLE	Highlands	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
248	ROSEVILLE	North Cen	0	0	0	407	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
249	ROSEVILLE	Highlands	0	0	0	204	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
250	ROSEVILLE	Northeast	0	0	0	257	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
251	ROSEVILLE	Northeast	0	0	0	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
252	ROSEVILLE	Northeast	0	0	0	517	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
253	ROSEVILLE	Northeast	0	0	0	102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
254	ROSEVILLE	Northeast	0	0	0	156	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
255	ROSEVILLE	Northeast	0	0	0	294	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
256	ROSEVILLE	Northeast	0	0	0	0	0	362	0	0	0	0	0	434	962	0	0	0	0	0	0	0	0	0	0
257	ROSEVILLE	Northeast	0	0	0	19	0	345	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
258	ROSEVILLE	Northeast	0	0	0	40	0	408	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
259	ROSEVILLE	Northeast	0	0	0	228	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
260	ROSEVILLE	Northeast	0	0	0	11	0	725	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
261	ROSEVILLE	Northeast	0	0	0	0	0	216	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
262	ROSEVILLE	Northeast	0	0	0	18	0	258	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
263	ROSEVILLE	Northeast	0	465	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
264	ROSEVILLE	Northeast	0	0	0	0	0	296	0	0	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0
267	ROSEVILLE	Northeast	113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0
268	ROSEVILLE	Northeast	101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	491	0	0	0	0	0
270	ROSEVILLE	Northeast	0	0	0	48	0	108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
271	ROSEVILLE	Northeast	0	0	0	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
272	ROSEVILLE	Northeast	0	0	0	12	0	0	0	0	0	0	0	0	0	0	500	0	0	0	0	0	0	0	0
273	ROSEVILLE	Northeast	0	0	0	0	0	210	0	0	0	0	0	475	841	0	0	0	0	0	0	0	0	0	0
275	ROSEVILLE	Stoneridg	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
281	ROSEVILLE	Southeast	0	0	0	154	0	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
282	ROSEVILLE	Southeast	0	0	0	0	0	216	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
283	ROSEVILLE	Southeast	0	319	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
284	ROSEVILLE	Southeast	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
285	ROSEVILLE	Southeast	0	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	411	0	15	0	0	0
286	ROSEVILLE	Southeast	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0
287	ROSEVILLE	Southeast	0	0	0	0	0	459	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
288	ROSEVILLE	Southeast	0	262	0	0	0	0	0	0	0	0	0	0	0	8	0	10	0	0	0	0	0	0	0
289	ROSEVILLE	Southeast	137	0	0	0	0	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
290	ROSEVILLE	Southeast	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
291	ROSEVILLE	Southeast	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
292	ROSEVILLE	Southeast	92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
293	ROSEVILLE	Southeast	106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
294	ROSEVILLE	Southeast	0	0	0	0	0	355	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
295	ROSEVILLE	Southeast	0	612	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
296	ROSEVILLE	Southeast	0	0	0	153	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
297	ROSEVILLE	Southeast	0	0	0	227	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
298	ROSEVILLE	Southeast	0	56	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	501	0	15	0	0	0
299	ROSEVILLE	Southeast	87	0	0	34	0	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300	ROSEVILLE	Southeast	146	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
301	ROSEVILLE	Southeast	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
302	ROSEVILLE	Southeast	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
303	ROSEVILLE	Southeast	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
304	ROSEVILLE	Southeast	0	0	0	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
305	ROSEVILLE	Southeast	5	0	0	139	0	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
306	ROSEVILLE	Southeast	181	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0
307	ROSEVILLE	Southeast	119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
308	ROSEVILLE	Southeast	127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0

TAZ	JURISD	SUBAREA	SFDU	MFDU	ARDU	RET	MALL	OFF	IND	HTI	CC	CHURCH	LODGE	MED	HOSP	CONV	HOTEL	PQPL	PQPH	SCHOOL	GOLF	PARK	CEM	FAIR	UNIV
309	ROSEVILLE	Southeast	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
310	ROSEVILLE	Southeast	93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0
311	ROSEVILLE	Southeast	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0
312	ROSEVILLE	Southeast	208	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
313	ROSEVILLE	Del Webb	0	0	474	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	9	0	0	0
314	ROSEVILLE	Del Webb	0	0	496	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	0	0	0	0
315	ROSEVILLE	Del Webb	0	0	482	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	78	2	0	0	0
316	ROSEVILLE	Del Webb	0	0	178	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0
317	ROSEVILLE	Del Webb	0	0	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0
318	ROSEVILLE	Del Webb	0	0	395	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	154	0	0	0
319	ROSEVILLE	Del Webb	0	0	774	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	23	0	0	0
320	ROSEVILLE	Infill	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
321	ROSEVILLE	North Ind	1	0	0	192	0	96	239	40	0	0	0	0	0	0	0	0	17	0	0	8	0	0	0
322	ROSEVILLE	North Ind	0	0	0	0	0	2	505	143	0	231	0	0	0	0	0	0	0	0	0	0	0	0	0
323	ROSEVILLE	North Ind	0	0	0	0	0	0	1557	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
324	ROSEVILLE	North Ind	0	0	0	0	0	0	379	0	0	0	0	0	0	0	0	129	0	0	0	0	0	0	0
325	ROSEVILLE	North Ind	0	0	0	0	0	0	877	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
326	ROSEVILLE	North Ind	0	0	0	0	0	0	0	1607	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
327	ROSEVILLE	North Ind	0	0	0	0	0	0	854	480	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
328	ROSEVILLE	North Ind	0	0	0	21	0	0	1018	3	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0
329	ROSEVILLE	North Ind	0	0	0	0	0	0	0	666	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
330	ROSEVILLE	North Ind	0	0	0	0	0	0	966	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
331	ROSEVILLE	North Ind	0	0	0	0	0	0	0	1216	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
332	ROSEVILLE	North Ind	0	0	0	136	0	179	992	139	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0
333	ROSEVILLE	North Ind	148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
877	ROSEVILLE	Stoneridg	0	0	0	42	0	0	0	0	0	0	0	0	0	0	175	0	0	0	0	0	0	0	0
879	ROSEVILLE	Stoneridg	0	0	0	45	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	1	0	0	0
880	ROSEVILLE	Stoneridg	0	0	0	63	0	0	0	0	0	0	0	10	0	75	0	14	0	0	0	0	0	0	0
881	ROSEVILLE	Stoneridg	159	302	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
882	ROSEVILLE	Stoneridg	159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0	0	0
883	ROSEVILLE	Stoneridg	348	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
884	ROSEVILLE	Stoneridg	0	156	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0
885	ROSEVILLE	Stoneridg	0	0	0	185	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
886	ROSEVILLE	Stoneridg	303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
887	ROSEVILLE	Stoneridg	127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0
888	ROSEVILLE	Stoneridg	369	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0
889	ROSEVILLE	Stoneridg	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	645	0	8	0	0	0
890	ROSEVILLE	Stoneridg	102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
891	ROSEVILLE	Stoneridg	72	230	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
892	ROSEVILLE	Stoneridg	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
893	ROSEVILLE	Stoneridg	121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
894	ROSEVILLE	Stoneridg	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
900	ROSEVILLE	Highlands	241	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
901	ROSEVILLE	Highlands	168	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
902	ROSEVILLE	Highlands	146	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
903	ROSEVILLE	Highlands	64	167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
904	ROSEVILLE	Highlands	96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
905	ROSEVILLE	Highlands	0	0	0	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
906	ROSEVILLE	Highlands	0	0	0	99	0	0	0	0	0	0	0	0	0	0	239	0	0	0	0	0	0	0	0
907	ROSEVILLE	Highlands	0	0	0	290	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
908	ROSEVILLE	North Ros	393	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	586	0	4	0	0	0
909	ROSEVILLE	North Ros	109	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
910	ROSEVILLE	North Ros	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
911	ROSEVILLE	North Ros	0	0	386	0	0	0	0	0	0	0	0	0	0	90	0	0	0	0	0	0	0	0	0
912	ROSEVILLE	North Ros	215	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
913	ROSEVILLE	North Ros	115	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914	ROSEVILLE	North Ros	102	0	0	60	0	35	0	0	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0
915	ROSEVILLE	North Ros	0	131	0	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
916	ROSEVILLE	North Ros	106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
917	ROSEVILLE	North Ros	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	882	0	3	0	0	0
918	ROSEVILLE	North Ros	203	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
919	ROSEVILLE	North Ros	2	0	0	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
920	ROSEVILLE	North Ros	284	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	479	0	26	0	0	0
921	ROSEVILLE	North Ros	136	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0
922	ROSEVILLE	North Ros	146	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
923	ROSEVILLE	North Ros	71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
924	ROSEVILLE	North Ros	149	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925	ROSEVILLE	North Ros	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0

TAZ	JURISD	SUBAREA	SFDU	MFDU	ARDU	RET	MALL	OFF	IND	HTI	CC	CHURCH	LODGE	MED	HOSP	CONV	HOTEL	PQPL	PQPH	SCHOOL	GOLF	PARK	CEM	FAIR	UNIV
926	ROSEVILLE	North Ros	99	8	49	170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
927	ROSEVILLE	North Ros	92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
928	ROSEVILLE	North Ros	286	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
929	ROSEVILLE	North Ros	190	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
930	ROSEVILLE	North Ros	354	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	756	0	12	0	0	0
931	ROSEVILLE	North Ros	203	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
932	ROSEVILLE	North Ros	102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
933	ROSEVILLE	North Ros	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
934	ROSEVILLE	North Ros	0	0	0	0	0	0	0	0	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0
935	ROSEVILLE	North Ros	129	222	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
936	ROSEVILLE	North Ros	170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
937	ROSEVILLE	North Ros	282	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0
938	ROSEVILLE	North Ros	364	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
939	ROSEVILLE	North Ros	73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
940	ROSEVILLE	North Ros	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1065	ROSEVILLE	North Ind	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1066	ROSEVILLE	North Ind	0	0	0	0	0	111	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1100	ROSEVILLE	Sierra Vista	0	175	0	115	0	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1101	ROSEVILLE	West Rose	330	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
1102	ROSEVILLE	West Rose	422	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	694	0	10	0	0	0
1103	ROSEVILLE	West Rose	383	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1104	ROSEVILLE	West Rose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	600	0	12	0	0	0
1105	ROSEVILLE	West Rose	204	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
1106	ROSEVILLE	West Rose	167	277	0	127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0
1107	ROSEVILLE	West Rose	512	344	0	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1109	ROSEVILLE	Infill	0	0	0	149	0	0	0	0	0	0	0	0	0	0	0	59	0	0	0	8	0	0	0
1110	ROSEVILLE	West Rose	0	156	0	49	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	31	0	0	0
1111	ROSEVILLE	West Rose	234	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0
1112	ROSEVILLE	West Rose	0	361	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	95	0	0	0
1113	ROSEVILLE	West Rose	408	170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	871	0	1	0	0	0
1114	ROSEVILLE	West Rose	0	0	0	0	0	0	1149	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1115	ROSEVILLE	West Rose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1800	0	44	0	0	0
1116	ROSEVILLE	West Rose	194	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
1117	ROSEVILLE	West Rose	285	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0
1118	ROSEVILLE	West Rose	331	250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0
1119	ROSEVILLE	West Rose	202	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1120	ROSEVILLE	West Rose	262	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
1121	ROSEVILLE	West Rose	176	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
1122	ROSEVILLE	West Rose	251	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	979	0	8	0	0	0
1123	ROSEVILLE	West Rose	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1124	ROSEVILLE	West Rose	284	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0
1125	ROSEVILLE	West Rose	194	152	0	0	0	0	0	0	0	71	0	0	0	0	0	0	0	0	0	9	0	0	0
1126	ROSEVILLE	West Rose	226	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
1127	ROSEVILLE	West Rose	0	0	326	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0
1128	ROSEVILLE	West Rose	0	0	378	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1129	ROSEVILLE	West Rose	168	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1130	ROSEVILLE	West Rose	232	111	0	251	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
1131	ROSEVILLE	North Ind	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	0	616	0	0	0	0	0	0
1132	ROSEVILLE	North Ind	0	0	0	0	0	0	558	133	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1188	ROSEVILLE	Infill	61	0	0	10	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1189	ROSEVILLE	North Ind	351	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0
1198	ROSEVILLE	Sierra Vista	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1199	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1200	ROSEVILLE	Sierra Vista	0	0	0	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1201	ROSEVILLE	Infill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1202	ROSEVILLE	Sierra Vista	191	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	750	0	10	0	0	0
1203	ROSEVILLE	Sierra Vista	169	162	0	141	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1204	ROSEVILLE	Sierra Vista	308	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1205	ROSEVILLE	Sierra Vista	359	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
1206	ROSEVILLE	Sierra Vista	210	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0
1207	ROSEVILLE	Sierra Vista	244	168	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1208	ROSEVILLE	Sierra Vista	125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
1209	ROSEVILLE	Sierra Vista	206	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1210	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	46	0	0	0	0	0	0	0	0	0	0	0	0	0
1211	ROSEVILLE	Sierra Vista	119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1224	ROSEVILLE	North Cen	0	482	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0
1225	ROSEVILLE	North Cen	0	0	0	74	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
1226	ROSEVILLE	North Cen	0	0	0	88	0	300	0	0	0	0	0	0	0	0	99	0	0	0	0	0	0	0	0

TAZ	JURISD	SUBAREA	SFDU	MFDU	ARDU	RET	MALL	OFF	IND	HTI	CC	CHURCH	LODGE	MED	HOSP	CONV	HOTEL	PQPL	PQPH	SCHOOL	GOLF	PARK	CEM	FAIR	UNIV
1227	ROSEVILLE	North Ind	144	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1228	ROSEVILLE	North Ind	400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
1229	ROSEVILLE	North Ind	0	0	0	0	0	131	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1230	ROSEVILLE	North Cen	0	0	0	56	0	368	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1231	ROSEVILLE	Northeast	0	225	0	50	0	450	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1232	ROSEVILLE	Northeast	350	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
1233	ROSEVILLE	Northeast	0	0	0	0	0	226	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1294	ROSEVILLE	Infill	0	0	0	0	0	83	81	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0
1295	ROSEVILLE	Infill	0	0	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1296	ROSEVILLE	North Cen	0	0	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1297	ROSEVILLE	North Cen	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1298	ROSEVILLE	Infill	83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1299	ROSEVILLE	Sierra Vista	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	600	0	8	0	0	0
1312	ROSEVILLE	Sierra Vista	148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
1313	ROSEVILLE	Sierra Vista	290	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1314	ROSEVILLE	Sierra Vista	0	0	0	549	0	98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1315	ROSEVILLE	Sierra Vista	196	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1316	ROSEVILLE	Sierra Vista	236	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1317	ROSEVILLE	Sierra Vista	24	843	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	600	0	11	0	0	0
1318	ROSEVILLE	Sierra Vista	253	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
1319	ROSEVILLE	Sierra Vista	0	0	0	406	0	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1331	ROSEVILLE	Sierra Vista	0	0	0	390	0	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1332	ROSEVILLE	Sierra Vista	168	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1333	ROSEVILLE	Sierra Vista	151	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1334	ROSEVILLE	Sierra Vista	84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1335	ROSEVILLE	Amoruso	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1336	ROSEVILLE	Amoruso	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0
1337	ROSEVILLE	Amoruso	289	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
1338	ROSEVILLE	Amoruso	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0
1339	ROSEVILLE	Amoruso	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	650	0	3	0	0	0
1340	ROSEVILLE	Sierra Vista	164	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	0	0	0
1341	ROSEVILLE	Sierra Vista	162	0	0	210	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1342	ROSEVILLE	Sierra Vista	228	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
1343	ROSEVILLE	Sierra Vista	70	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1344	ROSEVILLE	Sierra Vista	125	0	0	11	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1345	ROSEVILLE	Sierra Vista	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1346	ROSEVILLE	Sierra Vista	144	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1347	ROSEVILLE	Sierra Vista	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
1348	ROSEVILLE	Sierra Vista	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1349	ROSEVILLE	Sierra Vista	0	0	0	153	0	122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1350	ROSEVILLE	Sierra Vista	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1351	ROSEVILLE	Sierra Vista	131	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
1353	ROSEVILLE	Amoruso	0	230	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1354	ROSEVILLE	Amoruso	0	380	0	238	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1355	ROSEVILLE	Sierra Vista	0	138	0	41	0	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1356	ROSEVILLE	Sierra Vista	108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	600	0	5	0	0	0
1357	ROSEVILLE	Sierra Vista	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1358	ROSEVILLE	Sierra Vista	0	372	0	27	0	14	0	0	0	0	0	0	0	0	0	0	0	1800	0	8	0	0	0
1359	ROSEVILLE	Sierra Vista	455	40	0	27	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1400	ROSEVILLE	Amoruso	162	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1424	ROSEVILLE	Sierra Vista	0	327	0	54	0	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1499	ROSEVILLE	Amoruso	268	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1502	ROSEVILLE	Infill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1503	ROSEVILLE	Creekview	94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1504	ROSEVILLE	Creekview	118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1505	ROSEVILLE	Creekview	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
1506	ROSEVILLE	Creekview	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1507	ROSEVILLE	Creekview	0	127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1508	ROSEVILLE	Creekview	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
1509	ROSEVILLE	Creekview	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1510	ROSEVILLE	Creekview	61	136	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1511	ROSEVILLE	Creekview	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1512	ROSEVILLE	Creekview	126	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1513	ROSEVILLE	Creekview	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
1514	ROSEVILLE	Creekview	149	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0
1515	ROSEVILLE	Creekview	110	116	0	162	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1516	ROSEVILLE	Creekview	121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1517	ROSEVILLE	Creekview	224	168	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TAZ	JURISD	SUBAREA	SFDU	MFDU	ARDU	RET	MALL	OFF	IND	HTI	CC	CHURCH	LODGE	MED	HOSP	CONV	HOTEL	PQPL	PQPH	SCHOOL	GOLF	PARK	CEM	FAIR	UNIV
1518	ROSEVILLE	Creekview	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1519	ROSEVILLE	Creekview	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	600	0	4	0	0	0
1520	ROSEVILLE	Creekview	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1521	ROSEVILLE	Creekview	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1522	ROSEVILLE	Creekview	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1523	ROSEVILLE	Amoruso	333	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1524	ROSEVILLE	Amoruso	0	109	0	204	0	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1525	ROSEVILLE	Amoruso	210	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1526	ROSEVILLE	Amoruso	94	150	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0
1527	ROSEVILLE	Amoruso	0	113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1528	ROSEVILLE	Amoruso	134	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1529	ROSEVILLE	Amoruso	187	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
1542	ROSEVILLE	North Cen	217	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
1558	ROSEVILLE	Amoruso	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1573	ROSEVILLE	West Rose	258	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	762	0	0	0	0	0
1574	ROSEVILLE	West Rose	195	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0
1575	ROSEVILLE	West Rose	0	0	0	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1576	ROSEVILLE	West Rose	250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
1577	ROSEVILLE	West Rose	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1578	ROSEVILLE	Sierra Vista	203	152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
1581	ROSEVILLE	West Rose	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1582	ROSEVILLE	West Rose	0	195	0	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1583	ROSEVILLE	West Rose	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1584	ROSEVILLE	West Rose	127	277	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1585	ROSEVILLE	West Rose	118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
1586	ROSEVILLE	West Rose	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1587	ROSEVILLE	West Rose	142	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
1588	ROSEVILLE	West Rose	182	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1589	ROSEVILLE	West Rose	172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0

Appendix C:
City of Roseville Service Population Estimates

City of Roseville Service Population Estimates

			Scenario:	2020 Existing Conditions		2035 General Plan Buildout	
Residential Land Use Type	**Units**	**Conversion Factor**	**Conversion**	**Dwelling Units**	**Residents**	**Dwelling Units**	**Residents**
Single Family Residential	DU	2.68	residents per du	39,574	106,058	51,452	137,891
Multi-Family Residential	DU	2.32	residents per du	12,278	28,485	19,971	46,333
Age Restricted Residential	DU	1.47	residents per du	4,140	6,086	4,263	6,267
Residential Total				**55,992**	**140,629**	**75,686**	**190,491**
Employment Land Use Type	**Units**	**Conversion Factor**	**Conversion**	**Land Use**	**Employees**	**Land Use**	**Employees**
Retail	KSF	2	employees per ksf	10,053	20,106	17,684	35,368
Mall	KSF	2	employees per ksf	1,685	3,370	1,755	3,510
Office	KSF	3	employees per ksf	8,503	25,509	13,553	40,659
Industrial	KSF	1	employees per ksf	7,425	7,425	12,544	12,544
High Tech Industrial	KSF	2	employees per ksf	3,436	6,872	5,175	10,350
Church/Worship Center	KSF	1	employees per ksf	986	986	1,274	1,274
Medical Office	KSF	3	employees per ksf	935	2,805	935	2,805
Hospital	KSF	2	employees per ksf	1,953	3,906	1,953	3,906
Convalescent Home	KSF	3	employees per ksf	353	1,059	415	1,245
Hotel	Rooms	0.5	employees per room	1,922	961	2,327	1,164
Public/Quasi-Public Low	KSF	3	employees per ksf	322	966	534	1,602
Public/Quasi-Public High	KSF	3	employees per ksf	903	2,709	1,379	4,137
School (K-12)	Students	0.146	employees per student	25,230	3,676	33,230	4,842
Employment Total					**80,350**		**123,405**
Service Population					**220,979**		**313,896**

Notes: DU = dwelling units, KSF = thousand square feet. Conversion factors from Roseville General Plan Update EIR, 2020.
Source: Fehr & Peers, 2021

Appendix B: Technical Data

Transportation Impact Study for the Roseville Housing Element Update

May 19, 2021

FEHR PEERS

Table 1: City of Roseville Service Population Estimates

			Scenario:	2020 Existing Conditions		2035 General Plan Buildout		Project		Vacant Land Emphasis		Infill Land Emphasis		Minimized	
Residential Land Use Type	**Units**	**Conversion Factor**	**Conversion**	**Dwelling Units**	**Residents**	**Dwelling Units**	**Residents**	**Dwelling Units**	**Residents**	**Dwelling Units**	**Residents**	**Dwelling Units**	**Residents**	**Dwelling Units**	**Residents**
Single Family Residential	DU	2.68	residents per du	39,574	106,058	51,452	137,891	51,452	137,891	51,452	137,891	51,452	137,891	51,452	137,891
Multi-Family Residential	DU	2.32	residents per du	12,278	28,485	19,971	46,333	21,595	50,100	21,008	48,739	21,186	49,152	20,780	48,210
Age Restricted Residential	DU	1.47	residents per du	4,140	6,086	4,263	6,267	4,263	6,267	4,263	6,267	4,263	6,267	4,263	6,267
Residential Total				**55,992**	**140,629**	**75,686**	**190,491**	**77,310**	**194,258**	**76,723**	**192,897**	**76,901**	**193,309**	**76,495**	**192,368**
Employment Land Use Type	**Units**	**Conversion Factor**	**Conversion**	**Land Use**	**Employees**	**Land Use**	**Employees**	**Land Use**	**Employees**	**Land Use**	**Employees**	**Land Use**	**Employees**	**Land Use**	**Employees**
Retail	KSF	2	employees per ksf	10,053	20,106	17,684	35,368	17,635	35,270	17,635	35,270	17,635	35,270	17,635	35,270
Mall	KSF	2	employees per ksf	1,685	3,370	1,755	3,510	1,755	3,510	1,755	3,510	1,755	3,510	1,755	3,510
Office	KSF	3	employees per ksf	8,503	25,509	13,553	40,659	13,470	40,410	13,470	40,410	13,470	40,410	13,553	40,659
Industrial	KSF	1	employees per ksf	7,425	7,425	12,544	12,544	12,463	12,463	12,463	12,463	12,463	12,463	12,544	12,544
High Tech Industrial	KSF	2	employees per ksf	3,436	6,872	5,175	10,350	5,175	10,350	5,175	10,350	5,175	10,350	5,175	10,350
Church/Worship Center	KSF	1	employees per ksf	986	986	1,274	1,274	1,274	1,274	1,274	1,274	1,274	1,274	1,274	1,274
Medical Office	KSF	3	employees per ksf	935	2,805	935	2,805	935	2,805	935	2,805	935	2,805	935	2,805
Hospital	KSF	2	employees per ksf	1,953	3,906	1,953	3,906	1,953	3,906	1,953	3,906	1,953	3,906	1,953	3,906
Convalescent Home	KSF	3	employees per ksf	353	1,059	415	1,245	415	1,245	415	1,245	415	1,245	415	1,245
Hotel	Rooms	0.5	employees per room	1,922	961	2,327	1,164	2,230	1,115	2,230	1,115	2,230	1,115	2,230	1,115
Public/Quasi-Public Low	KSF	3	employees per ksf	322	966	534	1,602	534	1,602	534	1,602	534	1,602	534	1,602
Public/Quasi-Public High	KSF	3	employees per ksf	903	2,709	1,379	4,137	1,367	4,101	1,367	4,101	1,367	4,101	1,379	4,137
School (K-12)	Students	0.146	employees per student	25,230	3,676	33,230	4,842	33,230	4,842	33,230	4,842	33,230	4,842	33,230	4,842
Employment Total					**80,350**		**123,405**		**122,893**		**122,893**		**122,893**		**123,259**
Service Population					**220,979**		**313,896**		**317,151**		**315,789**		**316,202**		**315,626**

Notes: DU = dwelling units, KSF = thousand square feet. Conversion factors from Roseville General Plan Update EIR, 2020.
Source: Fehr & Peers, 2021

Signalized Intersection Operations, by Scenario

Intersection	Delay/LOS [1]					
	Existing (2020) Conditions		Cumulative Conditions		Cumulative Conditions (Alternative 1)	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1. Blue Oaks Blvd/Grasscreek Dr	-	-	5.6 / A	6.4 / A	-	-
2. Blue Oaks Blvd/Westbrook Blvd	-	-	27.6 / C	22.9 / C	-	-
3. Blue Oaks Blvd/Creekview Plz	-	-	5.3 / A	7.3 / A	-	-
4. Blue Oaks Blvd/Westpark Dr	-	-	5.3 / A	4.2 / A	5.3 / A	4.2 / A
5. Blue Oaks Blvd/Hayden Pkwy	-	-	22.9 / C	17.7 / B	24.4 / C	18.5 / B
6. Blue Oaks Blvd/Fiddyment Rd	20.7 / C	21.2 / C	**52.3 / D**	**60.4 / E**	**53.1 / D**	**60.8 / E**
7. Blue Oaks Blvd/Orchard View Rd	6.0 / A	5.3 / A	6.9 / A	7.9 / A	-	-
8. Blue Oaks Blvd/Del Webb Blvd	5.8 / A	6.5 / A	8.4 / A	10.0 / B	-	-
9. Blue Oaks Blvd/Crocker Ranch Rd	8.6 / A	7.9 / A	10.1 / B	13.0 / B	-	-
10. Blue Oaks Blvd/Diamond Creek Blvd/Prairie Woods Wy	23.1 / C	22.6 / C	31.2 / C	32.8 / C	31.3 / C	29.6 / C
11. Blue Oaks Blvd/Woodcreek Oaks Blvd	24.7 / C	33.9 / C	**35.4 / D**	**102.8 / F**	**38.0 / D**	**100.6 / F**
12. Blue Oaks Blvd/Walgreens Dwy/Roseville Pkwy	27.6 / C	12.5 / B	20.3 / C	19.5 / B	20.4 / C	20.3 / C
13. Blue Oaks Blvd/New Meadow Dr	6.1 / A	15.3 / B	32.8 / C	17.2 / B	32.7 / C	17.2 / B
14. Blue Oaks Blvd/Collector C	-	-	1.5 / A	11.8 / B	1.5 / A	12.2 / B
15. Blue Oaks Blvd/Foothills Blvd	**38.5 / D**	**42.8 / D**	**73.3 / E**	**137.3 / F**	**81.9 / F**	**141.4 / F**
16. Blue Oaks Blvd/Fidelity Wy/SR 65 Ramps	1.6 / A [2]	13.3 / B	25.2 / C [2]	19.5 / B	25.9 / C [2]	32.6 / C
17. Blue Oaks Blvd/Washington Blvd/SR 65 Ramps	**45.2 / D**	**43.3 / D**	**161.4 / F**	**103.9 / F**	**162.8 / F**	**108.2 / F**
18. Pleasant Grove Blvd/Santucci Dr	-	-	22.3 / C	29.1 / C	-	-
19. Pleasant Grove Blvd/Silver Spruce Dr	-	-	5.3 / A	5.2 / A	-	-
20. Pleasant Grove Blvd/Westbrook Blvd	22.1 / C	16.1 / B	**73.9 / E**	31.2 / C	-	-
21. Pleasant Grove Blvd/Sierra Trail Dr	-	-	11.2 / B	10.9 / B	-	-
24. Pleasant Grove Blvd/Upland Dr	-	-	10.5 / B	11.9 / B	-	-
25. Pleasant Grove Blvd/Fiddyment Rd	27.8 / C	30.1 / C	**90.2 / F**	**65.4 / E**	-	-
26. Pleasant Grove Blvd/Sun City Blvd	5.4 / A	5.7 / A	5.6 / A	9.4 / A	-	-
27. Pleasant Grove Blvd/Rose Creek Rd	4.6 / A	4.8 / A	5.0 / A	8.9 / A	-	-
28. Pleasant Grove Blvd/Michener Dr	5.7 / A	5.7 / A	6.9 / A	13.4 / B	-	-
29. Pleasant Grove Blvd/Woodcreek Oaks Blvd	**53.5 / D**	**44.3 / D**	**82.0 / F**	**48.2 / D**	-	-
30. Pleasant Grove Blvd/Country Club Dr	22.2 / C	18.4 / B	25.8 / C	20.0 / C	-	-
31. Pleasant Grove Blvd/Foothills Blvd	**44.5 / D**	**57.5 / E**	**55.7 / E**	**82.7 / F**	**55.7 / E**	**77.1 / E**
32. Pleasant Grove Blvd/Washington Blvd	**57.5 / E**	**48.4 / D**	**58.5 / E**	**103.8 / F**	**56.0 / E**	**116.7 / F**
33. Pleasant Grove Blvd/Hallissy Dr/Gold Coast Dr	13.9 / B	14.3 / B	22.0 / C	**47.7 / D**	22.1 / C	**38.4 / D**
34. Pleasant Grove Blvd/Roseville Pkwy	**46.6 / D**	**40.4 / D**	**75.0 / E**	**106.1 / F**	**75.4 / E**	**105.0 / F**
35. Pleasant Grove Blvd/Highland Pointe Dr	28.0 / C	**46.2 / D**	**39.6 / D**	**77.5 / E**	**40.0 / D**	**63.9 / E**

Intersection	Delay/LOS [1]					
	Existing (2020) Conditions		Cumulative Conditions		Cumulative Conditions (Alternative 1)	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
36. Pleasant Grove Blvd/SR 65 SB Ramps	8.0 / A	23.1 / C	7.1 / A	26.1 / C	6.8 / A	30.1 / C
37. Pleasant Grove Blvd/SR 65 NB Ramps	14.7 / B	18.0 / B	14.3 / B	33.1 / C	14.2 / B	33.5 / C
38. Pleasant Grove Blvd/Fairway Dr	**45.1 / D**	30.4 / C	**161.5 / F**	**76.0 / E**	**162.1 / F**	**75.9 / E**
39. Pleasant Grove Blvd/Highland Park Dr	18.5 / B	22.4 / C	27.4 / C	26.0 / C	-	-
40. Vista Grande Blvd/Santucci Blvd	-	-	12.0 / B	13.1 / B	-	-
41. Vista Grande Blvd/Silver Spruce Dr	-	-	15.3 / B	15.0 / B	-	-
42. Vista Grande Blvd/Westbrook Blvd	-	-	14.5 / B	15.0 / B	15.0 / B	15.0 / B
43. Vista Grande Blvd/Vista Park Dr	-	-	11.7 / B	11.4 / B	11.7 / B	11.4 / B
44. Vista Grande Blvd/Market St	-	-	14.3 / B	13.4 / B	14.3 / B	13.5 / B
45. Vista Grande Blvd/Monarch Grove St	-	-	12.4 / B	12.7 / B	-	-
46. Vista Grande Blvd/Upland Dr	-	-	14.0 / B	14.1 / B	-	-
47. Fiddyment Rd/Westhills Dr	13.7 / B	12.5 / B	**41.8 / D**	33.3 / C	**43.0 / D**	33.8 / C
48. Baseline Rd/Regional Park Access	-	-	14.9 / B	19.1 / B	-	-
49. Baseline Rd/Watt Ave	13.1 / B	25.2 / C	**47.5 / D**	**48.8 / D**	-	-
50. Baseline Rd/KT-41 Access	-	-	12.8 / B	13.3 / B	-	-
51. Baseline Rd/Westbrook Blvd	-	-	**53.3 / D**	**40.8 / D**	**51.0 / D**	**40.5 / D**
52. Baseline Rd/KT-43 Access	-	-	4.9 / A	6.8 / A	-	-
53. Baseline Rd/Market St	-	-	23.2 / C	30.0 / C	23.5 / C	31.8 / C
54. Baseline Rd/DF-40 Access	-	-	12.2 / B	18.2 / B	-	-
55. Baseline Rd/Upland Dr	-	-	7.6 / A	7.9 / A	-	-
56. Baseline Rd/Fiddyment Rd/Walerga Rd	32.1 / C	34.7 / C	**64.3 / E**	**69.8 / E**	**65.7 / E**	**69.5 / E**
57. Baseline Rd/Junction Blvd	8.9 / A	10.0 / B	14.1 / B	10.9 / B	-	-
58. Baseline Rd/Woodcreek Oaks Blvd/Cook Riolo Rd	**40.8 / D**	29.3 / C	**110.5 / F**	**130.6 / F**	-	-
59. Baseline Rd/Foothills Blvd	**38.3 / D**	**38.2 / D**	**61.1 / E**	**61.8 / E**	**62.3 / E**	**61.9 / E**
60. Foothills Blvd/HP Central Dwy/Roseville Pkwy	7.2 / A	9.3 / A	34.8 / C	**44.5 / D**	-	-
61. Roseville Pkwy/Washington Blvd	13.3 / B	13.9 / B	33.0 / C	**38.5 / D**	-	-
62. Roseville Pkwy/Trestle Dr	13.3 / B	10.3 / B	23.0 / C	16.0 / B	-	-
63. Roseville Pkwy/Gibson Dr (W)	-	-	28.0 / C	**39.7 / D**	28.6 / C	**39.0 / D**
64. Roseville Pkwy/Chase Dr	16.4 / B	16.3 / B	13.6 / B	30.7 / C	13.8 / B	34.4 / C
65. Roseville Pkwy/Gibson Dr (E)	11.2 / B	25.5 / C	28.1 / C	**72.6 / E**	29.4 / C	**96.4 / F**
66. Roseville Pkwy/West Dr	5.9 / A	16.3 / B	10.4 / B	**46.5 / D**	11.8 / B	**42.4 / D**
67. Roseville Pkwy/Reserve Dr	34.4 / C	26.5 / C	**37.8 / D**	**64.2 / E**	**38.9 / D**	**60.5 / E**
68. Roseville Pkwy/Galleria Blvd	33.0 / C	**52.9 / D**	**42.2 / D**	**64.1 / E**	**41.9 / D**	**63.2 / E**
69. Roseville Pkwy/Creekside Ridge Dr	21.0 / C	20.2 / C	34.4 / C	29.3 / C	34.4 / C	29.9 / C
70. Roseville Pkwy/Taylor Rd	**46.6 / D**	**46.3 / D**	**149.4 / F**	**98.3 / F**	**148.8 / F**	**104.0 / F**

Intersection	Delay/LOS [1]					
	Existing (2020) Conditions		Cumulative Conditions		Cumulative Conditions (Alternative 1)	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
71. E Roseville Pkwy/N Sunrise Ave	12.7 / B	**37.4 / D**	**38.0 / D**	**70.4 / E**	**37.6 / D**	**77.9 / E**
72. E Roseville Pkwy/Secret Ravine Pkwy	19.4 / B	26.5 / C	33.7 / C	**66.9 / E**	33.4 / C	**63.1 / E**
73. E Roseville Pkwy/Alexandra Dr	8.2 / A	8.7 / A	15.4 / B	13.5 / B	15.6 / B	13.8 / B
74. E Roseville Pkwy/Rocky Ridge Dr	5.7 / A	12.6 / B	15.2 / B	21.9 / C	13.9 / B	19.9 / B
75. E Roseville Pkwy/Orvietto Dr/Lead Hill Blvd	32.5 / C	16.2 / B	**41.6 / D**	22.4 / C	**41.5 / D**	22.6 / C
76. E Roseville Pkwy/Olympus Dr	18.1 / B	25.8 / C	24.7 / C	**59.0 / E**	24.8 / C	**58.3 / E**
77. E Roseville Pkwy/Douglas Blvd	**39.8 / D**	**48.2 / D**	**69.2 / E**	**75.5 / E**	**70.2 / E**	**68.9 / E**
78. E Roseville Pkwy/Village Dr	12.3 / B	16.3 / B	16.9 / B	22.5 / C	-	-
79. E Roseville Pkwy/Eureka Rd	21.9 / C	31.4 / C	33.1 / C	**70.0 / E**	28.8 / C	**61.3 / E**
80. E Roseville Pkwy/N Cirby Way	9.0 / A	10.3 / B	10.4 / B	12.0 / B	-	-
81. E Roseville Pkwy/Sierra College Blvd	**40.0 / D**	**39.1 / D**	**40.6 / D**	**52.4 / D**	-	-
82. Atlantic St/Yosemite St	11.5 / B	11.3 / B	17.5 / B	14.6 / B	17.6 / B	14.7 / B
83. Atlantic St/Tiger Way/Center St	12.0 / B	10.8 / B	13.7 / B	21.1 / C	14.1 / B	22.6 / C
84. Atlantic St/Wills Rd	33.9 / C	25.7 / C	**35.5 / D**	**36.5 / D**	**35.7 / D**	**37.2 / D**
85. Atlantic St/I-80 WB Ramps	5.3 / A [2]	10.2 / B	6.3 / A [2]	24.8 / C	6.4 / A [2]	17.8 / B
86. Eureka Rd/Taylor Rd/I-80 EB Ramps	24.2 / C [2]	**54.0 / D**	**55.6 / E** [2]	**91.5 / F**	**55.6 / E** [2]	**89.0 / F**
87. Eureka Rd/N Sunrise Ave	23.4 / C	27.2 / C	**56.9 / E**	**78.0 / E**	**56.2 / E**	**77.8 / E**
88. Eureka Rd/Rocky Ridge Dr	**40.7 / D**	31.4 / C	33.0 / C	**54.6 / D**	32.6 / C	**54.2 / D**
89. Lead Hill Blvd/Eureka Rd	**36.6 / D**	**40.9 / D**	**45.4 / D**	**51.9 / D**	**45.5 / D**	**52.3 / D**
90. Douglas Blvd/Eureka Rd	**40.4 / D**	**40.2 / D**	**48.6 / D**	**70.9 / E**	**48.6 / D**	**71.8 / E**
91. Eureka Rd/Deer Valley Apts Dwy	11.7 / B	11.3 / B	15.7 / B	16.0 / B	-	-
92. Eureka Rd/Ashland Dr	15.0 / B	10.0 / B	33.1 / C	13.8 / B	19.8 / B	14.0 / B
93. Eureka Rd/Sierra College Blvd	**43.6 / D**	**48.6 / D**	**55.2 / E**	**53.8 / D**	**56.0 / E**	**54.4 / D**
94. Douglas Blvd/Judah St/Barjo Alley	8.6 / A	9.5 / A	11.9 / B	31.4 / C	-	-
95. Douglas Blvd/Park Dr	8.3 / A	3.5 / A	8.9 / A	4.0 / A	-	-
96. Douglas Blvd/Keehner Ave	6.4 / A	9.0 / A	11.3 / B	27.7 / C	-	-
97. Douglas Blvd/Folsom Rd	14.5 / B	15.1 / B	14.2 / B	**39.9 / D**	14.2 / B	**39.8 / D**
98. Douglas Blvd/Harding Blvd	18.4 / B	31.2 / C	30.7 / C	**45.2 / D**	30.6 / C	**46.9 / D**
99. Douglas Blvd/I-80 WB Ramps	20.7 / C	**42.0 / D**	29.0 / C	**57.9 / E**	29.0 / C	**56.0 / E**
100. Douglas Blvd/I-80 EB Ramps	6.6 / A [2]	9.1 / A	7.2 / A [2]	24.1 / C	7.0 / A [2]	19.8 / B
101. Douglas Blvd/N Sunrise Ave	**37.0 / D**	**37.3 / D**	**44.6 / D**	**60.5 / E**	**44.7 / D**	**55.9 / E**
102. Douglas Blvd/Santa Clara Dr	4.8 / A	25.8 / C	9.5 / A	28.5 / C	9.4 / A	26.0 / C
103. Douglas Blvd/Sierra Gardens Dr	22.0 / C	32.4 / C	19.8 / B	23.1 / C	19.9 / B	22.8 / C
104. Douglas Blvd/Target Dwy	20.4 / C	25.7 / C	6.2 / A	29.5 / C	6.2 / A	32.5 / C
105. Douglas Blvd/Rocky Ridge Dr	22.4 / C	**43.1 / D**	**47.7 / D**	**73.3 / E**	**47.9 / D**	**77.4 / E**

Intersection	Delay/LOS [1]					
	Existing (2020) Conditions		Cumulative Conditions		Cumulative Conditions (Alternative 1)	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
106. Douglas Blvd/Sierra College Blvd	**46.8 / D**	**59.9 / E**	**67.1 / E**	**88.4 / F**	**67.9 / E**	**90.4 / F**
107. Cirby Wy/Foothills Blvd/Roseville Rd	21.3 / C	27.0 / C	**39.1 / D**	**136.0 / F**	-	-
108. Cirby Wy/Vernon St	32.0 / C	**42.5 / D**	**49.8 / D**	**81.7 / F**	-	-
109. Cirby Wy/Northridge Dr/Lindsay Dr	4.1 / A [3]	17.7 / B	5.6 / A	24.3 / C	-	-
110. Cirby Wy/Melody Ln	7.3 / A [2]	13.6 / B	8.8 / A [2]	29.3 / C	-	-
111. Cirby Wy/Riverside Ave	**50.3 / D**	**50.4 / D**	**76.4 / E**	**85.7 / F**	-	-
112. Cirby Wy/Orlando Ave/Marlin Dr	9.9 / A	23.9 / C	31.3 / C	17.8 / B	-	-
113. Cirby Wy/San Simeon Dr	22.9 / C	27.7 / C	28.4 / C	**72.6 / E**	-	-
114. Cirby Wy/Sunrise Ave	**60.3 / E**	**58.2 / E**	**61.1 / E**	**77.0 / E**	-	-
115. Cirby Wy/Oakridge Dr	24.8 / C	24.1 / C	18.7 / B	**45.7 / D**	-	-
116. Cirby Wy/Parkview Dr	7.2 / A	4.4 / A	7.7 / A [3]	5.4 / A	-	-
117. Cirby Wy/Rocky Ridge Dr	34.8 / C	**51.5 / D**	**61.0 / E**	**65.7 / E**	-	-
118. Cirby Wy/Champion Oaks Dr	11.0 / B	13.4 / B	16.3 / B	29.3 / C	-	-
119. Cirby Wy/Old Auburn Rd	16.8 / B	14.0 / B	18.7 / B	20.9 / C	-	-
120. Westbrook Blvd/Holt Pkwy	-	-	15.8 / B	15.0 / B	16.5 / B	15.1 / B
121. Westbrook Blvd/Nobo Dr	-	-	10.9 / B	12.7 / B	10.9 / B	12.5 / B
122. Westbrook Blvd/N Brookstone Dr	-	-	31.3 / C	5.9 / A	-	-
123. Westbrook Blvd/S Brookstone Dr	-	-	28.4 / C	4.0 / A	-	-
124. Westbrook Blvd/Octave Ave/Payson Ave	-	-	11.8 / B	9.5 / A	-	-
125. Lead Hill Blvd/Wal*Mart	5.8 / A	8.8 / A	6.2 / A	9.9 / A	-	-
126. Westbrook Blvd/Solaire Dr	-	-	15.8 / B	14.4 / B	-	-
127. Westbrook Blvd/Frederico Dr	-	-	16.2 / B	12.6 / B	-	-
128. Westbrook Blvd/Sierra Glen Dr	-	-	5.1 / A	4.8 / A	-	-
129. Westbrook Blvd/Sierra Village Dr	-	-	13.8 / B	15.3 / B	-	-
130. Fiddyment Rd/Angus Rd	14.8 / B	14.8 / B	22.0 / C	18.9 / B	-	-
131. Fiddyment Rd/Hayden Pkwy (N)	8.6 / A	6.1 / A	31.3 / C	24.8 / C	32.1 / C	25.8 / C
132. Fiddyment Rd/Crawford Pkwy	13.5 / B	10.5 / B	26.5 / C	19.2 / B	27.4 / C	19.8 / B
133. Fiddyment Rd/Hayden Pkwy (S)	8.7 / A	8.4 / A	12.2 / B	10.5 / B	-	-
134. Fiddyment Rd/Village Green Dr	15.1 / B	16.1 / B	20.6 / C	22.9 / C	-	-
135. Fiddyment Rd/Westlake Dr	-	-	5.8 / A	4.7 / A	-	-
136. Fiddyment Rd/San Fernando Dr	-	-	11.5 / B	14.0 / B	-	-
137. Woodcreek Oaks Blvd/Northpark Dr	-	-	21.2 / C	16.7 / B	-	-
138. Woodcreek Oaks Blvd/Parkside Wy	-	-	14.7 / B	13.5 / B	-	-
139. Woodcreek Oaks Blvd/Painted Desert Dr	13.0 / B	10.6 / B	21.3 / C	27.4 / C	-	-
140. Woodcreek Oaks Blvd/Crimson Ridge Dr	9.5 / A	9.4 / A	13.4 / B	19.4 / B	-	-

Intersection	Delay/LOS [1]					
	Existing (2020) Conditions		Cumulative Conditions		Cumulative Conditions (Alternative 1)	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
141. Woodcreek Oaks Blvd/Horncastle Ave	15.7 / B	12.8 / B	23.6 / C	21.2 / C	-	-
142. Woodcreek Oaks Blvd/Camino Capistrano/Zinnia Way	13.0 / B	12.0 / B	16.3 / B	19.7 / B	-	-
143. Woodcreek Oaks Blvd/Canevari Dr/Arsenault Dr	15.5 / B	13.4 / B	23.1 / C	19.9 / B	-	-
144. Woodcreek Oaks Blvd/McAnally Dr	19.8 / B	14.9 / B	28.4 / C	20.2 / C	-	-
145. Woodcreek Oaks Blvd/Trailee Ln	26.4 / C [2]	17.8 / B [2]	32.7 / C [2]	20.9 / C [2]	-	-
146. Foothills Blvd/Albertsons Dr	11.3 / B	14.9 / B	15.1 / B	23.6 / C	-	-
147. Foothills Blvd/HP South Dwy	11.5 / B	13.9 / B	14.6 / B	22.9 / C	-	-
148. Foothills Blvd/McKesson	9.0 / A	11.9 / B	14.9 / B	21.2 / C	-	-
149. Foothills Blvd/Mistywood Dr	8.5 / A	9.3 / A	11.9 / B	14.6 / B	-	-
150. Foothills Blvd/McAnally Dr	12.9 / B	16.0 / B	16.0 / B	20.1 / C	-	-
151. Foothills Blvd/Junction Blvd	32.3 / C	**37.1 / D**	**40.0 / D**	**50.8 / D**	-	-
152. Foothills Blvd/Pilgrim Dr/Rand Wy	23.9 / C [3]	15.1 / B [3]	26.5 / C	24.3 / C [3]	-	-
153. Foothills Blvd/Vineyard Rd	34.5 / C	22.3 / C	**41.1 / D**	34.3 / C	**41.2 / D**	33.8 / C
154. Foothills Blvd/Denio Loop	11.8 / B	11.3 / B	-	-	-	-
155. Washington Blvd/Freedom Wy	14.3 / B	17.4 / B	26.8 / C	24.9 / C	-	-
156. Washington Blvd/Hallisy Dr	9.1 / A	6.0 / A	10.3 / B	8.6 / A	-	-
157. Washington Blvd/Industrial Blvd	-	-	34.3 / C	26.7 / C	34.0 / C	26.7 / C
158. Washington Blvd/Diamond Oaks Rd/Emerald Oak Rd	12.4 / B	32.3 / C	18.6 / B	34.0 / C	18.7 / B	34.0 / C
159. Washington Blvd/Sawtell Rd/Derek Pl	22.8 / C	29.1 / C	32.9 / C	32.7 / C	-	-
160. Washington Blvd/Junction Blvd	16.9 / B	23.2 / C	20.5 / C	31.9 / C	-	-
161. Washington Blvd/All American City Blvd	-	-	27.9 / C	16.8 / B	-	-
162. Fairway Dr/Cortina Cir	10.8 / B	12.1 / B	27.8 / C	18.6 / B	-	-
163. Westpark Dr/High School Rd	-	-	9.0 / A	9.9 / A	-	-
164. Fairway Dr/Target Dwy/Rosehall Dr	10.8 / B	12.3 / B	11.1 / B	16.4 / B	-	-
165. Fairway Dr/Central Park Dr/Lowes Dwy	12.7 / B	13.3 / B	15.5 / B	15.9 / B	-	-
166. Fairway Dr/Home Depot Dwy	10.9 / B	13.0 / B	11.2 / B	15.1 / B	-	-
167. Fairway Dr/Five Star Blvd	11.6 / B	14.9 / B	11.7 / B	16.8 / B	-	-
168. Stanford Ranch Rd/Highland Park Dr	15.9 / B	12.1 / B	17.1 / B	16.1 / B	-	-
169. Stanford Ranch Rd/Fairway Dr	16.7 / B	20.0 / C	20.2 / C	31.2 / C	20.3 / C	28.9 / C
170. Stanford Ranch Rd/Five Star Blvd	20.5 / C	**37.4 / D**	20.7 / C	**55.4 / E**	20.7 / C	**52.3 / D**
171. Stanford Ranch Rd/SR 65 NB Ramps	15.4 / B [2]	33.1 / C	32.6 / C [2]	**106.2 / F**	32.1 / C [2]	**97.7 / F**
172. Galleria Blvd/SR 65 SB Ramps	9.0 / A [2]	24.2 / C	11.0 / B [2]	33.0 / C	11.0 / B [2]	32.6 / C
173. Galleria Cir/JC Penny Dwy	13.4 / B	10.7 / B	14.1 / B	11.9 / B	-	-

Intersection	Delay/LOS [1]					
	Existing (2020) Conditions		Cumulative Conditions		Cumulative Conditions (Alternative 1)	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
174. Galleria Blvd/Antelope Creek Dr	6.0 / A	30.1 / C	5.9 / A	33.6 / C	5.9 / A	34.0 / C
175. Galleria Blvd/Berry St	15.3 / B	20.6 / C	20.1 / C	34.2 / C	19.8 / B	33.7 / C
176. Harding Blvd/Wills Rd	16.7 / B	16.7 / B	28.9 / C	33.4 / C	28.5 / C	33.8 / C
177. Harding Blvd/Lead Hill Blvd	10.3 / B	27.3 / C	13.2 / B	**37.2 / D**	13.2 / B	**36.4 / D**
178. Harding Blvd/Estates Dr	12.5 / B	25.9 / C	14.7 / B	**70.0 / E**	14.8 / B	**66.8 / E**
179. Harding Blvd/Roseville Sq	10.9 / B	32.8 / C	11.0 / B	**50.4 / D**	11.3 / B	**44.9 / D**
180. N Sunrise Ave/Stone Point Dr	6.3 / A	7.1 / A	10.8 / B	19.6 / B	-	-
181. N Sunrise Ave/Auto Mall Dr	19.1 / B	20.2 / C	20.3 / C	21.6 / C	-	-
182. N Sunrise Ave/Lead Hill Blvd	22.5 / C	**45.0 / D**	25.9 / C	**77.1 / E**	26.0 / C	**78.5 / E**
183. N Sunrise Ave/Sierra Gardens Dr	11.8 / B	16.6 / B	12.0 / B	24.7 / C	14.2 / B	24.7 / C
184. Sunrise Ave/Oak Ridge Dr	4.9 / A	5.2 / A	7.5 / A	9.2 / A	-	-
185. Sunrise Ave/Frances Dr	7.4 / A	11.1 / B	9.9 / A	13.9 / B	-	-
186. Sunrise Ave/Coloma Wy	19.0 / B	16.6 / B	26.2 / C	22.5 / C	-	-
187. Sunrise Ave/Sun Tree Dr/Kensington Dr	10.6 / B	**40.4 / D**	10.0 / B	31.1 / C	-	-
188. Sunrise Ave/Sandringham Dr/Kensington Dr	9.3 / A [2]	13.0 / B [2]	9.9 / A [2]	30.4 / C [2]	-	-
189. Rocky Ridge Dr/Stone Point Dr	5.5 / A	6.9 / A	6.9 / A	11.0 / B	-	-
190. Rocky Ridge Dr/Lead Hill Blvd	17.4 / B	27.7 / C	28.2 / C	34.8 / C	28.1 / C	34.9 / C
191. Rocky Ridge Dr/Professional Dr	10.5 / B	21.6 / C	11.7 / B	20.6 / C	-	-
192. Rocky Ridge Dr/Meadowlark Wy/Maidu Dr	4.5 / A	5.9 / A	5.5 / A	6.9 / A	-	-
193. Rocky Ridge Dr/McLaren Dr	5.8 / A	4.1 / A	9.7 / A	5.9 / A	-	-
194. Sierra College Blvd/Secret Ravine Pkwy	14.5 / B	15.4 / B	23.1 / C	25.9 / C	-	-
195. Sierra College Blvd/Miners Ravine Pkwy	9.7 / A	7.6 / A	12.2 / B	14.8 / B	-	-
196. Sierra College Blvd/Olympus Dr	17.8 / B	16.9 / B	23.7 / C	29.2 / C	-	-
197. Sierra College Blvd/Renaissance Creek SC Dwy/Granite Bay Business Park Dwy	26.6 / C	28.3 / C	32.4 / C	34.3 / C	32.6 / C	34.2 / C
198. Sierra College Blvd/Old Auburn Rd	34.8 / C	29.0 / C	**47.8 / D**	**47.3 / D**	-	-
199. Olympus Dr/Europa St	8.9 / A	7.2 / A	9.7 / A	7.4 / A	-	-
200. Secret Ravine Parkway/Scarborough Drive/Poppy Field Drive	12.6 / B	11.6 / B	18.2 / B	22.3 / C	-	-
201. Secret Ravine Pkwy/Alexandra Dr	8.2 / A	7.3 / A	11.7 / B	13.5 / B	-	-
202. Gibson Dr/Convention Center Dr	-	-	**39.5 / D**	15.6 / B	**43.1 / D**	17.9 / B
203. Riverside Ave/I-80 WB Ramps	10.9 / B	14.5 / B	14.8 / B	26.4 / C	-	-
204. Riverside Ave/I-80 EB Ramps/Orlando Dr	14.9 / B	34.6 / C	23.0 / C	**63.6 / E**	-	-
205. Junction Blvd/Stonecrest Dr/Magenta Dr	14.0 / B	11.2 / B	22.7 / C	13.2 / B	-	-
206. Junction Blvd/Park Regency Dr	20.0 / C	14.9 / B	21.2 / C	16.0 / B	-	-
207. Junction Blvd/Woodcreek Oaks Blvd	19.3 / B	18.6 / B	29.0 / C	25.2 / C	-	-

Intersection	Delay/LOS [1]					
	Existing (2020) Conditions		Cumulative Conditions		Cumulative Conditions (Alternative 1)	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
208. Junction Blvd/Country Club Dr	17.3 / B	14.9 / B	21.7 / C	18.2 / B	-	-
209. Junction Blvd/Revere Dr	5.3 / A	5.5 / A	5.5 / A	6.9 / A	-	-
210. Junction Blvd/Americana Dr	15.0 / B	7.1 / A	16.9 / B	13.4 / B	-	-
211. Junction Blvd/Sawtell Rd/Porter Dr	8.7 / A	9.2 / A	17.1 / B	10.8 / B	17.2 / B	10.9 / B
212. PFE Rd/Hilltop Cir/Del Rd	13.9 / B	10.9 / B	17.9 / B	20.5 / C	-	-
213. Santucci Blvd/Solaire Dr	-	-	11.0 / B	13.1 / B	-	-
214. Santucci Blvd/Federico Dr	-	-	15.8 / B	13.8 / B	-	-
215. Santucci Blvd/Sierra Village Dr	-	-	15.4 / B	14.5 / B	-	-
216. Hayden Pkwy/Holt Pkwy	-	-	14.3 / B	14.9 / B	14.5 / B	15.9 / B
217. Industrial Ave/Alantown Dr	-	-	15.7 / B	33.3 / C	15.8 / B	32.9 / C
218. Industrial Ave/Freedom Wy	8.1 / A	4.6 / A	11.3 / B	11.2 / B	-	-
219. Pleasant Grove Blvd/La Sierra Dr	-	-	7.8 / A	7.7 / A	-	-
220. Westbrook Blvd/Amoruso Road D	-	-	12.7 / B	13.2 / B	-	-
221. Amoruso Road D/Minor Residential Street 1	-	-	15.0 / B	15.8 / B	-	-
222. Westbrook Blvd/Amoruso Road B	-	-	11.8 / B	11.6 / B	-	-
223. Amoruso Road B/Amoruso Road A	-	-	12.2 / B	11.8 / B	-	-
224. Westbrook Blvd/Amoruso Road D	-	-	15.9 / B	14.0 / B	-	-
225. Secret Ravine Pkwy/Medical Plz/Falcon Pointe Dr	18.6 / B	14.5 / B	20.1 / C	16.2 / B	-	-
226. Hayden Pkwy/High School Rd/Bellanca Wy	-	-	13.4 / B	11.9 / B	-	-
227. Junction Blvd / Event Center Dr/Vallejo Ave	- / C	- / C	- / C	- / C	-	-
228. Cirby Way/Cirby Hills Dr	11.8 / B	20.5 / C	13.4 / B	**39.8 / D**	-	-
P1. Riverside Ave/Darling Wy [3]	16.8 / B	15.2 / B	26.8 / C	31.3 / C	-	-
P2. Douglas Blvd/Riverside Ave/Vernon St [3]	14.6 / B	34.7 / C	31.1 / C	**42.3 / D**	-	-
P3. Vernon St/Grant St [3]	4.8 / A	11.1 / B	5.3 / A	35.0 / C	-	-
P4. Vernon St/Judah St [3]	3.6 / A	3.1 / A	4.9 / A	13.0 / B	-	-
P5. Vernon St/Lincoln St [3]	10.6 / B	28.9 / C	15.1 / B	**43.5 / D**	-	-
P6. Washington Blvd/Main St [3]	24.6 / C	25.2 / C	27.8 / C	**58.1 / E**	-	-
P7. Oak St/Grant St [3]	5.9 / A	6.8 / A	10.5 / B	8.2 / A	-	-
P8. Oak St/Lincoln St [3]	5.1 / A	6.4 / A	6.2 / A	10.9 / B	-	-
P9. Pleasant Grove Blvd/Market St [3]	20.0 / C	18.2 / B	34.4 / C	31.3 / C	34.6 / C	31.6 / C
P10. Pleasant Grove Blvd/Monument Dr/Kirkhill Dr [3]	12.4 / B	9.5 / A	13.0 / B	9.6 / A	-	-

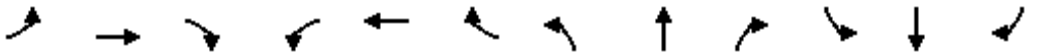
Note: LOS = Level of Service. **Bold** indicates unacceptable operations. Cells highlighted in grey indicate analysis was completed using the Synchro 10 microsimulation module.

[1] Average delay rounded to the nearest tenth of a second. For signal control intersections, average delay is the weighted average for all movements.

[2] Intersection was analyzed using HCM 2000.

[3] Intersection is located in Pedestrian Overlay District.

Source: Fehr & Peers, 2021.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	72	5	350	70	139	21	371	456	153	404	15
Future Volume (veh/h)	42	72	5	350	70	139	21	371	456	153	404	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	72	1	350	70	28	21	371	143	153	404	6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	342	577	177	506	441	195	409	785	348	512	761	337
Arrive On Green	0.10	0.11	0.11	0.15	0.12	0.12	0.12	0.22	0.22	0.15	0.21	0.21
Sat Flow, veh/h	3456	5106	1566	3456	3554	1569	3456	3554	1574	3456	3554	1574
Grp Volume(v), veh/h	42	72	1	350	70	28	21	371	143	153	404	6
Grp Sat Flow(s),veh/h/ln	1728	1702	1566	1728	1777	1569	1728	1777	1574	1728	1777	1574
Q Serve(g_s), s	0.6	0.7	0.0	5.3	1.0	0.5	0.3	5.0	4.3	2.2	5.5	0.2
Cycle Q Clear(g_c), s	0.6	0.7	0.0	5.3	1.0	0.5	0.3	5.0	4.3	2.2	5.5	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	342	577	177	506	441	195	409	785	348	512	761	337
V/C Ratio(X)	0.12	0.12	0.01	0.69	0.16	0.14	0.05	0.47	0.41	0.30	0.53	0.02
Avail Cap(c_a), veh/h	1259	4092	1255	1951	1424	629	1259	2136	946	1259	2136	946
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.6	21.9	8.1	22.3	21.5	8.3	21.5	18.6	18.3	20.9	19.1	17.0
Incr Delay (d2), s/veh	0.1	0.1	0.0	0.6	0.2	0.5	0.0	0.9	1.5	0.1	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.2	0.0	1.8	0.4	0.3	0.1	1.7	1.4	0.7	1.9	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.6	22.0	8.1	22.9	21.7	8.8	21.5	19.5	19.8	21.0	20.2	17.1
LnGrp LOS	C	C	A	C	C	A	C	B	B	C	C	B
Approach Vol, veh/h		115			448			535			563	
Approach Delay, s/veh		22.1			21.8			19.6			20.4	
Approach LOS		C			C			B			C	

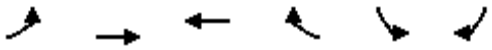
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	18.1	12.0	12.6	12.5	17.8	11.8	12.8
Change Period (Y+Rc), s	4.0	6.0	4.0	6.4	6.0	* 6	6.4	* 6
Max Green Setting (Gmax), s	20.0	33.0	31.0	44.0	20.0	* 33	20.0	* 22
Max Q Clear Time (g_c+I1), s	4.2	7.0	7.3	2.7	2.3	7.5	2.6	3.0
Green Ext Time (p_c), s	0.3	4.3	0.8	0.4	0.0	3.4	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	20.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	799	505	34	85	17
Future Volume (veh/h)	5	799	505	34	85	17
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	799	505	18	85	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	17	2386	1578	490	287	256
Arrive On Green	0.01	0.47	0.31	0.31	0.16	0.16
Sat Flow, veh/h	1781	5274	5274	1585	1781	1585
Grp Volume(v), veh/h	5	799	505	18	85	3
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1585	1781	1585
Q Serve(g_s), s	0.1	2.7	2.0	0.2	1.1	0.0
Cycle Q Clear(g_c), s	0.1	2.7	2.0	0.2	1.1	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	17	2386	1578	490	287	256
V/C Ratio(X)	0.29	0.33	0.32	0.04	0.30	0.01
Avail Cap(c_a), veh/h	1324	8538	8538	2650	1324	1178
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.2	4.5	7.1	6.5	9.9	9.5
Incr Delay (d2), s/veh	3.5	0.1	0.2	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	0.5	0.0	0.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.7	4.6	7.3	6.5	10.2	9.5
LnGrp LOS	B	A	A	A	B	A
Approach Vol, veh/h		804	523		88	
Approach Delay, s/veh		4.7	7.3		10.1	
Approach LOS		A	A		B	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	18.6	8.3	4.3	14.3
Change Period (Y+Rc), s	6.0	4.0	4.0	6.0
Max Green Setting (Gmax), s	45.0	20.0	20.0	45.0
Max Q Clear Time (g_c+I1), s	4.7	3.1	2.1	4.0
Green Ext Time (p_c), s	7.1	0.1	0.0	4.3

Intersection Summary	
HCM 6th Ctrl Delay	6.0
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



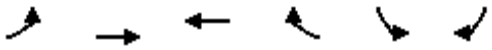
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	941	5	57	527	9	103
Future Volume (veh/h)	941	5	57	527	9	103
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	941	2	57	527	9	18
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2229	692	174	3321	106	94
Arrive On Green	0.44	0.44	0.10	0.65	0.06	0.06
Sat Flow, veh/h	5274	1585	1781	5274	1781	1585
Grp Volume(v), veh/h	941	2	57	527	9	18
Grp Sat Flow(s),veh/h/ln	1702	1585	1781	1702	1781	1585
Q Serve(g_s), s	4.4	0.0	1.0	1.4	0.2	0.4
Cycle Q Clear(g_c), s	4.4	0.0	1.0	1.4	0.2	0.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2229	692	174	3321	106	94
V/C Ratio(X)	0.42	0.00	0.33	0.16	0.08	0.19
Avail Cap(c_a), veh/h	6668	2070	1551	6668	1551	1380
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.7	5.5	14.5	2.3	15.3	15.4
Incr Delay (d2), s/veh	0.2	0.0	0.4	0.0	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.4	0.1	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	6.9	5.5	14.9	2.4	15.4	15.8
LnGrp LOS	A	A	B	A	B	B
Approach Vol, veh/h	943			584	27	
Approach Delay, s/veh	6.9			3.6	15.7	
Approach LOS	A			A	B	

Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	6.0	7.4	21.0	28.4
Change Period (Y+Rc), s	4.0	4.0	6.0	6.0
Max Green Setting (Gmax), s	30.0	30.0	45.0	45.0
Max Q Clear Time (g_c+I1), s	2.4	3.0	6.4	3.4
Green Ext Time (p_c), s	0.0	0.1	8.7	4.3

Intersection Summary	
HCM 6th Ctrl Delay	5.8
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	44	916	537	85	282	24
Future Volume (veh/h)	44	916	537	85	282	24
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	916	537	30	282	7
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	124	2383	1437	442	435	387
Arrive On Green	0.07	0.47	0.28	0.28	0.24	0.24
Sat Flow, veh/h	1781	5274	5274	1571	1781	1585
Grp Volume(v), veh/h	44	916	537	30	282	7
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1571	1781	1585
Q Serve(g_s), s	0.8	4.0	2.9	0.5	4.9	0.1
Cycle Q Clear(g_c), s	0.8	4.0	2.9	0.5	4.9	0.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	124	2383	1437	442	435	387
V/C Ratio(X)	0.35	0.38	0.37	0.07	0.65	0.02
Avail Cap(c_a), veh/h	1030	6644	6644	2044	1597	1421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.3	6.0	10.0	9.1	11.7	9.9
Incr Delay (d2), s/veh	0.6	0.2	0.2	0.1	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.6	0.7	0.1	1.5	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.0	6.1	10.2	9.2	12.4	9.9
LnGrp LOS	B	A	B	A	B	A
Approach Vol, veh/h		960	567		289	
Approach Delay, s/veh		6.6	10.2		12.3	
Approach LOS		A	B		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			22.1		12.4	6.4	15.7
Change Period (Y+Rc), s			6.0		4.0	4.0	6.0
Max Green Setting (Gmax), s			45.0		31.0	20.0	45.0
Max Q Clear Time (g_c+I1), s			6.0		6.9	2.8	4.9
Green Ext Time (p_c), s			7.7		0.6	0.0	4.3

Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	1149	61	80	680	147	24	27	114	480	39	21
Future Volume (veh/h)	33	1149	61	80	680	147	24	27	114	480	39	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	1149	28	80	680	73	24	27	11	526	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	79	2682	833	101	2745	852	156	163	138	599	314	0
Arrive On Green	0.04	0.53	0.53	0.11	1.00	1.00	0.09	0.09	0.09	0.17	0.00	0.00
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1870	1585	3563	1870	0
Grp Volume(v), veh/h	33	1149	28	80	680	73	24	27	11	526	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1870	1585	1781	1870	0
Q Serve(g_s), s	2.2	16.5	1.0	5.2	0.0	0.0	1.5	1.6	0.8	17.3	0.0	0.0
Cycle Q Clear(g_c), s	2.2	16.5	1.0	5.2	0.0	0.0	1.5	1.6	0.8	17.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	79	2682	833	101	2745	852	156	163	138	599	314	0
V/C Ratio(X)	0.42	0.43	0.03	0.79	0.25	0.09	0.15	0.17	0.08	0.88	0.00	0.00
Avail Cap(c_a), veh/h	238	2682	833	238	2745	852	303	318	269	745	391	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	55.8	17.4	13.8	52.5	0.0	0.0	50.7	50.7	50.3	48.7	0.0	0.0
Incr Delay (d2), s/veh	1.3	0.5	0.1	5.0	0.1	0.1	0.2	0.2	0.1	8.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	6.2	0.4	2.3	0.0	0.0	0.7	0.8	0.3	8.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.1	17.9	13.8	57.5	0.1	0.1	50.8	50.9	50.4	57.3	0.0	0.0
LnGrp LOS	E	B	B	E	A	A	D	D	D	E	A	A
Approach Vol, veh/h		1210			833			62			526	
Approach Delay, s/veh		18.9			5.6			50.8			57.3	
Approach LOS		B			A			D			E	

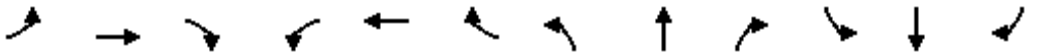
Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	15.1	10.8	69.0	25.1	9.3	70.5
Change Period (Y+Rc), s	4.6	4.0	6.0	4.9	4.0	6.0
Max Green Setting (Gmax), s	20.4	16.0	39.0	25.1	16.0	39.0
Max Q Clear Time (g_c+I1), s	3.6	7.2	18.5	19.3	4.2	2.0
Green Ext Time (p_c), s	0.1	0.1	12.2	0.9	0.0	9.8

Intersection Summary	
HCM 6th Ctrl Delay	23.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	1504	162	233	724	135	134	87	323	316	108	49
Future Volume (veh/h)	77	1504	162	233	724	135	134	87	323	316	108	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	1504	76	233	724	68	134	87	119	316	108	8
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	266	1960	608	293	2000	621	313	334	149	382	405	181
Arrive On Green	0.15	0.77	0.77	0.17	0.78	0.78	0.09	0.09	0.09	0.11	0.11	0.11
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	77	1504	76	233	724	68	134	87	119	316	108	8
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	2.4	20.0	1.5	7.8	5.1	1.2	4.4	2.7	8.8	10.7	3.3	0.5
Cycle Q Clear(g_c), s	2.4	20.0	1.5	7.8	5.1	1.2	4.4	2.7	8.8	10.7	3.3	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	266	1960	608	293	2000	621	313	334	149	382	405	181
V/C Ratio(X)	0.29	0.77	0.12	0.80	0.36	0.11	0.43	0.26	0.80	0.83	0.27	0.04
Avail Cap(c_a), veh/h	461	1960	608	605	2000	621	518	483	215	605	572	255
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	0.97	0.97	0.97	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.9	10.9	8.8	48.8	8.5	8.0	51.6	50.5	53.2	52.2	48.6	47.3
Incr Delay (d2), s/veh	0.2	2.0	0.2	1.8	0.5	0.3	0.3	0.5	14.9	2.6	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	4.0	0.5	3.1	1.6	0.5	1.9	1.2	4.0	4.7	1.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.0	13.0	9.0	50.6	9.0	8.4	52.0	51.0	68.2	54.9	49.0	47.5
LnGrp LOS	D	B	A	D	A	A	D	D	E	D	D	D
Approach Vol, veh/h		1657			1025			340			432	
Approach Delay, s/veh		14.4			18.4			57.4			53.3	
Approach LOS		B			B			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.3	17.0	14.2	52.1	14.9	19.4	13.2	53.0
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	21.0	16.3	21.0	42.0	18.0	19.3	16.0	47.0
Max Q Clear Time (g_c+I1), s	12.7	10.8	9.8	22.0	6.4	5.3	4.4	7.1
Green Ext Time (p_c), s	0.5	0.5	0.4	15.2	0.2	0.4	0.1	10.7

Intersection Summary	
HCM 6th Ctrl Delay	24.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	2132	10	17	1087	8	3	10	10	7	5	2
Future Volume (veh/h)	1	2132	10	17	1087	8	3	10	10	7	5	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	2132	7	17	1087	6	3	10	1	7	5	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	3	2811	693	87	2350	729	66	70	59	59	62	0
Arrive On Green	0.00	0.44	0.44	0.03	0.46	0.46	0.04	0.04	0.04	0.03	0.03	0.00
Sat Flow, veh/h	1781	6434	1585	3456	5106	1585	1781	1870	1585	1781	1870	0
Grp Volume(v), veh/h	1	2132	7	17	1087	6	3	10	1	7	5	0
Grp Sat Flow(s),veh/h/ln	1781	1609	1585	1728	1702	1585	1781	1870	1585	1781	1870	0
Q Serve(g_s), s	0.1	33.5	0.3	0.6	17.5	0.2	0.2	0.6	0.1	0.5	0.3	0.0
Cycle Q Clear(g_c), s	0.1	33.5	0.3	0.6	17.5	0.2	0.2	0.6	0.1	0.5	0.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	3	2811	693	87	2350	729	66	70	59	59	62	0
V/C Ratio(X)	0.29	0.76	0.01	0.19	0.46	0.01	0.05	0.14	0.02	0.12	0.08	0.00
Avail Cap(c_a), veh/h	238	2895	713	461	2350	729	238	249	211	238	249	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.72	0.72	0.72	0.97	0.97	0.97	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	59.8	28.5	19.1	57.3	22.2	17.5	55.7	55.9	55.6	56.3	56.3	0.0
Incr Delay (d2), s/veh	12.2	1.0	0.0	0.4	0.6	0.0	0.1	0.3	0.0	0.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	12.3	0.1	0.3	6.8	0.1	0.1	0.3	0.0	0.2	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.0	29.5	19.1	57.7	22.8	17.6	55.8	56.3	55.7	56.7	56.5	0.0
LnGrp LOS	E	C	B	E	C	B	E	E	E	E	E	A
Approach Vol, veh/h		2140			1110			14			12	
Approach Delay, s/veh		29.4			23.4			56.1			56.6	
Approach LOS		C			C			E			E	

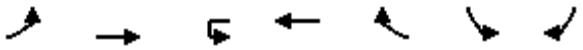
Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	8.5	7.0	58.4	8.0	4.2	61.2
Change Period (Y+Rc), s	4.0	4.0	6.0	4.0	4.0	6.0
Max Green Setting (Gmax), s	16.0	16.0	54.0	16.0	16.0	54.0
Max Q Clear Time (g_c+I1), s	2.6	2.6	35.5	2.5	2.1	19.5
Green Ext Time (p_c), s	0.0	0.0	16.9	0.0	0.0	15.2

Intersection Summary	
HCM 6th Ctrl Delay	27.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



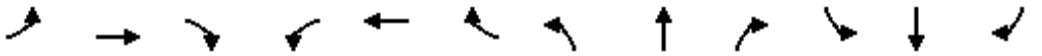
Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	13	2136	0	1080	73	248	32
Future Volume (veh/h)	13	2136	0	1080	73	248	32
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	13	2136		1080	50	248	3
Peak Hour Factor	1.00	1.00		1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	47	5206		3827	1188	345	158
Arrive On Green	0.03	0.81		1.00	1.00	0.10	0.10
Sat Flow, veh/h	1781	6696		5274	1585	3456	1585
Grp Volume(v), veh/h	13	2136		1080	50	248	3
Grp Sat Flow(s),veh/h/ln	1781	1609		1702	1585	1728	1585
Q Serve(g_s), s	0.9	11.4		0.0	0.0	8.4	0.2
Cycle Q Clear(g_c), s	0.9	11.4		0.0	0.0	8.4	0.2
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	47	5206		3827	1188	345	158
V/C Ratio(X)	0.28	0.41		0.28	0.04	0.72	0.02
Avail Cap(c_a), veh/h	238	5206		3827	1188	579	265
HCM Platoon Ratio	1.00	1.00		2.00	2.00	1.00	1.00
Upstream Filter(I)	0.91	0.91		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.3	3.3		0.0	0.0	52.4	48.7
Incr Delay (d2), s/veh	1.1	0.2		0.1	0.0	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.3		0.0	0.0	3.7	0.2
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	58.4	3.5		0.1	0.0	53.4	48.7
LnGrp LOS	E	A		A	A	D	D
Approach Vol, veh/h		2149		1130		251	
Approach Delay, s/veh		3.8		0.1		53.4	
Approach LOS		A		A		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			103.1		16.9	7.2	95.9
Change Period (Y+Rc), s			6.0		4.9	4.0	6.0
Max Green Setting (Gmax), s			69.0		20.1	16.0	69.0
Max Q Clear Time (g_c+I1), s			13.4		10.4	2.9	2.0
Green Ext Time (p_c), s			38.2		0.5	0.0	14.7

Intersection Summary	
HCM 6th Ctrl Delay	6.1
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	1970	227	513	1057	292	155	149	350	156	73	30
Future Volume (veh/h)	66	1970	227	513	1057	292	155	149	350	156	73	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	66	1970	150	513	1057	160	155	149	0	156	73	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	2041	633	569	2503	777	286	294		344	353	157
Arrive On Green	0.10	0.53	0.53	0.16	0.49	0.49	0.08	0.08	0.00	0.10	0.10	0.10
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	66	1970	150	513	1057	160	155	149	0	156	73	3
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	2.1	44.5	6.1	17.5	16.0	6.9	5.2	4.8	0.0	5.1	2.3	0.2
Cycle Q Clear(g_c), s	2.1	44.5	6.1	17.5	16.0	6.9	5.2	4.8	0.0	5.1	2.3	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	256	2041	633	569	2503	777	286	294		344	353	157
V/C Ratio(X)	0.26	0.97	0.24	0.90	0.42	0.21	0.54	0.51		0.45	0.21	0.02
Avail Cap(c_a), veh/h	461	2042	634	605	2503	777	461	444		461	465	207
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.0	27.3	18.3	49.2	19.7	17.3	52.8	52.7	0.0	51.0	49.7	48.8
Incr Delay (d2), s/veh	0.2	13.0	0.6	15.5	0.5	0.6	0.6	2.6	0.0	0.3	1.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	17.1	2.2	8.5	6.1	2.5	2.2	2.2	0.0	2.1	1.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.2	40.3	18.9	64.7	20.2	17.9	53.4	55.3	0.0	51.3	50.7	48.9
LnGrp LOS	D	D	B	E	C	B	D	E		D	D	D
Approach Vol, veh/h		2186			1730			304	A		232	
Approach Delay, s/veh		39.2			33.2			54.4			51.1	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.9	15.9	23.7	54.0	13.9	17.9	12.9	64.8
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	* 6	4.0	6.0
Max Green Setting (Gmax), s	16.0	15.0	21.0	48.0	16.0	* 16	16.0	53.0
Max Q Clear Time (g_c+I1), s	7.1	6.8	19.5	46.5	7.2	4.3	4.1	18.0
Green Ext Time (p_c), s	0.2	0.5	0.3	1.4	0.2	0.4	0.1	17.1

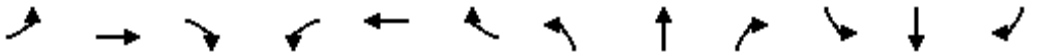
Intersection Summary	
HCM 6th Ctrl Delay	38.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

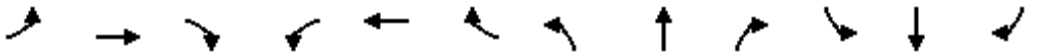
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑				↱			↱
Traffic Volume (vph)	0	2303	173	12	1242	0	0	0	40	0	0	970
Future Volume (vph)	0	2303	173	12	1242	0	0	0	40	0	0	970
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	6.0	6.0	4.0				4.0			4.0
Lane Util. Factor		0.91	1.00	1.00	0.95				1.00			1.00
Frt		1.00	0.85	1.00	1.00				0.86			0.86
Flt Protected		1.00	1.00	0.95	1.00				1.00			1.00
Satd. Flow (prot)		5085	1583	1770	3539				1611			1611
Flt Permitted		1.00	1.00	0.95	1.00				1.00			1.00
Satd. Flow (perm)		5085	1583	1770	3539				1611			1611
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	2303	173	12	1242	0	0	0	40	0	0	970
RTOR Reduction (vph)	0	0	9	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	2303	164	12	1242	0	0	0	40	0	0	970
Turn Type		NA	Perm	Prot	NA				Free			Free
Protected Phases		4		3	Free							
Permitted Phases			4						Free			Free
Actuated Green, G (s)		105.9	105.9	2.1	120.0				120.0			120.0
Effective Green, g (s)		105.9	105.9	2.1	120.0				120.0			120.0
Actuated g/C Ratio		0.88	0.88	0.02	1.00				1.00			1.00
Clearance Time (s)		6.0	6.0	6.0								
Vehicle Extension (s)		5.5	5.5	5.5								
Lane Grp Cap (vph)		4487	1396	30	3539				1611			1611
v/s Ratio Prot		0.45		0.01	0.35							
v/s Ratio Perm			0.10						0.02			c0.60
v/c Ratio		0.51	0.12	0.40	0.35				0.02			0.60
Uniform Delay, d1		1.5	0.9	58.3	0.0				0.0			0.0
Progression Factor		1.00	1.00	0.92	1.00				1.00			1.00
Incremental Delay, d2		0.4	0.2	19.5	0.3				0.0			1.7
Delay (s)		1.9	1.1	73.1	0.3				0.0			1.7
Level of Service		A	A	E	A				A			A
Approach Delay (s)		1.9			1.0			0.0			1.7	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	1.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	49.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	2023	320	270	626	380	188	0	382	112	480	440
Future Volume (veh/h)	0	2023	320	270	626	380	188	0	382	112	480	440
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	2023	181	270	626	0	188	0	382	112	480	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	2	2	0	2	2	2	2
Cap, veh/h	0	2592	639	335	1895		0	0	0	273	544	
Arrive On Green	0.00	0.13	0.13	0.10	0.53	0.00	0.00	0.00	0.00	0.15	0.15	0.00
Sat Flow, veh/h	0	6696	1585	3456	3554	1585		0		1781	3554	1585
Grp Volume(v), veh/h	0	2023	181	270	626	0		0.0		112	480	0
Grp Sat Flow(s),veh/h/ln	0	1609	1585	1728	1777	1585				1781	1777	1585
Q Serve(g_s), s	0.0	36.5	12.3	9.2	12.0	0.0				6.8	15.9	0.0
Cycle Q Clear(g_c), s	0.0	36.5	12.3	9.2	12.0	0.0				6.8	15.9	0.0
Prop In Lane	0.00		1.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2592	639	335	1895					273	544	
V/C Ratio(X)	0.00	0.78	0.28	0.80	0.33					0.41	0.88	
Avail Cap(c_a), veh/h	0	2592	639	605	1895					282	563	
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.88	0.88	1.00	1.00	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	46.9	36.4	53.1	15.9	0.0				45.9	49.7	0.0
Incr Delay (d2), s/veh	0.0	1.7	0.5	1.7	0.5	0.0				1.9	15.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	16.0	5.2	4.0	4.7	0.0				3.1	8.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	48.6	36.9	54.8	16.3	0.0				47.8	65.6	0.0
LnGrp LOS	A	D	D	D	B					D	E	
Approach Vol, veh/h		2204			896	A					592	A
Approach Delay, s/veh		47.6			27.9						62.2	
Approach LOS		D			C						E	

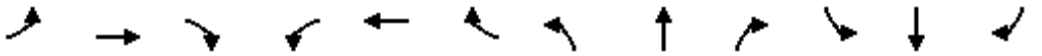
Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		15.6	54.4		24.4		70.0					
Change Period (Y+Rc), s		4.0	6.0		6.0		6.0					
Max Green Setting (Gmax), s		21.0	39.0		19.0		64.0					
Max Q Clear Time (g_c+I1), s		11.2	38.5		17.9		14.0					
Green Ext Time (p_c), s		0.5	0.5		0.5		7.7					

Intersection Summary	
HCM 6th Ctrl Delay	45.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	49	5	56	52	279	10	57	54	637	33	2
Future Volume (veh/h)	2	49	5	56	52	279	10	57	54	637	33	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	49	0	56	52	71	10	57	5	637	33	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	17	491	219	304	787	351	32	258	115	691	1627	726
Arrive On Green	0.00	0.14	0.00	0.09	0.22	0.22	0.02	0.07	0.07	0.39	0.46	0.46
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	2	49	0	56	52	71	10	57	5	637	33	1
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.0	0.8	0.0	1.0	0.8	2.4	0.4	1.0	0.2	22.2	0.3	0.0
Cycle Q Clear(g_c), s	0.0	0.8	0.0	1.0	0.8	2.4	0.4	1.0	0.2	22.2	0.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	17	491	219	304	787	351	32	258	115	691	1627	726
V/C Ratio(X)	0.12	0.10	0.00	0.18	0.07	0.20	0.32	0.22	0.04	0.92	0.02	0.00
Avail Cap(c_a), veh/h	850	781	348	850	787	351	438	781	348	1505	1627	726
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	24.5	0.0	27.5	20.0	20.6	31.6	28.4	28.1	19.0	9.7	9.6
Incr Delay (d2), s/veh	1.1	0.2	0.0	0.1	0.1	0.7	2.1	1.1	0.4	2.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.0	0.4	0.3	0.9	0.2	0.4	0.1	8.6	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.4	24.7	0.0	27.6	20.1	21.3	33.7	29.5	28.5	21.3	9.7	9.6
LnGrp LOS	C	C	A	C	C	C	C	C	C	C	A	A
Approach Vol, veh/h		51			179			72			671	
Approach Delay, s/veh		25.1			22.9			30.0			20.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.2	10.4	9.7	14.7	5.2	35.5	4.3	20.1
Change Period (Y+Rc), s	5.0	5.7	4.0	5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	55.0	14.3	16.0	14.3	16.0	14.3	16.0	14.3
Max Q Clear Time (g_c+I1), s	24.2	3.0	3.0	2.8	2.4	2.3	2.0	4.4
Green Ext Time (p_c), s	1.0	0.3	0.0	0.2	0.0	0.2	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	22.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	554	517	379	241	76	262	647	426	134	624	46
Future Volume (veh/h)	96	554	517	379	241	76	262	647	426	134	624	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	96	554	308	379	241	29	262	647	120	134	624	11
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	355	948	423	496	1094	488	369	1201	373	299	1098	341
Arrive On Green	0.10	0.27	0.27	0.14	0.31	0.31	0.11	0.24	0.24	0.09	0.21	0.21
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	96	554	308	379	241	29	262	647	120	134	624	11
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	2.0	10.3	13.5	8.0	3.8	1.0	5.6	8.5	4.8	2.8	8.3	0.4
Cycle Q Clear(g_c), s	2.0	10.3	13.5	8.0	3.8	1.0	5.6	8.5	4.8	2.8	8.3	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	355	948	423	496	1094	488	369	1201	373	299	1098	341
V/C Ratio(X)	0.27	0.58	0.73	0.76	0.22	0.06	0.71	0.54	0.32	0.45	0.57	0.03
Avail Cap(c_a), veh/h	908	1260	562	1588	1447	645	1407	2078	645	908	3017	937
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.5	24.2	25.4	31.4	19.6	18.6	32.9	25.5	24.1	33.1	26.7	23.6
Incr Delay (d2), s/veh	0.2	1.0	4.7	0.9	0.1	0.1	1.0	0.6	0.8	0.4	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	4.0	5.1	3.1	1.4	0.3	2.2	3.1	1.7	1.1	3.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.7	25.2	30.1	32.3	19.7	18.7	33.8	26.1	24.9	33.4	27.6	23.7
LnGrp LOS	C	C	C	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		958			649			1029			769	
Approach Delay, s/veh		27.5			27.0			27.9			28.6	
Approach LOS		C			C			C			C	

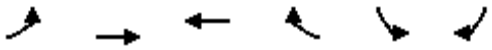
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	24.3	14.9	26.3	12.1	22.8	11.8	29.4
Change Period (Y+Rc), s	4.0	6.4	4.0	* 6	4.0	* 6.4	4.0	6.0
Max Green Setting (Gmax), s	20.0	31.0	35.0	* 27	31.0	* 45	20.0	31.0
Max Q Clear Time (g_c+I1), s	4.8	10.5	10.0	15.5	7.6	10.3	4.0	5.8
Green Ext Time (p_c), s	0.2	5.4	0.9	4.9	0.6	6.0	0.2	1.7

Intersection Summary	
HCM 6th Ctrl Delay	27.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	1196	645	50	81	16
Future Volume (veh/h)	5	1196	645	50	81	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	1196	645	0	81	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	19	2174	1738		193	
Arrive On Green	0.01	0.61	0.49	0.00	0.11	0.00
Sat Flow, veh/h	1781	3647	3647	1585	1781	1585
Grp Volume(v), veh/h	5	1196	645	0	81	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1781	1585
Q Serve(g_s), s	0.1	7.0	4.0	0.0	1.5	0.0
Cycle Q Clear(g_c), s	0.1	7.0	4.0	0.0	1.5	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	19	2174	1738		193	
V/C Ratio(X)	0.26	0.55	0.37		0.42	
Avail Cap(c_a), veh/h	997	5272	5670		1246	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	17.5	4.1	5.7	0.0	14.9	0.0
Incr Delay (d2), s/veh	2.6	0.3	0.2	0.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.0	0.9	0.0	0.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.1	4.4	5.9	0.0	15.4	0.0
LnGrp LOS	C	A	A		B	
Approach Vol, veh/h		1201	645	A	81	A
Approach Delay, s/veh		4.4	5.9		15.4	
Approach LOS		A	A		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			27.9		7.9	4.4	23.5
Change Period (Y+Rc), s			6.0		4.0	4.0	* 6
Max Green Setting (Gmax), s			53.0		25.0	20.0	* 57
Max Q Clear Time (g_c+I1), s			9.0		3.5	2.1	6.0
Green Ext Time (p_c), s			12.8		0.1	0.0	6.5

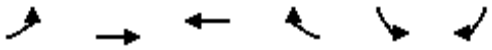
Intersection Summary	
HCM 6th Ctrl Delay	5.4
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



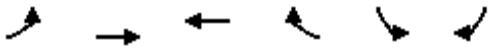
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	1276	670	23	46	12
Future Volume (veh/h)	4	1276	670	23	46	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	1276	670	21	46	4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	14	2370	1962	61	138	12
Arrive On Green	0.01	0.67	0.56	0.56	0.09	0.09
Sat Flow, veh/h	1781	3647	3611	110	1593	138
Grp Volume(v), veh/h	4	1276	338	353	51	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1851	1766	0
Q Serve(g_s), s	0.1	7.4	4.1	4.1	1.1	0.0
Cycle Q Clear(g_c), s	0.1	7.4	4.1	4.1	1.1	0.0
Prop In Lane	1.00			0.06	0.90	0.08
Lane Grp Cap(c), veh/h	14	2370	991	1032	153	0
V/C Ratio(X)	0.30	0.54	0.34	0.34	0.33	0.00
Avail Cap(c_a), veh/h	904	5141	2841	2959	896	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.4	3.4	4.8	4.8	16.9	0.0
Incr Delay (d2), s/veh	4.4	0.3	0.3	0.3	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.9	0.9	0.9	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.8	3.7	5.1	5.1	17.4	0.0
LnGrp LOS	C	A	A	A	B	A
Approach Vol, veh/h		1280	691		51	
Approach Delay, s/veh		3.8	5.1		17.4	
Approach LOS		A	A		B	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	32.0	7.4	4.3	27.7
Change Period (Y+Rc), s	5.7	4.0	4.0	5.7
Max Green Setting (Gmax), s	57.0	20.0	20.0	63.0
Max Q Clear Time (g_c+I1), s	9.4	3.1	2.1	6.1
Green Ext Time (p_c), s	16.9	0.1	0.0	6.3

Intersection Summary	
HCM 6th Ctrl Delay	4.6
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



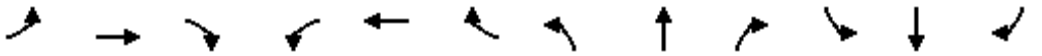
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	21	1280	666	31	73	31
Future Volume (veh/h)	21	1280	666	31	73	31
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	1280	666	29	73	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	74	2283	1738	76	206	184
Arrive On Green	0.04	0.64	0.50	0.50	0.12	0.12
Sat Flow, veh/h	1781	3647	3561	151	1781	1585
Grp Volume(v), veh/h	21	1280	341	354	73	5
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1841	1781	1585
Q Serve(g_s), s	0.5	8.1	4.8	4.8	1.5	0.1
Cycle Q Clear(g_c), s	0.5	8.1	4.8	4.8	1.5	0.1
Prop In Lane	1.00			0.08	1.00	1.00
Lane Grp Cap(c), veh/h	74	2283	891	923	206	184
V/C Ratio(X)	0.28	0.56	0.38	0.38	0.35	0.03
Avail Cap(c_a), veh/h	888	5048	2878	2983	888	790
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.6	4.0	6.2	6.2	16.4	15.7
Incr Delay (d2), s/veh	0.8	0.3	0.4	0.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.2	1.2	1.3	0.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.4	4.4	6.6	6.6	16.7	15.8
LnGrp LOS	B	A	A	A	B	B
Approach Vol, veh/h		1301	695		78	
Approach Delay, s/veh		4.6	6.6		16.7	
Approach LOS		A	A		B	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	31.5	8.6	5.7	25.8
Change Period (Y+Rc), s	5.7	4.0	4.0	5.7
Max Green Setting (Gmax), s	57.0	20.0	20.0	65.0
Max Q Clear Time (g_c+I1), s	10.1	3.5	2.5	6.8
Green Ext Time (p_c), s	15.7	0.1	0.0	5.9

Intersection Summary	
HCM 6th Ctrl Delay	5.7
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	1075	202	143	549	215	131	366	256	333	417	190
Future Volume (veh/h)	42	1075	202	143	549	215	131	366	256	333	417	190
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	42	1075	0	143	549	0	131	366	0	333	417	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	71	1047		673	1712		184	445		395	707	
Arrive On Green	0.02	0.33	0.00	0.22	0.54	0.00	0.06	0.14	0.00	0.13	0.22	0.00
Sat Flow, veh/h	3110	3198	1427	3110	3198	1427	3110	3198	1427	3110	3198	1427
Grp Volume(v), veh/h	42	1075	0	143	549	0	131	366	0	333	417	0
Grp Sat Flow(s),veh/h/ln	1555	1599	1427	1555	1599	1427	1555	1599	1427	1555	1599	1427
Q Serve(g_s), s	1.6	39.3	0.0	4.5	11.6	0.0	5.0	13.3	0.0	12.6	14.0	0.0
Cycle Q Clear(g_c), s	1.6	39.3	0.0	4.5	11.6	0.0	5.0	13.3	0.0	12.6	14.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	71	1047		673	1712		184	445		395	707	
V/C Ratio(X)	0.59	1.03		0.21	0.32		0.71	0.82		0.84	0.59	
Avail Cap(c_a), veh/h	415	1047		673	1712		518	488		700	707	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	58.1	40.3	0.0	38.6	15.6	0.0	55.5	50.2	0.0	51.2	41.8	0.0
Incr Delay (d2), s/veh	2.9	34.7	0.0	0.1	0.2	0.0	1.9	11.3	0.0	1.9	1.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	19.5	0.0	1.7	3.9	0.0	1.9	5.9	0.0	4.8	5.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.0	75.1	0.0	38.7	15.8	0.0	57.4	61.5	0.0	53.1	43.6	0.0
LnGrp LOS	E	F		D	B		E	E		D	D	
Approach Vol, veh/h		1117	A		692	A		497	A		750	A
Approach Delay, s/veh		74.5			20.6			60.4			47.8	
Approach LOS		E			C			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.9	22.4	31.7	45.0	11.1	32.2	6.7	69.9
Change Period (Y+Rc), s	5.7	* 5.7	5.7	* 5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	27.0	* 18	16.0	* 39	20.0	25.3	16.0	39.3
Max Q Clear Time (g_c+I1), s	14.6	15.3	6.5	41.3	7.0	16.0	3.6	13.6
Green Ext Time (p_c), s	0.7	0.7	0.2	0.0	0.2	2.0	0.0	4.3

Intersection Summary	
HCM 6th Ctrl Delay	53.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1646	39	116	789	70	194
Future Volume (veh/h)	1646	39	116	789	70	194
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1646	38	116	789	70	19
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2090	48	143	2496	98	88
Arrive On Green	0.59	0.59	0.08	0.70	0.06	0.06
Sat Flow, veh/h	3643	82	1781	3647	1781	1585
Grp Volume(v), veh/h	822	862	116	789	70	19
Grp Sat Flow(s),veh/h/ln	1777	1855	1781	1777	1781	1585
Q Serve(g_s), s	42.5	42.8	7.7	10.2	4.6	1.4
Cycle Q Clear(g_c), s	42.5	42.8	7.7	10.2	4.6	1.4
Prop In Lane		0.04	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1046	1092	143	2496	98	88
V/C Ratio(X)	0.79	0.79	0.81	0.32	0.71	0.22
Avail Cap(c_a), veh/h	1046	1092	386	2496	386	343
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	19.0	54.3	6.8	55.7	54.2
Incr Delay (d2), s/veh	5.9	5.8	4.1	0.3	3.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.9	17.7	3.5	3.2	2.1	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.8	24.8	58.4	7.2	59.3	54.7
LnGrp LOS	C	C	E	A	E	D
Approach Vol, veh/h	1684			905	89	
Approach Delay, s/veh	24.8			13.7	58.3	
Approach LOS	C			B	E	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		10.6	13.6	76.4		90.0
Change Period (Y+Rc), s		4.0	4.0	5.7		5.7
Max Green Setting (Gmax), s		26.0	26.0	38.3		84.3
Max Q Clear Time (g_c+I1), s		6.6	9.7	44.8		12.2
Green Ext Time (p_c), s		0.4	0.2	0.0		26.2

Intersection Summary	
HCM 6th Ctrl Delay	22.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	164	1536	175	372	604	164	152	535	681	185	388	98
Future Volume (veh/h)	164	1536	175	372	604	164	152	535	681	185	388	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	164	1536	0	372	604	0	152	535	0	185	388	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	221	1807		469	1362		210	628		244	952	
Arrive On Green	0.06	0.35	0.00	0.09	0.38	0.00	0.06	0.18	0.00	0.07	0.19	0.00
Sat Flow, veh/h	3456	5106	1585	5023	3554	1585	3456	3554	1585	3456	5106	1585
Grp Volume(v), veh/h	164	1536	0	372	604	0	152	535	0	185	388	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1674	1777	1585	1728	1777	1585	1728	1702	1585
Q Serve(g_s), s	5.6	33.4	0.0	8.7	15.2	0.0	5.2	17.5	0.0	6.3	8.0	0.0
Cycle Q Clear(g_c), s	5.6	33.4	0.0	8.7	15.2	0.0	5.2	17.5	0.0	6.3	8.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	221	1807		469	1362		210	628		244	952	
V/C Ratio(X)	0.74	0.85		0.79	0.44		0.72	0.85		0.76	0.41	
Avail Cap(c_a), veh/h	354	1807		795	1362		461	711		461	1021	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	55.2	35.8	0.0	53.3	27.5	0.0	55.4	47.9	0.0	54.8	43.0	0.0
Incr Delay (d2), s/veh	1.9	4.3	0.0	1.2	1.0	0.0	1.8	9.6	0.0	1.8	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	13.9	0.0	3.6	6.4	0.0	2.3	8.4	0.0	2.7	3.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.0	40.1	0.0	54.4	28.5	0.0	57.1	57.5	0.0	56.6	43.4	0.0
LnGrp LOS	E	D		D	C		E	E		E	D	
Approach Vol, veh/h		1700	A		976	A		687	A		573	A
Approach Delay, s/veh		41.8			38.4			57.4			47.6	
Approach LOS		D			D			E			D	

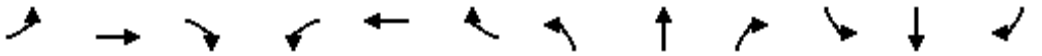
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	27.2	17.2	48.2	11.3	28.4	13.4	52.0
Change Period (Y+Rc), s	4.0	6.0	6.0	5.7	4.0	6.0	5.7	6.0
Max Green Setting (Gmax), s	16.0	24.0	19.0	39.3	16.0	24.0	12.3	46.0
Max Q Clear Time (g_c+I1), s	8.3	19.5	10.7	35.4	7.2	10.0	7.6	17.2
Green Ext Time (p_c), s	0.2	1.7	0.5	3.4	0.1	2.7	0.1	5.9

Intersection Summary	
HCM 6th Ctrl Delay	44.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	228	1777	295	159	803	60	183	445	244	67	436	159
Future Volume (veh/h)	228	1777	295	159	803	60	183	445	244	67	436	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	228	1777	189	159	803	0	183	445	0	67	436	31
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	289	1659	515	854	2579		244	742		112	536	239
Arrive On Green	0.08	0.32	0.32	0.25	0.51	0.00	0.07	0.21	0.00	0.03	0.15	0.15
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	228	1777	189	159	803	0	183	445	0	67	436	31
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	7.8	39.0	11.0	4.4	11.1	0.0	6.2	13.6	0.0	2.3	14.3	1.6
Cycle Q Clear(g_c), s	7.8	39.0	11.0	4.4	11.1	0.0	6.2	13.6	0.0	2.3	14.3	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	289	1659	515	854	2579		244	742		112	536	239
V/C Ratio(X)	0.79	1.07	0.37	0.19	0.31		0.75	0.60		0.60	0.81	0.13
Avail Cap(c_a), veh/h	461	1659	515	854	2579		461	742		461	699	312
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.9	40.5	31.0	35.7	17.4	0.0	54.7	42.9	0.0	57.3	49.3	28.2
Incr Delay (d2), s/veh	1.8	43.8	2.0	0.0	0.1	0.0	1.8	1.7	0.0	1.9	6.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	22.2	4.4	1.8	4.1	0.0	2.7	6.0	0.0	1.0	6.7	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.8	84.3	33.0	35.7	17.5	0.0	56.5	44.7	0.0	59.1	56.2	28.6
LnGrp LOS	E	F	C	D	B		E	D		E	E	C
Approach Vol, veh/h		2194			962	A		628	A		534	
Approach Delay, s/veh		76.9			20.5			48.1			55.0	
Approach LOS		E			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	31.4	35.6	45.0	14.9	24.5	14.0	66.6
Change Period (Y+Rc), s	4.0	6.4	6.0	6.0	6.4	* 6.4	4.0	6.0
Max Green Setting (Gmax), s	16.0	23.6	19.0	39.0	16.0	* 24	16.0	44.0
Max Q Clear Time (g_c+I1), s	4.3	15.6	6.4	41.0	8.2	16.3	9.8	13.1
Green Ext Time (p_c), s	0.1	1.9	0.3	0.0	0.2	1.8	0.3	6.3

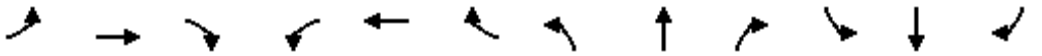
Intersection Summary	
HCM 6th Ctrl Delay	57.5
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	1959	15	40	931	92	55	71	38	163	21	28
Future Volume (veh/h)	14	1959	15	40	931	92	55	71	38	163	21	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	1959	0	40	931	0	55	71	0	163	21	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	17	2225		424	3465		71	94		190	219	
Arrive On Green	0.02	0.87	0.00	0.48	1.00	0.00	0.04	0.05	0.00	0.11	0.12	0.00
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1870	1585	1781	1870	0
Grp Volume(v), veh/h	14	1959	0	40	931	0	55	71	0	163	21	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1870	1585	1781	1870	0
Q Serve(g_s), s	0.9	25.4	0.0	1.5	0.0	0.0	3.7	4.5	0.0	10.8	1.2	0.0
Cycle Q Clear(g_c), s	0.9	25.4	0.0	1.5	0.0	0.0	3.7	4.5	0.0	10.8	1.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	17	2225		424	3465		71	94		190	219	
V/C Ratio(X)	0.84	0.88		0.09	0.27		0.77	0.75		0.86	0.10	
Avail Cap(c_a), veh/h	238	2225		424	3465		238	312		238	298	
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	58.8	6.0	0.0	24.4	0.0	0.0	57.1	56.2	0.0	52.7	47.3	0.0
Incr Delay (d2), s/veh	32.1	5.4	0.0	0.0	0.1	0.0	6.5	8.7	0.0	18.7	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.6	0.0	0.6	0.0	0.0	1.8	2.3	0.0	5.8	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.9	11.4	0.0	24.4	0.1	0.0	63.6	65.0	0.0	71.4	47.5	0.0
LnGrp LOS	F	B		C	A		E	E		E	D	
Approach Vol, veh/h		1973	A		971	A		126	A		184	A
Approach Delay, s/veh		11.9			1.1			64.4			68.6	
Approach LOS		B			A			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.8	10.9	34.3	58.0	8.8	19.0	5.1	87.1
Change Period (Y+Rc), s	4.0	* 4.9	5.7	* 5.7	4.0	4.9	4.0	5.7
Max Green Setting (Gmax), s	16.0	* 20	14.0	* 52	16.0	19.1	16.0	50.3
Max Q Clear Time (g_c+I1), s	12.8	6.5	3.5	27.4	5.7	3.2	2.9	2.0
Green Ext Time (p_c), s	0.1	0.2	0.0	20.6	0.0	0.0	0.0	12.8

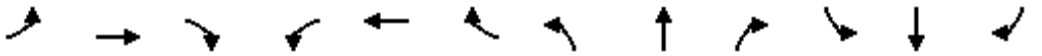
Intersection Summary	
HCM 6th Ctrl Delay	13.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	1033	941	645	581	84	545	315	413	148	682	24
Future Volume (veh/h)	26	1033	941	645	581	84	545	315	413	148	682	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	1033	0	645	581	0	545	315	0	148	682	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	290	1164		711	1757		707	766		229	835	
Arrive On Green	0.17	0.46	0.00	0.21	0.34	0.00	0.14	0.22	0.00	0.07	0.16	0.00
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	5023	3554	1585	3456	5106	1585
Grp Volume(v), veh/h	26	1033	0	645	581	0	545	315	0	148	682	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1674	1777	1585	1728	1702	1585
Q Serve(g_s), s	0.8	22.2	0.0	21.9	10.1	0.0	12.5	9.2	0.0	5.0	15.5	0.0
Cycle Q Clear(g_c), s	0.8	22.2	0.0	21.9	10.1	0.0	12.5	9.2	0.0	5.0	15.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	290	1164		711	1757		707	766		229	835	
V/C Ratio(X)	0.09	0.89		0.91	0.33		0.77	0.41		0.65	0.82	
Avail Cap(c_a), veh/h	461	1234		778	1757		1047	766		556	936	
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.1	31.2	0.0	46.5	29.1	0.0	49.7	40.5	0.0	54.7	48.4	0.0
Incr Delay (d2), s/veh	0.0	8.1	0.0	13.6	0.5	0.0	2.9	0.6	0.0	5.2	5.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	7.2	0.0	10.4	4.1	0.0	5.3	4.0	0.0	2.3	6.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.1	39.4	0.0	60.2	29.6	0.0	52.6	41.1	0.0	59.8	54.1	0.0
LnGrp LOS	D	D		E	C		D	D		E	D	
Approach Vol, veh/h		1059	A		1226	A		860	A		830	A
Approach Delay, s/veh		39.5			45.7			48.4			55.1	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.6	33.6	29.7	33.4	19.9	27.3	16.1	47.0
Change Period (Y+Rc), s	5.7	7.7	5.0	6.0	3.0	* 7.7	6.0	* 5.7
Max Green Setting (Gmax), s	19.3	20.3	27.0	29.0	25.0	* 22	16.0	* 41
Max Q Clear Time (g_c+I1), s	7.0	11.2	23.9	24.2	14.5	17.5	2.8	12.1
Green Ext Time (p_c), s	0.6	1.8	0.8	3.2	2.3	2.2	0.0	6.3

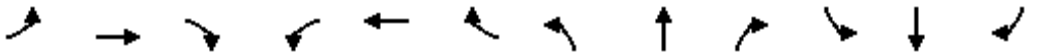
Intersection Summary	
HCM 6th Ctrl Delay	46.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	236	4	141	33	2	30	215	1425	9	214	1142	126
Future Volume (veh/h)	236	4	141	33	2	30	215	1425	9	214	1142	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	239	0	14	33	2	3	215	1425	9	214	1142	71
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	367	0	109	46	48	40	289	2382	15	1258	3346	1039
Arrive On Green	0.07	0.00	0.07	0.03	0.03	0.03	0.08	0.36	0.36	0.36	0.66	0.66
Sat Flow, veh/h	5344	0	1585	1781	1870	1585	3456	6646	42	3456	5106	1585
Grp Volume(v), veh/h	239	0	14	33	2	3	215	1035	399	214	1142	71
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	1870	1585	1728	1609	1863	1728	1702	1585
Q Serve(g_s), s	5.2	0.0	1.0	2.2	0.1	0.2	7.3	21.0	21.0	5.0	11.9	1.9
Cycle Q Clear(g_c), s	5.2	0.0	1.0	2.2	0.1	0.2	7.3	21.0	21.0	5.0	11.9	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	367	0	109	46	48	40	289	1729	668	1258	3346	1039
V/C Ratio(X)	0.65	0.00	0.13	0.73	0.04	0.07	0.74	0.60	0.60	0.17	0.34	0.07
Avail Cap(c_a), veh/h	1024	0	304	282	296	251	749	1729	668	1258	3346	1039
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.5	0.0	52.5	58.0	57.0	57.1	53.7	31.4	31.4	25.9	9.2	7.5
Incr Delay (d2), s/veh	2.0	0.0	0.5	19.5	0.4	0.8	3.8	1.5	3.9	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.4	1.2	0.1	0.1	3.2	8.1	9.8	2.0	3.9	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.4	0.0	53.0	77.5	57.4	57.8	57.5	33.0	35.4	25.9	9.2	7.5
LnGrp LOS	E	A	D	E	E	E	E	C	D	C	A	A
Approach Vol, veh/h		253			38			1649			1427	
Approach Delay, s/veh		56.2			74.9			36.8			11.7	
Approach LOS		E			E			D			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	50.7	49.0		12.2	14.0	85.6		8.1				
Change Period (Y+Rc), s	7.0	6.0		4.0	4.0	* 7		5.0				
Max Green Setting (Gmax), s	13.0	43.0		23.0	26.0	* 33		19.0				
Max Q Clear Time (g_c+I1), s	7.0	23.0		7.2	9.3	13.9		4.2				
Green Ext Time (p_c), s	0.4	17.4		1.0	0.8	15.2		0.1				

Intersection Summary	
HCM 6th Ctrl Delay	28.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1245	446	0	1241	344	0	0	0	103	0	341
Future Volume (veh/h)	0	1245	446	0	1241	344	0	0	0	103	0	341
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	2067	2067	0	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	0	1245	416	0	1241	0				69	0	293
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	0	2	2				2	2	2
Cap, veh/h	0	3316	1106	0	4048					206	0	366
Arrive On Green	0.00	0.79	0.79	0.00	1.00	0.00				0.12	0.00	0.12
Sat Flow, veh/h	0	4368	1395	0	5274	1585				1781	0	3170
Grp Volume(v), veh/h	0	1119	542	0	1241	0				69	0	293
Grp Sat Flow(s),veh/h/ln	0	1881	1816	0	1702	1585				1781	0	1585
Q Serve(g_s), s	0.0	10.5	10.6	0.0	0.0	0.0				4.3	0.0	10.8
Cycle Q Clear(g_c), s	0.0	10.5	10.6	0.0	0.0	0.0				4.3	0.0	10.8
Prop In Lane	0.00		0.77	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2982	1439	0	4048					206	0	366
V/C Ratio(X)	0.00	0.38	0.38	0.00	0.31					0.34	0.00	0.80
Avail Cap(c_a), veh/h	0	2982	1439	0	4048					515	0	917
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.93	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	3.7	3.7	0.0	0.0	0.0				48.8	0.0	51.7
Incr Delay (d2), s/veh	0.0	0.4	0.8	0.0	0.1	0.0				0.4	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.8	2.9	0.0	0.0	0.0				1.9	0.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	4.0	4.4	0.0	0.1	0.0				49.2	0.0	53.3
LnGrp LOS	A	A	A	A	A					D	A	D
Approach Vol, veh/h		1661			1241	A					362	
Approach Delay, s/veh		4.2			0.1						52.5	
Approach LOS		A			A						D	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		100.8		19.2		100.8						
Change Period (Y+Rc), s		5.7		5.3		5.7						
Max Green Setting (Gmax), s		74.3		34.7		74.3						
Max Q Clear Time (g_c+I1), s		12.6		12.8		2.0						
Green Ext Time (p_c), s		21.9		1.0		11.6						

Intersection Summary	
HCM 6th Ctrl Delay	8.0
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



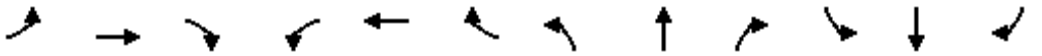
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1105	243	106	1268	317	284
Future Volume (veh/h)	1105	243	106	1268	317	284
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	2067	2067	1870	1870	1870	1870
Adj Flow Rate, veh/h	1105	0	106	1268	317	30
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3127		131	3374	433	241
Arrive On Green	0.55	0.00	0.15	1.00	0.09	0.09
Sat Flow, veh/h	5828	1751	1781	5274	5023	2790
Grp Volume(v), veh/h	1105	0	106	1268	317	30
Grp Sat Flow(s),veh/h/ln	1881	1751	1781	1702	1674	1395
Q Serve(g_s), s	13.0	0.0	6.9	0.0	7.4	1.2
Cycle Q Clear(g_c), s	13.0	0.0	6.9	0.0	7.4	1.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	3127		131	3374	433	241
V/C Ratio(X)	0.35		0.81	0.38	0.73	0.12
Avail Cap(c_a), veh/h	3127		386	3374	1160	644
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.91	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.8	0.0	50.4	0.0	53.5	50.6
Incr Delay (d2), s/veh	0.1	0.0	4.5	0.3	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	0.0	3.0	0.1	3.1	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.9	0.0	54.9	0.3	54.4	50.7
LnGrp LOS	B		D	A	D	D
Approach Vol, veh/h	1105	A		1374	347	
Approach Delay, s/veh	14.9			4.5	54.1	
Approach LOS	B			A	D	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	12.8	72.2				85.0	17.6
Change Period (Y+Rc), s	4.0	5.7				5.7	7.3
Max Green Setting (Gmax), s	26.0	49.3				79.3	27.7
Max Q Clear Time (g_c+I1), s	8.9	15.0				2.0	9.4
Green Ext Time (p_c), s	0.1	8.5				14.6	1.0

Intersection Summary			
HCM 6th Ctrl Delay		14.7	
HCM 6th LOS		B	

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



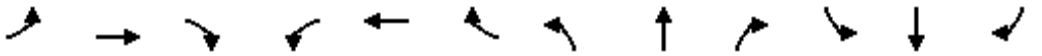
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	322	309	289	168	37	281	634	407	81	705	85
Future Volume (veh/h)	122	322	309	289	168	37	281	634	407	81	705	85
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	2067	2067	2067	1870	1870	1870
Adj Flow Rate, veh/h	122	322	57	289	168	9	281	634	187	81	705	33
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	198	445	198	354	605	270	351	1529	475	188	1119	347
Arrive On Green	0.06	0.13	0.13	0.10	0.17	0.17	0.09	0.27	0.27	0.05	0.22	0.22
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3818	5642	1751	3456	5106	1585
Grp Volume(v), veh/h	122	322	57	289	168	9	281	634	187	81	705	33
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1909	1881	1751	1728	1702	1585
Q Serve(g_s), s	4.1	10.5	1.8	9.8	4.9	0.6	8.7	11.1	10.5	2.7	15.0	0.9
Cycle Q Clear(g_c), s	4.1	10.5	1.8	9.8	4.9	0.6	8.7	11.1	10.5	2.7	15.0	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	198	445	198	354	605	270	351	1529	475	188	1119	347
V/C Ratio(X)	0.62	0.72	0.29	0.82	0.28	0.03	0.80	0.41	0.39	0.43	0.63	0.09
Avail Cap(c_a), veh/h	461	731	326	749	1028	458	710	1613	501	461	1119	347
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.3	50.5	10.1	52.7	43.4	41.5	53.4	35.9	35.7	54.9	42.4	7.7
Incr Delay (d2), s/veh	1.2	3.5	1.2	1.8	0.4	0.1	1.6	0.3	0.9	0.6	2.7	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	4.9	1.6	4.3	2.2	0.2	4.1	5.0	4.6	1.2	6.4	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.4	54.0	11.3	54.5	43.7	41.6	55.0	36.2	36.6	55.5	45.1	8.2
LnGrp LOS	E	D	B	D	D	D	E	D	D	E	D	A
Approach Vol, veh/h		501			466			1102			819	
Approach Delay, s/veh		49.8			50.4			41.1			44.7	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	38.2	16.3	20.3	16.7	32.0	10.9	25.7
Change Period (Y+Rc), s	4.0	5.7	4.0	5.3	5.7	5.7	4.0	5.3
Max Green Setting (Gmax), s	16.0	34.3	26.0	24.7	22.3	26.3	16.0	34.7
Max Q Clear Time (g_c+I1), s	4.7	13.1	11.8	12.5	10.7	17.0	6.1	6.9
Green Ext Time (p_c), s	0.1	7.5	0.5	2.6	0.4	4.3	0.1	1.6

Intersection Summary	
HCM 6th Ctrl Delay	45.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	33	80	133	14	37	28	439	254	79	702	10
Future Volume (veh/h)	18	33	80	133	14	37	28	439	254	79	702	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	33	10	133	14	6	28	439	144	79	702	6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	22	43	13	160	135	58	35	3389	1052	101	2490	1111
Arrive On Green	0.01	0.03	0.03	0.09	0.11	0.11	0.02	0.66	0.66	0.06	0.70	0.70
Sat Flow, veh/h	1781	1378	417	1781	1242	532	1781	5106	1585	1781	3554	1585
Grp Volume(v), veh/h	18	0	43	133	0	20	28	439	144	79	702	6
Grp Sat Flow(s),veh/h/ln	1781	0	1795	1781	0	1775	1781	1702	1585	1781	1777	1585
Q Serve(g_s), s	1.2	0.0	2.9	8.8	0.0	1.2	1.9	3.8	4.0	5.3	8.8	0.1
Cycle Q Clear(g_c), s	1.2	0.0	2.9	8.8	0.0	1.2	1.9	3.8	4.0	5.3	8.8	0.1
Prop In Lane	1.00		0.23	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	22	0	56	160	0	194	35	3389	1052	101	2490	1111
V/C Ratio(X)	0.83	0.00	0.77	0.83	0.00	0.10	0.80	0.13	0.14	0.78	0.28	0.01
Avail Cap(c_a), veh/h	252	0	275	252	0	262	238	3389	1052	238	2490	1111
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.2	0.0	57.7	53.7	0.0	48.2	58.6	7.4	7.5	55.9	6.7	5.4
Incr Delay (d2), s/veh	25.2	0.0	17.0	6.5	0.0	0.2	14.1	0.1	0.3	4.9	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.6	4.2	0.0	0.6	1.0	1.4	1.4	2.5	3.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.4	0.0	74.7	60.2	0.0	48.4	72.6	7.5	7.7	60.8	6.8	5.4
LnGrp LOS	F	A	E	E	A	D	E	A	A	E	A	A
Approach Vol, veh/h		61			153			611			787	
Approach Delay, s/veh		77.5			58.7			10.5			12.2	
Approach LOS		E			E			B			B	

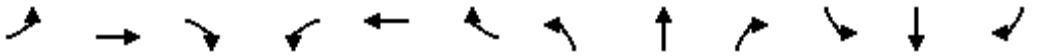
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	85.4	14.8	9.0	6.4	89.8	5.5	18.4
Change Period (Y+Rc), s	4.0	5.7	4.0	* 5.3	4.0	* 5.7	4.0	5.3
Max Green Setting (Gmax), s	16.0	50.3	17.0	* 18	16.0	* 51	17.0	17.7
Max Q Clear Time (g_c+I1), s	7.3	6.0	10.8	4.9	3.9	10.8	3.2	3.2
Green Ext Time (p_c), s	0.1	5.6	0.1	0.1	0.0	7.1	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	18.5
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	5	14	31	11	94	50	1095	19	51	1527	10
Future Volume (veh/h)	44	5	14	31	11	94	50	1095	19	51	1527	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	0	1	31	11	17	50	1095	18	51	1527	4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	299	0	133	111	39	132	121	2733	45	122	2701	838
Arrive On Green	0.08	0.00	0.08	0.08	0.08	0.08	0.07	0.53	0.53	0.07	0.53	0.53
Sat Flow, veh/h	3563	0	1585	1331	472	1585	1781	5174	85	1781	5106	1585
Grp Volume(v), veh/h	48	0	1	42	0	17	50	720	393	51	1527	4
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1804	0	1585	1781	1702	1855	1781	1702	1585
Q Serve(g_s), s	1.0	0.0	0.0	1.7	0.0	0.8	2.1	9.9	9.9	2.1	15.7	0.1
Cycle Q Clear(g_c), s	1.0	0.0	0.0	1.7	0.0	0.8	2.1	9.9	9.9	2.1	15.7	0.1
Prop In Lane	1.00		1.00	0.74		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	299	0	133	150	0	132	121	1798	980	122	2701	838
V/C Ratio(X)	0.16	0.00	0.01	0.28	0.00	0.13	0.41	0.40	0.40	0.42	0.57	0.00
Avail Cap(c_a), veh/h	914	0	407	463	0	407	457	2489	1356	457	3733	1159
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	0.0	32.7	33.5	0.0	33.1	34.9	11.0	11.0	34.8	12.3	8.7
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.4	0.0	0.2	0.8	0.2	0.4	0.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.7	0.0	0.3	0.9	3.4	3.8	0.9	5.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.3	0.0	32.7	33.9	0.0	33.3	35.7	11.2	11.4	35.7	12.6	8.7
LnGrp LOS	C	A	C	C	A	C	D	B	B	D	B	A
Approach Vol, veh/h		49			59			1163			1582	
Approach Delay, s/veh		33.2			33.7			12.3			13.4	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.3	47.6		10.5	9.3	47.6		10.5				
Change Period (Y+Rc), s	4.0	6.4		4.0	4.0	6.4		4.0				
Max Green Setting (Gmax), s	20.0	57.0		20.0	20.0	57.0		20.0				
Max Q Clear Time (g_c+I1), s	4.1	11.9		3.0	4.1	17.7		3.7				
Green Ext Time (p_c), s	0.0	15.9		0.0	0.0	23.6		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		13.7	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



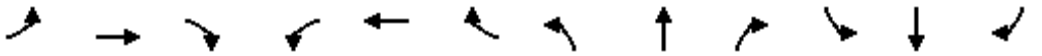
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	284	46	596	812	47	320
Future Volume (veh/h)	284	46	596	812	47	320
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	284	12	596	812	47	184
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	445	377	656	1269	250	807
Arrive On Green	0.24	0.24	0.37	0.68	0.14	0.14
Sat Flow, veh/h	1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h	284	12	596	812	47	184
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1870	1781	1585
Q Serve(g_s), s	7.5	0.3	17.6	13.6	1.3	3.6
Cycle Q Clear(g_c), s	7.5	0.3	17.6	13.6	1.3	3.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	445	377	656	1269	250	807
V/C Ratio(X)	0.64	0.03	0.91	0.64	0.19	0.23
Avail Cap(c_a), veh/h	1826	1548	1321	1826	548	1071
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	16.2	16.6	5.0	21.0	7.5
Incr Delay (d2), s/veh	3.7	0.1	2.1	1.3	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.1	5.5	1.8	0.5	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.7	16.3	18.7	6.4	21.1	7.6
LnGrp LOS	C	B	B	A	C	A
Approach Vol, veh/h	296			1408	231	
Approach Delay, s/veh	22.4			11.6	10.3	
Approach LOS	C			B	B	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		11.8	24.4	19.2		43.5
Change Period (Y+Rc), s		4.0	4.0	6.0		6.0
Max Green Setting (Gmax), s		17.0	41.0	54.0		54.0
Max Q Clear Time (g_c+I1), s		5.6	19.6	9.5		15.6
Green Ext Time (p_c), s		0.3	0.8	3.6		14.0

Intersection Summary	
HCM 6th Ctrl Delay	13.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	385	221	9	127	414	233	15	630	167	273	523	914
Future Volume (veh/h)	385	221	9	127	414	233	15	630	167	273	523	914
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1870	1870	1841	1841	1870	1870	1870	1841	1870	1841
Adj Flow Rate, veh/h	385	221	7	127	414	45	15	630	45	273	523	788
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	2	2	4	4	2	2	2	4	2	4
Cap, veh/h	486	891	28	303	708	316	37	859	383	312	1418	845
Arrive On Green	0.14	0.26	0.26	0.09	0.20	0.20	0.02	0.24	0.24	0.18	0.40	0.40
Sat Flow, veh/h	3401	3460	109	3456	3497	1560	1781	3554	1585	1753	3554	1560
Grp Volume(v), veh/h	385	111	117	127	414	45	15	630	45	273	523	788
Grp Sat Flow(s),veh/h/ln	1700	1749	1821	1728	1749	1560	1781	1777	1585	1753	1777	1560
Q Serve(g_s), s	9.5	4.4	4.4	3.0	9.3	2.1	0.7	14.2	1.9	13.2	9.0	34.7
Cycle Q Clear(g_c), s	9.5	4.4	4.4	3.0	9.3	2.1	0.7	14.2	1.9	13.2	9.0	34.7
Prop In Lane	1.00		0.06	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	486	450	469	303	708	316	37	859	383	312	1418	845
V/C Ratio(X)	0.79	0.25	0.25	0.42	0.59	0.14	0.40	0.73	0.12	0.87	0.37	0.93
Avail Cap(c_a), veh/h	1448	483	503	835	966	431	328	1374	613	464	1418	845
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	25.6	25.6	37.5	31.4	28.5	42.0	30.4	25.7	34.8	18.4	18.4
Incr Delay (d2), s/veh	1.1	0.5	0.5	0.3	1.5	0.4	2.6	1.9	0.2	8.4	0.3	17.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	1.7	1.8	1.2	3.8	0.8	0.3	6.1	0.7	5.9	3.3	15.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.1	26.1	26.1	37.9	32.9	28.9	44.6	32.3	25.9	43.2	18.7	35.5
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	B	D
Approach Vol, veh/h		613			586			690			1584	
Approach Delay, s/veh		33.0			33.6			32.1			31.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.5	27.4	11.6	28.4	5.8	41.1	16.4	23.6
Change Period (Y+Rc), s	4.0	6.4	4.0	6.0	4.0	6.4	4.0	6.0
Max Green Setting (Gmax), s	23.0	33.6	21.0	24.0	16.0	33.6	37.0	24.0
Max Q Clear Time (g_c+I1), s	15.2	16.2	5.0	6.4	2.7	36.7	11.5	11.3
Green Ext Time (p_c), s	0.3	4.8	0.2	3.6	0.0	0.0	0.9	6.3

Intersection Summary	
HCM 6th Ctrl Delay	32.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

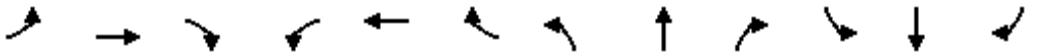
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	532	0	0	493	87	0	0	0	106	0	200
Future Volume (veh/h)	150	532	0	0	493	87	0	0	0	106	0	200
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	0	0	1870	0	1870
Adj Flow Rate, veh/h	150	532	0	0	493	23	0	0	0	106	0	37
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	0	2	2	2	0	0	2	0	2
Cap, veh/h	238	1197	0	0	1475	658	4	0	0	236	0	0
Arrive On Green	0.13	0.64	0.00	0.00	0.41	0.41	0.00	0.00	0.00	0.13	0.00	0.00
Sat Flow, veh/h	1781	1870	0	0	3647	1585	1781	0		1781	106	
Grp Volume(v), veh/h	150	532	0	0	493	23	0	0.0		106	18.1	
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	1777	1585	1781			1781	B	
Q Serve(g_s), s	3.5	6.3	0.0	0.0	4.1	0.4	0.0			2.4		
Cycle Q Clear(g_c), s	3.5	6.3	0.0	0.0	4.1	0.4	0.0			2.4		
Prop In Lane	1.00		0.00	0.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	238	1197	0	0	1475	658	4			236		
V/C Ratio(X)	0.63	0.44	0.00	0.00	0.33	0.03	0.00			0.45		
Avail Cap(c_a), veh/h	1258	2514	0	0	4777	2131	122			812		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00			1.00		
Uniform Delay (d), s/veh	18.0	4.0	0.0	0.0	8.7	7.6	0.0			17.6		
Incr Delay (d2), s/veh	1.0	0.4	0.0	0.0	0.2	0.0	0.0			0.5		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	1.2	0.6	0.0	0.0	1.0	0.1	0.0			0.8		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.0	4.4	0.0	0.0	8.9	7.7	0.0			18.1		
LnGrp LOS	B	A	A	A	A	A	A			B		
Approach Vol, veh/h		682			516							
Approach Delay, s/veh		7.6			8.9							
Approach LOS		A			A							

Timer - Assigned Phs	1			4	5		7	8				
Phs Duration (G+Y+Rc), s	9.8			34.1	0.0		9.9	24.2				
Change Period (Y+Rc), s	4.0			6.0	4.0		4.0	6.0				
Max Green Setting (Gmax), s	20.0			59.0	3.0		31.0	59.0				
Max Q Clear Time (g_c+I1), s	4.4			8.3	0.0		5.5	6.1				
Green Ext Time (p_c), s	0.1			13.6	0.0		0.3	12.1				

Intersection Summary			
HCM 6th Ctrl Delay		8.9	
HCM 6th LOS		A	

Notes

User approved pedestrian interval to be less than phase max green.



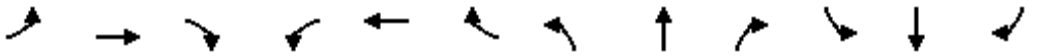
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	589	38	50	449	167	168	99	52	264	88	56
Future Volume (veh/h)	81	589	38	50	449	167	168	99	52	264	88	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	81	589	37	50	449	0	168	99	12	264	88	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	673	42	76	1319		190	112	331	291	97	
Arrive On Green	0.06	0.39	0.39	0.04	0.37	0.00	0.17	0.17	0.17	0.22	0.22	0.00
Sat Flow, veh/h	1781	1741	109	1781	3554	1585	1141	672	1585	1352	451	1585
Grp Volume(v), veh/h	81	0	626	50	449	0	267	0	12	352	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1850	1781	1777	1585	1813	0	1585	1803	0	1585
Q Serve(g_s), s	4.9	0.0	34.3	3.0	9.9	0.0	15.7	0.0	0.7	20.8	0.0	0.0
Cycle Q Clear(g_c), s	4.9	0.0	34.3	3.0	9.9	0.0	15.7	0.0	0.7	20.8	0.0	0.0
Prop In Lane	1.00		0.06	1.00		1.00	0.63		1.00	0.75		1.00
Lane Grp Cap(c), veh/h	104	0	715	76	1319		301	0	331	388	0	
V/C Ratio(X)	0.78	0.00	0.87	0.65	0.34		0.89	0.00	0.04	0.91	0.00	
Avail Cap(c_a), veh/h	326	0	999	326	1920		448	0	460	660	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	50.7	0.0	31.0	51.5	24.7	0.0	44.5	0.0	34.4	41.8	0.0	0.0
Incr Delay (d2), s/veh	4.6	0.0	8.7	3.5	0.3	0.0	9.9	0.0	0.0	5.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	16.6	1.4	4.2	0.0	7.8	0.0	0.3	9.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.3	0.0	39.7	55.0	25.0	0.0	54.5	0.0	34.4	47.3	0.0	0.0
LnGrp LOS	E	A	D	D	C		D	A	C	D	A	
Approach Vol, veh/h		707			499	A		279			352	A
Approach Delay, s/veh		41.5			28.0			53.6			47.3	
Approach LOS		D			C			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.8	8.7	48.2		29.5	10.4	46.5				
Change Period (Y+Rc), s		4.6	4.0	6.0		6.0	4.0	6.0				
Max Green Setting (Gmax), s		27.0	20.0	59.0		40.0	20.0	59.0				
Max Q Clear Time (g_c+I1), s		17.7	5.0	36.3		22.8	6.9	11.9				
Green Ext Time (p_c), s		0.4	0.1	6.0		0.7	0.1	4.6				

Intersection Summary												
HCM 6th Ctrl Delay			40.8									
HCM 6th LOS			D									

Notes

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	247	547	55	138	75	360	1005	60	66	1017	91
Future Volume (veh/h)	151	247	547	55	138	75	360	1005	60	66	1017	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	151	247	288	55	138	14	360	1005	28	66	1017	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	179	592	264	71	376	168	433	2057	918	85	2560	
Arrive On Green	0.10	0.17	0.17	0.04	0.11	0.11	0.13	0.58	0.58	0.05	0.50	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	1781	5106	1585
Grp Volume(v), veh/h	151	247	288	55	138	14	360	1005	28	66	1017	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1781	1702	1585
Q Serve(g_s), s	10.0	7.5	20.0	3.7	4.3	1.0	12.2	19.9	0.9	4.4	14.9	0.0
Cycle Q Clear(g_c), s	10.0	7.5	20.0	3.7	4.3	1.0	12.2	19.9	0.9	4.4	14.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	179	592	264	71	376	168	433	2057	918	85	2560	
V/C Ratio(X)	0.84	0.42	1.09	0.77	0.37	0.08	0.83	0.49	0.03	0.78	0.40	
Avail Cap(c_a), veh/h	327	592	264	238	444	198	605	2057	918	238	2560	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	53.0	44.8	50.0	57.1	49.9	48.4	51.2	14.8	10.8	56.5	18.6	0.0
Incr Delay (d2), s/veh	4.0	0.8	81.6	6.5	1.3	0.5	6.8	0.8	0.1	5.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	3.3	13.6	1.7	1.9	0.4	5.5	7.4	0.3	2.0	5.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.1	45.6	131.6	63.5	51.2	48.8	58.1	15.7	10.9	62.1	18.8	0.0
LnGrp LOS	E	D	F	E	D	D	E	B	B	E	B	
Approach Vol, veh/h		686			207			1393			1083	A
Approach Delay, s/veh		84.2			54.3			26.5			21.4	
Approach LOS		F			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	75.5	8.8	26.0	19.1	66.2	16.1	18.7
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	* 6
Max Green Setting (Gmax), s	16.0	48.0	16.0	20.0	21.0	43.0	22.0	* 15
Max Q Clear Time (g_c+I1), s	6.4	21.9	5.7	22.0	14.2	16.9	12.0	6.3
Green Ext Time (p_c), s	0.0	6.0	0.0	0.0	0.8	7.8	0.2	0.6

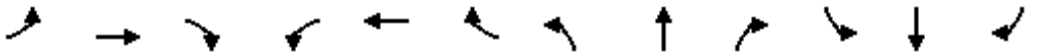
Intersection Summary	
HCM 6th Ctrl Delay	38.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	0	53	0	0	0	51	674	1	8	577	52
Future Volume (veh/h)	26	0	53	0	0	0	51	674	1	8	577	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	0	0	0	0	0	51	674	1	8	577	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	224	231		11	12	5	399	1594	711	38	1260	
Arrive On Green	0.06	0.00	0.00	0.00	0.00	0.00	0.12	0.45	0.45	0.02	0.35	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	26	0	0	0	0	0	51	674	1	8	577	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.2	0.0	0.0	0.0	0.0	0.0	0.4	3.9	0.0	0.1	3.8	0.0
Cycle Q Clear(g_c), s	0.2	0.0	0.0	0.0	0.0	0.0	0.4	3.9	0.0	0.1	3.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	224	231		11	12	5	399	1594	711	38	1260	
V/C Ratio(X)	0.12	0.00		0.00	0.00	0.00	0.13	0.42	0.00	0.21	0.46	
Avail Cap(c_a), veh/h	2296	5431		2296	2361	1053	2296	5313	2370	1184	5313	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.3	0.0	0.0	0.0	0.0	0.0	12.0	5.6	4.6	14.5	7.5	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	1.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.3	0.0	0.0	0.0	0.0	0.0	12.0	5.9	4.6	15.5	7.8	0.0
LnGrp LOS	B	A		A	A	A	B	A	A	B	A	
Approach Vol, veh/h		26	A		0			726			585	A
Approach Delay, s/veh		13.3			0.0			6.3			7.9	
Approach LOS		B						A			A	

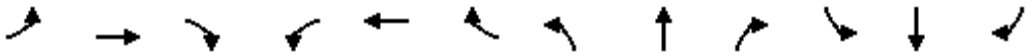
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.6	19.5	0.0	6.0	7.5	16.7	6.0	0.0
Change Period (Y+Rc), s	4.0	6.0	4.0	4.0	4.0	6.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	45.0	20.0	46.0	20.0	45.0	20.0	20.0
Max Q Clear Time (g_c+I1), s	2.1	5.9	0.0	0.0	2.4	5.8	2.2	0.0
Green Ext Time (p_c), s	0.0	4.7	0.0	0.0	0.1	3.9	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	7.2
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	3	50	0	279	16	363	33	600	547	0
Future Volume (veh/h)	5	0	3	50	0	279	16	363	33	600	547	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	0	0	50	0	0	16	363	0	600	547	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	22	0	0	334	0		79	917		834	1617	0
Arrive On Green	0.01	0.00	0.00	0.09	0.00	0.00	0.04	0.26	0.00	0.24	0.46	0.00
Sat Flow, veh/h	1781	0	0	3563	0	1585	1781	3554	1585	3456	3647	0
Grp Volume(v), veh/h	5	0	0	50	0	0	16	363	0	600	547	0
Grp Sat Flow(s),veh/h/ln	1781	0	0	1781	0	1585	1781	1777	1585	1728	1777	0
Q Serve(g_s), s	0.1	0.0	0.0	0.6	0.0	0.0	0.4	3.8	0.0	7.3	4.5	0.0
Cycle Q Clear(g_c), s	0.1	0.0	0.0	0.6	0.0	0.0	0.4	3.8	0.0	7.3	4.5	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	22	0	0	334	0		79	917		834	1617	0
V/C Ratio(X)	0.23	0.00	0.00	0.15	0.00		0.20	0.40		0.72	0.34	0.00
Avail Cap(c_a), veh/h	782	0	0	1563	0		782	3509		2275	3509	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.3	0.0	0.0	19.0	0.0	0.0	21.0	14.0	0.0	15.9	8.0	0.0
Incr Delay (d2), s/veh	2.0	0.0	0.0	0.1	0.0	0.0	0.5	0.5	0.0	0.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.2	0.0	0.0	0.2	1.4	0.0	2.5	1.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.3	0.0	0.0	19.1	0.0	0.0	21.5	14.5	0.0	16.3	8.2	0.0
LnGrp LOS	C	A	A	B	A		C	B		B	A	A
Approach Vol, veh/h		5			50	A		379	A		1147	
Approach Delay, s/veh		24.3			19.1			14.8			12.5	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	17.8		8.3	6.0	26.7		4.6				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	30.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	9.3	5.8		2.6	2.4	6.5		2.1				
Green Ext Time (p_c), s	1.7	3.6		0.1	0.0	5.7		0.0				

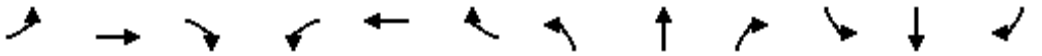
Intersection Summary			
HCM 6th Ctrl Delay		13.3	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	8	145	26	3	3	73	288	6	2	634	21
Future Volume (veh/h)	30	8	145	26	3	3	73	288	6	2	634	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	8	36	26	3	0	73	288	2	2	634	8
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	178	47	198	105	12	0	177	1666	743	8	1328	593
Arrive On Green	0.12	0.12	0.12	0.07	0.07	0.00	0.10	0.47	0.47	0.00	0.37	0.37
Sat Flow, veh/h	1421	379	1585	1605	185	0	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	38	0	36	29	0	0	73	288	2	2	634	8
Grp Sat Flow(s),veh/h/ln	1799	0	1585	1790	0	0	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.0	0.0	1.1	0.8	0.0	0.0	2.0	2.5	0.0	0.1	7.2	0.2
Cycle Q Clear(g_c), s	1.0	0.0	1.1	0.8	0.0	0.0	2.0	2.5	0.0	0.1	7.2	0.2
Prop In Lane	0.79		1.00	0.90		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	225	0	198	117	0	0	177	1666	743	8	1328	593
V/C Ratio(X)	0.17	0.00	0.18	0.25	0.00	0.00	0.41	0.17	0.00	0.26	0.48	0.01
Avail Cap(c_a), veh/h	534	0	471	370	0	0	536	1957	873	368	1957	873
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.8	0.0	20.8	23.6	0.0	0.0	22.5	8.2	7.5	26.4	12.7	10.5
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.4	0.0	0.0	0.6	0.1	0.0	6.3	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.4	0.3	0.0	0.0	0.8	0.7	0.0	0.0	2.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.9	0.0	21.0	24.0	0.0	0.0	23.1	8.3	7.5	32.7	13.2	10.5
LnGrp LOS	C	A	C	C	A	A	C	A	A	C	B	B
Approach Vol, veh/h		74			29			363			644	
Approach Delay, s/veh		21.0			24.0			11.2			13.2	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.2	30.6		10.9	9.3	25.6		7.5				
Change Period (Y+Rc), s	4.0	5.7		* 4.2	4.0	5.7		4.0				
Max Green Setting (Gmax), s	11.0	29.3		* 16	16.0	29.3		11.0				
Max Q Clear Time (g_c+I1), s	2.1	4.5		3.1	4.0	9.2		2.8				
Green Ext Time (p_c), s	0.0	5.4		0.1	0.1	10.7		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		13.3
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	2063	66	101	964	75	141
Future Volume (veh/h)	2063	66	101	964	75	141
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2063	0	101	964	75	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3054		127	3587	136	
Arrive On Green	0.60	0.00	0.07	0.70	0.08	0.00
Sat Flow, veh/h	5274	1585	1781	5274	1781	1585
Grp Volume(v), veh/h	2063	0	101	964	75	0
Grp Sat Flow(s),veh/h/ln	1702	1585	1781	1702	1781	1585
Q Serve(g_s), s	32.7	0.0	6.7	8.3	4.9	0.0
Cycle Q Clear(g_c), s	32.7	0.0	6.7	8.3	4.9	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	3054		127	3587	136	
V/C Ratio(X)	0.68		0.80	0.27	0.55	
Avail Cap(c_a), veh/h	3054		386	3587	386	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.3	0.0	54.9	6.5	53.4	0.0
Incr Delay (d2), s/veh	1.2	0.0	4.3	0.2	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	0.0	3.1	2.6	2.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.5	0.0	59.2	6.7	54.7	0.0
LnGrp LOS	B		E	A	D	
Approach Vol, veh/h	2063	A		1065	75	A
Approach Delay, s/veh	17.5			11.7	54.7	
Approach LOS	B			B	D	

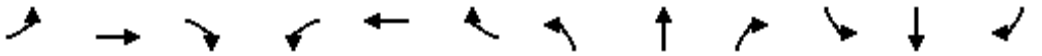
Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	13.2	12.5	77.5	90.0
Change Period (Y+Rc), s	4.0	4.0	5.7	5.7
Max Green Setting (Gmax), s	26.0	26.0	38.3	84.3
Max Q Clear Time (g_c+I1), s	6.9	8.7	34.7	10.3
Green Ext Time (p_c), s	0.1	0.1	3.3	10.4

Intersection Summary	
HCM 6th Ctrl Delay	16.4
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	2151	5	11	1013	315	2	1	23	228	2	50
Future Volume (veh/h)	48	2151	5	11	1013	315	2	1	23	228	2	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	2151	3	11	1013	0	2	1	2	229	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	62	3824	1187	14	3686		7	2	4	345	0	
Arrive On Green	0.03	0.75	0.75	0.01	0.72	0.00	0.00	0.00	0.00	0.06	0.00	0.00
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	557	1113	5344	0	1585
Grp Volume(v), veh/h	48	2151	3	11	1013	0	2	0	3	229	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	0	1670	1781	0	1585
Q Serve(g_s), s	3.2	21.9	0.1	0.7	8.3	0.0	0.1	0.0	0.2	5.0	0.0	0.0
Cycle Q Clear(g_c), s	3.2	21.9	0.1	0.7	8.3	0.0	0.1	0.0	0.2	5.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	62	3824	1187	14	3686		7	0	6	345	0	
V/C Ratio(X)	0.77	0.56	0.00	0.80	0.27		0.29	0.00	0.47	0.66	0.00	
Avail Cap(c_a), veh/h	178	3824	1187	178	3686		178	0	167	699	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.96	0.96	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	57.4	6.5	3.8	59.4	5.8	0.0	59.6	0.0	59.6	54.9	0.0	0.0
Incr Delay (d2), s/veh	7.5	0.6	0.0	30.9	0.1	0.0	8.5	0.0	18.4	2.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	6.2	0.0	0.4	2.4	0.0	0.1	0.0	0.1	2.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.9	7.1	3.8	90.4	5.9	0.0	68.1	0.0	78.1	57.3	0.0	0.0
LnGrp LOS	E	A	A	F	A		E	A	E	E	A	
Approach Vol, veh/h		2202			1024	A		5			229	A
Approach Delay, s/veh		8.4			6.8			74.1			57.3	
Approach LOS		A			A			E			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		4.5	4.9	95.6		15.0	8.2	92.3				
Change Period (Y+Rc), s		4.0	4.0	5.7		7.3	4.0	5.7				
Max Green Setting (Gmax), s		12.0	12.0	59.3		15.7	12.0	59.3				
Max Q Clear Time (g_c+I1), s		2.2	2.7	23.9		7.0	5.2	10.3				
Green Ext Time (p_c), s		0.0	0.0	34.7		0.7	0.0	30.1				

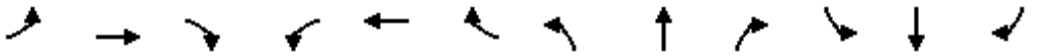
Intersection Summary												
HCM 6th Ctrl Delay			11.2									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	2	38	9	5	11	10	1288	43	39	2359	4
Future Volume (veh/h)	40	2	38	9	5	11	10	1288	43	39	2359	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	41	0	2	7	8	0	10	1288	31	39	2359	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	0	40	23	25		17	4033	1252	84	4108	1275
Arrive On Green	0.03	0.00	0.03	0.01	0.01	0.00	0.01	0.79	0.79	0.02	0.80	0.80
Sat Flow, veh/h	3563	0	1585	1781	1870	1585	1781	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	41	0	2	7	8	0	10	1288	31	39	2359	3
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	1870	1585	1781	1702	1585	1728	1702	1585
Q Serve(g_s), s	1.4	0.0	0.1	0.5	0.5	0.0	0.7	8.5	0.5	1.3	20.1	0.0
Cycle Q Clear(g_c), s	1.4	0.0	0.1	0.5	0.5	0.0	0.7	8.5	0.5	1.3	20.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	0	40	23	25		17	4033	1252	84	4108	1275
V/C Ratio(X)	0.45	0.00	0.05	0.30	0.33		0.59	0.32	0.02	0.47	0.57	0.00
Avail Cap(c_a), veh/h	475	0	211	238	249		238	4033	1252	461	4108	1275
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	0.95	0.95	0.95	0.79	0.79	0.79
Uniform Delay (d), s/veh	57.7	0.0	57.1	58.7	58.7	0.0	59.2	3.5	2.7	57.8	4.3	2.3
Incr Delay (d2), s/veh	1.3	0.0	0.2	6.3	6.8	0.0	11.2	0.1	0.0	1.2	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.1	0.3	0.3	0.0	0.3	2.0	0.1	0.6	4.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.0	0.0	57.3	65.0	65.5	0.0	70.4	3.6	2.7	59.0	4.7	2.3
LnGrp LOS	E	A	E	E	E		E	A	A	E	A	A
Approach Vol, veh/h		43			15	A		1329			2401	
Approach Delay, s/veh		58.9			65.3			4.1			5.6	
Approach LOS		E			E			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		5.6	5.1	102.2		7.0	6.9	100.5				
Change Period (Y+Rc), s		4.0	4.0	5.7		4.0	4.0	5.7				
Max Green Setting (Gmax), s		16.0	16.0	54.3		16.0	16.0	54.3				
Max Q Clear Time (g_c+I1), s		2.5	2.7	22.1		3.4	3.3	10.5				
Green Ext Time (p_c), s		0.0	0.0	26.4		0.0	0.0	15.2				

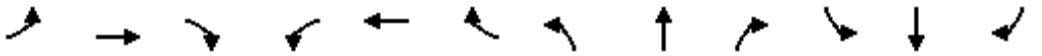
Intersection Summary	
HCM 6th Ctrl Delay	5.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	2118	277	81	1191	59	144	14	110	14	4	6
Future Volume (veh/h)	11	2118	277	81	1191	59	144	14	110	14	4	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	2118	197	81	1191	0	154	0	11	9	11	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1615	2225	691	1171	1570		220	0	98	29	30	
Arrive On Green	0.47	0.44	0.44	0.68	0.61	0.00	0.06	0.00	0.06	0.02	0.02	0.00
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3563	0	1585	1781	1870	1585
Grp Volume(v), veh/h	11	2118	197	81	1191	0	154	0	11	9	11	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1781	0	1585	1781	1870	1585
Q Serve(g_s), s	0.2	48.0	9.6	1.0	20.2	0.0	5.1	0.0	0.8	0.6	0.7	0.0
Cycle Q Clear(g_c), s	0.2	48.0	9.6	1.0	20.2	0.0	5.1	0.0	0.8	0.6	0.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1615	2225	691	1171	1570		220	0	98	29	30	
V/C Ratio(X)	0.01	0.95	0.29	0.07	0.76		0.70	0.00	0.11	0.31	0.36	
Avail Cap(c_a), veh/h	1615	2225	691	1171	2225		475	0	211	238	249	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.81	0.88	0.88	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.1	32.6	21.8	12.9	19.9	0.0	55.2	0.0	53.2	58.4	58.4	0.0
Incr Delay (d2), s/veh	0.0	9.1	0.8	0.0	1.3	0.0	3.0	0.0	0.4	6.0	7.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	20.3	3.6	0.4	5.1	0.0	2.4	0.0	0.3	0.3	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.1	41.7	22.6	13.0	21.2	0.0	58.2	0.0	53.6	64.3	65.5	0.0
LnGrp LOS	B	D	C	B	C		E	A	D	E	E	
Approach Vol, veh/h		2326			1272	A		165			20	A
Approach Delay, s/veh		40.0			20.7			57.9			65.0	
Approach LOS		D			C			E			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		11.4	44.7	58.0		5.9	60.1	42.6				
Change Period (Y+Rc), s		4.0	4.0	5.7		4.0	4.0	5.7				
Max Green Setting (Gmax), s		16.0	18.0	52.3		16.0	18.0	52.3				
Max Q Clear Time (g_c+I1), s		7.1	3.0	50.0		2.7	2.2	22.2				
Green Ext Time (p_c), s		0.3	0.1	2.3		0.0	0.0	14.7				

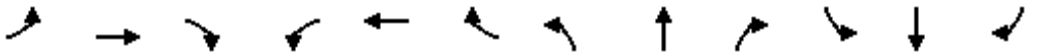
Intersection Summary		
HCM 6th Ctrl Delay	34.4	
HCM 6th LOS	C	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	1467	610	83	932	643	235	399	72	684	536	164
Future Volume (veh/h)	165	1467	610	83	932	643	235	399	72	684	536	164
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	165	1467	0	83	932	0	235	399	0	684	536	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	220	1918		131	1702		295	538		809	703	
Arrive On Green	0.13	0.75	0.00	0.08	0.67	0.00	0.09	0.11	0.00	0.16	0.20	0.00
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1585	5023	3554	1585
Grp Volume(v), veh/h	165	1467	0	83	932	0	235	399	0	684	536	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1585	1674	1777	1585
Q Serve(g_s), s	5.5	20.2	0.0	2.8	11.5	0.0	8.0	9.1	0.0	15.9	17.1	0.0
Cycle Q Clear(g_c), s	5.5	20.2	0.0	2.8	11.5	0.0	8.0	9.1	0.0	15.9	17.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	220	1918		131	1702		295	538		809	703	
V/C Ratio(X)	0.75	0.76		0.63	0.55		0.80	0.74		0.85	0.76	
Avail Cap(c_a), veh/h	403	1918		461	1702		490	723		992	791	
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.76	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	51.4	11.8	0.0	54.6	15.2	0.0	53.9	52.1	0.0	48.9	45.5	0.0
Incr Delay (d2), s/veh	1.5	1.6	0.0	1.9	1.3	0.0	1.9	3.6	0.0	5.8	5.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	4.1	0.0	1.2	3.4	0.0	3.5	4.0	0.0	6.9	7.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.9	13.4	0.0	56.5	16.5	0.0	55.7	55.7	0.0	54.7	50.7	0.0
LnGrp LOS	D	B		E	B		E	E		D	D	
Approach Vol, veh/h		1632	A		1015	A		634	A		1220	A
Approach Delay, s/veh		17.4			19.8			55.7			52.9	
Approach LOS		B			B			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.6	18.6	8.6	51.1	14.2	31.0	13.6	46.0
Change Period (Y+Rc), s	7.3	6.0	4.0	* 6	4.0	* 7.3	6.0	6.0
Max Green Setting (Gmax), s	23.7	17.0	16.0	* 40	17.0	* 27	14.0	40.0
Max Q Clear Time (g_c+I1), s	17.9	11.1	4.8	22.2	10.0	19.1	7.5	13.5
Green Ext Time (p_c), s	1.4	1.5	0.1	12.9	0.2	3.2	0.1	9.4

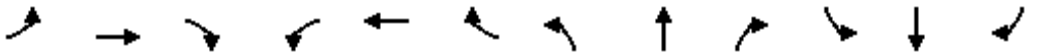
Intersection Summary	
HCM 6th Ctrl Delay	33.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	2085	8	23	1640	368	11	8	4	103	0	26
Future Volume (veh/h)	88	2085	8	23	1640	368	11	8	4	103	0	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	2085	5	23	1640	225	10	10	0	103	0	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	111	3013	935	40	2723	845	36	38	32	160	0	71
Arrive On Green	0.06	0.59	0.59	0.02	0.53	0.53	0.02	0.02	0.00	0.04	0.00	0.04
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1870	1585	3563	0	1585
Grp Volume(v), veh/h	88	2085	5	23	1640	225	10	10	0	103	0	3
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1870	1585	1781	0	1585
Q Serve(g_s), s	5.8	34.0	0.2	1.5	26.5	9.3	0.7	0.6	0.0	3.4	0.0	0.2
Cycle Q Clear(g_c), s	5.8	34.0	0.2	1.5	26.5	9.3	0.7	0.6	0.0	3.4	0.0	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	111	3013	935	40	2723	845	36	38	32	160	0	71
V/C Ratio(X)	0.79	0.69	0.01	0.58	0.60	0.27	0.28	0.26	0.00	0.64	0.00	0.04
Avail Cap(c_a), veh/h	238	3013	935	238	2723	845	163	171	145	309	0	137
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.72	0.72	0.72	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.5	17.0	10.1	58.1	19.2	15.2	57.9	57.9	0.0	56.4	0.0	54.8
Incr Delay (d2), s/veh	4.7	0.8	0.0	3.5	0.7	0.6	1.5	1.4	0.0	5.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	12.1	0.1	0.7	9.8	3.3	0.3	0.3	0.0	1.7	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.2	17.8	10.1	61.6	20.0	15.8	59.4	59.3	0.0	61.7	0.0	55.1
LnGrp LOS	E	B	B	E	B	B	E	E	A	E	A	E
Approach Vol, veh/h		2178			1888			20			106	
Approach Delay, s/veh		19.5			20.0			59.4			61.5	
Approach LOS		B			B			E			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		6.4	6.7	76.8		10.0	13.5	70.0				
Change Period (Y+Rc), s		4.0	4.0	6.0		4.6	6.0	* 6				
Max Green Setting (Gmax), s		11.0	16.0	64.0		10.4	16.0	* 64				
Max Q Clear Time (g_c+I1), s		2.7	3.5	36.0		5.4	7.8	28.5				
Green Ext Time (p_c), s		0.0	0.0	22.7		0.1	0.0	23.1				

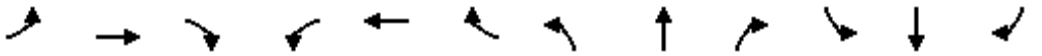
Intersection Summary												
HCM 6th Ctrl Delay			21.0									
HCM 6th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	1943	132	305	1456	198	458	136	316	516	132	117
Future Volume (veh/h)	117	1943	132	305	1456	198	458	136	316	516	132	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1988	1988	1988	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	117	1943	68	305	1456	100	458	136	159	516	132	16
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	177	1990	618	710	2760	857	529	267	119	586	325	145
Arrive On Green	0.05	0.37	0.37	0.21	0.54	0.54	0.15	0.07	0.07	0.17	0.09	0.09
Sat Flow, veh/h	3673	5427	1685	3456	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	117	1943	68	305	1456	100	458	136	159	516	132	16
Grp Sat Flow(s),veh/h/ln	1837	1809	1685	1728	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	3.8	42.4	2.0	9.2	22.0	3.7	15.5	4.4	6.0	17.5	4.2	1.1
Cycle Q Clear(g_c), s	3.8	42.4	2.0	9.2	22.0	3.7	15.5	4.4	6.0	17.5	4.2	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	177	1990	618	710	2760	857	529	267	119	586	325	145
V/C Ratio(X)	0.66	0.98	0.11	0.43	0.53	0.12	0.87	0.51	1.34	0.88	0.41	0.11
Avail Cap(c_a), veh/h	490	1990	618	710	2760	857	749	423	189	749	415	185
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	0.77	0.77	0.77	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.1	37.5	9.8	41.5	17.7	13.5	49.6	53.4	24.9	48.6	51.4	50.0
Incr Delay (d2), s/veh	2.6	13.6	0.3	0.2	0.3	0.1	6.8	2.0	189.2	9.2	1.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	20.2	1.3	3.9	8.0	1.3	7.1	2.0	9.7	8.1	1.9	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.7	51.1	10.1	41.8	18.0	13.6	56.4	55.4	214.1	57.9	52.4	50.4
LnGrp LOS	E	D	B	D	B	B	E	E	F	E	D	D
Approach Vol, veh/h		2128			1861			753			664	
Approach Delay, s/veh		50.2			21.6			89.5			56.6	
Approach LOS		D			C			F			E	

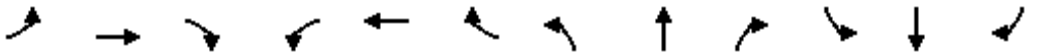
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.3	15.0	30.7	50.0	22.4	17.0	9.8	70.9
Change Period (Y+Rc), s	4.0	* 6	6.0	* 6	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	26.0	* 14	16.0	* 44	26.0	14.0	16.0	44.0
Max Q Clear Time (g_c+I1), s	19.5	8.0	11.2	44.4	17.5	6.2	5.8	24.0
Green Ext Time (p_c), s	0.9	0.9	0.3	0.0	0.9	0.4	0.2	14.9

Intersection Summary	
HCM 6th Ctrl Delay	46.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	392	1971	412	189	1574	53	204	206	121	26	59	181
Future Volume (veh/h)	392	1971	412	189	1574	53	204	206	121	26	59	181
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	392	1971	0	189	1574	24	204	206	0	26	59	13
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	447	3059		245	2759	857	503	245		32	83	123
Arrive On Green	0.26	1.00	0.00	0.14	1.00	1.00	0.10	0.13	0.00	0.02	0.04	0.04
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	5023	1870	1585	1781	1870	2790
Grp Volume(v), veh/h	392	1971	0	189	1574	24	204	206	0	26	59	13
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1674	1870	1585	1781	1870	1395
Q Serve(g_s), s	13.0	0.0	0.0	6.3	0.0	0.0	4.6	12.9	0.0	1.7	3.7	0.4
Cycle Q Clear(g_c), s	13.0	0.0	0.0	6.3	0.0	0.0	4.6	12.9	0.0	1.7	3.7	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	447	3059		245	2759	857	503	245		32	83	123
V/C Ratio(X)	0.88	0.64		0.77	0.57	0.03	0.41	0.84		0.81	0.71	0.11
Avail Cap(c_a), veh/h	662	3059		461	2759	857	640	348		163	240	358
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.33	0.33	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.5	0.0	0.0	50.6	0.0	0.0	50.6	50.9	0.0	58.7	56.6	34.3
Incr Delay (d2), s/veh	2.2	0.4	0.0	2.0	0.4	0.0	0.2	14.8	0.0	15.7	4.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	0.1	0.0	2.6	0.1	0.0	1.9	7.0	0.0	0.9	1.8	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.8	0.4	0.0	52.5	0.4	0.0	50.8	65.7	0.0	74.4	60.8	34.5
LnGrp LOS	D	A		D	A	A	D	E		E	E	C
Approach Vol, veh/h		2363	A		1787			410	A		98	
Approach Delay, s/veh		7.9			5.9			58.3			60.9	
Approach LOS		A			A			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	23.4	12.5	77.9	19.7	9.9	19.5	70.8
Change Period (Y+Rc), s	4.0	* 7.7	4.0	6.0	7.7	4.6	4.0	6.0
Max Green Setting (Gmax), s	11.0	* 22	16.0	51.0	15.3	15.4	23.0	44.0
Max Q Clear Time (g_c+I1), s	3.7	14.9	8.3	2.0	6.6	5.7	15.0	2.0
Green Ext Time (p_c), s	0.0	0.8	0.2	32.6	0.3	0.1	0.5	22.4

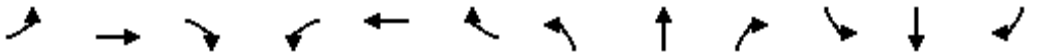
Intersection Summary	
HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	460	1606	4	26	1319	108	1	0	0	87	0	556
Future Volume (veh/h)	460	1606	4	26	1319	108	1	0	0	87	0	556
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	460	1606	4	26	1319	61	1	0	0	87	0	45
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	510	3078	8	52	2298	713	3	4	3	205	0	183
Arrive On Green	0.30	1.00	1.00	0.03	0.45	0.45	0.00	0.00	0.00	0.06	0.00	0.06
Sat Flow, veh/h	3456	5259	13	1781	5106	1585	1781	1870	1585	3563	0	3170
Grp Volume(v), veh/h	460	1040	570	26	1319	61	1	0	0	87	0	45
Grp Sat Flow(s),veh/h/ln	1728	1702	1868	1781	1702	1585	1781	1870	1585	1781	0	1585
Q Serve(g_s), s	15.3	0.0	0.0	1.7	23.0	2.6	0.1	0.0	0.0	2.8	0.0	1.6
Cycle Q Clear(g_c), s	15.3	0.0	0.0	1.7	23.0	2.6	0.1	0.0	0.0	2.8	0.0	1.6
Prop In Lane	1.00		0.01	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	510	1992	1093	52	2298	713	3	4	3	205	0	183
V/C Ratio(X)	0.90	0.52	0.52	0.50	0.57	0.09	0.29	0.00	0.00	0.42	0.00	0.25
Avail Cap(c_a), veh/h	605	1992	1093	238	2298	713	163	171	145	475	0	423
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.4	0.0	0.0	57.4	24.5	18.9	59.8	0.0	0.0	54.6	0.0	54.1
Incr Delay (d2), s/veh	13.8	0.3	0.6	2.8	1.0	0.2	16.7	0.0	0.0	0.5	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	0.1	0.2	0.8	9.0	1.0	0.0	0.0	0.0	1.3	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.3	0.3	0.6	60.2	25.5	19.1	76.5	0.0	0.0	55.1	0.0	54.3
LnGrp LOS	E	A	A	E	C	B	E	A	A	E	A	D
Approach Vol, veh/h		2070			1406			1			132	
Approach Delay, s/veh		12.6			25.9			76.5			54.9	
Approach LOS		B			C			E			D	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	4.2	7.5	76.2	10.9	23.7	60.0
Change Period (Y+Rc), s	4.0	4.0	6.0	4.0	6.0	* 6
Max Green Setting (Gmax), s	11.0	16.0	59.0	16.0	21.0	* 54
Max Q Clear Time (g_c+I1), s	2.1	3.7	2.0	4.8	17.3	25.0
Green Ext Time (p_c), s	0.0	0.0	25.0	0.1	0.4	15.1

Intersection Summary	
HCM 6th Ctrl Delay	19.4
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

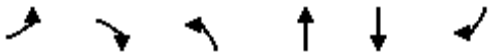
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	170	173	1213	98	151	1542
Future Volume (veh/h)	170	173	1213	98	151	1542
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	170	25	1213	58	151	1542
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	201	179	3404	1057	179	4088
Arrive On Green	0.11	0.11	1.00	1.00	0.10	0.80
Sat Flow, veh/h	1781	1585	5274	1585	1781	5274
Grp Volume(v), veh/h	170	25	1213	58	151	1542
Grp Sat Flow(s),veh/h/ln	1781	1585	1702	1585	1781	1702
Q Serve(g_s), s	11.2	1.7	0.0	0.0	10.0	10.4
Cycle Q Clear(g_c), s	11.2	1.7	0.0	0.0	10.0	10.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	201	179	3404	1057	179	4088
V/C Ratio(X)	0.85	0.14	0.36	0.05	0.84	0.38
Avail Cap(c_a), veh/h	386	343	3404	1057	386	4088
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.97	0.97	1.00	1.00
Uniform Delay (d), s/veh	52.2	48.0	0.0	0.0	53.0	3.4
Incr Delay (d2), s/veh	7.2	0.3	0.3	0.1	4.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	1.6	0.1	0.0	4.6	2.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	59.4	48.3	0.3	0.1	57.1	3.7
LnGrp LOS	E	D	A	A	E	A
Approach Vol, veh/h	195		1271			1693
Approach Delay, s/veh	58.0		0.3			8.5
Approach LOS	E		A			A

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				102.5		17.5	16.1	86.4
Change Period (Y+Rc), s				6.4		4.0	4.0	6.4
Max Green Setting (Gmax), s				83.6		26.0	26.0	37.6
Max Q Clear Time (g_c+I1), s				12.4		13.2	12.0	2.0
Green Ext Time (p_c), s				22.5		0.3	0.1	12.3

Intersection Summary	
HCM 6th Ctrl Delay	8.2
HCM 6th LOS	A



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	143	63	162	1168	1451	261
Future Volume (veh/h)	143	63	162	1168	1451	261
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	143	6	162	1168	1451	200
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	203	93	188	3587	2879	894
Arrive On Green	0.06	0.06	0.21	1.00	1.00	1.00
Sat Flow, veh/h	3456	1585	1781	5274	5274	1585
Grp Volume(v), veh/h	143	6	162	1168	1451	200
Grp Sat Flow(s),veh/h/ln	1728	1585	1781	1702	1702	1585
Q Serve(g_s), s	4.9	0.4	10.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.9	0.4	10.5	0.0	0.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	203	93	188	3587	2879	894
V/C Ratio(X)	0.70	0.06	0.86	0.33	0.50	0.22
Avail Cap(c_a), veh/h	749	343	386	3587	2879	894
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.95	0.95	0.91	0.91
Uniform Delay (d), s/veh	55.4	53.4	46.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.7	0.1	4.3	0.2	0.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.2	4.3	0.1	0.2	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	57.1	53.5	50.9	0.2	0.6	0.5
LnGrp LOS	E	D	D	A	A	A
Approach Vol, veh/h	149			1330	1651	
Approach Delay, s/veh	57.0			6.4	0.6	
Approach LOS	E			A	A	

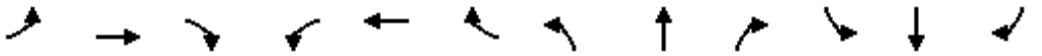
Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	11.1	16.6	73.7	90.3
Change Period (Y+Rc), s	4.0	4.0	6.0	* 6
Max Green Setting (Gmax), s	26.0	26.0	38.0	* 84
Max Q Clear Time (g_c+I1), s	6.9	12.5	2.0	2.0
Green Ext Time (p_c), s	0.2	0.2	20.2	19.6

Intersection Summary	
HCM 6th Ctrl Delay	5.7
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	15	210	3	31	5	135	1289	3	10	1411	93
Future Volume (veh/h)	36	15	210	3	31	5	135	1289	3	10	1411	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	15	29	3	31	0	135	1289	2	10	1411	53
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	83	70	6	40	0	162	2319	720	17	1902	590
Arrive On Green	0.03	0.04	0.04	0.00	0.02	0.00	0.09	0.45	0.45	0.01	0.37	0.37
Sat Flow, veh/h	1781	1870	1585	1781	1870	0	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	36	15	29	3	31	0	135	1289	2	10	1411	53
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	0	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	2.4	0.9	2.1	0.2	2.0	0.0	8.9	22.1	0.1	0.7	28.8	2.6
Cycle Q Clear(g_c), s	2.4	0.9	2.1	0.2	2.0	0.0	8.9	22.1	0.1	0.7	28.8	2.6
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	46	83	70	6	40	0	162	2319	720	17	1902	590
V/C Ratio(X)	0.78	0.18	0.41	0.53	0.77	0.00	0.83	0.56	0.00	0.59	0.74	0.09
Avail Cap(c_a), veh/h	238	229	194	238	249	0	327	2319	720	238	2064	641
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	58.1	55.3	55.8	59.7	58.4	0.0	53.6	23.9	17.9	59.2	32.6	24.4
Incr Delay (d2), s/veh	10.3	1.6	6.1	25.8	19.8	0.0	4.2	1.0	0.0	10.8	1.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.5	1.0	0.1	1.2	0.0	4.1	8.6	0.0	0.3	11.5	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.4	56.9	61.9	85.5	78.2	0.0	57.8	24.9	17.9	70.0	34.1	24.5
LnGrp LOS	E	E	E	F	E	A	E	C	B	E	C	C
Approach Vol, veh/h		80			34			1426			1474	
Approach Delay, s/veh		63.9			78.9			28.0			34.0	
Approach LOS		E			E			C			C	

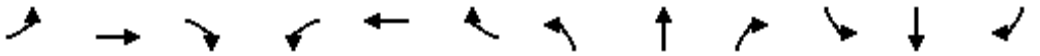
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.4	10.6	14.9	50.2	7.1	7.9	5.1	60.0
Change Period (Y+Rc), s	4.0	5.3	4.0	5.5	4.0	* 5.3	4.0	5.5
Max Green Setting (Gmax), s	16.0	14.7	22.0	48.5	16.0	* 16	16.0	54.5
Max Q Clear Time (g_c+I1), s	2.2	4.1	10.9	30.8	4.4	4.0	2.7	24.1
Green Ext Time (p_c), s	0.0	0.1	0.1	12.5	0.0	0.0	0.0	16.2

Intersection Summary	
HCM 6th Ctrl Delay	32.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	6	15	138	276	242	33	1179	109	130	1359	51
Future Volume (veh/h)	6	6	15	138	276	242	33	1179	109	130	1359	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	6	1	138	276	0	33	1179	0	130	1359	49
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	11	30	5	165	377		42	3275		157	3571	129
Arrive On Green	0.01	0.02	0.02	0.09	0.11	0.00	0.02	0.64	0.00	0.09	0.71	0.71
Sat Flow, veh/h	1781	1563	260	1781	3554	1585	1781	5106	1585	1781	5059	182
Grp Volume(v), veh/h	6	0	7	138	276	0	33	1179	0	130	914	494
Grp Sat Flow(s),veh/h/ln	1781	0	1823	1781	1777	1585	1781	1702	1585	1781	1702	1838
Q Serve(g_s), s	0.4	0.0	0.5	9.1	9.0	0.0	2.2	12.9	0.0	8.6	13.0	13.0
Cycle Q Clear(g_c), s	0.4	0.0	0.5	9.1	9.0	0.0	2.2	12.9	0.0	8.6	13.0	13.0
Prop In Lane	1.00		0.14	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	11	0	35	165	377		42	3275		157	2403	1297
V/C Ratio(X)	0.56	0.00	0.20	0.83	0.73		0.79	0.36		0.83	0.38	0.38
Avail Cap(c_a), veh/h	312	0	305	312	583		312	3275		312	2403	1297
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.5	0.0	57.9	53.5	52.0	0.0	58.3	10.0	0.0	53.8	7.1	7.1
Incr Delay (d2), s/veh	15.7	0.0	7.8	4.2	5.5	0.0	11.4	0.1	0.0	4.2	0.5	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	4.3	4.3	0.0	1.1	4.3	0.0	3.9	4.1	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.1	0.0	65.7	57.7	57.5	0.0	69.7	10.1	0.0	58.0	7.6	7.9
LnGrp LOS	E	A	E	E	E		E	B		E	A	A
Approach Vol, veh/h		13			414	A		1212	A		1538	
Approach Delay, s/veh		70.1			57.5			11.8			11.9	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	7.6	6.8	90.4	4.7	18.0	14.6	82.7
Change Period (Y+Rc), s	4.0	* 5.3	4.0	5.7	4.0	5.3	4.0	5.7
Max Green Setting (Gmax), s	21.0	* 20	21.0	39.3	21.0	19.7	21.0	39.3
Max Q Clear Time (g_c+I1), s	11.1	2.5	4.2	15.0	2.4	11.0	10.6	14.9
Green Ext Time (p_c), s	0.1	0.0	0.0	14.4	0.0	1.7	0.1	12.4

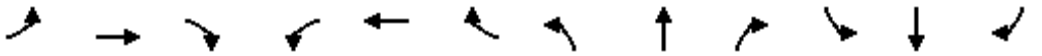
Intersection Summary	
HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	1547	94	48	1294	645	138	598	54	712	573	159
Future Volume (veh/h)	116	1547	94	48	1294	645	138	598	54	712	573	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	1547	31	48	1294	0	138	598	12	712	573	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	170	1936	601	84	1809		165	699	312	765	1207	
Arrive On Green	0.05	0.38	0.38	0.02	0.35	0.00	0.09	0.20	0.20	0.37	0.57	0.00
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	1781	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	116	1547	31	48	1294	0	138	598	12	712	573	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1781	1777	1585	1728	1777	1585
Q Serve(g_s), s	4.0	32.4	1.5	1.6	26.3	0.0	9.1	19.5	0.6	23.8	11.5	0.0
Cycle Q Clear(g_c), s	4.0	32.4	1.5	1.6	26.3	0.0	9.1	19.5	0.6	23.8	11.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	170	1936	601	84	1809		165	699	312	765	1207	
V/C Ratio(X)	0.68	0.80	0.05	0.57	0.72		0.83	0.86	0.04	0.93	0.47	
Avail Cap(c_a), veh/h	317	1936	601	317	1809		312	779	347	893	1207	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.1	33.2	23.6	57.9	33.5	0.0	53.5	46.6	29.5	36.9	19.6	0.0
Incr Delay (d2), s/veh	1.8	3.6	0.2	2.2	1.5	0.0	4.2	9.3	0.1	13.7	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	13.8	0.6	0.7	11.0	0.0	4.2	9.2	0.3	9.6	3.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.9	36.8	23.8	60.1	35.0	0.0	57.7	55.8	29.5	50.6	20.1	0.0
LnGrp LOS	E	D	C	E	C		E	E	C	D	C	
Approach Vol, veh/h		1694			1342	A		748			1285	A
Approach Delay, s/veh		38.0			35.9			55.7			37.0	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	51.5	15.1	46.4	9.9	48.5	32.3	29.3
Change Period (Y+Rc), s	4.0	6.0	4.0	5.7	4.0	6.0	5.7	* 5.7
Max Green Setting (Gmax), s	11.0	32.0	21.0	36.3	11.0	32.0	31.0	* 26
Max Q Clear Time (g_c+I1), s	3.6	34.4	11.1	13.5	6.0	28.3	25.8	21.5
Green Ext Time (p_c), s	0.0	0.0	0.1	5.4	0.1	2.9	0.8	2.1

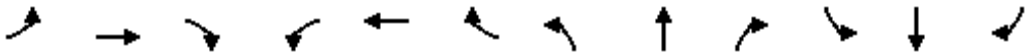
Intersection Summary	
HCM 6th Ctrl Delay	39.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



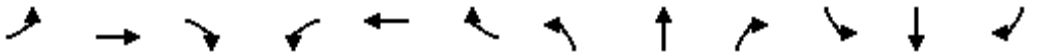
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	0	29	34	0	85	11	694	11	35	562	13
Future Volume (veh/h)	35	0	29	34	0	85	11	694	11	35	562	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	0	2	34	0	14	11	694	10	35	562	12
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	0	119	181	0	162	41	1224	18	114	1359	29
Arrive On Green	0.08	0.00	0.08	0.10	0.00	0.10	0.02	0.34	0.34	0.06	0.38	0.38
Sat Flow, veh/h	1781	0	1585	1781	0	1585	1781	3586	52	1781	3558	76
Grp Volume(v), veh/h	35	0	2	34	0	14	11	344	360	35	281	293
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1585	1781	1777	1861	1781	1777	1857
Q Serve(g_s), s	0.8	0.0	0.0	0.7	0.0	0.3	0.3	6.7	6.7	0.8	4.9	4.9
Cycle Q Clear(g_c), s	0.8	0.0	0.0	0.7	0.0	0.3	0.3	6.7	6.7	0.8	4.9	4.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		0.04
Lane Grp Cap(c), veh/h	134	0	119	181	0	162	41	606	635	114	679	709
V/C Ratio(X)	0.26	0.00	0.02	0.19	0.00	0.09	0.27	0.57	0.57	0.31	0.41	0.41
Avail Cap(c_a), veh/h	842	0	749	842	0	749	842	1721	1803	842	1973	2062
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.5	0.0	18.1	17.4	0.0	17.2	20.3	11.4	11.4	18.9	9.6	9.6
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.2	0.0	0.1	1.3	1.4	1.4	0.6	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.3	0.0	0.1	0.1	2.1	2.2	0.3	1.4	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.9	0.0	18.2	17.6	0.0	17.3	21.6	12.8	12.8	19.5	10.3	10.3
LnGrp LOS	B	A	B	B	A	B	C	B	B	B	B	B
Approach Vol, veh/h		37			48			715			609	
Approach Delay, s/veh		18.8			17.5			12.9			10.8	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		7.2	5.0	21.9		8.3	6.7	20.1				
Change Period (Y+Rc), s		4.0	4.0	5.7		4.0	4.0	5.7				
Max Green Setting (Gmax), s		20.0	20.0	47.0		20.0	20.0	41.0				
Max Q Clear Time (g_c+I1), s		2.8	2.3	6.9		2.7	2.8	8.7				
Green Ext Time (p_c), s		0.0	0.0	4.6		0.1	0.0	5.7				

Intersection Summary												
HCM 6th Ctrl Delay			12.3									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	225	349	80	289	109	451	598	84	103	456	28
Future Volume (veh/h)	21	225	349	80	289	109	451	598	84	103	456	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2001	1924	1924	2001	1924	1924	2001	1924	1924	1954	1879	1879
Adj Flow Rate, veh/h	21	225	215	80	289	30	451	598	30	103	456	7
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	83	522	510	202	750	332	633	1205	535	218	984	436
Arrive On Green	0.04	0.14	0.14	0.11	0.21	0.21	0.17	0.33	0.33	0.12	0.28	0.28
Sat Flow, veh/h	1906	3656	1614	1906	3656	1619	3698	3656	1623	1861	3571	1584
Grp Volume(v), veh/h	21	225	215	80	289	30	451	598	30	103	456	7
Grp Sat Flow(s),veh/h/ln	1906	1828	1614	1906	1828	1619	1849	1828	1623	1861	1785	1584
Q Serve(g_s), s	0.7	3.6	6.8	2.5	4.4	1.0	7.5	8.5	0.8	3.3	6.9	0.2
Cycle Q Clear(g_c), s	0.7	3.6	6.8	2.5	4.4	1.0	7.5	8.5	0.8	3.3	6.9	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	83	522	510	202	750	332	633	1205	535	218	984	436
V/C Ratio(X)	0.25	0.43	0.42	0.40	0.39	0.09	0.71	0.50	0.06	0.47	0.46	0.02
Avail Cap(c_a), veh/h	471	830	646	471	807	358	1313	1920	852	460	1340	594
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.9	25.3	17.6	27.0	22.2	20.8	25.3	17.4	14.8	26.7	19.5	17.1
Incr Delay (d2), s/veh	0.6	1.3	1.2	0.5	0.6	0.2	0.6	0.5	0.1	0.6	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.5	2.3	1.1	1.7	0.3	2.9	3.0	0.3	1.4	2.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.5	26.6	18.8	27.5	22.8	21.0	25.9	17.9	14.9	27.3	20.1	17.1
LnGrp LOS	C	C	B	C	C	C	C	B	B	C	C	B
Approach Vol, veh/h		461			399			1079			566	
Approach Delay, s/veh		23.1			23.6			21.1			21.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	15.0	15.1	23.8	6.8	19.0	11.6	27.3
Change Period (Y+Rc), s	4.0	* 5.7	4.0	* 6	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	16.0	* 15	23.0	* 24	16.0	14.3	16.0	34.0
Max Q Clear Time (g_c+I1), s	4.5	5.6	9.5	8.9	2.7	6.4	5.3	10.5
Green Ext Time (p_c), s	0.1	1.7	1.6	6.5	0.0	2.4	0.2	10.3

Intersection Summary	
HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



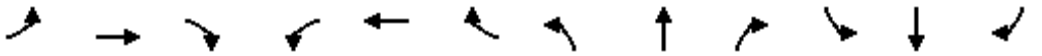
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	710	40	46	952	127	65
Future Volume (veh/h)	710	40	46	952	127	65
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	710	36	46	952	127	13
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1195	61	162	1923	358	318
Arrive On Green	0.35	0.35	0.09	0.54	0.20	0.20
Sat Flow, veh/h	3535	174	1781	3647	1781	1585
Grp Volume(v), veh/h	366	380	46	952	127	13
Grp Sat Flow(s),veh/h/ln	1777	1839	1781	1777	1781	1585
Q Serve(g_s), s	6.6	6.6	0.9	6.5	2.4	0.3
Cycle Q Clear(g_c), s	6.6	6.6	0.9	6.5	2.4	0.3
Prop In Lane		0.09	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	617	638	162	1923	358	318
V/C Ratio(X)	0.59	0.59	0.28	0.50	0.35	0.04
Avail Cap(c_a), veh/h	1605	1661	965	5503	1149	1023
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.4	10.4	16.4	5.6	13.3	12.5
Incr Delay (d2), s/veh	1.4	1.3	0.4	0.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.8	0.3	0.9	0.8	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.8	11.7	16.8	5.9	13.5	12.5
LnGrp LOS	B	B	B	A	B	B
Approach Vol, veh/h	746			998	140	
Approach Delay, s/veh	11.7			6.4	13.4	
Approach LOS	B			A	B	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		11.8	7.5	19.5		27.0
Change Period (Y+Rc), s		4.0	4.0	6.0		6.0
Max Green Setting (Gmax), s		25.0	21.0	35.0		60.0
Max Q Clear Time (g_c+I1), s		4.4	2.9	8.6		8.5
Green Ext Time (p_c), s		0.3	0.0	4.9		8.4

Intersection Summary	
HCM 6th Ctrl Delay	9.0
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	181	623	62	327	115	657	963	28	93	635	31
Future Volume (veh/h)	70	181	623	62	327	115	657	963	28	93	635	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	181	0	62	327	0	657	963	0	93	635	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	107	408		117	427		729	1460		415	1589	
Arrive On Green	0.06	0.11	0.00	0.07	0.12	0.00	0.21	0.41	0.00	0.23	0.45	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	70	181	0	62	327	0	657	963	0	93	635	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.6	5.7	0.0	4.0	10.7	0.0	22.2	26.3	0.0	5.1	14.4	0.0
Cycle Q Clear(g_c), s	4.6	5.7	0.0	4.0	10.7	0.0	22.2	26.3	0.0	5.1	14.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	107	408		117	427		729	1460		415	1589	
V/C Ratio(X)	0.65	0.44		0.53	0.77		0.90	0.66		0.22	0.40	
Avail Cap(c_a), veh/h	238	572		238	583		893	1460		415	1589	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	55.2	49.5	0.0	54.3	51.2	0.0	46.1	28.6	0.0	37.2	22.3	0.0
Incr Delay (d2), s/veh	2.5	1.3	0.0	1.4	5.8	0.0	9.5	2.4	0.0	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	2.5	0.0	1.8	5.0	0.0	10.0	10.8	0.0	2.1	5.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.7	50.8	0.0	55.7	57.0	0.0	55.7	30.9	0.0	37.3	22.6	0.0
LnGrp LOS	E	D		E	E		E	C		D	C	
Approach Vol, veh/h		251	A		389	A		1620	A		728	A
Approach Delay, s/veh		52.7			56.8			41.0			24.5	
Approach LOS		D			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.7	55.0	11.9	19.5	29.3	59.3	11.2	20.1
Change Period (Y+Rc), s	5.7	* 5.7	4.0	5.7	4.0	5.7	4.0	* 5.7
Max Green Setting (Gmax), s	16.0	* 49	16.0	19.3	31.0	34.3	16.0	* 20
Max Q Clear Time (g_c+I1), s	7.1	28.3	6.0	7.7	24.2	16.4	6.6	12.7
Green Ext Time (p_c), s	0.1	6.8	0.0	0.8	1.1	3.9	0.1	1.2

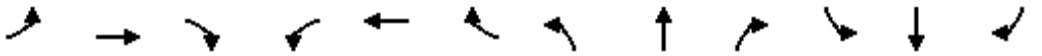
Intersection Summary	
HCM 6th Ctrl Delay	40.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	164	666	0	0	451	179	0	0	0	362	0	152
Future Volume (veh/h)	164	666	0	0	451	179	0	0	0	362	0	152
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841				1841	0	1841
Adj Flow Rate, veh/h	164	666	0	0	451	50				362	0	152
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	4	4	0	0	4	4				4	0	4
Cap, veh/h	216	1613	0	0	824	363				480	0	427
Arrive On Green	0.12	0.46	0.00	0.00	0.24	0.24				0.27	0.00	0.27
Sat Flow, veh/h	1753	3589	0	0	3589	1543				1753	0	1560
Grp Volume(v), veh/h	164	666	0	0	451	50				362	0	152
Grp Sat Flow(s),veh/h/ln	1753	1749	0	0	1749	1543				1753	0	1560
Q Serve(g_s), s	3.5	4.9	0.0	0.0	4.4	1.0				7.4	0.0	3.0
Cycle Q Clear(g_c), s	3.5	4.9	0.0	0.0	4.4	1.0				7.4	0.0	3.0
Prop In Lane	1.00		0.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	216	1613	0	0	824	363				480	0	427
V/C Ratio(X)	0.76	0.41	0.00	0.00	0.55	0.14				0.75	0.00	0.36
Avail Cap(c_a), veh/h	901	3147	0	0	4765	2103				1757	0	1564
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	16.5	7.0	0.0	0.0	13.1	11.7				12.9	0.0	11.4
Incr Delay (d2), s/veh	2.1	0.2	0.0	0.0	0.6	0.2				0.9	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.0	0.0	0.0	1.3	0.3				2.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.6	7.1	0.0	0.0	13.6	11.9				13.8	0.0	11.5
LnGrp LOS	B	A	A	A	B	B				B	A	B
Approach Vol, veh/h		830			501						514	
Approach Delay, s/veh		9.4			13.5						13.2	
Approach LOS		A			B						B	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		23.6		15.3	8.8	14.9						
Change Period (Y+Rc), s		5.7		4.6	4.0	5.7						
Max Green Setting (Gmax), s		35.0		39.0	20.0	53.0						
Max Q Clear Time (g_c+I1), s		6.9		9.4	5.5	6.4						
Green Ext Time (p_c), s		3.0		1.3	0.2	2.2						

Intersection Summary												
HCM 6th Ctrl Delay			11.5									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	934	10	8	581	205	19	2	18	154	7	58
Future Volume (veh/h)	64	934	10	8	581	205	19	2	18	154	7	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1885	1885	1826	1826	1885	1885	1885	1732	1791	1732
Adj Flow Rate, veh/h	64	934	9	8	581	75	19	2	3	154	7	58
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	5	5	1	1	5	5	1	1	1	5	1	5
Cap, veh/h	80	1670	16	11	1509	665	41	15	23	220	10	193
Arrive On Green	0.05	0.47	0.47	0.01	0.43	0.43	0.02	0.02	0.02	0.13	0.13	0.13
Sat Flow, veh/h	1739	3520	34	1795	3469	1530	1795	681	1021	1635	74	1435
Grp Volume(v), veh/h	64	460	483	8	581	75	19	0	5	161	0	58
Grp Sat Flow(s),veh/h/ln	1739	1735	1820	1795	1735	1530	1795	0	1701	1709	0	1435
Q Serve(g_s), s	1.8	9.3	9.3	0.2	5.6	1.4	0.5	0.0	0.1	4.4	0.0	1.8
Cycle Q Clear(g_c), s	1.8	9.3	9.3	0.2	5.6	1.4	0.5	0.0	0.1	4.4	0.0	1.8
Prop In Lane	1.00		0.02	1.00		1.00	1.00		0.60	0.96		1.00
Lane Grp Cap(c), veh/h	80	823	863	11	1509	665	41	0	39	230	0	193
V/C Ratio(X)	0.80	0.56	0.56	0.71	0.39	0.11	0.47	0.00	0.13	0.70	0.00	0.30
Avail Cap(c_a), veh/h	712	1597	1675	735	4756	2097	735	0	696	420	0	352
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.1	9.2	9.2	24.2	9.4	8.2	23.6	0.0	23.4	20.2	0.0	19.1
Incr Delay (d2), s/veh	6.9	0.6	0.6	25.6	0.2	0.1	3.0	0.0	0.6	1.5	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.4	2.5	0.2	1.5	0.3	0.2	0.0	0.1	1.7	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	9.8	9.8	49.8	9.5	8.3	26.6	0.0	24.0	21.7	0.0	19.4
LnGrp LOS	C	A	A	D	A	A	C	A	C	C	A	B
Approach Vol, veh/h		1007			664			24			219	
Approach Delay, s/veh		11.1			9.9			26.1			21.1	
Approach LOS		B			A			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.3	28.9		5.1	6.2	27.0		10.6				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	67.0		12.0				
Max Q Clear Time (g_c+I1), s	2.2	11.3		2.5	3.8	7.6		6.4				
Green Ext Time (p_c), s	0.0	11.9		0.0	0.1	8.0		0.5				

Intersection Summary			
HCM 6th Ctrl Delay		12.0	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	893	200	260	614	284	352
Future Volume (veh/h)	893	200	260	614	284	352
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	893	101	260	614	284	350
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	847	691	425	2032	356	695
Arrive On Green	0.24	0.24	0.24	0.57	0.20	0.20
Sat Flow, veh/h	3647	1568	1781	3647	1781	1585
Grp Volume(v), veh/h	893	101	260	614	284	350
Grp Sat Flow(s),veh/h/ln	1777	1568	1781	1777	1781	1585
Q Serve(g_s), s	14.3	2.3	7.8	5.4	9.1	0.0
Cycle Q Clear(g_c), s	14.3	2.3	7.8	5.4	9.1	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	847	691	425	2032	356	695
V/C Ratio(X)	1.05	0.15	0.61	0.30	0.80	0.50
Avail Cap(c_a), veh/h	847	691	475	2032	475	800
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.99	0.99	0.89	0.89
Uniform Delay (d), s/veh	22.8	10.1	20.4	6.7	22.8	12.1
Incr Delay (d2), s/veh	46.3	0.1	1.1	0.4	4.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.5	1.0	2.9	1.4	4.0	5.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	69.1	10.2	21.5	7.0	27.2	12.3
LnGrp LOS	F	B	C	A	C	B
Approach Vol, veh/h	994			874	634	
Approach Delay, s/veh	63.1			11.3	19.0	
Approach LOS	E			B	B	

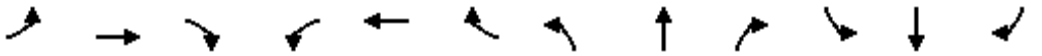
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	20.0	20.0		16.0		40.0
Change Period (Y+Rc), s	5.7	* 5.7		4.0		5.7
Max Green Setting (Gmax), s	16.0	* 14		16.0		34.3
Max Q Clear Time (g_c+I1), s	9.8	16.3		11.1		7.4
Green Ext Time (p_c), s	0.3	0.0		0.9		2.7

Intersection Summary	
HCM 6th Ctrl Delay	33.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

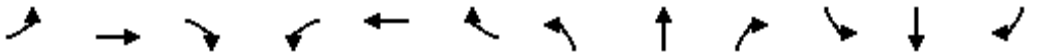


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	948	297	459	504	0	0	0	1214	0	0	370
Future Volume (vph)	0	948	297	459	504	0	0	0	1214	0	0	370
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.7	5.7	4.0	4.0				4.0			4.0
Lane Util. Factor		0.91	1.00	0.97	0.95				1.00			1.00
Frpb, ped/bikes		1.00	0.98	1.00	1.00				1.00			1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00				1.00			1.00
Frt		1.00	0.85	1.00	1.00				0.86			0.86
Flt Protected		1.00	1.00	0.95	1.00				1.00			1.00
Satd. Flow (prot)		5085	1557	3433	3539				1611			1611
Flt Permitted		1.00	1.00	0.95	1.00				1.00			1.00
Satd. Flow (perm)		5085	1557	3433	3539				1611			1611
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	948	297	459	504	0	0	0	1214	0	0	370
RTOR Reduction (vph)	0	0	102	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	948	195	459	504	0	0	0	1214	0	0	370
Confl. Peds. (#/hr)			5									
Turn Type		NA	Perm	Prot	NA				Free			Free
Protected Phases		2		1	Free							
Permitted Phases			2						Free			Free
Actuated Green, G (s)		37.8	37.8	12.5	60.0				60.0			60.0
Effective Green, g (s)		37.8	37.8	12.5	60.0				60.0			60.0
Actuated g/C Ratio		0.63	0.63	0.21	1.00				1.00			1.00
Clearance Time (s)		5.7	5.7	4.0								
Vehicle Extension (s)		3.4	3.4	2.0								
Lane Grp Cap (vph)		3203	980	715	3539				1611			1611
v/s Ratio Prot		0.19		0.13	0.14							
v/s Ratio Perm			0.13						c0.75			0.23
v/c Ratio		0.30	0.20	0.64	0.14				0.75			0.23
Uniform Delay, d1		5.0	4.7	21.7	0.0				0.0			0.0
Progression Factor		0.84	1.87	0.84	1.00				1.00			1.00
Incremental Delay, d2		0.1	0.3	1.4	0.1				3.3			0.3
Delay (s)		4.4	9.1	19.7	0.1				3.3			0.3
Level of Service		A	A	B	A				A			A
Approach Delay (s)		5.5			9.4			3.3			0.3	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	5.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.7
Intersection Capacity Utilization	40.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBT	WBR	WBR2	NBL2	NBT	NBR	SBL	SBR	SBR2
Lane Configurations												
Traffic Volume (vph)	220	1645	297	585	304	99	146	604	978	257	232	96
Future Volume (vph)	220	1645	297	585	304	99	146	604	978	257	232	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.7	4.0	5.7	5.7	5.7	4.0	5.3	4.0	4.0	5.7	
Lane Util. Factor	0.97	0.95	1.00	0.86	0.86	1.00	1.00	0.95	1.00	0.97	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	0.98	1.00	1.00	1.00	0.99	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	0.98	0.85	0.85	1.00	1.00	0.85	1.00	0.85	
Flt Protected	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3539	1548	4686	1339	1583	1770	3539	1562	3433	1583	
Flt Permitted	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3539	1548	4686	1339	1583	1770	3539	1562	3433	1583	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	220	1645	297	585	304	99	146	604	978	257	232	96
RTOR Reduction (vph)	0	0	0	0	0	60	0	0	0	0	38	0
Lane Group Flow (vph)	220	1645	297	688	201	39	146	604	978	257	290	0
Confl. Peds. (#/hr)			5		5				5		5	
Turn Type	Prot	NA	Free	NA	Perm	Perm	Prot	NA	Free	Prot	pt+ov	
Protected Phases	5	2		6			3	8		7	4 5	
Permitted Phases			Free		6	6			Free			
Actuated Green, G (s)	12.1	63.2	120.0	47.1	47.1	47.1	14.5	27.1	120.0	14.7	44.7	
Effective Green, g (s)	12.1	63.2	120.0	47.1	47.1	47.1	14.5	27.1	120.0	14.7	44.7	
Actuated g/C Ratio	0.10	0.53	1.00	0.39	0.39	0.39	0.12	0.23	1.00	0.12	0.37	
Clearance Time (s)	4.0	5.7		5.7	5.7	5.7	4.0	5.3		4.0		
Vehicle Extension (s)	2.0	3.5		5.6	5.6	5.6	2.0	2.8		3.5		
Lane Grp Cap (vph)	346	1863	1548	1839	525	621	213	799	1562	420	589	
v/s Ratio Prot	0.06	c0.46		0.15			0.08	c0.17		0.07	0.18	
v/s Ratio Perm			0.19		0.15	0.02			c0.63			
v/c Ratio	0.64	0.88	0.19	0.37	0.38	0.06	0.69	0.76	0.63	0.61	0.49	
Uniform Delay, d1	51.8	25.1	0.0	26.0	26.1	22.7	50.6	43.4	0.0	49.9	28.9	
Progression Factor	0.98	0.87	1.00	0.55	0.56	0.15	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.3	5.3	0.3	0.3	1.1	0.1	7.1	4.0	1.9	2.8	0.2	
Delay (s)	53.1	27.1	0.3	14.6	15.7	3.5	57.6	47.4	1.9	52.7	29.2	
Level of Service	D	C	A	B	B	A	E	D	A	D	C	
Approach Delay (s)		26.1		13.7				22.5				
Approach LOS		C		B				C				

Intersection Summary			
HCM 2000 Control Delay	24.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.4
Intersection Capacity Utilization	86.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	348	2098	434	78	629	83	158	197	78	110	245	201
Future Volume (veh/h)	348	2098	434	78	629	83	158	197	78	110	245	201
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	348	2098	0	78	629	0	158	197	0	110	245	23
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	403	2326		240	2536		416	375		281	458	140
Arrive On Green	0.23	0.91	0.00	0.07	0.39	0.00	0.08	0.11	0.00	0.08	0.09	0.09
Sat Flow, veh/h	3456	5106	1585	3456	6434	1585	5023	3554	1585	3456	5106	1559
Grp Volume(v), veh/h	348	2098	0	78	629	0	158	197	0	110	245	23
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1609	1585	1674	1777	1585	1728	1702	1559
Q Serve(g_s), s	11.6	24.6	0.0	2.6	7.9	0.0	3.6	6.3	0.0	3.6	5.5	1.6
Cycle Q Clear(g_c), s	11.6	24.6	0.0	2.6	7.9	0.0	3.6	6.3	0.0	3.6	5.5	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	403	2326		240	2536		416	375		281	458	140
V/C Ratio(X)	0.86	0.90		0.33	0.25		0.38	0.53		0.39	0.54	0.16
Avail Cap(c_a), veh/h	518	2326		461	2536		586	583		461	821	251
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.55	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.1	4.0	0.0	53.2	24.4	0.0	52.1	50.8	0.0	52.3	52.2	50.5
Incr Delay (d2), s/veh	5.6	3.1	0.0	0.3	0.2	0.0	0.2	1.6	0.0	0.3	1.2	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	2.5	0.0	1.1	3.0	0.0	1.5	2.8	0.0	1.6	2.4	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.7	7.1	0.0	53.4	24.6	0.0	52.3	52.4	0.0	52.6	53.4	51.1
LnGrp LOS	D	A		D	C		D	D		D	D	D
Approach Vol, veh/h		2446	A		707	A		355	A		378	
Approach Delay, s/veh		13.3			27.8			52.4			53.0	
Approach LOS		B			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	18.7	12.3	60.4	15.9	16.5	19.7	53.0
Change Period (Y+Rc), s	4.0	* 6	4.0	5.7	6.0	5.7	5.7	* 5.7
Max Green Setting (Gmax), s	16.0	* 20	16.0	49.3	14.0	19.3	18.0	* 47
Max Q Clear Time (g_c+I1), s	5.6	8.3	4.6	26.6	5.6	7.5	13.6	9.9
Green Ext Time (p_c), s	0.1	0.8	0.1	14.9	0.2	1.0	0.4	3.9

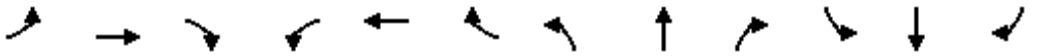
Intersection Summary	
HCM 6th Ctrl Delay	23.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	1707	314	34	558	21	155	226	8	49	211	83
Future Volume (veh/h)	113	1707	314	34	558	21	155	226	8	49	211	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	113	1707	0	34	558	0	155	226	0	49	211	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	140	1885		481	2936		183	530		64	291	
Arrive On Green	0.08	0.37	0.00	0.27	0.58	0.00	0.10	0.15	0.00	0.04	0.08	0.00
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	113	1707	0	34	558	0	155	226	0	49	211	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	7.5	38.0	0.0	1.7	6.3	0.0	10.3	6.9	0.0	3.3	7.0	0.0
Cycle Q Clear(g_c), s	7.5	38.0	0.0	1.7	6.3	0.0	10.3	6.9	0.0	3.3	7.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	140	1885		481	2936		183	530		64	291	
V/C Ratio(X)	0.81	0.91		0.07	0.19		0.84	0.43		0.77	0.72	
Avail Cap(c_a), veh/h	312	1885		481	2936		312	583		312	572	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.4	35.9	0.0	32.6	12.2	0.0	52.9	46.4	0.0	57.4	53.8	0.0
Incr Delay (d2), s/veh	4.2	7.7	0.0	0.0	0.0	0.0	4.1	1.1	0.0	7.2	5.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	16.3	0.0	0.7	2.2	0.0	4.7	3.1	0.0	1.6	3.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.6	43.6	0.0	32.6	12.2	0.0	56.9	47.5	0.0	64.5	59.1	0.0
LnGrp LOS	E	D		C	B		E	D		E	E	
Approach Vol, veh/h		1820	A		592	A		381	A		260	A
Approach Delay, s/veh		44.5			13.4			51.3			60.1	
Approach LOS		D			B			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	23.6	38.1	50.0	16.4	15.5	13.4	74.7
Change Period (Y+Rc), s	4.0	* 5.7	5.7	* 5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	21.0	* 20	16.0	* 44	21.0	19.3	21.0	39.3
Max Q Clear Time (g_c+I1), s	5.3	8.9	3.7	40.0	12.3	9.0	9.5	8.3
Green Ext Time (p_c), s	0.0	1.2	0.0	3.6	0.2	0.9	0.1	4.5

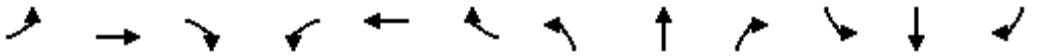
Intersection Summary	
HCM 6th Ctrl Delay	40.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	107	103	53	101	42	124	603	53	181	1388	52
Future Volume (veh/h)	31	107	103	53	101	42	124	603	53	181	1388	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	107	0	53	101	0	124	603	0	181	1388	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	39	173		69	233		151	1885		209	2122	
Arrive On Green	0.02	0.05	0.00	0.04	0.07	0.00	0.09	0.37	0.00	0.12	0.42	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	31	107	0	53	101	0	124	603	0	181	1388	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	2.1	3.5	0.0	3.5	3.3	0.0	8.2	10.1	0.0	12.0	26.2	0.0
Cycle Q Clear(g_c), s	2.1	3.5	0.0	3.5	3.3	0.0	8.2	10.1	0.0	12.0	26.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	39	173		69	233		151	1885		209	2122	
V/C Ratio(X)	0.79	0.62		0.77	0.43		0.82	0.32		0.87	0.65	
Avail Cap(c_a), veh/h	252	524		312	643		327	1885		267	2122	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	58.4	56.0	0.0	57.2	53.9	0.0	54.0	27.1	0.0	52.0	28.1	0.0
Incr Delay (d2), s/veh	12.3	7.1	0.0	6.6	2.6	0.0	4.1	0.4	0.0	17.6	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.7	0.0	1.7	1.5	0.0	3.8	4.1	0.0	6.2	10.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.7	63.0	0.0	63.8	56.5	0.0	58.1	27.5	0.0	69.6	29.0	0.0
LnGrp LOS	E	E		E	E		E	C		E	C	
Approach Vol, veh/h		138	A		154	A		727	A		1569	A
Approach Delay, s/veh		64.8			59.0			32.7			33.7	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	11.2	14.2	55.6	6.6	13.2	19.8	50.0
Change Period (Y+Rc), s	4.0	5.3	4.0	5.7	4.0	5.3	5.7	* 5.7
Max Green Setting (Gmax), s	21.0	17.7	22.0	40.3	17.0	21.7	18.0	* 44
Max Q Clear Time (g_c+I1), s	5.5	5.5	10.2	28.2	4.1	5.3	14.0	12.1
Green Ext Time (p_c), s	0.1	0.5	0.2	7.7	0.0	0.5	0.1	4.9

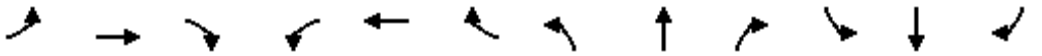
Intersection Summary	
HCM 6th Ctrl Delay	36.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	238	1387	304	45	1060	327	362	392	28	635	556	161
Future Volume (veh/h)	238	1387	304	45	1060	327	362	392	28	635	556	161
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	238	1387	194	45	1060	0	362	392	5	635	556	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	294	2103	653	80	1702		523	478	213	662	572	
Arrive On Green	0.17	0.82	0.82	0.02	0.33	0.00	0.15	0.13	0.13	0.19	0.16	0.00
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	238	1387	194	45	1060	0	362	392	5	635	556	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	8.0	12.6	1.5	1.5	21.0	0.0	11.9	12.9	0.3	21.8	18.7	0.0
Cycle Q Clear(g_c), s	8.0	12.6	1.5	1.5	21.0	0.0	11.9	12.9	0.3	21.8	18.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	294	2103	653	80	1702		523	478	213	662	572	
V/C Ratio(X)	0.81	0.66	0.30	0.56	0.62		0.69	0.82	0.02	0.96	0.97	
Avail Cap(c_a), veh/h	518	2103	653	461	1702		662	572	255	662	572	
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	48.9	7.3	1.3	58.0	33.7	0.0	48.3	50.5	45.1	48.0	50.1	0.0
Incr Delay (d2), s/veh	2.0	0.9	0.3	2.3	1.7	0.0	1.3	9.0	0.1	24.9	30.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	2.6	1.0	0.7	8.6	0.0	5.1	6.2	0.1	11.5	10.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.9	8.2	1.7	60.3	35.4	0.0	49.5	59.5	45.1	72.9	80.9	0.0
LnGrp LOS	D	A	A	E	D		D	E	D	E	F	
Approach Vol, veh/h		1819			1105	A		759			1191	A
Approach Delay, s/veh		13.1			36.4			54.7			76.7	
Approach LOS		B			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	55.4	23.9	25.0	16.2	46.0	27.0	21.9
Change Period (Y+Rc), s	4.0	6.0	5.7	* 5.7	6.0	* 6	4.0	5.7
Max Green Setting (Gmax), s	16.0	42.0	23.0	* 19	18.0	* 40	23.0	19.3
Max Q Clear Time (g_c+I1), s	3.5	14.6	13.9	20.7	10.0	23.0	23.8	14.9
Green Ext Time (p_c), s	0.0	15.5	0.5	0.0	0.3	8.2	0.0	1.3

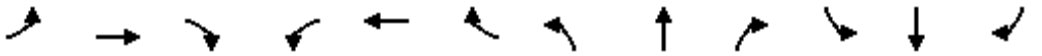
Intersection Summary	
HCM 6th Ctrl Delay	40.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



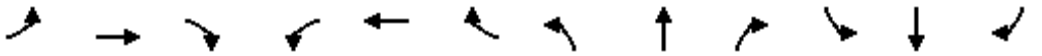
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	654	9	13	775	14	45	2	6	17	4	59
Future Volume (veh/h)	43	654	9	13	775	14	45	2	6	17	4	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	654	9	13	775	13	45	2	0	17	4	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	132	1531	21	48	1355	23	159	167	0	81	19	88
Arrive On Green	0.07	0.43	0.43	0.03	0.38	0.38	0.09	0.09	0.00	0.06	0.06	0.06
Sat Flow, veh/h	1781	3589	49	1781	3576	60	1781	1870	0	1455	342	1585
Grp Volume(v), veh/h	43	324	339	13	385	403	45	2	0	21	0	5
Grp Sat Flow(s),veh/h/ln	1781	1777	1861	1781	1777	1860	1781	1870	0	1798	0	1585
Q Serve(g_s), s	1.0	5.6	5.6	0.3	7.6	7.6	1.0	0.0	0.0	0.5	0.0	0.1
Cycle Q Clear(g_c), s	1.0	5.6	5.6	0.3	7.6	7.6	1.0	0.0	0.0	0.5	0.0	0.1
Prop In Lane	1.00		0.03	1.00		0.03	1.00		0.00	0.81		1.00
Lane Grp Cap(c), veh/h	132	758	794	48	673	705	159	167	0	100	0	88
V/C Ratio(X)	0.32	0.43	0.43	0.27	0.57	0.57	0.28	0.01	0.00	0.21	0.00	0.06
Avail Cap(c_a), veh/h	809	1815	1901	809	1815	1899	809	849	0	816	0	719
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.3	8.9	8.9	21.0	10.8	10.8	18.7	18.3	0.0	19.9	0.0	19.7
Incr Delay (d2), s/veh	0.5	0.7	0.6	1.1	1.3	1.3	0.4	0.0	0.0	0.4	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.8	1.9	0.1	2.6	2.7	0.4	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.9	9.5	9.5	22.2	12.2	12.1	19.1	18.3	0.0	20.3	0.0	19.8
LnGrp LOS	B	A	A	C	B	B	B	B	A	C	A	B
Approach Vol, veh/h		706			801			47			26	
Approach Delay, s/veh		10.1			12.3			19.1			20.2	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	24.5		7.9	7.3	22.4		6.5				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	2.3	7.6		3.0	3.0	9.6		2.5				
Green Ext Time (p_c), s	0.0	5.8		0.1	0.0	7.1		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		11.7	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	293	32	25	408	130	46	4	17	46	37	16
Future Volume (veh/h)	109	293	32	25	408	130	46	4	17	46	37	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	109	293	25	25	408	53	46	4	5	46	37	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	204	1167	99	74	991	442	146	13	16	132	106	207
Arrive On Green	0.11	0.35	0.35	0.04	0.28	0.28	0.10	0.10	0.10	0.13	0.13	0.13
Sat Flow, veh/h	1781	3316	281	1781	3554	1585	1478	129	161	1009	811	1585
Grp Volume(v), veh/h	109	156	162	25	408	53	55	0	0	83	0	3
Grp Sat Flow(s),veh/h/ln	1781	1777	1820	1781	1777	1585	1768	0	0	1820	0	1585
Q Serve(g_s), s	2.6	2.9	2.9	0.6	4.3	1.1	1.3	0.0	0.0	1.9	0.0	0.1
Cycle Q Clear(g_c), s	2.6	2.9	2.9	0.6	4.3	1.1	1.3	0.0	0.0	1.9	0.0	0.1
Prop In Lane	1.00		0.15	1.00		1.00	0.84		0.09	0.55		1.00
Lane Grp Cap(c), veh/h	204	625	640	74	991	442	175	0	0	238	0	207
V/C Ratio(X)	0.53	0.25	0.25	0.34	0.41	0.12	0.31	0.00	0.00	0.35	0.00	0.01
Avail Cap(c_a), veh/h	815	1421	1456	427	2068	922	424	0	0	833	0	726
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.2	10.6	10.6	21.4	13.5	12.3	19.2	0.0	0.0	18.2	0.0	17.4
Incr Delay (d2), s/veh	0.8	1.0	0.9	1.0	1.3	0.6	0.4	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.0	1.0	0.2	1.5	0.4	0.5	0.0	0.0	0.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.0	11.5	11.5	22.4	14.7	12.9	19.6	0.0	0.0	18.5	0.0	17.4
LnGrp LOS	B	B	B	C	B	B	B	A	A	B	A	B
Approach Vol, veh/h		427			486			55			86	
Approach Delay, s/veh		13.7			14.9			19.6			18.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		8.5	5.9	21.4		10.0	9.3	18.1				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.0	4.0	5.3				
Max Green Setting (Gmax), s		11.0	11.0	36.7		21.0	21.0	26.7				
Max Q Clear Time (g_c+I1), s		3.3	2.6	4.9		3.9	4.6	6.3				
Green Ext Time (p_c), s		0.0	0.0	5.0		0.1	0.2	6.5				

Intersection Summary												
HCM 6th Ctrl Delay			15.0									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	215	47	47	309	276	76	1029	57	190	671	127
Future Volume (veh/h)	91	215	47	47	309	276	76	1029	57	190	671	127
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	91	215	0	47	309	0	76	1029	0	190	671	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	115	248		94	430		97	1267		219	1460	
Arrive On Green	0.06	0.13	0.00	0.05	0.12	0.00	0.05	0.36	0.00	0.12	0.41	0.00
Sat Flow, veh/h	1781	1870	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	91	215	0	47	309	0	76	1029	0	190	671	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	6.0	13.5	0.0	3.1	10.0	0.0	5.1	31.5	0.0	12.6	16.5	0.0
Cycle Q Clear(g_c), s	6.0	13.5	0.0	3.1	10.0	0.0	5.1	31.5	0.0	12.6	16.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	115	248		94	430		97	1267		219	1460	
V/C Ratio(X)	0.79	0.87		0.50	0.72		0.78	0.81		0.87	0.46	
Avail Cap(c_a), veh/h	238	301		238	572		238	1267		386	1460	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	55.3	51.0	0.0	55.3	50.8	0.0	56.0	35.0	0.0	51.6	25.7	0.0
Incr Delay (d2), s/veh	4.6	22.1	0.0	1.5	4.4	0.0	5.1	4.5	0.0	4.0	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	7.7	0.0	1.4	4.6	0.0	2.3	13.4	0.0	5.6	6.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.0	73.1	0.0	56.8	55.1	0.0	61.1	39.5	0.0	55.6	26.7	0.0
LnGrp LOS	E	E		E	E		E	D		E	C	
Approach Vol, veh/h		306	A		356	A		1105	A		861	A
Approach Delay, s/veh		69.2			55.3			40.9			33.1	
Approach LOS		E			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.8	48.5	10.3	21.6	12.2	55.0	11.7	20.2
Change Period (Y+Rc), s	4.0	5.7	4.0	5.7	5.7	* 5.7	4.0	5.7
Max Green Setting (Gmax), s	26.0	39.3	16.0	19.3	16.0	* 49	16.0	19.3
Max Q Clear Time (g_c+I1), s	14.6	33.5	5.1	15.5	7.1	18.5	8.0	12.0
Green Ext Time (p_c), s	0.2	3.5	0.0	0.4	0.1	5.7	0.1	1.2

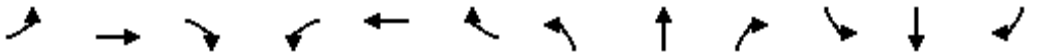
Intersection Summary	
HCM 6th Ctrl Delay	43.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	379	0	0	281	191	2	2	0	321	0	7
Future Volume (veh/h)	0	379	0	0	281	191	2	2	0	321	0	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	379	0	0	281	124	2	2	0	321	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	6	1090	0	0	574	869	4	4	0	431	0	383
Arrive On Green	0.00	0.31	0.00	0.00	0.31	0.31	0.00	0.00	0.00	0.24	0.00	0.24
Sat Flow, veh/h	1781	3647	0	0	1870	1585	912	912	0	1781	0	1585
Grp Volume(v), veh/h	0	379	0	0	281	124	4	0	0	321	0	2
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1870	1585	1825	0	0	1781	0	1585
Q Serve(g_s), s	0.0	2.4	0.0	0.0	3.5	1.1	0.1	0.0	0.0	4.8	0.0	0.0
Cycle Q Clear(g_c), s	0.0	2.4	0.0	0.0	3.5	1.1	0.1	0.0	0.0	4.8	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00	0.50		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	6	1090	0	0	574	869	8	0	0	431	0	383
V/C Ratio(X)	0.00	0.35	0.00	0.00	0.49	0.14	0.50	0.00	0.00	0.75	0.00	0.01
Avail Cap(c_a), veh/h	185	7391	0	0	3890	3680	886	0	0	1914	0	1703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	7.8	0.0	0.0	8.2	3.2	14.3	0.0	0.0	10.1	0.0	8.3
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.7	0.1	16.9	0.0	0.0	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.5	0.0	0.0	0.9	0.3	0.1	0.0	0.0	1.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	8.0	0.0	0.0	8.8	3.3	31.2	0.0	0.0	11.1	0.0	8.3
LnGrp LOS	A	A	A	A	A	A	C	A	A	B	A	A
Approach Vol, veh/h		379			405			4			323	
Approach Delay, s/veh		8.0			7.1			31.2			11.1	
Approach LOS		A			A			C			B	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		13.8		11.0	0.0	13.8		4.1				
Change Period (Y+Rc), s		4.9		4.0	5.0	4.9		4.0				
Max Green Setting (Gmax), s		60.0		31.0	3.0	60.0		14.0				
Max Q Clear Time (g_c+I1), s		4.4		6.8	0.0	5.5		2.1				
Green Ext Time (p_c), s		2.0		0.7	0.0	3.3		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			8.6									
HCM 6th LOS			A									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	691	9	3	443	0	11	0	5	87	5	18
Future Volume (veh/h)	0	691	9	3	443	0	11	0	5	87	5	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	691	0	3	443	0	11	0	1	87	5	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	0	2	2	2	2	2	2
Cap, veh/h	0	1433		12	1821	0	40	0	4	235	144	87
Arrive On Green	0.00	0.40	0.00	0.01	0.51	0.00	0.03	0.00	0.03	0.13	0.13	0.13
Sat Flow, veh/h	0	3647	1585	1781	3647	0	1616	0	147	1781	1095	657
Grp Volume(v), veh/h	0	691	0	3	443	0	12	0	0	87	0	8
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1781	1777	0	1763	0	0	1781	0	1752
Q Serve(g_s), s	0.0	5.6	0.0	0.1	2.7	0.0	0.3	0.0	0.0	1.7	0.0	0.2
Cycle Q Clear(g_c), s	0.0	5.6	0.0	0.1	2.7	0.0	0.3	0.0	0.0	1.7	0.0	0.2
Prop In Lane	0.00		1.00	1.00		0.00	0.92		0.08	1.00		0.38
Lane Grp Cap(c), veh/h	0	1433		12	1821	0	44	0	0	235	0	231
V/C Ratio(X)	0.00	0.48		0.26	0.24	0.00	0.27	0.00	0.00	0.37	0.00	0.03
Avail Cap(c_a), veh/h	0	4191		913	6013	0	949	0	0	913	0	898
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	8.6	0.0	19.3	5.3	0.0	18.7	0.0	0.0	15.5	0.0	14.8
Incr Delay (d2), s/veh	0.0	0.3	0.0	4.2	0.1	0.0	1.2	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.4	0.0	0.0	0.5	0.0	0.1	0.0	0.0	0.6	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	8.9	0.0	23.5	5.4	0.0	19.9	0.0	0.0	15.8	0.0	14.8
LnGrp LOS	A	A		C	A	A	B	A	A	B	A	B
Approach Vol, veh/h		691	A		446			12			95	
Approach Delay, s/veh		8.9			5.5			19.9			15.7	
Approach LOS		A			A			B			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	4.3	20.6		9.1		24.9		5.0				
Change Period (Y+Rc), s	4.0	4.9		4.0		4.9		4.0				
Max Green Setting (Gmax), s	20.0	46.0		20.0		66.0		21.0				
Max Q Clear Time (g_c+I1), s	2.1	7.6		3.7		4.7		2.3				
Green Ext Time (p_c), s	0.0	8.1		0.1		4.8		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		8.3	
HCM 6th LOS		A	

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



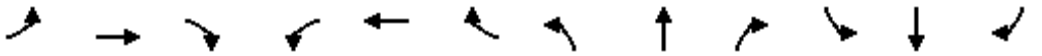
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	815	19	111	486	58	170
Future Volume (veh/h)	815	19	111	486	58	170
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	815	17	111	486	58	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1715	36	143	2424	90	80
Arrive On Green	0.48	0.48	0.08	0.68	0.05	0.05
Sat Flow, veh/h	3653	74	1781	3647	1781	1585
Grp Volume(v), veh/h	407	425	111	486	58	25
Grp Sat Flow(s),veh/h/ln	1777	1857	1781	1777	1781	1585
Q Serve(g_s), s	5.1	5.1	2.0	1.7	1.1	0.5
Cycle Q Clear(g_c), s	5.1	5.1	2.0	1.7	1.1	0.5
Prop In Lane		0.04	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	856	895	143	2424	90	80
V/C Ratio(X)	0.48	0.48	0.78	0.20	0.64	0.31
Avail Cap(c_a), veh/h	2135	2231	803	4270	803	714
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.8	5.8	15.0	1.9	15.5	15.2
Incr Delay (d2), s/veh	0.4	0.4	3.4	0.0	2.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.9	0.8	0.0	0.4	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	6.2	6.2	18.4	2.0	18.4	16.1
LnGrp LOS	A	A	B	A	B	B
Approach Vol, veh/h	832			597	83	
Approach Delay, s/veh	6.2			5.0	17.7	
Approach LOS	A			A	B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	6.7	20.9		5.7		27.6
Change Period (Y+Rc), s	4.0	4.9		4.0		4.9
Max Green Setting (Gmax), s	15.0	40.0		15.0		40.0
Max Q Clear Time (g_c+I1), s	4.0	7.1		3.1		3.7
Green Ext Time (p_c), s	0.1	8.9		0.1		6.2

Intersection Summary	
HCM 6th Ctrl Delay	6.4
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	933	4	23	709	65	3	3	8	280	4	35
Future Volume (veh/h)	46	933	4	23	709	65	3	3	8	280	4	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	933	4	23	709	60	3	3	0	283	0	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	2457	11	59	2188	185	10	10	0	371	0	165
Arrive On Green	0.05	0.68	0.68	0.03	0.66	0.66	0.01	0.01	0.00	0.10	0.00	0.10
Sat Flow, veh/h	1781	3629	16	1781	3316	280	912	912	0	3563	0	1585
Grp Volume(v), veh/h	46	457	480	23	380	389	6	0	0	283	0	5
Grp Sat Flow(s),veh/h/ln	1781	1777	1868	1781	1777	1820	1825	0	0	1781	0	1585
Q Serve(g_s), s	2.5	11.2	11.2	1.3	9.2	9.3	0.3	0.0	0.0	7.7	0.0	0.3
Cycle Q Clear(g_c), s	2.5	11.2	11.2	1.3	9.2	9.3	0.3	0.0	0.0	7.7	0.0	0.3
Prop In Lane	1.00		0.01	1.00		0.15	0.50		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	1203	1265	59	1172	1201	20	0	0	371	0	165
V/C Ratio(X)	0.51	0.38	0.38	0.39	0.32	0.32	0.31	0.00	0.00	0.76	0.00	0.03
Avail Cap(c_a), veh/h	214	1203	1265	214	1172	1201	219	0	0	691	0	307
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	46.3	7.0	7.0	47.4	7.4	7.4	49.1	0.0	0.0	43.6	0.0	40.3
Incr Delay (d2), s/veh	1.7	0.9	0.9	1.6	0.2	0.2	3.2	0.0	0.0	2.5	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.8	4.0	0.6	3.2	3.3	0.2	0.0	0.0	3.5	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.9	7.9	7.9	48.9	7.5	7.5	52.3	0.0	0.0	46.0	0.0	40.3
LnGrp LOS	D	A	A	D	A	A	D	A	A	D	A	D
Approach Vol, veh/h		983			792			6			288	
Approach Delay, s/veh		9.8			8.7			52.3			45.9	
Approach LOS		A			A			D			D	

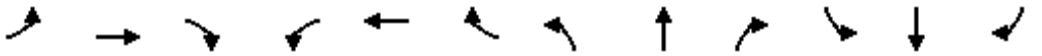
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	72.6		15.0	9.0	70.9		5.1				
Change Period (Y+Rc), s	4.0	4.9		4.6	4.0	4.9		4.0				
Max Green Setting (Gmax), s	12.0	39.1		19.4	12.0	39.1		12.0				
Max Q Clear Time (g_c+I1), s	3.3	13.2		9.7	4.5	11.3		2.3				
Green Ext Time (p_c), s	0.0	16.2		0.7	0.0	14.4		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		14.5	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	181	1107	12	50	795	411	21	8	30	485	7	129
Future Volume (veh/h)	181	1107	12	50	795	411	21	8	30	485	7	129
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	181	1107	11	50	795	260	21	8	1	490	0	37
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	210	2009	20	64	1855	1080	40	42	36	569	0	253
Arrive On Green	0.24	1.00	1.00	0.04	0.52	0.52	0.02	0.02	0.02	0.16	0.00	0.16
Sat Flow, veh/h	1781	3328	33	1781	3554	1585	1781	1870	1585	3563	0	1585
Grp Volume(v), veh/h	181	498	620	50	795	260	21	8	1	490	0	37
Grp Sat Flow(s),veh/h/ln	1781	1496	1864	1781	1777	1585	1781	1870	1585	1781	0	1585
Q Serve(g_s), s	9.7	0.0	0.0	2.8	13.8	6.2	1.2	0.4	0.1	13.4	0.0	2.0
Cycle Q Clear(g_c), s	9.7	0.0	0.0	2.8	13.8	6.2	1.2	0.4	0.1	13.4	0.0	2.0
Prop In Lane	1.00		0.02	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	210	903	1125	64	1855	1080	40	42	36	569	0	253
V/C Ratio(X)	0.86	0.55	0.55	0.78	0.43	0.24	0.52	0.19	0.03	0.86	0.00	0.15
Avail Cap(c_a), veh/h	321	903	1125	321	1855	1080	214	224	190	680	0	303
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.4	0.0	0.0	47.8	14.7	6.1	48.3	48.0	47.8	40.9	0.0	36.2
Incr Delay (d2), s/veh	9.3	2.4	1.9	7.3	0.2	0.1	3.8	0.8	0.1	8.9	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.6	0.6	1.3	5.0	3.1	0.6	0.2	0.0	6.5	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.7	2.4	1.9	55.1	14.9	6.2	52.2	48.8	47.9	49.8	0.0	36.3
LnGrp LOS	D	A	A	E	B	A	D	D	D	D	A	D
Approach Vol, veh/h		1299			1105			30			527	
Approach Delay, s/veh		8.4			14.7			51.1			48.9	
Approach LOS		A			B			D			D	

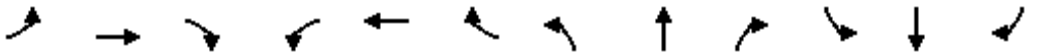
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	65.3		20.9	15.8	57.1		6.3				
Change Period (Y+Rc), s	4.0	4.9		4.9	4.0	4.9		4.0				
Max Green Setting (Gmax), s	18.0	33.1		19.1	18.0	33.1		12.0				
Max Q Clear Time (g_c+I1), s	4.8	2.0		15.4	11.7	15.8		3.2				
Green Ext Time (p_c), s	0.0	8.9		0.6	0.1	6.6		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		18.4	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

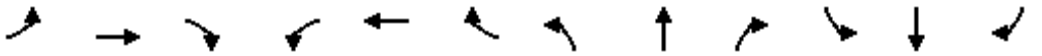


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1059	281	0	1042	789	0	0	0	316	548	214
Future Volume (veh/h)	0	1059	281	0	1042	789	0	0	0	316	548	214
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	0	1059	0	0	1042	0				316	548	164
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	0	2	2				2	2	2
Cap, veh/h	0	2100		0	3018					547	574	487
Arrive On Green	0.00	0.79	0.00	0.00	0.59	0.00				0.31	0.31	0.31
Sat Flow, veh/h	0	3741	0	0	5274	1585				1781	1870	1585
Grp Volume(v), veh/h	0	1059	0	0	1042	0				316	548	164
Grp Sat Flow(s),veh/h/ln	0	1777	0	0	1702	1585				1781	1870	1585
Q Serve(g_s), s	0.0	10.6	0.0	0.0	10.5	0.0				14.9	28.7	8.0
Cycle Q Clear(g_c), s	0.0	10.6	0.0	0.0	10.5	0.0				14.9	28.7	8.0
Prop In Lane	0.00		0.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2100		0	3018					547	574	487
V/C Ratio(X)	0.00	0.50		0.00	0.35					0.58	0.95	0.34
Avail Cap(c_a), veh/h	0	2100		0	3018					547	574	487
HCM Platoon Ratio	1.00	1.33	1.33	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	0.87	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	5.5	0.0	0.0	10.5	0.0				29.2	34.0	26.8
Incr Delay (d2), s/veh	0.0	0.9	0.0	0.0	0.1	0.0				1.0	26.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.0	0.0	0.0	3.6	0.0				6.4	16.9	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	6.4	0.0	0.0	10.6	0.0				30.2	60.3	26.9
LnGrp LOS	A	A		A	B					C	E	C
Approach Vol, veh/h		1059	A		1042	A					1028	
Approach Delay, s/veh		6.4			10.6						45.7	
Approach LOS		A			B						D	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		64.0		36.0		64.0						
Change Period (Y+Rc), s		4.9		5.3		4.9						
Max Green Setting (Gmax), s		59.1		30.7		59.1						
Max Q Clear Time (g_c+I1), s		12.6		30.7		12.5						
Green Ext Time (p_c), s		9.2		0.0		8.6						

Intersection Summary		
HCM 6th Ctrl Delay	20.7	
HCM 6th LOS	C	

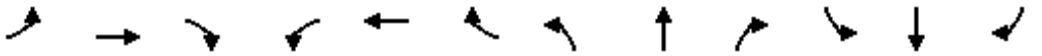
Notes
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	134	1241	0	0	1413	156	0	0	1242	0	0	418
Future Volume (vph)	134	1241	0	0	1413	156	0	0	1242	0	0	418
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			5.3	5.3			4.0			4.0
Lane Util. Factor	1.00	0.95			0.91	1.00			1.00			0.88
Frt	1.00	1.00			1.00	0.85			0.86			0.85
Flt Protected	0.95	1.00			1.00	1.00			1.00			1.00
Satd. Flow (prot)	1770	3539			5085	1583			1611			2787
Flt Permitted	0.95	1.00			1.00	1.00			1.00			1.00
Satd. Flow (perm)	1770	3539			5085	1583			1611			2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	134	1241	0	0	1413	156	0	0	1242	0	0	418
RTOR Reduction (vph)	0	0	0	0	0	55	0	0	0	0	0	58
Lane Group Flow (vph)	134	1241	0	0	1413	101	0	0	1242	0	0	360
Turn Type	Prot	NA			NA	Perm			Free			Over
Protected Phases	5	Free			6							5
Permitted Phases						6			Free			
Actuated Green, G (s)	11.8	60.0			38.9	38.9			60.0			11.8
Effective Green, g (s)	11.8	60.0			38.9	38.9			60.0			11.8
Actuated g/C Ratio	0.20	1.00			0.65	0.65			1.00			0.20
Clearance Time (s)	4.0				5.3	5.3						4.0
Vehicle Extension (s)	2.0				3.4	3.4						2.0
Lane Grp Cap (vph)	348	3539			3296	1026			1611			548
v/s Ratio Prot	0.08	0.35			0.28							0.13
v/s Ratio Perm						0.06			c0.77			
v/c Ratio	0.39	0.35			0.43	0.10			0.77			0.66
Uniform Delay, d1	20.9	0.0			5.1	4.0			0.0			22.2
Progression Factor	1.00	1.00			1.39	3.04			1.00			1.00
Incremental Delay, d2	0.3	0.3			0.4	0.2			3.6			2.2
Delay (s)	21.2	0.3			7.5	12.2			3.6			24.4
Level of Service	C	A			A	B			A			C
Approach Delay (s)		2.3			8.0			3.6			24.4	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	6.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.3
Intersection Capacity Utilization	49.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	347	1913	223	168	1124	71	203	402	140	85	265	242
Future Volume (veh/h)	347	1913	223	168	1124	71	203	402	140	85	265	242
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	347	1913	174	168	1124	32	203	402	34	85	265	175
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	410	2115	772	742	2661	824	264	517	217	206	466	393
Arrive On Green	0.12	0.41	0.41	0.21	0.52	0.52	0.07	0.14	0.14	0.06	0.13	0.13
Sat Flow, veh/h	3456	5106	1579	3456	5106	1580	3563	3741	1568	3456	3554	1567
Grp Volume(v), veh/h	347	1913	174	168	1124	32	203	402	34	85	265	175
Grp Sat Flow(s),veh/h/ln	1728	1702	1579	1728	1702	1580	1781	1870	1568	1728	1777	1567
Q Serve(g_s), s	11.8	42.1	2.6	4.8	16.2	0.8	6.7	12.5	2.3	2.8	8.4	11.3
Cycle Q Clear(g_c), s	11.8	42.1	2.6	4.8	16.2	0.8	6.7	12.5	2.3	2.8	8.4	11.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	410	2115	772	742	2661	824	264	517	217	206	466	393
V/C Ratio(X)	0.85	0.90	0.23	0.23	0.42	0.04	0.77	0.78	0.16	0.41	0.57	0.45
Avail Cap(c_a), veh/h	605	2115	772	742	2661	824	475	627	263	461	583	445
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.81	0.92	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.8	32.9	6.6	38.9	17.6	6.7	54.5	49.9	45.6	54.4	49.0	38.0
Incr Delay (d2), s/veh	4.0	5.8	0.5	0.1	0.1	0.0	1.8	6.3	0.6	0.5	2.4	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	17.9	1.2	2.1	6.3	0.4	3.1	6.2	0.9	1.2	3.9	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.8	38.7	7.1	38.9	17.8	6.7	56.3	56.3	46.1	54.9	51.4	39.8
LnGrp LOS	E	D	A	D	B	A	E	E	D	D	D	D
Approach Vol, veh/h		2434			1324			639			525	
Approach Delay, s/veh		38.9			20.2			55.7			48.1	
Approach LOS		D			C			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.1	55.0	12.9	21.0	18.2	67.8	12.5	21.5
Change Period (Y+Rc), s	5.3	* 5.3	4.0	5.3	4.0	5.3	5.3	* 4.9
Max Green Setting (Gmax), s	16.0	* 50	16.0	19.7	21.0	44.7	16.0	* 20
Max Q Clear Time (g_c+I1), s	6.8	44.1	8.7	13.3	13.8	18.2	4.8	14.5
Green Ext Time (p_c), s	0.2	5.1	0.2	2.1	0.4	12.3	0.1	1.8

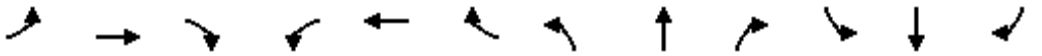
Intersection Summary	
HCM 6th Ctrl Delay	37.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	1928	102	31	1260	57	44	18	24	62	11	59
Future Volume (veh/h)	108	1928	102	31	1260	57	44	18	24	62	11	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	108	1928	100	31	1260	55	44	18	2	70	0	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	132	3631	188	39	3402	148	92	85	9	185	0	80
Arrive On Green	0.15	1.00	1.00	0.04	1.00	1.00	0.05	0.05	0.05	0.05	0.00	0.05
Sat Flow, veh/h	1781	4970	257	1781	5015	219	1781	1654	184	3563	0	1539
Grp Volume(v), veh/h	108	1319	709	31	855	460	44	0	20	70	0	5
Grp Sat Flow(s),veh/h/ln	1781	1702	1823	1781	1702	1830	1781	0	1837	1781	0	1539
Q Serve(g_s), s	7.1	0.0	0.0	2.1	0.0	0.0	2.9	0.0	1.3	2.3	0.0	0.4
Cycle Q Clear(g_c), s	7.1	0.0	0.0	2.1	0.0	0.0	2.9	0.0	1.3	2.3	0.0	0.4
Prop In Lane	1.00		0.14	1.00		0.12	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	132	2487	1332	39	2309	1241	92	0	94	185	0	80
V/C Ratio(X)	0.82	0.53	0.53	0.79	0.37	0.37	0.48	0.00	0.21	0.38	0.00	0.06
Avail Cap(c_a), veh/h	312	2487	1332	238	2309	1241	238	0	245	920	0	398
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	0.85	0.85	0.85	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.3	0.0	0.0	57.1	0.0	0.0	55.4	0.0	54.6	55.0	0.0	54.1
Incr Delay (d2), s/veh	3.1	0.5	1.0	10.9	0.2	0.3	2.9	0.0	0.8	0.5	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.2	0.4	1.0	0.1	0.1	1.4	0.0	0.6	1.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.5	0.5	1.0	68.0	0.2	0.3	58.2	0.0	55.4	55.5	0.0	54.2
LnGrp LOS	D	A	A	E	A	A	E	A	E	E	A	D
Approach Vol, veh/h		2136			1346			64			75	
Approach Delay, s/veh		3.4			1.8			57.3			55.4	
Approach LOS		A			A			E			E	

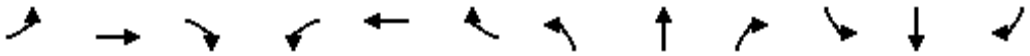
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.6	93.0		10.2	12.9	86.7		10.2				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	16.0	39.7		31.0	21.0	34.7		16.0				
Max Q Clear Time (g_c+I1), s	4.1	2.0		4.3	9.1	2.0		4.9				
Green Ext Time (p_c), s	0.0	28.3		0.1	0.1	19.1		0.1				

Intersection Summary		
HCM 6th Ctrl Delay	4.8	
HCM 6th LOS	A	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	1830	157	51	1202	75	140	62	49	42	43	6
Future Volume (veh/h)	27	1830	157	51	1202	75	140	62	49	42	43	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	27	1830	157	51	1202	75	126	82	49	42	43	6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	570	2947	252	66	1581	99	166	102	61	186	167	23
Arrive On Green	0.64	1.00	1.00	0.04	0.32	0.32	0.09	0.09	0.09	0.10	0.10	0.10
Sat Flow, veh/h	1781	4784	409	1781	4902	306	1781	1097	655	1781	1592	222
Grp Volume(v), veh/h	27	1300	687	51	835	442	126	0	131	42	0	49
Grp Sat Flow(s),veh/h/ln	1781	1702	1789	1781	1702	1804	1781	0	1752	1781	0	1814
Q Serve(g_s), s	0.7	0.0	0.0	3.4	26.4	26.4	8.3	0.0	8.8	2.6	0.0	3.0
Cycle Q Clear(g_c), s	0.7	0.0	0.0	3.4	26.4	26.4	8.3	0.0	8.8	2.6	0.0	3.0
Prop In Lane	1.00		0.23	1.00		0.17	1.00		0.37	1.00		0.12
Lane Grp Cap(c), veh/h	570	2097	1102	66	1098	582	166	0	163	186	0	190
V/C Ratio(X)	0.05	0.62	0.62	0.77	0.76	0.76	0.76	0.00	0.80	0.23	0.00	0.26
Avail Cap(c_a), veh/h	570	2097	1102	238	1098	582	238	0	234	466	0	475
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	0.93	0.93	0.93	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.8	0.0	0.0	57.3	36.5	36.5	53.1	0.0	53.3	49.3	0.0	49.4
Incr Delay (d2), s/veh	0.0	1.1	2.1	6.5	4.6	8.5	6.8	0.0	10.5	0.2	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.3	0.7	1.6	11.5	12.8	4.0	0.0	4.3	1.2	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.8	1.1	2.1	63.8	41.1	45.0	59.9	0.0	63.8	49.5	0.0	49.7
LnGrp LOS	B	A	A	E	D	D	E	A	E	D	A	D
Approach Vol, veh/h		2014			1328			257			91	
Approach Delay, s/veh		1.6			43.3			61.9			49.6	
Approach LOS		A			D			E			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	79.2		17.2	43.7	44.0		15.2				
Change Period (Y+Rc), s	4.0	5.3		4.6	5.3	* 5.3		4.0				
Max Green Setting (Gmax), s	16.0	38.7		31.4	16.0	* 39		16.0				
Max Q Clear Time (g_c+I1), s	5.4	2.0		5.0	2.7	28.4		10.8				
Green Ext Time (p_c), s	0.0	30.6		0.2	0.0	7.8		0.4				

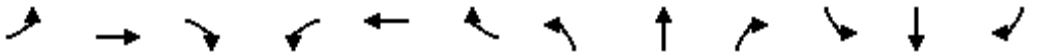
Intersection Summary	
HCM 6th Ctrl Delay	22.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	1770	86	24	1291	147	6	5	13	16	0	31
Future Volume (veh/h)	65	1770	86	24	1291	147	6	5	13	16	0	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.95	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	1770	83	24	1291	142	6	5	1	16	0	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	84	2294	107	651	3664	403	8	25	5	19	0	34
Arrive On Green	0.05	0.46	0.46	0.37	0.79	0.79	0.00	0.02	0.02	0.01	0.00	0.02
Sat Flow, veh/h	1781	4997	234	1781	4667	513	1781	1500	300	1781	0	1514
Grp Volume(v), veh/h	65	1205	648	24	942	491	6	0	6	16	0	3
Grp Sat Flow(s),veh/h/ln	1781	1702	1827	1781	1702	1777	1781	0	1800	1781	0	1514
Q Serve(g_s), s	4.3	35.6	35.7	1.0	9.9	9.9	0.4	0.0	0.4	1.1	0.0	0.2
Cycle Q Clear(g_c), s	4.3	35.6	35.7	1.0	9.9	9.9	0.4	0.0	0.4	1.1	0.0	0.2
Prop In Lane	1.00		0.13	1.00		0.29	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	84	1563	839	651	2672	1395	8	0	30	19	0	34
V/C Ratio(X)	0.78	0.77	0.77	0.04	0.35	0.35	0.74	0.00	0.20	0.84	0.00	0.09
Avail Cap(c_a), veh/h	312	1563	839	651	2672	1395	238	0	240	238	0	202
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.59	0.59	0.59	0.82	0.82	0.82	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	56.5	27.2	27.2	24.5	3.8	3.8	59.7	0.0	58.2	59.3	0.0	57.4
Incr Delay (d2), s/veh	3.4	2.2	4.1	0.0	0.2	0.4	81.7	0.0	3.3	60.1	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	14.4	15.9	0.4	2.7	2.9	0.4	0.0	0.2	0.8	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.9	29.4	31.3	24.5	4.0	4.2	141.4	0.0	61.6	119.4	0.0	58.5
LnGrp LOS	E	C	C	C	A	A	F	A	E	F	A	E
Approach Vol, veh/h		1918			1457			12			19	
Approach Delay, s/veh		31.1			4.4			101.5			109.8	
Approach LOS		C			A			F			F	

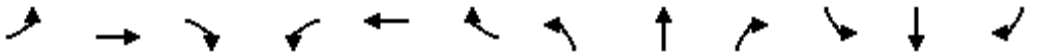
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	48.8	60.0	4.5	6.7	9.6	99.1	5.3	6.0
Change Period (Y+Rc), s	4.9	* 4.9	4.0	4.0	4.0	4.9	4.0	4.0
Max Green Setting (Gmax), s	16.0	* 55	16.0	16.0	21.0	50.1	16.0	16.0
Max Q Clear Time (g_c+I1), s	3.0	37.7	2.4	2.2	6.3	11.9	3.1	2.4
Green Ext Time (p_c), s	0.0	16.1	0.0	0.0	0.0	27.2	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	20.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	1447	147	144	1183	106	211	594	323	159	341	68
Future Volume (veh/h)	205	1447	147	144	1183	106	211	594	323	159	341	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	205	1447	0	144	1183	0	211	594	108	159	341	16
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	263	2613		200	2521		272	662	293	218	607	268
Arrive On Green	0.15	1.00	0.00	0.12	0.99	0.00	0.08	0.19	0.19	0.06	0.17	0.17
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	3554	1572	3456	3554	1571
Grp Volume(v), veh/h	205	1447	0	144	1183	0	211	594	108	159	341	16
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1777	1572	1728	1777	1571
Q Serve(g_s), s	6.8	0.0	0.0	4.8	0.7	0.0	7.2	19.6	7.2	5.4	10.6	1.0
Cycle Q Clear(g_c), s	6.8	0.0	0.0	4.8	0.7	0.0	7.2	19.6	7.2	5.4	10.6	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	263	2613		200	2521		272	662	293	218	607	268
V/C Ratio(X)	0.78	0.55		0.72	0.47		0.78	0.90	0.37	0.73	0.56	0.06
Avail Cap(c_a), veh/h	605	2613		605	2521		576	690	305	576	702	310
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.9	0.0	0.0	52.1	0.4	0.0	54.2	47.7	42.7	55.2	45.6	41.7
Incr Delay (d2), s/veh	1.7	0.7	0.0	1.8	0.2	0.0	1.8	14.1	0.7	1.7	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.2	0.0	2.0	0.2	0.0	3.1	9.8	2.8	2.4	4.7	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.6	0.7	0.0	53.9	0.6	0.0	56.0	61.8	43.3	56.9	46.5	41.8
LnGrp LOS	D	A		D	A		E	E	D	E	D	D
Approach Vol, veh/h		1652	A		1327	A		913			516	
Approach Delay, s/veh		7.1			6.4			58.3			49.6	
Approach LOS		A			A			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	67.4	14.4	27.2	13.1	65.2	12.6	29.1
Change Period (Y+Rc), s	4.0	* 6	5.0	* 6.7	4.0	6.0	5.0	6.7
Max Green Setting (Gmax), s	21.0	* 35	20.0	* 24	21.0	34.0	20.0	23.3
Max Q Clear Time (g_c+I1), s	6.8	2.0	9.2	12.6	8.8	2.7	7.4	21.6
Green Ext Time (p_c), s	0.2	21.6	0.3	1.6	0.3	13.0	0.2	0.7

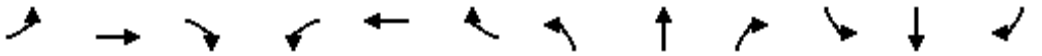
Intersection Summary	
HCM 6th Ctrl Delay	22.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	270	1559	184	266	1606	130	405	785	180	219	734	159
Future Volume (veh/h)	270	1559	184	266	1606	130	405	785	180	219	734	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	270	1559	60	266	1606	0	405	785	0	219	734	134
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	331	1659	510	549	2067		469	1281		283	854	154
Arrive On Green	0.10	0.32	0.32	0.16	0.40	0.00	0.14	0.25	0.00	0.08	0.20	0.20
Sat Flow, veh/h	3456	5106	1570	3456	5106	1585	3456	5106	1585	3456	4336	783
Grp Volume(v), veh/h	270	1559	60	266	1606	0	405	785	0	219	575	293
Grp Sat Flow(s),veh/h/ln	1728	1702	1570	1728	1702	1585	1728	1702	1585	1728	1702	1715
Q Serve(g_s), s	9.2	35.6	2.2	8.4	32.8	0.0	13.8	16.3	0.0	7.5	19.6	19.9
Cycle Q Clear(g_c), s	9.2	35.6	2.2	8.4	32.8	0.0	13.8	16.3	0.0	7.5	19.6	19.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.46
Lane Grp Cap(c), veh/h	331	1659	510	549	2067		469	1281		283	671	338
V/C Ratio(X)	0.82	0.94	0.12	0.48	0.78		0.86	0.61		0.77	0.86	0.87
Avail Cap(c_a), veh/h	461	1659	510	549	2067		605	1281		605	681	343
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.2	39.4	13.0	46.0	31.0	0.0	50.8	39.8	0.0	54.0	46.5	46.7
Incr Delay (d2), s/veh	5.4	11.8	0.5	0.2	2.0	0.0	8.4	1.0	0.0	1.7	10.8	20.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	16.0	1.2	3.5	13.1	0.0	6.2	6.6	0.0	3.2	8.9	10.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.6	51.1	13.4	46.2	33.0	0.0	59.2	40.8	0.0	55.7	57.3	67.5
LnGrp LOS	E	D	B	D	C		E	D		E	E	E
Approach Vol, veh/h		1889			1872	A		1190	A		1087	
Approach Delay, s/veh		51.0			34.9			47.0			59.8	
Approach LOS		D			C			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.1	45.0	20.3	29.6	15.5	54.6	13.8	36.1
Change Period (Y+Rc), s	6.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	14.0	39.0	21.0	24.0	16.0	39.0	21.0	24.0
Max Q Clear Time (g_c+I1), s	10.4	37.6	15.8	21.9	11.2	34.8	9.5	18.3
Green Ext Time (p_c), s	0.2	1.4	0.5	1.7	0.3	4.0	0.4	4.0

Intersection Summary	
HCM 6th Ctrl Delay	46.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	244	1308	312	154	1410	500
Future Volume (veh/h)	244	1308	312	154	1410	500
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	244	0	312	24	1410	500
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	323		419	187	2216	1513
Arrive On Green	0.09	0.00	0.12	0.12	0.64	0.81
Sat Flow, veh/h	3456	2790	3647	1585	3456	1870
Grp Volume(v), veh/h	244	0	312	24	1410	500
Grp Sat Flow(s),veh/h/ln	1728	1395	1777	1585	1728	1870
Q Serve(g_s), s	8.3	0.0	10.2	1.6	29.7	8.4
Cycle Q Clear(g_c), s	8.3	0.0	10.2	1.6	29.7	8.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	323		419	187	2216	1513
V/C Ratio(X)	0.76		0.75	0.13	0.64	0.33
Avail Cap(c_a), veh/h	700		720	321	2216	1513
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.1	0.0	51.2	47.4	13.0	3.0
Incr Delay (d2), s/veh	3.7	0.0	3.6	0.4	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.0	4.7	0.7	10.5	2.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	56.7	0.0	54.8	47.8	13.7	3.1
LnGrp LOS	E		D	D	B	A
Approach Vol, veh/h	244	A	336			1910
Approach Delay, s/veh	56.7		54.3			10.9
Approach LOS	E		D			B

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	83.0	20.1			103.1	16.9
Change Period (Y+Rc), s	6.0	* 6			6.0	5.7
Max Green Setting (Gmax), s	54.0	* 24			84.0	24.3
Max Q Clear Time (g_c+I1), s	31.7	12.2			10.4	10.3
Green Ext Time (p_c), s	7.8	1.9			4.0	0.9

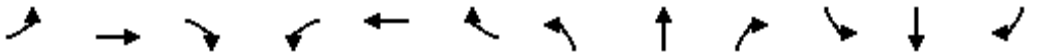
Intersection Summary	
HCM 6th Ctrl Delay	21.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	1374	30	135	1238	90	79	108	124	45	127	235
Future Volume (veh/h)	160	1374	30	135	1238	90	79	108	124	45	127	235
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	160	1374	29	135	1238	51	79	108	21	45	127	38
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	218	1581	33	832	2260	1008	101	206	174	58	161	137
Arrive On Green	0.06	0.44	0.44	0.24	0.64	0.64	0.06	0.11	0.11	0.03	0.09	0.09
Sat Flow, veh/h	3456	3559	75	3456	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	160	686	717	135	1238	51	79	108	21	45	127	38
Grp Sat Flow(s),veh/h/ln	1728	1777	1857	1728	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	5.5	41.9	42.0	3.7	23.4	1.5	5.3	6.5	0.9	3.0	8.0	2.7
Cycle Q Clear(g_c), s	5.5	41.9	42.0	3.7	23.4	1.5	5.3	6.5	0.9	3.0	8.0	2.7
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	218	789	825	832	2260	1008	101	206	174	58	161	137
V/C Ratio(X)	0.73	0.87	0.87	0.16	0.55	0.05	0.79	0.52	0.12	0.78	0.79	0.28
Avail Cap(c_a), veh/h	461	789	825	832	2260	1008	238	240	203	238	229	194
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.68	0.68	0.68	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.2	30.2	30.2	36.0	12.2	8.2	55.9	50.4	18.9	57.6	53.8	51.3
Incr Delay (d2), s/veh	1.2	8.9	8.6	0.0	0.3	0.0	5.0	3.4	0.5	8.0	14.2	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	18.9	19.7	1.5	8.5	0.5	2.5	3.3	0.6	1.5	4.4	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.4	39.1	38.9	36.0	12.5	8.2	60.9	53.8	19.4	65.6	68.0	53.0
LnGrp LOS	E	D	D	D	B	A	E	D	B	E	E	D
Approach Vol, veh/h		1563			1424			208			210	
Approach Delay, s/veh		40.8			14.6			53.0			64.7	
Approach LOS		D			B			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	18.5	34.6	59.0	10.8	15.6	11.6	82.0
Change Period (Y+Rc), s	4.0	* 5.3	5.7	* 5.7	4.0	5.3	4.0	5.7
Max Green Setting (Gmax), s	16.0	* 15	17.0	* 53	16.0	14.7	16.0	54.3
Max Q Clear Time (g_c+I1), s	5.0	8.5	5.7	44.0	7.3	10.0	7.5	25.4
Green Ext Time (p_c), s	0.0	0.4	0.2	6.4	0.0	0.4	0.2	12.5

Intersection Summary	
HCM 6th Ctrl Delay	32.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	1545	23	15	1500	26	3	1	20	49	2	5
Future Volume (veh/h)	15	1545	23	15	1500	26	3	1	20	49	2	5
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	15	1545	23	15	1500	25	3	1	2	49	2	1
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	18	2967	44	18	2960	49	72	25	26	120	3	1
Arrive On Green	0.02	1.00	1.00	0.01	0.83	0.83	0.04	0.04	0.04	0.04	0.04	0.04
Sat Flow, veh/h	1774	3570	53	1774	3563	59	593	565	579	1366	56	28
Grp Volume(v), veh/h	15	765	803	15	744	781	6	0	0	52	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1853	1774	1770	1852	1737	0	0	1450	0	0
Q Serve(g_s), s	1.0	0.0	0.0	1.0	14.7	14.8	0.0	0.0	0.0	3.8	0.0	0.0
Cycle Q Clear(g_c), s	1.0	0.0	0.0	1.0	14.7	14.8	0.4	0.0	0.0	4.2	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.03	0.50		0.33	0.94		0.02
Lane Grp Cap(c), veh/h	18	1471	1540	18	1471	1539	123	0	0	123	0	0
V/C Ratio(X)	0.86	0.52	0.52	0.85	0.51	0.51	0.05	0.00	0.00	0.42	0.00	0.00
Avail Cap(c_a), veh/h	237	1471	1540	237	1471	1539	258	0	0	249	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	58.7	0.0	0.0	59.3	3.0	3.0	54.9	0.0	0.0	56.7	0.0	0.0
Incr Delay (d2), s/veh	32.4	1.3	1.3	32.4	0.3	0.3	0.1	0.0	0.0	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.5	0.5	0.7	7.2	7.5	0.2	0.0	0.0	1.7	0.0	0.0
LnGrp Delay(d),s/veh	91.2	1.3	1.3	91.7	3.3	3.3	55.0	0.0	0.0	57.6	0.0	0.0
LnGrp LOS	F	A	A	F	A	A	D			E		
Approach Vol, veh/h		1583			1540			6			52	
Approach Delay, s/veh		2.1			4.2			55.0			57.6	
Approach LOS		A			A			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		9.4	5.2	105.4		9.4	5.2	105.4
Change Period (Y+Rc), s		4.0	4.0	5.7		4.0	4.0	5.7
Max Green Setting (Gmax), s		16.0	16.0	74.3		16.0	16.0	74.3
Max Q Clear Time (g_c+I1), s		6.2	3.0	2.0		2.4	3.0	16.8
Green Ext Time (p_c), s		0.1	0.0	14.2		0.0	0.0	20.1

Intersection Summary	
HCM 2010 Ctrl Delay	4.1
HCM 2010 LOS	A

Notes

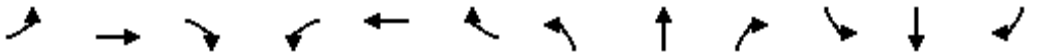
User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1616	8	191	1558	0	231
Future Volume (vph)	1616	8	191	1558	0	231
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.7		6.0	4.0		6.0
Lane Util. Factor	0.91		0.97	0.95		1.00
Frt	1.00		1.00	1.00		0.86
Flt Protected	1.00		0.95	1.00		1.00
Satd. Flow (prot)	5082		3433	3539		1611
Flt Permitted	1.00		0.95	1.00		1.00
Satd. Flow (perm)	5082		3433	3539		1611
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1616	8	191	1558	0	231
RTOR Reduction (vph)	1	0	0	0	0	15
Lane Group Flow (vph)	1623	0	191	1558	0	216
Turn Type	NA		Prot	NA		Over
Protected Phases	4		3	Free		3
Permitted Phases						
Actuated Green, G (s)	34.8		11.5	60.0		11.5
Effective Green, g (s)	34.8		11.5	60.0		11.5
Actuated g/C Ratio	0.58		0.19	1.00		0.19
Clearance Time (s)	7.7		6.0			6.0
Vehicle Extension (s)	3.5		2.0			2.0
Lane Grp Cap (vph)	2947		657	3539		308
v/s Ratio Prot	c0.32		0.06	0.44		c0.13
v/s Ratio Perm						
v/c Ratio	0.55		0.29	0.44		0.70
Uniform Delay, d1	7.8		20.8	0.0		22.7
Progression Factor	1.12		1.07	1.00		1.00
Incremental Delay, d2	0.6		0.1	0.3		5.8
Delay (s)	9.3		22.3	0.3		28.5
Level of Service	A		C	A		C
Approach Delay (s)	9.3			2.7	28.5	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	7.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	57.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	724	928	365	695	136	846	478	187	142	290	208
Future Volume (veh/h)	195	724	928	365	695	136	846	478	187	142	290	208
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	195	724	0	365	695	123	846	478	59	142	290	51
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	255	1006		429	963	170	902	1057	472	200	427	132
Arrive On Green	0.02	0.09	0.00	0.12	0.32	0.32	0.26	0.30	0.30	0.06	0.08	0.08
Sat Flow, veh/h	3456	3554	2790	3456	3018	534	3456	3554	1585	3456	5106	1585
Grp Volume(v), veh/h	195	724	0	365	409	409	846	478	59	142	290	51
Grp Sat Flow(s),veh/h/ln	1728	1777	1395	1728	1777	1774	1728	1777	1585	1728	1702	1585
Q Serve(g_s), s	6.7	23.8	0.0	12.4	24.4	24.5	28.7	13.1	3.3	4.8	6.6	3.7
Cycle Q Clear(g_c), s	6.7	23.8	0.0	12.4	24.4	24.5	28.7	13.1	3.3	4.8	6.6	3.7
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	255	1006		429	567	566	902	1057	472	200	427	132
V/C Ratio(X)	0.76	0.72		0.85	0.72	0.72	0.94	0.45	0.13	0.71	0.68	0.39
Avail Cap(c_a), veh/h	403	1006		662	567	566	950	1057	472	490	668	207
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.00	0.86	0.86	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.5	49.8	0.0	51.5	36.1	36.1	43.4	34.2	30.8	55.5	53.4	52.1
Incr Delay (d2), s/veh	1.4	2.1	0.0	3.4	6.7	6.7	15.5	0.4	0.2	1.8	2.6	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	11.6	0.0	5.5	11.3	11.3	13.9	5.6	1.2	2.1	2.9	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.9	51.9	0.0	54.9	42.8	42.9	58.9	34.6	30.9	57.3	56.0	54.6
LnGrp LOS	E	D		D	D	D	E	C	C	E	E	D
Approach Vol, veh/h		919	A		1183			1383			483	
Approach Delay, s/veh		53.4			46.6			49.3			56.3	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	41.0	18.9	39.7	36.6	15.3	14.6	44.0
Change Period (Y+Rc), s	4.0	5.3	4.0	5.7	5.3	* 5.3	5.7	* 5.7
Max Green Setting (Gmax), s	17.0	31.7	23.0	29.3	33.0	* 16	14.0	* 38
Max Q Clear Time (g_c+I1), s	6.8	15.1	14.4	25.8	30.7	8.6	8.7	26.5
Green Ext Time (p_c), s	0.2	3.8	0.5	1.7	0.6	1.4	0.2	4.4

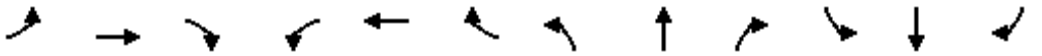
Intersection Summary	
HCM 6th Ctrl Delay	50.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	760	35	92	1191	5	8	0	269	8	2	10
Future Volume (veh/h)	4	760	35	92	1191	5	8	0	269	8	2	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2106	2106	2106	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	760	34	92	1191	5	8	0	49	8	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	6	1610	72	121	1733	7	69	0	169	14	3	15
Arrive On Green	0.01	0.83	0.83	0.14	0.96	0.96	0.04	0.00	0.04	0.01	0.01	0.00
Sat Flow, veh/h	2006	3901	174	1781	3629	15	1781	0	1585	1439	360	1585
Grp Volume(v), veh/h	4	390	404	92	583	613	8	0	49	10	0	0
Grp Sat Flow(s),veh/h/ln	2006	2001	2075	1781	1777	1868	1781	0	1585	1798	0	1585
Q Serve(g_s), s	0.2	6.7	6.7	6.0	5.2	5.2	0.5	0.0	3.4	0.7	0.0	0.0
Cycle Q Clear(g_c), s	0.2	6.7	6.7	6.0	5.2	5.2	0.5	0.0	3.4	0.7	0.0	0.0
Prop In Lane	1.00		0.08	1.00		0.01	1.00		1.00	0.80		1.00
Lane Grp Cap(c), veh/h	6	826	856	121	848	892	69	0	169	17	0	15
V/C Ratio(X)	0.64	0.47	0.47	0.76	0.69	0.69	0.12	0.00	0.29	0.59	0.00	0.00
Avail Cap(c_a), veh/h	251	826	856	386	848	892	223	0	306	225	0	198
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.94	0.91	0.91	0.91	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	59.6	6.7	6.7	50.9	1.5	1.5	55.7	0.0	49.4	59.2	0.0	0.0
Incr Delay (d2), s/veh	32.1	0.5	0.5	3.4	4.1	3.9	0.3	0.0	0.3	11.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.1	2.2	2.6	1.7	1.7	0.2	0.0	1.4	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.6	7.2	7.2	54.3	5.6	5.5	56.0	0.0	49.8	70.6	0.0	0.0
LnGrp LOS	F	A	A	D	A	A	E	A	D	E	A	A
Approach Vol, veh/h		798			1288			57			10	
Approach Delay, s/veh		7.7			9.0			50.6			70.6	
Approach LOS		A			A			D			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.1	55.2		8.6	4.4	63.0		5.1				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	26.0	46.3		15.0	15.0	57.3		15.0				
Max Q Clear Time (g_c+I1), s	8.0	8.7		5.4	2.2	7.2		2.7				
Green Ext Time (p_c), s	0.6	23.4		0.0	0.0	41.4		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		9.9
HCM 6th LOS		A

Notes

User approved pedestrian interval to be less than phase max green.

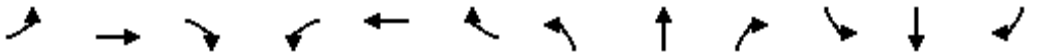
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1031	6	20	1251	0	37	0	90	0	0	0
Future Volume (veh/h)	0	1031	6	20	1251	0	37	0	90	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	0	1870	0	1870	0
Adj Flow Rate, veh/h	0	1031	6	20	1251	0	37	0	5	0	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	0	2	0	2	0	2	0
Cap, veh/h	0	1801	10	24	1934	0	48	0	0	0	2	0
Arrive On Green	0.00	0.50	0.50	0.01	0.54	0.00	0.03	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	3716	21	1781	3647	0	1781	37		0	-74814	0
Grp Volume(v), veh/h	0	506	531	20	1251	0	37	76.0		0	0	0
Grp Sat Flow(s),veh/h/ln	0	1777	1867	1781	1777	0	1781	E		0	1870	0
Q Serve(g_s), s	0.0	24.0	24.0	1.3	29.7	0.0	2.5			0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	24.0	24.0	1.3	29.7	0.0	2.5			0.0	0.0	0.0
Prop In Lane	0.00		0.01	1.00		0.00	1.00			0.00		0.00
Lane Grp Cap(c), veh/h	0	884	928	24	1934	0	48			0	2	0
V/C Ratio(X)	0.00	0.57	0.57	0.83	0.65	0.00	0.78			0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	884	928	238	1934	0	312			0	312	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00
Upstream Filter(I)	0.00	0.94	0.94	1.00	1.00	0.00	1.00			0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	21.2	21.2	59.0	19.2	0.0	58.0			0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.0	0.9	22.0	1.7	0.0	17.9			0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.7	10.2	0.7	11.9	0.0	1.4			0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	22.2	22.2	81.1	20.9	0.0	76.0			0.0	0.0	0.0
LnGrp LOS	A	C	C	F	C	A	E			A	A	A
Approach Vol, veh/h		1037			1271						0	
Approach Delay, s/veh		22.2			21.9						0.0	
Approach LOS		C			C							

Timer - Assigned Phs	1	2				6	7	8				
Phs Duration (G+Y+Rc), s	5.6	65.4				71.0	7.2	0.0				
Change Period (Y+Rc), s	4.0	5.7				5.7	4.0	4.0				
Max Green Setting (Gmax), s	16.0	45.3				65.3	21.0	20.0				
Max Q Clear Time (g_c+I1), s	3.3	26.0				31.7	4.5	0.0				
Green Ext Time (p_c), s	0.0	6.1				10.7	0.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			22.9									
HCM 6th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	273	705	232	126	816	71	299	1037	45	228	748	165
Future Volume (veh/h)	273	705	232	126	816	71	299	1037	45	228	748	165
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	273	705	0	126	816	66	299	1037	12	228	748	65
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	334	861		393	910	74	359	957	418	291	937	409
Arrive On Green	0.10	0.24	0.00	0.23	0.55	0.55	0.10	0.27	0.27	0.08	0.26	0.26
Sat Flow, veh/h	3456	3554	1585	3456	3324	269	3456	3554	1553	3456	3554	1553
Grp Volume(v), veh/h	273	705	0	126	436	446	299	1037	12	228	748	65
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1815	1728	1777	1553	1728	1777	1553
Q Serve(g_s), s	9.3	22.5	0.0	3.6	26.2	26.2	10.2	32.3	0.7	7.8	23.6	3.9
Cycle Q Clear(g_c), s	9.3	22.5	0.0	3.6	26.2	26.2	10.2	32.3	0.7	7.8	23.6	3.9
Prop In Lane	1.00		1.00	1.00		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	334	861		393	486	497	359	957	418	291	937	409
V/C Ratio(X)	0.82	0.82		0.32	0.90	0.90	0.83	1.08	0.03	0.78	0.80	0.16
Avail Cap(c_a), veh/h	461	957		518	514	525	461	957	418	518	1028	449
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.2	43.0	0.0	42.5	25.7	25.7	52.7	43.8	32.3	53.9	41.2	34.0
Incr Delay (d2), s/veh	5.6	5.4	0.0	0.2	18.2	18.0	8.0	54.7	0.1	1.8	4.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	10.3	0.0	1.5	9.7	9.8	4.7	21.0	0.3	3.4	10.6	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.8	48.4	0.0	42.6	43.9	43.6	60.7	98.5	32.4	55.6	45.7	34.2
LnGrp LOS	E	D		D	D	D	E	F	C	E	D	C
Approach Vol, veh/h		978	A		1008			1348			1041	
Approach Delay, s/veh		51.3			43.6			89.5			47.2	
Approach LOS		D			D			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	34.8	16.5	36.9	15.6	38.1	15.4	38.0
Change Period (Y+Rc), s	5.3	* 5.7	4.0	5.3	4.0	5.3	5.3	* 5.7
Max Green Setting (Gmax), s	18.0	* 32	16.0	34.7	16.0	34.7	18.0	* 32
Max Q Clear Time (g_c+I1), s	5.6	24.5	12.2	25.6	11.3	28.2	9.8	34.3
Green Ext Time (p_c), s	0.2	4.2	0.3	5.6	0.3	4.4	0.4	0.0

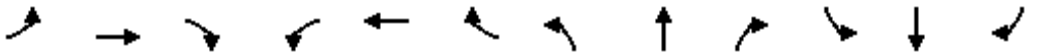
Intersection Summary	
HCM 6th Ctrl Delay	60.3
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	1085	10	18	1016	16	32	14	70	22	11	35
Future Volume (veh/h)	25	1085	10	18	1016	16	32	14	70	22	11	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	25	1085	10	18	1016	15	32	14	5	22	11	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	31	1522	14	22	1455	21	57	25	69	29	15	38
Arrive On Green	0.03	0.84	0.84	0.01	0.41	0.41	0.05	0.05	0.05	0.02	0.02	0.02
Sat Flow, veh/h	1781	3608	33	1781	3584	53	1257	550	1532	1207	603	1585
Grp Volume(v), veh/h	25	534	561	18	504	527	46	0	5	33	0	2
Grp Sat Flow(s),veh/h/ln	1781	1777	1864	1781	1777	1860	1807	0	1532	1810	0	1585
Q Serve(g_s), s	1.7	14.1	14.1	1.2	28.2	28.2	3.0	0.0	0.4	2.2	0.0	0.1
Cycle Q Clear(g_c), s	1.7	14.1	14.1	1.2	28.2	28.2	3.0	0.0	0.4	2.2	0.0	0.1
Prop In Lane	1.00		0.02	1.00		0.03	0.70		1.00	0.67		1.00
Lane Grp Cap(c), veh/h	31	750	787	22	721	755	82	0	69	44	0	38
V/C Ratio(X)	0.81	0.71	0.71	0.83	0.70	0.70	0.56	0.00	0.07	0.76	0.00	0.05
Avail Cap(c_a), veh/h	267	751	788	238	721	755	301	0	255	241	0	211
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.7	6.5	6.5	59.2	29.6	29.6	56.1	0.0	54.9	58.2	0.0	57.2
Incr Delay (d2), s/veh	16.5	3.9	3.7	25.3	5.6	5.3	2.3	0.0	0.2	9.5	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	3.3	3.4	0.7	12.7	13.2	1.4	0.0	0.1	1.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.2	10.4	10.2	84.4	35.1	34.9	58.4	0.0	55.0	67.7	0.0	57.4
LnGrp LOS	E	B	B	F	D	C	E	A	E	E	A	E
Approach Vol, veh/h		1120			1049			51			35	
Approach Delay, s/veh		11.7			35.8			58.1			67.1	
Approach LOS		B			D			E			E	

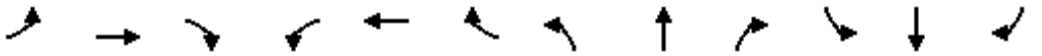
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	55.9		6.9	7.4	54.0		9.4				
Change Period (Y+Rc), s	4.0	5.3		4.0	5.3	* 5.3		4.0				
Max Green Setting (Gmax), s	16.0	50.7		16.0	18.0	* 49		20.0				
Max Q Clear Time (g_c+I1), s	3.2	16.1		4.2	3.7	30.2		5.0				
Green Ext Time (p_c), s	0.0	11.8		0.0	0.0	8.5		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		24.8	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



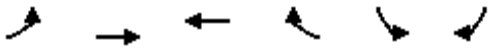
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	1106	5	15	979	17	5	5	5	83	5	64
Future Volume (veh/h)	47	1106	5	15	979	17	5	5	5	83	5	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	1106	5	15	979	16	5	5	0	83	5	13
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	57	2275	10	20	2169	35	126	57	0	251	7	112
Arrive On Green	0.03	0.63	0.63	0.01	0.61	0.61	0.07	0.07	0.00	0.07	0.07	0.07
Sat Flow, veh/h	1781	3628	16	1781	3578	58	257	799	0	1578	95	1585
Grp Volume(v), veh/h	47	542	569	15	486	509	10	0	0	88	0	13
Grp Sat Flow(s),veh/h/ln	1781	1777	1867	1781	1777	1860	1055	0	0	1673	0	1585
Q Serve(g_s), s	1.3	8.2	8.2	0.4	7.4	7.4	0.0	0.0	0.0	0.0	0.0	0.4
Cycle Q Clear(g_c), s	1.3	8.2	8.2	0.4	7.4	7.4	2.4	0.0	0.0	2.4	0.0	0.4
Prop In Lane	1.00		0.01	1.00		0.03	0.50		0.00	0.94		1.00
Lane Grp Cap(c), veh/h	57	1114	1171	20	1077	1128	182	0	0	258	0	112
V/C Ratio(X)	0.82	0.49	0.49	0.75	0.45	0.45	0.05	0.00	0.00	0.34	0.00	0.12
Avail Cap(c_a), veh/h	390	2289	2406	390	2289	2396	1491	0	0	1467	0	1452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.2	5.0	5.0	24.8	5.4	5.4	21.8	0.0	0.0	22.8	0.0	21.9
Incr Delay (d2), s/veh	10.5	0.4	0.4	18.3	0.3	0.3	0.1	0.0	0.0	0.6	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.6	1.6	0.3	1.5	1.6	0.1	0.0	0.0	1.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	5.4	5.4	43.0	5.7	5.7	21.9	0.0	0.0	23.4	0.0	22.2
LnGrp LOS	C	A	A	D	A	A	C	A	A	C	A	C
Approach Vol, veh/h		1158			1010			10			101	
Approach Delay, s/veh		6.6			6.2			21.9			23.2	
Approach LOS		A			A			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.6	36.8		8.9	5.6	35.7		8.9				
Change Period (Y+Rc), s	4.0	5.3		* 5.3	4.0	5.3		5.3				
Max Green Setting (Gmax), s	11.0	64.7		* 46	11.0	64.7		44.7				
Max Q Clear Time (g_c+I1), s	2.4	10.2		4.4	3.3	9.4		4.4				
Green Ext Time (p_c), s	0.0	21.3		0.3	0.0	18.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		7.2	
HCM 6th LOS		A	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



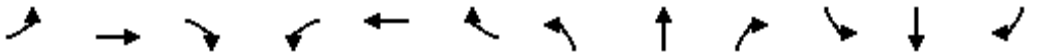
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	656	436	791	358	132	362
Future Volume (veh/h)	656	436	791	358	132	362
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	656	436	791	318	132	354
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1064	559	852	342	640	767
Arrive On Green	0.30	0.30	0.34	0.34	0.19	0.19
Sat Flow, veh/h	3563	1870	2568	994	3456	1585
Grp Volume(v), veh/h	656	436	568	541	132	354
Grp Sat Flow(s),veh/h/ln	1781	1870	1777	1692	1728	1585
Q Serve(g_s), s	13.5	18.1	26.2	26.2	2.8	12.6
Cycle Q Clear(g_c), s	13.5	18.1	26.2	26.2	2.8	12.6
Prop In Lane	1.00			0.59	1.00	1.00
Lane Grp Cap(c), veh/h	1064	559	612	583	640	767
V/C Ratio(X)	0.62	0.78	0.93	0.93	0.21	0.46
Avail Cap(c_a), veh/h	1257	660	627	597	1219	1033
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.6	27.3	26.9	26.9	29.3	14.6
Incr Delay (d2), s/veh	1.0	6.0	20.0	21.0	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	8.4	13.5	13.1	1.1	7.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.6	33.3	46.9	47.9	29.4	14.7
LnGrp LOS	C	C	D	D	C	B
Approach Vol, veh/h		1092	1109		486	
Approach Delay, s/veh		29.3	47.4		18.7	
Approach LOS		C	D		B	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		30.7		19.7		34.6
Change Period (Y+Rc), s		5.3		4.0		5.3
Max Green Setting (Gmax), s		30.0		30.0		30.0
Max Q Clear Time (g_c+I1), s		20.1		14.6		28.2
Green Ext Time (p_c), s		5.3		1.1		1.0

Intersection Summary	
HCM 6th Ctrl Delay	34.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



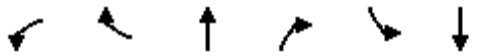
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	430	32	26	856	15	123	23	20	18	11	90
Future Volume (veh/h)	85	430	32	26	856	15	123	23	20	18	11	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	430	17	26	856	14	123	23	15	18	11	21
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	883	749	78	1467	24	315	38	20	280	137	248
Arrive On Green	0.11	0.47	0.47	0.04	0.41	0.41	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1781	1870	1585	1781	3578	59	1013	244	129	869	875	1585
Grp Volume(v), veh/h	85	430	17	26	425	445	161	0	0	29	0	21
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1860	1387	0	0	1744	0	1585
Q Serve(g_s), s	1.8	6.4	0.2	0.6	7.5	7.5	4.1	0.0	0.0	0.0	0.0	0.5
Cycle Q Clear(g_c), s	1.8	6.4	0.2	0.6	7.5	7.5	4.6	0.0	0.0	0.5	0.0	0.5
Prop In Lane	1.00		1.00	1.00		0.03	0.76		0.09	0.62		1.00
Lane Grp Cap(c), veh/h	189	883	749	78	728	762	373	0	0	416	0	248
V/C Ratio(X)	0.45	0.49	0.02	0.33	0.58	0.58	0.43	0.00	0.00	0.07	0.00	0.08
Avail Cap(c_a), veh/h	877	2072	1756	877	1969	2060	860	0	0	929	0	780
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.0	7.3	5.7	18.8	9.3	9.3	16.5	0.0	0.0	14.7	0.0	14.6
Incr Delay (d2), s/veh	0.6	0.7	0.0	0.9	1.2	1.1	0.3	0.0	0.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.6	0.0	0.2	2.1	2.2	1.3	0.0	0.0	0.2	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.7	8.0	5.7	19.8	10.5	10.4	16.8	0.0	0.0	14.7	0.0	14.7
LnGrp LOS	B	A	A	B	B	B	B	A	A	B	A	B
Approach Vol, veh/h		532			896			161			50	
Approach Delay, s/veh		9.5			10.7			16.8			14.7	
Approach LOS		A			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.8	24.5		10.4	8.3	21.9		10.4				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	2.6	8.4		2.5	3.8	9.5		6.6				
Green Ext Time (p_c), s	0.0	3.4		0.1	0.1	7.1		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		11.0	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	235	376	491	337	313	174
Future Volume (veh/h)	235	376	491	337	313	174
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	235	316	491	250	313	174
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	357	652	708	918	375	1220
Arrive On Green	0.20	0.20	0.38	0.38	0.21	0.65
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	235	316	491	250	313	174
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	7.7	9.3	14.0	5.0	10.6	2.3
Cycle Q Clear(g_c), s	7.7	9.3	14.0	5.0	10.6	2.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	357	652	708	918	375	1220
V/C Ratio(X)	0.66	0.48	0.69	0.27	0.83	0.14
Avail Cap(c_a), veh/h	1126	1336	1478	1571	1267	1478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.3	13.7	16.6	6.6	23.9	4.2
Incr Delay (d2), s/veh	0.8	0.2	2.5	0.3	1.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	3.0	5.8	2.5	4.4	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.1	13.9	19.1	7.0	25.8	4.3
LnGrp LOS	C	B	B	A	C	A
Approach Vol, veh/h	551		741			487
Approach Delay, s/veh	18.2		15.0			18.1
Approach LOS	B		B			B

Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		46.6			17.3	29.3	16.7
Change Period (Y+Rc), s		5.3			4.0	* 5.3	4.0
Max Green Setting (Gmax), s		50.0			45.0	* 50	40.0
Max Q Clear Time (g_c+I1), s		4.3			12.6	16.0	11.3
Green Ext Time (p_c), s		1.2			0.7	8.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	16.8
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



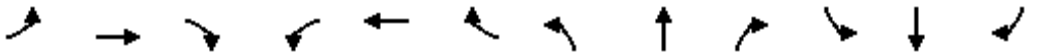
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	541	82	53	444	48	14
Future Volume (veh/h)	541	82	53	444	48	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	541	41	53	444	48	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1815	809	156	2457	147	131
Arrive On Green	0.51	0.51	0.09	0.69	0.08	0.08
Sat Flow, veh/h	3647	1585	1781	3647	1781	1585
Grp Volume(v), veh/h	541	41	53	444	48	1
Grp Sat Flow(s),veh/h/ln	1777	1585	1781	1777	1781	1585
Q Serve(g_s), s	3.8	0.6	1.2	1.9	1.1	0.0
Cycle Q Clear(g_c), s	3.8	0.6	1.2	1.9	1.1	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1815	809	156	2457	147	131
V/C Ratio(X)	0.30	0.05	0.34	0.18	0.33	0.01
Avail Cap(c_a), veh/h	3730	1664	1039	3730	1039	924
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.1	5.3	18.4	2.3	18.5	18.1
Incr Delay (d2), s/veh	0.2	0.0	0.5	0.1	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.1	0.5	0.2	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	6.2	5.3	18.9	2.4	19.0	18.1
LnGrp LOS	A	A	B	A	B	B
Approach Vol, veh/h	582			497	49	
Approach Delay, s/veh	6.1			4.2	19.0	
Approach LOS	A			A	B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	7.7	27.6				35.3	7.5
Change Period (Y+Rc), s	4.0	5.7				5.7	4.0
Max Green Setting (Gmax), s	25.0	45.0				45.0	25.0
Max Q Clear Time (g_c+I1), s	3.2	5.8				3.9	3.1
Green Ext Time (p_c), s	0.1	16.1				13.0	0.1

Intersection Summary		
HCM 6th Ctrl Delay		5.8
HCM 6th LOS		A

Notes

User approved pedestrian interval to be less than phase max green.



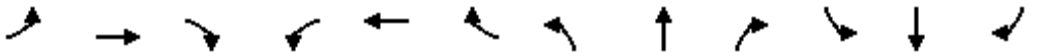
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	54	69	50	48	35	40	273	20	29	207	4
Future Volume (veh/h)	7	54	69	50	48	35	40	273	20	29	207	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	7	54	9	50	48	5	40	273	7	29	207	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	216	227	193	243	255	216	128	768	343	98	709	316
Arrive On Green	0.12	0.12	0.12	0.14	0.14	0.14	0.07	0.22	0.22	0.06	0.20	0.20
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	7	54	9	50	48	5	40	273	7	29	207	1
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.1	1.0	0.2	1.0	0.9	0.1	0.9	2.6	0.1	0.6	2.0	0.0
Cycle Q Clear(g_c), s	0.1	1.0	0.2	1.0	0.9	0.1	0.9	2.6	0.1	0.6	2.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	216	227	193	243	255	216	128	768	343	98	709	316
V/C Ratio(X)	0.03	0.24	0.05	0.21	0.19	0.02	0.31	0.36	0.02	0.30	0.29	0.00
Avail Cap(c_a), veh/h	888	933	790	888	933	790	888	3544	1581	888	3544	1581
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.5	15.9	15.6	15.4	15.4	15.0	17.7	13.4	12.4	18.2	13.6	12.9
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.2	0.1	0.0	0.5	0.5	0.0	0.6	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	0.1	0.4	0.3	0.0	0.3	0.9	0.0	0.2	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.6	16.1	15.6	15.6	15.5	15.0	18.2	13.9	12.4	18.8	14.1	12.9
LnGrp LOS	B	B	B	B	B	B	B	B	B	B	B	B
Approach Vol, veh/h		70			103			320			237	
Approach Delay, s/veh		16.0			15.5			14.4			14.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.2	14.7		8.9	6.9	14.0		10.4				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.9				
Max Green Setting (Gmax), s	20.0	40.0		20.0	20.0	40.0		20.0				
Max Q Clear Time (g_c+I1), s	2.6	4.6		3.0	2.9	4.0		3.0				
Green Ext Time (p_c), s	0.0	3.3		0.1	0.0	2.4		0.2				

Intersection Summary			
HCM 6th Ctrl Delay		14.8	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



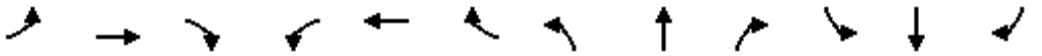
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	0	231	0	0	0	192	325	0	0	324	18
Future Volume (veh/h)	21	0	231	0	0	0	192	325	0	0	324	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	0	1683	0	1683	1683	1683	0	1683	1683
Adj Flow Rate, veh/h	21	0	65	0	0	0	192	325	0	0	324	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	2	0	2	2	2	0	2	2
Cap, veh/h	69	187	158	0	5	0	295	1801	803	0	796	355
Arrive On Green	0.04	0.00	0.11	0.00	0.00	0.00	0.18	0.56	0.00	0.00	0.25	0.25
Sat Flow, veh/h	1603	1683	1427	0	-32133	0	1603	3198	1427	0	3282	1427
Grp Volume(v), veh/h	21	0	65	0	0	0	192	325	0	0	324	5
Grp Sat Flow(s),veh/h/ln	1603	1683	1427	0	1683	0	1603	1599	1427	0	1599	1427
Q Serve(g_s), s	0.4	0.0	1.3	0.0	0.0	0.0	3.4	1.5	0.0	0.0	2.6	0.1
Cycle Q Clear(g_c), s	0.4	0.0	1.3	0.0	0.0	0.0	3.4	1.5	0.0	0.0	2.6	0.1
Prop In Lane	1.00		1.00	0.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	69	187	158	0	5	0	295	1801	803	0	796	355
V/C Ratio(X)	0.31	0.00	0.41	0.00	0.00	0.00	0.65	0.18	0.00	0.00	0.41	0.01
Avail Cap(c_a), veh/h	1046	1098	930	0	659	0	1307	4172	1861	0	4172	1861
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	14.2	0.0	12.7	0.0	0.0	0.0	11.6	3.3	0.0	0.0	9.6	8.7
Incr Delay (d2), s/veh	0.9	0.0	0.6	0.0	0.0	0.0	0.9	0.1	0.0	0.0	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	1.1	0.0	0.0	0.0	1.0	0.2	0.0	0.0	0.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.2	0.0	13.3	0.0	0.0	0.0	12.5	3.3	0.0	0.0	10.3	8.7
LnGrp LOS	B	A	B	A	A	A	B	A	A	A	B	A
Approach Vol, veh/h		86			0			517			329	
Approach Delay, s/veh		13.8			0.0			6.8			10.2	
Approach LOS		B						A			B	

Timer - Assigned Phs		2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s		23.3		7.4	9.6	13.6	5.3	2.1				
Change Period (Y+Rc), s		6.0		4.0	4.0	6.0	4.0	4.0				
Max Green Setting (Gmax), s		40.0		20.0	25.0	40.0	20.0	12.0				
Max Q Clear Time (g_c+I1), s		3.5		3.3	5.4	4.6	2.4	0.0				
Green Ext Time (p_c), s		3.0		0.1	0.4	3.0	0.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			8.6									
HCM 6th LOS			A									

Notes

User approved pedestrian interval to be less than phase max green.



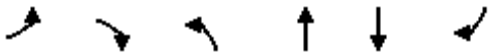
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	0	91	42	4	7	54	564	21	11	585	11
Future Volume (veh/h)	18	0	91	42	4	7	54	564	21	11	585	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	0	9	42	4	1	54	564	11	11	585	6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	0	80	128	12	124	266	1199	535	266	1199	535
Arrive On Green	0.05	0.00	0.05	0.08	0.08	0.08	0.15	0.34	0.34	0.15	0.34	0.34
Sat Flow, veh/h	1781	0	1585	1633	156	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	18	0	9	46	0	1	54	564	11	11	585	6
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1789	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.5	0.0	0.3	1.1	0.0	0.0	1.2	5.9	0.2	0.2	6.1	0.1
Cycle Q Clear(g_c), s	0.5	0.0	0.3	1.1	0.0	0.0	1.2	5.9	0.2	0.2	6.1	0.1
Prop In Lane	1.00		1.00	0.91		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	0	80	140	0	124	266	1199	535	266	1199	535
V/C Ratio(X)	0.20	0.00	0.11	0.33	0.00	0.01	0.20	0.47	0.02	0.04	0.49	0.01
Avail Cap(c_a), veh/h	761	0	677	764	0	677	761	3264	1456	761	3036	1354
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.3	0.0	21.2	20.4	0.0	19.9	17.5	12.2	10.4	17.0	12.3	10.3
Incr Delay (d2), s/veh	0.4	0.0	0.2	0.5	0.0	0.0	0.1	0.5	0.0	0.0	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.1	0.4	0.0	0.0	0.5	2.0	0.1	0.1	2.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.7	0.0	21.4	20.9	0.0	19.9	17.6	12.8	10.4	17.1	12.9	10.3
LnGrp LOS	C	A	C	C	A	B	B	B	B	B	B	B
Approach Vol, veh/h		27			47			629			602	
Approach Delay, s/veh		21.6			20.9			13.1			12.9	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	21.8		6.4	11.0	21.8		7.7				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	43.0		20.0	20.0	40.0		20.0				
Max Q Clear Time (g_c+I1), s	2.2	7.9		2.5	3.2	8.1		3.1				
Green Ext Time (p_c), s	0.0	7.6		0.0	0.0	7.7		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		13.5	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



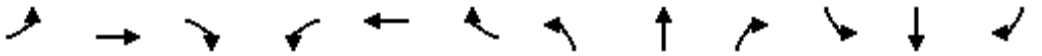
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	201	185	70	713	616	153
Future Volume (veh/h)	201	185	70	713	616	153
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	201	46	70	713	616	61
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	301	268	171	2028	1317	587
Arrive On Green	0.17	0.17	0.10	0.57	0.37	0.37
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	201	46	70	713	616	61
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	4.1	1.0	1.4	4.1	5.1	1.0
Cycle Q Clear(g_c), s	4.1	1.0	1.4	4.1	5.1	1.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	301	268	171	2028	1317	587
V/C Ratio(X)	0.67	0.17	0.41	0.35	0.47	0.10
Avail Cap(c_a), veh/h	1066	949	1066	3977	3977	1774
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.9	13.7	16.3	4.4	9.2	7.9
Incr Delay (d2), s/veh	1.0	0.1	0.6	0.2	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.5	0.8	1.5	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.9	13.8	16.9	4.6	9.7	8.1
LnGrp LOS	B	B	B	A	A	A
Approach Vol, veh/h	247			783	677	
Approach Delay, s/veh	15.5			5.7	9.6	
Approach LOS	B			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		27.9		10.5	7.7	20.2
Change Period (Y+Rc), s		6.0		4.0	4.0	6.0
Max Green Setting (Gmax), s		43.0		23.0	23.0	43.0
Max Q Clear Time (g_c+I1), s		6.1		6.1	3.4	7.1
Green Ext Time (p_c), s		7.8		0.5	0.1	7.2

Intersection Summary	
HCM 6th Ctrl Delay	8.7
HCM 6th LOS	A

Notes

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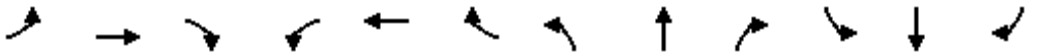
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	17	120	18	18	4	62	706	27	8	732	65
Future Volume (veh/h)	129	17	120	18	18	4	62	706	27	8	732	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	129	17	23	18	18	0	62	706	14	8	732	27
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	244	256	217	49	49	86	160	1482	661	30	1222	545
Arrive On Green	0.14	0.14	0.14	0.05	0.05	0.00	0.09	0.42	0.42	0.02	0.34	0.34
Sat Flow, veh/h	1781	1870	1585	912	912	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	129	17	23	36	0	0	62	706	14	8	732	27
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1825	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	3.6	0.4	0.7	1.0	0.0	0.0	1.8	7.8	0.3	0.2	9.2	0.6
Cycle Q Clear(g_c), s	3.6	0.4	0.7	1.0	0.0	0.0	1.8	7.8	0.3	0.2	9.2	0.6
Prop In Lane	1.00		1.00	0.50		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	244	256	217	99	0	86	160	1482	661	30	1222	545
V/C Ratio(X)	0.53	0.07	0.11	0.36	0.00	0.00	0.39	0.48	0.02	0.27	0.60	0.05
Avail Cap(c_a), veh/h	662	695	589	678	0	589	662	2840	1267	662	2840	1267
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.6	20.2	20.3	24.6	0.0	0.0	23.1	11.4	9.2	26.1	14.6	11.8
Incr Delay (d2), s/veh	0.7	0.0	0.1	0.8	0.0	0.0	0.6	0.5	0.0	1.8	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.2	0.2	0.4	0.0	0.0	0.6	2.2	0.1	0.1	2.8	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.3	20.3	20.4	25.4	0.0	0.0	23.7	11.9	9.3	27.9	15.5	11.9
LnGrp LOS	C	C	C	C	A	A	C	B	A	C	B	B
Approach Vol, veh/h		169			36			782			767	
Approach Delay, s/veh		21.8			25.4			12.8			15.5	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.9	28.4		12.3	8.8	24.5		8.2				
Change Period (Y+Rc), s	4.0	6.0		4.9	4.0	6.0		5.3				
Max Green Setting (Gmax), s	20.0	43.0		20.0	20.0	43.0		20.0				
Max Q Clear Time (g_c+I1), s	2.2	9.8		5.6	3.8	11.2		3.0				
Green Ext Time (p_c), s	0.0	7.0		0.3	0.1	7.3		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		15.1	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



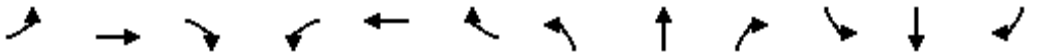
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	86	112	1	1	8	104	384	11	13	351	87
Future Volume (veh/h)	86	86	112	1	1	8	104	384	11	13	351	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	86	86	27	1	1	1	104	384	5	13	351	28
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	182	182	315	13	14	12	213	1179	526	42	839	374
Arrive On Green	0.20	0.20	0.20	0.01	0.01	0.01	0.12	0.33	0.33	0.02	0.24	0.24
Sat Flow, veh/h	912	912	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	172	0	27	1	1	1	104	384	5	13	351	28
Grp Sat Flow(s),veh/h/ln	1825	0	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	3.4	0.0	0.6	0.0	0.0	0.0	2.2	3.3	0.1	0.3	3.4	0.6
Cycle Q Clear(g_c), s	3.4	0.0	0.6	0.0	0.0	0.0	2.2	3.3	0.1	0.3	3.4	0.6
Prop In Lane	0.50		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	363	0	315	13	14	12	213	1179	526	42	839	374
V/C Ratio(X)	0.47	0.00	0.09	0.08	0.07	0.09	0.49	0.33	0.01	0.31	0.42	0.07
Avail Cap(c_a), veh/h	904	0	785	882	926	785	882	3960	1766	882	3960	1766
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.3	0.0	13.2	19.9	19.9	19.9	16.6	10.1	9.0	19.4	13.1	12.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.9	0.8	1.2	0.6	0.3	0.0	1.5	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.2	0.0	0.0	0.0	0.8	1.0	0.0	0.1	1.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.7	0.0	13.2	20.8	20.7	21.1	17.3	10.4	9.1	20.9	13.6	12.1
LnGrp LOS	B	A	B	C	C	C	B	B	A	C	B	B
Approach Vol, veh/h		199			3			493			392	
Approach Delay, s/veh		14.5			20.9			11.8			13.7	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.9	19.1		12.0	8.8	15.2		4.3				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	2.3	5.3		5.4	4.2	5.4		2.0				
Green Ext Time (p_c), s	0.0	4.4		0.5	0.1	4.2		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		13.0	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



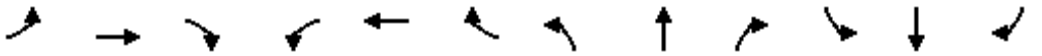
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	17	23	13	11	12	12	493	33	9	522	10
Future Volume (veh/h)	17	17	23	13	11	12	12	493	33	9	522	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	17	17	2	13	11	1	12	493	17	9	522	6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	62	62	107	99	104	88	39	1259	562	30	1240	553
Arrive On Green	0.07	0.07	0.07	0.06	0.06	0.06	0.02	0.35	0.35	0.02	0.35	0.35
Sat Flow, veh/h	912	912	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	34	0	2	13	11	1	12	493	17	9	522	6
Grp Sat Flow(s),veh/h/ln	1825	0	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.6	0.0	0.0	0.2	0.2	0.0	0.2	3.6	0.2	0.2	3.9	0.1
Cycle Q Clear(g_c), s	0.6	0.0	0.0	0.2	0.2	0.0	0.2	3.6	0.2	0.2	3.9	0.1
Prop In Lane	0.50		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	123	0	107	99	104	88	39	1259	562	30	1240	553
V/C Ratio(X)	0.28	0.00	0.02	0.13	0.11	0.01	0.31	0.39	0.03	0.30	0.42	0.01
Avail Cap(c_a), veh/h	1043	0	906	1018	1069	906	1018	4571	2039	1018	4571	2039
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.5	0.0	15.2	15.7	15.7	15.6	16.8	8.5	7.4	17.0	8.7	7.4
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.2	0.2	0.0	1.6	0.3	0.0	2.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.1	0.1	0.0	0.1	1.0	0.1	0.1	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.9	0.0	15.3	15.9	15.9	15.6	18.5	8.8	7.4	19.1	9.0	7.5
LnGrp LOS	B	A	B	B	B	B	B	A	A	B	A	A
Approach Vol, veh/h		36			25			522			537	
Approach Delay, s/veh		15.9			15.9			9.0			9.2	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.6	18.1		6.4	4.8	17.9		5.9				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	2.2	5.6		2.6	2.2	5.9		2.2				
Green Ext Time (p_c), s	0.0	6.0		0.1	0.0	6.3		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		9.5	
HCM 6th LOS		A	

Notes

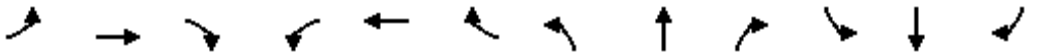
User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	297	7	77	18	6	31	64	310	162	17	359	182
Future Volume (veh/h)	297	7	77	18	6	31	64	310	162	17	359	182
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	297	7	23	18	6	2	64	310	108	17	359	133
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	380	9	346	66	22	78	129	865	296	45	729	266
Arrive On Green	0.22	0.22	0.22	0.05	0.05	0.05	0.07	0.33	0.33	0.03	0.29	0.29
Sat Flow, veh/h	1742	41	1585	1352	451	1585	1781	2599	888	1781	2550	930
Grp Volume(v), veh/h	304	0	23	24	0	2	64	210	208	17	249	243
Grp Sat Flow(s),veh/h/ln	1783	0	1585	1803	0	1585	1781	1777	1710	1781	1777	1703
Q Serve(g_s), s	7.6	0.0	0.5	0.6	0.0	0.1	1.6	4.2	4.4	0.4	5.5	5.6
Cycle Q Clear(g_c), s	7.6	0.0	0.5	0.6	0.0	0.1	1.6	4.2	4.4	0.4	5.5	5.6
Prop In Lane	0.98		1.00	0.75		1.00	1.00		0.52	1.00		0.55
Lane Grp Cap(c), veh/h	389	0	346	88	0	78	129	591	569	45	508	487
V/C Ratio(X)	0.78	0.00	0.07	0.27	0.00	0.03	0.50	0.36	0.37	0.38	0.49	0.50
Avail Cap(c_a), veh/h	1358	0	1207	420	0	369	791	1289	1241	415	913	875
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.4	0.0	14.7	21.7	0.0	21.4	21.1	11.9	12.0	22.7	14.0	14.1
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.6	0.0	0.0	1.1	0.5	0.5	1.9	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.2	0.3	0.0	0.0	0.6	1.3	1.3	0.2	1.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.7	0.0	14.7	22.3	0.0	21.5	22.2	12.4	12.5	24.6	15.0	15.1
LnGrp LOS	B	A	B	C	A	C	C	B	B	C	B	B
Approach Vol, veh/h		327			26			482			509	
Approach Delay, s/veh		18.4			22.2			13.8			15.4	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	21.4		14.3	7.4	19.2		6.3				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	11.0	34.3		36.0	21.0	24.3		11.0				
Max Q Clear Time (g_c+I1), s	2.4	6.4		9.6	3.6	7.6		2.6				
Green Ext Time (p_c), s	0.0	6.4		0.9	0.1	5.9		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		15.7	
HCM 6th LOS		B	



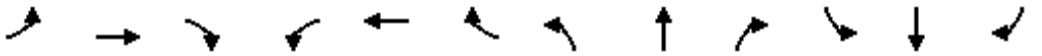
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	27	78	36	4	26	35	388	14	4	466	17
Future Volume (veh/h)	78	27	78	36	4	26	35	388	14	4	466	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	27	13	36	4	2	35	388	12	4	466	15
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	199	69	235	114	13	6	101	1103	34	14	929	30
Arrive On Green	0.15	0.15	0.15	0.08	0.08	0.08	0.06	0.31	0.31	0.01	0.26	0.26
Sat Flow, veh/h	1340	464	1585	1525	169	85	1781	3519	109	1781	3514	113
Grp Volume(v), veh/h	105	0	13	42	0	0	35	196	204	4	235	246
Grp Sat Flow(s),veh/h/ln	1803	0	1585	1779	0	0	1781	1777	1851	1781	1777	1850
Q Serve(g_s), s	2.0	0.0	0.3	0.9	0.0	0.0	0.7	3.3	3.3	0.1	4.4	4.4
Cycle Q Clear(g_c), s	2.0	0.0	0.3	0.9	0.0	0.0	0.7	3.3	3.3	0.1	4.4	4.4
Prop In Lane	0.74		1.00	0.86		0.05	1.00		0.06	1.00		0.06
Lane Grp Cap(c), veh/h	267	0	235	133	0	0	101	557	580	14	470	489
V/C Ratio(X)	0.39	0.00	0.06	0.31	0.00	0.00	0.35	0.35	0.35	0.29	0.50	0.50
Avail Cap(c_a), veh/h	650	0	571	641	0	0	642	1386	1443	642	1386	1443
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.0	0.0	14.2	17.0	0.0	0.0	17.6	10.3	10.3	19.2	12.1	12.1
Incr Delay (d2), s/veh	0.9	0.0	0.1	1.3	0.0	0.0	0.8	0.6	0.5	4.4	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.1	0.4	0.0	0.0	0.3	1.1	1.1	0.0	1.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.9	0.0	14.3	18.4	0.0	0.0	18.4	10.8	10.8	23.6	13.2	13.2
LnGrp LOS	B	A	B	B	A	A	B	B	B	C	B	B
Approach Vol, veh/h		118			42			435			485	
Approach Delay, s/veh		15.7			18.4			11.4			13.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.3	17.9		9.8	6.2	16.0		6.9				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	14.0	30.3		14.0	14.0	30.3		14.0				
Max Q Clear Time (g_c+I1), s	2.1	5.3		4.0	2.7	6.4		2.9				
Green Ext Time (p_c), s	0.0	3.5		0.3	0.0	3.9		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		13.0	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



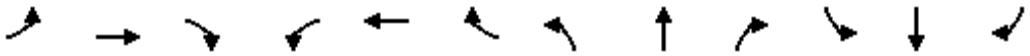
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	21	202	23	17	15	325	439	9	5	651	10
Future Volume (veh/h)	103	21	202	23	17	15	325	439	9	5	651	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	103	21	79	23	17	2	325	439	8	5	651	9
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	205	42	218	72	53	109	389	1667	30	17	925	13
Arrive On Green	0.14	0.14	0.14	0.07	0.07	0.07	0.22	0.47	0.47	0.01	0.26	0.26
Sat Flow, veh/h	1492	304	1585	1045	773	1585	1781	3570	65	1781	3589	50
Grp Volume(v), veh/h	124	0	79	40	0	2	325	218	229	5	322	338
Grp Sat Flow(s),veh/h/ln	1796	0	1585	1818	0	1585	1781	1777	1859	1781	1777	1861
Q Serve(g_s), s	3.6	0.0	2.5	1.2	0.0	0.1	9.7	4.2	4.2	0.2	9.2	9.2
Cycle Q Clear(g_c), s	3.6	0.0	2.5	1.2	0.0	0.1	9.7	4.2	4.2	0.2	9.2	9.2
Prop In Lane	0.83		1.00	0.57		1.00	1.00		0.03	1.00		0.03
Lane Grp Cap(c), veh/h	247	0	218	125	0	109	389	830	868	17	458	480
V/C Ratio(X)	0.50	0.00	0.36	0.32	0.00	0.02	0.83	0.26	0.26	0.30	0.70	0.70
Avail Cap(c_a), veh/h	1160	0	1024	359	0	313	671	1094	1144	352	775	812
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	0.0	21.8	24.7	0.0	24.2	20.8	9.0	9.0	27.4	18.7	18.8
Incr Delay (d2), s/veh	1.6	0.0	1.0	1.5	0.0	0.1	1.8	0.2	0.2	3.7	2.6	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.9	0.5	0.0	0.0	3.9	1.4	1.4	0.1	3.7	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.9	0.0	22.8	26.2	0.0	24.3	22.6	9.2	9.2	31.1	21.4	21.3
LnGrp LOS	C	A	C	C	A	C	C	A	A	C	C	C
Approach Vol, veh/h		203			42			772			665	
Approach Delay, s/veh		23.5			26.1			14.9			21.4	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.2	20.1		7.8	4.5	31.7		11.7				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	21.0	24.3		11.0	11.0	34.3		36.0				
Max Q Clear Time (g_c+I1), s	11.7	11.2		3.2	2.2	6.2		5.6				
Green Ext Time (p_c), s	0.5	3.2		0.0	0.0	2.6		0.8				

Intersection Summary			
HCM 6th Ctrl Delay		18.8	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	18	7	130	62	69	50	598	17	128	567	67
Future Volume (veh/h)	52	18	7	130	62	69	50	598	17	128	567	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	42	1	130	62	11	50	598	16	128	567	61
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	277	290	237	218	228	194	121	937	25	195	990	106
Arrive On Green	0.16	0.16	0.16	0.12	0.12	0.12	0.07	0.27	0.27	0.11	0.31	0.31
Sat Flow, veh/h	1781	1870	1524	1781	1870	1585	1781	3531	94	1781	3225	346
Grp Volume(v), veh/h	35	42	1	130	62	11	50	301	313	128	312	316
Grp Sat Flow(s),veh/h/ln	1781	1870	1524	1781	1870	1585	1781	1777	1849	1781	1777	1794
Q Serve(g_s), s	0.9	1.1	0.0	3.8	1.6	0.3	1.5	8.2	8.2	3.8	8.1	8.1
Cycle Q Clear(g_c), s	0.9	1.1	0.0	3.8	1.6	0.3	1.5	8.2	8.2	3.8	8.1	8.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		0.19
Lane Grp Cap(c), veh/h	277	290	237	218	228	194	121	472	491	195	545	551
V/C Ratio(X)	0.13	0.14	0.00	0.60	0.27	0.06	0.41	0.64	0.64	0.66	0.57	0.57
Avail Cap(c_a), veh/h	847	889	725	805	845	716	358	822	856	358	822	830
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.9	20.0	19.5	22.7	21.8	21.2	24.4	17.8	17.8	23.3	15.9	15.9
Incr Delay (d2), s/veh	0.2	0.2	0.0	1.9	0.5	0.1	0.8	1.9	1.8	1.4	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.4	0.0	1.6	0.7	0.1	0.6	3.0	3.1	1.4	2.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.1	20.1	19.5	24.7	22.3	21.3	25.3	19.7	19.6	24.7	17.2	17.2
LnGrp LOS	C	C	B	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		78			203			664			756	
Approach Delay, s/veh		20.1			23.8			20.1			18.5	
Approach LOS		C			C			C			B	

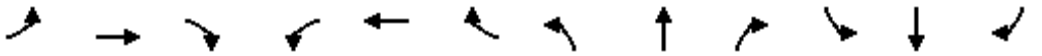
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	20.2		12.0	7.7	22.5		12.5				
Change Period (Y+Rc), s	4.0	5.7		5.3	4.0	5.7		4.0				
Max Green Setting (Gmax), s	11.0	25.3		24.7	11.0	25.3		26.0				
Max Q Clear Time (g_c+I1), s	5.8	10.2		5.8	3.5	10.1		3.1				
Green Ext Time (p_c), s	0.1	2.9		0.5	0.0	3.0		0.2				

Intersection Summary			
HCM 6th Ctrl Delay		19.8	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

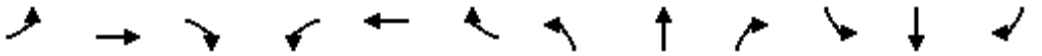
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	0	136	45	0	56	120	546	36	32	420	62
Future Volume (vph)	106	0	136	45	0	56	120	546	36	32	420	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0	4.0	5.7		4.0	5.7	5.7
Lane Util. Factor	1.00		1.00	1.00		1.00	1.00	0.95		1.00	0.95	1.00
Frt	1.00		0.85	1.00		0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95		1.00	0.95		1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770		1583	1770		1583	1770	3506		1770	3539	1583
Flt Permitted	0.95		1.00	0.95		1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770		1583	1770		1583	1770	3506		1770	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	106	0	136	45	0	56	120	546	36	32	420	62
RTOR Reduction (vph)	0	0	115	0	0	51	0	3	0	0	0	44
Lane Group Flow (vph)	106	0	21	45	0	5	120	579	0	32	420	18
Turn Type	Prot		Perm	Prot		Perm	Prot	NA		Prot	NA	Perm
Protected Phases	8			7			5	2		1	6	
Permitted Phases			8			7						6
Actuated Green, G (s)	12.6		12.6	6.8		6.8	9.2	29.0		3.8	23.6	23.6
Effective Green, g (s)	12.6		12.6	6.8		6.8	9.2	29.0		3.8	23.6	23.6
Actuated g/C Ratio	0.15		0.15	0.08		0.08	0.11	0.35		0.05	0.29	0.29
Clearance Time (s)	4.0		4.0	4.0		4.0	4.0	5.7		4.0	5.7	5.7
Vehicle Extension (s)	2.0		2.0	2.0		2.0	2.0	4.5		2.0	4.5	4.5
Lane Grp Cap (vph)	269		240	145		130	196	1227		81	1008	451
v/s Ratio Prot	c0.06			c0.03			c0.07	c0.17		0.02	0.12	
v/s Ratio Perm			0.01			0.00						0.01
v/c Ratio	0.39		0.09	0.31		0.04	0.61	0.47		0.40	0.42	0.04
Uniform Delay, d1	31.7		30.2	35.8		35.0	35.1	20.9		38.4	24.0	21.4
Progression Factor	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.3		0.1	0.4		0.0	3.9	0.5		1.2	0.5	0.1
Delay (s)	32.0		30.2	36.2		35.0	39.0	21.4		39.5	24.5	21.5
Level of Service	C		C	D		D	D	C		D	C	C
Approach Delay (s)		31.0			35.6			24.4			25.1	
Approach LOS		C			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	26.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	82.8	Sum of lost time (s)	21.7
Intersection Capacity Utilization	40.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	5	7	93	0	6	121	591	38	12	554	174
Future Volume (veh/h)	8	5	7	93	0	6	121	591	38	12	554	174
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	7	0	93	0	0	121	591	0	12	554	71
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	48	50		220	0		550	2113		454	1058	472
Arrive On Green	0.03	0.03	0.00	0.12	0.00	0.00	0.14	0.41	0.00	0.02	0.30	0.30
Sat Flow, veh/h	1781	1870	1585	1781	0	1585	1781	5106	1585	1781	3554	1585
Grp Volume(v), veh/h	6	7	0	93	0	0	121	591	0	12	554	71
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1585	1781	1702	1585	1781	1777	1585
Q Serve(g_s), s	0.1	0.2	0.0	2.1	0.0	0.0	1.6	3.4	0.0	0.2	5.7	1.4
Cycle Q Clear(g_c), s	0.1	0.2	0.0	2.1	0.0	0.0	1.6	3.4	0.0	0.2	5.7	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	48	50		220	0		550	2113		454	1058	472
V/C Ratio(X)	0.13	0.14		0.42	0.00		0.22	0.28		0.03	0.52	0.15
Avail Cap(c_a), veh/h	813	854		813	0		1316	4663		1224	3245	1448
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.8	20.8	0.0	17.7	0.0	0.0	7.0	8.5	0.0	10.1	12.8	11.3
Incr Delay (d2), s/veh	0.9	0.9	0.0	1.3	0.0	0.0	0.1	0.1	0.0	0.0	0.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.0	0.9	0.0	0.0	0.3	0.7	0.0	0.1	1.6	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.7	21.8	0.0	19.0	0.0	0.0	7.1	8.6	0.0	10.1	13.5	11.6
LnGrp LOS	C	C		B	A		A	A		B	B	B
Approach Vol, veh/h		13	A		93	A		712	A		637	
Approach Delay, s/veh		21.7			19.0			8.4			13.2	
Approach LOS		C			B			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	24.1		5.2	10.2	19.0		9.4				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	40.0		20.0	25.0	40.0		20.0				
Max Q Clear Time (g_c+I1), s	2.2	5.4		2.2	3.6	7.7		4.1				
Green Ext Time (p_c), s	0.0	5.2		0.0	0.2	5.4		0.2				

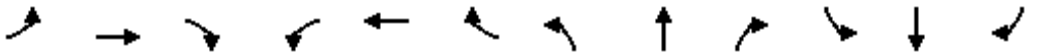
Intersection Summary			
HCM 6th Ctrl Delay		11.3	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



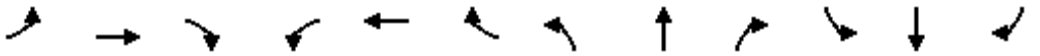
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	0	9	90	0	44	108	715	57	30	536	114
Future Volume (veh/h)	9	0	9	90	0	44	108	715	57	30	536	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	0	1	90	0	5	108	715	30	30	536	45
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	37	0	33	234	0	208	449	1236	551	390	1047	467
Arrive On Green	0.02	0.00	0.02	0.13	0.00	0.13	0.07	0.35	0.35	0.04	0.29	0.29
Sat Flow, veh/h	1781	0	1585	1781	0	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	9	0	1	90	0	5	108	715	30	30	536	45
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.2	0.0	0.0	1.8	0.0	0.1	1.6	6.5	0.5	0.4	4.9	0.8
Cycle Q Clear(g_c), s	0.2	0.0	0.0	1.8	0.0	0.1	1.6	6.5	0.5	0.4	4.9	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	37	0	33	234	0	208	449	1236	551	390	1047	467
V/C Ratio(X)	0.24	0.00	0.03	0.38	0.00	0.02	0.24	0.58	0.05	0.08	0.51	0.10
Avail Cap(c_a), veh/h	1131	0	1007	905	0	805	822	4604	2053	1219	4604	2053
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	0.0	18.9	15.6	0.0	14.9	8.8	10.5	8.5	9.0	11.5	10.1
Incr Delay (d2), s/veh	1.2	0.0	0.1	0.4	0.0	0.0	0.3	0.6	0.1	0.0	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.7	0.0	0.0	0.4	1.5	0.1	0.1	1.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.2	0.0	19.0	16.0	0.0	14.9	9.1	11.1	8.6	9.1	12.1	10.2
LnGrp LOS	C	A	B	B	A	B	A	B	A	A	B	B
Approach Vol, veh/h		10			95			853			611	
Approach Delay, s/veh		20.1			16.0			10.7			11.8	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.7	19.7		4.8	7.8	17.6		9.2				
Change Period (Y+Rc), s	4.0	6.0		4.0	5.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	51.0		25.0	11.0	51.0		20.0				
Max Q Clear Time (g_c+I1), s	2.4	8.5		2.2	3.6	6.9		3.8				
Green Ext Time (p_c), s	0.0	5.2		0.0	0.1	3.9		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		11.5	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



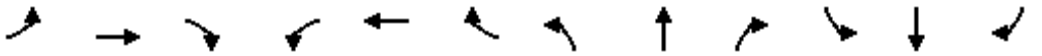
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	0	4	15	0	10	58	780	28	21	547	0
Future Volume (veh/h)	4	0	4	15	0	10	58	780	28	21	547	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	0	0	15	0	0	58	780	16	21	547	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	17	0	0	61	0	55	566	1581	705	432	1419	0
Arrive On Green	0.01	0.00	0.00	0.03	0.00	0.00	0.08	0.44	0.44	0.04	0.40	0.00
Sat Flow, veh/h	1781	0	0	1781	0	1585	1781	3554	1585	1781	3647	0
Grp Volume(v), veh/h	4	0	0	15	0	0	58	780	16	21	547	0
Grp Sat Flow(s),veh/h/ln	1781	0	0	1781	0	1585	1781	1777	1585	1781	1777	0
Q Serve(g_s), s	0.1	0.0	0.0	0.3	0.0	0.0	0.7	6.6	0.2	0.3	4.6	0.0
Cycle Q Clear(g_c), s	0.1	0.0	0.0	0.3	0.0	0.0	0.7	6.6	0.2	0.3	4.6	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	17	0	0	61	0	55	566	1581	705	432	1419	0
V/C Ratio(X)	0.23	0.00	0.00	0.24	0.00	0.00	0.10	0.49	0.02	0.05	0.39	0.00
Avail Cap(c_a), veh/h	846	0	0	846	0	752	1266	3795	1693	1214	3795	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.7	0.0	0.0	19.8	0.0	0.0	6.1	8.3	6.6	7.1	9.0	0.0
Incr Delay (d2), s/veh	2.5	0.0	0.0	0.8	0.0	0.0	0.0	0.5	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.1	1.3	0.0	0.1	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.2	0.0	0.0	20.6	0.0	0.0	6.2	8.8	6.6	7.1	9.3	0.0
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		4			15			854			568	
Approach Delay, s/veh		23.2			20.6			8.6			9.2	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.5	24.7		4.4	9.4	22.8		5.4				
Change Period (Y+Rc), s	6.0	6.0		4.0	6.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	2.3	8.6		2.1	2.7	6.6		2.3				
Green Ext Time (p_c), s	0.0	10.2		0.0	0.0	6.6		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		9.0	
HCM 6th LOS		A	

Notes

User approved pedestrian interval to be less than phase max green.

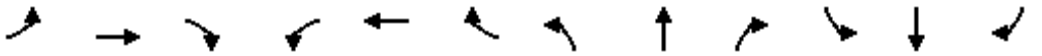


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	0	63	4	0	1	8	827	28	14	570	4
Future Volume (veh/h)	25	0	63	4	0	1	8	827	28	14	570	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	25	0	10	4	0	0	8	827	15	14	570	4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	131	0	117	35	0	16	504	1430	638	380	2152	15
Arrive On Green	0.07	0.00	0.07	0.01	0.00	0.00	0.01	0.40	0.40	0.02	0.41	0.41
Sat Flow, veh/h	1781	0	1585	3563	0	1585	1781	3554	1585	1781	5231	37
Grp Volume(v), veh/h	25	0	10	4	0	0	8	827	15	14	371	203
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1585	1781	1777	1585	1781	1702	1864
Q Serve(g_s), s	0.5	0.0	0.2	0.0	0.0	0.0	0.1	6.6	0.2	0.2	2.6	2.6
Cycle Q Clear(g_c), s	0.5	0.0	0.2	0.0	0.0	0.0	0.1	6.6	0.2	0.2	2.6	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	131	0	117	35	0	16	504	1430	638	380	1401	767
V/C Ratio(X)	0.19	0.00	0.09	0.11	0.00	0.00	0.02	0.58	0.02	0.04	0.26	0.27
Avail Cap(c_a), veh/h	974	0	867	1949	0	867	1456	4374	1951	1316	4189	2294
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.9	0.0	15.8	17.9	0.0	0.0	6.4	8.5	6.6	6.7	7.1	7.1
Incr Delay (d2), s/veh	0.3	0.0	0.1	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.1	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.4	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.2	0.0	15.9	18.5	0.0	0.0	6.4	9.0	6.6	6.7	7.2	7.4
LnGrp LOS	B	A	B	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		35			4			850			588	
Approach Delay, s/veh		16.1			18.5			9.0			7.3	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	20.7		6.7	4.5	21.0		4.4				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	2.2	8.6		2.5	2.1	4.6		2.0				
Green Ext Time (p_c), s	0.0	6.1		0.0	0.0	3.5		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		8.5	
HCM 6th LOS		A	

Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	8	130	89	9	55	88	1174	28	8	923	24
Future Volume (veh/h)	99	8	130	89	9	55	88	1174	28	8	923	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	99	8	17	89	9	8	88	1174	27	8	923	22
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	139	11	128	121	12	118	114	2459	57	11	2160	51
Arrive On Green	0.08	0.08	0.08	0.07	0.07	0.07	0.06	0.48	0.48	0.01	0.42	0.42
Sat Flow, veh/h	1654	134	1528	1625	164	1585	1781	5134	118	1781	5129	122
Grp Volume(v), veh/h	107	0	17	98	0	8	88	778	423	8	612	333
Grp Sat Flow(s),veh/h/ln	1788	0	1528	1789	0	1585	1781	1702	1848	1781	1702	1847
Q Serve(g_s), s	3.1	0.0	0.5	2.8	0.0	0.2	2.6	8.2	8.2	0.2	6.7	6.7
Cycle Q Clear(g_c), s	3.1	0.0	0.5	2.8	0.0	0.2	2.6	8.2	8.2	0.2	6.7	6.7
Prop In Lane	0.93		1.00	0.91		1.00	1.00		0.06	1.00		0.07
Lane Grp Cap(c), veh/h	150	0	128	134	0	118	114	1630	885	11	1433	778
V/C Ratio(X)	0.71	0.00	0.13	0.73	0.00	0.07	0.77	0.48	0.48	0.71	0.43	0.43
Avail Cap(c_a), veh/h	674	0	576	674	0	598	672	3529	1915	672	3529	1914
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	0.0	22.5	24.0	0.0	22.8	24.4	9.3	9.3	26.3	10.8	10.8
Incr Delay (d2), s/veh	2.4	0.0	0.2	2.9	0.0	0.1	4.1	0.5	0.9	26.7	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.2	1.2	0.0	0.1	1.0	2.0	2.2	0.2	1.8	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.0	0.0	22.7	26.9	0.0	22.9	28.5	9.8	10.2	53.0	11.5	12.0
LnGrp LOS	C	A	C	C	A	C	C	A	B	D	B	B
Approach Vol, veh/h		124			106			1289			953	
Approach Delay, s/veh		25.6			26.6			11.2			12.0	
Approach LOS		C			C			B			B	

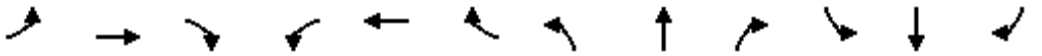
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.3	31.4		8.9	7.4	28.3		8.4				
Change Period (Y+Rc), s	4.0	6.0		4.9	4.0	* 6		4.0				
Max Green Setting (Gmax), s	20.0	55.0		20.0	20.0	* 55		20.0				
Max Q Clear Time (g_c+I1), s	2.2	10.2		4.8	4.6	8.7		5.1				
Green Ext Time (p_c), s	0.0	15.2		0.2	0.1	13.4		0.2				

Intersection Summary		
HCM 6th Ctrl Delay		12.9
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	167	362	119	153	146	139	77	1010	125	169	825	83
Future Volume (veh/h)	167	362	119	153	146	139	77	1010	125	169	825	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	167	362	19	153	146	22	77	1010	0	169	825	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	196	457	199	182	429	187	98	2544		197	2827	
Arrive On Green	0.11	0.13	0.13	0.10	0.12	0.12	0.06	0.50	0.00	0.11	0.55	0.00
Sat Flow, veh/h	1781	3554	1548	1781	3554	1546	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	167	362	19	153	146	22	77	1010	0	169	825	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1548	1781	1777	1546	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	11.1	12.0	1.3	10.2	4.6	1.5	5.2	15.0	0.0	11.3	10.4	0.0
Cycle Q Clear(g_c), s	11.1	12.0	1.3	10.2	4.6	1.5	5.2	15.0	0.0	11.3	10.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	196	457	199	182	429	187	98	2544		197	2827	
V/C Ratio(X)	0.85	0.79	0.10	0.84	0.34	0.12	0.78	0.40		0.86	0.29	
Avail Cap(c_a), veh/h	397	567	247	397	537	234	265	2544		294	2827	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	52.9	51.1	46.5	53.4	48.8	47.5	56.4	19.0	0.0	52.9	14.4	0.0
Incr Delay (d2), s/veh	4.0	6.6	0.3	4.0	0.6	0.3	5.0	0.2	0.0	10.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	5.6	0.5	4.6	2.0	0.6	2.4	5.6	0.0	5.4	3.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.8	57.7	46.8	57.4	49.4	47.8	61.4	19.2	0.0	63.1	14.6	0.0
LnGrp LOS	E	E	D	E	D	D	E	B		E	B	
Approach Vol, veh/h		548			321			1087	A		994	A
Approach Delay, s/veh		57.1			53.1			22.2			22.9	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	72.7	17.3	20.3	17.4	66.0	16.4	21.3
Change Period (Y+Rc), s	4.0	5.7	4.0	5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	18.0	37.3	27.0	18.3	20.0	35.3	27.0	19.3
Max Q Clear Time (g_c+I1), s	7.2	12.4	13.1	6.6	13.3	17.0	12.2	14.0
Green Ext Time (p_c), s	0.1	7.0	0.2	0.6	0.2	7.6	0.2	0.9

Intersection Summary	
HCM 6th Ctrl Delay	32.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	0	38	26	1	14	21	1213	8	11	1083	8
Future Volume (veh/h)	37	0	38	26	1	14	21	1213	8	11	1083	8
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	37	0	4	26	1	1	21	1213	8	11	1083	8
Adj No. of Lanes	0	1	0	0	1	0	1	3	0	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	131	3	8	138	5	3	52	1586	10	908	4169	31
Arrive On Green	0.06	0.00	0.06	0.06	0.06	0.06	0.03	0.30	0.30	0.51	0.80	0.80
Sat Flow, veh/h	1321	53	149	1427	96	56	1774	5212	34	1774	5208	38
Grp Volume(v), veh/h	41	0	0	28	0	0	21	789	432	11	705	386
Grp Sat Flow(s),veh/h/ln	1522	0	0	1579	0	0	1774	1695	1857	1774	1695	1856
Q Serve(g_s), s	1.1	0.0	0.0	0.0	0.0	0.0	1.4	25.3	25.3	0.4	6.3	6.3
Cycle Q Clear(g_c), s	2.9	0.0	0.0	1.8	0.0	0.0	1.4	25.3	25.3	0.4	6.3	6.3
Prop In Lane	0.90		0.10	0.93		0.04	1.00		0.02	1.00		0.02
Lane Grp Cap(c), veh/h	142	0	0	146	0	0	52	1031	565	908	2714	1486
V/C Ratio(X)	0.29	0.00	0.00	0.19	0.00	0.00	0.40	0.76	0.76	0.01	0.26	0.26
Avail Cap(c_a), veh/h	312	0	0	316	0	0	237	1958	1072	908	2714	1486
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	0.0	0.0	54.3	0.0	0.0	57.2	37.9	37.9	14.4	3.0	3.0
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.6	0.0	0.0	1.9	1.6	2.9	0.0	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.0	0.9	0.0	0.0	0.7	12.1	13.4	0.2	3.0	3.4
LnGrp Delay(d),s/veh	55.9	0.0	0.0	55.0	0.0	0.0	59.1	39.5	40.8	14.4	3.2	3.4
LnGrp LOS	E			D			E	D	D	B	A	A
Approach Vol, veh/h		41			28			1242			1102	
Approach Delay, s/veh		55.9			55.0			40.2			3.4	
Approach LOS		E			D			D			A	

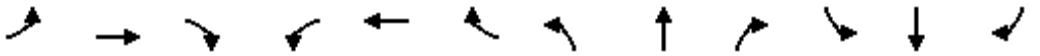
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.5	101.8		10.7	67.1	42.2		10.7
Change Period (Y+Rc), s	4.0	5.7		4.0	5.7	* 5.7		4.0
Max Green Setting (Gmax), s	16.0	69.3		21.0	16.0	* 69		21.0
Max Q Clear Time (g_c+I1), s	3.4	8.3		4.9	2.4	27.3		3.8
Green Ext Time (p_c), s	0.0	8.0		0.1	0.0	9.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	23.9
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	123	161	129	202	32	107	1252	46	82	1572	23
Future Volume (veh/h)	110	123	161	129	202	32	107	1252	46	82	1572	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	110	123	28	129	202	0	107	1252	0	82	1572	22
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	136	502	222	187	223		133	2378		104	2335	33
Arrive On Green	0.08	0.14	0.14	0.05	0.12	0.00	0.07	0.47	0.00	0.06	0.45	0.45
Sat Flow, veh/h	1781	3554	1568	3456	1870	1585	1781	5106	1585	1781	5188	73
Grp Volume(v), veh/h	110	123	28	129	202	0	107	1252	0	82	1031	563
Grp Sat Flow(s),veh/h/ln	1781	1777	1568	1728	1870	1585	1781	1702	1585	1781	1702	1857
Q Serve(g_s), s	7.3	3.7	1.9	4.4	12.8	0.0	7.1	20.8	0.0	5.5	28.7	28.7
Cycle Q Clear(g_c), s	7.3	3.7	1.9	4.4	12.8	0.0	7.1	20.8	0.0	5.5	28.7	28.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	136	502	222	187	223		133	2378		104	1532	836
V/C Ratio(X)	0.81	0.25	0.13	0.69	0.91		0.81	0.53		0.79	0.67	0.67
Avail Cap(c_a), veh/h	238	502	222	461	223		238	2378		238	1532	836
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.6	45.8	45.1	55.8	52.2	0.0	54.7	22.7	0.0	55.7	26.0	26.0
Incr Delay (d2), s/veh	4.3	0.3	0.3	1.7	36.4	0.0	4.4	0.2	0.0	4.8	2.4	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	1.7	0.7	2.0	8.2	0.0	3.3	8.1	0.0	2.5	11.6	13.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.9	46.2	45.4	57.4	88.5	0.0	59.0	22.9	0.0	60.6	28.4	30.4
LnGrp LOS	E	D	D	E	F		E	C		E	C	C
Approach Vol, veh/h		261			331	A		1359	A		1676	
Approach Delay, s/veh		51.4			76.4			25.8			30.6	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	20.0	11.0	61.9	10.5	22.6	12.9	60.0
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	16.0	14.3	16.0	54.0	16.0	14.3	16.0	54.0
Max Q Clear Time (g_c+I1), s	9.3	14.8	7.5	22.8	6.4	5.7	9.1	30.7
Green Ext Time (p_c), s	0.1	0.0	0.1	8.5	0.2	0.5	0.1	9.8

Intersection Summary	
HCM 6th Ctrl Delay	34.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	245	146	1353	194	86	1800
Future Volume (veh/h)	245	146	1353	194	86	1800
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	245	0	1353	163	86	1800
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	311		1834	818	172	2393
Arrive On Green	0.17	0.00	0.52	0.52	0.10	0.67
Sat Flow, veh/h	1781	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	245	0	1353	163	86	1800
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1781	1777
Q Serve(g_s), s	8.7	0.0	19.6	3.6	3.0	22.0
Cycle Q Clear(g_c), s	8.7	0.0	19.6	3.6	3.0	22.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	311		1834	818	172	2393
V/C Ratio(X)	0.79		0.74	0.20	0.50	0.75
Avail Cap(c_a), veh/h	840		4486	2001	542	4486
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.0	0.0	12.4	8.6	28.2	7.1
Incr Delay (d2), s/veh	4.5	0.0	0.7	0.1	0.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	5.9	1.0	1.2	4.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.4	0.0	13.1	8.7	29.0	7.7
LnGrp LOS	C		B	A	C	A
Approach Vol, veh/h	245	A	1516			1886
Approach Delay, s/veh	30.4		12.6			8.7
Approach LOS	C		B			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.3	39.9			50.3	15.5
Change Period (Y+Rc), s	4.0	6.0			6.0	4.0
Max Green Setting (Gmax), s	20.0	83.0			83.0	31.0
Max Q Clear Time (g_c+I1), s	5.0	21.6			24.0	10.7
Green Ext Time (p_c), s	0.1	12.4			18.4	0.9

Intersection Summary	
HCM 6th Ctrl Delay	11.8
HCM 6th LOS	B

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	21	81	36	3	28	66	524	31	109	907	54
Future Volume (veh/h)	18	21	81	36	3	28	66	524	31	109	907	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	21	10	36	3	2	66	524	16	109	907	26
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	265	143	121	271	142	121	185	1380	616	458	1482	661
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.10	0.39	0.39	0.13	0.42	0.42
Sat Flow, veh/h	3456	1870	1585	3563	1870	1585	1781	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	18	21	10	36	3	2	66	524	16	109	907	26
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1781	1870	1585	1781	1777	1585	1728	1777	1585
Q Serve(g_s), s	0.3	0.6	0.3	0.5	0.1	0.1	1.9	5.8	0.3	1.6	11.0	0.5
Cycle Q Clear(g_c), s	0.3	0.6	0.3	0.5	0.1	0.1	1.9	5.8	0.3	1.6	11.0	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	265	143	121	271	142	121	185	1380	616	458	1482	661
V/C Ratio(X)	0.07	0.15	0.08	0.13	0.02	0.02	0.36	0.38	0.03	0.24	0.61	0.04
Avail Cap(c_a), veh/h	1253	678	575	1292	678	575	646	3029	1351	1253	3803	1696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	23.8	23.7	23.8	23.6	23.6	23.0	12.1	10.4	21.4	12.6	9.5
Incr Delay (d2), s/veh	0.0	0.2	0.1	0.1	0.0	0.0	0.4	0.2	0.0	0.1	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	0.1	0.2	0.0	0.0	0.8	2.0	0.1	0.5	3.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.7	23.9	23.8	23.9	23.6	23.6	23.4	12.3	10.4	21.5	13.1	9.6
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	B	A
Approach Vol, veh/h		49			41			606			1042	
Approach Delay, s/veh		23.8			23.8			13.5			13.9	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.3	27.4		8.2	9.7	29.0		8.2				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	47.0		20.0	20.0	59.0		20.0				
Max Q Clear Time (g_c+I1), s	3.6	7.8		2.6	3.9	13.0		2.5				
Green Ext Time (p_c), s	0.1	5.6		0.1	0.1	10.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		14.3	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	214	61	398	277	72	456
Future Volume (veh/h)	214	61	398	277	72	456
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	214	16	398	98	72	456
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	373	332	1027	458	155	1758
Arrive On Green	0.21	0.21	0.29	0.29	0.09	0.49
Sat Flow, veh/h	1781	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	214	16	398	98	72	456
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1781	1777
Q Serve(g_s), s	3.6	0.3	3.0	1.6	1.3	2.5
Cycle Q Clear(g_c), s	3.6	0.3	3.0	1.6	1.3	2.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	373	332	1027	458	155	1758
V/C Ratio(X)	0.57	0.05	0.39	0.21	0.46	0.26
Avail Cap(c_a), veh/h	1318	1173	3681	1642	1054	3681
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.0	10.7	9.6	9.1	14.7	4.9
Incr Delay (d2), s/veh	1.4	0.1	0.5	0.4	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.1	0.9	0.5	0.5	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.4	10.7	10.1	9.6	15.5	5.1
LnGrp LOS	B	B	B	A	B	A
Approach Vol, veh/h	230		496			528
Approach Delay, s/veh	13.2		10.0			6.5
Approach LOS	B		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.9	15.8			22.7	11.1
Change Period (Y+Rc), s	4.0	6.0			6.0	4.0
Max Green Setting (Gmax), s	20.0	35.0			35.0	25.0
Max Q Clear Time (g_c+I1), s	3.3	5.0			4.5	5.6
Green Ext Time (p_c), s	0.1	4.7			4.4	0.8

Intersection Summary	
HCM 6th Ctrl Delay	9.1
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

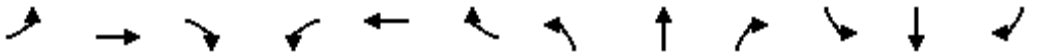
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	11	24	55	0	157	4	701	44	180	664	13
Future Volume (veh/h)	12	11	24	55	0	157	4	701	44	180	664	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	11	3	55	0	24	4	701	22	180	664	9
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	124	93	19	249	0	154	13	1087	917	225	1309	1105
Arrive On Green	0.10	0.10	0.10	0.10	0.00	0.10	0.01	0.58	0.58	0.13	0.70	0.70
Sat Flow, veh/h	513	941	190	1511	0	1553	1781	1870	1578	1781	1870	1579
Grp Volume(v), veh/h	26	0	0	55	0	24	4	701	22	180	664	9
Grp Sat Flow(s),veh/h/ln	1643	0	0	1511	0	1553	1781	1870	1578	1781	1870	1579
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	1.0	0.2	18.2	0.4	7.1	11.9	0.1
Cycle Q Clear(g_c), s	0.9	0.0	0.0	2.1	0.0	1.0	0.2	18.2	0.4	7.1	11.9	0.1
Prop In Lane	0.46		0.12	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	235	0	0	249	0	154	13	1087	917	225	1309	1105
V/C Ratio(X)	0.11	0.00	0.00	0.22	0.00	0.16	0.30	0.64	0.02	0.80	0.51	0.01
Avail Cap(c_a), veh/h	730	0	0	691	0	644	493	2095	1768	616	2250	1900
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	0.0	0.0	30.3	0.0	29.8	35.7	10.1	6.4	30.7	5.0	3.3
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.2	0.0	0.2	4.6	1.0	0.0	2.5	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.9	0.0	0.4	0.1	5.5	0.1	2.9	2.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.8	0.0	0.0	30.4	0.0	30.0	40.3	11.1	6.4	33.2	5.5	3.3
LnGrp LOS	C	A	A	C	A	C	D	B	A	C	A	A
Approach Vol, veh/h		26			79			727			853	
Approach Delay, s/veh		29.8			30.3			11.1			11.3	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.1	48.0		11.2	4.5	56.6		11.2				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	25.0	81.0		30.0	20.0	87.0		30.0				
Max Q Clear Time (g_c+I1), s	9.1	20.2		2.9	2.2	13.9		4.1				
Green Ext Time (p_c), s	0.3	21.9		0.0	0.0	21.0		0.2				

Intersection Summary			
HCM 6th Ctrl Delay		12.4	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	3	50	19	0	15	18	685	33	24	700	26
Future Volume (veh/h)	108	3	50	19	0	15	18	685	33	24	700	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	108	3	6	19	0	1	18	685	18	24	700	24
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	146	4	133	75	0	66	50	948	421	686	2263	78
Arrive On Green	0.08	0.08	0.08	0.04	0.00	0.04	0.03	0.27	0.27	0.38	0.65	0.65
Sat Flow, veh/h	1735	48	1585	1781	0	1564	1781	3554	1579	1781	3505	120
Grp Volume(v), veh/h	111	0	6	19	0	1	18	685	18	24	355	369
Grp Sat Flow(s),veh/h/ln	1784	0	1585	1781	0	1564	1781	1777	1579	1781	1777	1848
Q Serve(g_s), s	5.5	0.0	0.3	0.9	0.0	0.1	0.9	15.8	0.8	0.8	8.0	8.0
Cycle Q Clear(g_c), s	5.5	0.0	0.3	0.9	0.0	0.1	0.9	15.8	0.8	0.8	8.0	8.0
Prop In Lane	0.97		1.00	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	150	0	133	75	0	66	50	948	421	686	1147	1193
V/C Ratio(X)	0.74	0.00	0.05	0.25	0.00	0.02	0.36	0.72	0.04	0.04	0.31	0.31
Avail Cap(c_a), veh/h	317	0	282	317	0	278	317	948	421	686	1147	1193
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.3	0.0	37.9	41.7	0.0	41.3	42.9	30.0	24.5	17.3	7.1	7.1
Incr Delay (d2), s/veh	2.7	0.0	0.1	0.7	0.0	0.0	1.6	4.8	0.2	0.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	0.1	0.4	0.0	0.0	0.4	6.7	0.3	0.3	2.2	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.9	0.0	37.9	42.4	0.0	41.4	44.5	34.7	24.7	17.3	7.4	7.3
LnGrp LOS	D	A	D	D	A	D	D	C	C	B	A	A
Approach Vol, veh/h		117			20			721			748	
Approach Delay, s/veh		42.7			42.3			34.7			7.7	
Approach LOS		D			D			C			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	40.6	30.0		11.6	6.5	64.1		7.8				
Change Period (Y+Rc), s	6.0	* 6		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	16.0	* 24		16.0	16.0	24.0		16.0				
Max Q Clear Time (g_c+I1), s	2.8	17.8		7.5	2.9	10.0		2.9				
Green Ext Time (p_c), s	0.0	4.7		0.2	0.0	9.6		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		22.8
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	0	573	6	2	2	196	463	0	1	672	112
Future Volume (veh/h)	260	0	573	6	2	2	196	463	0	1	672	112
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	260	0	0	6	2	0	196	463	0	1	672	57
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	349	0		32	34	0	278	2424	0	3	2145	957
Arrive On Green	0.10	0.00	0.00	0.02	0.02	0.00	0.08	0.68	0.00	0.00	0.60	0.60
Sat Flow, veh/h	3563	0	1585	1781	1870	0	3456	3647	0	1781	3554	1585
Grp Volume(v), veh/h	260	0	0	6	2	0	196	463	0	1	672	57
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	1870	0	1728	1777	0	1781	1777	1585
Q Serve(g_s), s	6.4	0.0	0.0	0.3	0.1	0.0	5.0	4.3	0.0	0.1	8.3	1.3
Cycle Q Clear(g_c), s	6.4	0.0	0.0	0.3	0.1	0.0	5.0	4.3	0.0	0.1	8.3	1.3
Prop In Lane	1.00		1.00	1.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	349	0		32	34	0	278	2424	0	3	2145	957
V/C Ratio(X)	0.75	0.00		0.19	0.06	0.00	0.70	0.19	0.00	0.29	0.31	0.06
Avail Cap(c_a), veh/h	633	0		238	249	0	614	2424	0	238	2145	957
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	0.0	0.0	43.5	43.4	0.0	40.3	5.2	0.0	44.9	8.7	7.3
Incr Delay (d2), s/veh	1.2	0.0	0.0	1.0	0.3	0.0	1.2	0.2	0.0	16.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	0.0	0.1	0.0	0.0	2.1	1.4	0.0	0.0	2.5	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.7	0.0	0.0	44.5	43.7	0.0	41.6	5.4	0.0	61.4	8.8	7.4
LnGrp LOS	D	A		D	D	A	D	A	A	E	A	A
Approach Vol, veh/h		260	A		8			659			730	
Approach Delay, s/veh		40.7			44.3			16.2			8.8	
Approach LOS		D			D			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.2	67.4		12.8	11.2	60.3		5.6				
Change Period (Y+Rc), s	4.0	* 6		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	12.0	* 32		16.0	16.0	28.0		12.0				
Max Q Clear Time (g_c+I1), s	2.1	6.3		8.4	7.0	10.3		2.3				
Green Ext Time (p_c), s	0.0	3.2		0.4	0.3	4.2		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	16.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	0	23	34	0	35	16	343	9	29	638	9
Future Volume (veh/h)	48	0	23	34	0	35	16	343	9	29	638	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	0	2	34	0	3	16	343	5	29	638	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	307	0	137	121	0	108	51	1185	529	86	1256	560
Arrive On Green	0.09	0.00	0.09	0.07	0.00	0.07	0.03	0.33	0.33	0.05	0.35	0.35
Sat Flow, veh/h	3563	0	1585	1781	0	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	48	0	2	34	0	3	16	343	5	29	638	5
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.5	0.0	0.0	0.7	0.0	0.1	0.3	2.7	0.1	0.6	5.4	0.1
Cycle Q Clear(g_c), s	0.5	0.0	0.0	0.7	0.0	0.1	0.3	2.7	0.1	0.6	5.4	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	307	0	137	121	0	108	51	1185	529	86	1256	560
V/C Ratio(X)	0.16	0.00	0.01	0.28	0.00	0.03	0.31	0.29	0.01	0.34	0.51	0.01
Avail Cap(c_a), veh/h	1867	0	831	933	0	831	933	4190	1869	933	4190	1869
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.2	0.0	16.0	16.9	0.0	16.6	18.2	9.4	8.5	17.6	9.7	8.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.5	0.0	0.0	1.3	0.2	0.0	0.8	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.3	0.0	0.0	0.1	0.8	0.0	0.2	1.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.2	0.0	16.0	17.4	0.0	16.6	19.5	9.5	8.5	18.4	10.1	8.0
LnGrp LOS	B	A	B	B	A	B	B	A	A	B	B	A
Approach Vol, veh/h		50			37			364			672	
Approach Delay, s/veh		16.2			17.3			10.0			10.5	
Approach LOS		B			B			A			B	

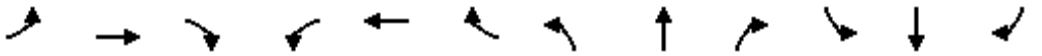
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.9	18.4		7.3	5.1	19.2		6.6				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	2.6	4.7		2.5	2.3	7.4		2.7				
Green Ext Time (p_c), s	0.0	3.0		0.1	0.0	6.1		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		10.8	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	624	11	53	334	15	41	15	23	9	61	4
Future Volume (veh/h)	9	624	11	53	334	15	41	15	23	9	61	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	624	6	53	334	8	28	33	2	9	61	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	13	1147	511	83	1286	574	94	99	84	13	91	3
Arrive On Green	0.01	0.32	0.32	0.05	0.36	0.36	0.05	0.05	0.05	0.06	0.06	0.06
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	231	1567	51
Grp Volume(v), veh/h	9	624	6	53	334	8	28	33	2	72	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1850	0	0
Q Serve(g_s), s	0.2	4.9	0.1	1.0	2.3	0.1	0.5	0.6	0.0	1.3	0.0	0.0
Cycle Q Clear(g_c), s	0.2	4.9	0.1	1.0	2.3	0.1	0.5	0.6	0.0	1.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.12		0.03
Lane Grp Cap(c), veh/h	13	1147	511	83	1286	574	94	99	84	107	0	0
V/C Ratio(X)	0.70	0.54	0.01	0.64	0.26	0.01	0.30	0.33	0.02	0.67	0.00	0.00
Avail Cap(c_a), veh/h	785	3133	1398	1047	3655	1630	785	825	699	815	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.9	9.5	7.8	15.9	7.6	7.0	15.5	15.5	15.3	15.7	0.0	0.0
Incr Delay (d2), s/veh	22.8	0.6	0.0	3.1	0.1	0.0	0.7	0.7	0.0	2.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.2	0.0	0.4	0.5	0.0	0.2	0.2	0.0	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.6	10.0	7.8	19.0	7.8	7.0	16.2	16.3	15.3	18.4	0.0	0.0
LnGrp LOS	D	B	A	B	A	A	B	B	B	B	A	A
Approach Vol, veh/h		639			395			63			72	
Approach Delay, s/veh		10.4			9.3			16.2			18.4	
Approach LOS		B			A			B			B	

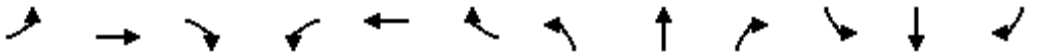
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		5.8	5.6	16.7		6.0	4.2	18.0				
Change Period (Y+Rc), s		4.0	4.0	5.7		4.0	4.0	5.7				
Max Green Setting (Gmax), s		15.0	20.0	30.0		15.0	15.0	35.0				
Max Q Clear Time (g_c+I1), s		2.6	3.0	6.9		3.3	2.2	4.3				
Green Ext Time (p_c), s		0.1	0.1	4.1		0.1	0.0	2.1				

Intersection Summary												
HCM 6th Ctrl Delay			10.8									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	535	115	63	317	17	64	19	43	33	39	139
Future Volume (veh/h)	105	535	115	63	317	17	64	19	43	33	39	139
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	535	47	63	317	6	42	50	3	33	39	24
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	136	1368	610	78	1252	559	115	121	103	116	122	103
Arrive On Green	0.08	0.38	0.38	0.04	0.35	0.35	0.06	0.06	0.06	0.07	0.07	0.07
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	105	535	47	63	317	6	42	50	3	33	39	24
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	2.3	4.4	0.8	1.4	2.6	0.1	0.9	1.0	0.1	0.7	0.8	0.6
Cycle Q Clear(g_c), s	2.3	4.4	0.8	1.4	2.6	0.1	0.9	1.0	0.1	0.7	0.8	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	136	1368	610	78	1252	559	115	121	103	116	122	103
V/C Ratio(X)	0.77	0.39	0.08	0.81	0.25	0.01	0.36	0.41	0.03	0.28	0.32	0.23
Avail Cap(c_a), veh/h	659	2629	1172	878	3067	1368	878	922	782	659	692	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.4	9.0	7.9	19.2	9.3	8.5	18.2	18.2	17.8	18.1	18.1	18.0
Incr Delay (d2), s/veh	3.5	0.3	0.1	7.2	0.2	0.0	0.7	0.8	0.0	1.3	1.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.1	0.2	0.6	0.7	0.0	0.3	0.4	0.0	0.3	0.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.9	9.3	8.0	26.4	9.5	8.5	18.9	19.1	17.8	19.4	19.6	19.1
LnGrp LOS	C	A	A	C	A	A	B	B	B	B	B	B
Approach Vol, veh/h		687			386			95			96	
Approach Delay, s/veh		11.2			12.2			18.9			19.4	
Approach LOS		B			B			B			B	

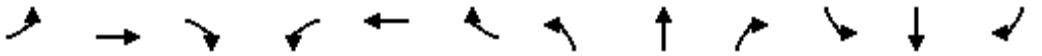
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		6.6	5.8	20.9		7.2	7.1	19.6				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.6	4.0	5.3				
Max Green Setting (Gmax), s		20.0	20.0	30.0		15.0	15.0	35.0				
Max Q Clear Time (g_c+I1), s		3.0	3.4	6.4		2.8	4.3	4.6				
Green Ext Time (p_c), s		0.1	0.1	9.2		0.3	0.1	5.7				

Intersection Summary	
HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	543	73	44	261	2	87	26	6	1	12	12
Future Volume (veh/h)	42	543	73	44	261	2	87	26	6	1	12	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	543	31	44	261	1	58	67	2	1	12	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	51	1463	652	53	1466	654	140	142	4	2	23	21
Arrive On Green	0.03	0.41	0.41	0.03	0.41	0.41	0.08	0.08	0.08	0.01	0.01	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1807	54	143	1720	1585
Grp Volume(v), veh/h	42	543	31	44	261	1	58	0	69	13	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1861	1863	0	1585
Q Serve(g_s), s	0.9	3.9	0.4	0.9	1.7	0.0	1.1	0.0	1.3	0.3	0.0	0.0
Cycle Q Clear(g_c), s	0.9	3.9	0.4	0.9	1.7	0.0	1.1	0.0	1.3	0.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	0.08		1.00
Lane Grp Cap(c), veh/h	51	1463	652	53	1466	654	140	0	146	25	0	21
V/C Ratio(X)	0.83	0.37	0.05	0.84	0.18	0.00	0.41	0.00	0.47	0.52	0.00	0.00
Avail Cap(c_a), veh/h	721	2876	1283	721	2876	1283	1201	0	1255	754	0	641
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.9	7.6	6.5	17.9	6.9	6.4	16.3	0.0	16.3	18.2	0.0	0.0
Incr Delay (d2), s/veh	12.0	0.2	0.0	12.2	0.1	0.0	1.9	0.0	2.3	6.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.9	0.1	0.5	0.5	0.0	0.5	0.0	0.6	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.9	7.8	6.6	30.1	7.0	6.4	18.2	0.0	18.7	24.1	0.0	0.0
LnGrp LOS	C	A	A	C	A	A	B	A	B	C	A	A
Approach Vol, veh/h		616			306			127			13	
Approach Delay, s/veh		9.3			10.3			18.5			24.1	
Approach LOS		A			B			B			C	

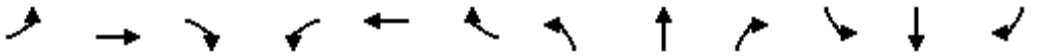
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		6.9	5.1	20.6		4.5	5.1	20.6				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.0	4.0	5.3				
Max Green Setting (Gmax), s		25.0	15.0	30.0		15.0	15.0	30.0				
Max Q Clear Time (g_c+I1), s		3.3	2.9	5.9		2.3	2.9	3.7				
Green Ext Time (p_c), s		0.4	0.0	9.3		0.0	0.0	5.0				

Intersection Summary		
HCM 6th Ctrl Delay		10.9
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	290	277	12	162	61	131	24	8	14	56	16
Future Volume (veh/h)	33	290	277	12	162	61	131	24	8	14	56	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	33	290	156	12	162	18	148	0	2	14	56	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	112	818	501	15	486	217	306	0	136	20	80	86
Arrive On Green	0.07	0.26	0.26	0.01	0.15	0.15	0.10	0.00	0.10	0.06	0.06	0.06
Sat Flow, veh/h	1603	3198	1427	1603	3198	1427	3206	0	1427	333	1333	1427
Grp Volume(v), veh/h	33	290	156	12	162	18	148	0	2	70	0	2
Grp Sat Flow(s),veh/h/ln	1603	1599	1427	1603	1599	1427	1603	0	1427	1667	0	1427
Q Serve(g_s), s	0.6	2.2	2.4	0.2	1.4	0.3	1.3	0.0	0.0	1.2	0.0	0.0
Cycle Q Clear(g_c), s	0.6	2.2	2.4	0.2	1.4	0.3	1.3	0.0	0.0	1.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.20		1.00
Lane Grp Cap(c), veh/h	112	818	501	15	486	217	306	0	136	100	0	86
V/C Ratio(X)	0.30	0.35	0.31	0.79	0.33	0.08	0.48	0.00	0.01	0.70	0.00	0.02
Avail Cap(c_a), veh/h	1073	3212	1569	1073	3212	1433	2683	0	1194	1116	0	955
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.2	9.1	7.1	14.8	11.3	10.9	12.8	0.0	12.2	13.8	0.0	13.2
Incr Delay (d2), s/veh	0.5	0.4	0.6	27.2	0.6	0.3	1.2	0.0	0.0	3.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.5	0.6	0.2	0.4	0.1	0.4	0.0	0.0	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.7	9.5	7.6	41.9	11.9	11.1	14.0	0.0	12.3	17.0	0.0	13.3
LnGrp LOS	B	A	A	D	B	B	B	A	B	B	A	B
Approach Vol, veh/h		479			192			150			72	
Approach Delay, s/veh		9.2			13.7			14.0			16.9	
Approach LOS		A			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		6.8	4.3	12.9		5.8	7.4	9.8				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.0	5.3	* 5.3				
Max Green Setting (Gmax), s		25.0	20.0	30.0		20.0	20.0	* 30				
Max Q Clear Time (g_c+I1), s		3.3	2.2	4.4		3.2	2.6	3.4				
Green Ext Time (p_c), s		0.6	0.0	3.3		0.1	0.0	1.2				

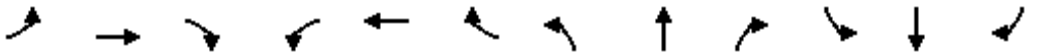
Intersection Summary												
HCM 6th Ctrl Delay			11.6									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	152	44	115	79	27	14	30	549	67	34	1129	96
Future Volume (veh/h)	152	44	115	79	27	14	30	549	67	34	1129	96
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1864	1864	1864	1870	1870	1870	1776	1776	1776	2027	2027	2027
Adj Flow Rate, veh/h	152	44	54	79	27	1	30	549	25	34	1129	43
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	316	94	115	465	143	5	67	1849	573	84	2132	660
Arrive On Green	0.18	0.12	0.12	0.13	0.08	0.08	0.04	0.38	0.38	0.04	0.39	0.39
Sat Flow, veh/h	1776	760	932	3456	1792	66	1692	4849	1501	1931	5535	1714
Grp Volume(v), veh/h	152	0	98	79	0	28	30	549	25	34	1129	43
Grp Sat Flow(s),veh/h/ln	1776	0	1692	1728	0	1858	1692	1616	1501	1931	1845	1714
Q Serve(g_s), s	4.6	0.0	3.2	1.2	0.0	0.8	1.0	4.7	0.6	1.0	9.4	0.4
Cycle Q Clear(g_c), s	4.6	0.0	3.2	1.2	0.0	0.8	1.0	4.7	0.6	1.0	9.4	0.4
Prop In Lane	1.00		0.55	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	316	0	208	465	0	148	67	1849	573	84	2132	660
V/C Ratio(X)	0.48	0.00	0.47	0.17	0.00	0.19	0.45	0.30	0.04	0.41	0.53	0.07
Avail Cap(c_a), veh/h	475	0	416	2543	0	1368	594	1971	610	678	2250	697
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.1	0.0	24.4	22.9	0.0	25.7	28.1	12.9	11.6	27.8	14.2	2.0
Incr Delay (d2), s/veh	0.4	0.0	1.4	0.1	0.0	0.2	1.8	0.2	0.1	1.2	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	1.3	0.5	0.0	0.4	0.4	1.3	0.2	0.4	3.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	0.0	25.8	23.0	0.0	25.9	29.8	13.1	11.7	29.0	14.7	2.1
LnGrp LOS	C	A	C	C	A	C	C	B	B	C	B	A
Approach Vol, veh/h		250			107			604			1206	
Approach Delay, s/veh		23.8			23.8			13.9			14.7	
Approach LOS		C			C			B			B	

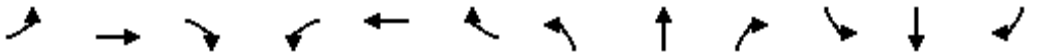
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.6	28.5	12.0	12.7	6.4	28.7	15.9	8.8
Change Period (Y+Rc), s	4.0	5.7	4.0	5.3	4.0	5.7	5.3	* 4
Max Green Setting (Gmax), s	21.0	24.3	44.0	14.7	21.0	24.3	16.0	* 44
Max Q Clear Time (g_c+I1), s	3.0	6.7	3.2	5.2	3.0	11.4	6.6	2.8
Green Ext Time (p_c), s	0.0	9.8	0.2	0.3	0.0	11.6	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	15.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	115	138	169	96	13	65	626	75	44	1288	50
Future Volume (veh/h)	26	115	138	169	96	13	65	626	75	44	1288	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	115	21	169	96	9	65	626	42	44	1288	28
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	32	190	85	229	171	16	109	2484	1108	79	3525	1094
Arrive On Green	0.02	0.05	0.05	0.07	0.10	0.10	0.06	1.00	1.00	0.02	0.69	0.69
Sat Flow, veh/h	1781	3554	1585	3456	1684	158	3456	3554	1585	3456	5106	1585
Grp Volume(v), veh/h	26	115	21	169	0	105	65	626	42	44	1288	28
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	0	1842	1728	1777	1585	1728	1702	1585
Q Serve(g_s), s	1.7	3.8	1.5	5.8	0.0	6.5	2.2	0.0	0.0	1.5	12.5	0.7
Cycle Q Clear(g_c), s	1.7	3.8	1.5	5.8	0.0	6.5	2.2	0.0	0.0	1.5	12.5	0.7
Prop In Lane	1.00		1.00	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	32	190	85	229	0	187	109	2484	1108	79	3525	1094
V/C Ratio(X)	0.80	0.61	0.25	0.74	0.00	0.56	0.60	0.25	0.04	0.56	0.37	0.03
Avail Cap(c_a), veh/h	312	583	260	605	0	302	605	2484	1108	605	3525	1094
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.7	55.6	54.5	55.0	0.0	51.3	55.5	0.0	0.0	58.0	7.7	5.9
Incr Delay (d2), s/veh	15.5	4.1	2.0	1.7	0.0	3.5	1.9	0.2	0.1	2.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.8	0.7	2.6	0.0	3.2	1.0	0.1	0.0	0.7	4.1	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.2	59.6	56.5	56.7	0.0	54.8	57.4	0.2	0.1	60.3	7.9	5.9
LnGrp LOS	E	E	E	E	A	D	E	A	A	E	A	A
Approach Vol, veh/h		162			274			733			1360	
Approach Delay, s/veh		61.6			56.0			5.3			9.5	
Approach LOS		E			E			A			A	

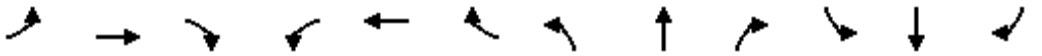
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	89.6	12.0	11.7	7.8	88.5	6.2	17.5
Change Period (Y+Rc), s	4.0	* 5.7	4.0	5.3	4.0	5.7	4.0	5.3
Max Green Setting (Gmax), s	21.0	* 40	21.0	19.7	21.0	39.3	21.0	19.7
Max Q Clear Time (g_c+I1), s	3.5	2.0	7.8	5.8	4.2	14.5	3.7	8.5
Green Ext Time (p_c), s	0.0	9.2	0.2	0.7	0.1	16.9	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	16.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

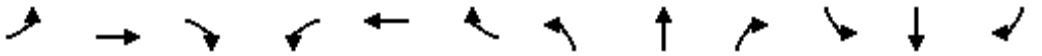


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	61	165	219	53	22	258	778	243	71	1566	58
Future Volume (veh/h)	58	61	165	219	53	22	258	778	243	71	1566	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	61	44	219	53	15	258	778	127	71	1566	29
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	92	96	82	291	115	32	323	2298	713	875	3114	967
Arrive On Green	0.05	0.05	0.05	0.08	0.08	0.08	0.19	0.90	0.90	0.25	0.61	0.61
Sat Flow, veh/h	1781	1870	1585	3563	1402	397	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	58	61	44	219	0	68	258	778	127	71	1566	29
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1799	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	3.8	3.8	3.2	7.2	0.0	4.3	8.6	2.6	1.1	1.9	20.7	0.9
Cycle Q Clear(g_c), s	3.8	3.8	3.2	7.2	0.0	4.3	8.6	2.6	1.1	1.9	20.7	0.9
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	92	96	82	291	0	147	323	2298	713	875	3114	967
V/C Ratio(X)	0.63	0.63	0.54	0.75	0.00	0.46	0.80	0.34	0.18	0.08	0.50	0.03
Avail Cap(c_a), veh/h	233	245	207	466	0	235	634	2298	713	875	3114	967
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	55.8	55.5	53.9	0.0	52.6	47.7	3.4	3.4	34.2	13.2	9.3
Incr Delay (d2), s/veh	7.0	6.7	5.4	3.9	0.0	2.2	4.5	0.4	0.5	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	2.0	1.4	3.4	0.0	2.1	3.6	0.8	0.5	0.8	7.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.8	62.5	60.9	57.8	0.0	54.8	52.2	3.8	3.9	34.2	13.4	9.3
LnGrp LOS	E	E	E	E	A	D	D	A	A	C	B	A
Approach Vol, veh/h		163			287			1163			1666	
Approach Delay, s/veh		62.2			57.1			14.6			14.2	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	34.4	59.0		15.1	16.2	77.2		11.5				
Change Period (Y+Rc), s	4.0	5.0		5.3	5.0	4.0		5.3				
Max Green Setting (Gmax), s	15.0	54.0		15.7	22.0	47.0		15.7				
Max Q Clear Time (g_c+I1), s	3.9	4.6		9.2	10.6	22.7		5.8				
Green Ext Time (p_c), s	0.1	14.7		0.6	0.7	17.9		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		20.5	
HCM 6th LOS		C	

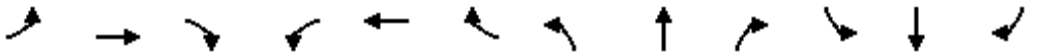
Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	250	0	0	602	489	684	0	0	1763	211
Future Volume (vph)	0	0	250	0	0	602	489	684	0	0	1763	211
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			5.3	3.0	5.9			5.3	5.3
Lane Util. Factor			1.00			0.88	0.97	0.91			0.91	1.00
Frt			0.86			0.85	1.00	1.00			1.00	0.85
Flt Protected			1.00			1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)			1611			2787	3433	5085			5085	1583
Flt Permitted			1.00			1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)			1611			2787	3433	5085			5085	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	250	0	0	602	489	684	0	0	1763	211
RTOR Reduction (vph)	0	0	0	0	0	147	0	0	0	0	0	124
Lane Group Flow (vph)	0	0	250	0	0	455	489	684	0	0	1763	87
Turn Type			Free			Prot	Prot	NA			NA	Perm
Protected Phases						1	5	2			6	
Permitted Phases			Free									6
Actuated Green, G (s)			60.0			16.2	27.0	32.6			24.7	24.7
Effective Green, g (s)			60.0			16.2	27.0	32.6			24.7	24.7
Actuated g/C Ratio			1.00			0.27	0.45	0.54			0.41	0.41
Clearance Time (s)						5.3	3.0	5.9			5.3	5.3
Vehicle Extension (s)						4.3	2.0	4.9			4.3	4.3
Lane Grp Cap (vph)			1611			752	1544	2762			2093	651
v/s Ratio Prot						0.16	c0.14	0.13			c0.35	
v/s Ratio Perm			0.16									0.05
v/c Ratio			0.16			0.60	0.32	0.25			0.84	0.13
Uniform Delay, d1			0.0			19.1	10.6	7.2			15.9	11.0
Progression Factor			1.00			1.00	0.39	0.20			1.13	3.40
Incremental Delay, d2			0.2			1.7	0.0	0.2			3.6	0.4
Delay (s)			0.2			20.8	4.2	1.6			21.5	37.7
Level of Service			A			C	A	A			C	D
Approach Delay (s)		0.2			20.8			2.7			23.3	
Approach LOS		A			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	15.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	11.2
Intersection Capacity Utilization	55.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	510	0	0	100	0	1073	161	868	1145	0
Future Volume (vph)	0	0	510	0	0	100	0	1073	161	868	1145	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			5.3			4.0		5.3	5.3	5.3	5.3	
Lane Util. Factor			0.88			1.00		0.91	1.00	0.97	0.91	
Frt			0.85			0.86		1.00	0.85	1.00	1.00	
Flt Protected			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2787			1611		5085	1583	3433	5085	
Flt Permitted			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2787			1611		5085	1583	3433	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	510	0	0	100	0	1073	161	868	1145	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	38	0	0	0
Lane Group Flow (vph)	0	0	510	0	0	100	0	1073	123	868	1145	0
Turn Type			Prot			Free		NA	Perm	Prot	NA	
Protected Phases			5					2		1	6	
Permitted Phases						Free			2			
Actuated Green, G (s)			17.7			60.0		24.7	24.7	24.7	31.7	
Effective Green, g (s)			17.7			60.0		24.7	24.7	24.7	31.7	
Actuated g/C Ratio			0.29			1.00		0.41	0.41	0.41	0.53	
Clearance Time (s)			5.3					5.3	5.3	5.3	5.3	
Vehicle Extension (s)			4.3					4.9	4.9	2.0	4.9	
Lane Grp Cap (vph)			822			1611		2093	651	1413	2686	
v/s Ratio Prot			c0.18					c0.21		c0.25	0.23	
v/s Ratio Perm						0.06			0.08			
v/c Ratio			0.62			0.06		0.51	0.19	0.61	0.43	
Uniform Delay, d1			18.3			0.0		13.2	11.3	13.9	8.6	
Progression Factor			1.00			1.00		1.01	1.23	0.31	0.25	
Incremental Delay, d2			1.8			0.1		0.9	0.6	0.3	0.4	
Delay (s)			20.0			0.1		14.2	14.5	4.6	2.5	
Level of Service			C			A		B	B	A	A	
Approach Delay (s)		20.0			0.1			14.2			3.4	
Approach LOS		C			A			B			A	

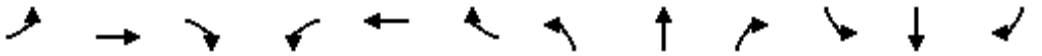
Intersection Summary			
HCM 2000 Control Delay	9.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.6
Intersection Capacity Utilization	54.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	14	10	10	1	10	14	35	5	2	31	10
Future Volume (veh/h)	10	14	10	10	1	10	14	35	5	2	31	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	14	0	10	1	0	14	35	2	2	31	6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	14	20	0	14	1	0	20	690	39	9	293	57
Arrive On Green	0.02	0.02	0.00	0.01	0.01	0.00	0.01	0.20	0.20	0.00	0.19	0.19
Sat Flow, veh/h	763	1069	0	1626	163	0	1781	3419	194	1781	1523	295
Grp Volume(v), veh/h	24	0	0	11	0	0	14	18	19	2	0	37
Grp Sat Flow(s),veh/h/ln	1832	0	0	1789	0	0	1781	1777	1836	1781	0	1817
Q Serve(g_s), s	0.3	0.0	0.0	0.1	0.0	0.0	0.2	0.2	0.2	0.0	0.0	0.3
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.1	0.0	0.0	0.2	0.2	0.2	0.0	0.0	0.3
Prop In Lane	0.42		0.00	0.91		0.00	1.00		0.11	1.00		0.16
Lane Grp Cap(c), veh/h	34	0	0	16	0	0	20	359	370	9	0	349
V/C Ratio(X)	0.70	0.00	0.00	0.69	0.00	0.00	0.70	0.05	0.05	0.23	0.00	0.11
Avail Cap(c_a), veh/h	1761	0	0	688	0	0	1712	3416	3529	685	0	3057
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.2	0.0	0.0	10.3	0.0	0.0	10.3	6.7	6.7	10.3	0.0	6.9
Incr Delay (d2), s/veh	9.3	0.0	0.0	18.1	0.0	0.0	15.3	0.1	0.1	5.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.4	0.0	0.0	28.4	0.0	0.0	25.5	6.8	6.8	15.4	0.0	7.1
LnGrp LOS	B	A	A	C	A	A	C	A	A	B	A	A
Approach Vol, veh/h		24			11			51			39	
Approach Delay, s/veh		19.4			28.4			11.9			7.5	
Approach LOS		B			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.0	8.2		4.2	4.2	8.0		4.4				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	8.0	40.0		8.0	20.0	35.0		20.0				
Max Q Clear Time (g_c+I1), s	2.0	2.2		2.1	2.2	2.3		2.3				
Green Ext Time (p_c), s	0.0	0.1		0.0	0.0	0.1		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		13.4	
HCM 6th LOS		B	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	6	5	39	11	114	9	1136	45	103	1417	35
Future Volume (veh/h)	29	6	5	39	11	114	9	1136	45	103	1417	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	29	6	0	39	11	0	9	1136	0	103	1417	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	5	5	5	5	5	5
Cap, veh/h	92	32		110	38		22	3807		158	4008	1240
Arrive On Green	0.02	0.02	0.00	0.02	0.02	0.00	0.01	0.76	0.00	0.09	1.00	1.00
Sat Flow, veh/h	5344	1870	1585	5344	1870	1585	3374	4985	1547	3374	4985	1542
Grp Volume(v), veh/h	29	6	0	39	11	0	9	1136	0	103	1417	25
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1687	1662	1547	1687	1662	1542
Q Serve(g_s), s	0.6	0.4	0.0	0.9	0.7	0.0	0.3	8.4	0.0	3.5	0.0	0.0
Cycle Q Clear(g_c), s	0.6	0.4	0.0	0.9	0.7	0.0	0.3	8.4	0.0	3.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	92	32		110	38		22	3807		158	4008	1240
V/C Ratio(X)	0.32	0.19		0.35	0.29		0.41	0.30		0.65	0.35	0.02
Avail Cap(c_a), veh/h	713	249		672	235		450	3807		450	4008	1240
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.3	58.1	0.0	58.0	57.9	0.0	59.4	4.3	0.0	53.5	0.0	0.0
Incr Delay (d2), s/veh	1.9	2.7	0.0	2.7	5.5	0.0	4.5	0.2	0.0	1.7	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.2	0.0	0.4	0.4	0.0	0.1	2.3	0.0	1.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.2	60.9	0.0	60.6	63.4	0.0	63.9	4.5	0.0	55.2	0.1	0.0
LnGrp LOS	E	E		E	E		E	A		E	A	A
Approach Vol, veh/h		35	A		50	A		1145	A		1545	
Approach Delay, s/veh		60.3			61.2			5.0			3.8	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.6	97.0		7.4	4.8	101.8		6.1				
Change Period (Y+Rc), s	4.0	5.3		4.9	4.0	5.3		4.0				
Max Green Setting (Gmax), s	16.0	54.7		15.1	16.0	54.7		16.0				
Max Q Clear Time (g_c+I1), s	5.5	10.4		2.9	2.3	2.0		2.6				
Green Ext Time (p_c), s	0.3	34.2		0.2	0.0	45.8		0.1				

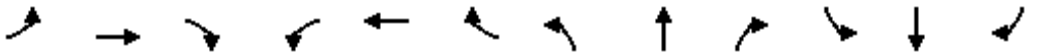
Intersection Summary	
HCM 6th Ctrl Delay	6.0
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



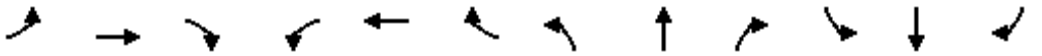
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	0	184	18	5	4	159	731	4	10	1091	52
Future Volume (veh/h)	68	0	184	18	5	4	159	731	4	10	1091	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	0	27	18	5	0	159	731	4	10	1091	24
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	199	0	177	66	18	74	204	1961	11	32	1579	704
Arrive On Green	0.11	0.00	0.11	0.05	0.05	0.00	0.11	0.54	0.54	0.02	0.44	0.44
Sat Flow, veh/h	1781	0	1585	1409	391	1585	1781	3624	20	1781	3554	1585
Grp Volume(v), veh/h	68	0	27	23	0	0	159	358	377	10	1091	24
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1800	0	1585	1781	1777	1867	1781	1777	1585
Q Serve(g_s), s	2.4	0.0	1.0	0.8	0.0	0.0	5.8	7.7	7.8	0.4	16.5	0.6
Cycle Q Clear(g_c), s	2.4	0.0	1.0	0.8	0.0	0.0	5.8	7.7	7.8	0.4	16.5	0.6
Prop In Lane	1.00		1.00	0.78		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	199	0	177	84	0	74	204	961	1010	32	1579	704
V/C Ratio(X)	0.34	0.00	0.15	0.27	0.00	0.00	0.78	0.37	0.37	0.32	0.69	0.03
Avail Cap(c_a), veh/h	533	0	474	323	0	285	613	1994	2095	533	3138	1400
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.4	0.0	26.8	30.7	0.0	0.0	28.8	8.8	8.8	32.4	14.9	10.5
Incr Delay (d2), s/veh	0.4	0.0	0.1	0.6	0.0	0.0	2.4	0.4	0.3	2.1	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.4	0.4	0.0	0.0	2.5	2.6	2.8	0.2	6.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.8	0.0	27.0	31.4	0.0	0.0	31.2	9.2	9.2	34.5	15.7	10.5
LnGrp LOS	C	A	C	C	A	A	C	A	A	C	B	B
Approach Vol, veh/h		95			23			894			1125	
Approach Delay, s/veh		27.6			31.4			13.1			15.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	42.1		12.4	11.6	35.7		7.1				
Change Period (Y+Rc), s	4.0	6.0		4.9	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	75.0		20.0	23.0	59.0		12.0				
Max Q Clear Time (g_c+I1), s	2.4	9.8		4.4	7.8	18.5		2.8				
Green Ext Time (p_c), s	0.0	5.8		0.1	0.3	11.2		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		15.3	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	183	4	273	11	15	9	328	702	2	2	998	293
Future Volume (veh/h)	183	4	273	11	15	9	328	702	2	2	998	293
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	186	0	107	11	15	0	328	702	2	2	998	175
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	451	0	406	35	48	72	448	2104	6	9	1614	720
Arrive On Green	0.13	0.00	0.13	0.05	0.05	0.00	0.13	0.58	0.58	0.00	0.45	0.45
Sat Flow, veh/h	3563	0	1585	775	1057	1585	3456	3635	10	1781	3554	1585
Grp Volume(v), veh/h	186	0	107	26	0	0	328	343	361	2	998	175
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1832	0	1585	1728	1777	1868	1781	1777	1585
Q Serve(g_s), s	3.4	0.0	3.8	1.0	0.0	0.0	6.5	7.1	7.1	0.1	15.1	4.8
Cycle Q Clear(g_c), s	3.4	0.0	3.8	1.0	0.0	0.0	6.5	7.1	7.1	0.1	15.1	4.8
Prop In Lane	1.00		1.00	0.42		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	451	0	406	83	0	72	448	1028	1081	9	1614	720
V/C Ratio(X)	0.41	0.00	0.26	0.31	0.00	0.00	0.73	0.33	0.33	0.23	0.62	0.24
Avail Cap(c_a), veh/h	1359	0	810	517	0	448	1123	1586	1668	503	2660	1187
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.5	0.0	21.0	32.7	0.0	0.0	29.6	7.8	7.8	35.1	14.7	11.9
Incr Delay (d2), s/veh	0.6	0.0	0.3	0.8	0.0	0.0	0.9	0.4	0.4	4.8	0.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	1.4	0.4	0.0	0.0	2.6	2.2	2.3	0.0	5.3	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.1	0.0	21.3	33.5	0.0	0.0	30.5	8.2	8.2	39.9	15.5	12.2
LnGrp LOS	C	A	C	C	A	A	C	A	A	D	B	B
Approach Vol, veh/h		293			26			1032			1175	
Approach Delay, s/veh		26.3			33.5			15.3			15.1	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.3	46.3		13.0	13.2	37.4		7.2				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	20.0	63.2		27.0	23.0	53.0		20.0				
Max Q Clear Time (g_c+I1), s	2.1	9.1		5.8	8.5	17.1		3.0				
Green Ext Time (p_c), s	0.0	7.7		1.3	0.7	15.1		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		16.7	
HCM 6th LOS		B	

Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	117	0	427	0	519	265	644	490	0
Future Volume (veh/h)	0	0	0	117	0	427	0	519	265	644	490	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	0	1870	1870	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	0	0	0	135	0	39	0	519	88	644	490	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	2	0	2	2	2	0	2	2	2	2	0
Cap, veh/h	0	5	0	306	0	136	0	1110	495	921	2415	0
Arrive On Green	0.00	0.00	0.00	0.09	0.00	0.09	0.00	0.31	0.31	0.27	0.68	0.00
Sat Flow, veh/h	0	-74814	0	3563	0	1585	0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	0	0	0	135	0	39	0	519	88	644	490	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	0	1585	0	1777	1585	1728	1777	0
Q Serve(g_s), s	0.0	0.0	0.0	1.4	0.0	0.9	0.0	4.7	1.6	6.7	2.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.4	0.0	0.9	0.0	4.7	1.6	6.7	2.0	0.0
Prop In Lane	0.00		0.00	1.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	5	0	306	0	136	0	1110	495	921	2415	0
V/C Ratio(X)	0.00	0.00	0.00	0.44	0.00	0.29	0.00	0.47	0.18	0.70	0.20	0.00
Avail Cap(c_a), veh/h	0	1226	0	4400	0	1958	0	4129	1842	2874	4094	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	17.2	0.0	17.0	0.0	11.0	9.9	13.1	2.4	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	0.4	0.0	0.5	0.3	0.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.5	0.0	0.8	0.0	1.5	0.5	2.1	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	17.6	0.0	17.4	0.0	11.5	10.2	13.5	2.4	0.0
LnGrp LOS	A	A	A	B	A	B	A	B	B	B	A	A
Approach Vol, veh/h		0			174			607			1134	
Approach Delay, s/veh		0.0			17.6			11.3			8.7	
Approach LOS					B			B			A	

Timer - Assigned Phs	2	4	6	7	8
Phs Duration (G+Y+Rc), s	0.0	32.3	7.4	14.6	17.7
Change Period (Y+Rc), s	4.0	5.3	4.0	4.0	* 5.3
Max Green Setting (Gmax), s	26.0	45.7	49.0	33.0	* 46
Max Q Clear Time (g_c+I1), s	0.0	4.0	3.4	8.7	6.7
Green Ext Time (p_c), s	0.0	3.6	0.5	1.9	5.7

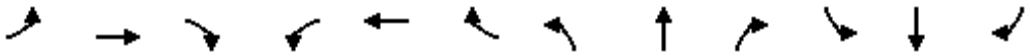
Intersection Summary	
HCM 6th Ctrl Delay	10.3
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



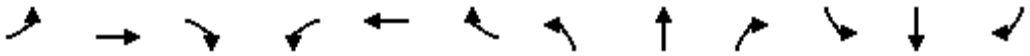
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	334	7	34	26	12	26	24	491	0	33	430	61
Future Volume (veh/h)	334	7	34	26	12	26	24	491	0	33	430	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	365	0	0	26	12	2	24	491	0	33	430	52
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	591	311	0	45	21	58	32	1047	0	42	959	115
Arrive On Green	0.17	0.00	0.00	0.04	0.04	0.04	0.02	0.29	0.00	0.02	0.30	0.30
Sat Flow, veh/h	3563	1870	0	1237	571	1585	1781	3647	0	1781	3194	384
Grp Volume(v), veh/h	365	0	0	38	0	2	24	491	0	33	238	244
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1808	0	1585	1781	1777	0	1781	1777	1801
Q Serve(g_s), s	3.4	0.0	0.0	0.7	0.0	0.0	0.5	4.0	0.0	0.7	3.8	3.9
Cycle Q Clear(g_c), s	3.4	0.0	0.0	0.7	0.0	0.0	0.5	4.0	0.0	0.7	3.8	3.9
Prop In Lane	1.00		0.00	0.68		1.00	1.00		0.00	1.00		0.21
Lane Grp Cap(c), veh/h	591	311	0	66	0	58	32	1047	0	42	534	541
V/C Ratio(X)	0.62	0.00	0.00	0.57	0.00	0.03	0.76	0.47	0.00	0.79	0.45	0.45
Avail Cap(c_a), veh/h	2625	1378	0	923	0	809	808	3626	0	808	1813	1838
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.7	0.0	0.0	16.7	0.0	16.4	17.3	10.2	0.0	17.1	10.0	10.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	2.9	0.0	0.1	12.6	0.4	0.0	11.5	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	0.3	0.0	0.0	0.3	1.2	0.0	0.4	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.1	0.0	0.0	19.6	0.0	16.5	29.9	10.6	0.0	28.6	10.7	10.7
LnGrp LOS	B	A	A	B	A	B	C	B	A	C	B	B
Approach Vol, veh/h		365			40			515			515	
Approach Delay, s/veh		14.1			19.4			11.5			11.9	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	15.3		9.9	4.6	15.5		5.3				
Change Period (Y+Rc), s	4.0	4.9		4.0	4.0	4.9		4.0				
Max Green Setting (Gmax), s	16.0	36.0		26.0	16.0	36.0		18.0				
Max Q Clear Time (g_c+I1), s	2.7	6.0		5.4	2.5	5.9		2.7				
Green Ext Time (p_c), s	0.0	4.4		0.7	0.0	3.9		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		12.5	
HCM 6th LOS		B	

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	8	29	44	3	9	58	484	8	17	462	23
Future Volume (veh/h)	67	8	29	44	3	9	58	484	8	17	462	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	8	5	44	3	1	58	484	7	17	462	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	103	12	102	73	5	69	69	1168	17	23	1042	45
Arrive On Green	0.06	0.06	0.06	0.04	0.04	0.04	0.04	0.33	0.33	0.01	0.30	0.30
Sat Flow, veh/h	1599	191	1585	1673	114	1585	1781	3586	52	1781	3470	150
Grp Volume(v), veh/h	75	0	5	47	0	1	58	240	251	17	236	246
Grp Sat Flow(s),veh/h/ln	1790	0	1585	1787	0	1585	1781	1777	1861	1781	1777	1843
Q Serve(g_s), s	1.3	0.0	0.1	0.8	0.0	0.0	1.0	3.2	3.2	0.3	3.3	3.3
Cycle Q Clear(g_c), s	1.3	0.0	0.1	0.8	0.0	0.0	1.0	3.2	3.2	0.3	3.3	3.3
Prop In Lane	0.89		1.00	0.94		1.00	1.00		0.03	1.00		0.08
Lane Grp Cap(c), veh/h	116	0	102	78	0	69	69	579	606	23	534	554
V/C Ratio(X)	0.65	0.00	0.05	0.60	0.00	0.01	0.84	0.41	0.41	0.72	0.44	0.44
Avail Cap(c_a), veh/h	1523	0	1348	1052	0	933	932	2092	2192	932	2092	2171
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.0	0.0	13.4	14.4	0.0	14.0	14.6	8.0	8.0	15.0	8.6	8.6
Incr Delay (d2), s/veh	2.3	0.0	0.1	2.7	0.0	0.0	10.0	0.6	0.6	14.4	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.3	0.0	0.0	0.5	0.9	0.9	0.2	0.9	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.2	0.0	13.5	17.1	0.0	14.0	24.6	8.6	8.6	29.4	9.3	9.3
LnGrp LOS	B	A	B	B	A	B	C	A	A	C	A	A
Approach Vol, veh/h		80			48			549			499	
Approach Delay, s/veh		16.1			17.0			10.3			10.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.4	14.9		6.0	5.2	14.1		5.3				
Change Period (Y+Rc), s	4.0	4.9		4.0	4.0	4.9		4.0				
Max Green Setting (Gmax), s	16.0	36.0		26.0	16.0	36.0		18.0				
Max Q Clear Time (g_c+I1), s	2.3	5.2		3.3	3.0	5.3		2.8				
Green Ext Time (p_c), s	0.0	4.0		0.2	0.0	3.9		0.1				

Intersection Summary												
HCM 6th Ctrl Delay			10.9									
HCM 6th LOS			B									



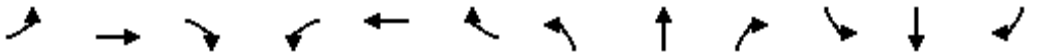
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	31	36	442	35	146	552
Future Volume (veh/h)	31	36	442	35	146	552
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	5	442	13	146	552
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	260	119	1970	611	300	3381
Arrive On Green	0.08	0.08	0.39	0.39	0.17	0.66
Sat Flow, veh/h	3456	1585	5274	1585	1781	5274
Grp Volume(v), veh/h	31	5	442	13	146	552
Grp Sat Flow(s),veh/h/ln	1728	1585	1702	1585	1781	1702
Q Serve(g_s), s	0.3	0.1	2.2	0.2	2.7	1.5
Cycle Q Clear(g_c), s	0.3	0.1	2.2	0.2	2.7	1.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	260	119	1970	611	300	3381
V/C Ratio(X)	0.12	0.04	0.22	0.02	0.49	0.16
Avail Cap(c_a), veh/h	1871	858	5528	1716	964	5528
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.9	15.8	7.6	7.0	13.9	2.4
Incr Delay (d2), s/veh	0.1	0.1	0.1	0.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.4	0.0	0.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.0	15.9	7.7	7.1	14.4	2.4
LnGrp LOS	B	B	A	A	B	A
Approach Vol, veh/h	36		455			698
Approach Delay, s/veh	16.0		7.7			4.9
Approach LOS	B		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.2	20.0			30.2	6.8
Change Period (Y+Rc), s	4.0	5.7			5.7	4.0
Max Green Setting (Gmax), s	20.0	40.0			40.0	20.0
Max Q Clear Time (g_c+I1), s	4.7	4.2			3.5	2.3
Green Ext Time (p_c), s	0.2	10.1			12.9	0.0

Intersection Summary	
HCM 6th Ctrl Delay	6.3
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	345	20	271	390	118	105	12	49	148	6	52
Future Volume (veh/h)	65	345	20	271	390	118	105	12	49	148	6	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	345	16	271	390	43	105	12	8	152	0	8
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	188	870	40	340	1322	410	233	27	230	557	0	248
Arrive On Green	0.11	0.17	0.17	0.19	0.26	0.26	0.15	0.15	0.15	0.16	0.00	0.16
Sat Flow, veh/h	1781	5003	230	1781	5106	1585	1606	184	1585	3563	0	1585
Grp Volume(v), veh/h	65	234	127	271	390	43	117	0	8	152	0	8
Grp Sat Flow(s),veh/h/ln	1781	1702	1829	1781	1702	1585	1790	0	1585	1781	0	1585
Q Serve(g_s), s	1.8	3.2	3.2	7.5	3.2	1.1	3.1	0.0	0.2	1.9	0.0	0.2
Cycle Q Clear(g_c), s	1.8	3.2	3.2	7.5	3.2	1.1	3.1	0.0	0.2	1.9	0.0	0.2
Prop In Lane	1.00		0.13	1.00		1.00	0.90		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	188	592	318	340	1322	410	260	0	230	557	0	248
V/C Ratio(X)	0.35	0.40	0.40	0.80	0.30	0.10	0.45	0.00	0.03	0.27	0.00	0.03
Avail Cap(c_a), veh/h	688	2958	1590	1376	4438	1378	1037	0	918	1376	0	612
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.5	19.0	19.0	20.0	15.4	14.6	20.2	0.0	19.0	19.2	0.0	18.5
Incr Delay (d2), s/veh	0.4	0.9	1.7	1.7	0.3	0.2	0.5	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.1	1.3	2.8	1.1	0.3	1.2	0.0	0.1	0.8	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.9	19.8	20.6	21.7	15.6	14.8	20.7	0.0	19.0	19.3	0.0	18.5
LnGrp LOS	C	B	C	C	B	B	C	A	B	B	A	B
Approach Vol, veh/h		426			704			125			160	
Approach Delay, s/veh		20.4			17.9			20.6			19.3	
Approach LOS		C			B			C			B	

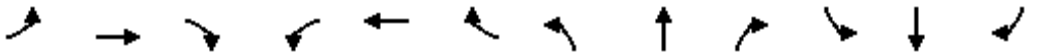
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.9	14.3		11.5	9.5	18.7		12.1				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	40.0	45.0		30.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	9.5	5.2		5.1	3.8	5.2		3.9				
Green Ext Time (p_c), s	0.6	3.3		0.3	0.1	4.3		0.4				

Intersection Summary		
HCM 6th Ctrl Delay		19.1
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	486	248	77	205	118	211	330	137	98	372	74
Future Volume (veh/h)	96	486	248	77	205	118	211	330	137	98	372	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	2145	2145	2145
Adj Flow Rate, veh/h	96	486	98	77	205	28	211	330	109	98	372	16
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	161	956	426	146	927	413	266	678	220	186	810	361
Arrive On Green	0.09	0.27	0.27	0.08	0.26	0.26	0.15	0.26	0.26	0.09	0.20	0.20
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	2637	856	2043	4076	1818
Grp Volume(v), veh/h	96	486	98	77	205	28	211	221	218	98	372	16
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1716	2043	2038	1818
Q Serve(g_s), s	3.3	7.3	3.0	2.6	2.9	0.8	7.2	6.6	6.8	2.9	5.1	0.4
Cycle Q Clear(g_c), s	3.3	7.3	3.0	2.6	2.9	0.8	7.2	6.6	6.8	2.9	5.1	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	161	956	426	146	927	413	266	457	441	186	810	361
V/C Ratio(X)	0.60	0.51	0.23	0.53	0.22	0.07	0.79	0.48	0.50	0.53	0.46	0.04
Avail Cap(c_a), veh/h	564	1745	778	846	2195	979	1326	1098	1060	809	2260	1008
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.6	19.5	18.0	27.8	18.3	17.6	25.9	19.9	20.0	27.4	22.3	20.5
Incr Delay (d2), s/veh	1.3	0.7	0.4	1.1	0.2	0.1	2.0	1.3	1.4	0.9	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.9	1.0	1.1	1.1	0.3	2.9	2.6	2.6	1.3	2.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.9	20.2	18.4	28.9	18.5	17.7	27.9	21.2	21.3	28.3	23.0	20.5
LnGrp LOS	C	C	B	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		680			310			650			486	
Approach Delay, s/veh		21.2			21.0			23.4			23.9	
Approach LOS		C			C			C			C	

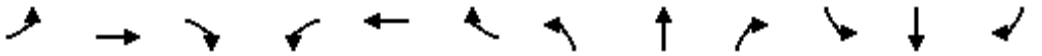
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	22.7	13.4	17.8	9.7	22.2	9.7	21.5
Change Period (Y+Rc), s	4.0	* 5.7	4.0	5.3	4.0	5.7	4.0	5.3
Max Green Setting (Gmax), s	30.0	* 31	47.0	35.0	20.0	39.0	25.0	39.0
Max Q Clear Time (g_c+I1), s	4.6	9.3	9.2	7.1	5.3	4.9	4.9	8.8
Green Ext Time (p_c), s	0.1	7.7	0.5	5.5	0.1	3.0	0.2	6.3

Intersection Summary	
HCM 6th Ctrl Delay	22.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



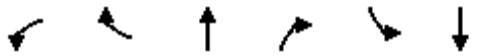
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	2	7	40	3	128	9	585	40	178	503	7
Future Volume (veh/h)	13	2	7	40	3	128	9	585	40	178	503	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1988	1988	1988	1870	1945	1826	2145	2231	2145
Adj Flow Rate, veh/h	13	2	0	40	3	23	9	585	37	178	503	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	5	2	2	2
Cap, veh/h	47	7	48	151	11	144	33	1431	90	292	2247	964
Arrive On Green	0.03	0.03	0.00	0.09	0.09	0.09	0.02	0.41	0.41	0.14	0.53	0.53
Sat Flow, veh/h	1554	239	1585	1767	133	1681	1781	3528	223	2043	4239	1818
Grp Volume(v), veh/h	15	0	0	43	0	23	9	306	316	178	503	3
Grp Sat Flow(s),veh/h/ln	1793	0	1585	1900	0	1681	1781	1848	1902	2043	2120	1818
Q Serve(g_s), s	0.4	0.0	0.0	1.1	0.0	0.7	0.3	6.1	6.1	4.2	3.3	0.0
Cycle Q Clear(g_c), s	0.4	0.0	0.0	1.1	0.0	0.7	0.3	6.1	6.1	4.2	3.3	0.0
Prop In Lane	0.87		1.00	0.93		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	54	0	48	163	0	144	33	750	772	292	2247	964
V/C Ratio(X)	0.28	0.00	0.00	0.26	0.00	0.16	0.27	0.41	0.41	0.61	0.22	0.00
Avail Cap(c_a), veh/h	695	0	615	848	0	750	691	1613	1661	1229	3700	1587
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.5	0.0	0.0	22.0	0.0	21.8	24.9	10.9	10.9	20.7	6.5	5.7
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.3	0.0	0.2	1.6	0.8	0.8	0.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.5	0.0	0.2	0.1	2.1	2.1	1.8	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	0.0	0.0	22.4	0.0	22.0	26.5	11.7	11.7	21.5	6.6	5.7
LnGrp LOS	C	A	A	C	A	C	C	B	B	C	A	A
Approach Vol, veh/h		15			66			631			684	
Approach Delay, s/veh		25.5			22.3			11.9			10.5	
Approach LOS		C			C			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		5.5	5.0	32.6		8.4	11.4	26.2				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.0	4.0	5.3				
Max Green Setting (Gmax), s		20.0	20.0	45.0		23.0	31.0	45.0				
Max Q Clear Time (g_c+I1), s		2.4	2.3	5.3		3.1	6.2	8.1				
Green Ext Time (p_c), s		0.0	0.0	10.9		0.1	0.4	12.8				

Intersection Summary												
HCM 6th Ctrl Delay			11.8									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.



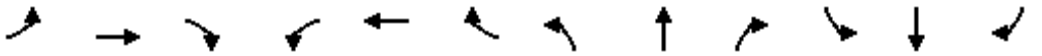
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	8	27	669	12	41	529
Future Volume (veh/h)	8	27	669	12	41	529
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	3	669	11	41	529
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	37	33	1397	23	141	2231
Arrive On Green	0.02	0.02	0.39	0.39	0.08	0.63
Sat Flow, veh/h	1781	1585	3671	59	1781	3647
Grp Volume(v), veh/h	8	3	332	348	41	529
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1860	1781	1777
Q Serve(g_s), s	0.1	0.0	3.5	3.5	0.5	1.6
Cycle Q Clear(g_c), s	0.1	0.0	3.5	3.5	0.5	1.6
Prop In Lane	1.00	1.00		0.03	1.00	
Lane Grp Cap(c), veh/h	37	33	694	726	141	2231
V/C Ratio(X)	0.22	0.09	0.48	0.48	0.29	0.24
Avail Cap(c_a), veh/h	1408	1253	2879	3013	1408	5757
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.2	12.2	5.8	5.8	11.0	2.1
Incr Delay (d2), s/veh	1.1	0.4	0.7	0.7	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.5	0.5	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.3	12.6	6.5	6.5	11.4	2.1
LnGrp LOS	B	B	A	A	B	A
Approach Vol, veh/h	11		680			570
Approach Delay, s/veh	13.1		6.5			2.8
Approach LOS	B		A			A

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	20.8	4.5	6.0	14.8
Change Period (Y+Rc), s	4.9	4.0	4.0	4.9
Max Green Setting (Gmax), s	41.0	20.0	20.0	41.0
Max Q Clear Time (g_c+I1), s	3.6	2.1	2.5	5.5
Green Ext Time (p_c), s	2.3	0.0	0.0	4.3

Intersection Summary	
HCM 6th Ctrl Delay	4.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



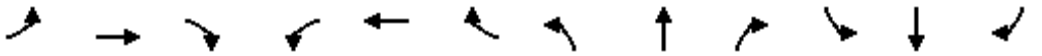
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	0	2	17	2	31	6	1401	29	14	1232	38
Future Volume (veh/h)	9	0	2	17	2	31	6	1401	29	14	1232	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	0	0	17	2	2	6	1401	28	14	1232	26
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	33	0	29	62	7	61	20	2338	47	43	2378	1061
Arrive On Green	0.02	0.00	0.00	0.04	0.04	0.04	0.01	0.66	0.66	0.02	0.67	0.67
Sat Flow, veh/h	1781	0	1585	1602	188	1585	1781	3563	71	1781	3554	1585
Grp Volume(v), veh/h	9	0	0	19	0	2	6	698	731	14	1232	26
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1790	0	1585	1781	1777	1858	1781	1777	1585
Q Serve(g_s), s	0.3	0.0	0.0	0.7	0.0	0.1	0.2	14.7	14.7	0.5	11.6	0.4
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.7	0.0	0.1	0.2	14.7	14.7	0.5	11.6	0.4
Prop In Lane	1.00		1.00	0.89		1.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	33	0	29	69	0	61	20	1166	1219	43	2378	1061
V/C Ratio(X)	0.27	0.00	0.00	0.27	0.00	0.03	0.30	0.60	0.60	0.33	0.52	0.02
Avail Cap(c_a), veh/h	541	0	481	544	0	481	541	1861	1946	541	3830	1708
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	0.0	0.0	30.8	0.0	30.5	32.3	6.4	6.4	31.6	5.5	3.7
Incr Delay (d2), s/veh	1.7	0.0	0.0	0.8	0.0	0.1	3.2	1.4	1.3	1.6	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.3	0.0	0.0	0.1	3.9	4.0	0.2	2.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	0.0	0.0	31.5	0.0	30.6	35.5	7.8	7.7	33.3	5.9	3.7
LnGrp LOS	C	A	A	C	A	C	D	A	A	C	A	A
Approach Vol, veh/h		9			21			1435			1272	
Approach Delay, s/veh		33.5			31.5			7.9			6.2	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	48.5		5.2	4.7	49.4		6.6				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	20.0	69.0		20.0	20.0	71.0		20.0				
Max Q Clear Time (g_c+I1), s	2.5	16.7		2.3	2.2	13.6		2.7				
Green Ext Time (p_c), s	0.0	26.5		0.0	0.0	21.1		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		7.4
HCM 6th LOS		A

Notes

User approved pedestrian interval to be less than phase max green.



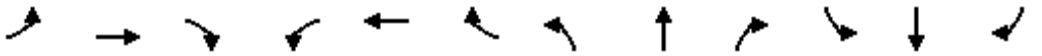
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	22	36	106	13	102	27	1335	39	108	1064	17
Future Volume (veh/h)	51	22	36	106	13	102	27	1335	39	108	1064	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	22	3	106	13	13	27	1335	38	108	1064	16
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	158	142	19	215	102	102	59	1794	51	139	1984	30
Arrive On Green	0.09	0.09	0.09	0.12	0.12	0.12	0.03	0.51	0.51	0.08	0.55	0.55
Sat Flow, veh/h	1781	1611	220	1781	846	846	1781	3528	100	1781	3583	54
Grp Volume(v), veh/h	51	0	25	106	0	26	27	672	701	108	528	552
Grp Sat Flow(s),veh/h/ln	1781	0	1831	1781	0	1693	1781	1777	1851	1781	1777	1860
Q Serve(g_s), s	2.3	0.0	1.1	4.7	0.0	1.2	1.3	25.3	25.4	5.0	16.0	16.0
Cycle Q Clear(g_c), s	2.3	0.0	1.1	4.7	0.0	1.2	1.3	25.3	25.4	5.0	16.0	16.0
Prop In Lane	1.00		0.12	1.00		0.50	1.00		0.05	1.00		0.03
Lane Grp Cap(c), veh/h	158	0	162	215	0	204	59	904	942	139	984	1030
V/C Ratio(X)	0.32	0.00	0.15	0.49	0.00	0.13	0.46	0.74	0.74	0.77	0.54	0.54
Avail Cap(c_a), veh/h	336	0	345	525	0	499	336	1209	1260	525	1209	1266
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	0.0	35.7	34.9	0.0	33.3	40.2	16.5	16.5	38.3	12.0	12.0
Incr Delay (d2), s/veh	1.0	0.0	0.4	1.5	0.0	0.2	2.0	2.8	2.7	3.4	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.5	2.1	0.0	0.5	0.6	9.4	9.8	2.2	5.4	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	0.0	36.1	36.4	0.0	33.5	42.2	19.3	19.2	41.8	12.6	12.6
LnGrp LOS	D	A	D	D	A	C	D	B	B	D	B	B
Approach Vol, veh/h		76			132			1400			1188	
Approach Delay, s/veh		36.9			35.8			19.7			15.3	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.8	52.2		14.2	10.6	48.4		11.5				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	16.0	57.7		25.0	25.0	57.7		16.0				
Max Q Clear Time (g_c+I1), s	3.3	18.0		6.7	7.0	27.4		4.3				
Green Ext Time (p_c), s	0.0	8.1		0.4	0.2	15.7		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		19.0	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



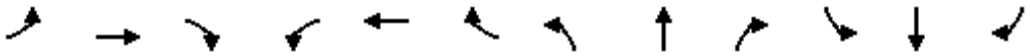
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	20	29	58	17	0	11	1398	13	26	974	49
Future Volume (veh/h)	41	20	29	58	17	0	11	1398	13	26	974	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1945	1870	1870	1945	1870	1870	1841	1870	1870	1841	1870
Adj Flow Rate, veh/h	41	20	2	58	17	0	11	1398	12	26	974	26
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	4	2	2	4	2
Cap, veh/h	55	27	68	78	23	85	15	2098	18	31	2097	949
Arrive On Green	0.04	0.04	0.04	0.05	0.05	0.00	0.01	0.59	0.59	0.02	0.60	0.60
Sat Flow, veh/h	1265	617	1571	1448	424	1585	1781	3553	30	1781	3497	1582
Grp Volume(v), veh/h	61	0	2	75	0	0	11	688	722	26	974	26
Grp Sat Flow(s),veh/h/ln	1882	0	1571	1873	0	1585	1781	1749	1835	1781	1749	1582
Q Serve(g_s), s	1.9	0.0	0.1	2.4	0.0	0.0	0.4	15.9	16.0	0.9	9.3	0.4
Cycle Q Clear(g_c), s	1.9	0.0	0.1	2.4	0.0	0.0	0.4	15.9	16.0	0.9	9.3	0.4
Prop In Lane	0.67		1.00	0.77		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	82	0	68	101	0	85	15	1032	1083	31	2097	949
V/C Ratio(X)	0.75	0.00	0.03	0.75	0.00	0.00	0.74	0.67	0.67	0.83	0.46	0.03
Avail Cap(c_a), veh/h	251	0	209	250	0	211	238	1032	1083	238	2097	949
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.82	0.82	0.82	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	0.0	27.5	28.0	0.0	0.0	29.7	8.3	8.3	29.4	6.7	4.9
Incr Delay (d2), s/veh	5.0	0.0	0.1	4.0	0.0	0.0	19.2	1.5	1.4	18.2	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	1.1	0.0	0.0	0.2	4.4	4.6	0.5	2.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.4	0.0	27.6	32.0	0.0	0.0	48.9	9.8	9.7	47.6	7.4	4.9
LnGrp LOS	C	A	C	C	A	A	D	A	A	D	A	A
Approach Vol, veh/h		63			75			1421			1026	
Approach Delay, s/veh		33.2			32.0			10.1			8.4	
Approach LOS		C			C			B			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		7.2	4.5	41.7		6.6	5.1	41.1				
Change Period (Y+Rc), s		4.0	4.0	5.7		4.0	4.0	5.7				
Max Green Setting (Gmax), s		8.0	8.0	18.3		8.0	8.0	18.3				
Max Q Clear Time (g_c+I1), s		4.4	2.4	11.3		3.9	2.9	18.0				
Green Ext Time (p_c), s		0.0	0.0	5.6		0.0	0.0	0.3				

Intersection Summary												
HCM 6th Ctrl Delay			10.6									
HCM 6th LOS			B									

Notes

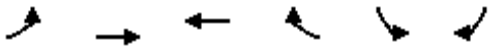
User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	0	10	59	0	0	6	1417	14	8	1049	4
Future Volume (vph)	5	0	10	59	0	0	6	1417	14	8	1049	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0			4.0	5.7		4.0	5.7	
Lane Util. Factor	1.00		1.00	1.00			1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00		0.89	1.00			1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00		1.00	1.00			1.00	1.00		1.00	1.00	
Frt	1.00		0.85	1.00			1.00	1.00		1.00	1.00	
Flt Protected	0.95		1.00	0.95			0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770		1415	1770			1770	3533		1770	3537	
Flt Permitted	0.95		1.00	0.95			0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770		1415	1770			1770	3533		1770	3537	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	0	10	59	0	0	6	1417	14	8	1049	4
RTOR Reduction (vph)	0	0	10	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	5	0	0	59	0	0	6	1431	0	8	1053	0
Confl. Peds. (#/hr)	4		4	4		4	4		4	4		4
Confl. Bikes (#/hr)			2			2			2			2
Turn Type	Prot		Perm	Prot		Perm	Prot	NA		Prot	NA	
Protected Phases	5			6			3	8		7	4	
Permitted Phases			5			6						
Actuated Green, G (s)	1.0		1.0	4.5			1.1	32.7		1.1	32.7	
Effective Green, g (s)	1.0		1.0	4.5			1.1	32.7		1.1	32.7	
Actuated g/C Ratio	0.02		0.02	0.08			0.02	0.55		0.02	0.55	
Clearance Time (s)	4.0		4.0	4.0			4.0	5.7		4.0	5.7	
Vehicle Extension (s)	2.0		2.0	2.0			2.0	4.3		2.0	4.3	
Lane Grp Cap (vph)	29		23	132			32	1925		32	1927	
v/s Ratio Prot	c0.00			c0.03			0.00	c0.40		c0.00	0.30	
v/s Ratio Perm			0.00									
v/c Ratio	0.17		0.01	0.45			0.19	0.74		0.25	0.55	
Uniform Delay, d1	29.1		29.0	26.6			29.0	10.4		29.0	8.8	
Progression Factor	1.00		1.00	1.00			1.00	1.00		1.50	0.29	
Incremental Delay, d2	1.0		0.0	0.9			1.0	1.8		1.4	1.0	
Delay (s)	30.1		29.1	27.4			30.0	12.2		44.9	3.6	
Level of Service	C		C	C			C	B		D	A	
Approach Delay (s)		29.4			27.4			12.3			3.9	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	19.7
Intersection Capacity Utilization	57.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



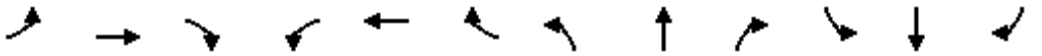
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	41	249	334	80	30	23
Future Volume (veh/h)	41	249	334	80	30	23
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	41	249	334	43	30	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	158	2088	1227	547	99	88
Arrive On Green	0.09	0.59	0.35	0.35	0.06	0.06
Sat Flow, veh/h	1781	3647	3647	1585	1781	1585
Grp Volume(v), veh/h	41	249	334	43	30	2
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1781	1585
Q Serve(g_s), s	0.6	0.8	1.8	0.5	0.4	0.0
Cycle Q Clear(g_c), s	0.6	0.8	1.8	0.5	0.4	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	158	2088	1227	547	99	88
V/C Ratio(X)	0.26	0.12	0.27	0.08	0.30	0.02
Avail Cap(c_a), veh/h	1367	5455	5455	2433	1367	1217
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.1	2.4	6.2	5.7	11.8	11.6
Incr Delay (d2), s/veh	0.3	0.1	0.3	0.1	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.4	0.1	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.4	2.4	6.4	5.9	12.5	11.7
LnGrp LOS	B	A	A	A	B	B
Approach Vol, veh/h		290	377		32	
Approach Delay, s/veh		3.7	6.4		12.4	
Approach LOS		A	A		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			20.6		5.4	6.3	14.3
Change Period (Y+Rc), s			5.3		4.0	4.0	5.3
Max Green Setting (Gmax), s			40.0		20.0	20.0	40.0
Max Q Clear Time (g_c+I1), s			2.8		2.4	2.6	3.8
Green Ext Time (p_c), s			2.6		0.0	0.0	4.0

Intersection Summary	
HCM 6th Ctrl Delay	5.5
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	224	298	35	145	4	309	375	67	10	397	70
Future Volume (veh/h)	66	224	298	35	145	4	309	375	67	10	397	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	66	224	0	35	145	0	309	375	0	10	397	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	129	468		83	375		386	1486		28	771	
Arrive On Green	0.07	0.13	0.00	0.05	0.11	0.00	0.22	0.42	0.00	0.02	0.22	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	66	224	0	35	145	0	309	375	0	10	397	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.7	2.9	0.0	0.9	1.9	0.0	8.0	3.4	0.0	0.3	4.8	0.0
Cycle Q Clear(g_c), s	1.7	2.9	0.0	0.9	1.9	0.0	8.0	3.4	0.0	0.3	4.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	129	468		83	375		386	1486		28	771	
V/C Ratio(X)	0.51	0.48		0.42	0.39		0.80	0.25		0.36	0.51	
Avail Cap(c_a), veh/h	728	1452		728	1815		1856	2541		728	2541	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.9	19.7	0.0	22.7	20.4	0.0	18.2	9.3	0.0	23.9	16.9	0.0
Incr Delay (d2), s/veh	1.2	1.2	0.0	1.3	1.3	0.0	1.5	0.2	0.0	2.9	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.1	0.0	0.4	0.8	0.0	3.1	1.1	0.0	0.1	1.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.0	20.9	0.0	24.0	21.7	0.0	19.6	9.4	0.0	26.8	18.0	0.0
LnGrp LOS	C	C		C	C		B	A		C	B	
Approach Vol, veh/h		290	A		180	A		684	A		407	A
Approach Delay, s/veh		21.4			22.2			14.1			18.2	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	12.1	14.6	15.9	7.6	10.9	4.8	25.8
Change Period (Y+Rc), s	4.0	5.7	4.0	5.3	4.0	* 5.7	4.0	5.3
Max Green Setting (Gmax), s	20.0	20.0	51.0	35.0	20.0	* 25	20.0	35.0
Max Q Clear Time (g_c+I1), s	2.9	4.9	10.0	6.8	3.7	3.9	2.3	5.4
Green Ext Time (p_c), s	0.0	1.3	0.7	3.8	0.1	1.1	0.0	3.6

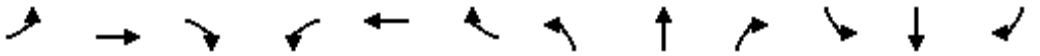
Intersection Summary	
HCM 6th Ctrl Delay	17.4
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	31	40	47	10	28	11	1160	31	66	418	5
Future Volume (veh/h)	8	31	40	47	10	28	11	1160	31	66	418	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	31	4	47	10	0	11	1160	29	66	418	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	117	116	173	17		505	2254	56	84	1321	
Arrive On Green	0.07	0.07	0.07	0.07	0.07	0.00	0.28	0.64	0.64	0.05	0.37	0.00
Sat Flow, veh/h	239	1596	1585	868	227	1585	1781	3543	89	1781	3647	0
Grp Volume(v), veh/h	39	0	4	57	0	0	11	582	607	66	418	0
Grp Sat Flow(s),veh/h/ln	1835	0	1585	1096	0	1585	1781	1777	1854	1781	1777	0
Q Serve(g_s), s	0.0	0.0	0.1	2.2	0.0	0.0	0.3	10.6	10.6	2.2	5.0	0.0
Cycle Q Clear(g_c), s	1.2	0.0	0.1	3.4	0.0	0.0	0.3	10.6	10.6	2.2	5.0	0.0
Prop In Lane	0.21		1.00	0.82		1.00	1.00		0.05	1.00		0.00
Lane Grp Cap(c), veh/h	207	0	116	190	0		505	1130	1180	84	1321	
V/C Ratio(X)	0.19	0.00	0.03	0.30	0.00		0.02	0.51	0.51	0.79	0.32	
Avail Cap(c_a), veh/h	402	0	293	351	0		505	1130	1180	356	1321	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.3	0.0	25.8	27.8	0.0	0.0	15.5	5.9	5.9	28.3	13.4	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.1	0.7	0.0	0.0	0.0	0.5	0.5	5.9	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.1	0.8	0.0	0.0	0.1	2.3	2.4	1.0	1.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.6	0.0	25.9	28.4	0.0	0.0	15.5	6.4	6.4	34.2	14.1	0.0
LnGrp LOS	C	A	C	C	A		B	A	A	C	B	
Approach Vol, veh/h		43			57	A		1200			484	A
Approach Delay, s/veh		26.6			28.4			6.5			16.8	
Approach LOS		C			C			A			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.3	22.7	28.0		9.3	6.8	43.9				
Change Period (Y+Rc), s		4.9	5.7	* 5.7		4.9	4.0	5.7				
Max Green Setting (Gmax), s		11.1	12.0	* 22		11.1	12.0	22.3				
Max Q Clear Time (g_c+I1), s		5.4	2.3	7.0		3.2	4.2	12.6				
Green Ext Time (p_c), s		0.0	0.0	2.1		0.0	0.0	4.8				

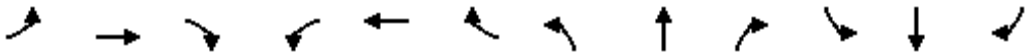
Intersection Summary												
HCM 6th Ctrl Delay			10.5									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	4	6	8	5	13	1	1126	35	32	411	6
Future Volume (veh/h)	12	4	6	8	5	13	1	1126	35	32	411	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	4	1	8	5	2	1	1126	34	32	411	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	87	6	2	91	16	39	2	2821	85	40	2957	36
Arrive On Green	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.80	0.80	0.02	0.82	0.82
Sat Flow, veh/h	757	252	63	1077	673	1585	1781	3522	106	1781	3596	44
Grp Volume(v), veh/h	17	0	0	13	0	2	1	568	592	32	203	213
Grp Sat Flow(s),veh/h/ln	1073	0	0	1749	0	1585	1781	1777	1851	1781	1777	1862
Q Serve(g_s), s	1.0	0.0	0.0	0.0	0.0	0.1	0.1	8.4	8.4	1.6	2.1	2.1
Cycle Q Clear(g_c), s	1.6	0.0	0.0	0.6	0.0	0.1	0.1	8.4	8.4	1.6	2.1	2.1
Prop In Lane	0.71		0.06	0.62		1.00	1.00		0.06	1.00		0.02
Lane Grp Cap(c), veh/h	94	0	0	107	0	39	2	1423	1483	40	1461	1532
V/C Ratio(X)	0.18	0.00	0.00	0.12	0.00	0.05	0.51	0.40	0.40	0.81	0.14	0.14
Avail Cap(c_a), veh/h	493	0	0	519	0	458	396	1423	1483	396	1461	1532
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	0.0	0.0	43.1	0.0	42.9	44.9	2.6	2.6	43.8	1.6	1.6
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.2	53.5	0.3	0.2	13.3	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.3	0.0	0.0	0.1	1.5	1.5	0.8	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.3	0.0	0.0	43.3	0.0	43.1	98.4	2.9	2.9	57.1	1.8	1.8
LnGrp LOS	D	A	A	D	A	D	F	A	A	E	A	A
Approach Vol, veh/h		17			15			1161			448	
Approach Delay, s/veh		44.3			43.3			3.0			5.7	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.1	79.7		6.2	6.0	77.8		6.2				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	30.3		26.0	20.0	30.3		26.0				
Max Q Clear Time (g_c+I1), s	2.1	4.1		3.6	3.6	10.4		2.6				
Green Ext Time (p_c), s	0.0	2.7		0.0	0.0	8.6		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			4.5									
HCM 6th LOS			A									

Notes

User approved pedestrian interval to be less than phase max green.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	39	94	1105	25	63	389
Future Volume (veh/h)	39	94	1105	25	63	389
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	11	1105	24	63	389
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	57	50	2739	59	81	3058
Arrive On Green	0.03	0.03	0.77	0.77	0.09	1.00
Sat Flow, veh/h	1781	1585	3650	77	1781	3647
Grp Volume(v), veh/h	39	11	552	577	63	389
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1856	1781	1777
Q Serve(g_s), s	2.0	0.6	9.3	9.3	3.1	0.0
Cycle Q Clear(g_c), s	2.0	0.6	9.3	9.3	3.1	0.0
Prop In Lane	1.00	1.00		0.04	1.00	
Lane Grp Cap(c), veh/h	57	50	1369	1430	81	3058
V/C Ratio(X)	0.69	0.22	0.40	0.40	0.77	0.13
Avail Cap(c_a), veh/h	396	352	1369	1430	396	3058
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.99	0.99
Uniform Delay (d), s/veh	43.1	42.5	3.4	3.4	40.4	0.0
Incr Delay (d2), s/veh	5.4	0.8	0.2	0.2	5.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.6	2.4	2.5	1.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	48.6	43.3	3.7	3.7	46.1	0.1
LnGrp LOS	D	D	A	A	D	A
Approach Vol, veh/h	50		1129			452
Approach Delay, s/veh	47.4		3.7			6.5
Approach LOS	D		A			A

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		83.1		6.9	8.1	75.0
Change Period (Y+Rc), s		5.7		4.0	4.0	5.7
Max Green Setting (Gmax), s		60.3		20.0	20.0	36.3
Max Q Clear Time (g_c+I1), s		2.0		4.0	5.1	11.3
Green Ext Time (p_c), s		2.5		0.1	0.1	7.3

Intersection Summary	
HCM 6th Ctrl Delay	5.8
HCM 6th LOS	A

Notes

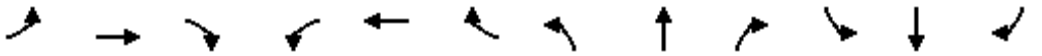
User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	139	0	207	1	1	1	232	696	1	0	813	215
Future Volume (veh/h)	139	0	207	1	1	1	232	696	1	0	813	215
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1870	1856	1870	1870	1870	1664	1708	1723	2067	2007	2052
Adj Flow Rate, veh/h	139	0	0	1	1	0	232	696	1	0	813	100
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	2	3	2	2	2	6	3	2	2	6	3
Cap, veh/h	362	0	161	4	4	0	275	2188	984	3	1703	776
Arrive On Green	0.10	0.00	0.00	0.00	0.00	0.00	0.17	0.67	0.67	0.00	0.45	0.45
Sat Flow, veh/h	3534	0	1572	912	912	0	1585	3246	1460	1968	3813	1739
Grp Volume(v), veh/h	139	0	0	2	0	0	232	696	1	0	813	100
Grp Sat Flow(s),veh/h/ln	1767	0	1572	1825	0	0	1585	1623	1460	1968	1906	1739
Q Serve(g_s), s	2.7	0.0	0.0	0.1	0.0	0.0	10.4	6.5	0.0	0.0	11.0	2.5
Cycle Q Clear(g_c), s	2.7	0.0	0.0	0.1	0.0	0.0	10.4	6.5	0.0	0.0	11.0	2.5
Prop In Lane	1.00		1.00	0.50		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	362	0	161	9	0	0	275	2188	984	3	1703	776
V/C Ratio(X)	0.38	0.00	0.00	0.22	0.00	0.00	0.85	0.32	0.00	0.00	0.48	0.13
Avail Cap(c_a), veh/h	960	0	427	496	0	0	667	2248	1011	535	2641	1204
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	30.9	0.0	0.0	36.5	0.0	0.0	29.5	5.0	3.9	0.0	14.3	12.0
Incr Delay (d2), s/veh	1.0	0.0	0.0	4.6	0.0	0.0	2.8	0.1	0.0	0.0	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	0.0	0.0	0.0	3.7	1.2	0.0	0.0	3.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.9	0.0	0.0	41.1	0.0	0.0	32.2	5.1	3.9	0.0	14.7	12.1
LnGrp LOS	C	A	A	D	A	A	C	A	A	A	B	B
Approach Vol, veh/h		139			2			929			913	
Approach Delay, s/veh		31.9			41.1			11.9			14.4	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	56.0		13.2	16.8	39.3		4.4				
Change Period (Y+Rc), s	4.0	6.4		5.7	4.0	6.4		4.0				
Max Green Setting (Gmax), s	20.0	51.0		20.0	31.0	51.0		20.0				
Max Q Clear Time (g_c+I1), s	0.0	8.5		4.7	12.4	13.0		2.1				
Green Ext Time (p_c), s	0.0	16.8		0.7	0.4	19.8		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		14.5	
HCM 6th LOS		B	

Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



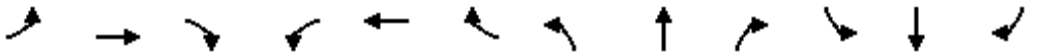
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	0	94	1	0	1	37	882	0	4	996	17
Future Volume (veh/h)	43	0	94	1	0	1	37	882	0	4	996	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	0	12	1	0	0	37	882	0	4	996	9
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	154	0	137	4	0	3	87	1812	808	12	1662	741
Arrive On Green	0.09	0.00	0.09	0.00	0.00	0.00	0.05	0.51	0.00	0.01	0.47	0.47
Sat Flow, veh/h	1781	0	1585	1781	0	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	43	0	12	1	0	0	37	882	0	4	996	9
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.1	0.0	0.3	0.0	0.0	0.0	1.0	7.8	0.0	0.1	10.0	0.1
Cycle Q Clear(g_c), s	1.1	0.0	0.3	0.0	0.0	0.0	1.0	7.8	0.0	0.1	10.0	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	154	0	137	4	0	3	87	1812	808	12	1662	741
V/C Ratio(X)	0.28	0.00	0.09	0.25	0.00	0.00	0.43	0.49	0.00	0.35	0.60	0.01
Avail Cap(c_a), veh/h	740	0	659	740	0	659	740	4800	2141	740	3914	1746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.6	0.0	20.2	24.0	0.0	0.0	22.2	7.7	0.0	23.8	9.5	6.9
Incr Delay (d2), s/veh	0.4	0.0	0.1	12.1	0.0	0.0	1.2	0.3	0.0	6.5	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.1	0.0	0.0	0.0	0.4	2.2	0.0	0.1	3.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.9	0.0	20.3	36.1	0.0	0.0	23.5	8.0	0.0	30.3	10.0	6.9
LnGrp LOS	C	A	C	D	A	A	C	A	A	C	B	A
Approach Vol, veh/h		55			1			919			1009	
Approach Delay, s/veh		20.8			36.1			8.6			10.1	
Approach LOS		C			D			A			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		8.8	6.3	28.9		4.1	4.3	30.9				
Change Period (Y+Rc), s		4.6	4.0	6.4		4.0	4.0	6.4				
Max Green Setting (Gmax), s		20.0	20.0	53.0		20.0	20.0	65.0				
Max Q Clear Time (g_c+I1), s		3.1	3.0	12.0		2.0	2.1	9.8				
Green Ext Time (p_c), s		0.1	0.0	10.5		0.0	0.0	9.1				

Intersection Summary	
HCM 6th Ctrl Delay	9.7
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	1	299	12	11	3	271	835	18	7	949	148
Future Volume (veh/h)	79	1	299	12	11	3	271	835	18	7	949	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	0	50	8	17	0	271	835	10	7	949	57
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	348	0	155	92	194	0	313	2185	974	22	2306	716
Arrive On Green	0.10	0.00	0.10	0.05	0.05	0.00	0.18	0.61	0.61	0.01	0.45	0.45
Sat Flow, veh/h	3563	0	1585	1781	3741	0	1781	3554	1585	1781	5106	1585
Grp Volume(v), veh/h	80	0	50	8	17	0	271	835	10	7	949	57
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	1870	0	1781	1777	1585	1781	1702	1585
Q Serve(g_s), s	1.8	0.0	2.6	0.4	0.4	0.0	13.1	10.4	0.2	0.3	11.1	1.8
Cycle Q Clear(g_c), s	1.8	0.0	2.6	0.4	0.4	0.0	13.1	10.4	0.2	0.3	11.1	1.8
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	348	0	155	92	194	0	313	2185	974	22	2306	716
V/C Ratio(X)	0.23	0.00	0.32	0.09	0.09	0.00	0.87	0.38	0.01	0.31	0.41	0.08
Avail Cap(c_a), veh/h	807	0	359	404	847	0	625	2294	1023	404	3297	1023
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	0.0	37.1	39.9	39.9	0.0	35.4	8.6	6.6	43.2	16.3	13.8
Incr Delay (d2), s/veh	0.7	0.0	2.4	0.1	0.1	0.0	2.9	0.3	0.0	2.9	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.1	0.2	0.2	0.0	5.5	3.2	0.1	0.2	3.7	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	0.0	39.5	40.0	39.9	0.0	38.2	8.8	6.6	46.2	16.5	13.8
LnGrp LOS	D	A	D	D	D	A	D	A	A	D	B	B
Approach Vol, veh/h		130			25			1116			1013	
Approach Delay, s/veh		38.2			40.0			16.0			16.5	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	60.7		13.9	19.5	46.3		8.6				
Change Period (Y+Rc), s	4.0	* 6.4		5.3	4.0	6.4		4.0				
Max Green Setting (Gmax), s	20.0	* 57		20.0	31.0	57.0		20.0				
Max Q Clear Time (g_c+I1), s	2.3	12.4		4.6	15.1	13.1		2.4				
Green Ext Time (p_c), s	0.0	28.4		0.7	0.5	26.8		0.0				

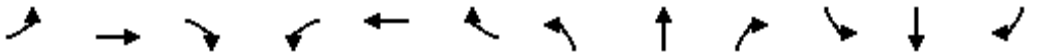
Intersection Summary			
HCM 6th Ctrl Delay		17.8	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



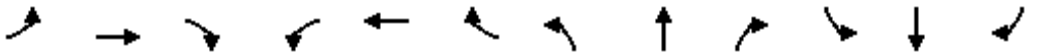
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	14	117	22	4	21	90	1304	57	92	980	35
Future Volume (veh/h)	127	14	117	22	4	21	90	1304	57	92	980	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	137	0	15	22	4	1	90	1304	34	92	980	21
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	295	0	131	75	14	78	114	1885	585	600	3351	1040
Arrive On Green	0.08	0.00	0.08	0.05	0.05	0.05	0.06	0.37	0.37	0.34	0.66	0.66
Sat Flow, veh/h	3563	0	1585	1518	276	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	137	0	15	26	0	1	90	1304	34	92	980	21
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1794	0	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	4.4	0.0	1.1	1.7	0.0	0.1	6.0	26.0	1.7	4.3	9.8	0.6
Cycle Q Clear(g_c), s	4.4	0.0	1.1	1.7	0.0	0.1	6.0	26.0	1.7	4.3	9.8	0.6
Prop In Lane	1.00		1.00	0.85		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	295	0	131	89	0	78	114	1885	585	600	3351	1040
V/C Ratio(X)	0.46	0.00	0.11	0.29	0.00	0.01	0.79	0.69	0.06	0.15	0.29	0.02
Avail Cap(c_a), veh/h	623	0	277	314	0	277	312	1885	585	600	3351	1040
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.5	0.0	51.0	55.0	0.0	54.2	55.4	32.1	24.4	27.8	8.8	7.2
Incr Delay (d2), s/veh	0.4	0.0	0.1	0.7	0.0	0.0	4.5	2.1	0.2	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.4	0.8	0.0	0.0	2.8	10.5	0.6	1.8	3.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.9	0.0	51.1	55.7	0.0	54.3	59.9	34.2	24.6	27.9	8.9	7.2
LnGrp LOS	D	A	D	E	A	D	E	C	C	C	A	A
Approach Vol, veh/h		152			27			1428			1093	
Approach Delay, s/veh		52.7			55.6			35.6			10.5	
Approach LOS		D			E			D			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	46.1	50.0		13.9	11.7	84.5		9.9				
Change Period (Y+Rc), s	5.7	* 5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	16.0	* 44		21.0	21.0	39.3		21.0				
Max Q Clear Time (g_c+I1), s	6.3	28.0		6.4	8.0	11.8		3.7				
Green Ext Time (p_c), s	0.1	11.0		0.3	0.1	11.4		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		26.6	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



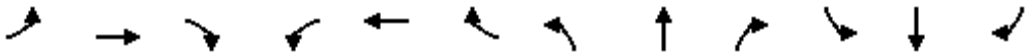
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	248	100	321	58	110	46	192	1316	39	9	1159	141
Future Volume (veh/h)	248	100	321	58	110	46	192	1316	39	9	1159	141
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.66	1.00		0.87	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	248	100	195	58	110	46	192	1316	20	9	1159	64
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	280	318	179	114	144	106	261	2085	900	27	1870	800
Arrive On Green	0.16	0.17	0.17	0.06	0.08	0.08	0.08	0.59	0.59	0.02	0.53	0.53
Sat Flow, veh/h	1781	1870	1054	1781	1870	1383	3456	3554	1534	1781	3554	1520
Grp Volume(v), veh/h	248	100	195	58	110	46	192	1316	20	9	1159	64
Grp Sat Flow(s),veh/h/ln	1781	1870	1054	1781	1870	1383	1728	1777	1534	1781	1777	1520
Q Serve(g_s), s	16.4	5.6	20.4	3.8	6.9	3.8	6.5	29.2	0.7	0.6	27.5	2.5
Cycle Q Clear(g_c), s	16.4	5.6	20.4	3.8	6.9	3.8	6.5	29.2	0.7	0.6	27.5	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	280	318	179	114	144	106	261	2085	900	27	1870	800
V/C Ratio(X)	0.89	0.31	1.09	0.51	0.77	0.43	0.74	0.63	0.02	0.33	0.62	0.08
Avail Cap(c_a), veh/h	386	318	179	312	223	165	605	2085	900	312	1870	800
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	43.7	49.8	54.3	54.3	52.9	54.3	16.3	10.4	58.5	20.0	14.1
Incr Delay (d2), s/veh	16.5	1.0	93.0	3.5	12.5	4.4	4.0	1.5	0.0	7.1	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	2.6	9.8	1.8	3.7	1.4	2.9	10.8	0.2	0.3	10.5	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.0	44.7	142.8	57.8	66.9	57.3	58.3	17.7	10.4	65.6	20.8	14.1
LnGrp LOS	E	D	F	E	E	E	E	B	B	E	C	B
Approach Vol, veh/h		543			214			1528			1232	
Approach Delay, s/veh		89.7			62.3			22.7			20.8	
Approach LOS		F			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	76.4	11.7	26.1	13.1	69.1	22.9	14.9
Change Period (Y+Rc), s	4.0	6.0	4.0	5.7	4.0	6.0	4.0	5.7
Max Green Setting (Gmax), s	21.0	39.0	21.0	19.3	21.0	39.0	26.0	14.3
Max Q Clear Time (g_c+I1), s	2.6	31.2	5.8	22.4	8.5	29.5	18.4	8.9
Green Ext Time (p_c), s	0.0	5.7	0.1	0.0	0.6	6.2	0.5	0.3

Intersection Summary	
HCM 6th Ctrl Delay	34.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



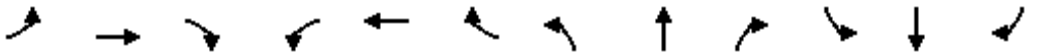
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	234	19	23	309	8	25	2	25	10	5	10
Future Volume (veh/h)	1	234	19	23	309	8	25	2	25	10	5	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	234	15	23	309	7	25	2	4	10	5	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	6	995	63	93	1219	28	86	7	14	38	19	0
Arrive On Green	0.00	0.29	0.29	0.05	0.34	0.34	0.06	0.06	0.06	0.03	0.03	0.00
Sat Flow, veh/h	1781	3392	216	1781	3552	80	1418	113	227	1207	603	0
Grp Volume(v), veh/h	1	122	127	23	154	162	31	0	0	15	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1831	1781	1777	1856	1759	0	0	1810	0	0
Q Serve(g_s), s	0.0	1.6	1.6	0.4	1.9	1.9	0.5	0.0	0.0	0.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	1.6	1.6	0.4	1.9	1.9	0.5	0.0	0.0	0.2	0.0	0.0
Prop In Lane	1.00		0.12	1.00		0.04	0.81		0.13	0.67		0.00
Lane Grp Cap(c), veh/h	6	521	537	93	610	637	106	0	0	57	0	0
V/C Ratio(X)	0.17	0.23	0.24	0.25	0.25	0.25	0.29	0.00	0.00	0.26	0.00	0.00
Avail Cap(c_a), veh/h	1158	1733	1787	1158	1733	1810	1315	0	0	1177	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.3	8.2	8.2	14.0	7.3	7.3	13.8	0.0	0.0	14.6	0.0	0.0
Incr Delay (d2), s/veh	5.1	0.5	0.5	0.5	0.5	0.5	0.6	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	0.4	0.1	0.4	0.4	0.2	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.4	8.8	8.8	14.5	7.7	7.7	14.4	0.0	0.0	15.5	0.0	0.0
LnGrp LOS	C	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		250			339			31			15	
Approach Delay, s/veh		8.8			8.2			14.4			15.5	
Approach LOS		A			A			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		5.9	5.6	14.3		5.0	4.1	15.9				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.0	4.0	5.3				
Max Green Setting (Gmax), s		23.0	20.0	30.0		20.0	20.0	30.0				
Max Q Clear Time (g_c+I1), s		2.5	2.4	3.6		2.2	2.0	3.9				
Green Ext Time (p_c), s		0.0	0.0	5.1		0.0	0.0	6.6				

Intersection Summary	
HCM 6th Ctrl Delay	8.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	230	3	14	450	14	7	0	17	63	0	198
Future Volume (veh/h)	70	230	3	14	450	14	7	0	17	63	0	198
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	230	1	14	450	4	7	0	0	63	0	43
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	174	1073	478	45	816	364	30	0	0	258	0	229
Arrive On Green	0.10	0.30	0.30	0.03	0.23	0.23	0.02	0.00	0.00	0.14	0.00	0.14
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	0	0	1781	0	1585
Grp Volume(v), veh/h	70	230	1	14	450	4	7	0	0	63	0	43
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	0	1781	0	1585
Q Serve(g_s), s	1.3	1.8	0.0	0.3	4.1	0.1	0.1	0.0	0.0	1.1	0.0	0.9
Cycle Q Clear(g_c), s	1.3	1.8	0.0	0.3	4.1	0.1	0.1	0.0	0.0	1.1	0.0	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	174	1073	478	45	816	364	30	0	0	258	0	229
V/C Ratio(X)	0.40	0.21	0.00	0.31	0.55	0.01	0.23	0.00	0.00	0.24	0.00	0.19
Avail Cap(c_a), veh/h	1224	2931	1307	979	2931	1307	979	0	0	979	0	871
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.4	9.5	8.9	17.4	12.4	10.8	17.6	0.0	0.0	13.8	0.0	13.7
Incr Delay (d2), s/veh	0.6	0.1	0.0	1.4	0.7	0.0	1.4	0.0	0.0	0.2	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.4	0.0	0.1	1.2	0.0	0.1	0.0	0.0	0.4	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.0	9.6	8.9	18.8	13.0	10.8	19.1	0.0	0.0	14.0	0.0	13.8
LnGrp LOS	B	A	A	B	B	B	B	A	A	B	A	B
Approach Vol, veh/h		301			468			7			106	
Approach Delay, s/veh		11.1			13.2			19.1			13.9	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		4.6	4.9	16.7		10.2	7.5	14.1				
Change Period (Y+Rc), s		4.0	4.0	5.7		4.9	4.0	5.7				
Max Green Setting (Gmax), s		20.0	20.0	30.0		20.0	25.0	30.0				
Max Q Clear Time (g_c+I1), s		2.1	2.3	3.8		3.1	3.3	6.1				
Green Ext Time (p_c), s		0.0	0.0	1.1		0.2	0.1	2.3				

Intersection Summary	
HCM 6th Ctrl Delay	12.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



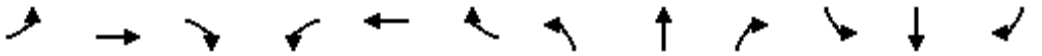
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	283	55	128	356	93	120
Future Volume (veh/h)	283	55	128	356	93	120
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	283	20	128	356	93	21
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	809	361	237	1774	295	263
Arrive On Green	0.23	0.23	0.13	0.50	0.17	0.17
Sat Flow, veh/h	3647	1585	1781	3647	1781	1585
Grp Volume(v), veh/h	283	20	128	356	93	21
Grp Sat Flow(s),veh/h/ln	1777	1585	1781	1777	1781	1585
Q Serve(g_s), s	1.9	0.3	1.9	1.6	1.3	0.3
Cycle Q Clear(g_c), s	1.9	0.3	1.9	1.6	1.3	0.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	809	361	237	1774	295	263
V/C Ratio(X)	0.35	0.06	0.54	0.20	0.31	0.08
Avail Cap(c_a), veh/h	4909	2190	1230	4909	1230	1095
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.4	8.7	11.7	4.0	10.6	10.2
Incr Delay (d2), s/veh	0.4	0.1	1.9	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.1	0.7	0.2	0.4	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.8	8.8	13.6	4.1	10.9	10.3
LnGrp LOS	A	A	B	A	B	B
Approach Vol, veh/h	303			484	114	
Approach Delay, s/veh	9.7			6.6	10.7	
Approach LOS	A			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		20.2		8.8	7.9	12.3
Change Period (Y+Rc), s		5.7		4.0	4.0	5.7
Max Green Setting (Gmax), s		40.0		20.0	20.0	40.0
Max Q Clear Time (g_c+I1), s		3.6		3.3	3.9	3.9
Green Ext Time (p_c), s		4.1		0.1	0.3	3.3

Intersection Summary	
HCM 6th Ctrl Delay	8.2
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



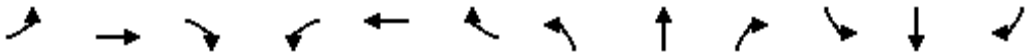
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	313	0	293	0	1462	158	0	742	841
Future Volume (veh/h)	0	0	0	313	0	293	0	1462	158	0	742	841
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				313	0	271	0	1462	0	0	742	0
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				726	0	333	0	2224		0	2224	
Arrive On Green				0.21	0.00	0.21	0.00	0.63	0.00	0.00	0.63	0.00
Sat Flow, veh/h				3456	0	1585	0	3647	1585	0	3647	2790
Grp Volume(v), veh/h				313	0	271	0	1462	0	0	742	0
Grp Sat Flow(s),veh/h/ln				1728	0	1585	0	1777	1585	0	1777	1395
Q Serve(g_s), s				5.1	0.0	10.5	0.0	16.9	0.0	0.0	6.4	0.0
Cycle Q Clear(g_c), s				5.1	0.0	10.5	0.0	16.9	0.0	0.0	6.4	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				726	0	333	0	2224		0	2224	
V/C Ratio(X)				0.43	0.00	0.81	0.00	0.66		0.00	0.33	
Avail Cap(c_a), veh/h				1657	0	760	0	3793		0	2584	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				22.2	0.0	24.3	0.0	7.7	0.0	0.0	5.7	0.0
Incr Delay (d2), s/veh				0.2	0.0	1.9	0.0	0.4	0.0	0.0	0.1	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.0	0.0	3.9	0.0	4.3	0.0	0.0	1.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				22.3	0.0	26.2	0.0	8.1	0.0	0.0	5.8	0.0
LnGrp LOS				C	A	C	A	A		A	A	
Approach Vol, veh/h					584			1462	A		742	A
Approach Delay, s/veh					24.1			8.1			5.8	
Approach LOS					C			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	45.8		45.8		18.9			
Change Period (Y+Rc), s	5.3		5.3		5.3			
Max Green Setting (Gmax), s	69.0		47.0		31.0			
Max Q Clear Time (g_c+I1), s	18.9		8.4		12.5			
Green Ext Time (p_c), s	21.6		7.8		1.0			

Intersection Summary	
HCM 6th Ctrl Delay	10.9
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



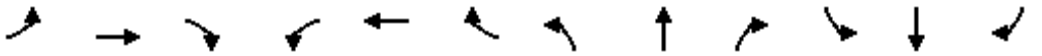
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	192	120	74	0	125	0	1309	82	61	720	0
Future Volume (veh/h)	0	192	120	74	0	125	0	1309	82	61	720	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	0	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	0	192	16	74	0	125	0	1309	48	61	720	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	0	2	0	2	2	2	2	0
Cap, veh/h	0	329	147	258	0	0	0	1776	792	139	2248	0
Arrive On Green	0.00	0.09	0.09	0.07	0.00	0.00	0.00	0.50	0.50	0.08	0.63	0.00
Sat Flow, veh/h	0	3647	1585	3456	74		0	3647	1585	1781	3647	0
Grp Volume(v), veh/h	0	192	16	74	32.1		0	1309	48	61	720	0
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1728	C		0	1777	1585	1781	1777	0
Q Serve(g_s), s	0.0	3.8	0.7	1.5			0.0	21.3	1.1	2.4	6.8	0.0
Cycle Q Clear(g_c), s	0.0	3.8	0.7	1.5			0.0	21.3	1.1	2.4	6.8	0.0
Prop In Lane	0.00		1.00	1.00			0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	329	147	258			0	1776	792	139	2248	0
V/C Ratio(X)	0.00	0.58	0.11	0.29			0.00	0.74	0.06	0.44	0.32	0.00
Avail Cap(c_a), veh/h	0	1316	587	948			0	2876	1283	489	2876	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00			0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	31.7	30.3	31.9			0.0	14.4	9.4	32.1	6.2	0.0
Incr Delay (d2), s/veh	0.0	1.5	0.3	0.2			0.0	0.7	0.0	0.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.6	0.3	0.6			0.0	7.2	0.3	1.0	1.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	33.2	30.6	32.1			0.0	15.1	9.4	32.9	6.3	0.0
LnGrp LOS	A	C	C	C			A	B	A	C	A	A
Approach Vol, veh/h		208						1357			781	
Approach Delay, s/veh		33.0						14.9			8.3	
Approach LOS		C						B			A	

Timer - Assigned Phs	1	2	3	4		6
Phs Duration (G+Y+Rc), s	9.7	41.7	9.4	12.1		51.4
Change Period (Y+Rc), s	4.0	5.3	4.0	5.3		5.3
Max Green Setting (Gmax), s	20.0	59.0	20.0	27.0		59.0
Max Q Clear Time (g_c+I1), s	4.4	23.3	3.5	5.8		8.8
Green Ext Time (p_c), s	0.0	13.2	0.1	1.1		5.9

Intersection Summary	
HCM 6th Ctrl Delay	14.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



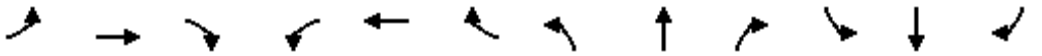
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	108	4	8	311	270	8	36	10	162	13	90
Future Volume (veh/h)	46	108	4	8	311	270	8	36	10	162	13	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	108	1	8	311	71	8	36	1	162	13	27
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	107	967	431	23	798	356	27	120	125	299	24	286
Arrive On Green	0.06	0.27	0.27	0.01	0.22	0.22	0.08	0.08	0.08	0.18	0.18	0.18
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	337	1517	1585	1655	133	1585
Grp Volume(v), veh/h	46	108	1	8	311	71	44	0	1	175	0	27
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1854	0	1585	1788	0	1585
Q Serve(g_s), s	1.0	0.9	0.0	0.2	2.9	1.4	0.9	0.0	0.0	3.5	0.0	0.6
Cycle Q Clear(g_c), s	1.0	0.9	0.0	0.2	2.9	1.4	0.9	0.0	0.0	3.5	0.0	0.6
Prop In Lane	1.00		1.00	1.00		1.00	0.18		1.00	0.93		1.00
Lane Grp Cap(c), veh/h	107	967	431	23	798	356	146	0	125	323	0	286
V/C Ratio(X)	0.43	0.11	0.00	0.35	0.39	0.20	0.30	0.00	0.01	0.54	0.00	0.09
Avail Cap(c_a), veh/h	496	2159	963	496	2159	963	1689	0	1445	1629	0	1445
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.9	10.8	10.5	19.3	13.0	12.4	17.2	0.0	16.8	14.7	0.0	13.5
Incr Delay (d2), s/veh	1.0	0.1	0.0	3.4	0.4	0.3	0.4	0.0	0.0	0.5	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.3	0.0	0.1	0.9	0.4	0.3	0.0	0.0	1.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.9	10.8	10.5	22.7	13.4	12.7	17.6	0.0	16.8	15.2	0.0	13.5
LnGrp LOS	B	B	B	C	B	B	B	A	B	B	A	B
Approach Vol, veh/h		155			390			45			202	
Approach Delay, s/veh		13.2			13.4			17.6			15.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.5	16.7		11.1	6.4	14.9		7.1				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	11.0	24.0		36.0	11.0	24.0		36.0				
Max Q Clear Time (g_c+I1), s	2.2	2.9		5.5	3.0	4.9		2.9				
Green Ext Time (p_c), s	0.0	1.1		0.4	0.0	3.9		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		14.0	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



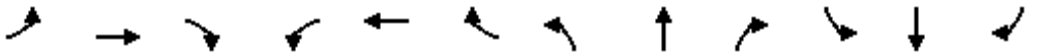
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	310	20	178	779	133	20	100	100	120	50	20
Future Volume (veh/h)	50	310	20	178	779	133	20	100	100	120	50	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	50	310	6	178	779	55	20	100	100	120	50	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	120	961	429	232	1184	528	213	224	190	206	216	183
Arrive On Green	0.07	0.27	0.27	0.13	0.33	0.33	0.12	0.12	0.12	0.12	0.12	0.12
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	50	310	6	178	779	55	20	100	100	120	50	3
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	1.5	3.9	0.2	5.5	10.6	1.4	0.6	2.8	3.4	3.6	1.4	0.1
Cycle Q Clear(g_c), s	1.5	3.9	0.2	5.5	10.6	1.4	0.6	2.8	3.4	3.6	1.4	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	120	961	429	232	1184	528	213	224	190	206	216	183
V/C Ratio(X)	0.42	0.32	0.01	0.77	0.66	0.10	0.09	0.45	0.53	0.58	0.23	0.02
Avail Cap(c_a), veh/h	630	2513	1121	630	2513	1121	630	661	560	617	648	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.3	16.5	15.1	23.8	16.1	13.0	22.2	23.1	23.4	23.7	22.7	22.2
Incr Delay (d2), s/veh	2.3	0.2	0.0	5.3	0.6	0.1	0.2	1.4	2.3	2.6	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.5	0.1	2.5	3.9	0.4	0.2	1.2	1.3	1.6	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.6	16.7	15.1	29.1	16.7	13.1	22.3	24.5	25.6	26.3	23.3	22.2
LnGrp LOS	C	B	B	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		366			1012			220			173	
Approach Delay, s/veh		18.2			18.7			24.8			25.4	
Approach LOS		B			B			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.1	7.8	24.8		11.8	11.4	21.3				
Change Period (Y+Rc), s		5.3	4.0	6.0		5.3	4.0	6.0				
Max Green Setting (Gmax), s		20.0	20.0	40.0		19.6	20.0	40.0				
Max Q Clear Time (g_c+I1), s		5.4	3.5	12.6		5.6	7.5	5.9				
Green Ext Time (p_c), s		0.7	0.1	6.2		0.5	0.4	2.2				

Intersection Summary												
HCM 6th Ctrl Delay			20.0									
HCM 6th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	304	330	46	40	206	107	44	297	71	150	390	1110
Future Volume (veh/h)	304	330	46	40	206	107	44	297	71	150	390	1110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	304	330	0	40	206	0	44	297	0	150	390	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	471	883		206	491		220	527		420	872	
Arrive On Green	0.14	0.25	0.00	0.06	0.14	0.00	0.06	0.15	0.00	0.12	0.25	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	304	330	0	40	206	0	44	297	0	150	390	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	4.2	3.9	0.0	0.6	2.7	0.0	0.6	3.9	0.0	2.0	4.7	0.0
Cycle Q Clear(g_c), s	4.2	3.9	0.0	0.6	2.7	0.0	0.6	3.9	0.0	2.0	4.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	471	883		206	491		220	527		420	872	
V/C Ratio(X)	0.65	0.37		0.19	0.42		0.20	0.56		0.36	0.45	
Avail Cap(c_a), veh/h	1091	1704		1091	1704		1432	1683		1091	1704	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.7	15.8	0.0	22.7	20.0	0.0	22.5	20.1	0.0	20.4	16.2	0.0
Incr Delay (d2), s/veh	0.6	0.4	0.0	0.2	1.0	0.0	0.2	1.4	0.0	0.2	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.3	0.0	0.2	1.0	0.0	0.2	1.5	0.0	0.7	1.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.3	16.1	0.0	22.8	21.0	0.0	22.7	21.4	0.0	20.6	16.8	0.0
LnGrp LOS	C	B		C	C		C	C		C	B	
Approach Vol, veh/h		634	A		246	A		341	A		540	A
Approach Delay, s/veh		18.6			21.3			21.6			17.9	
Approach LOS		B			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	18.3	7.2	18.1	12.6	12.7	11.9	13.5
Change Period (Y+Rc), s	4.0	5.7	4.0	5.7	5.7	* 5.7	5.7	* 6
Max Green Setting (Gmax), s	16.0	24.3	21.0	24.3	16.0	* 24	16.0	* 24
Max Q Clear Time (g_c+I1), s	2.6	5.9	2.6	6.7	6.2	4.7	4.0	5.9
Green Ext Time (p_c), s	0.0	1.8	0.1	2.6	0.5	1.3	0.2	1.7

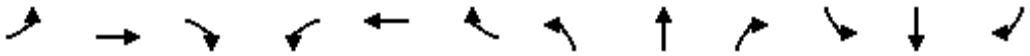
Intersection Summary	
HCM 6th Ctrl Delay	19.3
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



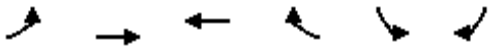
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	382	21	11	232	27	27	163	36	168	125	96
Future Volume (veh/h)	140	382	21	11	232	27	27	163	36	168	125	96
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	140	382	17	11	232	16	27	163	29	168	125	74
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	205	837	37	31	484	33	69	222	39	256	274	162
Arrive On Green	0.12	0.24	0.24	0.02	0.14	0.14	0.04	0.14	0.14	0.14	0.25	0.25
Sat Flow, veh/h	1781	3466	154	1781	3374	231	1781	1546	275	1781	1101	652
Grp Volume(v), veh/h	140	195	204	11	121	127	27	0	192	168	0	199
Grp Sat Flow(s),veh/h/ln	1781	1777	1843	1781	1777	1829	1781	0	1821	1781	0	1753
Q Serve(g_s), s	3.2	3.9	3.9	0.3	2.6	2.7	0.6	0.0	4.2	3.7	0.0	4.0
Cycle Q Clear(g_c), s	3.2	3.9	3.9	0.3	2.6	2.7	0.6	0.0	4.2	3.7	0.0	4.0
Prop In Lane	1.00		0.08	1.00		0.13	1.00		0.15	1.00		0.37
Lane Grp Cap(c), veh/h	205	429	445	31	255	262	69	0	261	256	0	435
V/C Ratio(X)	0.68	0.46	0.46	0.36	0.48	0.48	0.39	0.00	0.74	0.66	0.00	0.46
Avail Cap(c_a), veh/h	681	1287	1335	468	1075	1106	468	0	640	468	0	616
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.8	13.5	13.5	20.3	16.5	16.5	19.6	0.0	17.2	16.9	0.0	13.3
Incr Delay (d2), s/veh	1.5	1.0	1.0	2.6	1.8	1.8	1.3	0.0	4.6	1.1	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.3	1.4	0.1	1.0	1.0	0.3	0.0	1.9	1.3	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.3	14.5	14.5	22.9	18.3	18.3	21.0	0.0	21.8	18.0	0.0	14.2
LnGrp LOS	B	B	B	C	B	B	C	A	C	B	A	B
Approach Vol, veh/h		539			259			219			367	
Approach Delay, s/veh		15.7			18.5			21.7			15.9	
Approach LOS		B			B			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	11.3	4.7	15.8	5.6	15.7	8.8	11.7
Change Period (Y+Rc), s	4.0	5.3	4.0	5.7	4.0	5.3	4.0	5.7
Max Green Setting (Gmax), s	11.0	14.7	11.0	30.3	11.0	14.7	16.0	25.3
Max Q Clear Time (g_c+I1), s	5.7	6.2	2.3	5.9	2.6	6.0	5.2	4.7
Green Ext Time (p_c), s	0.1	0.5	0.0	2.1	0.0	0.5	0.2	1.2

Intersection Summary	
HCM 6th Ctrl Delay	17.3
HCM 6th LOS	B

Notes

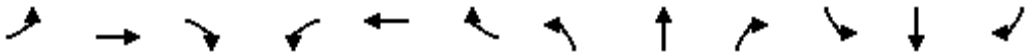
User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	20	610	316	29	80	20
Future Volume (veh/h)	20	610	316	29	80	20
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	610	316	24	80	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	65	1790	996	75	226	201
Arrive On Green	0.04	0.50	0.30	0.30	0.13	0.13
Sat Flow, veh/h	1781	3647	3442	253	1781	1585
Grp Volume(v), veh/h	20	610	167	173	80	5
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1825	1781	1585
Q Serve(g_s), s	0.3	2.4	1.7	1.7	1.0	0.1
Cycle Q Clear(g_c), s	0.3	2.4	1.7	1.7	1.0	0.1
Prop In Lane	1.00			0.14	1.00	1.00
Lane Grp Cap(c), veh/h	65	1790	528	543	226	201
V/C Ratio(X)	0.31	0.34	0.32	0.32	0.35	0.02
Avail Cap(c_a), veh/h	1211	8196	4098	4209	2043	1818
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.1	3.5	6.4	6.4	9.4	9.0
Incr Delay (d2), s/veh	1.0	0.1	0.5	0.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.3	0.3	0.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.0	3.7	6.9	6.9	9.7	9.0
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h		630	340		85	
Approach Delay, s/veh		3.9	6.9		9.7	
Approach LOS		A	A		A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		17.6		6.0	4.9	12.7
Change Period (Y+Rc), s		5.7		3.0	4.0	5.7
Max Green Setting (Gmax), s		54.3		27.0	16.0	54.3
Max Q Clear Time (g_c+I1), s		4.4		3.0	2.3	3.7
Green Ext Time (p_c), s		4.2		0.2	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	5.3
HCM 6th LOS	A



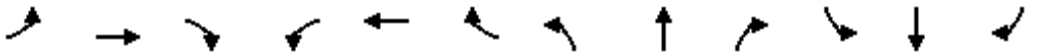
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	566	52	131	207	10	128	5	124	10	5	10
Future Volume (veh/h)	10	566	52	131	207	10	128	5	124	10	5	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	566	47	131	207	8	128	5	54	10	5	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	33	921	76	226	1346	52	280	11	259	37	18	0
Arrive On Green	0.02	0.28	0.28	0.13	0.39	0.39	0.16	0.16	0.16	0.03	0.03	0.00
Sat Flow, veh/h	1781	3322	275	1781	3489	134	1717	67	1585	1207	603	0
Grp Volume(v), veh/h	10	302	311	131	105	110	133	0	54	15	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1821	1781	1777	1846	1784	0	1585	1810	0	0
Q Serve(g_s), s	0.2	6.5	6.5	3.1	1.7	1.7	3.0	0.0	1.3	0.4	0.0	0.0
Cycle Q Clear(g_c), s	0.2	6.5	6.5	3.1	1.7	1.7	3.0	0.0	1.3	0.4	0.0	0.0
Prop In Lane	1.00		0.15	1.00		0.07	0.96		1.00	0.67		0.00
Lane Grp Cap(c), veh/h	33	492	505	226	685	712	291	0	259	55	0	0
V/C Ratio(X)	0.31	0.61	0.62	0.58	0.15	0.15	0.46	0.00	0.21	0.27	0.00	0.00
Avail Cap(c_a), veh/h	809	1655	1696	809	1655	1720	933	0	828	823	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	21.3	13.9	13.9	18.1	8.8	8.8	16.6	0.0	15.9	20.9	0.0	0.0
Incr Delay (d2), s/veh	1.9	1.7	1.6	0.9	0.1	0.1	0.4	0.0	0.1	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.2	2.3	1.1	0.5	0.5	1.1	0.0	0.4	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.3	15.5	15.5	19.0	9.0	9.0	17.1	0.0	16.1	21.8	0.0	0.0
LnGrp LOS	C	B	B	B	A	A	B	A	B	C	A	A
Approach Vol, veh/h		623			346			187			15	
Approach Delay, s/veh		15.6			12.8			16.8			21.8	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.6	17.9		5.3	4.8	22.7		11.2				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	41.0		20.0	20.0	41.0		23.0				
Max Q Clear Time (g_c+I1), s	5.1	8.5		2.4	2.2	3.7		5.0				
Green Ext Time (p_c), s	0.2	3.6		0.0	0.0	1.1		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		15.0	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



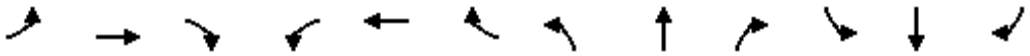
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	656	21	52	304	4	25	10	124	26	15	24
Future Volume (veh/h)	8	656	21	52	304	4	25	10	124	26	15	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	656	19	52	304	3	25	10	21	26	15	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	23	1220	35	125	1454	14	319	91	208	291	115	208
Arrive On Green	0.01	0.35	0.35	0.07	0.40	0.40	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1781	3527	102	1781	3605	36	876	695	1585	734	874	1585
Grp Volume(v), veh/h	8	330	345	52	150	157	35	0	21	41	0	3
Grp Sat Flow(s),veh/h/ln	1781	1777	1852	1781	1777	1864	1572	0	1585	1608	0	1585
Q Serve(g_s), s	0.1	4.5	4.5	0.8	1.7	1.7	0.0	0.0	0.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	4.5	4.5	0.8	1.7	1.7	0.5	0.0	0.4	0.6	0.0	0.0
Prop In Lane	1.00		0.06	1.00		0.02	0.71		1.00	0.63		1.00
Lane Grp Cap(c), veh/h	23	615	641	125	716	752	410	0	208	406	0	208
V/C Ratio(X)	0.35	0.54	0.54	0.42	0.21	0.21	0.09	0.00	0.10	0.10	0.00	0.01
Avail Cap(c_a), veh/h	1176	2640	2752	1176	2640	2770	1206	0	1047	1213	0	1047
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.8	8.0	8.0	13.5	5.9	5.9	11.6	0.0	11.6	11.7	0.0	11.4
Incr Delay (d2), s/veh	3.3	1.0	0.9	0.8	0.2	0.2	0.0	0.0	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.9	0.9	0.2	0.2	0.3	0.2	0.0	0.1	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.1	8.9	8.9	14.3	6.1	6.1	11.7	0.0	11.7	11.7	0.0	11.5
LnGrp LOS	B	A	A	B	A	A	B	A	B	B	A	B
Approach Vol, veh/h		683			359			56			44	
Approach Delay, s/veh		9.0			7.3			11.7			11.7	
Approach LOS		A			A			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	16.2		8.0	4.4	17.9		8.0				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	2.8	6.5		2.6	2.1	3.7		2.5				
Green Ext Time (p_c), s	0.1	3.9		0.1	0.0	1.6		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		8.7	
HCM 6th LOS		A	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	460	20	40	265	20	20	5	40	50	5	10
Future Volume (veh/h)	40	460	20	40	265	20	20	5	40	50	5	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	40	460	19	40	265	18	20	5	4	50	5	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	619	26	143	601	41	58	15	12	164	139	28
Arrive On Green	0.08	0.35	0.35	0.08	0.35	0.35	0.05	0.05	0.05	0.09	0.09	0.09
Sat Flow, veh/h	1781	1783	74	1781	1732	118	1218	304	244	1781	1513	303
Grp Volume(v), veh/h	40	0	479	40	0	283	29	0	0	50	0	6
Grp Sat Flow(s),veh/h/ln	1781	0	1857	1781	0	1849	1766	0	0	1781	0	1816
Q Serve(g_s), s	0.9	0.0	9.3	0.9	0.0	4.8	0.7	0.0	0.0	1.1	0.0	0.1
Cycle Q Clear(g_c), s	0.9	0.0	9.3	0.9	0.0	4.8	0.7	0.0	0.0	1.1	0.0	0.1
Prop In Lane	1.00		0.04	1.00		0.06	0.69		0.14	1.00		0.17
Lane Grp Cap(c), veh/h	143	0	645	143	0	642	85	0	0	164	0	167
V/C Ratio(X)	0.28	0.00	0.74	0.28	0.00	0.44	0.34	0.00	0.00	0.30	0.00	0.04
Avail Cap(c_a), veh/h	870	0	2495	870	0	2485	863	0	0	870	0	887
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.7	0.0	11.8	17.7	0.0	10.3	18.9	0.0	0.0	17.4	0.0	16.9
Incr Delay (d2), s/veh	0.4	0.0	2.3	1.1	0.0	0.6	0.9	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	2.8	0.3	0.0	1.4	0.3	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.1	0.0	14.0	18.8	0.0	10.9	19.7	0.0	0.0	17.7	0.0	17.0
LnGrp LOS	B	A	B	B	A	B	B	A	A	B	A	B
Approach Vol, veh/h		519			323			29			56	
Approach Delay, s/veh		14.3			11.9			19.7			17.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	19.9		7.8	7.3	19.9		6.0				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	55.0		20.0	20.0	55.0		20.0				
Max Q Clear Time (g_c+I1), s	2.9	11.3		3.1	2.9	6.8		2.7				
Green Ext Time (p_c), s	0.1	2.9		0.1	0.0	1.6		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		13.9	
HCM 6th LOS		B	

Notes

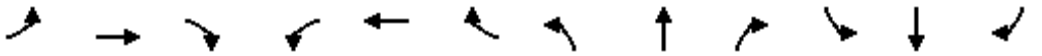
User approved pedestrian interval to be less than phase max green.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	40	130	310	20	80	190
Future Volume (veh/h)	40	130	310	20	80	190
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	40	14	310	9	80	190
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	105	93	577	489	675	1204
Arrive On Green	0.06	0.06	0.31	0.31	0.16	0.64
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	40	14	310	9	80	190
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	0.7	0.3	4.6	0.1	0.8	1.4
Cycle Q Clear(g_c), s	0.7	0.3	4.6	0.1	0.8	1.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	105	93	577	489	675	1204
V/C Ratio(X)	0.38	0.15	0.54	0.02	0.12	0.16
Avail Cap(c_a), veh/h	1219	1084	2225	1886	1455	2837
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.2	15.0	9.6	8.1	4.7	2.4
Incr Delay (d2), s/veh	0.8	0.3	1.5	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.1	1.6	0.0	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.1	15.3	11.1	8.1	4.7	2.5
LnGrp LOS	B	B	B	A	A	A
Approach Vol, veh/h	54		319			270
Approach Delay, s/veh	15.9		11.1			3.2
Approach LOS	B		B			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	11.3	16.4			27.6	6.0
Change Period (Y+Rc), s	6.0	6.0			6.0	4.0
Max Green Setting (Gmax), s	20.0	40.0			51.0	23.0
Max Q Clear Time (g_c+I1), s	2.8	6.6			3.4	2.7
Green Ext Time (p_c), s	0.1	3.8			2.2	0.1

Intersection Summary	
HCM 6th Ctrl Delay	8.1
HCM 6th LOS	A



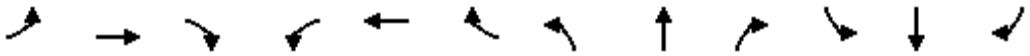
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	270	20	10	590	130	50	10	20	30	10	50
Future Volume (veh/h)	210	270	20	10	590	130	50	10	20	30	10	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	210	270	11	10	590	117	50	10	11	30	10	7
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	261	1679	749	32	1017	201	113	23	25	232	133	93
Arrive On Green	0.15	0.47	0.47	0.02	0.34	0.34	0.09	0.09	0.09	0.13	0.13	0.13
Sat Flow, veh/h	1781	3554	1585	1781	2957	585	1239	248	273	1781	1024	717
Grp Volume(v), veh/h	210	270	11	10	354	353	71	0	0	30	0	17
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1765	1759	0	0	1781	0	1741
Q Serve(g_s), s	7.0	2.7	0.2	0.3	10.0	10.1	2.3	0.0	0.0	0.9	0.0	0.5
Cycle Q Clear(g_c), s	7.0	2.7	0.2	0.3	10.0	10.1	2.3	0.0	0.0	0.9	0.0	0.5
Prop In Lane	1.00		1.00	1.00		0.33	0.70		0.15	1.00		0.41
Lane Grp Cap(c), veh/h	261	1679	749	32	611	607	161	0	0	232	0	227
V/C Ratio(X)	0.80	0.16	0.01	0.31	0.58	0.58	0.44	0.00	0.00	0.13	0.00	0.08
Avail Cap(c_a), veh/h	724	2602	1160	580	1301	1292	572	0	0	580	0	567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.4	9.3	8.6	29.8	16.5	16.5	26.4	0.0	0.0	23.7	0.0	23.5
Incr Delay (d2), s/veh	2.2	0.1	0.0	2.1	1.6	1.6	1.9	0.0	0.0	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.9	0.1	0.2	4.0	4.0	1.0	0.0	0.0	0.4	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.6	9.3	8.6	31.9	18.1	18.2	28.3	0.0	0.0	23.7	0.0	23.5
LnGrp LOS	C	A	A	C	B	B	C	A	A	C	A	C
Approach Vol, veh/h		491			717			71			47	
Approach Delay, s/veh		17.1			18.4			28.3			23.7	
Approach LOS		B			B			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.6	5.1	34.7		12.0	13.0	26.8				
Change Period (Y+Rc), s		4.0	4.0	5.7		4.0	4.0	5.7				
Max Green Setting (Gmax), s		20.0	20.0	45.0		20.0	25.0	45.0				
Max Q Clear Time (g_c+I1), s		4.3	2.3	4.7		2.9	9.0	12.1				
Green Ext Time (p_c), s		0.2	0.0	3.4		0.1	0.3	9.1				

Intersection Summary	
HCM 6th Ctrl Delay	18.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	777	189	120	1058	31	78	0	29	24	0	60
Future Volume (veh/h)	87	777	189	120	1058	31	78	0	29	24	0	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	2106	2106	2106	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	87	777	108	120	1058	30	78	0	2	24	0	4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	110	2264	1010	148	2580	73	134	0	238	119	0	106
Arrive On Green	0.06	0.64	0.64	0.15	1.00	1.00	0.08	0.00	0.08	0.07	0.00	0.07
Sat Flow, veh/h	1781	3554	1585	2006	3974	113	1781	0	3170	1781	0	1585
Grp Volume(v), veh/h	87	777	108	120	533	555	78	0	2	24	0	4
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	2006	2001	2086	1781	0	1585	1781	0	1585
Q Serve(g_s), s	5.8	12.2	3.2	7.0	0.0	0.0	5.1	0.0	0.1	1.5	0.0	0.3
Cycle Q Clear(g_c), s	5.8	12.2	3.2	7.0	0.0	0.0	5.1	0.0	0.1	1.5	0.0	0.3
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	110	2264	1010	148	1299	1354	134	0	238	119	0	106
V/C Ratio(X)	0.79	0.34	0.11	0.81	0.41	0.41	0.58	0.00	0.01	0.20	0.00	0.04
Avail Cap(c_a), veh/h	238	2264	1010	267	1299	1354	238	0	423	238	0	211
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	0.78	0.93	0.93	0.93	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.5	10.1	8.5	50.3	0.0	0.0	53.7	0.0	51.4	53.0	0.0	52.4
Incr Delay (d2), s/veh	3.8	0.3	0.2	3.7	0.3	0.3	1.5	0.0	0.0	0.3	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	4.5	1.1	3.4	0.1	0.1	2.3	0.0	0.0	0.7	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.3	10.4	8.7	54.0	0.3	0.3	55.2	0.0	51.4	53.3	0.0	52.5
LnGrp LOS	E	B	A	D	A	A	E	A	D	D	A	D
Approach Vol, veh/h		972			1208			80			28	
Approach Delay, s/veh		14.6			5.6			55.1			53.2	
Approach LOS		B			A			E			D	

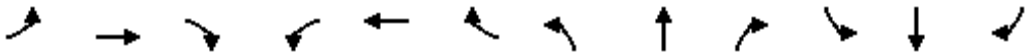
Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	13.0	12.9	82.1	12.0	11.4	83.6
Change Period (Y+Rc), s	4.0	4.0	5.7	4.0	4.0	5.7
Max Green Setting (Gmax), s	16.0	16.0	54.3	16.0	16.0	54.3
Max Q Clear Time (g_c+I1), s	7.1	9.0	14.2	3.5	7.8	2.0
Green Ext Time (p_c), s	0.1	0.1	10.4	0.0	0.1	15.0

Intersection Summary	
HCM 6th Ctrl Delay	11.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



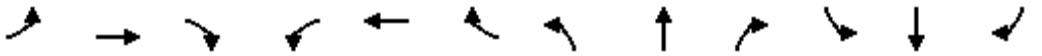
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	61	52	234	25	37	18	420	227	23	303	0
Future Volume (veh/h)	47	61	52	234	25	37	18	420	227	23	303	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	61	5	234	25	9	18	420	84	23	303	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	92	119	182	301	32	295	48	546	463	69	1080	0
Arrive On Green	0.11	0.11	0.11	0.19	0.19	0.19	0.03	0.29	0.29	0.04	0.30	0.00
Sat Flow, veh/h	797	1034	1585	1617	173	1585	1781	1870	1585	1781	3647	0
Grp Volume(v), veh/h	108	0	5	259	0	9	18	420	84	23	303	0
Grp Sat Flow(s),veh/h/ln	1831	0	1585	1790	0	1585	1781	1870	1585	1781	1777	0
Q Serve(g_s), s	2.6	0.0	0.1	6.5	0.0	0.2	0.5	9.6	1.9	0.6	3.0	0.0
Cycle Q Clear(g_c), s	2.6	0.0	0.1	6.5	0.0	0.2	0.5	9.6	1.9	0.6	3.0	0.0
Prop In Lane	0.44		1.00	0.90		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	210	0	182	333	0	295	48	546	463	69	1080	0
V/C Ratio(X)	0.51	0.00	0.03	0.78	0.00	0.03	0.38	0.77	0.18	0.33	0.28	0.00
Avail Cap(c_a), veh/h	429	0	371	990	0	877	417	1780	1508	417	3464	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.6	0.0	18.5	18.2	0.0	15.6	22.5	15.2	12.4	22.0	12.4	0.0
Incr Delay (d2), s/veh	0.7	0.0	0.0	1.5	0.0	0.0	1.8	2.2	0.2	1.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	2.5	0.0	0.1	0.2	3.8	0.6	0.2	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.3	0.0	18.5	19.7	0.0	15.7	24.3	17.4	12.6	23.0	12.6	0.0
LnGrp LOS	C	A	B	B	A	B	C	B	B	C	B	A
Approach Vol, veh/h		113			268			522			326	
Approach Delay, s/veh		20.2			19.6			16.9			13.3	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.8	19.0		12.7	5.3	19.6		9.4				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	* 5.3		4.0				
Max Green Setting (Gmax), s	11.0	44.7		26.0	11.0	* 46		11.0				
Max Q Clear Time (g_c+I1), s	2.6	11.6		8.5	2.5	5.0		4.6				
Green Ext Time (p_c), s	0.0	2.1		0.5	0.0	1.4		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		16.8	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	218	248	4	123	164	3	0	220	187	0	141	167
Future Volume (veh/h)	218	248	4	123	164	3	0	220	187	0	141	167
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	218	248	3	123	164	2	0	220	120	0	141	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	0	2	2
Cap, veh/h	372	385	5	307	318	4	0	445	378	0	445	
Arrive On Green	0.21	0.21	0.21	0.17	0.17	0.17	0.00	0.24	0.24	0.00	0.24	0.00
Sat Flow, veh/h	1781	1844	22	1781	1844	22	0	1870	1585	0	1870	1585
Grp Volume(v), veh/h	218	0	251	123	0	166	0	220	120	0	141	0
Grp Sat Flow(s),veh/h/ln	1781	0	1866	1781	0	1866	0	1870	1585	0	1870	1585
Q Serve(g_s), s	4.3	0.0	4.8	2.4	0.0	3.1	0.0	3.9	2.4	0.0	2.4	0.0
Cycle Q Clear(g_c), s	4.3	0.0	4.8	2.4	0.0	3.1	0.0	3.9	2.4	0.0	2.4	0.0
Prop In Lane	1.00		0.01	1.00		0.01	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	372	0	389	307	0	321	0	445	378	0	445	
V/C Ratio(X)	0.59	0.00	0.64	0.40	0.00	0.52	0.00	0.49	0.32	0.00	0.32	
Avail Cap(c_a), veh/h	1238	0	1297	1880	0	1970	0	2167	1836	0	2167	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	13.9	0.0	14.1	14.3	0.0	14.6	0.0	12.8	12.2	0.0	12.2	0.0
Incr Delay (d2), s/veh	1.1	0.0	1.3	0.6	0.0	1.0	0.0	1.8	1.0	0.0	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	1.8	0.8	0.0	1.1	0.0	1.5	0.8	0.0	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.0	0.0	15.4	14.9	0.0	15.6	0.0	14.6	13.2	0.0	12.8	0.0
LnGrp LOS	B	A	B	B	A	B	A	B	B	A	B	
Approach Vol, veh/h		469			289			340			141	A
Approach Delay, s/veh		15.2			15.3			14.1			12.8	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.9		13.4		13.9		11.6				
Change Period (Y+Rc), s		* 4.6		5.3		4.6		4.9				
Max Green Setting (Gmax), s		* 45		27.0		45.0		41.0				
Max Q Clear Time (g_c+I1), s		5.9		6.8		4.4		5.1				
Green Ext Time (p_c), s		3.3		1.4		0.9		0.8				

Intersection Summary		
HCM 6th Ctrl Delay		14.6
HCM 6th LOS		B

Notes

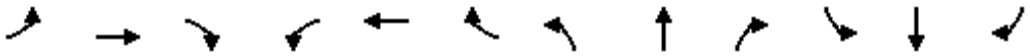
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	337	68	22	230	19	108	32	35	1	8	4
Future Volume (veh/h)	18	337	68	22	230	19	108	32	35	1	8	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	337	36	22	230	15	108	32	8	1	8	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	247	635	560	265	570	36	547	46	190	251	65	8
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.12	0.12	0.12	0.12	0.12	0.12
Sat Flow, veh/h	44	1797	1585	75	1612	100	1309	388	1585	67	540	67
Grp Volume(v), veh/h	355	0	36	267	0	0	140	0	8	10	0	0
Grp Sat Flow(s),veh/h/ln	1842	0	1585	1788	0	0	1697	0	1585	675	0	0
Q Serve(g_s), s	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0
Cycle Q Clear(g_c), s	2.5	0.0	0.2	1.8	0.0	0.0	1.2	0.0	0.1	1.3	0.0	0.0
Prop In Lane	0.05		1.00	0.08		0.06	0.77		1.00	0.10		0.10
Lane Grp Cap(c), veh/h	883	0	560	871	0	0	594	0	190	323	0	0
V/C Ratio(X)	0.40	0.00	0.06	0.31	0.00	0.00	0.24	0.00	0.04	0.03	0.00	0.00
Avail Cap(c_a), veh/h	3570	0	2912	3440	0	0	2424	0	2136	2500	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.2	0.0	3.5	4.0	0.0	0.0	6.9	0.0	6.4	7.5	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.4	0.0	3.5	4.1	0.0	0.0	6.9	0.0	6.4	7.5	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		391			267			148			10	
Approach Delay, s/veh		4.4			4.1			6.9			7.5	
Approach LOS		A			A			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		10.4		6.0		10.4		6.0				
Change Period (Y+Rc), s		4.6		4.0		4.6		4.0				
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0				
Max Q Clear Time (g_c+I1), s		4.5		3.2		3.8		3.3				
Green Ext Time (p_c), s		1.3		0.2		0.9		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			4.8									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	416	13	10	310	7	12	4	25	2	2	2
Future Volume (veh/h)	4	416	13	10	310	7	12	4	25	2	2	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	416	12	10	310	6	12	4	3	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	245	728	21	258	722	14	446	8	32	370	9	0
Arrive On Green	0.41	0.41	0.41	0.41	0.41	0.41	0.02	0.02	0.02	0.02	0.02	0.00
Sat Flow, veh/h	7	1798	52	24	1783	34	1253	418	1585	456	456	0
Grp Volume(v), veh/h	432	0	0	326	0	0	16	0	3	4	0	0
Grp Sat Flow(s),veh/h/ln	1856	0	0	1841	0	0	1671	0	1585	912	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.7	0.0	0.0	1.9	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.0
Prop In Lane	0.01		0.03	0.03		0.02	0.75		1.00	0.50		0.00
Lane Grp Cap(c), veh/h	995	0	0	994	0	0	455	0	32	379	0	0
V/C Ratio(X)	0.43	0.00	0.00	0.33	0.00	0.00	0.04	0.00	0.09	0.01	0.00	0.00
Avail Cap(c_a), veh/h	3950	0	0	3964	0	0	2639	0	2330	2709	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	3.4	0.0	0.0	3.2	0.0	0.0	7.2	0.0	7.2	7.3	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.7	0.0	0.0	3.3	0.0	0.0	7.3	0.0	7.7	7.3	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		432			326			19			4	
Approach Delay, s/veh		3.7			3.3			7.3			7.3	
Approach LOS		A			A			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		10.7		4.3		10.7		4.3				
Change Period (Y+Rc), s		4.6		4.0		* 4.6		4.0				
Max Green Setting (Gmax), s		30.0		22.0		* 31		22.0				
Max Q Clear Time (g_c+I1), s		4.7		2.1		3.9		2.2				
Green Ext Time (p_c), s		1.4		0.0		0.7		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			3.6									
HCM 6th LOS			A									

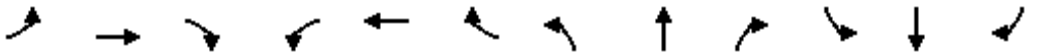
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	286	21	229	402	3	3	0	498	4	11	1
Future Volume (veh/h)	18	286	21	229	402	3	3	0	498	4	11	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	286	19	229	402	3	3	0	277	4	11	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	25	419	28	309	744	6	500	0	586	178	303	0
Arrive On Green	0.01	0.24	0.24	0.17	0.40	0.40	0.20	0.00	0.20	0.20	0.20	0.00
Sat Flow, veh/h	1781	1734	115	1781	1854	14	1416	0	1585	193	1544	0
Grp Volume(v), veh/h	18	0	305	229	0	405	3	0	277	15	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1850	1781	0	1868	1416	0	1585	1736	0	0
Q Serve(g_s), s	0.3	0.0	4.9	4.0	0.0	5.4	0.0	0.0	4.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	0.0	4.9	4.0	0.0	5.4	0.0	0.0	4.3	0.2	0.0	0.0
Prop In Lane	1.00		0.06	1.00		0.01	1.00		1.00	0.27		0.00
Lane Grp Cap(c), veh/h	25	0	447	309	0	749	500	0	586	481	0	0
V/C Ratio(X)	0.73	0.00	0.68	0.74	0.00	0.54	0.01	0.00	0.47	0.03	0.00	0.00
Avail Cap(c_a), veh/h	659	0	2111	1538	0	2592	1090	0	1252	1145	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.9	0.0	11.2	12.7	0.0	7.4	10.5	0.0	7.8	10.6	0.0	0.0
Incr Delay (d2), s/veh	14.2	0.0	1.5	1.3	0.0	0.5	0.0	0.0	0.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	1.6	1.3	0.0	1.4	0.0	0.0	0.9	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	0.0	12.6	14.0	0.0	7.9	10.5	0.0	8.0	10.6	0.0	0.0
LnGrp LOS	C	A	B	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		323			634			280			15	
Approach Delay, s/veh		13.6			10.1			8.1			10.6	
Approach LOS		B			B			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.6	12.4		10.4	4.4	17.6		10.4				
Change Period (Y+Rc), s	4.0	4.6		4.0	4.0	4.6		4.0				
Max Green Setting (Gmax), s	28.0	37.0		20.0	12.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	6.0	6.9		6.3	2.3	7.4		2.2				
Green Ext Time (p_c), s	0.5	1.0		0.6	0.0	1.4		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		10.6	
HCM 6th LOS		B	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	91	202	42	66	12	182	470	8	41	992	10
Future Volume (veh/h)	83	91	202	42	66	12	182	470	8	41	992	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	83	91	76	42	66	3	182	470	4	41	992	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	133	146	242	98	153	217	329	698	311	0	1348	
Arrive On Green	0.15	0.15	0.15	0.14	0.14	0.14	0.10	0.20	0.20	0.27	0.38	0.00
Sat Flow, veh/h	871	955	1585	713	1121	1585	3456	3554	1585	0	3554	1585
Grp Volume(v), veh/h	174	0	76	108	0	3	182	470	4	0	992	0
Grp Sat Flow(s),veh/h/ln	1827	0	1585	1835	0	1585	1728	1777	1585	0	1777	1585
Q Serve(g_s), s	6.4	0.0	3.1	3.9	0.0	0.1	3.6	8.8	0.1	0.0	17.2	0.0
Cycle Q Clear(g_c), s	6.4	0.0	3.1	3.9	0.0	0.1	3.6	8.8	0.1	0.0	17.2	0.0
Prop In Lane	0.48		1.00	0.39		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	279	0	242	251	0	217	329	698	311	0	1348	
V/C Ratio(X)	0.62	0.00	0.31	0.43	0.00	0.01	0.55	0.67	0.01	0.00	0.74	
Avail Cap(c_a), veh/h	638	0	554	641	0	554	1690	2533	1130	0	2533	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	28.4	0.0	27.0	28.3	0.0	26.7	30.9	26.6	23.2	0.0	19.1	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.3	0.4	0.0	0.0	0.5	1.6	0.0	0.0	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	1.1	1.7	0.0	0.0	1.4	3.6	0.1	0.0	6.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	0.0	27.3	28.8	0.0	26.7	31.5	28.2	23.2	0.0	20.2	0.0
LnGrp LOS	C	A	C	C	A	C	C	C	C	A	C	
Approach Vol, veh/h		250			111			656			992	A
Approach Delay, s/veh		28.6			28.7			29.1			20.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.9	19.0		14.9	10.8	32.0		13.8				
Change Period (Y+Rc), s	4.9	* 4.9		4.0	4.0	4.9		4.0				
Max Green Setting (Gmax), s	20.0	* 51		25.0	35.0	51.0		25.0				
Max Q Clear Time (g_c+I1), s	0.0	10.8		8.4	5.6	19.2		5.9				
Green Ext Time (p_c), s	0.0	3.3		0.5	0.4	7.9		0.2				

Intersection Summary			
HCM 6th Ctrl Delay		24.6	
HCM 6th LOS		C	

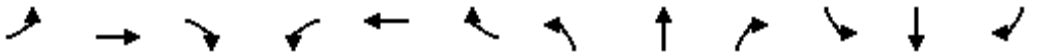
Notes

User approved pedestrian interval to be less than phase max green.

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	304	0	0	472	163	0	0	0	96	0	2
Future Volume (veh/h)	12	304	0	0	472	163	0	0	0	96	0	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	304	0	0	472	116	0	0	0	96	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	45	2119	0	0	811	893	0	0	0	231	243	0
Arrive On Green	0.03	0.60	0.00	0.00	0.43	0.43	0.00	0.00	0.00	0.13	0.00	0.00
Sat Flow, veh/h	1781	3647	0	0	1870	1585		0		1781	1870	0
Grp Volume(v), veh/h	12	304	0	0	472	116		0.0		96	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1870	1585				1781	1870	0
Q Serve(g_s), s	0.2	1.1	0.0	0.0	5.6	1.0				1.4	0.0	0.0
Cycle Q Clear(g_c), s	0.2	1.1	0.0	0.0	5.6	1.0				1.4	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00				1.00		0.00
Lane Grp Cap(c), veh/h	45	2119	0	0	811	893				231	243	0
V/C Ratio(X)	0.27	0.14	0.00	0.00	0.58	0.13				0.42	0.00	0.00
Avail Cap(c_a), veh/h	1221	5723	0	0	3012	2758				1404	1474	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	14.0	2.6	0.0	0.0	6.3	3.0				11.7	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.0	0.9	0.1				0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.0	0.0	1.1	0.2				0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.1	2.6	0.0	0.0	7.1	3.1				12.1	0.0	0.0
LnGrp LOS	B	A	A	A	A	A				B	A	A
Approach Vol, veh/h		316			588						96	
Approach Delay, s/veh		3.1			6.3						12.1	
Approach LOS		A			A						B	

Timer - Assigned Phs				4		6	7	8				
Phs Duration (G+Y+Rc), s				21.4		7.8	4.7	16.7				
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s				47.0		23.0	20.0	47.0				
Max Q Clear Time (g_c+I1), s				3.1		3.4	2.2	7.6				
Green Ext Time (p_c), s				2.9		0.1	0.0	5.1				

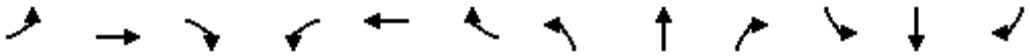
Intersection Summary												
HCM 6th Ctrl Delay			5.9									
HCM 6th LOS			A									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	476	0	571	0	0	0	252	25	0	0	34	227
Future Volume (veh/h)	476	0	571	0	0	0	252	25	0	0	34	227
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h	476	0	381	0	0	0	270	0	0	0	34	133
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	0	2	2	2	2	2	2	0	0	2	2
Cap, veh/h	0	0	0	0	10	0	1151	604	0	0	464	394
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.25	0.25
Sat Flow, veh/h		0		0	1870	0	3563	1870	0	0	1870	1585
Grp Volume(v), veh/h		0.0		0	0	0	270	0	0	0	34	133
Grp Sat Flow(s),veh/h/ln				0	1870	0	1781	1870	0	0	1870	1585
Q Serve(g_s), s				0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.3	1.3
Cycle Q Clear(g_c), s				0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.3	1.3
Prop In Lane				0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				0	10	0	1151	604	0	0	464	394
V/C Ratio(X)				0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.07	0.34
Avail Cap(c_a), veh/h				0	2305	0	7828	4110	0	0	2506	2124
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				0.0	0.0	0.0	4.6	0.0	0.0	0.0	5.4	5.8
Incr Delay (d2), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	0.0	4.7	0.0	0.0	0.0	5.4	5.9
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					0			270			167	
Approach Delay, s/veh					0.0			4.7			5.8	
Approach LOS								A			A	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		10.0				8.6		0.0				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		41.0				25.0		23.0				
Max Q Clear Time (g_c+I1), s		3.0				3.3		0.0				
Green Ext Time (p_c), s		0.5				0.3		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	5.1	
HCM 6th LOS	A	

Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



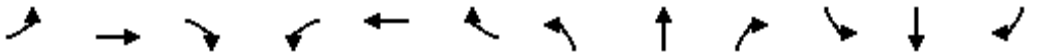
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	725	7	27	235	181	45	5	66	54	136	101
Future Volume (veh/h)	102	725	7	27	235	181	45	5	66	54	136	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	102	725	3	27	235	84	45	5	8	54	136	88
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	247	1151	513	108	636	221	152	17	149	66	167	108
Arrive On Green	0.14	0.32	0.32	0.06	0.25	0.25	0.09	0.09	0.09	0.19	0.19	0.19
Sat Flow, veh/h	1781	3554	1585	1781	2586	899	1611	179	1585	341	858	555
Grp Volume(v), veh/h	102	725	3	27	159	160	50	0	8	278	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1708	1790	0	1585	1753	0	0
Q Serve(g_s), s	3.0	10.1	0.1	0.8	4.3	4.5	1.5	0.0	0.3	8.8	0.0	0.0
Cycle Q Clear(g_c), s	3.0	10.1	0.1	0.8	4.3	4.5	1.5	0.0	0.3	8.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.53	0.90		1.00	0.19		0.32
Lane Grp Cap(c), veh/h	247	1151	513	108	437	420	168	0	149	341	0	0
V/C Ratio(X)	0.41	0.63	0.01	0.25	0.37	0.38	0.30	0.00	0.05	0.81	0.00	0.00
Avail Cap(c_a), veh/h	613	2444	1090	613	1222	1175	615	0	545	995	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.9	16.7	13.3	26.0	18.2	18.2	24.6	0.0	24.0	22.4	0.0	0.0
Incr Delay (d2), s/veh	0.4	1.0	0.0	0.4	0.9	1.0	0.4	0.0	0.1	1.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	3.8	0.0	0.4	1.7	1.7	0.6	0.0	0.1	3.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.3	17.7	13.3	26.5	19.0	19.2	24.9	0.0	24.0	24.2	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	C	A	C	C	A	A
Approach Vol, veh/h		830			346			58			278	
Approach Delay, s/veh		18.4			19.7			24.8			24.2	
Approach LOS		B			B			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.8	7.5	24.5		15.3	12.1	20.0				
Change Period (Y+Rc), s		5.3	4.0	5.7		4.0	4.0	5.7				
Max Green Setting (Gmax), s		20.0	20.0	40.0		33.0	20.0	40.0				
Max Q Clear Time (g_c+I1), s		3.5	2.8	12.1		10.8	5.0	6.5				
Green Ext Time (p_c), s		0.1	0.0	6.8		0.6	0.1	2.5				

Intersection Summary												
HCM 6th Ctrl Delay			20.0									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	925	14	61	464	31	26	13	49	143	7	5
Future Volume (veh/h)	10	925	14	61	464	31	26	13	49	143	7	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	925	13	61	464	14	26	13	19	143	7	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	42	1497	21	182	1764	787	185	95	86	418	17	304
Arrive On Green	0.02	0.42	0.42	0.10	0.50	0.50	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1781	3588	50	1781	3554	1585	426	498	450	1458	90	1585
Grp Volume(v), veh/h	10	458	480	61	464	14	58	0	0	150	0	1
Grp Sat Flow(s),veh/h/ln	1781	1777	1861	1781	1777	1585	1375	0	0	1549	0	1585
Q Serve(g_s), s	0.3	10.2	10.2	1.6	3.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	10.2	10.2	1.6	3.8	0.2	3.8	0.0	0.0	3.7	0.0	0.0
Prop In Lane	1.00		0.03	1.00		1.00	0.45		0.33	0.95		1.00
Lane Grp Cap(c), veh/h	42	741	777	182	1764	787	366	0	0	436	0	304
V/C Ratio(X)	0.24	0.62	0.62	0.33	0.26	0.02	0.16	0.00	0.00	0.34	0.00	0.00
Avail Cap(c_a), veh/h	705	1592	1668	810	3606	1608	683	0	0	723	0	630
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.2	11.6	11.6	21.1	7.4	6.5	17.1	0.0	0.0	18.0	0.0	16.5
Incr Delay (d2), s/veh	1.1	1.4	1.4	0.4	0.1	0.0	0.1	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.6	3.7	0.6	1.1	0.1	0.5	0.0	0.0	1.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.3	13.0	12.9	21.5	7.5	6.5	17.2	0.0	0.0	18.2	0.0	16.5
LnGrp LOS	C	B	B	C	A	A	B	A	A	B	A	B
Approach Vol, veh/h		948			539			58			151	
Approach Delay, s/veh		13.1			9.1			17.2			18.2	
Approach LOS		B			A			B			B	

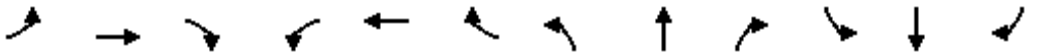
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		14.6	9.2	26.8		14.6	5.2	30.8				
Change Period (Y+Rc), s		* 4.9	4.0	5.7		4.9	4.0	5.7				
Max Green Setting (Gmax), s		* 20	23.0	45.3		20.1	20.0	51.3				
Max Q Clear Time (g_c+I1), s		5.8	3.6	12.2		5.7	2.3	5.8				
Green Ext Time (p_c), s		0.1	0.1	8.9		0.4	0.0	4.4				

Intersection Summary												
HCM 6th Ctrl Delay			12.4									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	57	5	536	111	278	7	443	420	78	461	20
Future Volume (veh/h)	10	57	5	536	111	278	7	443	420	78	461	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	57	1	536	111	90	7	443	134	78	461	8
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	440	513	157	699	502	221	297	849	376	382	815	361
Arrive On Green	0.13	0.10	0.10	0.20	0.14	0.14	0.09	0.24	0.24	0.11	0.23	0.23
Sat Flow, veh/h	3456	5106	1565	3456	3554	1568	3456	3554	1575	3456	3554	1575
Grp Volume(v), veh/h	10	57	1	536	111	90	7	443	134	78	461	8
Grp Sat Flow(s),veh/h/ln	1728	1702	1565	1728	1777	1568	1728	1777	1575	1728	1777	1575
Q Serve(g_s), s	0.1	0.6	0.0	8.6	1.6	2.1	0.1	6.4	4.1	1.2	6.7	0.2
Cycle Q Clear(g_c), s	0.1	0.6	0.0	8.6	1.6	2.1	0.1	6.4	4.1	1.2	6.7	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	440	513	157	699	502	221	297	849	376	382	815	361
V/C Ratio(X)	0.02	0.11	0.01	0.77	0.22	0.41	0.02	0.52	0.36	0.20	0.57	0.02
Avail Cap(c_a), veh/h	1179	3832	1174	1827	1333	588	1179	2000	886	1179	2000	886
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.4	24.0	10.6	22.1	22.3	10.4	24.5	19.4	18.6	23.7	20.0	17.5
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.7	0.3	1.8	0.0	1.0	1.1	0.1	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	0.0	2.9	0.6	1.0	0.0	2.2	1.4	0.4	2.4	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.4	24.1	10.7	22.8	22.6	12.1	24.6	20.4	19.7	23.8	21.2	17.5
LnGrp LOS	C	C	B	C	C	B	C	C	B	C	C	B
Approach Vol, veh/h		68			737			584			547	
Approach Delay, s/veh		23.7			21.4			20.3			21.5	
Approach LOS		C			C			C			C	

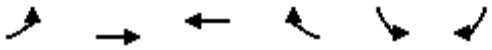
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	20.0	15.9	12.3	11.0	19.4	13.9	14.3
Change Period (Y+Rc), s	4.0	6.0	4.0	6.4	6.0	* 6	6.4	* 6
Max Green Setting (Gmax), s	20.0	33.0	31.0	44.0	20.0	* 33	20.0	* 22
Max Q Clear Time (g_c+I1), s	3.2	8.4	10.6	2.6	2.1	8.7	2.1	4.1
Green Ext Time (p_c), s	0.1	4.9	1.3	0.3	0.0	3.9	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	21.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	6	675	948	91	57	10
Future Volume (veh/h)	6	675	948	91	57	10
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	675	948	54	57	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	20	3013	2347	728	200	178
Arrive On Green	0.01	0.59	0.46	0.46	0.11	0.11
Sat Flow, veh/h	1781	5274	5274	1585	1781	1585
Grp Volume(v), veh/h	6	675	948	54	57	1
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1585	1781	1585
Q Serve(g_s), s	0.1	2.1	4.1	0.6	1.0	0.0
Cycle Q Clear(g_c), s	0.1	2.1	4.1	0.6	1.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	20	3013	2347	728	200	178
V/C Ratio(X)	0.30	0.22	0.40	0.07	0.29	0.01
Avail Cap(c_a), veh/h	1061	6846	6846	2125	1061	944
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.5	3.2	6.0	5.1	13.7	13.2
Incr Delay (d2), s/veh	3.0	0.1	0.2	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.3	0.9	0.1	0.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.4	3.3	6.2	5.1	14.0	13.2
LnGrp LOS	B	A	A	A	B	B
Approach Vol, veh/h		681	1002		58	
Approach Delay, s/veh		3.4	6.1		13.9	
Approach LOS		A	A		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			25.8		7.8	4.4	21.4
Change Period (Y+Rc), s			6.0		4.0	4.0	6.0
Max Green Setting (Gmax), s			45.0		20.0	20.0	45.0
Max Q Clear Time (g_c+I1), s			4.1		3.0	2.1	6.1
Green Ext Time (p_c), s			5.8		0.1	0.0	9.3

Intersection Summary	
HCM 6th Ctrl Delay	5.3
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



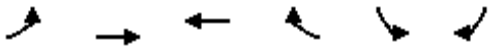
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	777	18	161	1030	17	130
Future Volume (veh/h)	777	18	161	1030	17	130
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	777	7	161	1030	17	23
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1827	567	314	3287	146	130
Arrive On Green	0.36	0.36	0.18	0.64	0.08	0.08
Sat Flow, veh/h	5274	1585	1781	5274	1781	1585
Grp Volume(v), veh/h	777	7	161	1030	17	23
Grp Sat Flow(s),veh/h/ln	1702	1585	1781	1702	1781	1585
Q Serve(g_s), s	4.2	0.1	3.0	3.3	0.3	0.5
Cycle Q Clear(g_c), s	4.2	0.1	3.0	3.3	0.3	0.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1827	567	314	3287	146	130
V/C Ratio(X)	0.43	0.01	0.51	0.31	0.12	0.18
Avail Cap(c_a), veh/h	6295	1954	1464	6295	1464	1303
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.9	7.6	13.6	2.9	15.5	15.6
Incr Delay (d2), s/veh	0.2	0.0	0.5	0.1	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	1.0	0.3	0.1	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.1	7.6	14.1	3.0	15.7	15.8
LnGrp LOS	A	A	B	A	B	B
Approach Vol, veh/h	784			1191	40	
Approach Delay, s/veh	9.1			4.5	15.8	
Approach LOS	A			A	B	

Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	7.0	10.4	19.1	29.5
Change Period (Y+Rc), s	4.0	4.0	6.0	6.0
Max Green Setting (Gmax), s	30.0	30.0	45.0	45.0
Max Q Clear Time (g_c+I1), s	2.5	5.0	6.2	5.3
Green Ext Time (p_c), s	0.1	0.3	6.9	9.8

Intersection Summary	
HCM 6th Ctrl Delay	6.5
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	30	877	1138	301	185	21
Future Volume (veh/h)	30	877	1138	301	185	21
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	877	1138	152	185	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	87	3060	2362	729	321	286
Arrive On Green	0.05	0.60	0.46	0.46	0.18	0.18
Sat Flow, veh/h	1781	5274	5274	1576	1781	1585
Grp Volume(v), veh/h	30	877	1138	152	185	5
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1576	1781	1585
Q Serve(g_s), s	0.7	3.8	7.0	2.6	4.3	0.1
Cycle Q Clear(g_c), s	0.7	3.8	7.0	2.6	4.3	0.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	87	3060	2362	729	321	286
V/C Ratio(X)	0.35	0.29	0.48	0.21	0.58	0.02
Avail Cap(c_a), veh/h	785	5064	5064	1564	1217	1083
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.9	4.4	8.4	7.3	17.0	15.3
Incr Delay (d2), s/veh	0.9	0.1	0.2	0.2	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.5	1.6	0.6	1.6	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.8	4.5	8.7	7.5	17.6	15.3
LnGrp LOS	C	A	A	A	B	B
Approach Vol, veh/h		907	1290		190	
Approach Delay, s/veh		5.0	8.5		17.6	
Approach LOS		A	A		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			33.2		12.2	6.2	27.0
Change Period (Y+Rc), s			6.0		4.0	4.0	6.0
Max Green Setting (Gmax), s			45.0		31.0	20.0	45.0
Max Q Clear Time (g_c+I1), s			5.8		6.3	2.7	9.0
Green Ext Time (p_c), s			7.3		0.4	0.0	11.7

Intersection Summary	
HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Intersection 10 **Diamond Creek Blvd-Prarie Woods Wy/Blue Oaks Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	18	20	113.3%	59.6	19.2	E
	Through	11	12	112.7%	55.5	22.0	E
	Right Turn	45	45	99.6%	6.8	1.9	A
	Subtotal	74	78	104.9%	28.2	7.1	C
SB	Left Turn	363	398	109.6%	47.5	4.1	D
	Through	28	36	127.1%	57.7	16.6	E
	Right Turn	16	16	97.5%	39.6	7.1	D
	Subtotal	407	449	110.4%	48.0	4.3	D
EB	Left Turn	46	40	87.8%	50.2	10.5	D
	Through	986	957	97.0%	14.6	2.6	B
	Right Turn	34	40	118.8%	4.0	1.0	A
	Subtotal	1,066	1,038	97.3%	15.6	2.8	B
WB	Left Turn	39	38	97.4%	57.4	11.4	E
	Through	1,424	1,354	95.1%	20.7	4.5	C
	Right Turn	351	338	96.4%	12.5	1.7	B
	Subtotal	1,814	1,730	95.4%	20.0	3.8	B
Total		3,361	3,295	98.0%	22.6	2.4	C

Intersection 11 **Woodcreek Oaks Blvd/Blue Oaks Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	220	211	95.8%	41.1	4.3	D
	Through	125	112	89.9%	36.7	6.6	D
	Right Turn	250	254	101.8%	15.5	2.5	B
	Subtotal	595	578	97.1%	29.0	2.8	C
SB	Left Turn	210	210	99.8%	41.7	4.5	D
	Through	97	102	104.7%	37.8	4.9	D
	Right Turn	40	42	104.0%	13.6	3.5	B
	Subtotal	347	353	101.7%	37.0	2.4	D
EB	Left Turn	160	171	106.8%	43.1	4.9	D
	Through	1,177	1,216	103.3%	40.1	5.3	D
	Right Turn	115	116	100.5%	10.8	2.2	B
	Subtotal	1,452	1,502	103.5%	38.2	4.4	D
WB	Left Turn	526	527	100.2%	42.4	4.4	D
	Through	1,554	1,544	99.3%	31.5	3.7	C
	Right Turn	330	325	98.5%	17.7	3.1	B
	Subtotal	2,410	2,396	99.4%	32.0	2.7	C
Total		4,804	4,829	100.5%	33.9	2.0	C

Intersection 12 **Walgreens Dwy-Roseville Pkwy/Blue Oaks Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	10	8	80.0%	37.0	26.9	D
	Through	10	13	132.0%	40.7	28.0	D
	Right Turn	10	10	100.0%	4.0	3.3	A
	Subtotal	30	31	104.0%	30.4	13.3	C
SB	Left Turn	20	18	90.0%	36.4	15.3	D
	Through	1	3	280.0%	35.7	41.6	D
	Right Turn	10	10	96.0%	12.8	15.0	B
	Subtotal	31	30	98.1%	33.2	12.2	C
EB	Left Turn	6	8	133.3%	42.1	28.0	D
	Through	1,581	1,574	99.6%	10.7	5.0	B
	Right Turn	50	56	112.0%	1.7	0.6	A
	Subtotal	1,637	1,638	100.1%	10.6	5.0	B
WB	Left Turn	34	37	108.2%	52.1	9.9	D
	Through	2,390	2,374	99.3%	12.8	3.7	B
	Right Turn	30	30	100.0%	6.6	1.5	A
	Subtotal	2,454	2,441	99.5%	13.3	3.6	B
Total		4,152	4,141	99.7%	12.5	3.4	B

Intersection 13 **New Meadow Dr/Blue Oaks Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	136	137	100.9%	52.2	5.1	D
	Through						
	Right Turn	30	26	86.7%	22.9	6.5	C
	Subtotal	166	163	98.3%	47.7	4.8	D
EB	Left Turn	40	34	85.0%	53.2	10.9	D
	Through	1,571	1,613	102.7%	13.6	3.8	B
	Right Turn						
	Subtotal	1,611	1,647	102.2%	14.4	3.5	B
WB	Left Turn	10	13	132.0%	53.5	20.6	D
	Through	2,424	2,463	101.6%	14.2	1.1	B
	Right Turn	253	234	92.6%	8.6	1.0	A
	Subtotal	2,687	2,710	100.9%	13.9	0.9	B
Total		4,464	4,520	101.3%	15.3	1.2	B

Intersection 15 **Foothills Blvd/Blue Oaks Blvd** **Signal**

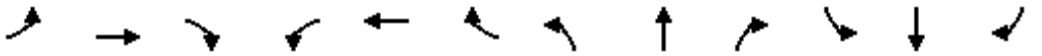
Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	308	305	99.0%	55.4	6.9	E
	Through	72	66	92.2%	45.6	9.7	D
	Right Turn	554	584	105.3%	6.6	1.0	A
	Subtotal	934	955	102.2%	24.9	2.7	C
SB	Left Turn	362	324	89.5%	53.6	6.1	D
	Through	198	180	90.9%	44.3	5.2	D
	Right Turn	83	84	101.7%	24.4	3.8	C
	Subtotal	643	588	91.5%	46.6	4.0	D
EB	Left Turn	43	38	89.3%	56.5	11.0	E
	Through	1,414	1,532	108.4%	62.4	26.2	E
	Right Turn	150	144	96.0%	40.0	22.0	D
	Subtotal	1,607	1,715	106.7%	60.3	25.1	E
WB	Left Turn	320	309	96.6%	53.3	6.8	D
	Through	2,163	2,237	103.4%	35.7	8.1	D
	Right Turn	76	66	87.4%	5.9	1.4	A
	Subtotal	2,559	2,613	102.1%	37.1	7.3	D
Total		5,743	5,871	102.2%	42.8	10.3	D

Intersection 16 **SR 65 NB Ramps-Fidelity Wy/Blue Oaks Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	129	139	107.6%	46.5	5.9	D
	Subtotal	129	139	107.6%	46.5	5.9	D
SB	Left Turn						
	Through						
	Right Turn	360	351	97.6%	0.6	0.2	A
	Subtotal	360	351	97.6%	0.6	0.2	A
EB	Left Turn						
	Through	2,011	2,026	100.7%	5.3	0.6	A
	Right Turn	192	203	105.6%	2.5	0.6	A
	Subtotal	2,203	2,229	101.2%	5.1	0.6	A
WB	Left Turn	7	7	102.9%	39.8	25.9	D
	Through	1,999	1,990	99.5%	22.2	11.0	C
	Right Turn						
	Subtotal	2,006	1,997	99.5%	22.3	11.0	C
Total		4,698	4,716	100.4%	13.3	4.7	B

Intersection 17 **SR 65 SB Ramps-Washington Blvd/Blue Oaks Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	544	527	96.8%	170.8	41.8	F
	Through						
	Right Turn	585	610	104.3%	28.7	2.3	C
	Subtotal	1,129	1,137	100.7%	94.3	19.1	F
SB	Left Turn	183	180	98.4%	44.9	4.8	D
	Through	319	339	106.3%	42.4	4.6	D
	Right Turn	512	520	101.5%	5.6	0.5	A
	Subtotal	1,014	1,039	102.4%	24.5	2.4	C
EB	Left Turn						
	Through	1,886	1,814	96.2%	38.6	3.0	D
	Right Turn	254	262	103.1%	17.4	2.1	B
	Subtotal	2,140	2,076	97.0%	35.9	2.9	D
WB	Left Turn	318	321	101.0%	50.6	5.0	D
	Through	950	898	94.5%	24.5	4.3	C
	Right Turn	226	220	97.3%	4.4	0.9	A
	Subtotal	1,494	1,439	96.3%	27.3	3.2	C
Total		5,777	5,691	98.5%	43.3	3.5	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	32	2	58	87	359	0	8	35	239	8	1
Future Volume (veh/h)	1	32	2	58	87	359	0	8	35	239	8	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	32	1	58	87	336	0	8	4	239	8	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	9	762	340	364	1127	503	4	77	35	307	1114	497
Arrive On Green	0.00	0.21	0.21	0.11	0.32	0.32	0.00	0.02	0.02	0.17	0.31	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	1	32	1	58	87	336	0	8	4	239	8	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.0	0.3	0.0	0.6	0.7	7.7	0.0	0.1	0.1	5.4	0.1	0.0
Cycle Q Clear(g_c), s	0.0	0.3	0.0	0.6	0.7	7.7	0.0	0.1	0.1	5.4	0.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	9	762	340	364	1127	503	4	77	35	307	1114	497
V/C Ratio(X)	0.12	0.04	0.00	0.16	0.08	0.67	0.00	0.10	0.12	0.78	0.01	0.00
Avail Cap(c_a), veh/h	1646	1693	755	1646	1693	755	849	1693	755	1909	1693	755
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.9	13.1	13.0	17.1	10.0	12.4	0.0	20.1	20.1	16.6	9.9	0.0
Incr Delay (d2), s/veh	2.2	0.1	0.0	0.1	0.1	3.8	0.0	1.4	3.6	1.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	0.2	0.2	2.7	0.0	0.0	0.1	2.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.1	13.1	13.0	17.2	10.1	16.2	0.0	21.6	23.8	18.2	9.9	0.0
LnGrp LOS	C	B	B	B	B	B	A	C	C	B	A	A
Approach Vol, veh/h		34			481			12			247	
Approach Delay, s/veh		13.4			15.2			22.3			17.9	
Approach LOS		B			B			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	6.6	8.4	14.7	0.0	18.9	4.1	19.0
Change Period (Y+Rc), s	5.0	5.7	4.0	5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	45.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Max Q Clear Time (g_c+I1), s	7.4	2.1	2.6	2.3	0.0	2.1	2.0	9.7
Green Ext Time (p_c), s	0.3	0.0	0.1	0.2	0.0	0.0	0.0	2.7

Intersection Summary	
HCM 6th Ctrl Delay	16.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	400	321	459	646	141	600	748	442	142	674	70
Future Volume (veh/h)	64	400	321	459	646	141	600	748	442	142	674	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	400	76	459	646	50	600	748	155	142	674	16
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	287	591	263	569	881	393	713	1771	550	277	1126	350
Arrive On Green	0.08	0.17	0.17	0.16	0.25	0.25	0.21	0.35	0.35	0.08	0.22	0.22
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	64	400	76	459	646	50	600	748	155	142	674	16
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	1.5	8.9	3.5	10.8	14.1	2.1	14.1	9.4	6.0	3.3	10.0	0.7
Cycle Q Clear(g_c), s	1.5	8.9	3.5	10.8	14.1	2.1	14.1	9.4	6.0	3.3	10.0	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	287	591	263	569	881	393	713	1771	550	277	1126	350
V/C Ratio(X)	0.22	0.68	0.29	0.81	0.73	0.13	0.84	0.42	0.28	0.51	0.60	0.05
Avail Cap(c_a), veh/h	820	1139	508	1435	1307	583	1271	1878	583	820	2727	846
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	33.0	30.8	33.9	29.1	24.6	32.1	21.1	19.9	37.2	29.5	25.9
Incr Delay (d2), s/veh	0.1	2.3	1.0	1.0	1.8	0.2	1.1	0.3	0.4	0.5	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.7	1.3	4.3	5.7	0.7	5.4	3.3	2.0	1.3	3.8	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.2	35.3	31.8	34.9	30.9	24.8	33.2	21.3	20.4	37.7	30.5	26.0
LnGrp LOS	D	D	C	C	C	C	C	C	C	D	C	C
Approach Vol, veh/h		540			1155			1503			832	
Approach Delay, s/veh		35.0			32.2			25.9			31.6	
Approach LOS		C			C			C			C	

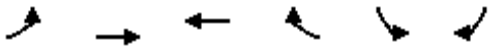
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	35.6	17.9	20.0	21.4	25.0	11.0	26.9
Change Period (Y+Rc), s	4.0	6.4	4.0	* 6	4.0	* 6.4	4.0	6.0
Max Green Setting (Gmax), s	20.0	31.0	35.0	* 27	31.0	* 45	20.0	31.0
Max Q Clear Time (g_c+I1), s	5.3	11.4	12.8	10.9	16.1	12.0	3.5	16.1
Green Ext Time (p_c), s	0.2	6.3	1.1	3.1	1.3	6.6	0.1	4.1

Intersection Summary	
HCM 6th Ctrl Delay	30.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	19	1002	1233	123	94	12
Future Volume (veh/h)	19	1002	1233	123	94	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	1002	1233	0	94	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	60	2909	2631		125	
Arrive On Green	0.03	0.82	0.74	0.00	0.07	0.00
Sat Flow, veh/h	1781	3647	3647	1585	1781	1585
Grp Volume(v), veh/h	19	1002	1233	0	94	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1781	1585
Q Serve(g_s), s	0.9	6.4	12.4	0.0	4.7	0.0
Cycle Q Clear(g_c), s	0.9	6.4	12.4	0.0	4.7	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	60	2909	2631		125	
V/C Ratio(X)	0.32	0.34	0.47		0.75	
Avail Cap(c_a), veh/h	317	2909	2631		515	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	42.5	2.1	4.6	0.0	41.1	0.0
Incr Delay (d2), s/veh	1.1	0.3	0.2	0.0	3.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.3	3.5	0.0	2.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.6	2.4	4.9	0.0	44.4	0.0
LnGrp LOS	D	A	A		D	
Approach Vol, veh/h		1021	1233	A	94	A
Approach Delay, s/veh		3.2	4.9		44.4	
Approach LOS		A	A		D	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	79.7	10.3	7.0	72.6
Change Period (Y+Rc), s	6.0	4.0	4.0	* 6
Max Green Setting (Gmax), s	54.0	26.0	16.0	* 34
Max Q Clear Time (g_c+I1), s	8.4	6.7	2.9	14.4
Green Ext Time (p_c), s	9.9	0.2	0.0	10.8

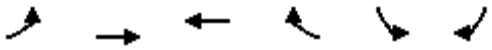
Intersection Summary	
HCM 6th Ctrl Delay	5.7
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

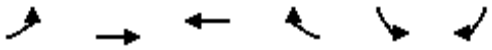


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	12	1114	1305	48	58	14
Future Volume (veh/h)	12	1114	1305	48	58	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	1114	1305	47	58	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	36	2924	2652	95	117	4
Arrive On Green	0.02	0.82	0.76	0.76	0.07	0.07
Sat Flow, veh/h	1781	3647	3592	126	1688	58
Grp Volume(v), veh/h	12	1114	662	690	61	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1848	1775	0
Q Serve(g_s), s	0.6	7.3	12.9	13.0	3.0	0.0
Cycle Q Clear(g_c), s	0.6	7.3	12.9	13.0	3.0	0.0
Prop In Lane	1.00			0.07	0.95	0.03
Lane Grp Cap(c), veh/h	36	2924	1347	1401	123	0
V/C Ratio(X)	0.33	0.38	0.49	0.49	0.49	0.00
Avail Cap(c_a), veh/h	317	2924	1347	1401	513	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	43.5	2.1	4.2	4.2	40.3	0.0
Incr Delay (d2), s/veh	2.0	0.4	0.5	0.5	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.4	3.5	3.6	1.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	45.5	2.4	4.7	4.7	41.5	0.0
LnGrp LOS	D	A	A	A	D	A
Approach Vol, veh/h		1126	1352		61	
Approach Delay, s/veh		2.9	4.7		41.5	
Approach LOS		A	A		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			79.7		10.3	5.8	73.9
Change Period (Y+Rc), s			5.7		4.0	4.0	5.7
Max Green Setting (Gmax), s			54.3		26.0	16.0	34.3
Max Q Clear Time (g_c+I1), s			9.3		5.0	2.6	15.0
Green Ext Time (p_c), s			13.5		0.1	0.0	11.1

Intersection Summary	
HCM 6th Ctrl Delay	4.8
HCM 6th LOS	A

Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



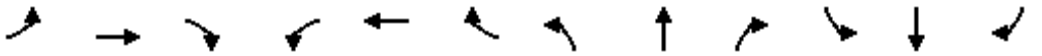
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	43	1081	1375	68	43	18
Future Volume (veh/h)	43	1081	1375	68	43	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	1081	1375	66	43	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	104	2957	2516	121	107	95
Arrive On Green	0.06	0.83	0.73	0.73	0.06	0.06
Sat Flow, veh/h	1781	3647	3544	165	1781	1585
Grp Volume(v), veh/h	43	1081	707	734	43	2
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1839	1781	1585
Q Serve(g_s), s	2.1	6.6	16.1	16.2	2.1	0.1
Cycle Q Clear(g_c), s	2.1	6.6	16.1	16.2	2.1	0.1
Prop In Lane	1.00			0.09	1.00	1.00
Lane Grp Cap(c), veh/h	104	2957	1296	1341	107	95
V/C Ratio(X)	0.41	0.37	0.55	0.55	0.40	0.02
Avail Cap(c_a), veh/h	317	2957	1296	1341	515	458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.9	1.8	5.5	5.5	40.7	39.8
Incr Delay (d2), s/veh	1.0	0.4	0.7	0.7	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.2	4.8	5.0	0.9	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.8	2.2	6.1	6.1	41.6	39.8
LnGrp LOS	D	A	A	A	D	D
Approach Vol, veh/h		1124	1441		45	
Approach Delay, s/veh		3.7	6.1		41.6	
Approach LOS		A	A		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			80.6		9.4	9.3	71.3
Change Period (Y+Rc), s			5.7		4.0	4.0	5.7
Max Green Setting (Gmax), s			54.3		26.0	16.0	34.3
Max Q Clear Time (g_c+I1), s			8.6		4.1	4.1	18.2
Green Ext Time (p_c), s			12.0		0.1	0.0	10.1

Intersection Summary	
HCM 6th Ctrl Delay	5.7
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	176	861	187	261	1196	429	241	465	204	229	368	121
Future Volume (veh/h)	176	861	187	261	1196	429	241	465	204	229	368	121
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	176	861	0	261	1196	0	241	465	0	229	368	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	229	967		737	1535		297	572		285	605	
Arrive On Green	0.07	0.30	0.00	0.24	0.48	0.00	0.10	0.18	0.00	0.09	0.19	0.00
Sat Flow, veh/h	3110	3198	1427	3110	3198	1427	3110	3198	1427	3110	3198	1427
Grp Volume(v), veh/h	176	861	0	261	1196	0	241	465	0	229	368	0
Grp Sat Flow(s),veh/h/ln	1555	1599	1427	1555	1599	1427	1555	1599	1427	1555	1599	1427
Q Serve(g_s), s	6.7	30.8	0.0	8.4	37.3	0.0	9.1	16.8	0.0	8.7	12.7	0.0
Cycle Q Clear(g_c), s	6.7	30.8	0.0	8.4	37.3	0.0	9.1	16.8	0.0	8.7	12.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	229	967		737	1535		297	572		285	605	
V/C Ratio(X)	0.77	0.89		0.35	0.78		0.81	0.81		0.80	0.61	
Avail Cap(c_a), veh/h	415	967		737	1535		492	648		492	648	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.6	39.9	0.0	38.1	25.9	0.0	53.2	47.3	0.0	53.4	44.6	0.0
Incr Delay (d2), s/veh	2.0	12.1	0.0	0.1	2.9	0.0	2.0	8.0	0.0	2.0	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	13.0	0.0	3.1	13.5	0.0	3.5	7.1	0.0	3.4	5.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.6	52.0	0.0	38.2	28.8	0.0	55.2	55.4	0.0	55.5	46.7	0.0
LnGrp LOS	E	D		D	C		E	E		E	D	
Approach Vol, veh/h		1037	A		1457	A		706	A		597	A
Approach Delay, s/veh		52.8			30.5			55.3			50.0	
Approach LOS		D			C			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.7	27.2	34.1	42.0	15.5	28.4	12.9	63.3
Change Period (Y+Rc), s	5.7	* 5.7	5.7	* 5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	19.0	* 24	21.0	* 36	19.0	24.3	16.0	41.3
Max Q Clear Time (g_c+I1), s	10.7	18.8	10.4	32.8	11.1	14.7	8.7	39.3
Green Ext Time (p_c), s	0.3	1.6	0.4	1.9	0.4	1.8	0.2	1.5

Intersection Summary	
HCM 6th Ctrl Delay	44.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1286	32	152	1772	38	117
Future Volume (veh/h)	1286	32	152	1772	38	117
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1286	31	152	1772	38	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2012	48	181	2496	56	49
Arrive On Green	0.57	0.57	0.10	0.70	0.03	0.03
Sat Flow, veh/h	3639	85	1781	3647	1781	1585
Grp Volume(v), veh/h	644	673	152	1772	38	10
Grp Sat Flow(s),veh/h/ln	1777	1854	1781	1777	1781	1585
Q Serve(g_s), s	29.5	29.6	10.1	35.5	2.5	0.7
Cycle Q Clear(g_c), s	29.5	29.6	10.1	35.5	2.5	0.7
Prop In Lane		0.05	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1008	1052	181	2496	56	49
V/C Ratio(X)	0.64	0.64	0.84	0.71	0.68	0.20
Avail Cap(c_a), veh/h	1008	1052	386	2496	386	343
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.6	17.6	52.9	10.6	57.5	56.7
Incr Delay (d2), s/veh	3.1	3.0	4.0	1.7	5.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.6	12.1	4.5	11.4	1.2	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.7	20.6	56.9	12.3	62.9	57.4
LnGrp LOS	C	C	E	B	E	E
Approach Vol, veh/h	1317			1924	48	
Approach Delay, s/veh	20.6			15.9	61.8	
Approach LOS	C			B	E	

Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	7.7	16.2	73.8	90.0
Change Period (Y+Rc), s	4.0	4.0	5.7	5.7
Max Green Setting (Gmax), s	26.0	26.0	38.3	84.3
Max Q Clear Time (g_c+I1), s	4.5	12.1	31.6	37.5
Green Ext Time (p_c), s	0.2	0.2	6.3	43.9

Intersection Summary	
HCM 6th Ctrl Delay	18.4
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection 31 **Foothills Blvd/Pleasant Grove Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	311	295	94.9%	66.7	8.0	E
	Through	408	417	102.2%	43.0	5.8	D
	Right Turn	507	492	97.1%	3.7	0.4	A
	Subtotal	1,226	1,204	98.2%	32.8	3.6	C
SB	Left Turn	237	244	102.8%	65.8	7.3	E
	Through	822	780	94.8%	48.8	3.8	D
	Right Turn	164	158	96.1%	2.7	0.3	A
	Subtotal	1,223	1,181	96.5%	46.2	4.0	D
EB	Left Turn	144	136	94.7%	65.6	5.2	E
	Through	1,107	1,095	98.9%	65.6	10.7	E
	Right Turn	158	148	93.4%	5.8	1.4	A
	Subtotal	1,409	1,379	97.9%	59.3	8.6	E
WB	Left Turn	818	817	99.9%	71.6	14.6	E
	Through	1,385	1,295	93.5%	80.9	28.1	F
	Right Turn	140	134	96.0%	45.5	27.4	D
	Subtotal	2,343	2,246	95.9%	75.3	21.8	E
Total		6,201	6,011	96.9%	57.5	9.1	E

Intersection 32 **Washington Blvd/Pleasant Grove Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	278	287	103.2%	60.1	6.1	E
	Through	425	440	103.6%	40.2	3.9	D
	Right Turn	319	306	95.9%	4.5	0.3	A
	Subtotal	1,022	1,033	101.1%	35.1	2.8	D
SB	Left Turn	154	154	100.0%	62.9	3.4	E
	Through	673	672	99.9%	53.7	6.2	D
	Right Turn	238	243	102.0%	23.8	3.7	C
	Subtotal	1,065	1,069	100.4%	48.3	4.6	D
EB	Left Turn	123	109	88.5%	89.6	9.0	F
	Through	1,421	1,392	98.0%	43.6	3.6	D
	Right Turn	198	196	98.8%	31.4	3.3	C
	Subtotal	1,742	1,696	97.4%	45.2	3.8	D
WB	Left Turn	347	346	99.8%	74.7	7.7	E
	Through	1,698	1,710	100.7%	55.3	5.5	E
	Right Turn	57	50	88.4%	18.2	4.8	B
	Subtotal	2,102	2,107	100.2%	57.6	5.6	E
Total		5,931	5,906	99.6%	48.4	2.5	D

Intersection 33 **Hallisy Dr/Pleasant Grove Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	44	48	109.1%	64.9	10.7	E
	Through	35	27	77.7%	54.0	16.4	D
	Right Turn	28	24	84.3%	5.9	7.4	A
	Subtotal	107	99	92.3%	47.8	10.0	D
SB	Left Turn	51	56	110.6%	69.8	7.8	E
	Through	5	4	72.0%	44.8	40.8	D
	Right Turn	15	14	93.3%	1.8	1.7	A
	Subtotal	71	74	104.2%	57.5	9.4	E
EB	Left Turn	14	13	94.3%	79.6	31.8	E
	Through	1,885	1,820	96.6%	6.7	1.2	A
	Right Turn	17	18	105.9%	4.0	0.5	A
	Subtotal	1,916	1,851	96.6%	7.3	1.2	A
WB	Left Turn	81	89	109.6%	76.2	9.5	E
	Through	2,061	2,052	99.6%	15.0	4.1	B
	Right Turn	81	68	83.5%	6.5	1.1	A
	Subtotal	2,223	2,208	99.3%	17.2	3.9	B
Total		4,317	4,232	98.0%	14.3	2.5	B

Intersection 35 **Pleasant Grove Blvd/Highland Pointe Dr** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	366	368	100.4%	60.2	10.6	E
	Through	1,546	1,449	93.7%	47.3	7.3	D
	Right Turn	4	3	80.0%	18.4	13.0	B
	Subtotal	1,916	1,820	95.0%	50.0	6.8	D
SB	Left Turn	129	120	92.7%	69.1	11.5	E
	Through	1,566	1,475	94.2%	49.1	14.4	D
	Right Turn	181	178	98.1%	10.4	3.6	B
	Subtotal	1,876	1,772	94.5%	46.5	13.3	D
EB	Left Turn	509	519	101.9%	49.8	5.9	D
	Through	4	4	110.0%	34.3	37.2	C
	Right Turn	358	344	96.1%	31.9	5.7	C
	Subtotal	871	867	99.6%	42.8	5.1	D
WB	Left Turn	131	121	92.5%	57.8	9.8	E
	Through	30	40	133.3%	47.6	10.5	D
	Right Turn	211	218	103.5%	15.5	5.0	B
	Subtotal	372	380	102.0%	32.6	3.1	C
Total		5,035	4,838	96.1%	46.2	5.4	D

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Existing Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 34 **Roseville Pkwy/Pleasant Grove Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1,082	1,037	95.9%	61.0	8.1	E
	Through	634	632	99.7%	43.1	6.6	D
	Right Turn	815	796	97.6%	4.2	0.3	A
	Subtotal	2,531	2,465	97.4%	38.1	4.8	D
SB	Left Turn	202	202	100.2%	54.2	5.7	D
	Through	456	464	101.7%	55.3	3.6	E
	Right Turn	28	31	111.4%	3.5	0.7	A
	Subtotal	686	697	101.6%	52.6	3.8	D
EB	Left Turn	35	31	89.1%	72.1	20.5	E
	Through	1,046	1,034	98.8%	63.8	9.6	E
	Right Turn	768	780	101.5%	5.6	0.9	A
	Subtotal	1,849	1,844	99.8%	39.2	5.6	D
WB	Left Turn	634	637	100.4%	55.8	7.9	E
	Through	1,283	1,316	102.5%	36.3	5.0	D
	Right Turn	155	162	104.8%	4.6	0.9	A
	Subtotal	2,072	2,115	102.1%	39.8	5.0	D
Total		7,138	7,121	99.8%	40.4	2.6	D

Intersection 36 **SR 65 SB Ramps/Pleasant Grove Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	120	98	81.7%	47.0	7.2	D
	Through						
	Right Turn	380	339	89.2%	36.3	10.2	D
	Subtotal	500	437	87.4%	38.6	9.0	D
EB	Left Turn						
	Through	1,890	1,891	100.1%	31.2	9.6	C
	Right Turn	376	375	99.8%	14.0	5.1	B
	Subtotal	2,266	2,266	100.0%	28.3	8.6	C
WB	Left Turn						
	Through	1,694	1,723	101.7%	14.9	8.8	B
	Right Turn	300	292	97.3%	8.3	4.3	A
	Subtotal	1,994	2,015	101.0%	13.9	8.1	B
Total		4,760	4,718	99.1%	23.1	4.7	C

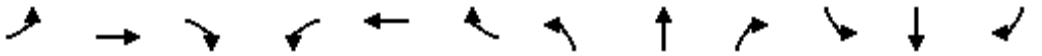
Intersection 37 **SR 65 NB Ramps/Pleasant Grove Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	441	405	91.8%	41.9	4.0	D
	Through						
	Right Turn	514	496	96.5%	27.0	5.5	C
	Subtotal	955	901	94.3%	33.8	3.6	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	1,540	1,575	102.3%	17.3	1.5	B
	Right Turn	470	462	98.3%	7.7	0.6	A
	Subtotal	2,010	2,037	101.4%	15.2	1.2	B
WB	Left Turn	218	192	87.9%	51.6	4.4	D
	Through	1,553	1,539	99.1%	8.2	0.8	A
	Right Turn						
	Subtotal	1,771	1,730	97.7%	13.1	1.1	B
Total		4,736	4,668	98.6%	18.0	1.1	B

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Existing Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 38 **Pleasant Grove Blvd/Fairway Dr** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	582	598	102.8%	32.2	5.0	C
	Through	905	913	100.9%	16.9	2.2	B
	Right Turn	493	508	103.0%	4.5	1.1	A
	Subtotal	1,980	2,019	102.0%	18.4	2.4	B
SB	Left Turn	94	92	97.4%	49.8	8.9	D
	Through	696	723	103.9%	41.8	3.8	D
	Right Turn	135	129	95.7%	12.6	2.8	B
	Subtotal	925	944	102.0%	38.6	3.7	D
EB	Left Turn	216	197	91.1%	49.9	3.2	D
	Through	399	362	90.8%	44.5	3.7	D
	Right Turn	374	365	97.6%	25.1	11.5	C
	Subtotal	989	924	93.5%	38.3	4.1	D
WB	Left Turn	619	560	90.4%	47.2	4.6	D
	Through	404	398	98.4%	34.5	3.3	C
	Right Turn	116	115	99.0%	10.5	2.3	B
	Subtotal	1,139	1,072	94.1%	38.6	2.3	D
Total		5,033	4,959	98.5%	30.4	1.2	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	14	34	190	32	76	91	904	163	95	602	1
Future Volume (veh/h)	14	14	34	190	32	76	91	904	163	95	602	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	14	3	190	32	14	91	904	90	95	602	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	17	22	5	217	157	68	115	3259	1012	120	2277	1016
Arrive On Green	0.01	0.01	0.01	0.12	0.13	0.13	0.06	0.64	0.64	0.07	0.64	0.64
Sat Flow, veh/h	1781	1493	320	1781	1234	540	1781	5106	1585	1781	3554	1585
Grp Volume(v), veh/h	14	0	17	190	0	46	91	904	90	95	602	1
Grp Sat Flow(s),veh/h/ln	1781	0	1813	1781	0	1773	1781	1702	1585	1781	1777	1585
Q Serve(g_s), s	0.9	0.0	1.1	12.6	0.0	2.8	6.0	9.3	2.6	6.3	8.8	0.0
Cycle Q Clear(g_c), s	0.9	0.0	1.1	12.6	0.0	2.8	6.0	9.3	2.6	6.3	8.8	0.0
Prop In Lane	1.00		0.18	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	17	0	26	217	0	225	115	3259	1012	120	2277	1016
V/C Ratio(X)	0.84	0.00	0.65	0.88	0.00	0.20	0.79	0.28	0.09	0.79	0.26	0.00
Avail Cap(c_a), veh/h	341	0	338	238	0	225	267	3259	1012	267	2277	1016
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.4	0.0	58.8	51.8	0.0	47.0	55.3	9.5	8.3	55.2	9.3	7.7
Incr Delay (d2), s/veh	32.1	0.0	20.9	25.4	0.0	0.4	4.5	0.2	0.2	4.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.7	7.1	0.0	1.3	2.9	3.4	0.9	3.0	3.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.5	0.0	79.7	77.2	0.0	47.3	59.9	9.7	8.5	59.6	9.4	7.7
LnGrp LOS	F	A	E	E	A	D	E	A	A	E	A	A
Approach Vol, veh/h		31			236			1085			698	
Approach Delay, s/veh		85.0			71.4			13.8			16.3	
Approach LOS		F			E			B			B	

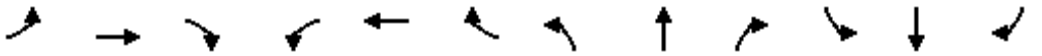
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	82.3	18.6	7.0	11.7	82.6	5.1	20.5
Change Period (Y+Rc), s	4.0	5.7	4.0	* 5.3	4.0	* 5.7	4.0	5.3
Max Green Setting (Gmax), s	18.0	45.3	16.0	* 22	18.0	* 46	23.0	14.7
Max Q Clear Time (g_c+I1), s	8.3	11.3	14.6	3.1	8.0	10.8	2.9	4.8
Green Ext Time (p_c), s	0.1	10.2	0.1	0.0	0.1	5.7	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	22.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	5	41	16	6	164	18	1537	47	94	1399	10
Future Volume (veh/h)	31	5	41	16	6	164	18	1537	47	94	1399	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	0	5	16	6	17	18	1537	45	94	1399	6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	265	0	118	87	32	104	59	2720	80	159	3012	935
Arrive On Green	0.07	0.00	0.07	0.07	0.07	0.07	0.03	0.53	0.53	0.09	0.59	0.59
Sat Flow, veh/h	3563	0	1585	1313	492	1585	1781	5098	149	1781	5106	1585
Grp Volume(v), veh/h	35	0	5	22	0	17	18	1026	556	94	1399	6
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1805	0	1585	1781	1702	1843	1781	1702	1585
Q Serve(g_s), s	0.7	0.0	0.2	0.9	0.0	0.8	0.8	15.6	15.6	3.9	12.0	0.1
Cycle Q Clear(g_c), s	0.7	0.0	0.2	0.9	0.0	0.8	0.8	15.6	15.6	3.9	12.0	0.1
Prop In Lane	1.00		1.00	0.73		1.00	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	265	0	118	119	0	104	59	1816	984	159	3012	935
V/C Ratio(X)	0.13	0.00	0.04	0.18	0.00	0.16	0.30	0.57	0.57	0.59	0.46	0.01
Avail Cap(c_a), veh/h	917	0	408	464	0	408	458	2496	1352	458	3745	1162
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.6	0.0	33.4	34.3	0.0	34.3	36.7	12.1	12.1	34.0	9.0	6.6
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.3	0.0	0.3	1.1	0.4	0.8	1.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.1	0.4	0.0	0.3	0.3	5.4	5.9	1.7	3.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.7	0.0	33.5	34.6	0.0	34.5	37.8	12.5	12.9	35.3	9.2	6.6
LnGrp LOS	C	A	C	C	A	C	D	B	B	D	A	A
Approach Vol, veh/h		40			39			1600			1499	
Approach Delay, s/veh		33.7			34.6			13.0			10.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.9	47.9		9.8	6.6	52.2		9.1				
Change Period (Y+Rc), s	4.0	6.4		4.0	4.0	6.4		4.0				
Max Green Setting (Gmax), s	20.0	57.0		20.0	20.0	57.0		20.0				
Max Q Clear Time (g_c+I1), s	5.9	17.6		2.7	2.8	14.0		2.9				
Green Ext Time (p_c), s	0.1	23.8		0.0	0.0	22.3		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		12.5	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



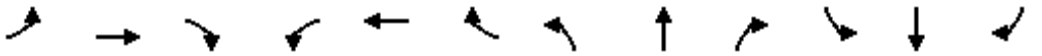
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	774	74	337	346	77	343
Future Volume (veh/h)	774	74	337	346	77	343
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	774	58	337	346	77	277
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	904	766	374	1377	280	582
Arrive On Green	0.48	0.48	0.21	0.74	0.16	0.16
Sat Flow, veh/h	1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h	774	58	337	346	77	277
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1870	1781	1585
Q Serve(g_s), s	34.2	1.8	17.3	5.6	3.6	12.6
Cycle Q Clear(g_c), s	34.2	1.8	17.3	5.6	3.6	12.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	904	766	374	1377	280	582
V/C Ratio(X)	0.86	0.08	0.90	0.25	0.28	0.48
Avail Cap(c_a), veh/h	1078	913	779	1377	323	620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.3	13.0	36.1	4.0	34.8	22.7
Incr Delay (d2), s/veh	7.8	0.1	3.3	0.2	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.4	0.6	7.2	1.3	1.5	4.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	29.1	13.1	39.3	4.2	35.0	23.0
LnGrp LOS	C	B	D	A	C	C
Approach Vol, veh/h	832			683	354	
Approach Delay, s/veh	28.0			21.6	25.6	
Approach LOS	C			C	C	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		18.7	23.7	51.3		75.0
Change Period (Y+Rc), s		4.0	4.0	6.0		6.0
Max Green Setting (Gmax), s		17.0	41.0	54.0		54.0
Max Q Clear Time (g_c+I1), s		14.6	19.3	36.2		7.6
Green Ext Time (p_c), s		0.2	0.4	9.1		4.5

Intersection Summary	
HCM 6th Ctrl Delay	25.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



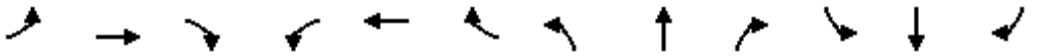
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	700	310	20	231	243	291	8	615	390	323	759	483
Future Volume (veh/h)	700	310	20	231	243	291	8	615	390	323	759	483
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1870	1870	1841	1841	1870	1870	1870	1841	1870	1841
Adj Flow Rate, veh/h	700	310	16	231	243	92	8	615	121	323	759	338
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	2	2	4	4	2	2	2	4	2	4
Cap, veh/h	802	941	48	309	461	205	21	812	362	352	1484	1020
Arrive On Green	0.24	0.28	0.28	0.09	0.13	0.13	0.01	0.23	0.23	0.20	0.42	0.42
Sat Flow, veh/h	3401	3384	174	3456	3497	1560	1781	3554	1585	1753	3554	1560
Grp Volume(v), veh/h	700	160	166	231	243	92	8	615	121	323	759	338
Grp Sat Flow(s),veh/h/ln	1700	1749	1809	1728	1749	1560	1781	1777	1585	1753	1777	1560
Q Serve(g_s), s	19.9	7.3	7.4	6.6	6.5	5.5	0.4	16.2	6.4	18.2	15.9	9.6
Cycle Q Clear(g_c), s	19.9	7.3	7.4	6.6	6.5	5.5	0.4	16.2	6.4	18.2	15.9	9.6
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	802	486	503	309	461	205	21	812	362	352	1484	1020
V/C Ratio(X)	0.87	0.33	0.33	0.75	0.53	0.45	0.38	0.76	0.33	0.92	0.51	0.33
Avail Cap(c_a), veh/h	2061	486	503	790	834	372	283	1151	513	366	1484	1020
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.0	28.9	28.9	44.7	40.8	40.3	49.3	36.2	32.4	39.4	21.7	7.7
Incr Delay (d2), s/veh	1.2	0.7	0.7	1.4	1.8	3.0	4.0	2.6	0.9	26.0	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	2.9	3.1	2.8	2.8	2.2	0.2	7.2	2.4	9.8	6.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.2	29.6	29.6	46.1	42.6	43.3	53.4	38.8	33.3	65.4	22.1	8.0
LnGrp LOS	D	C	C	D	D	D	D	D	C	E	C	A
Approach Vol, veh/h		1026			566			744			1420	
Approach Delay, s/veh		35.5			44.1			38.1			28.6	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.2	29.4	13.0	34.0	5.2	48.4	27.7	19.3
Change Period (Y+Rc), s	4.0	6.4	4.0	6.0	4.0	6.4	4.0	6.0
Max Green Setting (Gmax), s	21.0	32.6	23.0	24.0	16.0	36.6	61.0	24.0
Max Q Clear Time (g_c+I1), s	20.2	18.2	8.6	9.4	2.4	17.9	21.9	8.5
Green Ext Time (p_c), s	0.1	4.8	0.5	4.7	0.0	7.7	1.8	4.7

Intersection Summary	
HCM 6th Ctrl Delay	34.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



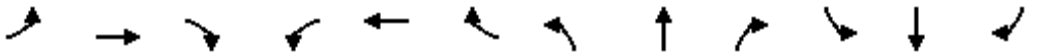
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	267	619	0	0	552	103	0	0	0	80	0	213
Future Volume (veh/h)	267	619	0	0	552	103	0	0	0	80	0	213
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	0	0	1870	0	1870
Adj Flow Rate, veh/h	267	619	0	0	552	28	0	0	0	80	0	35
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	0	2	2	2	0	0	2	0	2
Cap, veh/h	335	1294	0	0	1504	671	4	0	0	191	0	0
Arrive On Green	0.19	0.69	0.00	0.00	0.42	0.42	0.00	0.00	0.00	0.11	0.00	0.00
Sat Flow, veh/h	1781	1870	0	0	3647	1585	1781	0		1781	80	
Grp Volume(v), veh/h	267	619	0	0	552	28	0	0.0		80	21.3	
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	1777	1585	1781			1781	C	
Q Serve(g_s), s	7.1	7.6	0.0	0.0	5.3	0.5	0.0			2.1		
Cycle Q Clear(g_c), s	7.1	7.6	0.0	0.0	5.3	0.5	0.0			2.1		
Prop In Lane	1.00		0.00	0.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	335	1294	0	0	1504	671	4			191		
V/C Ratio(X)	0.80	0.48	0.00	0.00	0.37	0.04	0.00			0.42		
Avail Cap(c_a), veh/h	1108	2214	0	0	4206	1876	107			715		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00			1.00		
Uniform Delay (d), s/veh	19.3	3.5	0.0	0.0	9.8	8.4	0.0			20.8		
Incr Delay (d2), s/veh	1.7	0.4	0.0	0.0	0.2	0.0	0.0			0.5		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	2.5	0.6	0.0	0.0	1.4	0.1	0.0			0.8		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.0	3.9	0.0	0.0	10.0	8.5	0.0			21.3		
LnGrp LOS	C	A	A	A	B	A	A			C		
Approach Vol, veh/h		886			580							
Approach Delay, s/veh		9.1			10.0							
Approach LOS		A			A							

Timer - Assigned Phs	1			4	5		7	8				
Phs Duration (G+Y+Rc), s	9.4			40.5	0.0		13.4	27.1				
Change Period (Y+Rc), s	4.0			6.0	4.0		4.0	6.0				
Max Green Setting (Gmax), s	20.0			59.0	3.0		31.0	59.0				
Max Q Clear Time (g_c+I1), s	4.1			9.6	0.0		9.1	7.3				
Green Ext Time (p_c), s	0.1			16.7	0.0		0.5	13.8				

Intersection Summary												
HCM 6th Ctrl Delay			10.0									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.



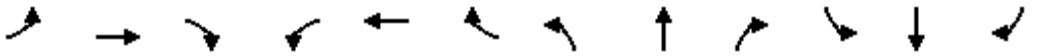
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	590	38	50	649	212	164	54	42	195	65	53
Future Volume (veh/h)	74	590	38	50	649	212	164	54	42	195	65	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	590	37	50	649	0	164	54	9	195	65	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	102	703	44	86	1403		196	65	306	228	76	
Arrive On Green	0.06	0.40	0.40	0.05	0.39	0.00	0.14	0.14	0.14	0.17	0.17	0.00
Sat Flow, veh/h	1781	1741	109	1781	3554	1585	1356	447	1585	1352	451	1585
Grp Volume(v), veh/h	74	0	627	50	649	0	218	0	9	260	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1850	1781	1777	1585	1803	0	1585	1803	0	1585
Q Serve(g_s), s	3.6	0.0	26.8	2.4	11.9	0.0	10.3	0.0	0.4	12.3	0.0	0.0
Cycle Q Clear(g_c), s	3.6	0.0	26.8	2.4	11.9	0.0	10.3	0.0	0.4	12.3	0.0	0.0
Prop In Lane	1.00		0.06	1.00		1.00	0.75		1.00	0.75		1.00
Lane Grp Cap(c), veh/h	102	0	747	86	1403		261	0	306	305	0	
V/C Ratio(X)	0.73	0.00	0.84	0.58	0.46		0.84	0.00	0.03	0.85	0.00	
Avail Cap(c_a), veh/h	406	0	1243	406	2388		554	0	564	821	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	40.7	0.0	23.6	40.9	19.7	0.0	36.5	0.0	28.8	35.4	0.0	0.0
Incr Delay (d2), s/veh	3.7	0.0	5.0	2.3	0.5	0.0	2.7	0.0	0.0	2.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	12.1	1.1	4.8	0.0	4.7	0.0	0.2	5.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.4	0.0	28.6	43.3	20.1	0.0	39.3	0.0	28.8	38.1	0.0	0.0
LnGrp LOS	D	A	C	D	C		D	A	C	D	A	
Approach Vol, veh/h		701			699	A		227			260	A
Approach Delay, s/veh		30.3			21.8			38.9			38.1	
Approach LOS		C			C			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		17.3	8.2	41.4		20.8	9.0	40.7				
Change Period (Y+Rc), s		4.6	4.0	6.0		6.0	4.0	6.0				
Max Green Setting (Gmax), s		27.0	20.0	59.0		40.0	20.0	59.0				
Max Q Clear Time (g_c+I1), s		12.3	4.4	28.8		14.3	5.6	13.9				
Green Ext Time (p_c), s		0.4	0.1	6.6		0.6	0.1	7.2				

Intersection Summary												
HCM 6th Ctrl Delay			29.3									
HCM 6th LOS			C									

Notes

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	177	215	359	62	326	103	567	1153	68	150	1373	140
Future Volume (veh/h)	177	215	359	62	326	103	567	1153	68	150	1373	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	177	215	69	62	326	14	567	1153	31	150	1373	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	205	644	287	80	395	176	651	1803	804	178	2139	
Arrive On Green	0.11	0.18	0.18	0.04	0.11	0.11	0.19	0.51	0.51	0.10	0.42	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	1781	5106	1585
Grp Volume(v), veh/h	177	215	69	62	326	14	567	1153	31	150	1373	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1781	1702	1585
Q Serve(g_s), s	11.7	6.3	4.5	4.1	10.8	1.0	19.1	28.4	1.2	9.9	25.6	0.0
Cycle Q Clear(g_c), s	11.7	6.3	4.5	4.1	10.8	1.0	19.1	28.4	1.2	9.9	25.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	205	644	287	80	395	176	651	1803	804	178	2139	
V/C Ratio(X)	0.86	0.33	0.24	0.77	0.83	0.08	0.87	0.64	0.04	0.84	0.64	
Avail Cap(c_a), veh/h	267	644	287	238	444	198	806	1803	804	267	2139	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	52.2	42.8	42.1	56.7	52.2	47.8	47.3	21.5	14.8	53.1	27.7	0.0
Incr Delay (d2), s/veh	16.6	0.5	0.7	5.8	13.2	0.4	8.7	1.8	0.1	9.3	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	2.7	1.8	1.9	5.4	0.4	8.6	11.2	0.4	4.7	9.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.8	43.3	42.8	62.5	65.4	48.2	56.0	23.3	14.9	62.4	28.5	0.0
LnGrp LOS	E	D	D	E	E	D	E	C	B	E	C	
Approach Vol, veh/h		461			402			1751			1523	A
Approach Delay, s/veh		53.0			64.4			33.7			31.8	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	66.9	9.4	27.7	26.6	56.3	17.8	19.3
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	* 6
Max Green Setting (Gmax), s	18.0	50.0	16.0	16.0	28.0	40.0	18.0	* 15
Max Q Clear Time (g_c+I1), s	11.9	30.4	6.1	8.3	21.1	27.6	13.7	12.8
Green Ext Time (p_c), s	0.1	6.6	0.0	1.1	1.5	7.3	0.1	0.6

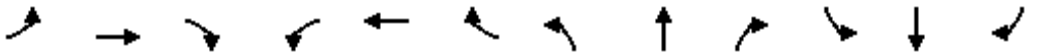
Intersection Summary	
HCM 6th Ctrl Delay	38.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	1	120	2	0	2	45	694	0	20	879	14
Future Volume (veh/h)	58	1	120	2	0	2	45	694	0	20	879	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	1	0	2	0	0	45	694	0	20	879	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	409	124		17	9	4	339	1657	739	89	1485	
Arrive On Green	0.12	0.03	0.00	0.00	0.00	0.00	0.10	0.47	0.00	0.05	0.42	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	58	1	0	2	0	0	45	694	0	20	879	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.6	0.0	0.0	0.0	0.0	0.0	0.5	5.2	0.0	0.4	7.8	0.0
Cycle Q Clear(g_c), s	0.6	0.0	0.0	0.0	0.0	0.0	0.5	5.2	0.0	0.4	7.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	409	124		17	9	4	339	1657	739	89	1485	
V/C Ratio(X)	0.14	0.01		0.12	0.00	0.00	0.13	0.42	0.00	0.23	0.59	
Avail Cap(c_a), veh/h	1706	4035		1706	1754	783	1706	3947	1761	879	3947	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.0	18.9	0.0	20.1	0.0	0.0	16.7	7.2	0.0	18.5	9.1	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	1.1	0.0	0.0	0.1	0.2	0.0	0.5	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.9	0.0	0.1	1.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.1	18.9	0.0	21.2	0.0	0.0	16.8	7.4	0.0	19.0	9.6	0.0
LnGrp LOS	B	B		C	A	A	B	A	A	B	A	
Approach Vol, veh/h		59	A		2			739			899	A
Approach Delay, s/veh		16.1			21.2			8.0			9.9	
Approach LOS		B			C			A			A	

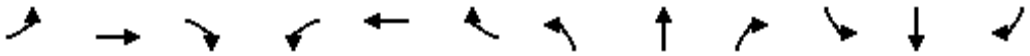
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	24.9	4.2	5.4	8.0	22.9	8.8	0.8
Change Period (Y+Rc), s	4.0	6.0	4.0	4.0	4.0	6.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	45.0	20.0	46.0	20.0	45.0	20.0	20.0
Max Q Clear Time (g_c+I1), s	2.4	7.2	2.0	2.0	2.5	9.8	2.6	0.0
Green Ext Time (p_c), s	0.0	4.8	0.0	0.0	0.1	6.4	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	9.3
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	4	13	50	0	524	5	464	66	500	529	0
Future Volume (veh/h)	17	4	13	50	0	524	5	464	66	500	529	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	17	4	0	50	0	0	5	464	0	500	529	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	67	16	0	328	0		26	939		783	1692	0
Arrive On Green	0.05	0.05	0.00	0.09	0.00	0.00	0.01	0.26	0.00	0.23	0.48	0.00
Sat Flow, veh/h	1455	342	0	3563	0	1585	1781	3554	1585	3456	3647	0
Grp Volume(v), veh/h	21	0	0	50	0	0	5	464	0	500	529	0
Grp Sat Flow(s),veh/h/ln	1798	0	0	1781	0	1585	1781	1777	1585	1728	1777	0
Q Serve(g_s), s	0.5	0.0	0.0	0.6	0.0	0.0	0.1	5.4	0.0	6.3	4.4	0.0
Cycle Q Clear(g_c), s	0.5	0.0	0.0	0.6	0.0	0.0	0.1	5.4	0.0	6.3	4.4	0.0
Prop In Lane	0.81		0.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	82	0	0	328	0		26	939		783	1692	0
V/C Ratio(X)	0.26	0.00	0.00	0.15	0.00		0.19	0.49		0.64	0.31	0.00
Avail Cap(c_a), veh/h	742	0	0	1470	0		735	3299		2138	3299	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.3	0.0	0.0	20.3	0.0	0.0	23.6	15.1	0.0	17.0	7.8	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.1	0.0	0.0	1.3	0.8	0.0	0.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.2	0.0	0.0	0.1	2.0	0.0	2.2	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.9	0.0	0.0	20.3	0.0	0.0	24.9	15.9	0.0	17.3	8.0	0.0
LnGrp LOS	C	A	A	C	A		C	B		B	A	A
Approach Vol, veh/h		21			50	A		469	A		1029	
Approach Delay, s/veh		22.9			20.3			16.0			12.5	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	18.8		8.5	4.7	29.1		6.2				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	30.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	8.3	7.4		2.6	2.1	6.4		2.5				
Green Ext Time (p_c), s	1.4	4.7		0.1	0.0	5.5		0.0				

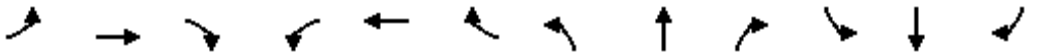
Intersection Summary			
HCM 6th Ctrl Delay		13.9	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	2	71	19	1	1	123	559	15	4	500	12
Future Volume (veh/h)	8	2	71	19	1	1	123	559	15	4	500	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	2	13	19	1	0	123	559	8	4	500	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	79	20	87	83	4	0	242	1805	805	15	1354	604
Arrive On Green	0.06	0.06	0.06	0.05	0.05	0.00	0.14	0.51	0.51	0.01	0.38	0.38
Sat Flow, veh/h	1439	360	1585	1696	89	0	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	10	0	13	20	0	0	123	559	8	4	500	5
Grp Sat Flow(s),veh/h/ln	1798	0	1585	1786	0	0	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.2	0.0	0.4	0.5	0.0	0.0	3.0	4.3	0.1	0.1	4.8	0.1
Cycle Q Clear(g_c), s	0.2	0.0	0.4	0.5	0.0	0.0	3.0	4.3	0.1	0.1	4.8	0.1
Prop In Lane	0.80		1.00	0.95		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	99	0	87	87	0	0	242	1805	805	15	1354	604
V/C Ratio(X)	0.10	0.00	0.15	0.23	0.00	0.00	0.51	0.31	0.01	0.26	0.37	0.01
Avail Cap(c_a), veh/h	762	0	672	757	0	0	1132	3012	1344	755	3012	1344
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	0.0	21.2	21.6	0.0	0.0	18.9	6.8	5.7	23.2	10.5	9.1
Incr Delay (d2), s/veh	0.2	0.0	0.3	0.5	0.0	0.0	0.6	0.2	0.0	3.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.1	0.2	0.0	0.0	1.0	0.9	0.0	0.1	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.3	0.0	21.5	22.1	0.0	0.0	19.5	6.9	5.7	26.5	10.8	9.1
LnGrp LOS	C	A	C	C	A	A	B	A	A	C	B	A
Approach Vol, veh/h		23			20			690			509	
Approach Delay, s/veh		21.4			22.1			9.2			10.9	
Approach LOS		C			C			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.4	29.7		6.8	10.4	23.7		6.3				
Change Period (Y+Rc), s	4.0	5.7		* 4.2	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	40.0		* 20	30.0	40.0		20.0				
Max Q Clear Time (g_c+I1), s	2.1	6.3		2.4	5.0	6.8		2.5				
Green Ext Time (p_c), s	0.0	12.7		0.0	0.2	11.2		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		10.3	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Existing Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 64 **Chase Dr/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	59	52	88.8%	47.3	8.1	D
	Through						
	Right Turn	76	66	86.8%	1.9	0.3	A
	Subtotal	135	118	87.7%	22.0	5.5	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	1,723	1,780	103.3%	11.6	2.0	B
	Right Turn	78	71	91.3%	5.1	1.0	A
	Subtotal	1,801	1,851	102.8%	11.4	2.0	B
WB	Left Turn	131	128	97.4%	67.2	7.2	E
	Through	2,276	2,332	102.5%	17.1	2.6	B
	Right Turn						
	Subtotal	2,407	2,460	102.2%	19.7	2.5	B
Total		4,343	4,429	102.0%	16.3	1.9	B

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Existing Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 65 **Gibson Dr (E) /Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	2	1	40.0%	7.7	17.2	A
	Through	5	4	80.0%	43.7	39.7	D
	Right Turn	10	10	104.0%	17.4	14.4	B
	Subtotal	17	15	89.4%	27.7	15.8	C
SB	Left Turn	322	342	106.1%	42.7	4.9	D
	Through	4	5	120.0%	33.5	31.4	C
	Right Turn	91	101	111.2%	3.0	0.3	A
	Subtotal	417	448	107.3%	33.7	3.9	C
EB	Left Turn	155	156	100.4%	54.9	8.0	D
	Through	1,634	1,617	98.9%	17.9	2.6	B
	Right Turn	10	10	96.0%	14.5	6.2	B
	Subtotal	1,799	1,782	99.1%	21.1	2.5	C
WB	Left Turn	34	33	97.6%	52.4	16.2	D
	Through	2,314	2,252	97.3%	28.3	3.8	C
	Right Turn	261	258	98.7%	13.3	3.5	B
	Subtotal	2,609	2,543	97.5%	27.1	3.7	C
Total		4,842	4,788	98.9%	25.5	2.6	C

Intersection 66 **West Dr/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	46	50	107.8%	56.1	6.3	E
	Through	2,387	2,339	98.0%	20.2	3.0	C
	Right Turn	97	104	107.2%	5.7	0.8	A
	Subtotal	2,530	2,492	98.5%	20.3	2.9	C
SB	Left Turn	174	179	103.0%	59.6	4.4	E
	Through	1,772	1,735	97.9%	4.5	1.8	A
	Right Turn	20	18	88.0%	1.5	0.8	A
	Subtotal	1,966	1,932	98.3%	9.5	1.5	A
EB	Left Turn	21	22	104.8%	63.2	13.2	E
	Through	5	5	96.0%	29.8	26.8	C
	Right Turn	12	10	86.7%	16.7	9.3	B
	Subtotal	38	37	97.9%	48.5	7.2	D
WB	Left Turn	138	155	112.5%	43.9	6.8	D
	Through	4	4	90.0%	28.8	27.0	C
	Right Turn	201	194	96.3%	1.2	0.1	A
	Subtotal	343	352	102.7%	20.6	4.4	C
Total		4,877	4,814	98.7%	16.3	1.8	B

Intersection 67 **Reserve Dr/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	343	349	101.7%	43.4	3.6	D
	Through	32	28	88.8%	47.7	10.4	D
	Right Turn	268	254	94.8%	11.6	3.8	B
	Subtotal	643	631	98.2%	31.0	2.9	C
SB	Left Turn	151	182	120.5%	42.8	5.5	D
	Through	22	22	101.8%	45.0	12.1	D
	Right Turn	77	86	112.2%	0.6	0.1	A
	Subtotal	250	291	116.3%	30.4	4.2	C
EB	Left Turn	42	40	95.2%	46.9	6.1	D
	Through	1,620	1,579	97.5%	33.0	5.4	C
	Right Turn	260	271	104.3%	15.0	4.5	B
	Subtotal	1,922	1,890	98.3%	30.7	5.0	C
WB	Left Turn	204	228	112.0%	49.9	2.7	D
	Through	2,110	2,047	97.0%	19.7	3.5	B
	Right Turn	175	161	91.9%	2.4	0.3	A
	Subtotal	2,489	2,436	97.9%	21.4	2.8	C
Total		5,304	5,248	98.9%	26.5	2.1	C

Intersection 68 **Galleria Blvd/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	597	641	107.3%	60.3	11.1	E
	Through	914	974	106.6%	67.5	10.3	E
	Right Turn	75	67	89.6%	6.3	1.0	A
	Subtotal	1,586	1,682	106.1%	62.6	6.6	E
SB	Left Turn	607	630	103.7%	68.2	17.9	E
	Through	685	700	102.2%	105.9	50.0	F
	Right Turn	358	373	104.2%	10.3	4.1	B
	Subtotal	1,650	1,703	103.2%	71.5	22.0	E
EB	Left Turn	470	438	93.2%	69.9	14.7	E
	Through	1,245	1,181	94.8%	36.5	5.3	D
	Right Turn	463	475	102.5%	9.1	1.6	A
	Subtotal	2,178	2,094	96.1%	37.4	4.5	D
WB	Left Turn	256	234	91.6%	73.9	9.0	E
	Through	1,519	1,418	93.4%	61.2	14.3	E
	Right Turn	772	734	95.1%	8.5	2.8	A
	Subtotal	2,547	2,387	93.7%	46.4	10.7	D
Total		7,961	7,866	98.8%	52.9	5.6	D

Intersection 69 **Creekside Ridge Dr/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	30	28	93.3%	52.1	16.4	D
	Through	7	8	114.3%	30.6	25.4	C
	Right Turn	30	27	90.7%	16.3	4.8	B
	Subtotal	67	63	94.3%	33.7	7.7	C
SB	Left Turn	320	326	101.9%	41.3	5.0	D
	Through						
	Right Turn	130	132	101.8%	24.7	5.4	C
	Subtotal	450	458	101.9%	36.5	5.1	D
EB	Left Turn	80	66	82.5%	48.7	10.2	D
	Through	1,853	1,787	96.4%	17.2	2.2	B
	Right Turn	7	7	97.1%	6.4	1.9	A
	Subtotal	1,940	1,860	95.9%	18.2	2.2	B
WB	Left Turn	23	30	128.7%	56.4	10.1	E
	Through	2,371	2,329	98.2%	18.4	3.2	B
	Right Turn	351	344	98.1%	15.1	2.1	B
	Subtotal	2,745	2,703	98.5%	18.5	2.9	B
Total		5,202	5,084	97.7%	20.2	1.9	C

Intersection 70 **Taylor Rd/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	579	545	94.2%	50.1	5.1	D
	Through	340	313	92.1%	49.3	3.9	D
	Right Turn	239	241	100.8%	32.2	9.8	C
	Subtotal	1,158	1,099	94.9%	46.1	3.1	D
SB	Left Turn	398	375	94.2%	49.1	3.4	D
	Through	180	163	90.4%	49.6	3.3	D
	Right Turn	207	213	102.8%	6.8	1.2	A
	Subtotal	785	750	95.6%	37.2	2.4	D
EB	Left Turn	201	172	85.6%	94.1	25.2	F
	Through	1,776	1,758	99.0%	72.4	21.1	E
	Right Turn	233	214	91.7%	33.8	15.1	C
	Subtotal	2,210	2,143	97.0%	70.3	20.7	E
WB	Left Turn	257	290	113.0%	42.8	4.3	D
	Through	1,945	2,096	107.8%	30.2	4.7	C
	Right Turn	544	555	102.1%	26.9	6.5	C
	Subtotal	2,746	2,942	107.1%	31.0	4.5	C
Total		6,899	6,935	100.5%	46.3	7.2	D

Intersection 71 **N Sunrise Ave/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	509	466	91.6%	64.3	13.6	E
	Through	74	66	88.6%	41.3	7.9	D
	Right Turn	229	236	102.9%	2.2	0.2	A
	Subtotal	812	767	94.5%	43.4	9.7	D
SB	Left Turn	46	45	97.4%	73.3	33.1	E
	Through	217	201	92.5%	52.2	10.0	D
	Right Turn	305	277	90.9%	24.8	2.4	C
	Subtotal	568	523	92.0%	39.5	6.8	D
EB	Left Turn	130	112	86.5%	70.7	9.9	E
	Through	2,012	2,083	103.5%	41.6	10.2	D
	Right Turn	284	266	93.5%	14.1	3.3	B
	Subtotal	2,426	2,461	101.5%	40.0	9.2	D
WB	Left Turn	194	186	95.7%	61.0	5.7	E
	Through	1,932	2,124	110.0%	29.5	5.6	C
	Right Turn	17	15	87.1%	11.0	3.3	B
	Subtotal	2,143	2,325	108.5%	31.9	5.3	C
Total		5,949	6,076	102.1%	37.4	3.7	D

Intersection 72 **Secret Ravine Pkwy/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	4	4	90.0%	39.3	38.7	D
	Through						
	Right Turn						
	Subtotal	4	4	90.0%	37.1	40.3	D
SB	Left Turn	133	120	90.2%	52.9	8.1	D
	Through						
	Right Turn	499	511	102.4%	21.4	2.8	C
	Subtotal	632	631	99.8%	27.4	2.8	C
EB	Left Turn	631	583	92.4%	31.0	3.0	C
	Through	1,622	1,611	99.3%	21.7	7.0	C
	Right Turn	4	3	80.0%	8.1	1.3	A
	Subtotal	2,257	2,198	97.4%	24.2	5.5	C
WB	Left Turn	31	33	105.8%	50.2	12.8	D
	Through	1,640	1,776	108.3%	29.4	3.8	C
	Right Turn	123	123	100.2%	14.7	1.4	B
	Subtotal	1,794	1,932	107.7%	28.8	3.6	C
Total		4,687	4,764	101.6%	26.5	3.7	C

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Existing Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 73 **Roseville Pkwy/Alexandra Dr** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	1,650	1,741	105.5%	6.3	1.1	A
	Right Turn	149	168	112.5%	4.8	0.9	A
	Subtotal	1,799	1,909	106.1%	6.2	1.0	A
SB	Left Turn	117	104	88.5%	48.7	10.9	D
	Through	1,521	1,447	95.1%	6.5	1.0	A
	Right Turn						
	Subtotal	1,638	1,550	94.7%	9.3	0.9	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	83	77	92.5%	49.1	7.6	D
	Through						
	Right Turn	72	71	98.9%	17.6	7.5	B
	Subtotal	155	148	95.5%	34.1	6.4	C
Total		3,592	3,607	100.4%	8.7	0.8	A

Intersection 74 **Roseville Pkwy/Rocky Ridge Dr** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	95	79	82.9%	63.4	7.8	E
	Through	1,524	1,607	105.4%	5.4	1.0	A
	Right Turn						
	Subtotal	1,619	1,686	104.1%	8.2	1.3	A
SB	Left Turn						
	Through	1,372	1,378	100.4%	11.8	2.1	B
	Right Turn	232	226	97.2%	8.8	0.9	A
	Subtotal	1,604	1,603	100.0%	11.3	1.9	B
EB	Left Turn	275	262	95.3%	48.0	2.4	D
	Through						
	Right Turn	173	156	89.9%	15.0	4.1	B
	Subtotal	448	418	93.2%	35.7	2.6	D
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		3,671	3,706	101.0%	12.6	1.2	B

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Existing Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 75 **Roseville Pkwy/Lead Hill Blvd** **Signal**

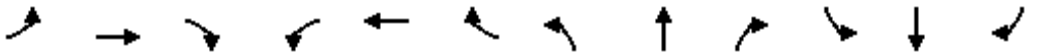
Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	191	175	91.7%	51.9	4.6	D
	Through	1,507	1,516	100.6%	8.5	1.6	A
	Right Turn	6	6	93.3%	1.7	1.8	A
	Subtotal	1,704	1,696	99.6%	12.9	2.0	B
SB	Left Turn	16	13	82.5%	51.0	9.8	D
	Through	1,435	1,444	100.6%	16.4	2.6	B
	Right Turn	94	103	109.8%	9.8	2.3	A
	Subtotal	1,545	1,560	101.0%	16.2	2.5	B
EB	Left Turn	107	116	108.0%	49.5	6.4	D
	Through	30	30	98.7%	39.6	10.3	D
	Right Turn	209	209	99.9%	14.1	1.8	B
	Subtotal	346	354	102.3%	27.8	3.2	C
WB	Left Turn	4	6	160.0%	57.0	33.2	E
	Through	39	34	87.2%	54.6	13.9	D
	Right Turn	5	6	120.0%	19.0	21.5	B
	Subtotal	48	46	96.7%	50.2	7.7	D
Total		3,643	3,657	100.4%	16.2	1.2	B

Intersection 76 **Roseville Pkwy/Olympus Dr** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	20	21	106.0%	55.1	16.9	E
	Through	1,408	1,429	101.5%	21.1	2.0	C
	Right Turn	182	200	109.7%	10.0	1.8	B
	Subtotal	1,610	1,650	102.5%	20.2	2.1	C
SB	Left Turn	267	240	89.7%	67.2	12.5	E
	Through	1,355	1,339	98.8%	24.3	14.4	C
	Right Turn	51	43	83.9%	14.7	8.1	B
	Subtotal	1,673	1,621	96.9%	30.4	13.2	C
EB	Left Turn	79	92	116.5%	54.4	11.2	D
	Through	58	59	102.1%	45.1	9.2	D
	Right Turn	128	116	90.3%	28.3	8.2	C
	Subtotal	265	267	100.7%	40.9	7.7	D
WB	Left Turn	47	48	101.3%	50.2	8.2	D
	Through	86	84	98.1%	46.9	12.1	D
	Right Turn	217	202	93.1%	1.5	0.2	A
	Subtotal	350	334	95.4%	20.3	5.1	C
Total		3,898	3,872	99.3%	25.8	5.5	C

Intersection 77 **Roseville Pkwy/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	196	203	103.5%	74.0	36.5	E
	Through	570	607	106.5%	60.3	15.0	E
	Right Turn	55	56	101.1%	20.7	11.0	C
	Subtotal	821	865	105.4%	61.4	18.8	E
SB	Left Turn	736	768	104.3%	74.2	15.5	E
	Through	758	799	105.4%	45.3	7.3	D
	Right Turn	126	124	98.4%	12.1	4.3	B
	Subtotal	1,620	1,691	104.4%	56.2	9.1	E
EB	Left Turn	183	181	98.8%	68.2	3.3	E
	Through	1,537	1,413	91.9%	33.5	3.7	C
	Right Turn	173	173	99.9%	16.5	2.2	B
	Subtotal	1,893	1,767	93.3%	35.4	3.2	D
WB	Left Turn	123	118	95.9%	56.7	10.1	E
	Through	1,544	1,442	93.4%	51.9	17.0	D
	Right Turn	808	813	100.6%	36.7	28.6	D
	Subtotal	2,475	2,373	95.9%	47.0	20.5	D
Total		6,809	6,696	98.3%	48.2	9.9	D



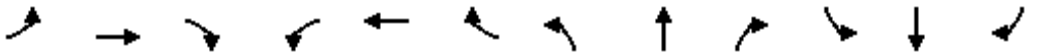
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	5	13	57	5	90	110	800	20	98	942	22
Future Volume (veh/h)	19	5	13	57	5	90	110	800	20	98	942	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	5	1	57	5	13	110	800	19	98	942	21
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	73	19	82	200	18	193	206	1446	34	196	1430	32
Arrive On Green	0.05	0.05	0.05	0.12	0.12	0.12	0.12	0.41	0.41	0.11	0.40	0.40
Sat Flow, veh/h	1424	375	1585	1644	144	1585	1781	3548	84	1781	3554	79
Grp Volume(v), veh/h	24	0	1	62	0	13	110	401	418	98	471	492
Grp Sat Flow(s),veh/h/ln	1799	0	1585	1788	0	1585	1781	1777	1855	1781	1777	1856
Q Serve(g_s), s	0.7	0.0	0.0	1.8	0.0	0.4	3.3	9.9	9.9	3.0	12.3	12.3
Cycle Q Clear(g_c), s	0.7	0.0	0.0	1.8	0.0	0.4	3.3	9.9	9.9	3.0	12.3	12.3
Prop In Lane	0.79		1.00	0.92		1.00	1.00		0.05	1.00		0.04
Lane Grp Cap(c), veh/h	93	0	82	218	0	193	206	724	756	196	715	747
V/C Ratio(X)	0.26	0.00	0.01	0.29	0.00	0.07	0.54	0.55	0.55	0.50	0.66	0.66
Avail Cap(c_a), veh/h	628	0	553	624	0	553	622	1272	1328	622	1458	1523
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.1	0.0	25.8	22.9	0.0	22.3	23.9	13.0	13.0	24.0	13.9	13.9
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.3	0.0	0.1	0.8	1.1	1.1	0.7	1.8	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.7	0.0	0.1	1.3	3.4	3.5	1.2	4.3	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.7	0.0	25.8	23.2	0.0	22.3	24.7	14.1	14.1	24.7	15.7	15.6
LnGrp LOS	C	A	C	C	A	C	C	B	B	C	B	B
Approach Vol, veh/h		25			75			929			1061	
Approach Delay, s/veh		26.6			23.0			15.3			16.5	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	7.0	10.6	28.8	11.0	10.3	29.0
Change Period (Y+Rc), s	4.0	4.0	5.7	4.0	4.0	5.7
Max Green Setting (Gmax), s	20.0	20.0	47.0	20.0	20.0	41.0
Max Q Clear Time (g_c+I1), s	2.7	5.3	14.3	3.8	5.0	11.9
Green Ext Time (p_c), s	0.0	0.1	8.7	0.1	0.1	6.8

Intersection Summary	
HCM 6th Ctrl Delay	16.3
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	340	608	62	320	122	351	616	53	171	799	56
Future Volume (veh/h)	32	340	608	62	320	122	351	616	53	171	799	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2001	1924	1924	2001	1924	1924	2001	1924	1924	1954	1879	1879
Adj Flow Rate, veh/h	32	340	463	62	320	28	351	616	20	171	799	19
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	109	563	464	159	660	292	489	1478	657	216	1387	616
Arrive On Green	0.06	0.15	0.15	0.08	0.18	0.18	0.13	0.40	0.40	0.12	0.39	0.39
Sat Flow, veh/h	1906	3656	1615	1906	3656	1617	3698	3656	1625	1861	3571	1586
Grp Volume(v), veh/h	32	340	463	62	320	28	351	616	20	171	799	19
Grp Sat Flow(s),veh/h/ln	1906	1828	1615	1906	1828	1617	1849	1828	1625	1861	1785	1586
Q Serve(g_s), s	1.3	7.1	12.5	2.5	6.4	1.2	7.4	9.8	0.6	7.3	14.3	0.6
Cycle Q Clear(g_c), s	1.3	7.1	12.5	2.5	6.4	1.2	7.4	9.8	0.6	7.3	14.3	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	109	563	464	159	660	292	489	1478	657	216	1387	616
V/C Ratio(X)	0.29	0.60	1.00	0.39	0.48	0.10	0.72	0.42	0.03	0.79	0.58	0.03
Avail Cap(c_a), veh/h	468	1033	672	468	1033	457	1227	1797	798	457	1799	799
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	32.1	29.0	35.3	30.0	27.8	33.9	17.4	14.6	35.0	19.6	15.4
Incr Delay (d2), s/veh	0.6	2.3	33.8	0.6	0.9	0.2	0.7	0.3	0.0	2.5	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.1	12.4	1.1	2.7	0.4	3.1	3.6	0.2	3.2	5.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	34.4	62.9	35.9	30.9	28.1	34.6	17.6	14.6	37.5	20.3	15.4
LnGrp LOS	D	C	E	D	C	C	C	B	B	D	C	B
Approach Vol, veh/h		835			410			987			989	
Approach Delay, s/veh		50.3			31.5			23.6			23.1	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	18.2	14.8	37.6	8.6	20.4	13.5	38.9
Change Period (Y+Rc), s	4.0	* 5.7	4.0	* 6	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	20.0	* 23	27.0	* 41	20.0	23.0	20.0	40.0
Max Q Clear Time (g_c+I1), s	4.5	9.1	9.4	16.3	3.3	8.4	9.3	11.8
Green Ext Time (p_c), s	0.1	2.9	1.3	14.9	0.0	4.2	0.4	11.8

Intersection Summary	
HCM 6th Ctrl Delay	31.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



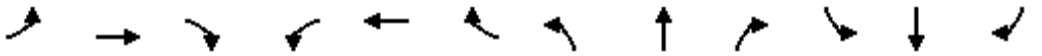
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1290	100	82	840	80	90
Future Volume (veh/h)	1290	100	82	840	80	90
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1290	95	82	840	80	16
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1802	132	195	2524	231	206
Arrive On Green	0.54	0.54	0.11	0.71	0.13	0.13
Sat Flow, veh/h	3450	247	1781	3647	1781	1585
Grp Volume(v), veh/h	682	703	82	840	80	16
Grp Sat Flow(s),veh/h/ln	1777	1826	1781	1777	1781	1585
Q Serve(g_s), s	18.0	18.1	2.7	5.6	2.6	0.6
Cycle Q Clear(g_c), s	18.0	18.1	2.7	5.6	2.6	0.6
Prop In Lane		0.14	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	954	981	195	2524	231	206
V/C Ratio(X)	0.71	0.72	0.42	0.33	0.35	0.08
Avail Cap(c_a), veh/h	1847	1898	570	2899	570	507
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.9	10.9	26.0	3.4	24.8	23.9
Incr Delay (d2), s/veh	1.5	1.5	0.5	0.1	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	5.3	1.0	0.8	1.1	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.4	12.4	26.5	3.5	25.1	24.0
LnGrp LOS	B	B	C	A	C	C
Approach Vol, veh/h	1385			922	96	
Approach Delay, s/veh	12.4			5.6	24.9	
Approach LOS	B			A	C	

Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	12.1	10.8	39.6	50.4
Change Period (Y+Rc), s	4.0	4.0	6.0	6.0
Max Green Setting (Gmax), s	20.0	20.0	65.0	51.0
Max Q Clear Time (g_c+I1), s	4.6	4.7	20.1	7.6
Green Ext Time (p_c), s	0.1	0.1	13.4	7.0

Intersection Summary	
HCM 6th Ctrl Delay	10.3
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	339	872	51	188	68	579	875	40	99	957	71
Future Volume (veh/h)	103	339	872	51	188	68	579	875	40	99	957	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	103	339	0	51	188	0	579	875	0	99	957	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	435		109	397		644	1460		409	1664	
Arrive On Green	0.07	0.12	0.00	0.06	0.11	0.00	0.19	0.41	0.00	0.23	0.47	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	103	339	0	51	188	0	579	875	0	99	957	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	6.8	11.1	0.0	3.3	6.0	0.0	19.7	23.1	0.0	5.4	23.5	0.0
Cycle Q Clear(g_c), s	6.8	11.1	0.0	3.3	6.0	0.0	19.7	23.1	0.0	5.4	23.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	128	435		109	397		644	1460		409	1664	
V/C Ratio(X)	0.80	0.78		0.47	0.47		0.90	0.60		0.24	0.57	
Avail Cap(c_a), veh/h	238	572		238	583		749	1460		409	1664	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.9	51.1	0.0	54.4	50.0	0.0	47.7	27.6	0.0	37.7	23.2	0.0
Incr Delay (d2), s/veh	4.4	6.7	0.0	1.2	1.5	0.0	11.6	1.8	0.0	0.1	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	5.2	0.0	1.5	2.7	0.0	9.1	9.4	0.0	2.3	9.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.3	57.8	0.0	55.6	51.5	0.0	59.3	29.5	0.0	37.8	23.8	0.0
LnGrp LOS	E	E		E	D		E	C		D	C	
Approach Vol, veh/h		442	A		239	A		1454	A		1056	A
Approach Delay, s/veh		58.1			52.4			41.3			25.1	
Approach LOS		E			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.3	55.0	11.4	20.4	26.4	61.9	12.6	19.1
Change Period (Y+Rc), s	5.7	* 5.7	4.0	5.7	4.0	5.7	4.0	* 5.7
Max Green Setting (Gmax), s	16.0	* 49	16.0	19.3	26.0	39.3	16.0	* 20
Max Q Clear Time (g_c+I1), s	7.4	25.1	5.3	13.1	21.7	25.5	8.8	8.0
Green Ext Time (p_c), s	0.1	6.4	0.0	1.2	0.7	5.5	0.1	0.9

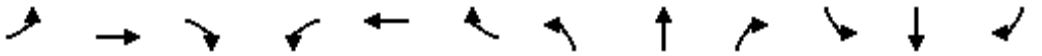
Intersection Summary	
HCM 6th Ctrl Delay	39.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

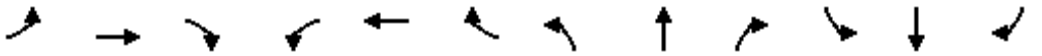
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	557	0	0	1051	402	0	0	0	250	0	113
Future Volume (veh/h)	96	557	0	0	1051	402	0	0	0	250	0	113
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841				1841	0	1841
Adj Flow Rate, veh/h	96	557	0	0	1051	180				250	0	113
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	4	4	0	0	4	4				4	0	4
Cap, veh/h	124	2058	0	0	1515	672				340	0	303
Arrive On Green	0.07	0.59	0.00	0.00	0.43	0.43				0.19	0.00	0.19
Sat Flow, veh/h	1753	3589	0	0	3589	1551				1753	0	1560
Grp Volume(v), veh/h	96	557	0	0	1051	180				250	0	113
Grp Sat Flow(s),veh/h/ln	1753	1749	0	0	1749	1551				1753	0	1560
Q Serve(g_s), s	2.5	3.7	0.0	0.0	11.5	3.5				6.3	0.0	3.0
Cycle Q Clear(g_c), s	2.5	3.7	0.0	0.0	11.5	3.5				6.3	0.0	3.0
Prop In Lane	1.00		0.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	124	2058	0	0	1515	672				340	0	303
V/C Ratio(X)	0.77	0.27	0.00	0.00	0.69	0.27				0.74	0.00	0.37
Avail Cap(c_a), veh/h	740	2585	0	0	3915	1736				1444	0	1285
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	21.6	4.8	0.0	0.0	10.9	8.6				17.9	0.0	16.6
Incr Delay (d2), s/veh	3.8	0.1	0.0	0.0	0.6	0.2				1.2	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.6	0.0	0.0	3.0	0.8				2.4	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	4.8	0.0	0.0	11.5	8.8				19.1	0.0	16.9
LnGrp LOS	C	A	A	A	B	A				B	A	B
Approach Vol, veh/h		653			1231						363	
Approach Delay, s/veh		7.9			11.1						18.4	
Approach LOS		A			B						B	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		33.6		13.8	7.4	26.2						
Change Period (Y+Rc), s		5.7		4.6	4.0	5.7						
Max Green Setting (Gmax), s		35.0		39.0	20.0	53.0						
Max Q Clear Time (g_c+I1), s		5.7		8.3	4.5	13.5						
Green Ext Time (p_c), s		2.5		0.9	0.1	6.7						

Intersection Summary												
HCM 6th Ctrl Delay			11.3									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	774	9	11	1405	286	17	3	18	82	4	53
Future Volume (veh/h)	57	774	9	11	1405	286	17	3	18	82	4	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1885	1885	1826	1826	1885	1885	1885	1732	1791	1732
Adj Flow Rate, veh/h	57	774	9	11	1405	165	17	3	2	82	4	53
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	5	5	1	1	5	5	1	1	1	5	1	5
Cap, veh/h	73	2310	27	15	2166	958	35	21	14	122	6	105
Arrive On Green	0.04	0.66	0.66	0.01	0.62	0.62	0.02	0.02	0.02	0.07	0.07	0.07
Sat Flow, veh/h	1739	3512	41	1795	3469	1535	1795	1055	703	1630	80	1409
Grp Volume(v), veh/h	57	382	401	11	1405	165	17	0	5	86	0	53
Grp Sat Flow(s),veh/h/ln	1739	1735	1818	1795	1735	1535	1795	0	1759	1709	0	1409
Q Serve(g_s), s	2.5	7.4	7.4	0.5	19.5	3.5	0.7	0.0	0.2	3.7	0.0	2.8
Cycle Q Clear(g_c), s	2.5	7.4	7.4	0.5	19.5	3.5	0.7	0.0	0.2	3.7	0.0	2.8
Prop In Lane	1.00		0.02	1.00		1.00	1.00		0.40	0.95		1.00
Lane Grp Cap(c), veh/h	73	1141	1196	15	2166	958	35	0	34	128	0	105
V/C Ratio(X)	0.79	0.33	0.34	0.75	0.65	0.17	0.48	0.00	0.15	0.67	0.00	0.50
Avail Cap(c_a), veh/h	456	1141	1196	470	3044	1347	470	0	461	255	0	210
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.2	5.7	5.7	37.8	9.1	6.0	37.0	0.0	36.8	34.4	0.0	34.0
Incr Delay (d2), s/veh	6.8	0.2	0.2	24.2	0.3	0.1	3.8	0.0	0.7	2.3	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.9	1.9	0.3	5.3	0.8	0.3	0.0	0.1	1.6	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.1	5.9	5.9	62.0	9.4	6.1	40.9	0.0	37.5	36.7	0.0	35.3
LnGrp LOS	D	A	A	E	A	A	D	A	D	D	A	D
Approach Vol, veh/h		840			1581			22			139	
Approach Delay, s/veh		8.4			9.4			40.1			36.2	
Approach LOS		A			A			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.6	55.9		5.5	7.2	53.4		10.3				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.6				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	67.0		11.4				
Max Q Clear Time (g_c+I1), s	2.5	9.4		2.7	4.5	21.5		5.7				
Green Ext Time (p_c), s	0.0	9.5		0.0	0.1	26.1		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		10.8	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	658	230	370	1674	261	452
Future Volume (veh/h)	658	230	370	1674	261	452
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	658	87	370	1674	261	450
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	635	557	764	2412	312	957
Arrive On Green	0.18	0.18	0.43	0.68	0.17	0.17
Sat Flow, veh/h	3647	1563	1781	3647	1781	1585
Grp Volume(v), veh/h	658	87	370	1674	261	450
Grp Sat Flow(s),veh/h/ln	1777	1563	1781	1777	1781	1585
Q Serve(g_s), s	14.3	3.0	12.0	22.9	11.3	0.0
Cycle Q Clear(g_c), s	14.3	3.0	12.0	22.9	11.3	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	635	557	764	2412	312	957
V/C Ratio(X)	1.04	0.16	0.48	0.69	0.84	0.47
Avail Cap(c_a), veh/h	635	557	764	2412	356	997
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.91	0.91	0.86	0.86
Uniform Delay (d), s/veh	32.8	17.7	16.5	7.8	31.9	8.8
Incr Delay (d2), s/veh	45.3	0.1	0.2	1.5	11.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	1.4	4.2	6.0	5.7	10.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	78.1	17.8	16.6	9.3	43.2	8.9
LnGrp LOS	F	B	B	A	D	A
Approach Vol, veh/h	745			2044	711	
Approach Delay, s/veh	71.1			10.7	21.5	
Approach LOS	E			B	C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	40.0	20.0		18.0		60.0
Change Period (Y+Rc), s	5.7	* 5.7		4.0		5.7
Max Green Setting (Gmax), s	16.0	* 14		16.0		54.3
Max Q Clear Time (g_c+I1), s	14.0	16.3		13.3		24.9
Green Ext Time (p_c), s	0.2	0.0		0.7		10.7

Intersection Summary	
HCM 6th Ctrl Delay	25.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection 85 **I-80 WB Ramps/Atlantic St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	700	725	103.5%	1.5	0.2	A
	Subtotal	700	725	103.5%	1.5	0.2	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	813	802	98.6%	9.3	7.3	A
	Right Turn	297	286	96.4%	24.6	34.8	C
	Subtotal	1,110	1,088	98.1%	13.4	14.4	B
WB	Left Turn	412	388	94.2%	34.2	2.2	C
	Through	1,664	1,614	97.0%	6.0	0.4	A
	Right Turn						
	Subtotal	2,076	2,002	96.5%	11.5	1.0	B
Total		3,886	3,816	98.2%	10.2	4.5	B

Intersection 86 **Taylor Rd-I-80 EB Ramps/Eureka Rd** **Signal**

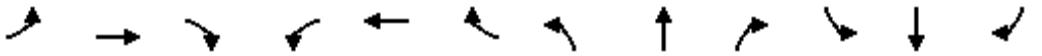
Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	204	211	103.5%	70.3	31.2	E
	Through	648	697	107.5%	57.7	17.2	E
	Right Turn	390	407	104.3%	9.6	4.3	A
	Subtotal	1,242	1,315	105.9%	45.1	13.6	D
SB	Left Turn	310	305	98.3%	44.0	4.8	D
	Through	482	482	99.9%	72.4	37.2	E
	Right Turn	81	84	103.7%	71.1	31.2	E
	Subtotal	873	870	99.7%	62.7	24.2	E
EB	Left Turn	210	217	103.4%	50.7	6.1	D
	Through	1,050	1,020	97.1%	27.5	1.9	C
	Right Turn	253	254	100.4%	5.6	0.9	A
	Subtotal	1,513	1,491	98.6%	27.3	1.2	C
WB	Left Turn						
	Through	2,150	1,938	90.2%	80.6	15.9	F
	Right Turn	364	344	94.5%	31.8	7.6	C
	Subtotal	2,514	2,282	90.8%	73.3	14.3	E
Total		6,142	5,959	97.0%	54.0	8.3	D

Intersection 87 **N Sunrise Ave/Eureka Rd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	480	522	108.8%	46.0	4.9	D
	Through	340	390	114.8%	37.1	4.5	D
	Right Turn	180	173	96.0%	2.4	0.2	A
	Subtotal	1,000	1,085	108.5%	35.8	2.2	D
SB	Left Turn	170	180	105.6%	47.0	4.4	D
	Through	370	389	105.2%	45.0	3.5	D
	Right Turn	389	397	102.1%	15.3	3.0	B
	Subtotal	929	966	104.0%	33.2	2.3	C
EB	Left Turn	230	206	89.6%	41.2	3.9	D
	Through	1,150	1,100	95.6%	20.7	1.8	C
	Right Turn	370	383	103.5%	5.1	0.5	A
	Subtotal	1,750	1,688	96.5%	19.7	1.4	B
WB	Left Turn	130	120	92.6%	50.2	8.7	D
	Through	1,645	1,561	94.9%	25.5	1.8	C
	Right Turn	140	132	94.6%	6.3	0.8	A
	Subtotal	1,915	1,814	94.7%	25.8	1.9	C
Total		5,594	5,553	99.3%	27.2	1.1	C

Intersection 88 **Rocky Ridge Dr/Eureka Rd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	410	374	91.2%	46.7	3.4	D
	Through	360	321	89.2%	28.1	2.3	C
	Right Turn	29	33	114.5%	2.2	0.4	A
	Subtotal	799	728	91.2%	36.5	2.6	D
SB	Left Turn	70	63	89.7%	51.7	8.8	D
	Through	297	281	94.7%	51.0	5.9	D
	Right Turn	166	150	90.4%	2.3	0.1	A
	Subtotal	533	494	92.7%	36.5	4.6	D
EB	Left Turn	118	133	112.9%	40.5	3.1	D
	Through	963	995	103.3%	18.0	2.5	B
	Right Turn	340	371	109.1%	3.7	0.5	A
	Subtotal	1,421	1,499	105.5%	16.5	1.7	B
WB	Left Turn	67	69	102.7%	63.7	13.4	E
	Through	1,405	1,477	105.1%	41.5	9.9	D
	Right Turn	50	54	108.0%	7.7	4.1	A
	Subtotal	1,522	1,600	105.1%	41.3	9.7	D
Total		4,275	4,321	101.1%	31.4	4.2	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	190	181	60	190	160	230	1217	70	104	914	44
Future Volume (veh/h)	102	190	181	60	190	160	230	1217	70	104	914	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	102	190	0	60	190	0	230	1217	0	104	914	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	127	371		78	272		260	1885		130	1582	
Arrive On Green	0.07	0.10	0.00	0.04	0.08	0.00	0.15	0.37	0.00	0.07	0.31	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	102	190	0	60	190	0	230	1217	0	104	914	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	6.8	6.1	0.0	4.0	6.3	0.0	15.2	23.7	0.0	6.9	18.1	0.0
Cycle Q Clear(g_c), s	6.8	6.1	0.0	4.0	6.3	0.0	15.2	23.7	0.0	6.9	18.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	127	371		78	272		260	1885		130	1582	
V/C Ratio(X)	0.80	0.51		0.77	0.70		0.88	0.65		0.80	0.58	
Avail Cap(c_a), veh/h	267	554		267	554		445	1885		297	1582	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.9	50.9	0.0	56.8	54.1	0.0	50.2	31.3	0.0	54.8	34.8	0.0
Incr Delay (d2), s/veh	4.4	2.2	0.0	6.0	6.5	0.0	5.3	1.7	0.0	4.3	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	2.8	0.0	1.9	3.0	0.0	7.0	9.6	0.0	3.2	7.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.3	53.1	0.0	62.7	60.5	0.0	55.5	33.1	0.0	59.1	35.5	0.0
LnGrp LOS	E	D		E	E		E	C		E	D	
Approach Vol, veh/h		292	A		250	A		1447	A		1018	A
Approach Delay, s/veh		55.2			61.1			36.6			37.9	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	17.8	21.5	42.9	12.6	14.5	14.4	50.0
Change Period (Y+Rc), s	4.0	5.3	4.0	5.7	4.0	5.3	5.7	* 5.7
Max Green Setting (Gmax), s	18.0	18.7	30.0	34.3	18.0	18.7	20.0	* 44
Max Q Clear Time (g_c+I1), s	6.0	8.1	17.2	20.1	8.8	8.3	8.9	25.7
Green Ext Time (p_c), s	0.1	0.9	0.4	5.8	0.1	0.9	0.1	9.0

Intersection Summary	
HCM 6th Ctrl Delay	40.9
HCM 6th LOS	D

Notes

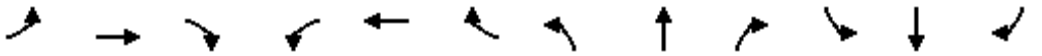
User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection 90 **Eureka Rd/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	393	380	96.6%	46.2	5.3	D
	Through	610	556	91.1%	69.9	16.4	E
	Right Turn	31	38	121.3%	21.3	11.5	C
	Subtotal	1,034	973	94.1%	58.8	11.3	E
SB	Left Turn	524	482	92.0%	50.8	2.9	D
	Through	565	531	93.9%	65.0	20.5	E
	Right Turn	152	160	105.3%	6.8	5.3	A
	Subtotal	1,241	1,173	94.5%	51.4	11.4	D
EB	Left Turn	191	202	105.5%	50.5	5.0	D
	Through	1,173	1,251	106.7%	33.2	1.9	C
	Right Turn	418	422	101.1%	27.2	3.3	C
	Subtotal	1,782	1,875	105.2%	33.7	1.5	C
WB	Left Turn	80	94	117.0%	60.7	6.7	E
	Through	1,395	1,482	106.2%	37.3	8.2	D
	Right Turn	617	617	100.0%	11.6	1.6	B
	Subtotal	2,092	2,192	104.8%	31.1	6.1	C
Total		6,149	6,213	101.0%	40.2	3.7	D



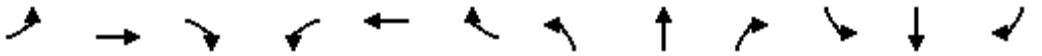
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	989	12	7	806	12	40	4	10	8	1	37
Future Volume (veh/h)	77	989	12	7	806	12	40	4	10	8	1	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	989	12	7	806	12	40	4	1	8	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	195	1733	21	27	1388	21	153	124	31	41	5	41
Arrive On Green	0.11	0.48	0.48	0.01	0.39	0.39	0.09	0.09	0.09	0.03	0.03	0.03
Sat Flow, veh/h	1781	3596	44	1781	3584	53	1781	1444	361	1592	199	1585
Grp Volume(v), veh/h	77	489	512	7	400	418	40	0	5	9	0	2
Grp Sat Flow(s),veh/h/ln	1781	1777	1863	1781	1777	1861	1781	0	1805	1791	0	1585
Q Serve(g_s), s	1.8	8.9	8.9	0.2	8.0	8.0	0.9	0.0	0.1	0.2	0.0	0.1
Cycle Q Clear(g_c), s	1.8	8.9	8.9	0.2	8.0	8.0	0.9	0.0	0.1	0.2	0.0	0.1
Prop In Lane	1.00		0.02	1.00		0.03	1.00		0.20	0.89		1.00
Lane Grp Cap(c), veh/h	195	856	898	27	688	720	153	0	155	46	0	41
V/C Ratio(X)	0.39	0.57	0.57	0.26	0.58	0.58	0.26	0.00	0.03	0.20	0.00	0.05
Avail Cap(c_a), veh/h	788	1769	1854	788	1769	1852	788	0	799	792	0	701
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.7	8.4	8.4	22.0	11.0	11.0	19.3	0.0	18.9	21.6	0.0	21.5
Incr Delay (d2), s/veh	0.5	1.0	1.0	1.9	1.3	1.3	0.3	0.0	0.0	0.8	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.7	2.8	0.1	2.7	2.9	0.4	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.2	9.4	9.4	24.0	12.3	12.2	19.7	0.0	19.0	22.3	0.0	21.7
LnGrp LOS	B	A	A	C	B	B	B	A	B	C	A	C
Approach Vol, veh/h		1078			825			45			11	
Approach Delay, s/veh		10.1			12.4			19.6			22.2	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.7	27.5		7.9	9.0	23.2		5.2				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	2.2	10.9		2.9	3.8	10.0		2.2				
Green Ext Time (p_c), s	0.0	9.8		0.0	0.1	7.5		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		11.3	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	459	56	37	472	9	25	1	7	6	3	7
Future Volume (veh/h)	41	459	56	37	472	9	25	1	7	6	3	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	41	459	51	37	472	5	25	1	0	6	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	116	1241	137	107	1348	601	98	4	0	29	14	38
Arrive On Green	0.07	0.38	0.38	0.06	0.38	0.38	0.06	0.06	0.00	0.02	0.02	0.02
Sat Flow, veh/h	1781	3226	357	1781	3554	1585	1716	69	0	1207	603	1585
Grp Volume(v), veh/h	41	252	258	37	472	5	26	0	0	9	0	1
Grp Sat Flow(s),veh/h/ln	1781	1777	1806	1781	1777	1585	1785	0	0	1810	0	1585
Q Serve(g_s), s	0.8	3.7	3.7	0.7	3.5	0.1	0.5	0.0	0.0	0.2	0.0	0.0
Cycle Q Clear(g_c), s	0.8	3.7	3.7	0.7	3.5	0.1	0.5	0.0	0.0	0.2	0.0	0.0
Prop In Lane	1.00		0.20	1.00		1.00	0.96		0.00	0.67		1.00
Lane Grp Cap(c), veh/h	116	683	695	107	1348	601	102	0	0	43	0	38
V/C Ratio(X)	0.35	0.37	0.37	0.35	0.35	0.01	0.25	0.00	0.00	0.21	0.00	0.03
Avail Cap(c_a), veh/h	977	1706	1734	977	3412	1522	979	0	0	993	0	870
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.3	8.0	8.1	16.4	8.1	7.0	16.4	0.0	0.0	17.5	0.0	17.4
Incr Delay (d2), s/veh	0.7	1.5	1.5	0.7	0.7	0.0	0.5	0.0	0.0	0.9	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.1	1.2	0.3	0.9	0.0	0.2	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.0	9.6	9.6	17.2	8.8	7.1	16.9	0.0	0.0	18.3	0.0	17.5
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	B
Approach Vol, veh/h		551			514			26			10	
Approach Delay, s/veh		10.1			9.4			16.9			18.3	
Approach LOS		B			A			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	6.1	6.2	19.3	4.9	6.4	19.1
Change Period (Y+Rc), s	4.0	4.0	5.3	4.0	4.0	5.3
Max Green Setting (Gmax), s	20.0	20.0	35.0	20.0	20.0	35.0
Max Q Clear Time (g_c+I1), s	2.5	2.7	5.7	2.2	2.8	5.5
Green Ext Time (p_c), s	0.0	0.0	8.3	0.0	0.0	8.1

Intersection Summary	
HCM 6th Ctrl Delay	10.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	336	82	41	190	198	121	987	37	221	1015	202
Future Volume (veh/h)	119	336	82	41	190	198	121	987	37	221	1015	202
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	119	336	0	41	190	0	121	987	0	221	1015	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	145	332		88	517		147	1247		250	1401	
Arrive On Green	0.08	0.18	0.00	0.05	0.15	0.00	0.08	0.35	0.00	0.14	0.39	0.00
Sat Flow, veh/h	1781	1870	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	119	336	0	41	190	0	121	987	0	221	1015	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	7.9	21.3	0.0	2.7	5.8	0.0	8.0	30.0	0.0	14.6	29.1	0.0
Cycle Q Clear(g_c), s	7.9	21.3	0.0	2.7	5.8	0.0	8.0	30.0	0.0	14.6	29.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	145	332		88	517		147	1247		250	1401	
V/C Ratio(X)	0.82	1.01		0.46	0.37		0.82	0.79		0.89	0.72	
Avail Cap(c_a), veh/h	238	332		238	631		238	1247		341	1401	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.2	49.3	0.0	55.5	46.3	0.0	54.2	35.0	0.0	50.6	30.8	0.0
Incr Delay (d2), s/veh	4.4	52.5	0.0	1.4	0.7	0.0	5.1	3.9	0.0	15.1	3.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	14.5	0.0	1.2	2.6	0.0	3.7	12.7	0.0	7.3	12.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.6	101.8	0.0	56.9	47.0	0.0	59.3	38.9	0.0	65.8	34.1	0.0
LnGrp LOS	E	F		E	D		E	D		E	C	
Approach Vol, veh/h		455	A		231	A		1108	A		1236	A
Approach Delay, s/veh		90.5			48.8			41.1			39.8	
Approach LOS		F			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.8	47.8	10.0	27.0	15.6	53.0	13.8	23.2
Change Period (Y+Rc), s	4.0	5.7	4.0	5.7	5.7	* 5.7	4.0	5.7
Max Green Setting (Gmax), s	23.0	40.3	16.0	21.3	16.0	* 47	16.0	21.3
Max Q Clear Time (g_c+I1), s	16.6	32.0	4.7	23.3	10.0	31.1	9.9	7.8
Green Ext Time (p_c), s	0.2	4.5	0.0	0.0	0.1	7.2	0.1	1.0

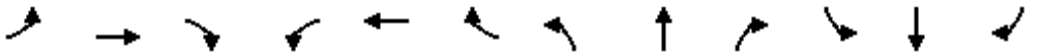
Intersection Summary	
HCM 6th Ctrl Delay	48.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

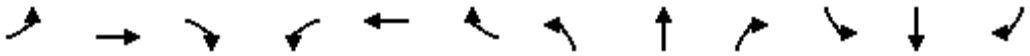
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	364	0	0	778	317	5	5	0	261	0	17
Future Volume (veh/h)	0	364	0	0	778	317	5	5	0	261	0	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	364	0	0	778	237	5	5	0	261	0	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	2	2467	0	0	1298	1365	9	9	0	298	0	265
Arrive On Green	0.00	0.69	0.00	0.00	1.00	1.00	0.01	0.01	0.00	0.17	0.00	0.17
Sat Flow, veh/h	1781	3647	0	0	1870	1585	912	912	0	1781	0	1585
Grp Volume(v), veh/h	0	364	0	0	778	237	10	0	0	261	0	3
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1870	1585	1825	0	0	1781	0	1585
Q Serve(g_s), s	0.0	3.5	0.0	0.0	0.0	0.0	0.5	0.0	0.0	14.3	0.0	0.2
Cycle Q Clear(g_c), s	0.0	3.5	0.0	0.0	0.0	0.0	0.5	0.0	0.0	14.3	0.0	0.2
Prop In Lane	1.00		0.00	0.00		1.00	0.50		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	2	2467	0	0	1298	1365	18	0	0	298	0	265
V/C Ratio(X)	0.00	0.15	0.00	0.00	0.60	0.17	0.56	0.00	0.00	0.88	0.00	0.01
Avail Cap(c_a), veh/h	445	2467	0	0	1298	1365	219	0	0	463	0	412
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	0.93	0.93	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	5.2	0.0	0.0	0.0	0.0	49.3	0.0	0.0	40.6	0.0	34.8
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.7	0.1	10.1	0.0	0.0	7.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.1	0.0	0.0	0.3	0.0	0.3	0.0	0.0	6.8	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	5.3	0.0	0.0	0.7	0.1	59.4	0.0	0.0	48.1	0.0	34.8
LnGrp LOS	A	A	A	A	A	A	E	A	A	D	A	C
Approach Vol, veh/h		364			1015			10			264	
Approach Delay, s/veh		5.3			0.6			59.4			48.0	
Approach LOS		A			A			E			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		74.3		20.7	0.0	74.3		5.0				
Change Period (Y+Rc), s		4.9		4.0	5.0	4.9		4.0				
Max Green Setting (Gmax), s		49.1		26.0	25.0	19.1		12.0				
Max Q Clear Time (g_c+I1), s		5.5		16.3	0.0	2.0		2.5				
Green Ext Time (p_c), s		1.9		0.4	0.0	8.2		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			9.5									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	605	20	12	1047	0	28	0	16	65	7	20
Future Volume (veh/h)	0	605	20	12	1047	0	28	0	16	65	7	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	605	0	12	1047	0	28	0	1	65	7	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	0	2	2	2	2	2	2
Cap, veh/h	0	2020		40	2242	0	76	0	3	124	98	28
Arrive On Green	0.00	1.00	0.00	0.05	1.00	0.00	0.04	0.00	0.04	0.07	0.07	0.07
Sat Flow, veh/h	0	3647	1585	1781	3647	0	1713	0	61	1781	1399	400
Grp Volume(v), veh/h	0	605	0	12	1047	0	29	0	0	65	0	9
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1781	1777	0	1774	0	0	1781	0	1798
Q Serve(g_s), s	0.0	0.0	0.0	0.7	0.0	0.0	1.6	0.0	0.0	3.5	0.0	0.5
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.7	0.0	0.0	1.6	0.0	0.0	3.5	0.0	0.5
Prop In Lane	0.00		1.00	1.00		0.00	0.97		0.03	1.00		0.22
Lane Grp Cap(c), veh/h	0	2020		40	2242	0	78	0	0	124	0	125
V/C Ratio(X)	0.00	0.30		0.30	0.47	0.00	0.37	0.00	0.00	0.52	0.00	0.07
Avail Cap(c_a), veh/h	0	2020		214	2242	0	213	0	0	214	0	216
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.99	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	47.0	0.0	0.0	46.4	0.0	0.0	44.9	0.0	43.5
Incr Delay (d2), s/veh	0.0	0.1	0.0	1.5	0.7	0.0	1.1	0.0	0.0	1.3	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.3	0.2	0.0	0.7	0.0	0.0	1.6	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.1	0.0	48.5	0.7	0.0	47.5	0.0	0.0	46.2	0.0	43.6
LnGrp LOS	A	A		D	A	A	D	A	A	D	A	D
Approach Vol, veh/h		605	A		1059			29			74	
Approach Delay, s/veh		0.1			1.2			47.5			45.9	
Approach LOS		A			A			D			D	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	6.3	61.7		11.0		68.0		8.4				
Change Period (Y+Rc), s	4.0	4.9		4.0		4.9		4.0				
Max Green Setting (Gmax), s	12.0	47.1		12.0		63.1		12.0				
Max Q Clear Time (g_c+I1), s	2.7	2.0		5.5		2.0		3.6				
Green Ext Time (p_c), s	0.0	7.1		0.0		15.2		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		3.5	
HCM 6th LOS		A	

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	680	17	170	1058	41	140
Future Volume (veh/h)	680	17	170	1058	41	140
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	680	14	170	1058	41	17
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1567	32	217	2281	111	99
Arrive On Green	0.44	0.44	0.12	0.64	0.06	0.06
Sat Flow, veh/h	3654	73	1781	3647	1781	1585
Grp Volume(v), veh/h	339	355	170	1058	41	17
Grp Sat Flow(s),veh/h/ln	1777	1857	1781	1777	1781	1585
Q Serve(g_s), s	6.6	6.6	4.6	7.6	1.1	0.5
Cycle Q Clear(g_c), s	6.6	6.6	4.6	7.6	1.1	0.5
Prop In Lane		0.04	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	782	817	217	2281	111	99
V/C Ratio(X)	0.43	0.43	0.78	0.46	0.37	0.17
Avail Cap(c_a), veh/h	782	817	356	2281	321	285
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.7	9.7	21.3	4.6	22.5	22.2
Incr Delay (d2), s/veh	0.4	0.4	2.3	0.7	0.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	2.0	1.8	1.5	0.5	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.1	10.1	23.7	5.2	23.2	22.5
LnGrp LOS	B	B	C	A	C	C
Approach Vol, veh/h	694			1228	58	
Approach Delay, s/veh	10.1			7.8	23.0	
Approach LOS	B			A	C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.1	26.9		7.1		37.0
Change Period (Y+Rc), s	4.0	4.9		4.0		4.9
Max Green Setting (Gmax), s	10.0	18.1		9.0		32.1
Max Q Clear Time (g_c+I1), s	6.6	8.6		3.1		9.6
Green Ext Time (p_c), s	0.1	3.9		0.0		12.4

Intersection Summary	
HCM 6th Ctrl Delay	9.0
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Existing Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 97 **Folsom Rd/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	2	3	140.0%	27.5	36.1	C
	Through	2	2	100.0%	18.6	26.7	B
	Right Turn	8	9	110.0%	7.4	4.7	A
	Subtotal	12	14	113.3%	25.0	18.5	C
SB	Left Turn	307	311	101.2%	32.6	3.6	C
	Through	4	4	90.0%	22.1	25.6	C
	Right Turn	91	92	101.5%	16.8	3.4	B
	Subtotal	402	407	101.2%	29.1	3.7	C
EB	Left Turn	58	63	109.0%	46.8	8.1	D
	Through	729	734	100.6%	8.9	1.2	A
	Right Turn	4	4	90.0%	1.5	2.2	A
	Subtotal	791	800	101.2%	11.9	1.2	B
WB	Left Turn	10	12	116.0%	43.0	19.4	D
	Through	1,195	1,166	97.6%	12.4	1.8	B
	Right Turn	102	95	92.9%	9.5	3.1	A
	Subtotal	1,307	1,273	97.4%	12.6	1.9	B
Total		2,512	2,494	99.3%	15.1	0.9	B

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Existing Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 98 **Harding Blvd/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	41	41	100.5%	40.0	7.2	D
	Through	30	30	101.3%	43.0	11.1	D
	Right Turn	63	64	102.2%	24.1	6.6	C
	Subtotal	134	136	101.5%	33.6	5.5	C
SB	Left Turn	764	717	93.8%	62.6	19.0	E
	Through	9	9	97.8%	76.1	35.3	E
	Right Turn	231	224	97.0%	36.2	12.8	D
	Subtotal	1,004	950	94.6%	56.6	17.7	E
EB	Left Turn	167	167	100.1%	48.7	5.7	D
	Through	989	1,010	102.1%	19.9	2.0	B
	Right Turn	9	10	106.7%	17.5	10.3	B
	Subtotal	1,165	1,187	101.9%	23.9	1.4	C
WB	Left Turn	55	43	77.8%	52.6	7.0	D
	Through	1,090	1,068	97.9%	24.0	3.7	C
	Right Turn	421	414	98.4%	8.4	1.8	A
	Subtotal	1,566	1,525	97.4%	20.6	3.2	C
Total		3,869	3,797	98.1%	31.2	4.5	C

Intersection 99 **I-80 WB Ramps-Sunrise Ave Connector/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	228	208	91.4%	107.6	35.1	F
	Through	513	582	113.4%	134.9	36.1	F
	Right Turn	200	174	87.2%	97.5	31.2	F
	Subtotal	941	964	102.5%	122.4	35.3	F
EB	Left Turn						
	Through	1,000	998	99.8%	11.8	1.1	B
	Right Turn	341	328	96.2%	8.1	1.0	A
	Subtotal	1,341	1,326	98.9%	10.9	0.9	B
WB	Left Turn						
	Through	1,458	1,432	98.2%	26.9	4.8	C
	Right Turn	1,298	1,173	90.4%	30.9	14.5	C
	Subtotal	2,756	2,606	94.5%	28.6	7.2	C
Total		5,038	4,896	97.2%	42.0	7.9	D

Intersection 100 **I-80 EB Ramps/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	967	963	99.6%	4.3	0.4	A
	Subtotal	967	963	99.6%	4.3	0.4	A
SB	Left Turn						
	Through						
	Right Turn	260	256	98.3%	18.5	3.1	B
	Subtotal	260	256	98.3%	18.5	3.1	B
EB	Left Turn	191	185	96.8%	23.8	2.9	C
	Through	1,037	1,022	98.5%	1.9	0.3	A
	Right Turn						
	Subtotal	1,228	1,206	98.2%	5.2	0.5	A
WB	Left Turn						
	Through	2,496	2,460	98.5%	12.2	2.1	B
	Right Turn	250	240	95.8%	5.4	0.6	A
	Subtotal	2,746	2,699	98.3%	11.6	1.9	B
Total		5,201	5,124	98.5%	9.1	1.0	A

Intersection 101 **N Sunrise Ave/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	374	412	110.3%	46.6	4.9	D
	Through	367	399	108.7%	40.4	4.2	D
	Right Turn	175	179	102.2%	33.2	7.3	C
	Subtotal	916	990	108.1%	41.7	3.3	D
SB	Left Turn	115	111	96.3%	44.7	5.0	D
	Through	407	454	111.5%	46.6	3.1	D
	Right Turn	600	612	102.0%	45.9	12.6	D
	Subtotal	1,122	1,177	104.9%	46.2	7.0	D
EB	Left Turn	373	378	101.3%	53.9	5.5	D
	Through	1,475	1,354	91.8%	36.7	2.7	D
	Right Turn	156	164	105.1%	8.2	1.3	A
	Subtotal	2,004	1,896	94.6%	37.6	2.6	D
WB	Left Turn	220	205	93.1%	39.4	6.8	D
	Through	1,772	1,664	93.9%	28.7	3.2	C
	Right Turn	73	68	93.2%	9.5	1.5	A
	Subtotal	2,065	1,937	93.8%	29.2	3.0	C
Total		6,107	6,000	98.3%	37.3	1.3	D

Intersection 102 **Santa Clara Dr/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	56	58	102.9%	49.7	6.3	D
	Through	52	65	125.4%	50.2	11.3	D
	Right Turn	45	43	96.0%	11.5	4.1	B
	Subtotal	153	166	108.5%	40.5	6.1	D
SB	Left Turn	177	177	99.9%	38.7	3.8	D
	Through	46	48	103.5%	35.9	7.7	D
	Right Turn	170	168	98.8%	15.4	3.4	B
	Subtotal	393	392	99.8%	28.5	3.2	C
EB	Left Turn	127	125	98.6%	58.3	6.7	E
	Through	1,530	1,466	95.8%	24.9	2.6	C
	Right Turn	51	51	99.6%	29.2	7.6	C
	Subtotal	1,708	1,642	96.1%	27.5	2.4	C
WB	Left Turn	58	61	105.5%	58.6	8.6	E
	Through	1,690	1,642	97.2%	20.5	2.8	C
	Right Turn	82	89	108.8%	29.4	7.0	C
	Subtotal	1,830	1,792	97.9%	22.2	2.9	C
Total		4,084	3,992	97.8%	25.8	1.9	C

Intersection 103 **Sierra Gardens Dr/Douglas Blvd** **Signal**

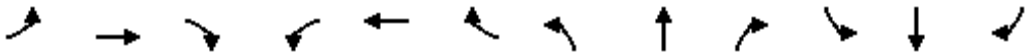
Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	136	154	113.2%	41.4	7.8	D
	Through	56	60	107.9%	51.9	15.5	D
	Right Turn	40	46	115.0%	34.3	9.0	C
	Subtotal	232	260	112.2%	42.4	8.5	D
SB	Left Turn	170	184	108.0%	43.9	8.1	D
	Through	60	60	100.7%	44.9	6.3	D
	Right Turn	40	38	94.0%	26.6	8.8	C
	Subtotal	270	282	104.3%	41.6	5.9	D
EB	Left Turn	41	43	104.4%	58.1	8.7	E
	Through	1,592	1,536	96.5%	34.3	7.5	C
	Right Turn	110	99	90.2%	34.2	11.7	C
	Subtotal	1,743	1,678	96.3%	34.8	7.7	C
WB	Left Turn	57	54	94.0%	56.9	12.5	E
	Through	1,700	1,636	96.3%	26.3	4.7	C
	Right Turn	190	184	96.6%	29.1	6.8	C
	Subtotal	1,947	1,874	96.2%	27.4	4.9	C
Total		4,192	4,094	97.7%	32.4	4.9	C

Intersection 104 **Target Dwy-TJ Maxx Dwy/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	79	73	92.2%	50.6	7.0	D
	Through	19	18	96.8%	46.9	17.5	D
	Right Turn	74	78	105.4%	20.0	6.6	C
	Subtotal	172	169	98.4%	35.8	4.8	D
SB	Left Turn	100	96	96.0%	59.4	14.9	E
	Through	11	13	120.0%	70.6	21.9	E
	Right Turn	78	73	93.3%	32.6	12.5	C
	Subtotal	189	182	96.3%	49.5	14.0	D
EB	Left Turn	153	130	85.2%	50.0	7.3	D
	Through	1,534	1,552	101.2%	26.4	2.4	C
	Right Turn	47	49	104.7%	23.9	5.4	C
	Subtotal	1,734	1,732	99.9%	28.0	1.9	C
WB	Left Turn	94	99	105.5%	42.8	6.5	D
	Through	1,742	1,806	103.7%	19.1	1.8	B
	Right Turn						
	Subtotal	1,836	1,905	103.7%	20.4	1.7	C
Total		3,931	3,988	101.4%	25.7	1.5	C

Intersection 105 **Rocky Ridge Dr/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	308	298	96.9%	56.3	5.6	E
	Through	626	596	95.3%	47.2	5.1	D
	Right Turn	166	165	99.3%	17.9	3.7	B
	Subtotal	1,100	1,060	96.3%	45.3	4.5	D
SB	Left Turn	211	218	103.3%	71.3	25.0	E
	Through	695	646	93.0%	84.4	39.8	F
	Right Turn	142	136	95.8%	49.4	33.8	D
	Subtotal	1,048	1,000	95.5%	76.9	36.2	E
EB	Left Turn	229	219	95.7%	66.1	5.9	E
	Through	1,351	1,446	107.0%	25.8	2.7	C
	Right Turn	141	149	105.5%	10.3	1.0	B
	Subtotal	1,721	1,814	105.4%	29.4	2.2	C
WB	Left Turn	357	358	100.2%	58.8	4.3	E
	Through	1,551	1,652	106.5%	36.4	5.2	D
	Right Turn	188	186	98.7%	9.7	3.0	A
	Subtotal	2,096	2,196	104.8%	37.9	3.8	D
Total		5,965	6,070	101.8%	43.1	6.1	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	335	1599	306	335	1706	165	539	867	211	257	800	164
Future Volume (veh/h)	335	1599	306	335	1706	165	539	867	211	257	800	164
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	335	1599	94	335	1706	0	539	867	0	257	800	138
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	397	1574	484	550	1886		602	1307		322	766	131
Arrive On Green	0.11	0.31	0.31	0.16	0.37	0.00	0.17	0.26	0.00	0.09	0.18	0.18
Sat Flow, veh/h	3456	5106	1570	3456	5106	1585	3456	5106	1585	3456	4375	749
Grp Volume(v), veh/h	335	1599	94	335	1706	0	539	867	0	257	621	317
Grp Sat Flow(s),veh/h/ln	1728	1702	1570	1728	1702	1585	1728	1702	1585	1728	1702	1720
Q Serve(g_s), s	11.4	37.0	3.3	10.8	38.0	0.0	18.3	18.3	0.0	8.7	21.0	21.0
Cycle Q Clear(g_c), s	11.4	37.0	3.3	10.8	38.0	0.0	18.3	18.3	0.0	8.7	21.0	21.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.44
Lane Grp Cap(c), veh/h	397	1574	484	550	1886		602	1307		322	596	301
V/C Ratio(X)	0.84	1.02	0.19	0.61	0.90		0.90	0.66		0.80	1.04	1.05
Avail Cap(c_a), veh/h	518	1574	484	550	1886		691	1307		605	596	301
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.1	41.5	12.0	47.0	35.8	0.0	48.5	40.0	0.0	53.3	49.5	49.5
Incr Delay (d2), s/veh	7.7	26.6	0.9	1.4	6.7	0.0	12.2	1.4	0.0	1.8	48.4	66.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	18.7	2.0	4.6	16.1	0.0	8.5	7.4	0.0	3.7	12.5	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.8	68.1	12.9	48.4	42.5	0.0	60.7	41.4	0.0	55.1	97.9	116.0
LnGrp LOS	E	F	B	D	D		E	D		E	F	F
Approach Vol, veh/h		2028			2041	A		1406	A		1195	
Approach Delay, s/veh		64.2			43.5			48.8			93.5	
Approach LOS		E			D			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.1	43.0	24.9	27.0	17.8	50.3	15.2	36.7
Change Period (Y+Rc), s	6.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	16.0	37.0	24.0	21.0	18.0	37.0	21.0	24.0
Max Q Clear Time (g_c+I1), s	12.8	39.0	20.3	23.0	13.4	40.0	10.7	20.3
Green Ext Time (p_c), s	0.3	0.0	0.6	0.0	0.4	0.0	0.4	2.9

Intersection Summary	
HCM 6th Ctrl Delay	59.9
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Existing Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 107 **Foothills Blvd-Roseville Rd/Cirby Way** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	428	396	92.4%	43.0	2.6	D
	Right Turn	234	207	88.4%	24.2	3.5	C
	Subtotal	662	602	91.0%	36.5	1.6	D
SB	Left Turn	1,430	1,491	104.3%	36.2	7.1	D
	Through	510	512	100.4%	11.3	7.8	B
	Right Turn						
	Subtotal	1,940	2,003	103.2%	29.8	6.3	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	501	466	93.0%	52.5	7.4	D
	Through						
	Right Turn	1,566	1,517	96.9%	11.8	0.8	B
	Subtotal	2,067	1,983	95.9%	21.4	2.3	C
Total		4,669	4,588	98.3%	27.0	3.1	C

Intersection 108 **Vernon St/Cirby Way** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	76	61	80.5%	55.9	10.8	F
	Through	65	72	110.8%	38.3	9.3	E
	Right Turn	112	110	98.2%	18.0	4.4	C
	Subtotal	253	243	96.1%	33.8	2.4	D
SB	Left Turn	77	74	96.1%	56.2	10.3	F
	Through	119	138	115.6%	41.2	8.7	E
	Right Turn	413	449	108.7%	45.0	15.0	E
	Subtotal	609	660	108.4%	45.8	11.7	E
EB	Left Turn	160	181	113.0%	68.3	6.9	F
	Through	1,405	1,364	97.1%	18.4	3.7	C
	Right Turn	31	34	108.4%	22.0	8.4	C
	Subtotal	1,596	1,579	98.9%	24.2	4.1	C
WB	Left Turn	92	78	84.8%	75.5	16.6	F
	Through	1,557	1,448	93.0%	60.6	22.2	F
	Right Turn	46	49	106.1%	39.6	20.0	E
	Subtotal	1,695	1,575	92.9%	60.6	21.8	F
Total		4,153	4,058	97.7%	42.5	9.4	E

Intersection 109 **Northridge Dr/Cirby Way** **Signal**

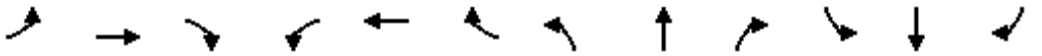
Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	3	56.0%	21.4	31.7	C
	Through	2	3	140.0%	21.6	31.5	C
	Right Turn	5	8	168.0%	40.8	21.0	D
	Subtotal	12	14	116.7%	41.5	22.0	D
SB	Left Turn	27	31	114.1%	53.1	24.5	D
	Through	1	1	80.0%	5.0	13.6	A
	Right Turn	3	3	106.7%	8.9	12.7	A
	Subtotal	31	35	112.3%	46.8	16.5	D
EB	Left Turn	20	21	106.0%	70.1	29.0	E
	Through	1,570	1,513	96.4%	11.5	2.4	B
	Right Turn	44	44	100.9%	9.9	3.0	A
	Subtotal	1,634	1,578	96.6%	12.3	2.4	B
WB	Left Turn	30	27	90.7%	72.7	18.9	E
	Through	1,814	1,752	96.6%	21.0	10.1	C
	Right Turn	44	35	79.1%	23.3	15.1	C
	Subtotal	1,888	1,814	96.1%	21.8	10.0	C
Total		3,565	3,441	96.5%	17.7	4.9	B

Intersection 110 **Melody Ln/Cirby Way** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	201	186	92.3%	24.8	4.6	C
	Subtotal	201	186	92.3%	24.8	4.6	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	1,585	1,581	99.7%	19.6	4.5	B
	Right Turn	22	22	101.8%	16.2	5.9	B
	Subtotal	1,607	1,603	99.8%	19.6	4.5	B
WB	Left Turn	239	234	98.1%	23.1	3.5	C
	Through	1,918	1,889	98.5%	6.3	2.6	A
	Right Turn						
	Subtotal	2,157	2,123	98.4%	8.2	2.4	A
Total		3,965	3,912	98.7%	13.6	2.7	B

Intersection 111 **Riverside Ave/Cirby Way** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1,036	1,051	101.4%	51.4	8.2	D
	Through	532	534	100.5%	33.5	4.7	C
	Right Turn	184	180	98.0%	14.3	2.2	B
	Subtotal	1,752	1,766	100.8%	42.3	6.2	D
SB	Left Turn	168	177	105.2%	59.5	21.8	E
	Through	548	526	95.9%	56.7	32.8	E
	Right Turn	130	134	103.1%	34.6	18.0	C
	Subtotal	846	836	98.9%	53.9	27.4	D
EB	Left Turn	124	115	92.6%	79.3	23.4	E
	Through	634	610	96.3%	56.3	17.8	E
	Right Turn	1,028	1,032	100.4%	25.3	10.7	C
	Subtotal	1,786	1,757	98.4%	39.5	13.5	D
WB	Left Turn	535	494	92.3%	88.5	19.9	F
	Through	963	941	97.7%	60.5	14.5	E
	Right Turn	140	124	88.9%	60.0	16.0	E
	Subtotal	1,638	1,559	95.2%	69.6	12.0	E
Total		6,022	5,918	98.3%	50.4	5.8	D



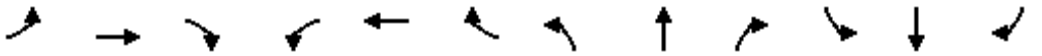
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	1000	200	131	1419	6	28	3	436	7	2	10
Future Volume (veh/h)	11	1000	200	131	1419	6	28	3	436	7	2	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2106	2106	2106	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	1000	193	131	1419	6	28	3	185	7	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	15	1303	251	170	1733	7	195	21	342	12	3	14
Arrive On Green	0.02	0.78	0.78	0.13	0.64	0.64	0.12	0.12	0.12	0.01	0.01	0.00
Sat Flow, veh/h	2006	3346	645	1781	3629	15	1616	173	1585	1400	400	1585
Grp Volume(v), veh/h	11	597	596	131	695	730	31	0	185	9	0	0
Grp Sat Flow(s),veh/h/ln	2006	2001	1990	1781	1777	1868	1790	0	1585	1800	0	1585
Q Serve(g_s), s	0.7	19.6	19.8	8.5	35.7	35.7	1.9	0.0	12.4	0.6	0.0	0.0
Cycle Q Clear(g_c), s	0.7	19.6	19.8	8.5	35.7	35.7	1.9	0.0	12.4	0.6	0.0	0.0
Prop In Lane	1.00		0.32	1.00		0.01	0.90		1.00	0.78		1.00
Lane Grp Cap(c), veh/h	15	779	775	170	848	892	215	0	342	16	0	14
V/C Ratio(X)	0.71	0.77	0.77	0.77	0.82	0.82	0.14	0.00	0.54	0.58	0.00	0.00
Avail Cap(c_a), veh/h	251	779	775	534	848	892	224	0	350	225	0	198
HCM Platoon Ratio	2.00	2.00	2.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	0.85	0.85	0.85	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	58.9	10.3	10.3	51.1	17.9	18.0	47.2	0.0	41.8	59.3	0.0	0.0
Incr Delay (d2), s/veh	19.0	4.5	4.6	2.3	7.5	7.1	0.1	0.0	0.8	12.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	5.1	5.1	3.8	12.9	13.5	0.8	0.0	5.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.0	14.7	14.8	53.4	25.4	25.1	47.4	0.0	42.6	71.3	0.0	0.0
LnGrp LOS	E	B	B	D	C	C	D	A	D	E	A	A
Approach Vol, veh/h		1204			1556			216			9	
Approach Delay, s/veh		15.4			27.6			43.3			71.3	
Approach LOS		B			C			D			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.5	52.4		18.4	4.9	63.0		5.0				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	36.0	36.3		15.0	15.0	57.3		15.0				
Max Q Clear Time (g_c+I1), s	10.5	21.8		14.4	2.7	37.7		2.6				
Green Ext Time (p_c), s	1.1	13.4		0.0	0.0	18.8		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		23.9	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1385	58	12	1475	0	81	0	20	0	0	0
Future Volume (veh/h)	0	1385	58	12	1475	0	81	0	20	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	0	1870	0	1870	0
Adj Flow Rate, veh/h	0	1385	57	12	1475	0	81	0	2	0	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	0	2	0	2	0	2	0
Cap, veh/h	0	1748	72	15	1934	0	104	0	0	0	2	0
Arrive On Green	0.00	0.50	0.50	0.01	0.54	0.00	0.06	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	3572	143	1781	3647	0	1781	81		0	-74814	0
Grp Volume(v), veh/h	0	706	736	12	1475	0	81	64.6		0	0	0
Grp Sat Flow(s),veh/h/ln	0	1777	1845	1781	1777	0	1781	E		0	1870	0
Q Serve(g_s), s	0.0	39.4	39.6	0.8	38.8	0.0	5.4			0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	39.4	39.6	0.8	38.8	0.0	5.4			0.0	0.0	0.0
Prop In Lane	0.00		0.08	1.00		0.00	1.00			0.00		0.00
Lane Grp Cap(c), veh/h	0	893	927	15	1934	0	104			0	2	0
V/C Ratio(X)	0.00	0.79	0.79	0.82	0.76	0.00	0.78			0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	893	927	238	1934	0	312			0	312	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00
Upstream Filter(I)	0.00	0.79	0.79	1.00	1.00	0.00	1.00			0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	24.6	24.7	59.4	21.3	0.0	55.7			0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	4.1	4.0	31.8	2.9	0.0	8.9			0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	16.5	17.2	0.5	15.7	0.0	2.7			0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.7	28.7	91.2	24.2	0.0	64.6			0.0	0.0	0.0
LnGrp LOS	A	C	C	F	C	A	E			A	A	A
Approach Vol, veh/h		1442			1487						0	
Approach Delay, s/veh		28.7			24.8						0.0	
Approach LOS		C			C							

Timer - Assigned Phs	1	2				6	7	8				
Phs Duration (G+Y+Rc), s	5.0	66.0				71.0	11.0	0.0				
Change Period (Y+Rc), s	4.0	5.7				5.7	4.0	4.0				
Max Green Setting (Gmax), s	16.0	45.3				65.3	21.0	20.0				
Max Q Clear Time (g_c+I1), s	2.8	41.6				40.8	7.4	0.0				
Green Ext Time (p_c), s	0.0	2.7				11.8	0.1	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			27.7									
HCM 6th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	378	791	327	281	825	72	363	887	47	201	992	270
Future Volume (veh/h)	378	791	327	281	825	72	363	887	47	201	992	270
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	378	791	0	281	825	67	363	887	13	201	992	132
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	442	894		379	822	67	419	986	431	436	1053	461
Arrive On Green	0.13	0.25	0.00	0.22	0.50	0.50	0.12	0.28	0.28	0.13	0.30	0.30
Sat Flow, veh/h	3456	3554	1585	3456	3322	270	3456	3554	1553	3456	3554	1554
Grp Volume(v), veh/h	378	791	0	281	441	451	363	887	13	201	992	132
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1815	1728	1777	1553	1728	1777	1554
Q Serve(g_s), s	12.9	25.7	0.0	9.1	29.7	29.7	12.4	28.8	0.7	6.5	32.7	7.8
Cycle Q Clear(g_c), s	12.9	25.7	0.0	9.1	29.7	29.7	12.4	28.8	0.7	6.5	32.7	7.8
Prop In Lane	1.00		1.00	1.00		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	442	894		379	440	449	419	986	431	436	1053	461
V/C Ratio(X)	0.85	0.88		0.74	1.00	1.00	0.87	0.90	0.03	0.46	0.94	0.29
Avail Cap(c_a), veh/h	576	927		518	440	449	461	986	431	518	1057	462
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.2	43.2	0.0	45.3	30.3	30.3	51.8	41.7	31.6	48.7	41.2	32.5
Incr Delay (d2), s/veh	7.9	10.1	0.0	2.1	43.7	43.3	13.7	12.7	0.1	0.3	15.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	12.3	0.0	3.6	14.2	14.4	6.1	14.0	0.3	2.8	16.1	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.1	53.3	0.0	47.4	74.0	73.6	65.5	54.5	31.7	48.9	57.0	32.9
LnGrp LOS	E	D		D	F	F	E	D	C	D	E	C
Approach Vol, veh/h		1169	A		1173			1263			1325	
Approach Delay, s/veh		55.2			67.5			57.4			53.4	
Approach LOS		E			E			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.5	35.9	18.6	40.9	19.4	35.0	20.4	39.0
Change Period (Y+Rc), s	5.3	* 5.7	4.0	5.3	4.0	5.3	5.3	* 5.7
Max Green Setting (Gmax), s	18.0	* 31	16.0	35.7	20.0	29.7	18.0	* 33
Max Q Clear Time (g_c+I1), s	11.1	27.7	14.4	34.7	14.9	31.7	8.5	30.8
Green Ext Time (p_c), s	0.4	2.4	0.2	0.9	0.5	0.0	0.3	1.8

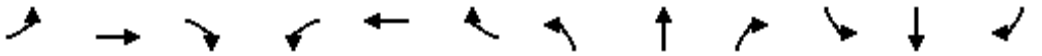
Intersection Summary	
HCM 6th Ctrl Delay	58.2
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



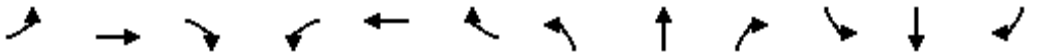
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	1022	9	69	1173	16	20	9	45	49	27	78
Future Volume (veh/h)	43	1022	9	69	1173	16	20	9	45	49	27	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.95	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	1022	9	69	1173	16	20	9	3	49	27	6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	55	1577	14	89	1636	22	38	17	46	64	35	87
Arrive On Green	0.06	0.87	0.87	0.05	0.46	0.46	0.03	0.03	0.03	0.05	0.05	0.05
Sat Flow, veh/h	1781	3609	32	1781	3589	49	1247	561	1507	1168	644	1585
Grp Volume(v), veh/h	43	503	528	69	581	608	29	0	3	76	0	6
Grp Sat Flow(s),veh/h/ln	1781	1777	1864	1781	1777	1861	1808	0	1507	1812	0	1585
Q Serve(g_s), s	2.9	9.9	9.9	4.6	31.7	31.7	1.9	0.0	0.2	5.0	0.0	0.4
Cycle Q Clear(g_c), s	2.9	9.9	9.9	4.6	31.7	31.7	1.9	0.0	0.2	5.0	0.0	0.4
Prop In Lane	1.00		0.02	1.00		0.03	0.69		1.00	0.64		1.00
Lane Grp Cap(c), veh/h	55	776	815	89	810	848	55	0	46	99	0	87
V/C Ratio(X)	0.78	0.65	0.65	0.78	0.72	0.72	0.53	0.00	0.07	0.76	0.00	0.07
Avail Cap(c_a), veh/h	238	810	850	238	810	848	241	0	201	242	0	211
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.9	4.9	4.9	56.3	26.4	26.4	57.3	0.0	56.5	55.9	0.0	53.8
Incr Delay (d2), s/veh	8.5	2.4	2.3	5.4	5.4	5.2	2.9	0.0	0.2	4.5	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.4	2.5	2.2	14.0	14.6	0.9	0.0	0.1	2.4	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.3	7.2	7.1	61.7	31.8	31.6	60.2	0.0	56.7	60.4	0.0	53.9
LnGrp LOS	E	A	A	E	C	C	E	A	E	E	A	D
Approach Vol, veh/h		1074			1258			32			82	
Approach Delay, s/veh		9.5			33.3			59.8			60.0	
Approach LOS		A			C			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	57.7		10.6	7.7	60.0		7.7				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	16.0	54.7		16.0	16.0	54.7		16.0				
Max Q Clear Time (g_c+I1), s	6.6	11.9		7.0	4.9	33.7		3.9				
Green Ext Time (p_c), s	0.1	11.5		0.1	0.0	10.8		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		24.1	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.



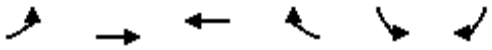
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	969	0	7	1253	16	0	0	0	29	0	24
Future Volume (veh/h)	27	969	0	7	1253	16	0	0	0	29	0	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	27	969	0	7	1253	16	0	0	0	29	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	34	3017	0	9	3001	38	0	45	0	94	0	38
Arrive On Green	0.02	0.85	0.00	0.01	0.84	0.84	0.00	0.00	0.00	0.02	0.00	0.02
Sat Flow, veh/h	1781	3647	0	1781	3593	46	0	1870	0	1418	0	1585
Grp Volume(v), veh/h	27	969	0	7	620	649	0	0	0	29	0	2
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1777	1862	0	1870	0	1418	0	1585
Q Serve(g_s), s	1.8	6.8	0.0	0.5	10.6	10.6	0.0	0.0	0.0	2.4	0.0	0.1
Cycle Q Clear(g_c), s	1.8	6.8	0.0	0.5	10.6	10.6	0.0	0.0	0.0	2.4	0.0	0.1
Prop In Lane	1.00		0.00	1.00		0.02	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	34	3017	0	9	1484	1555	0	45	0	94	0	38
V/C Ratio(X)	0.80	0.32	0.00	0.76	0.42	0.42	0.00	0.00	0.00	0.31	0.00	0.05
Avail Cap(c_a), veh/h	312	3017	0	312	1484	1555	0	385	0	367	0	343
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.6	1.9	0.0	59.6	2.5	2.5	0.0	0.0	0.0	58.3	0.0	57.2
Incr Delay (d2), s/veh	14.7	0.3	0.0	36.2	0.2	0.2	0.0	0.0	0.0	1.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.2	0.0	0.3	2.1	2.2	0.0	0.0	0.0	0.9	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.3	2.2	0.0	95.8	2.7	2.7	0.0	0.0	0.0	59.7	0.0	57.6
LnGrp LOS	E	A	A	F	A	A	A	A	A	E	A	E
Approach Vol, veh/h		996			1276			0			31	
Approach Delay, s/veh		4.1			3.2			0.0			59.6	
Approach LOS		A			A						E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.6	107.2		8.2	6.3	105.5		8.2				
Change Period (Y+Rc), s	4.0	5.3		* 5.3	4.0	5.3		5.3				
Max Green Setting (Gmax), s	21.0	59.7		* 26	21.0	59.7		24.7				
Max Q Clear Time (g_c+I1), s	2.5	8.8		4.4	3.8	12.6		0.0				
Green Ext Time (p_c), s	0.0	18.1		0.0	0.0	24.5		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		4.4	
HCM 6th LOS		A	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



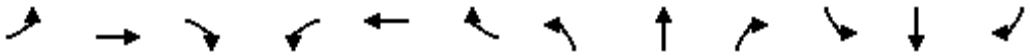
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	501	370	734	191	1001	414
Future Volume (veh/h)	501	370	734	191	1001	414
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	501	370	734	170	1001	399
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1097	576	775	179	1037	964
Arrive On Green	0.31	0.31	0.27	0.27	0.30	0.30
Sat Flow, veh/h	3563	1870	2958	663	3456	1585
Grp Volume(v), veh/h	501	370	455	449	1001	399
Grp Sat Flow(s),veh/h/ln	1781	1870	1777	1751	1728	1585
Q Serve(g_s), s	13.6	20.5	30.2	30.2	34.3	15.8
Cycle Q Clear(g_c), s	13.6	20.5	30.2	30.2	34.3	15.8
Prop In Lane	1.00			0.38	1.00	1.00
Lane Grp Cap(c), veh/h	1097	576	480	473	1037	964
V/C Ratio(X)	0.46	0.64	0.95	0.95	0.97	0.41
Avail Cap(c_a), veh/h	1097	576	484	477	1037	964
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.4	35.8	42.9	42.9	41.4	12.3
Incr Delay (d2), s/veh	1.4	5.4	28.1	28.5	19.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	10.0	16.6	16.4	16.9	10.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.8	41.3	71.1	71.4	61.3	12.4
LnGrp LOS	C	D	E	E	E	B
Approach Vol, veh/h		871	904		1400	
Approach Delay, s/veh		37.5	71.2		47.4	
Approach LOS		D	E		D	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		42.3		40.0		37.7
Change Period (Y+Rc), s		5.3		4.0		5.3
Max Green Setting (Gmax), s		36.7		36.0		32.7
Max Q Clear Time (g_c+I1), s		22.5		36.3		32.2
Green Ext Time (p_c), s		5.3		0.0		0.3

Intersection Summary	
HCM 6th Ctrl Delay	51.5
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	1034	78	38	719	12	49	9	9	23	16	77
Future Volume (veh/h)	78	1034	78	38	719	12	49	9	9	23	16	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	1034	59	38	719	11	49	9	3	23	16	9
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	150	1176	997	97	2146	33	198	31	6	168	91	154
Arrive On Green	0.08	0.63	0.63	0.05	0.60	0.60	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	1781	1870	1585	1781	3583	55	934	317	65	762	940	1585
Grp Volume(v), veh/h	78	1034	59	38	357	373	61	0	0	39	0	9
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1860	1316	0	0	1703	0	1585
Q Serve(g_s), s	2.5	27.8	0.9	1.2	6.1	6.1	1.8	0.0	0.0	0.0	0.0	0.3
Cycle Q Clear(g_c), s	2.5	27.8	0.9	1.2	6.1	6.1	3.0	0.0	0.0	1.2	0.0	0.3
Prop In Lane	1.00		1.00	1.00		0.03	0.80		0.05	0.59		1.00
Lane Grp Cap(c), veh/h	150	1176	997	97	1064	1114	235	0	0	260	0	154
V/C Ratio(X)	0.52	0.88	0.06	0.39	0.34	0.34	0.26	0.00	0.00	0.15	0.00	0.06
Avail Cap(c_a), veh/h	588	1389	1177	588	1320	1382	573	0	0	624	0	523
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.6	9.3	4.3	27.7	6.1	6.1	26.2	0.0	0.0	25.2	0.0	24.8
Incr Delay (d2), s/veh	1.0	6.6	0.0	0.9	0.3	0.3	0.2	0.0	0.0	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	8.9	0.2	0.5	1.6	1.7	0.8	0.0	0.0	0.5	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.6	15.9	4.4	28.6	6.4	6.4	26.4	0.0	0.0	25.3	0.0	24.9
LnGrp LOS	C	B	A	C	A	A	C	A	A	C	A	C
Approach Vol, veh/h		1171			768			61			48	
Approach Delay, s/veh		16.1			7.5			26.4			25.2	
Approach LOS		B			A			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	43.4		9.9	9.1	41.6		9.9				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	3.2	29.8		3.2	4.5	8.1		5.0				
Green Ext Time (p_c), s	0.0	8.3		0.1	0.1	5.7		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		13.4	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	287	380	312	233	402	473
Future Volume (veh/h)	287	380	312	233	402	473
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	287	234	312	143	402	473
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	380	763	502	763	478	1145
Arrive On Green	0.21	0.21	0.27	0.27	0.27	0.61
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	287	234	312	143	402	473
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	8.0	4.8	7.8	2.7	11.3	7.0
Cycle Q Clear(g_c), s	8.0	4.8	7.8	2.7	11.3	7.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	380	763	502	763	478	1145
V/C Ratio(X)	0.76	0.31	0.62	0.19	0.84	0.41
Avail Cap(c_a), veh/h	1340	1617	1758	1828	1507	1758
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.6	8.4	17.1	7.9	18.4	5.4
Incr Delay (d2), s/veh	1.2	0.1	2.6	0.2	1.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	1.3	3.3	1.3	4.3	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.8	8.5	19.6	8.1	20.0	5.7
LnGrp LOS	C	A	B	A	B	A
Approach Vol, veh/h	521		455			875
Approach Delay, s/veh	15.3		16.0			12.3
Approach LOS	B		B			B

Timer - Assigned Phs	2			5	6	8
Phs Duration (G+Y+Rc), s	37.8			18.3	19.6	15.3
Change Period (Y+Rc), s	5.3			4.0	* 5.3	4.0
Max Green Setting (Gmax), s	50.0			45.0	* 50	40.0
Max Q Clear Time (g_c+I1), s	9.0			13.3	9.8	10.0
Green Ext Time (p_c), s	3.9			1.0	4.5	1.3

Intersection Summary	
HCM 6th Ctrl Delay	14.0
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



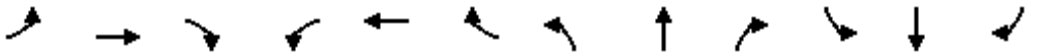
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	566	145	112	1020	192	50
Future Volume (veh/h)	566	145	112	1020	192	50
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	566	46	112	1020	192	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1714	765	215	2406	255	227
Arrive On Green	0.48	0.48	0.12	0.68	0.14	0.14
Sat Flow, veh/h	3647	1585	1781	3647	1781	1585
Grp Volume(v), veh/h	566	46	112	1020	192	25
Grp Sat Flow(s),veh/h/ln	1777	1585	1781	1777	1781	1585
Q Serve(g_s), s	5.3	0.8	3.2	7.0	5.6	0.7
Cycle Q Clear(g_c), s	5.3	0.8	3.2	7.0	5.6	0.7
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1714	765	215	2406	255	227
V/C Ratio(X)	0.33	0.06	0.52	0.42	0.75	0.11
Avail Cap(c_a), veh/h	2962	1321	825	2962	825	734
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.6	7.4	22.3	3.9	22.2	20.1
Incr Delay (d2), s/veh	0.2	0.1	0.7	0.2	1.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.2	1.3	1.5	2.3	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.8	7.5	23.0	4.2	23.9	20.2
LnGrp LOS	A	A	C	A	C	C
Approach Vol, veh/h	612			1132	217	
Approach Delay, s/veh	8.7			6.0	23.5	
Approach LOS	A			A	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	10.5	31.7				42.3	11.7
Change Period (Y+Rc), s	4.0	5.7				5.7	4.0
Max Green Setting (Gmax), s	25.0	45.0				45.0	25.0
Max Q Clear Time (g_c+I1), s	5.2	7.3				9.0	7.6
Green Ext Time (p_c), s	0.2	16.6				27.5	0.5

Intersection Summary	
HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



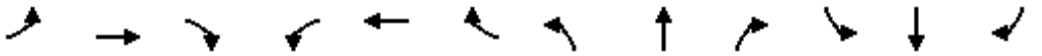
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	36	44	27	51	38	53	304	40	77	367	12
Future Volume (veh/h)	6	36	44	27	51	38	53	304	40	77	367	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	36	3	27	51	6	53	304	14	77	367	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	157	164	139	213	224	190	157	786	350	202	876	391
Arrive On Green	0.09	0.09	0.09	0.12	0.12	0.12	0.09	0.22	0.22	0.11	0.25	0.25
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	6	36	3	27	51	6	53	304	14	77	367	5
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.1	0.7	0.1	0.6	1.0	0.1	1.2	3.0	0.3	1.7	3.6	0.1
Cycle Q Clear(g_c), s	0.1	0.7	0.1	0.6	1.0	0.1	1.2	3.0	0.3	1.7	3.6	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	157	164	139	213	224	190	157	786	350	202	876	391
V/C Ratio(X)	0.04	0.22	0.02	0.13	0.23	0.03	0.34	0.39	0.04	0.38	0.42	0.01
Avail Cap(c_a), veh/h	863	906	768	863	906	768	863	3442	1535	863	3442	1535
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.2	17.5	17.2	16.2	16.4	16.1	17.7	13.7	12.6	17.0	13.1	11.8
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.1	0.2	0.0	0.5	0.6	0.1	0.4	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.0	0.2	0.4	0.0	0.4	1.1	0.1	0.6	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.3	17.8	17.2	16.3	16.6	16.1	18.2	14.3	12.7	17.4	13.7	11.8
LnGrp LOS	B	B	B	B	B	B	B	B	B	B	B	B
Approach Vol, veh/h		45			84			371			449	
Approach Delay, s/veh		17.7			16.5			14.8			14.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.7	15.1		7.6	7.6	16.2		9.8				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.9				
Max Green Setting (Gmax), s	20.0	40.0		20.0	20.0	40.0		20.0				
Max Q Clear Time (g_c+I1), s	3.7	5.0		2.7	3.2	5.6		3.0				
Green Ext Time (p_c), s	0.1	3.8		0.1	0.0	4.6		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		14.8
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.



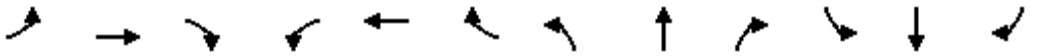
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	0	78	0	0	0	85	398	0	0	430	16
Future Volume (veh/h)	17	0	78	0	0	0	85	398	0	0	430	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	0	1683	0	1683	1683	1683	0	1683	1683
Adj Flow Rate, veh/h	17	0	17	0	0	0	85	398	0	0	430	6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	2	0	2	2	2	0	2	2
Cap, veh/h	57	60	51	0	6	0	195	1913	853	0	1055	470
Arrive On Green	0.04	0.00	0.04	0.00	0.00	0.00	0.12	0.60	0.00	0.00	0.33	0.33
Sat Flow, veh/h	1603	1683	1427	0	-67333	0	1603	3198	1427	0	3282	1427
Grp Volume(v), veh/h	17	0	17	0	0	0	85	398	0	0	430	6
Grp Sat Flow(s),veh/h/ln	1603	1683	1427	0	1683	0	1603	1599	1427	0	1599	1427
Q Serve(g_s), s	0.3	0.0	0.3	0.0	0.0	0.0	1.3	1.6	0.0	0.0	2.8	0.1
Cycle Q Clear(g_c), s	0.3	0.0	0.3	0.0	0.0	0.0	1.3	1.6	0.0	0.0	2.8	0.1
Prop In Lane	1.00		1.00	0.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	57	60	51	0	6	0	195	1913	853	0	1055	470
V/C Ratio(X)	0.30	0.00	0.34	0.00	0.00	0.00	0.44	0.21	0.00	0.00	0.41	0.01
Avail Cap(c_a), veh/h	1175	1233	1045	0	740	0	1468	4687	2091	0	4687	2091
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	12.8	0.0	12.9	0.0	0.0	0.0	11.1	2.5	0.0	0.0	7.1	6.2
Incr Delay (d2), s/veh	1.1	0.0	1.4	0.0	0.0	0.0	0.6	0.1	0.0	0.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.3	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.6	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.9	0.0	14.3	0.0	0.0	0.0	11.7	2.6	0.0	0.0	7.6	6.2
LnGrp LOS	B	A	B	A	A	A	B	A	A	A	A	A
Approach Vol, veh/h		34			0			483			436	
Approach Delay, s/veh		14.1			0.0			4.2			7.5	
Approach LOS		B						A			A	

Timer - Assigned Phs		2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s		22.3		5.0	7.3	15.0	5.0	0.0				
Change Period (Y+Rc), s		6.0		4.0	4.0	6.0	4.0	4.0				
Max Green Setting (Gmax), s		40.0		20.0	25.0	40.0	20.0	12.0				
Max Q Clear Time (g_c+I1), s		3.6		2.3	3.3	4.8	2.3	0.0				
Green Ext Time (p_c), s		3.8		0.0	0.1	4.2	0.0	0.0				

Intersection Summary		
HCM 6th Ctrl Delay		6.1
HCM 6th LOS		A

Notes

User approved pedestrian interval to be less than phase max green.



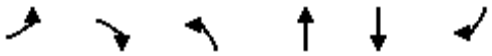
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	0	73	3	0	0	57	817	47	7	550	9
Future Volume (veh/h)	14	0	73	3	0	0	57	817	47	7	550	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	0	8	3	0	0	57	817	26	7	550	4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	75	0	67	12	0	10	253	1579	704	253	1578	704
Arrive On Green	0.04	0.00	0.04	0.01	0.00	0.00	0.14	0.44	0.44	0.14	0.44	0.44
Sat Flow, veh/h	1781	0	1585	1781	0	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	14	0	8	3	0	0	57	817	26	7	550	4
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.4	0.0	0.2	0.1	0.0	0.0	1.4	8.2	0.5	0.2	5.0	0.1
Cycle Q Clear(g_c), s	0.4	0.0	0.2	0.1	0.0	0.0	1.4	8.2	0.5	0.2	5.0	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	75	0	67	12	0	10	253	1579	704	253	1578	704
V/C Ratio(X)	0.19	0.00	0.12	0.26	0.00	0.00	0.23	0.52	0.04	0.03	0.35	0.01
Avail Cap(c_a), veh/h	723	0	643	723	0	643	723	3100	1382	723	2883	1286
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.8	0.0	22.7	24.4	0.0	0.0	18.7	9.9	7.7	18.2	9.0	7.6
Incr Delay (d2), s/veh	0.4	0.0	0.3	4.3	0.0	0.0	0.2	0.5	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.1	0.0	0.0	0.0	0.5	2.6	0.1	0.1	1.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.2	0.0	23.0	28.6	0.0	0.0	18.9	10.4	7.8	18.2	9.3	7.6
LnGrp LOS	C	A	C	C	A	A	B	B	A	B	A	A
Approach Vol, veh/h		22			3			900			561	
Approach Delay, s/veh		23.2			28.6			10.8			9.4	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	27.9		6.1	11.0	27.9		4.3				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	43.0		20.0	20.0	40.0		20.0				
Max Q Clear Time (g_c+I1), s	2.2	10.2		2.4	3.4	7.0		2.1				
Green Ext Time (p_c), s	0.0	11.7		0.0	0.0	7.2		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		10.5	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



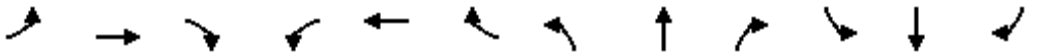
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	101	99	124	769	892	110
Future Volume (veh/h)	101	99	124	769	892	110
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	101	17	124	769	892	53
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	211	188	215	2362	1624	724
Arrive On Green	0.12	0.12	0.12	0.66	0.46	0.46
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	101	17	124	769	892	53
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	2.4	0.4	3.0	4.3	8.4	0.9
Cycle Q Clear(g_c), s	2.4	0.4	3.0	4.3	8.4	0.9
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	211	188	215	2362	1624	724
V/C Ratio(X)	0.48	0.09	0.58	0.33	0.55	0.07
Avail Cap(c_a), veh/h	889	791	889	3317	3317	1479
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	18.1	19.1	3.3	9.1	7.0
Incr Delay (d2), s/veh	0.6	0.1	0.9	0.2	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.4	1.2	0.7	2.6	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.6	18.2	20.0	3.5	9.6	7.1
LnGrp LOS	B	B	C	A	A	A
Approach Vol, veh/h	118			893	945	
Approach Delay, s/veh	19.4			5.8	9.5	
Approach LOS	B			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		36.6		9.5	9.6	27.1
Change Period (Y+Rc), s		6.0		4.0	4.0	6.0
Max Green Setting (Gmax), s		43.0		23.0	23.0	43.0
Max Q Clear Time (g_c+I1), s		6.3		4.4	5.0	10.4
Green Ext Time (p_c), s		8.6		0.2	0.2	10.7

Intersection Summary	
HCM 6th Ctrl Delay	8.4
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



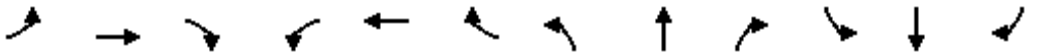
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	21	85	29	29	13	111	775	46	11	805	143
Future Volume (veh/h)	86	21	85	29	29	13	111	775	46	11	805	143
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	86	21	14	29	29	1	111	775	24	11	805	60
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	206	217	184	67	67	116	200	1604	715	40	1283	572
Arrive On Green	0.12	0.12	0.12	0.07	0.07	0.07	0.11	0.45	0.45	0.02	0.36	0.36
Sat Flow, veh/h	1781	1870	1585	912	912	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	86	21	14	58	0	1	111	775	24	11	805	60
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1825	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.7	0.6	0.5	1.8	0.0	0.0	3.5	9.2	0.5	0.4	11.2	1.5
Cycle Q Clear(g_c), s	2.7	0.6	0.5	1.8	0.0	0.0	3.5	9.2	0.5	0.4	11.2	1.5
Prop In Lane	1.00		1.00	0.50		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	206	217	184	133	0	116	200	1604	715	40	1283	572
V/C Ratio(X)	0.42	0.10	0.08	0.43	0.00	0.01	0.55	0.48	0.03	0.28	0.63	0.10
Avail Cap(c_a), veh/h	595	625	530	610	0	530	595	2553	1139	595	2553	1139
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	23.7	23.6	26.6	0.0	25.7	25.1	11.5	9.1	28.8	15.8	12.7
Incr Delay (d2), s/veh	0.5	0.1	0.1	0.8	0.0	0.0	0.9	0.4	0.0	1.4	1.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.3	0.2	0.8	0.0	0.0	1.3	2.6	0.1	0.2	3.6	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.1	23.7	23.7	27.4	0.0	25.7	26.0	12.0	9.2	30.2	16.8	12.9
LnGrp LOS	C	C	C	C	A	C	C	B	A	C	B	B
Approach Vol, veh/h		121			59			910			876	
Approach Delay, s/veh		24.7			27.4			13.6			16.7	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.3	33.0		11.8	10.7	27.6		9.7				
Change Period (Y+Rc), s	4.0	6.0		4.9	4.0	6.0		5.3				
Max Green Setting (Gmax), s	20.0	43.0		20.0	20.0	43.0		20.0				
Max Q Clear Time (g_c+I1), s	2.4	11.2		4.7	5.5	13.2		3.8				
Green Ext Time (p_c), s	0.0	7.8		0.2	0.1	8.4		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		16.1	
HCM 6th LOS		B	

Notes

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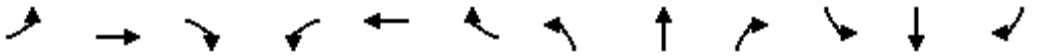
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	20	41	3	3	35	40	534	1	47	596	95
Future Volume (veh/h)	26	20	41	3	3	35	40	534	1	47	596	95
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	20	3	3	3	4	40	534	0	47	596	45
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	97	75	150	42	44	38	112	1286	574	127	1316	587
Arrive On Green	0.09	0.09	0.09	0.02	0.02	0.02	0.06	0.36	0.00	0.07	0.37	0.37
Sat Flow, veh/h	1028	791	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	46	0	3	3	3	4	40	534	0	47	596	45
Grp Sat Flow(s),veh/h/ln	1819	0	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.9	0.0	0.1	0.1	0.1	0.1	0.9	4.5	0.0	1.0	5.0	0.7
Cycle Q Clear(g_c), s	0.9	0.0	0.1	0.1	0.1	0.1	0.9	4.5	0.0	1.0	5.0	0.7
Prop In Lane	0.57		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	172	0	150	42	44	38	112	1286	574	127	1316	587
V/C Ratio(X)	0.27	0.00	0.02	0.07	0.07	0.11	0.36	0.42	0.00	0.37	0.45	0.08
Avail Cap(c_a), veh/h	921	0	803	902	947	803	902	4049	1806	902	4049	1806
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.6	0.0	16.2	18.9	18.9	18.9	17.7	9.5	0.0	17.5	9.4	8.1
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.3	0.2	0.5	0.7	0.3	0.0	0.7	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.0	0.0	0.0	0.3	1.4	0.0	0.4	1.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.9	0.0	16.2	19.1	19.1	19.3	18.4	9.8	0.0	18.2	9.8	8.1
LnGrp LOS	B	A	B	B	B	B	B	A	A	B	A	A
Approach Vol, veh/h		49			10			574			688	
Approach Delay, s/veh		16.9			19.2			10.4			10.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.8	20.0		7.7	6.5	20.3		4.9				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	3.0	6.5		2.9	2.9	7.0		2.1				
Green Ext Time (p_c), s	0.0	6.4		0.1	0.0	7.6		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		10.6	
HCM 6th LOS		B	

Notes

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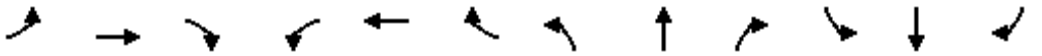
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	14	19	18	15	10	14	509	20	6	656	22
Future Volume (veh/h)	16	14	19	18	15	10	14	509	20	6	656	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	14	2	18	15	1	14	509	10	6	656	11
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	58	51	95	126	133	112	45	1457	650	20	1407	628
Arrive On Green	0.06	0.06	0.06	0.07	0.07	0.07	0.03	0.41	0.41	0.01	0.40	0.40
Sat Flow, veh/h	972	850	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	30	0	2	18	15	1	14	509	10	6	656	11
Grp Sat Flow(s),veh/h/ln	1822	0	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.6	0.0	0.0	0.4	0.3	0.0	0.3	3.9	0.1	0.1	5.4	0.2
Cycle Q Clear(g_c), s	0.6	0.0	0.0	0.4	0.3	0.0	0.3	3.9	0.1	0.1	5.4	0.2
Prop In Lane	0.53		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	109	0	95	126	133	112	45	1457	650	20	1407	628
V/C Ratio(X)	0.27	0.00	0.02	0.14	0.11	0.01	0.31	0.35	0.02	0.30	0.47	0.02
Avail Cap(c_a), veh/h	922	0	802	901	946	802	901	4046	1805	901	4046	1805
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.8	0.0	17.5	17.2	17.2	17.1	18.9	8.0	6.9	19.4	8.8	7.3
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.2	0.1	0.0	1.4	0.2	0.0	3.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.1	0.1	0.0	0.1	1.1	0.0	0.1	1.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.3	0.0	17.5	17.4	17.3	17.1	20.4	8.3	6.9	22.4	9.2	7.3
LnGrp LOS	B	A	B	B	B	B	C	A	A	C	A	A
Approach Vol, veh/h		32			34			533			673	
Approach Delay, s/veh		18.2			17.4			8.6			9.3	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.4	21.9		6.4	5.0	21.4		6.8				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	2.1	5.9		2.6	2.3	7.4		2.4				
Green Ext Time (p_c), s	0.0	6.1		0.0	0.0	8.3		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		9.4	
HCM 6th LOS		A	

Notes

User approved pedestrian interval to be less than phase max green.



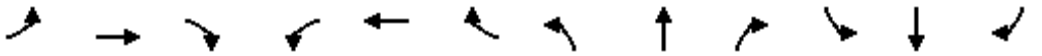
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	2	43	13	4	25	58	404	195	29	553	111
Future Volume (veh/h)	114	2	43	13	4	25	58	404	195	29	553	111
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	114	2	8	13	4	2	58	404	151	29	553	97
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	4	232	51	16	59	118	1090	403	71	1218	213
Arrive On Green	0.15	0.15	0.15	0.04	0.04	0.04	0.07	0.43	0.43	0.04	0.40	0.40
Sat Flow, veh/h	1752	31	1585	1378	424	1585	1781	2540	938	1781	3023	529
Grp Volume(v), veh/h	116	0	8	17	0	2	58	281	274	29	324	326
Grp Sat Flow(s),veh/h/ln	1783	0	1585	1801	0	1585	1781	1777	1701	1781	1777	1775
Q Serve(g_s), s	3.0	0.0	0.2	0.5	0.0	0.1	1.6	5.5	5.6	0.8	6.8	6.8
Cycle Q Clear(g_c), s	3.0	0.0	0.2	0.5	0.0	0.1	1.6	5.5	5.6	0.8	6.8	6.8
Prop In Lane	0.98		1.00	0.76		1.00	1.00		0.55	1.00		0.30
Lane Grp Cap(c), veh/h	261	0	232	67	0	59	118	763	730	71	716	715
V/C Ratio(X)	0.44	0.00	0.03	0.25	0.00	0.03	0.49	0.37	0.37	0.41	0.45	0.46
Avail Cap(c_a), veh/h	701	0	623	708	0	623	700	1572	1505	700	1572	1570
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.8	0.0	18.6	23.8	0.0	23.6	22.9	9.8	9.9	23.8	11.1	11.1
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.7	0.0	0.1	1.2	0.4	0.4	1.4	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.1	0.2	0.0	0.0	0.6	1.6	1.6	0.3	2.1	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.3	0.0	18.7	24.6	0.0	23.7	24.1	10.2	10.3	25.3	11.7	11.7
LnGrp LOS	C	A	B	C	A	C	C	B	B	C	B	B
Approach Vol, veh/h		124			19			613			679	
Approach Delay, s/veh		20.2			24.5			11.6			12.3	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.0	27.5		11.4	7.4	26.2		5.9				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	2.8	7.6		5.0	3.6	8.8		2.5				
Green Ext Time (p_c), s	0.0	9.9		0.2	0.1	11.7		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		12.8	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



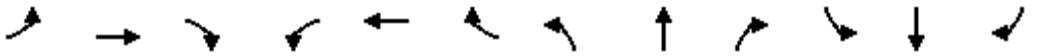
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	18	41	17	2	14	83	647	19	10	517	22
Future Volume (veh/h)	47	18	41	17	2	14	83	647	19	10	517	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	18	6	17	2	1	83	647	17	10	517	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	55	174	60	7	4	189	1346	35	33	1021	39
Arrive On Green	0.11	0.11	0.11	0.04	0.04	0.04	0.11	0.38	0.38	0.02	0.29	0.29
Sat Flow, veh/h	1305	500	1585	1512	178	89	1781	3538	93	1781	3488	135
Grp Volume(v), veh/h	65	0	6	20	0	0	83	325	339	10	263	274
Grp Sat Flow(s),veh/h/ln	1805	0	1585	1779	0	0	1781	1777	1854	1781	1777	1846
Q Serve(g_s), s	1.3	0.0	0.1	0.4	0.0	0.0	1.7	5.4	5.4	0.2	4.8	4.8
Cycle Q Clear(g_c), s	1.3	0.0	0.1	0.4	0.0	0.0	1.7	5.4	5.4	0.2	4.8	4.8
Prop In Lane	0.72		1.00	0.85		0.05	1.00		0.05	1.00		0.07
Lane Grp Cap(c), veh/h	198	0	174	71	0	0	189	676	705	33	520	540
V/C Ratio(X)	0.33	0.00	0.03	0.28	0.00	0.00	0.44	0.48	0.48	0.30	0.51	0.51
Avail Cap(c_a), veh/h	921	0	808	907	0	0	908	1586	1654	908	1586	1648
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.1	0.0	15.6	18.3	0.0	0.0	16.4	9.2	9.2	19.0	11.5	11.5
Incr Delay (d2), s/veh	1.0	0.0	0.1	2.1	0.0	0.0	0.6	0.8	0.8	1.9	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.2	0.0	0.0	0.6	1.7	1.7	0.1	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.1	0.0	15.7	20.4	0.0	0.0	17.0	10.0	10.0	20.9	12.5	12.5
LnGrp LOS	B	A	B	C	A	A	B	A	A	C	B	B
Approach Vol, veh/h		71			20			747			547	
Approach Delay, s/veh		17.0			20.4			10.8			12.7	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.7	20.6		8.3	8.2	17.2		5.6				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	35.0		20.0	20.0	35.0		20.0				
Max Q Clear Time (g_c+I1), s	2.2	7.4		3.3	3.7	6.8		2.4				
Green Ext Time (p_c), s	0.0	6.5		0.2	0.1	4.6		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		12.0	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



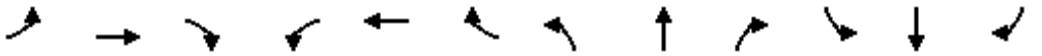
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	14	84	12	10	13	126	708	14	13	532	12
Future Volume (veh/h)	71	14	84	12	10	13	126	708	14	13	532	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	71	14	10	12	10	1	126	708	13	13	532	11
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	194	38	205	45	37	71	232	1314	24	42	929	19
Arrive On Green	0.13	0.13	0.13	0.04	0.04	0.04	0.13	0.37	0.37	0.02	0.26	0.26
Sat Flow, veh/h	1500	296	1585	993	828	1585	1781	3570	66	1781	3560	74
Grp Volume(v), veh/h	85	0	10	22	0	1	126	352	369	13	265	278
Grp Sat Flow(s),veh/h/ln	1795	0	1585	1821	0	1585	1781	1777	1859	1781	1777	1857
Q Serve(g_s), s	1.8	0.0	0.2	0.5	0.0	0.0	2.7	6.4	6.4	0.3	5.3	5.3
Cycle Q Clear(g_c), s	1.8	0.0	0.2	0.5	0.0	0.0	2.7	6.4	6.4	0.3	5.3	5.3
Prop In Lane	0.84		1.00	0.55		1.00	1.00		0.04	1.00		0.04
Lane Grp Cap(c), veh/h	232	0	205	82	0	71	232	654	684	42	464	485
V/C Ratio(X)	0.37	0.00	0.05	0.27	0.00	0.01	0.54	0.54	0.54	0.31	0.57	0.57
Avail Cap(c_a), veh/h	881	0	778	893	0	778	874	1526	1596	1092	1787	1868
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.2	0.0	15.5	18.8	0.0	18.6	16.6	10.2	10.2	19.6	13.1	13.1
Incr Delay (d2), s/veh	1.0	0.0	0.1	1.7	0.0	0.1	0.7	0.9	0.9	1.5	1.5	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.1	0.2	0.0	0.0	1.0	2.0	2.1	0.1	1.9	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.2	0.0	15.6	20.6	0.0	18.7	17.3	11.1	11.0	21.1	14.6	14.5
LnGrp LOS	B	A	B	C	A	B	B	B	B	C	B	B
Approach Vol, veh/h		95			23			847			556	
Approach Delay, s/veh		17.0			20.5			12.0			14.7	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.3	16.3		5.8	5.0	20.7		9.3				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	41.0		20.0	25.0	35.0		20.0				
Max Q Clear Time (g_c+I1), s	4.7	7.3		2.5	2.3	8.4		3.8				
Green Ext Time (p_c), s	0.2	3.3		0.0	0.0	4.5		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		13.4	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	6	5	40	15	114	29	750	19	101	649	86
Future Volume (veh/h)	15	6	5	40	15	114	29	750	19	101	649	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	12	1	40	15	13	29	750	18	101	649	79
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	162	170	139	153	161	136	83	1177	28	189	1246	151
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.05	0.33	0.33	0.11	0.39	0.39
Sat Flow, veh/h	1781	1870	1526	1781	1870	1585	1781	3544	85	1781	3179	386
Grp Volume(v), veh/h	10	12	1	40	15	13	29	376	392	101	362	366
Grp Sat Flow(s),veh/h/ln	1781	1870	1526	1781	1870	1585	1781	1777	1852	1781	1777	1789
Q Serve(g_s), s	0.3	0.3	0.0	1.0	0.4	0.4	0.8	8.9	8.9	2.7	7.7	7.7
Cycle Q Clear(g_c), s	0.3	0.3	0.0	1.0	0.4	0.4	0.8	8.9	8.9	2.7	7.7	7.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		0.22
Lane Grp Cap(c), veh/h	162	170	139	153	161	136	83	590	615	189	696	701
V/C Ratio(X)	0.06	0.07	0.01	0.26	0.09	0.10	0.35	0.64	0.64	0.53	0.52	0.52
Avail Cap(c_a), veh/h	721	757	618	829	871	738	721	1475	1537	721	1475	1485
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.5	20.5	20.4	21.1	20.8	20.8	22.8	14.0	14.0	20.9	11.5	11.5
Incr Delay (d2), s/veh	0.1	0.1	0.0	0.7	0.2	0.2	0.9	1.5	1.5	0.9	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.0	0.4	0.2	0.1	0.3	2.9	3.0	1.0	2.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.6	20.7	20.4	21.8	21.0	21.0	23.8	15.5	15.4	21.8	12.3	12.3
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		23			68			797			829	
Approach Delay, s/veh		20.6			21.5			15.8			13.4	
Approach LOS		C			C			B			B	

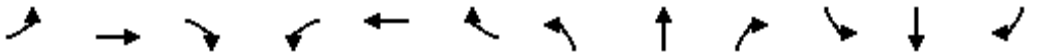
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.2	22.1		9.5	6.3	25.1		8.5				
Change Period (Y+Rc), s	4.0	5.7		5.3	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	41.0		23.0	20.0	41.0		20.0				
Max Q Clear Time (g_c+I1), s	4.7	10.9		3.0	2.8	9.7		2.3				
Green Ext Time (p_c), s	0.1	4.6		0.1	0.0	4.4		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		14.9	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

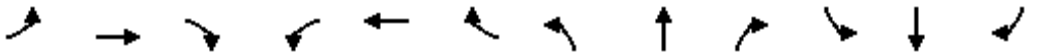
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	0	33	8	0	20	34	656	37	23	646	5
Future Volume (vph)	63	0	33	8	0	20	34	656	37	23	646	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0	4.0	5.7		4.0	5.7	5.7
Lane Util. Factor	1.00		1.00	1.00		1.00	1.00	0.95		1.00	0.95	1.00
Frt	1.00		0.85	1.00		0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95		1.00	0.95		1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770		1583	1770		1583	1770	3511		1770	3539	1583
Flt Permitted	0.95		1.00	0.95		1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770		1583	1770		1583	1770	3511		1770	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	63	0	33	8	0	20	34	656	37	23	646	5
RTOR Reduction (vph)	0	0	30	0	0	19	0	3	0	0	0	3
Lane Group Flow (vph)	63	0	3	8	0	1	34	690	0	23	646	2
Turn Type	Prot		Perm	Prot		Perm	Prot	NA		Prot	NA	Perm
Protected Phases	8			7			5	2		1	6	
Permitted Phases			8			7						6
Actuated Green, G (s)	7.4		7.4	3.9		3.9	3.8	39.5		2.0	37.7	37.7
Effective Green, g (s)	7.4		7.4	3.9		3.9	3.8	39.5		2.0	37.7	37.7
Actuated g/C Ratio	0.09		0.09	0.05		0.05	0.05	0.47		0.02	0.45	0.45
Clearance Time (s)	4.0		4.0	4.0		4.0	4.0	5.7		4.0	5.7	5.7
Vehicle Extension (s)	2.0		2.0	2.0		2.0	2.0	4.5		2.0	4.5	4.5
Lane Grp Cap (vph)	157		140	82		74	80	1664		42	1601	716
v/s Ratio Prot	c0.04			c0.00			c0.02	c0.20		0.01	0.18	
v/s Ratio Perm			0.00			0.00						0.00
v/c Ratio	0.40		0.02	0.10		0.01	0.42	0.41		0.55	0.40	0.00
Uniform Delay, d1	35.9		34.6	38.0		37.9	38.7	14.3		40.2	15.3	12.5
Progression Factor	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.6		0.0	0.2		0.0	1.3	0.3		7.6	0.3	0.0
Delay (s)	36.5		34.7	38.2		37.9	40.0	14.6		47.8	15.6	12.5
Level of Service	D		C	D		D	D	B		D	B	B
Approach Delay (s)		35.8			38.0			15.8			16.6	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	17.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	83.3	Sum of lost time (s)	21.7
Intersection Capacity Utilization	43.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	48	154	128	0	60	21	654	41	19	605	18
Future Volume (veh/h)	79	48	154	128	0	60	21	654	41	19	605	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	70	0	128	0	0	21	654	0	19	605	7
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	250	263		246	0		351	1541		375	1061	473
Arrive On Green	0.14	0.14	0.00	0.14	0.00	0.00	0.04	0.30	0.00	0.04	0.30	0.30
Sat Flow, veh/h	1781	1870	1585	1781	0	1585	1781	5106	1585	1781	3554	1585
Grp Volume(v), veh/h	64	70	0	128	0	0	21	654	0	19	605	7
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1585	1781	1702	1585	1781	1777	1585
Q Serve(g_s), s	1.5	1.6	0.0	3.1	0.0	0.0	0.4	4.8	0.0	0.3	6.8	0.1
Cycle Q Clear(g_c), s	1.5	1.6	0.0	3.1	0.0	0.0	0.4	4.8	0.0	0.3	6.8	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	250	263		246	0		351	1541		375	1061	473
V/C Ratio(X)	0.26	0.27		0.52	0.00		0.06	0.42		0.05	0.57	0.01
Avail Cap(c_a), veh/h	757	794		757	0		1224	4337		1065	3019	1346
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.0	18.1	0.0	18.8	0.0	0.0	10.9	13.2	0.0	10.7	14.0	11.6
Incr Delay (d2), s/veh	0.4	0.4	0.0	1.7	0.0	0.0	0.0	0.3	0.0	0.1	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.7	0.0	1.3	0.0	0.0	0.1	1.3	0.0	0.1	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.4	18.5	0.0	20.6	0.0	0.0	10.9	13.5	0.0	10.8	14.8	11.7
LnGrp LOS	B	B		C	A		B	B		B	B	B
Approach Vol, veh/h		134	A		128	A		675	A		631	
Approach Delay, s/veh		18.5			20.6			13.4			14.7	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.8	20.2		10.6	5.9	20.1		10.5				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	40.0		20.0	25.0	40.0		20.0				
Max Q Clear Time (g_c+I1), s	2.3	6.8		3.6	2.4	8.8		5.1				
Green Ext Time (p_c), s	0.0	5.8		0.3	0.0	5.3		0.4				

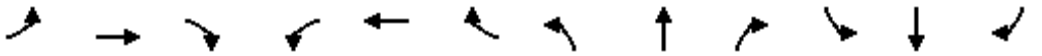
Intersection Summary			
HCM 6th Ctrl Delay		14.9	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



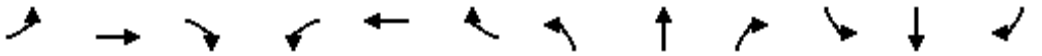
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	139	0	124	53	0	15	9	650	15	29	1018	3
Future Volume (veh/h)	139	0	124	53	0	15	9	650	15	29	1018	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	139	0	24	53	0	1	9	650	7	29	1018	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	242	0	215	147	0	131	253	1447	645	417	1487	663
Arrive On Green	0.14	0.00	0.14	0.08	0.00	0.08	0.01	0.41	0.41	0.04	0.42	0.42
Sat Flow, veh/h	1781	0	1585	1781	0	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	139	0	24	53	0	1	9	650	7	29	1018	1
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	3.9	0.0	0.7	1.5	0.0	0.0	0.2	7.1	0.1	0.5	12.5	0.0
Cycle Q Clear(g_c), s	3.9	0.0	0.7	1.5	0.0	0.0	0.2	7.1	0.1	0.5	12.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	242	0	215	147	0	131	253	1447	645	417	1487	663
V/C Ratio(X)	0.57	0.00	0.11	0.36	0.00	0.01	0.04	0.45	0.01	0.07	0.68	0.00
Avail Cap(c_a), veh/h	830	0	738	664	0	591	601	3377	1506	1011	3377	1506
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	20.3	23.3	0.0	22.6	10.5	11.5	9.5	8.9	12.7	9.1
Incr Delay (d2), s/veh	0.8	0.0	0.1	0.6	0.0	0.0	0.1	0.3	0.0	0.0	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.3	0.6	0.0	0.0	0.0	2.0	0.0	0.1	3.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	0.0	20.4	23.8	0.0	22.6	10.6	11.8	9.5	8.9	13.5	9.1
LnGrp LOS	C	A	C	C	A	C	B	B	A	A	B	A
Approach Vol, veh/h		163			54			666			1048	
Approach Delay, s/veh		22.2			23.8			11.8			13.4	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	27.9		11.3	5.5	28.5		8.4				
Change Period (Y+Rc), s	4.0	6.0		4.0	5.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	51.0		25.0	11.0	51.0		20.0				
Max Q Clear Time (g_c+I1), s	2.5	9.1		5.9	2.2	14.5		3.5				
Green Ext Time (p_c), s	0.0	4.5		0.4	0.0	7.9		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		13.9	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



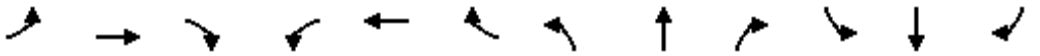
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	5	53	10	5	10	9	567	10	10	1082	10
Future Volume (veh/h)	53	5	53	10	5	10	9	567	10	10	1082	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	5	28	10	5	0	9	567	5	10	1082	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	12	65	40	20	53	292	1724	769	482	1756	16
Arrive On Green	0.12	0.12	0.12	0.03	0.03	0.00	0.02	0.49	0.49	0.02	0.49	0.49
Sat Flow, veh/h	1058	100	559	1207	603	1585	1781	3554	1585	1781	3608	33
Grp Volume(v), veh/h	86	0	0	15	0	0	9	567	5	10	533	559
Grp Sat Flow(s),veh/h/ln	1717	0	0	1810	0	1585	1781	1777	1585	1781	1777	1864
Q Serve(g_s), s	2.7	0.0	0.0	0.5	0.0	0.0	0.1	5.6	0.1	0.2	12.7	12.7
Cycle Q Clear(g_c), s	2.7	0.0	0.0	0.5	0.0	0.0	0.1	5.6	0.1	0.2	12.7	12.7
Prop In Lane	0.62		0.33	0.67		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	200	0	0	60	0	53	292	1724	769	482	865	908
V/C Ratio(X)	0.43	0.00	0.00	0.25	0.00	0.00	0.03	0.33	0.01	0.02	0.62	0.62
Avail Cap(c_a), veh/h	595	0	0	628	0	550	881	2773	1237	1068	1387	1455
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	0.0	0.0	27.2	0.0	0.0	8.6	9.1	7.7	7.4	10.8	10.8
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.8	0.0	0.0	0.0	0.2	0.0	0.0	1.4	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	0.2	0.0	0.0	0.0	1.5	0.0	0.0	3.5	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.2	0.0	0.0	28.0	0.0	0.0	8.6	9.3	7.7	7.4	12.2	12.2
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	B	B
Approach Vol, veh/h		86			15			581			1102	
Approach Delay, s/veh		24.2			28.0			9.3			12.2	
Approach LOS		C			C			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	34.0		10.7	6.9	34.1		5.9				
Change Period (Y+Rc), s	6.0	6.0		4.0	6.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	2.2	7.6		4.7	2.1	14.7		2.5				
Green Ext Time (p_c), s	0.0	6.9		0.2	0.0	13.4		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		11.9	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	0	45	35	0	14	17	587	9	4	1215	11
Future Volume (veh/h)	18	0	45	35	0	14	17	587	9	4	1215	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	0	5	35	0	1	17	587	5	4	1215	11
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	0	80	261	0	116	331	1602	714	461	2252	20
Arrive On Green	0.05	0.00	0.05	0.07	0.00	0.07	0.03	0.45	0.45	0.01	0.43	0.43
Sat Flow, veh/h	1781	0	1585	3563	0	1585	1781	3554	1585	1781	5219	47
Grp Volume(v), veh/h	18	0	5	35	0	1	17	587	5	4	792	434
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1585	1781	1777	1585	1781	1702	1862
Q Serve(g_s), s	0.4	0.0	0.1	0.4	0.0	0.0	0.2	4.7	0.1	0.1	7.4	7.4
Cycle Q Clear(g_c), s	0.4	0.0	0.1	0.4	0.0	0.0	0.2	4.7	0.1	0.1	7.4	7.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	90	0	80	261	0	116	331	1602	714	461	1469	803
V/C Ratio(X)	0.20	0.00	0.06	0.13	0.00	0.01	0.05	0.37	0.01	0.01	0.54	0.54
Avail Cap(c_a), veh/h	830	0	739	1660	0	739	1116	3726	1662	1280	3569	1952
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.6	0.0	19.4	18.6	0.0	18.4	7.0	7.8	6.5	7.0	9.0	9.0
Incr Delay (d2), s/veh	0.4	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.9	0.0	0.0	1.5	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.0	0.0	19.5	18.7	0.0	18.5	7.1	8.0	6.5	7.0	9.5	9.8
LnGrp LOS	B	A	B	B	A	B	A	A	A	A	A	A
Approach Vol, veh/h		23			36			609			1230	
Approach Delay, s/veh		19.9			18.7			7.9			9.6	
Approach LOS		B			B			A			A	

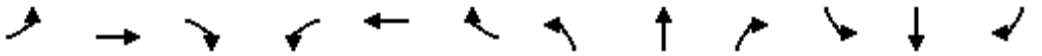
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.3	25.3		6.2	5.1	24.5		7.1				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	2.1	6.7		2.4	2.2	9.4		2.4				
Green Ext Time (p_c), s	0.0	4.0		0.0	0.0	9.1		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	9.3
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	8	113	65	6	23	102	1228	29	43	1707	45
Future Volume (veh/h)	109	8	113	65	6	23	102	1228	29	43	1707	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	109	8	11	65	6	2	102	1228	27	43	1707	43
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	135	10	124	84	8	82	127	3490	77	55	3272	82
Arrive On Green	0.08	0.08	0.08	0.05	0.05	0.05	0.07	0.68	0.68	0.03	0.64	0.64
Sat Flow, veh/h	1665	122	1526	1637	151	1585	1781	5140	113	1781	5121	129
Grp Volume(v), veh/h	117	0	11	71	0	2	102	813	442	43	1134	616
Grp Sat Flow(s),veh/h/ln	1787	0	1526	1788	0	1585	1781	1702	1849	1781	1702	1846
Q Serve(g_s), s	7.7	0.0	0.8	4.7	0.0	0.1	6.8	12.1	12.1	2.9	21.7	21.7
Cycle Q Clear(g_c), s	7.7	0.0	0.8	4.7	0.0	0.1	6.8	12.1	12.1	2.9	21.7	21.7
Prop In Lane	0.93		1.00	0.92		1.00	1.00		0.06	1.00		0.07
Lane Grp Cap(c), veh/h	145	0	124	92	0	82	127	2311	1255	55	2175	1179
V/C Ratio(X)	0.81	0.00	0.09	0.77	0.00	0.02	0.80	0.35	0.35	0.78	0.52	0.52
Avail Cap(c_a), veh/h	238	0	204	225	0	199	238	2311	1255	238	2175	1179
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.2	0.0	51.1	56.2	0.0	54.1	54.9	8.1	8.1	57.7	11.7	11.7
Incr Delay (d2), s/veh	4.0	0.0	0.1	5.0	0.0	0.0	4.4	0.4	0.8	8.3	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.0	0.3	2.3	0.0	0.1	3.1	3.7	4.2	1.4	7.0	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.3	0.0	51.2	61.3	0.0	54.1	59.3	8.5	8.9	66.0	12.3	12.9
LnGrp LOS	E	A	D	E	A	D	E	A	A	E	B	B
Approach Vol, veh/h		128			73			1357			1793	
Approach Delay, s/veh		57.7			61.1			12.5			13.8	
Approach LOS		E			E			B			B	

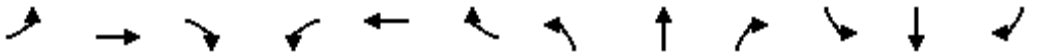
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.7	87.5		11.1	12.5	82.7		13.7				
Change Period (Y+Rc), s	4.0	6.0		4.9	4.0	* 6		4.0				
Max Green Setting (Gmax), s	16.0	54.0		15.1	16.0	* 54		16.0				
Max Q Clear Time (g_c+I1), s	4.9	14.1		6.7	8.8	23.7		9.7				
Green Ext Time (p_c), s	0.0	15.6		0.1	0.1	22.9		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		16.0	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	249	84	227	460	215	157	1051	170	199	1424	169
Future Volume (veh/h)	160	249	84	227	460	215	157	1051	170	199	1424	169
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	160	249	12	227	460	36	157	1051	0	199	1424	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	259	111	173	274	118	171	3281		188	3330	
Arrive On Green	0.09	0.07	0.07	0.10	0.08	0.08	0.10	0.64	0.00	0.11	0.65	0.00
Sat Flow, veh/h	1781	3554	1520	1781	3554	1523	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	160	249	12	227	460	36	157	1051	0	199	1424	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1520	1781	1777	1523	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	21.2	16.6	1.7	23.0	18.3	5.3	20.7	22.0	0.0	25.0	31.9	0.0
Cycle Q Clear(g_c), s	21.2	16.6	1.7	23.0	18.3	5.3	20.7	22.0	0.0	25.0	31.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	165	259	111	173	274	118	171	3281		188	3330	
V/C Ratio(X)	0.97	0.96	0.11	1.31	1.68	0.31	0.92	0.32		1.06	0.43	
Avail Cap(c_a), veh/h	165	259	111	173	274	118	173	3281		188	3330	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	107.1	109.5	102.6	107.0	109.3	103.3	106.2	19.1	0.0	106.0	19.9	0.0
Incr Delay (d2), s/veh	59.9	44.9	0.5	175.9	319.8	1.8	44.7	0.1	0.0	82.2	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.6	9.3	0.7	19.1	20.7	2.2	11.7	8.8	0.0	15.9	12.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	167.0	154.4	103.2	282.9	429.2	105.2	151.0	19.2	0.0	188.2	20.3	0.0
LnGrp LOS	F	F	F	F	F	F	F	B		F	C	
Approach Vol, veh/h		421			723			1208	A		1623	A
Approach Delay, s/veh		157.7			367.1			36.3			40.9	
Approach LOS		F			F			D			D	

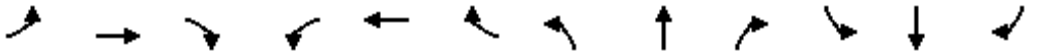
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.7	160.3	26.0	24.0	29.0	158.0	27.0	23.0
Change Period (Y+Rc), s	4.0	5.7	4.0	5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	23.0	37.3	22.0	18.3	25.0	152.0	23.0	17.3
Max Q Clear Time (g_c+I1), s	22.7	33.9	23.2	20.3	27.0	24.0	25.0	18.6
Green Ext Time (p_c), s	0.0	2.7	0.0	0.0	0.0	11.7	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	111.2
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	0	26	27	1	17	42	1376	12	21	1673	13
Future Volume (veh/h)	26	0	26	27	1	17	42	1376	12	21	1673	13
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	26	0	26	27	1	17	42	1376	12	21	1673	13
Adj No. of Lanes	0	1	0	0	1	0	1	3	0	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	84	10	49	97	13	38	78	3219	28	52	3221	25
Arrive On Green	0.06	0.00	0.06	0.06	0.06	0.06	0.04	0.62	0.62	0.03	0.62	0.62
Sat Flow, veh/h	638	159	797	786	218	610	1774	5200	45	1774	5205	40
Grp Volume(v), veh/h	52	0	0	45	0	0	42	897	491	21	1090	596
Grp Sat Flow(s),veh/h/ln	1593	0	0	1614	0	0	1774	1695	1855	1774	1695	1856
Q Serve(g_s), s	0.6	0.0	0.0	0.0	0.0	0.0	2.8	16.4	16.4	1.4	21.7	21.7
Cycle Q Clear(g_c), s	3.5	0.0	0.0	2.9	0.0	0.0	2.8	16.4	16.4	1.4	21.7	21.7
Prop In Lane	0.50		0.50	0.60		0.38	1.00		0.02	1.00		0.02
Lane Grp Cap(c), veh/h	143	0	0	148	0	0	78	2099	1148	52	2098	1148
V/C Ratio(X)	0.36	0.00	0.00	0.30	0.00	0.00	0.54	0.43	0.43	0.40	0.52	0.52
Avail Cap(c_a), veh/h	249	0	0	252	0	0	237	2099	1148	237	2099	1149
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.4	0.0	0.0	54.2	0.0	0.0	56.2	11.8	11.8	57.2	12.9	12.9
Incr Delay (d2), s/veh	1.5	0.0	0.0	1.2	0.0	0.0	2.1	0.6	1.2	1.9	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.0	1.5	0.0	0.0	1.4	7.8	8.7	0.7	10.2	11.3
LnGrp Delay(d),s/veh	56.0	0.0	0.0	55.4	0.0	0.0	58.3	12.5	13.0	59.1	13.1	13.4
LnGrp LOS	E			E			E	B	B	E	B	B
Approach Vol, veh/h		52			45			1430			1707	
Approach Delay, s/veh		56.0			55.4			14.0			13.8	
Approach LOS		E			E			B			B	

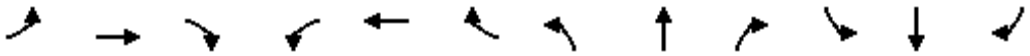
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.3	80.0		11.4	9.2	80.0		11.4
Change Period (Y+Rc), s	4.0	5.7		4.0	5.7	* 5.7		4.0
Max Green Setting (Gmax), s	16.0	74.3		16.0	16.0	* 74		16.0
Max Q Clear Time (g_c+I1), s	4.8	23.7		5.5	3.4	18.4		4.9
Green Ext Time (p_c), s	0.0	15.9		0.1	0.0	11.6		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	15.1
HCM 2010 LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	63	79	193	117	125	148	1602	90	71	1643	23
Future Volume (veh/h)	93	63	79	193	117	125	148	1602	90	71	1643	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	93	63	8	193	117	0	148	1602	0	71	1643	22
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	117	261	114	255	152		175	3256		91	3065	41
Arrive On Green	0.07	0.07	0.07	0.07	0.08	0.00	0.10	0.64	0.00	0.05	0.59	0.59
Sat Flow, veh/h	1781	3554	1553	3456	1870	1585	1781	5106	1585	1781	5192	70
Grp Volume(v), veh/h	93	63	8	193	117	0	148	1602	0	71	1077	588
Grp Sat Flow(s),veh/h/ln	1781	1777	1553	1728	1870	1585	1781	1702	1585	1781	1702	1857
Q Serve(g_s), s	6.2	2.0	0.6	6.6	7.4	0.0	9.8	19.9	0.0	4.7	22.8	22.8
Cycle Q Clear(g_c), s	6.2	2.0	0.6	6.6	7.4	0.0	9.8	19.9	0.0	4.7	22.8	22.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	117	261	114	255	152		175	3256		91	2010	1097
V/C Ratio(X)	0.79	0.24	0.07	0.76	0.77		0.84	0.49		0.78	0.54	0.54
Avail Cap(c_a), veh/h	238	423	185	461	223		238	3256		238	2010	1097
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.3	52.5	51.8	54.5	54.0	0.0	53.2	11.5	0.0	56.3	14.7	14.7
Incr Delay (d2), s/veh	4.5	0.6	0.3	1.7	11.5	0.0	14.2	0.5	0.0	5.3	1.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.9	0.2	2.9	3.9	0.0	5.0	7.0	0.0	2.2	8.4	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.8	53.1	52.1	56.3	65.5	0.0	67.4	12.0	0.0	61.5	15.8	16.6
LnGrp LOS	E	D	D	E	E		E	B		E	B	B
Approach Vol, veh/h		164			310	A		1750	A		1736	
Approach Delay, s/veh		56.8			59.8			16.7			17.9	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	15.5	10.1	82.5	12.8	14.5	15.8	76.8
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	16.0	14.3	16.0	54.0	16.0	14.3	16.0	54.0
Max Q Clear Time (g_c+I1), s	8.2	9.4	6.7	21.9	8.6	4.0	11.8	24.8
Green Ext Time (p_c), s	0.1	0.2	0.1	12.1	0.3	0.2	0.1	11.4

Intersection Summary	
HCM 6th Ctrl Delay	22.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



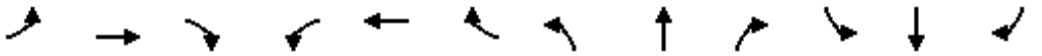
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	181	116	1755	285	106	1756
Future Volume (veh/h)	181	116	1755	285	106	1756
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	181	0	1755	251	106	1756
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	228		2215	988	153	2685
Arrive On Green	0.13	0.00	0.62	0.62	0.09	0.76
Sat Flow, veh/h	1781	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	181	0	1755	251	106	1756
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1781	1777
Q Serve(g_s), s	8.5	0.0	31.5	6.1	5.0	20.5
Cycle Q Clear(g_c), s	8.5	0.0	31.5	6.1	5.0	20.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	228		2215	988	153	2685
V/C Ratio(X)	0.79		0.79	0.25	0.69	0.65
Avail Cap(c_a), veh/h	644		3438	1533	415	3438
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	0.0	12.0	7.2	38.1	5.1
Incr Delay (d2), s/veh	6.2	0.0	0.8	0.2	2.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.0	9.7	1.7	2.1	4.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.5	0.0	12.9	7.4	40.2	5.4
LnGrp LOS	D		B	A	D	A
Approach Vol, veh/h	181	A	2006			1862
Approach Delay, s/veh	42.5		12.2			7.4
Approach LOS	D		B			A

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	11.4	59.5				70.8	15.0
Change Period (Y+Rc), s	4.0	6.0				6.0	4.0
Max Green Setting (Gmax), s	20.0	83.0				83.0	31.0
Max Q Clear Time (g_c+I1), s	7.0	33.5				22.5	10.5
Green Ext Time (p_c), s	0.1	19.9				17.6	0.7

Intersection Summary	
HCM 6th Ctrl Delay	11.3
HCM 6th LOS	B

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	33	139	48	0	63	59	999	38	92	788	11
Future Volume (veh/h)	67	33	139	48	0	63	59	999	38	92	788	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	33	22	48	0	26	59	999	17	92	788	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	365	197	167	354	0	315	158	1503	670	376	1574	702
Arrive On Green	0.11	0.11	0.11	0.10	0.00	0.10	0.09	0.42	0.42	0.11	0.44	0.44
Sat Flow, veh/h	3456	1870	1585	3563	0	3170	1781	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	67	33	22	48	0	26	59	999	17	92	788	5
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1781	0	1585	1781	1777	1585	1728	1777	1585
Q Serve(g_s), s	1.2	1.1	0.9	0.8	0.0	0.5	2.1	15.4	0.4	1.7	10.8	0.1
Cycle Q Clear(g_c), s	1.2	1.1	0.9	0.8	0.0	0.5	2.1	15.4	0.4	1.7	10.8	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	365	197	167	354	0	315	158	1503	670	376	1574	702
V/C Ratio(X)	0.18	0.17	0.13	0.14	0.00	0.08	0.37	0.66	0.03	0.24	0.50	0.01
Avail Cap(c_a), veh/h	1012	547	464	1043	0	928	521	2445	1090	1012	3069	1369
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.9	27.8	27.7	28.1	0.0	27.9	29.3	15.8	11.5	27.9	13.6	10.6
Incr Delay (d2), s/veh	0.1	0.1	0.1	0.1	0.0	0.0	0.5	0.7	0.0	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.5	0.3	0.3	0.0	0.2	0.9	5.8	0.1	0.6	3.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.0	28.0	27.8	28.2	0.0	28.0	29.9	16.5	11.5	28.0	14.0	10.6
LnGrp LOS	C	C	C	C	A	C	C	B	B	C	B	B
Approach Vol, veh/h		122			74			1075			885	
Approach Delay, s/veh		27.9			28.1			17.2			15.4	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.4	34.9		11.2	10.1	36.3		10.8				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	47.0		20.0	20.0	59.0		20.0				
Max Q Clear Time (g_c+I1), s	3.7	17.4		3.2	4.1	12.8		2.8				
Green Ext Time (p_c), s	0.1	11.5		0.2	0.0	8.1		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		17.4	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



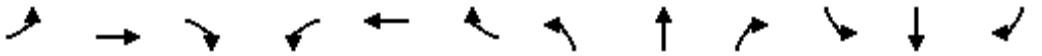
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	59	24	517	71	32	642
Future Volume (veh/h)	59	24	517	71	32	642
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	3	517	40	32	642
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	193	172	1295	577	84	1949
Arrive On Green	0.11	0.11	0.36	0.36	0.05	0.55
Sat Flow, veh/h	1781	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	59	3	517	40	32	642
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1781	1777
Q Serve(g_s), s	0.9	0.0	3.2	0.5	0.5	2.9
Cycle Q Clear(g_c), s	0.9	0.0	3.2	0.5	0.5	2.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	193	172	1295	577	84	1949
V/C Ratio(X)	0.31	0.02	0.40	0.07	0.38	0.33
Avail Cap(c_a), veh/h	1528	1360	4268	1903	1222	4268
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.0	11.6	6.9	6.0	13.5	3.6
Incr Delay (d2), s/veh	0.9	0.0	0.4	0.1	1.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.8	0.1	0.2	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.9	11.6	7.3	6.1	14.5	3.8
LnGrp LOS	B	B	A	A	B	A
Approach Vol, veh/h	62		557			674
Approach Delay, s/veh	12.8		7.2			4.3
Approach LOS	B		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.4	16.6			22.0	7.2
Change Period (Y+Rc), s	4.0	6.0			6.0	4.0
Max Green Setting (Gmax), s	20.0	35.0			35.0	25.0
Max Q Clear Time (g_c+I1), s	2.5	5.2			4.9	2.9
Green Ext Time (p_c), s	0.0	5.5			6.5	0.2

Intersection Summary	
HCM 6th Ctrl Delay	6.0
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



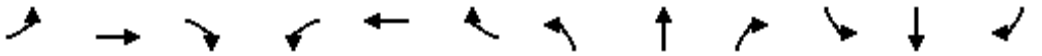
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	4	13	97	2	181	11	835	86	162	1034	22
Future Volume (veh/h)	6	4	13	97	2	181	11	835	86	162	1034	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	4	13	97	2	181	11	835	86	162	1034	22
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	36	32	49	162	3	300	31	976	823	182	1135	958
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.02	0.52	0.52	0.20	1.00	1.00
Sat Flow, veh/h	32	165	257	601	15	1573	1781	1870	1577	1781	1870	1579
Grp Volume(v), veh/h	23	0	0	99	0	181	11	835	86	162	1034	22
Grp Sat Flow(s),veh/h/ln	454	0	0	616	0	1573	1781	1870	1577	1781	1870	1579
Q Serve(g_s), s	0.3	0.0	0.0	0.0	0.0	15.8	0.9	57.8	4.1	13.3	0.0	0.0
Cycle Q Clear(g_c), s	26.6	0.0	0.0	26.3	0.0	15.8	0.9	57.8	4.1	13.3	0.0	0.0
Prop In Lane	0.26		0.57	0.98		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	117	0	0	165	0	300	31	976	823	182	1135	958
V/C Ratio(X)	0.20	0.00	0.00	0.60	0.00	0.60	0.36	0.86	0.10	0.89	0.91	0.02
Avail Cap(c_a), veh/h	200	0	0	243	0	388	95	1022	862	202	1135	958
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.2	0.0	0.0	59.7	0.0	55.5	72.9	31.0	18.1	58.9	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	1.3	0.0	0.7	2.6	7.4	0.1	31.5	12.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	3.8	0.0	6.4	0.4	26.4	1.5	6.8	3.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.5	0.0	0.0	61.0	0.0	56.2	75.5	38.3	18.2	90.4	12.4	0.0
LnGrp LOS	D	A	A	E	A	E	E	D	B	F	B	A
Approach Vol, veh/h		23			280			932			1218	
Approach Delay, s/veh		51.5			57.9			36.9			22.6	
Approach LOS		D			E			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.3	84.3		32.7	6.6	97.0		32.7				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	17.0	82.0		37.0	8.0	91.0		37.0				
Max Q Clear Time (g_c+I1), s	15.3	59.8		28.6	2.9	2.0		28.3				
Green Ext Time (p_c), s	0.0	15.4		0.0	0.0	52.1		0.4				

Intersection Summary		
HCM 6th Ctrl Delay		32.3
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	0	32	39	3	18	63	887	16	10	1088	42
Future Volume (veh/h)	66	0	32	39	3	18	63	887	16	10	1088	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	66	0	3	39	3	1	63	887	10	10	1088	40
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	130	0	116	107	8	101	110	948	421	665	2100	77
Arrive On Green	0.07	0.00	0.07	0.06	0.06	0.06	0.06	0.27	0.27	0.37	0.60	0.60
Sat Flow, veh/h	1781	0	1585	1660	128	1564	1781	3554	1579	1781	3495	128
Grp Volume(v), veh/h	66	0	3	42	0	1	63	887	10	10	553	575
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1787	0	1564	1781	1777	1579	1781	1777	1847
Q Serve(g_s), s	3.2	0.0	0.2	2.0	0.0	0.1	3.1	22.0	0.4	0.3	16.2	16.2
Cycle Q Clear(g_c), s	3.2	0.0	0.2	2.0	0.0	0.1	3.1	22.0	0.4	0.3	16.2	16.2
Prop In Lane	1.00		1.00	0.93		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	130	0	116	115	0	101	110	948	421	665	1068	1110
V/C Ratio(X)	0.51	0.00	0.03	0.36	0.00	0.01	0.57	0.94	0.02	0.02	0.52	0.52
Avail Cap(c_a), veh/h	317	0	282	318	0	278	317	948	421	665	1068	1110
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.2	0.0	38.7	40.3	0.0	39.4	41.1	32.2	24.4	17.8	10.4	10.4
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.7	0.0	0.0	1.8	17.3	0.1	0.0	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.1	0.9	0.0	0.0	1.3	10.7	0.2	0.1	5.0	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.3	0.0	38.8	41.0	0.0	39.4	42.8	49.6	24.5	17.8	11.2	11.2
LnGrp LOS	D	A	D	D	A	D	D	D	C	B	B	B
Approach Vol, veh/h		69			43			960			1138	
Approach Delay, s/veh		41.2			41.0			48.9			11.3	
Approach LOS		D			D			D			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	39.6	30.0		10.6	9.6	60.1		9.8				
Change Period (Y+Rc), s	6.0	* 6		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	16.0	* 24		16.0	16.0	24.0		16.0				
Max Q Clear Time (g_c+I1), s	2.3	24.0		5.2	5.1	18.2		4.0				
Green Ext Time (p_c), s	0.0	0.0		0.1	0.1	5.3		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		29.1
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	266	0	313	5	5	5	642	688	0	7	825	289
Future Volume (veh/h)	266	0	313	5	5	5	642	688	0	7	825	289
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	266	0	0	5	5	0	642	688	0	7	825	116
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	355	0		39	41	0	731	2366	0	22	1659	740
Arrive On Green	0.10	0.00	0.00	0.02	0.02	0.00	0.21	0.67	0.00	0.01	0.47	0.47
Sat Flow, veh/h	3563	0	1585	1781	1870	0	3456	3647	0	1781	3554	1585
Grp Volume(v), veh/h	266	0	0	5	5	0	642	688	0	7	825	116
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	1870	0	1728	1777	0	1781	1777	1585
Q Serve(g_s), s	6.5	0.0	0.0	0.2	0.2	0.0	16.2	7.2	0.0	0.4	14.5	3.8
Cycle Q Clear(g_c), s	6.5	0.0	0.0	0.2	0.2	0.0	16.2	7.2	0.0	0.4	14.5	3.8
Prop In Lane	1.00		1.00	1.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	355	0		39	41	0	731	2366	0	22	1659	740
V/C Ratio(X)	0.75	0.00		0.13	0.12	0.00	0.88	0.29	0.00	0.31	0.50	0.16
Avail Cap(c_a), veh/h	633	0		238	249	0	845	2366	0	238	1659	740
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.4	0.0	0.0	43.2	43.1	0.0	34.4	6.2	0.0	44.1	16.7	13.8
Incr Delay (d2), s/veh	1.2	0.0	0.0	0.5	0.5	0.0	8.6	0.3	0.0	3.0	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.0	0.1	0.1	0.0	7.5	2.4	0.0	0.2	5.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.6	0.0	0.0	43.7	43.6	0.0	43.0	6.5	0.0	47.0	17.0	13.9
LnGrp LOS	D	A		D	D	A	D	A	A	D	B	B
Approach Vol, veh/h		266	A		10			1330			948	
Approach Delay, s/veh		40.6			43.7			24.1			16.8	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	65.9		13.0	23.0	48.0		6.0				
Change Period (Y+Rc), s	4.0	* 6		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	12.0	* 32		16.0	22.0	22.0		12.0				
Max Q Clear Time (g_c+I1), s	2.4	9.2		8.5	18.2	16.5		2.2				
Green Ext Time (p_c), s	0.0	4.9		0.4	0.8	2.7		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		23.2	
HCM 6th LOS		C	

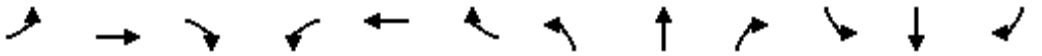
Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

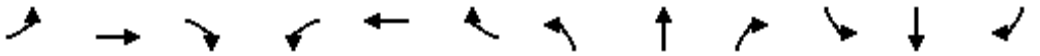


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	5	31	25	5	22	32	864	32	57	850	19
Future Volume (veh/h)	57	5	31	25	5	22	32	864	32	57	850	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	0	3	25	5	1	32	864	17	57	850	11
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	338	0	151	100	85	17	90	1457	650	137	1552	692
Arrive On Green	0.09	0.00	0.09	0.06	0.06	0.06	0.05	0.41	0.41	0.08	0.44	0.44
Sat Flow, veh/h	3563	0	1585	1781	1513	303	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	61	0	3	25	0	6	32	864	17	57	850	11
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1816	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.8	0.0	0.1	0.7	0.0	0.2	0.8	9.3	0.3	1.5	8.7	0.2
Cycle Q Clear(g_c), s	0.8	0.0	0.1	0.7	0.0	0.2	0.8	9.3	0.3	1.5	8.7	0.2
Prop In Lane	1.00		1.00	1.00		0.17	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	338	0	151	100	0	102	90	1457	650	137	1552	692
V/C Ratio(X)	0.18	0.00	0.02	0.25	0.00	0.06	0.36	0.59	0.03	0.41	0.55	0.02
Avail Cap(c_a), veh/h	1456	0	648	728	0	742	728	3268	1458	728	3268	1458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.4	0.0	20.1	22.1	0.0	21.9	22.5	11.3	8.6	21.5	10.2	7.8
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.5	0.0	0.1	0.9	0.5	0.0	0.7	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.3	0.0	0.1	0.3	3.0	0.1	0.6	2.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	0.0	20.1	22.6	0.0	22.0	23.3	11.7	8.6	22.3	10.6	7.8
LnGrp LOS	C	A	C	C	A	C	C	B	A	C	B	A
Approach Vol, veh/h		64			31			913			918	
Approach Delay, s/veh		20.5			22.5			12.1			11.3	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.8	25.8		8.6	6.5	27.1		6.8				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	3.5	11.3		2.8	2.8	10.7		2.7				
Green Ext Time (p_c), s	0.0	8.8		0.1	0.0	8.6		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		12.1	
HCM 6th LOS		B	

Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	874	34	96	902	44	109	35	24	5	35	5
Future Volume (veh/h)	53	874	34	96	902	44	109	35	24	5	35	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	874	15	96	902	22	72	87	3	5	35	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	64	1375	613	124	1494	667	148	156	132	8	58	0
Arrive On Green	0.04	0.39	0.39	0.07	0.42	0.42	0.08	0.08	0.08	0.04	0.04	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	232	1626	0
Grp Volume(v), veh/h	53	874	15	96	902	22	72	87	3	40	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1859	0	0
Q Serve(g_s), s	1.2	8.3	0.2	2.2	8.2	0.3	1.6	1.9	0.1	0.9	0.0	0.0
Cycle Q Clear(g_c), s	1.2	8.3	0.2	2.2	8.2	0.3	1.6	1.9	0.1	0.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.12		0.00
Lane Grp Cap(c), veh/h	64	1375	613	124	1494	667	148	156	132	66	0	0
V/C Ratio(X)	0.83	0.64	0.02	0.77	0.60	0.03	0.49	0.56	0.02	0.60	0.00	0.00
Avail Cap(c_a), veh/h	641	2557	1141	855	2983	1331	641	673	570	669	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.0	10.4	7.9	19.1	9.4	7.1	18.3	18.4	17.5	19.8	0.0	0.0
Incr Delay (d2), s/veh	9.5	0.7	0.0	3.8	0.5	0.0	0.9	1.2	0.0	3.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.2	0.1	0.9	2.0	0.1	0.6	0.8	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.5	11.1	7.9	22.9	9.9	7.1	19.2	19.5	17.6	23.1	0.0	0.0
LnGrp LOS	C	B	A	C	A	A	B	B	B	C	A	A
Approach Vol, veh/h		942			1020			162			40	
Approach Delay, s/veh		12.1			11.1			19.3			23.1	
Approach LOS		B			B			B			C	

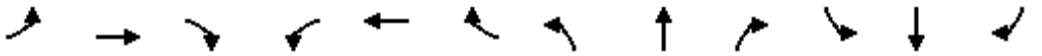
Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	7.5	6.9	21.8	5.5	5.5	23.2
Change Period (Y+Rc), s	4.0	4.0	5.7	4.0	4.0	5.7
Max Green Setting (Gmax), s	15.0	20.0	30.0	15.0	15.0	35.0
Max Q Clear Time (g_c+I1), s	3.9	4.2	10.3	2.9	3.2	10.2
Green Ext Time (p_c), s	0.2	0.1	5.8	0.0	0.0	6.3

Intersection Summary	
HCM 6th Ctrl Delay	12.3
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	716	160	117	833	35	139	30	68	26	37	73
Future Volume (veh/h)	71	716	160	117	833	35	139	30	68	26	37	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	71	716	64	117	833	16	160	0	7	26	37	11
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	1559	695	154	1685	752	286	0	127	90	94	80
Arrive On Green	0.05	0.44	0.44	0.09	0.47	0.47	0.08	0.00	0.08	0.05	0.05	0.05
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3563	0	1585	1781	1870	1585
Grp Volume(v), veh/h	71	716	64	117	833	16	160	0	7	26	37	11
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1585	1781	1870	1585
Q Serve(g_s), s	2.0	7.4	1.2	3.3	8.4	0.3	2.2	0.0	0.2	0.7	1.0	0.3
Cycle Q Clear(g_c), s	2.0	7.4	1.2	3.3	8.4	0.3	2.2	0.0	0.2	0.7	1.0	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	1559	695	154	1685	752	286	0	127	90	94	80
V/C Ratio(X)	0.79	0.46	0.09	0.76	0.49	0.02	0.56	0.00	0.06	0.29	0.39	0.14
Avail Cap(c_a), veh/h	514	2051	915	685	2393	1067	1371	0	610	514	540	457
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.4	10.3	8.5	23.2	9.4	7.3	23.0	0.0	22.1	23.8	23.9	23.6
Incr Delay (d2), s/veh	5.5	0.3	0.1	2.9	0.4	0.0	0.6	0.0	0.1	1.7	2.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.1	0.3	1.3	2.3	0.1	0.9	0.0	0.1	0.3	0.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.9	10.6	8.6	26.1	9.7	7.3	23.7	0.0	22.2	25.5	26.5	24.4
LnGrp LOS	C	B	A	C	A	A	C	A	C	C	C	C
Approach Vol, veh/h		851			966			167			74	
Approach Delay, s/veh		12.1			11.7			23.6			25.9	
Approach LOS		B			B			C			C	

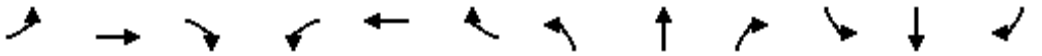
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		8.2	8.5	28.1		7.2	6.6	29.9				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.6	4.0	5.3				
Max Green Setting (Gmax), s		20.0	20.0	30.0		15.0	15.0	35.0				
Max Q Clear Time (g_c+I1), s		4.2	5.3	9.4		3.0	4.0	10.4				
Green Ext Time (p_c), s		0.3	0.2	11.3		0.2	0.1	14.3				

Intersection Summary												
HCM 6th Ctrl Delay			13.3									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	773	69	48	710	6	183	41	13	4	35	38
Future Volume (veh/h)	55	773	69	48	710	6	183	41	13	4	35	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	773	26	48	710	2	116	135	8	4	35	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	68	1573	701	58	1554	693	232	228	13	7	59	56
Arrive On Green	0.04	0.44	0.44	0.03	0.44	0.44	0.13	0.13	0.13	0.04	0.04	0.04
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1748	104	191	1670	1585
Grp Volume(v), veh/h	55	773	26	48	710	2	116	0	143	39	0	2
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1852	1861	0	1585
Q Serve(g_s), s	1.5	7.5	0.4	1.3	6.8	0.0	2.9	0.0	3.5	1.0	0.0	0.1
Cycle Q Clear(g_c), s	1.5	7.5	0.4	1.3	6.8	0.0	2.9	0.0	3.5	1.0	0.0	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	0.10		1.00
Lane Grp Cap(c), veh/h	68	1573	701	58	1554	693	232	0	241	65	0	56
V/C Ratio(X)	0.81	0.49	0.04	0.82	0.46	0.00	0.50	0.00	0.59	0.60	0.00	0.04
Avail Cap(c_a), veh/h	555	2215	988	555	2215	988	925	0	962	580	0	494
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.0	9.6	7.6	23.1	9.5	7.6	19.5	0.0	19.7	22.9	0.0	22.4
Incr Delay (d2), s/veh	8.3	0.4	0.0	10.1	0.3	0.0	1.7	0.0	2.3	3.2	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.0	0.1	0.7	2.1	0.0	1.2	0.0	1.5	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.3	9.9	7.6	33.3	9.9	7.6	21.1	0.0	22.1	26.1	0.0	22.5
LnGrp LOS	C	A	A	C	A	A	C	A	C	C	A	C
Approach Vol, veh/h		854			760			259			41	
Approach Delay, s/veh		11.2			11.3			21.6			25.9	
Approach LOS		B			B			C			C	

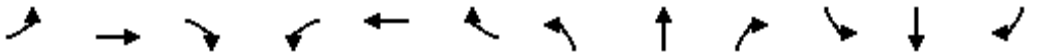
Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	10.3	5.6	26.6	5.7	5.8	26.3
Change Period (Y+Rc), s	4.0	4.0	5.3	4.0	4.0	5.3
Max Green Setting (Gmax), s	25.0	15.0	30.0	15.0	15.0	30.0
Max Q Clear Time (g_c+I1), s	5.5	3.3	9.5	3.0	3.5	8.8
Green Ext Time (p_c), s	1.0	0.0	11.8	0.0	0.0	12.3

Intersection Summary	
HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	472	338	46	300	33	361	54	33	15	57	43
Future Volume (veh/h)	32	472	338	46	300	33	361	54	33	15	57	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	32	472	191	46	300	10	400	0	9	15	57	4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	170	928	706	51	591	264	656	0	292	20	74	80
Arrive On Green	0.11	0.29	0.29	0.03	0.18	0.18	0.20	0.00	0.20	0.06	0.06	0.06
Sat Flow, veh/h	1603	3198	1427	1603	3198	1427	3206	0	1427	347	1319	1427
Grp Volume(v), veh/h	32	472	191	46	300	10	400	0	9	72	0	4
Grp Sat Flow(s),veh/h/ln	1603	1599	1427	1603	1599	1427	1603	0	1427	1666	0	1427
Q Serve(g_s), s	0.8	5.1	3.2	1.2	3.5	0.2	4.7	0.0	0.2	1.8	0.0	0.1
Cycle Q Clear(g_c), s	0.8	5.1	3.2	1.2	3.5	0.2	4.7	0.0	0.2	1.8	0.0	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.21		1.00
Lane Grp Cap(c), veh/h	170	928	706	51	591	264	656	0	292	94	0	80
V/C Ratio(X)	0.19	0.51	0.27	0.89	0.51	0.04	0.61	0.00	0.03	0.77	0.00	0.05
Avail Cap(c_a), veh/h	773	2312	1323	773	2312	1031	1931	0	859	803	0	687
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.9	12.3	6.1	20.0	15.2	13.9	15.0	0.0	13.2	19.3	0.0	18.5
Incr Delay (d2), s/veh	0.2	0.7	0.3	17.5	1.1	0.1	0.9	0.0	0.0	4.9	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.4	1.1	0.6	1.1	0.1	1.6	0.0	0.1	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.1	13.0	6.4	37.5	16.3	14.0	15.9	0.0	13.3	24.2	0.0	18.6
LnGrp LOS	B	B	A	D	B	B	B	A	B	C	A	B
Approach Vol, veh/h		695			356			409			76	
Approach Delay, s/veh		11.4			19.0			15.9			23.9	
Approach LOS		B			B			B			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.5	5.3	17.3		6.3	9.7	13.0				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.0	5.3	* 5.3				
Max Green Setting (Gmax), s		25.0	20.0	30.0		20.0	20.0	* 30				
Max Q Clear Time (g_c+I1), s		6.7	3.2	7.1		3.8	2.8	5.5				
Green Ext Time (p_c), s		1.9	0.0	4.9		0.1	0.0	2.2				

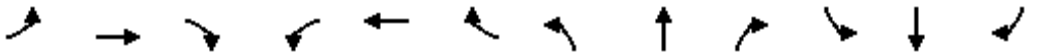
Intersection Summary												
HCM 6th Ctrl Delay			14.9									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	27	66	12	9	4	62	1041	10	12	785	149
Future Volume (veh/h)	159	27	66	12	9	4	62	1041	10	12	785	149
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1864	1864	1864	1870	1870	1870	1776	1776	1776	2027	2027	2027
Adj Flow Rate, veh/h	159	27	14	12	9	0	62	1041	5	12	785	73
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	234	149	77	114	57	0	106	2543	788	35	2657	823
Arrive On Green	0.13	0.13	0.13	0.03	0.03	0.00	0.06	0.52	0.52	0.02	0.48	0.48
Sat Flow, veh/h	1776	1155	599	3456	1870	0	1692	4849	1502	1931	5535	1714
Grp Volume(v), veh/h	159	0	41	12	9	0	62	1041	5	12	785	73
Grp Sat Flow(s),veh/h/ln	1776	0	1754	1728	1870	0	1692	1616	1502	1931	1845	1714
Q Serve(g_s), s	5.5	0.0	1.3	0.2	0.3	0.0	2.3	8.4	0.1	0.4	5.5	0.6
Cycle Q Clear(g_c), s	5.5	0.0	1.3	0.2	0.3	0.0	2.3	8.4	0.1	0.4	5.5	0.6
Prop In Lane	1.00		0.34	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	234	0	227	114	57	0	106	2543	788	35	2657	823
V/C Ratio(X)	0.68	0.00	0.18	0.11	0.16	0.00	0.59	0.41	0.01	0.35	0.30	0.09
Avail Cap(c_a), veh/h	552	0	545	1074	581	0	526	3014	934	600	3440	1066
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.6	0.0	25.0	30.2	30.4	0.0	29.4	9.3	7.3	31.2	10.1	1.6
Incr Delay (d2), s/veh	1.3	0.0	0.3	0.1	0.5	0.0	1.9	0.3	0.0	2.2	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.5	0.1	0.1	0.0	0.9	2.0	0.0	0.2	1.6	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.9	0.0	25.3	30.3	30.9	0.0	31.3	9.5	7.3	33.4	10.3	1.7
LnGrp LOS	C	A	C	C	C	A	C	A	A	C	B	A
Approach Vol, veh/h		200			21			1108			870	
Approach Delay, s/veh		27.4			30.6			10.7			9.9	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.2	39.4	6.1	13.6	8.0	36.6	13.8	6.0
Change Period (Y+Rc), s	4.0	5.7	4.0	5.3	4.0	5.7	5.3	* 4
Max Green Setting (Gmax), s	20.0	40.0	20.0	20.0	20.0	40.0	20.0	* 20
Max Q Clear Time (g_c+I1), s	2.4	10.4	2.2	3.3	4.3	7.5	7.5	2.3
Green Ext Time (p_c), s	0.0	23.4	0.0	0.1	0.1	20.8	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	12.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection 169 **Stanford Ranch Rd/Fairway Dr** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	158	148	93.4%	63.8	2.7	E
	Through	1,117	1,160	103.8%	8.6	2.3	A
	Right Turn	210	217	103.2%	5.8	0.7	A
	Subtotal	1,485	1,524	102.6%	13.5	2.0	B
SB	Left Turn	52	54	104.6%	49.9	13.6	D
	Through	896	916	102.3%	17.0	2.0	B
	Right Turn	67	65	97.3%	4.4	1.4	A
	Subtotal	1,015	1,036	102.1%	18.0	2.3	B
EB	Left Turn	76	64	84.2%	54.0	9.9	D
	Through	239	228	95.2%	40.9	6.1	D
	Right Turn	269	275	102.3%	11.9	2.3	B
	Subtotal	584	567	97.1%	28.3	3.5	C
WB	Left Turn	169	158	93.3%	48.8	6.6	D
	Through	123	126	102.1%	41.7	8.5	D
	Right Turn	17	17	101.2%	29.5	12.2	C
	Subtotal	309	300	97.2%	44.7	5.3	D
Total		3,393	3,427	101.0%	20.0	1.9	C

Intersection 170 **Stanford Ranch Rd/Five Star Blvd** **Signal**

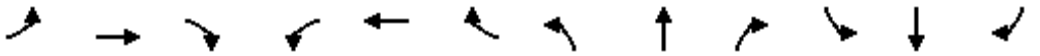
Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	656	732	111.6%	51.3	3.3	D
	Through	1,373	1,448	105.5%	32.1	4.8	C
	Right Turn	288	293	101.8%	10.2	1.8	B
	Subtotal	2,317	2,474	106.8%	35.3	3.0	D
SB	Left Turn	61	60	97.7%	48.5	6.8	D
	Through	1,267	1,292	102.0%	36.6	5.5	D
	Right Turn	123	125	101.8%	12.4	2.6	B
	Subtotal	1,451	1,477	101.8%	35.0	4.9	D
EB	Left Turn	164	149	90.7%	51.1	8.7	D
	Through	129	128	99.5%	55.1	7.8	E
	Right Turn	299	294	98.5%	21.4	3.7	C
	Subtotal	592	572	96.6%	36.8	5.3	D
WB	Left Turn	345	332	96.3%	60.3	11.7	E
	Through	96	90	93.3%	51.7	9.7	D
	Right Turn	40	37	92.0%	24.8	7.0	C
	Subtotal	481	459	95.4%	55.8	10.4	E
Total		4,841	4,981	102.9%	37.4	2.2	D

Intersection 171 **Stanford Ranch Rd/SR 65 NB Ramps** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	738	732	99.2%	43.2	12.3	D
	Through	1,482	1,506	101.6%	21.1	2.1	C
	Right Turn						
	Subtotal	2,220	2,238	100.8%	28.4	3.7	C
SB	Left Turn						
	Through	1,716	1,735	101.1%	33.6	1.2	C
	Right Turn	324	319	98.5%	24.8	5.8	C
	Subtotal	2,040	2,054	100.7%	32.3	1.2	C
EB	Left Turn						
	Through						
	Right Turn	328	347	105.9%	2.5	1.5	A
	Subtotal	328	347	105.9%	2.5	1.5	A
WB	Left Turn						
	Through						
	Right Turn	858	872	101.6%	59.1	16.5	E
	Subtotal	858	872	101.6%	59.1	16.5	E
Total		5,446	5,512	101.2%	33.1	3.0	C

Intersection 172 **Galleria Blvd/SR 65 SB Ramps** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	2,080	2,133	102.5%	29.7	8.9	C
	Right Turn	453	446	98.5%	16.0	3.8	B
	Subtotal	2,533	2,579	101.8%	27.3	8.0	C
SB	Left Turn	648	596	92.0%	49.0	5.3	D
	Through	1,396	1,459	104.5%	16.7	1.1	B
	Right Turn						
	Subtotal	2,044	2,056	100.6%	26.1	1.9	C
EB	Left Turn						
	Through						
	Right Turn	500	495	99.0%	5.6	1.5	A
	Subtotal	500	495	99.0%	5.6	1.5	A
WB	Left Turn						
	Through						
	Right Turn	140	137	98.0%	2.1	0.2	A
	Subtotal	140	137	98.0%	2.1	0.2	A
Total		5,217	5,266	100.9%	24.2	3.9	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	68	0	0	8	0	102	123	0	0	322	0
Future Volume (veh/h)	0	68	0	0	8	0	102	123	0	0	322	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	68	0	0	8	0	102	123	0	0	322	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	86	0	0	12	0	128	1809	0	7	545	0
Arrive On Green	0.00	0.05	0.00	0.00	0.01	0.00	0.07	0.51	0.00	0.00	0.29	0.00
Sat Flow, veh/h	0	1870	0	0	1870	0	1781	3647	0	1781	1870	0
Grp Volume(v), veh/h	0	68	0	0	8	0	102	123	0	0	322	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	0	1870	0	1781	1777	0	1781	1870	0
Q Serve(g_s), s	0.0	1.0	0.0	0.0	0.1	0.0	1.5	0.5	0.0	0.0	4.0	0.0
Cycle Q Clear(g_c), s	0.0	1.0	0.0	0.0	0.1	0.0	1.5	0.5	0.0	0.0	4.0	0.0
Prop In Lane	0.00		0.00	0.00		0.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	86	0	0	12	0	128	1809	0	7	545	0
V/C Ratio(X)	0.00	0.79	0.00	0.00	0.66	0.00	0.80	0.07	0.00	0.00	0.59	0.00
Avail Cap(c_a), veh/h	0	1366	0	0	546	0	1301	5190	0	520	2390	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	12.9	0.0	0.0	13.6	0.0	12.5	3.4	0.0	0.0	8.3	0.0
Incr Delay (d2), s/veh	0.0	5.8	0.0	0.0	20.5	0.0	4.2	0.0	0.0	0.0	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	0.0	0.0	0.1	0.0	0.6	0.1	0.0	0.0	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	18.7	0.0	0.0	34.1	0.0	16.7	3.4	0.0	0.0	9.3	0.0
LnGrp LOS	A	B	A	A	C	A	B	A	A	A	A	A
Approach Vol, veh/h		68			8			225			322	
Approach Delay, s/veh		18.7			34.1			9.5			9.3	
Approach LOS		B			C			A			A	

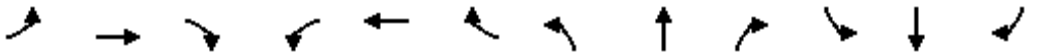
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	17.9		4.2	6.0	12.0		5.3				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	8.0	40.0		8.0	20.0	35.0		20.0				
Max Q Clear Time (g_c+I1), s	0.0	2.5		2.1	3.5	6.0		3.0				
Green Ext Time (p_c), s	0.0	0.8		0.0	0.1	1.9		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		10.7	
HCM 6th LOS		B	

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Existing Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 174 **Galleria Blvd/Antelope Creek Dr** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	96	100	104.6%	39.4	9.7	D
	Through	1,771	1,854	104.7%	35.8	17.4	D
	Right Turn	164	156	95.1%	15.2	6.1	B
	Subtotal	2,031	2,110	103.9%	34.4	16.0	C
SB	Left Turn	200	198	98.8%	45.1	6.3	D
	Through	1,470	1,482	100.8%	26.1	3.5	C
	Right Turn	126	124	98.7%	3.6	0.9	A
	Subtotal	1,796	1,804	100.5%	26.6	3.1	C
EB	Left Turn	299	289	96.6%	45.3	5.3	D
	Through	52	46	88.5%	43.8	13.9	D
	Right Turn	119	114	95.8%	1.2	0.3	A
	Subtotal	470	449	95.5%	34.0	4.6	C
WB	Left Turn	210	203	96.6%	47.4	4.9	D
	Through	66	63	95.2%	43.0	8.3	D
	Right Turn	309	320	103.7%	2.7	0.4	A
	Subtotal	585	586	100.2%	22.5	2.7	C
Total		4,882	4,950	101.4%	30.1	6.7	C



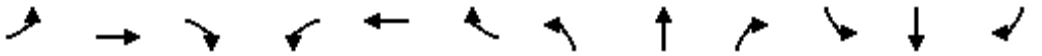
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	0	202	60	12	6	161	1668	8	52	1206	72
Future Volume (veh/h)	67	0	202	60	12	6	161	1668	8	52	1206	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	0	26	60	12	0	161	1668	8	52	1206	36
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	153	0	136	120	24	127	197	2110	10	98	1870	834
Arrive On Green	0.09	0.00	0.09	0.08	0.08	0.00	0.11	0.58	0.58	0.05	0.53	0.53
Sat Flow, veh/h	1781	0	1585	1496	299	1585	1781	3627	17	1781	3554	1585
Grp Volume(v), veh/h	67	0	26	72	0	0	161	817	859	52	1206	36
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1796	0	1585	1781	1777	1867	1781	1777	1585
Q Serve(g_s), s	3.4	0.0	1.5	3.7	0.0	0.0	8.5	34.1	34.1	2.7	23.3	1.1
Cycle Q Clear(g_c), s	3.4	0.0	1.5	3.7	0.0	0.0	8.5	34.1	34.1	2.7	23.3	1.1
Prop In Lane	1.00		1.00	0.83		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	153	0	136	144	0	127	197	1034	1086	98	1870	834
V/C Ratio(X)	0.44	0.00	0.19	0.50	0.00	0.00	0.82	0.79	0.79	0.53	0.64	0.04
Avail Cap(c_a), veh/h	372	0	331	225	0	199	428	1391	1462	372	2188	976
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.6	0.0	40.7	42.2	0.0	0.0	41.7	15.5	15.5	44.1	16.3	11.0
Incr Delay (d2), s/veh	0.7	0.0	0.2	1.0	0.0	0.0	3.2	2.8	2.7	1.7	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.6	1.7	0.0	0.0	3.9	13.3	13.9	1.2	9.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.3	0.0	40.9	43.2	0.0	0.0	44.9	18.3	18.2	45.8	17.0	11.0
LnGrp LOS	D	A	D	D	A	A	D	B	B	D	B	B
Approach Vol, veh/h		93			72			1837			1294	
Approach Delay, s/veh		41.9			43.2			20.6			17.9	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.2	61.7		13.1	14.6	56.4		11.7				
Change Period (Y+Rc), s	4.0	6.0		4.9	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	75.0		20.0	23.0	59.0		12.0				
Max Q Clear Time (g_c+I1), s	4.7	36.1		5.4	10.5	25.3		5.7				
Green Ext Time (p_c), s	0.1	19.6		0.1	0.3	12.4		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		20.6	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	369	8	223	4	5	4	221	1464	5	3	978	487
Future Volume (veh/h)	369	8	223	4	5	4	221	1464	5	3	978	487
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	375	0	69	4	5	0	221	1464	5	3	978	266
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	545	0	431	15	19	29	411	2146	7	13	1703	760
Arrive On Green	0.15	0.00	0.15	0.02	0.02	0.00	0.12	0.59	0.59	0.01	0.48	0.48
Sat Flow, veh/h	3563	0	1585	813	1017	1585	3456	3633	12	1781	3554	1585
Grp Volume(v), veh/h	375	0	69	9	0	0	221	716	753	3	978	266
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1830	0	1585	1728	1777	1868	1781	1777	1585
Q Serve(g_s), s	7.5	0.0	2.5	0.4	0.0	0.0	4.5	20.7	20.7	0.1	14.8	7.9
Cycle Q Clear(g_c), s	7.5	0.0	2.5	0.4	0.0	0.0	4.5	20.7	20.7	0.1	14.8	7.9
Prop In Lane	1.00		1.00	0.44		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	545	0	431	33	0	29	411	1050	1104	13	1703	760
V/C Ratio(X)	0.69	0.00	0.16	0.27	0.00	0.00	0.54	0.68	0.68	0.23	0.57	0.35
Avail Cap(c_a), veh/h	1283	0	759	488	0	423	1060	1498	1575	475	2512	1121
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	0.0	20.8	36.3	0.0	0.0	31.1	10.5	10.5	37.0	14.0	12.2
Incr Delay (d2), s/veh	1.6	0.0	0.2	1.6	0.0	0.0	0.4	1.8	1.7	3.3	0.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	0.9	0.2	0.0	0.0	1.8	6.7	7.1	0.1	5.2	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.6	0.0	21.0	37.9	0.0	0.0	31.5	12.3	12.2	40.3	14.7	12.8
LnGrp LOS	C	A	C	D	A	A	C	B	B	D	B	B
Approach Vol, veh/h		444			9			1690			1247	
Approach Delay, s/veh		30.0			37.9			14.7			14.4	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.5	49.6		15.5	12.9	41.2		5.4				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	20.0	63.2		27.0	23.0	53.0		20.0				
Max Q Clear Time (g_c+I1), s	2.1	22.7		9.5	6.5	16.8		2.4				
Green Ext Time (p_c), s	0.0	21.6		2.0	0.5	16.1		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		16.7	
HCM 6th LOS		B	

Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	623	0	1222	0	518	278	514	700	0
Future Volume (veh/h)	0	0	0	623	0	1222	0	518	278	514	700	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	0	1870	1870	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	0	0	0	861	0	463	0	518	77	514	700	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	2	0	2	2	2	0	2	2	2	2	0
Cap, veh/h	0	4	0	959	0	427	0	830	370	687	1855	0
Arrive On Green	0.00	0.00	0.00	0.27	0.00	0.27	0.00	0.23	0.23	0.20	0.52	0.00
Sat Flow, veh/h	0	-74814	0	3563	0	1585	0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	0	0	0	861	0	463	0	518	77	514	700	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	0	1585	0	1777	1585	1728	1777	0
Q Serve(g_s), s	0.0	0.0	0.0	10.4	0.0	12.0	0.0	5.8	1.7	6.2	5.2	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	10.4	0.0	12.0	0.0	5.8	1.7	6.2	5.2	0.0
Prop In Lane	0.00		0.00	1.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	4	0	959	0	427	0	830	370	687	1855	0
V/C Ratio(X)	0.00	0.00	0.00	0.90	0.00	1.08	0.00	0.62	0.21	0.75	0.38	0.00
Avail Cap(c_a), veh/h	0	630	0	959	0	427	0	1196	534	931	1855	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	15.7	0.0	16.3	0.0	15.3	13.8	16.8	6.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	10.8	0.0	68.2	0.0	1.3	0.5	1.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	4.9	0.0	17.2	0.0	2.2	0.6	2.3	1.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	26.5	0.0	84.5	0.0	16.7	14.2	18.2	6.5	0.0
LnGrp LOS	A	A	A	C	A	F	A	B	B	B	A	A
Approach Vol, veh/h		0			1324			595			1214	
Approach Delay, s/veh		0.0			46.8			16.3			11.4	
Approach LOS					D			B			B	

Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		0.0		28.6		16.0	12.9	15.7				
Change Period (Y+Rc), s		4.0		5.3		4.0	4.0	* 5.3				
Max Green Setting (Gmax), s		15.0		15.0		12.0	12.0	* 15				
Max Q Clear Time (g_c+I1), s		0.0		7.2		14.0	8.2	7.8				
Green Ext Time (p_c), s		0.0		2.8		0.0	0.6	2.6				

Intersection Summary												
HCM 6th Ctrl Delay			27.3									
HCM 6th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Existing Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 178 **Harding Blvd/Estates Dr** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	64	66	103.1%	51.1	8.2	D
	Through	534	526	98.6%	5.8	1.0	A
	Right Turn						
	Subtotal	598	592	99.1%	10.8	1.2	B
SB	Left Turn	39	43	110.8%	53.9	16.2	D
	Through	990	979	98.9%	29.8	15.6	C
	Right Turn	128	114	88.8%	31.8	19.1	C
	Subtotal	1,157	1,136	98.2%	30.9	15.7	C
EB	Left Turn	246	256	104.2%	35.9	3.4	D
	Through	4	4	110.0%	36.6	27.5	D
	Right Turn	28	26	91.4%	33.6	10.3	C
	Subtotal	278	286	103.0%	35.8	3.4	D
WB	Left Turn	21	21	99.0%	48.8	16.2	D
	Through	8	9	110.0%	42.7	26.5	D
	Right Turn	21	19	89.5%	15.9	7.6	B
	Subtotal	50	48	96.8%	36.1	11.2	D
Total		2,083	2,063	99.0%	25.9	9.1	C

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Existing Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 179 **Harding Blvd/Roseville Square** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	139	137	98.4%	40.7	5.6	D
	Through	449	443	98.6%	12.6	2.1	B
	Right Turn	8	9	115.0%	11.0	15.8	B
	Subtotal	596	589	98.8%	19.2	2.4	B
SB	Left Turn	37	39	104.9%	59.8	8.8	E
	Through	847	810	95.6%	41.2	18.9	D
	Right Turn	36	42	115.6%	45.3	26.4	D
	Subtotal	920	890	96.8%	42.1	18.6	D
EB	Left Turn	149	150	100.4%	37.6	6.4	D
	Through	18	21	115.6%	43.1	13.9	D
	Right Turn	105	114	108.6%	16.2	6.1	B
	Subtotal	272	284	104.6%	29.3	3.9	C
WB	Left Turn	118	112	94.9%	49.7	5.6	D
	Through	8	8	95.0%	34.0	28.2	C
	Right Turn	38	42	109.5%	6.2	1.8	A
	Subtotal	164	161	98.3%	37.6	5.1	D
Total		1,952	1,925	98.6%	32.8	9.6	C



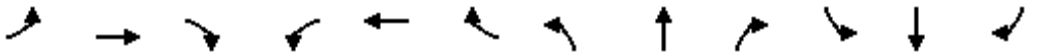
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	86	121	610	36	63	699
Future Volume (veh/h)	86	121	610	36	63	699
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	86	29	610	14	63	699
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	532	244	2241	696	174	3201
Arrive On Green	0.15	0.15	0.44	0.44	0.10	0.63
Sat Flow, veh/h	3456	1585	5274	1585	1781	5274
Grp Volume(v), veh/h	86	29	610	14	63	699
Grp Sat Flow(s),veh/h/ln	1728	1585	1702	1585	1781	1702
Q Serve(g_s), s	1.0	0.7	3.4	0.2	1.5	2.6
Cycle Q Clear(g_c), s	1.0	0.7	3.4	0.2	1.5	2.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	532	244	2241	696	174	3201
V/C Ratio(X)	0.16	0.12	0.27	0.02	0.36	0.22
Avail Cap(c_a), veh/h	1562	717	4617	1433	805	4617
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.2	16.1	7.9	7.0	18.7	3.6
Incr Delay (d2), s/veh	0.1	0.1	0.1	0.0	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.2	0.7	0.0	0.5	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.3	16.2	8.0	7.0	19.2	3.6
LnGrp LOS	B	B	A	A	B	A
Approach Vol, veh/h	115		624			762
Approach Delay, s/veh	16.3		8.0			4.9
Approach LOS	B		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.3	25.1			33.4	10.8
Change Period (Y+Rc), s	4.0	5.7			5.7	4.0
Max Green Setting (Gmax), s	20.0	40.0			40.0	20.0
Max Q Clear Time (g_c+I1), s	3.5	5.4			4.6	3.0
Green Ext Time (p_c), s	0.1	14.1			16.3	0.2

Intersection Summary	
HCM 6th Ctrl Delay	7.1
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	613	33	138	583	150	196	22	98	237	8	109
Future Volume (veh/h)	73	613	33	138	583	150	196	22	98	237	8	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	613	29	138	583	49	196	22	19	243	0	19
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	192	1250	59	248	1438	446	253	28	249	548	0	244
Arrive On Green	0.11	0.25	0.25	0.14	0.28	0.28	0.16	0.16	0.16	0.15	0.00	0.15
Sat Flow, veh/h	1781	4997	235	1781	5106	1585	1609	181	1585	3563	0	1585
Grp Volume(v), veh/h	73	417	225	138	583	49	218	0	19	243	0	19
Grp Sat Flow(s),veh/h/ln	1781	1702	1828	1781	1702	1585	1790	0	1585	1781	0	1585
Q Serve(g_s), s	2.2	6.0	6.1	4.2	5.3	1.3	6.7	0.0	0.6	3.6	0.0	0.6
Cycle Q Clear(g_c), s	2.2	6.0	6.1	4.2	5.3	1.3	6.7	0.0	0.6	3.6	0.0	0.6
Prop In Lane	1.00		0.13	1.00		1.00	0.90		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	852	457	248	1438	446	281	0	249	548	0	244
V/C Ratio(X)	0.38	0.49	0.49	0.56	0.41	0.11	0.78	0.00	0.08	0.44	0.00	0.08
Avail Cap(c_a), veh/h	618	2657	1427	1236	3985	1237	931	0	825	1236	0	550
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.9	18.5	18.5	23.2	16.8	15.4	23.3	0.0	20.7	22.2	0.0	20.9
Incr Delay (d2), s/veh	0.5	0.9	1.7	0.7	0.4	0.2	1.7	0.0	0.0	0.2	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.2	2.4	1.6	1.8	0.4	2.8	0.0	0.2	1.4	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.4	19.4	20.2	23.9	17.2	15.6	25.1	0.0	20.8	22.4	0.0	20.9
LnGrp LOS	C	B	C	C	B	B	C	A	C	C	A	C
Approach Vol, veh/h		715			770			237			262	
Approach Delay, s/veh		20.1			18.3			24.7			22.3	
Approach LOS		C			B			C			C	

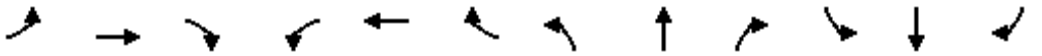
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	19.7		13.1	10.2	21.5		12.9				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	40.0	45.0		30.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	6.2	8.1		8.7	4.2	7.3		5.6				
Green Ext Time (p_c), s	0.3	6.3		0.5	0.1	6.6		0.6				

Intersection Summary			
HCM 6th Ctrl Delay		20.2	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	402	280	245	778	136	487	511	58	128	570	239
Future Volume (veh/h)	102	402	280	245	778	136	487	511	58	128	570	239
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	2145	2145	2145
Adj Flow Rate, veh/h	102	402	50	245	778	64	487	511	53	128	570	49
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	127	693	309	276	989	441	519	1352	140	161	828	369
Arrive On Green	0.07	0.20	0.20	0.15	0.28	0.28	0.29	0.42	0.42	0.08	0.20	0.20
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3251	336	2043	4076	1818
Grp Volume(v), veh/h	102	402	50	245	778	64	487	279	285	128	570	49
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1810	2043	2038	1818
Q Serve(g_s), s	6.9	12.5	3.2	16.4	24.7	3.7	32.5	13.3	13.3	7.5	15.8	2.7
Cycle Q Clear(g_c), s	6.9	12.5	3.2	16.4	24.7	3.7	32.5	13.3	13.3	7.5	15.8	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	127	693	309	276	989	441	519	739	753	161	828	369
V/C Ratio(X)	0.80	0.58	0.16	0.89	0.79	0.15	0.94	0.38	0.38	0.80	0.69	0.13
Avail Cap(c_a), veh/h	292	903	403	438	1136	507	686	739	753	419	1170	522
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	44.6	40.8	50.5	40.7	33.1	42.2	24.7	24.7	55.2	45.0	39.8
Incr Delay (d2), s/veh	4.3	1.2	0.4	8.4	3.6	0.2	15.7	0.5	0.5	3.4	1.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	5.6	1.3	8.0	11.2	1.4	16.1	5.5	5.7	4.0	8.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.1	45.8	41.2	58.9	44.2	33.3	57.9	25.2	25.2	58.7	46.7	40.1
LnGrp LOS	E	D	D	E	D	C	E	C	C	E	D	D
Approach Vol, veh/h		554			1087			1051			747	
Approach Delay, s/veh		48.0			46.9			40.4			48.3	
Approach LOS		D			D			D			D	

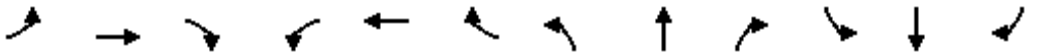
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.9	29.5	39.5	30.1	12.7	39.6	13.6	56.0
Change Period (Y+Rc), s	4.0	* 5.7	4.0	5.3	4.0	5.7	4.0	5.3
Max Green Setting (Gmax), s	30.0	* 31	47.0	35.0	20.0	39.0	25.0	39.0
Max Q Clear Time (g_c+I1), s	18.4	14.5	34.5	17.8	8.9	26.7	9.5	15.3
Green Ext Time (p_c), s	0.4	5.2	1.0	7.0	0.1	7.3	0.2	7.4

Intersection Summary	
HCM 6th Ctrl Delay	45.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	8	28	156	13	343	19	681	36	203	907	31
Future Volume (veh/h)	46	8	28	156	13	343	19	681	36	203	907	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1988	1988	1988	1870	1945	1826	2145	2231	2145
Adj Flow Rate, veh/h	46	8	2	156	13	63	19	681	33	203	907	15
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	5	2	2	2
Cap, veh/h	120	21	125	220	18	211	64	1424	69	265	2082	893
Arrive On Green	0.08	0.08	0.08	0.13	0.13	0.13	0.04	0.40	0.40	0.13	0.49	0.49
Sat Flow, veh/h	1528	266	1585	1754	146	1681	1781	3586	174	2043	4239	1818
Grp Volume(v), veh/h	54	0	2	169	0	63	19	351	363	203	907	15
Grp Sat Flow(s),veh/h/ln	1794	0	1585	1900	0	1681	1781	1848	1912	2043	2120	1818
Q Serve(g_s), s	1.8	0.0	0.1	5.5	0.0	2.2	0.7	9.1	9.1	6.2	8.9	0.3
Cycle Q Clear(g_c), s	1.8	0.0	0.1	5.5	0.0	2.2	0.7	9.1	9.1	6.2	8.9	0.3
Prop In Lane	0.85		1.00	0.92		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	141	0	125	239	0	211	64	734	759	265	2082	893
V/C Ratio(X)	0.38	0.00	0.02	0.71	0.00	0.30	0.30	0.48	0.48	0.77	0.44	0.02
Avail Cap(c_a), veh/h	557	0	492	679	0	600	553	1292	1336	984	2963	1271
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	0.0	27.4	27.0	0.0	25.6	30.2	14.4	14.4	27.1	10.6	8.4
Incr Delay (d2), s/veh	0.6	0.0	0.0	1.4	0.0	0.3	1.0	1.1	1.1	1.7	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	2.4	0.0	0.8	0.3	3.5	3.6	2.9	3.4	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.8	0.0	27.4	28.5	0.0	25.9	31.2	15.5	15.5	28.8	10.9	8.4
LnGrp LOS	C	A	C	C	A	C	C	B	B	C	B	A
Approach Vol, veh/h		56			232			733			1125	
Approach Delay, s/veh		28.8			27.8			15.9			14.1	
Approach LOS		C			C			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.1	6.3	36.9		12.1	12.4	30.9				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.0	4.0	5.3				
Max Green Setting (Gmax), s		20.0	20.0	45.0		23.0	31.0	45.0				
Max Q Clear Time (g_c+I1), s		3.8	2.7	10.9		7.5	8.2	11.1				
Green Ext Time (p_c), s		0.1	0.0	19.7		0.6	0.4	14.5				

Intersection Summary												
HCM 6th Ctrl Delay			16.6									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.



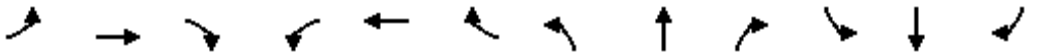
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	32	44	765	12	34	760
Future Volume (veh/h)	32	44	765	12	34	760
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	32	5	765	11	34	760
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	111	99	1478	21	118	2206
Arrive On Green	0.06	0.06	0.41	0.41	0.07	0.62
Sat Flow, veh/h	1781	1585	3680	52	1781	3647
Grp Volume(v), veh/h	32	5	379	397	34	760
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1861	1781	1777
Q Serve(g_s), s	0.5	0.1	4.5	4.5	0.5	2.9
Cycle Q Clear(g_c), s	0.5	0.1	4.5	4.5	0.5	2.9
Prop In Lane	1.00	1.00		0.03	1.00	
Lane Grp Cap(c), veh/h	111	99	732	767	118	2206
V/C Ratio(X)	0.29	0.05	0.52	0.52	0.29	0.34
Avail Cap(c_a), veh/h	1267	1128	2592	2715	1267	5183
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.6	12.4	6.2	6.2	12.5	2.6
Incr Delay (d2), s/veh	0.5	0.1	0.8	0.7	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.8	0.8	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.1	12.5	7.0	6.9	13.0	2.7
LnGrp LOS	B	B	A	A	B	A
Approach Vol, veh/h	37		776			794
Approach Delay, s/veh	13.0		6.9			3.1
Approach LOS	B		A			A

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	22.4	5.8	5.9	16.5
Change Period (Y+Rc), s	4.9	4.0	4.0	4.9
Max Green Setting (Gmax), s	41.0	20.0	20.0	41.0
Max Q Clear Time (g_c+I1), s	4.9	2.5	2.5	6.5
Green Ext Time (p_c), s	3.6	0.0	0.0	5.1

Intersection Summary	
HCM 6th Ctrl Delay	5.2
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



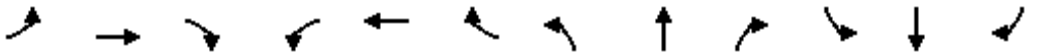
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	6	8	14	5	21	3	1460	28	29	1523	15
Future Volume (veh/h)	67	6	8	14	5	21	3	1460	28	29	1523	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	6	1	14	5	1	3	1460	27	29	1523	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	133	12	129	48	17	57	10	2221	41	74	2339	1043
Arrive On Green	0.08	0.08	0.08	0.04	0.04	0.04	0.01	0.62	0.62	0.04	0.66	0.66
Sat Flow, veh/h	1641	147	1585	1329	475	1585	1781	3569	66	1781	3554	1585
Grp Volume(v), veh/h	73	0	1	19	0	1	3	726	761	29	1523	10
Grp Sat Flow(s),veh/h/ln	1788	0	1585	1804	0	1585	1781	1777	1858	1781	1777	1585
Q Serve(g_s), s	3.1	0.0	0.0	0.8	0.0	0.0	0.1	20.6	20.7	1.3	20.3	0.2
Cycle Q Clear(g_c), s	3.1	0.0	0.0	0.8	0.0	0.0	0.1	20.6	20.7	1.3	20.3	0.2
Prop In Lane	0.92		1.00	0.74		1.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	145	0	129	65	0	57	10	1105	1156	74	2339	1043
V/C Ratio(X)	0.50	0.00	0.01	0.29	0.00	0.02	0.30	0.66	0.66	0.39	0.65	0.01
Avail Cap(c_a), veh/h	453	0	401	457	0	401	451	1551	1623	451	3193	1424
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	0.0	33.4	37.1	0.0	36.7	39.1	9.5	9.6	36.9	8.1	4.6
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.9	0.0	0.0	6.0	1.8	1.8	1.2	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.0	0.4	0.0	0.0	0.1	6.6	7.0	0.5	5.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.8	0.0	33.4	38.0	0.0	36.8	45.1	11.4	11.3	38.1	8.8	4.7
LnGrp LOS	D	A	C	D	A	D	D	B	B	D	A	A
Approach Vol, veh/h		74			20			1490			1562	
Approach Delay, s/veh		35.7			38.0			11.4			9.3	
Approach LOS		D			D			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	54.5		10.4	4.4	57.3		6.8				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	20.0	69.0		20.0	20.0	71.0		20.0				
Max Q Clear Time (g_c+I1), s	3.3	22.7		5.1	2.1	22.3		2.8				
Green Ext Time (p_c), s	0.0	26.5		0.2	0.0	27.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		11.1	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



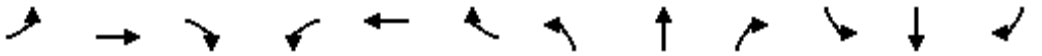
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	14	22	49	11	83	26	1414	40	91	1500	20
Future Volume (veh/h)	34	14	22	49	11	83	26	1414	40	91	1500	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	14	1	49	11	9	26	1414	39	91	1500	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	124	9	180	95	78	57	1963	54	128	2137	28
Arrive On Green	0.07	0.07	0.07	0.10	0.10	0.10	0.03	0.56	0.56	0.07	0.60	0.60
Sat Flow, veh/h	1781	1725	123	1781	938	767	1781	3531	97	1781	3590	48
Grp Volume(v), veh/h	34	0	15	49	0	20	26	711	742	91	742	778
Grp Sat Flow(s),veh/h/ln	1781	0	1848	1781	0	1705	1781	1777	1852	1781	1777	1861
Q Serve(g_s), s	1.6	0.0	0.7	2.2	0.0	0.9	1.2	25.7	25.8	4.3	25.1	25.2
Cycle Q Clear(g_c), s	1.6	0.0	0.7	2.2	0.0	0.9	1.2	25.7	25.8	4.3	25.1	25.2
Prop In Lane	1.00		0.07	1.00		0.45	1.00		0.05	1.00		0.03
Lane Grp Cap(c), veh/h	128	0	133	180	0	172	57	987	1029	128	1058	1108
V/C Ratio(X)	0.27	0.00	0.11	0.27	0.00	0.12	0.45	0.72	0.72	0.71	0.70	0.70
Avail Cap(c_a), veh/h	411	0	426	411	0	393	411	1455	1517	411	1455	1524
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	0.0	37.6	36.0	0.0	35.4	41.2	14.3	14.3	39.4	12.2	12.2
Incr Delay (d2), s/veh	0.9	0.0	0.3	0.7	0.0	0.3	2.1	2.0	2.0	2.7	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.3	1.0	0.0	0.4	0.6	9.1	9.5	1.9	8.3	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.0	0.0	38.0	36.7	0.0	35.7	43.3	16.3	16.2	42.1	13.4	13.4
LnGrp LOS	D	A	D	D	A	D	D	B	B	D	B	B
Approach Vol, veh/h		49			69			1479			1611	
Approach Delay, s/veh		38.7			36.4			16.7			15.0	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.8	56.9		12.8	10.2	53.5		10.2				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	20.0	71.0		20.0	20.0	71.0		20.0				
Max Q Clear Time (g_c+I1), s	3.2	27.2		4.2	6.3	27.8		3.6				
Green Ext Time (p_c), s	0.0	14.7		0.1	0.1	20.4		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		16.6	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	24	44	105	31	0	5	1304	12	32	1495	54
Future Volume (veh/h)	49	24	44	105	31	0	5	1304	12	32	1495	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1945	1870	1870	1945	1870	1870	1841	1870	1870	1841	1870
Adj Flow Rate, veh/h	49	24	3	105	31	0	5	1304	12	32	1495	36
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	4	2	2	4	2
Cap, veh/h	65	32	80	130	38	142	7	1548	14	41	1640	742
Arrive On Green	0.05	0.05	0.05	0.09	0.09	0.00	0.00	0.44	0.44	0.02	0.47	0.47
Sat Flow, veh/h	1263	619	1566	1446	427	1585	1781	3551	33	1781	3497	1582
Grp Volume(v), veh/h	73	0	3	136	0	0	5	642	674	32	1495	36
Grp Sat Flow(s),veh/h/ln	1882	0	1566	1873	0	1585	1781	1749	1835	1781	1749	1582
Q Serve(g_s), s	4.6	0.0	0.2	8.6	0.0	0.0	0.3	39.3	39.3	2.1	47.6	1.5
Cycle Q Clear(g_c), s	4.6	0.0	0.2	8.6	0.0	0.0	0.3	39.3	39.3	2.1	47.6	1.5
Prop In Lane	0.67		1.00	0.77		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	96	0	80	168	0	142	7	762	800	41	1640	742
V/C Ratio(X)	0.76	0.00	0.04	0.81	0.00	0.00	0.73	0.84	0.84	0.79	0.91	0.05
Avail Cap(c_a), veh/h	251	0	209	250	0	211	238	762	800	267	1640	742
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.2	0.0	54.1	53.6	0.0	0.0	59.7	30.2	30.2	58.3	29.6	17.3
Incr Delay (d2), s/veh	4.5	0.0	0.1	6.9	0.0	0.0	38.4	9.8	9.4	11.8	8.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.1	4.4	0.0	0.0	0.2	17.7	18.6	1.1	20.6	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.7	0.0	54.2	60.5	0.0	0.0	98.1	39.9	39.6	70.1	37.8	17.4
LnGrp LOS	E	A	D	E	A	A	F	D	D	E	D	B
Approach Vol, veh/h		76			136			1321			1563	
Approach Delay, s/veh		60.4			60.5			40.0			37.9	
Approach LOS		E			E			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		14.8	4.5	62.0		10.1	8.4	58.0				
Change Period (Y+Rc), s		4.0	4.0	5.7		4.0	5.7	* 5.7				
Max Green Setting (Gmax), s		16.0	16.0	54.3		16.0	18.0	* 52				
Max Q Clear Time (g_c+I1), s		10.6	2.3	49.6		6.6	4.1	41.3				
Green Ext Time (p_c), s		0.1	0.0	4.5		0.1	0.0	9.7				

Intersection Summary												
HCM 6th Ctrl Delay			40.4									
HCM 6th LOS			D									

Notes

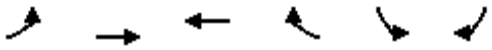
User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	0	20	53	0	0	18	1308	13	16	1620	8
Future Volume (vph)	13	0	20	53	0	0	18	1308	13	16	1620	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0			4.0	5.7		4.0	5.7	
Lane Util. Factor	1.00		1.00	1.00			1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00		0.93	1.00			1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00		1.00	1.00			1.00	1.00		1.00	1.00	
Frt	1.00		0.85	1.00			1.00	1.00		1.00	1.00	
Flt Protected	0.95		1.00	0.95			0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770		1480	1770			1770	3533		1770	3536	
Flt Permitted	0.95		1.00	0.95			0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770		1480	1770			1770	3533		1770	3536	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	13	0	20	53	0	0	18	1308	13	16	1620	8
RTOR Reduction (vph)	0	0	19	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	13	0	1	53	0	0	18	1321	0	16	1628	0
Confl. Peds. (#/hr)	4		4	4		4	4		4	4		4
Confl. Bikes (#/hr)			2			2			2			2
Turn Type	Prot		Perm	Prot		Perm	Prot	NA		Prot	NA	
Protected Phases	5			6			3	8		7	4	
Permitted Phases			5			6						
Actuated Green, G (s)	3.6		3.6	7.0			2.8	86.0		2.7	85.9	
Effective Green, g (s)	3.6		3.6	7.0			2.8	86.0		2.7	85.9	
Actuated g/C Ratio	0.03		0.03	0.06			0.02	0.72		0.02	0.72	
Clearance Time (s)	4.0		4.0	4.0			4.0	5.7		4.0	5.7	
Vehicle Extension (s)	2.0		2.0	2.0			2.0	4.3		2.0	4.3	
Lane Grp Cap (vph)	53		44	103			41	2531		39	2531	
v/s Ratio Prot	c0.01			c0.03			c0.01	0.37		0.01	c0.46	
v/s Ratio Perm			0.00									
v/c Ratio	0.25		0.01	0.51			0.44	0.52		0.41	0.64	
Uniform Delay, d1	56.9		56.5	54.9			57.8	7.7		57.9	9.0	
Progression Factor	1.00		1.00	1.00			1.00	1.00		0.97	1.42	
Incremental Delay, d2	0.9		0.0	1.8			2.7	0.3		2.1	1.0	
Delay (s)	57.8		56.5	56.7			60.5	8.0		58.3	13.7	
Level of Service	E		E	E			E	A		E	B	
Approach Delay (s)		57.0			56.7			8.7			14.2	
Approach LOS		E			E			A			B	

Intersection Summary			
HCM 2000 Control Delay	13.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.7
Intersection Capacity Utilization	63.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



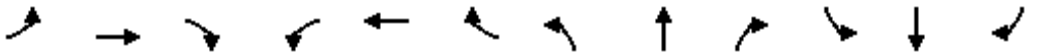
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	34	343	361	21	101	85
Future Volume (veh/h)	34	343	361	21	101	85
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	343	361	10	101	17
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	133	1874	1114	497	265	236
Arrive On Green	0.07	0.53	0.31	0.31	0.15	0.15
Sat Flow, veh/h	1781	3647	3647	1585	1781	1585
Grp Volume(v), veh/h	34	343	361	10	101	17
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1781	1585
Q Serve(g_s), s	0.5	1.4	2.2	0.1	1.5	0.3
Cycle Q Clear(g_c), s	0.5	1.4	2.2	0.1	1.5	0.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	133	1874	1114	497	265	236
V/C Ratio(X)	0.26	0.18	0.32	0.02	0.38	0.07
Avail Cap(c_a), veh/h	1241	4952	4952	2209	1241	1104
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.5	3.5	7.5	6.8	11.0	10.5
Incr Delay (d2), s/veh	0.4	0.1	0.4	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.2	0.6	0.0	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.9	3.7	7.9	6.8	11.4	10.6
LnGrp LOS	B	A	A	A	B	B
Approach Vol, veh/h		377	371		118	
Approach Delay, s/veh		4.5	7.9		11.2	
Approach LOS		A	A		B	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	20.4	8.3	6.1	14.3
Change Period (Y+Rc), s	5.3	4.0	4.0	5.3
Max Green Setting (Gmax), s	40.0	20.0	20.0	40.0
Max Q Clear Time (g_c+I1), s	3.4	3.5	2.5	4.2
Green Ext Time (p_c), s	3.6	0.2	0.0	3.9

Intersection Summary	
HCM 6th Ctrl Delay	6.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	278	332	124	350	23	545	568	83	18	537	146
Future Volume (veh/h)	67	278	332	124	350	23	545	568	83	18	537	146
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	278	0	124	350	0	545	568	0	18	537	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	103	420		159	532		596	1897		44	795	
Arrive On Green	0.06	0.12	0.00	0.09	0.15	0.00	0.33	0.53	0.00	0.02	0.22	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	67	278	0	124	350	0	545	568	0	18	537	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	3.0	6.1	0.0	5.5	7.5	0.0	23.8	7.2	0.0	0.8	11.2	0.0
Cycle Q Clear(g_c), s	3.0	6.1	0.0	5.5	7.5	0.0	23.8	7.2	0.0	0.8	11.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	103	420		159	532		596	1897		44	795	
V/C Ratio(X)	0.65	0.66		0.78	0.66		0.91	0.30		0.41	0.68	
Avail Cap(c_a), veh/h	439	876		439	1096		1120	1897		439	1534	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.4	34.2	0.0	36.2	32.5	0.0	25.8	10.5	0.0	39.0	28.8	0.0
Incr Delay (d2), s/veh	2.6	2.8	0.0	3.1	2.8	0.0	2.4	0.2	0.0	2.3	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.7	0.0	2.5	3.4	0.0	9.9	2.6	0.0	0.4	4.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.0	37.0	0.0	39.3	35.4	0.0	28.3	10.7	0.0	41.2	30.8	0.0
LnGrp LOS	D	D		D	D		C	B		D	C	
Approach Vol, veh/h		345	A		474	A		1113	A		555	A
Approach Delay, s/veh		37.6			36.4			19.3			31.2	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.2	15.3	31.2	23.4	8.7	17.8	6.0	48.6
Change Period (Y+Rc), s	4.0	5.7	4.0	5.3	4.0	* 5.7	4.0	5.3
Max Green Setting (Gmax), s	20.0	20.0	51.0	35.0	20.0	* 25	20.0	35.0
Max Q Clear Time (g_c+I1), s	7.5	8.1	25.8	13.2	5.0	9.5	2.8	9.2
Green Ext Time (p_c), s	0.2	1.5	1.4	4.9	0.1	2.6	0.0	5.6

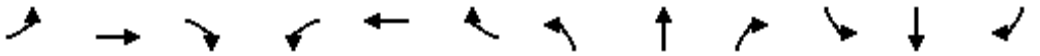
Intersection Summary			
HCM 6th Ctrl Delay		27.7	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	24	138	159	33	151	34	807	21	37	1213	24
Future Volume (veh/h)	8	24	138	159	33	151	34	807	21	37	1213	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	24	26	159	33	0	34	807	19	37	1213	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	119	279	279	300	40		322	1971	46	45	1321	
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.00	0.18	0.56	0.56	0.03	0.37	0.00
Sat Flow, veh/h	251	1583	1585	1082	225	1585	1781	3549	84	1781	3647	0
Grp Volume(v), veh/h	32	0	26	192	0	0	34	404	422	37	1213	0
Grp Sat Flow(s),veh/h/ln	1834	0	1585	1306	0	1585	1781	1777	1855	1781	1777	0
Q Serve(g_s), s	0.0	0.0	0.8	7.8	0.0	0.0	1.0	7.8	7.9	1.2	19.5	0.0
Cycle Q Clear(g_c), s	0.9	0.0	0.8	8.7	0.0	0.0	1.0	7.8	7.9	1.2	19.5	0.0
Prop In Lane	0.25		1.00	0.83		1.00	1.00		0.05	1.00		0.00
Lane Grp Cap(c), veh/h	398	0	279	340	0		322	987	1031	45	1321	
V/C Ratio(X)	0.08	0.00	0.09	0.57	0.00		0.11	0.41	0.41	0.83	0.92	
Avail Cap(c_a), veh/h	413	0	293	352	0		356	987	1031	356	1321	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.7	0.0	20.7	24.4	0.0	0.0	20.5	7.7	7.7	29.1	18.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.1	1.6	0.0	0.0	0.1	0.4	0.3	13.5	11.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.3	2.6	0.0	0.0	0.4	2.1	2.2	0.6	8.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.8	0.0	20.8	26.0	0.0	0.0	20.6	8.0	8.0	42.6	29.6	0.0
LnGrp LOS	C	A	C	C	A		C	A	A	D	C	
Approach Vol, veh/h		58			192	A		860			1250	A
Approach Delay, s/veh		20.8			26.0			8.5			30.0	
Approach LOS		C			C			A			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.5	16.5	28.0		15.5	5.5	39.0				
Change Period (Y+Rc), s		4.9	5.7	* 5.7		4.9	4.0	5.7				
Max Green Setting (Gmax), s		11.1	12.0	* 22		11.1	12.0	22.3				
Max Q Clear Time (g_c+I1), s		10.7	3.0	21.5		2.9	3.2	9.9				
Green Ext Time (p_c), s		0.0	0.0	0.6		0.1	0.0	3.8				

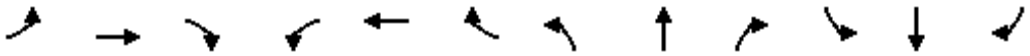
Intersection Summary		
HCM 6th Ctrl Delay		21.6
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	4	4	36	3	43	6	653	19	49	1292	15
Future Volume (veh/h)	11	4	4	36	3	43	6	653	19	49	1292	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	4	1	36	3	6	6	653	18	49	1292	15
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	85	14	2	137	5	61	8	2734	75	63	2895	34
Arrive On Green	0.04	0.04	0.04	0.04	0.04	0.04	0.00	0.77	0.77	0.04	0.80	0.80
Sat Flow, veh/h	461	351	54	1553	129	1585	1781	3532	97	1781	3598	42
Grp Volume(v), veh/h	16	0	0	39	0	6	6	328	343	49	638	669
Grp Sat Flow(s),veh/h/ln	866	0	0	1682	0	1585	1781	1777	1853	1781	1777	1863
Q Serve(g_s), s	0.5	0.0	0.0	0.0	0.0	0.3	0.3	4.6	4.6	2.5	9.9	9.9
Cycle Q Clear(g_c), s	2.4	0.0	0.0	1.9	0.0	0.3	0.3	4.6	4.6	2.5	9.9	9.9
Prop In Lane	0.69		0.06	0.92		1.00	1.00		0.05	1.00		0.02
Lane Grp Cap(c), veh/h	101	0	0	142	0	61	8	1375	1434	63	1430	1499
V/C Ratio(X)	0.16	0.00	0.00	0.28	0.00	0.10	0.73	0.24	0.24	0.78	0.45	0.45
Avail Cap(c_a), veh/h	479	0	0	502	0	458	396	1375	1434	396	1430	1499
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.8	0.0	0.0	42.5	0.0	41.8	44.7	2.8	2.8	43.1	2.7	2.7
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.4	0.0	0.3	34.9	0.1	0.1	7.5	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.9	0.0	0.1	0.2	1.0	1.0	1.2	1.9	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.0	0.0	0.0	42.9	0.0	42.0	79.6	3.0	3.0	50.5	3.7	3.6
LnGrp LOS	D	A	A	D	A	D	E	A	A	D	A	A
Approach Vol, veh/h		16			45			677			1356	
Approach Delay, s/veh		43.0			42.8			3.6			5.4	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.4	78.1		7.5	7.2	75.4		7.5				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	30.3		26.0	20.0	30.3		26.0				
Max Q Clear Time (g_c+I1), s	2.3	11.9		4.4	4.5	6.6		3.9				
Green Ext Time (p_c), s	0.0	9.5		0.0	0.0	4.7		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		5.9	
HCM 6th LOS		A	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	34	69	673	14	93	1331
Future Volume (veh/h)	34	69	673	14	93	1331
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	8	673	13	93	1331
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	51	46	2682	52	119	3068
Arrive On Green	0.03	0.03	0.75	0.75	0.13	1.00
Sat Flow, veh/h	1781	1585	3659	69	1781	3647
Grp Volume(v), veh/h	34	8	335	351	93	1331
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1858	1781	1777
Q Serve(g_s), s	1.7	0.4	5.2	5.2	4.5	0.0
Cycle Q Clear(g_c), s	1.7	0.4	5.2	5.2	4.5	0.0
Prop In Lane	1.00	1.00		0.04	1.00	
Lane Grp Cap(c), veh/h	51	46	1336	1397	119	3068
V/C Ratio(X)	0.66	0.17	0.25	0.25	0.78	0.43
Avail Cap(c_a), veh/h	396	352	1336	1397	396	3068
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.86	0.86
Uniform Delay (d), s/veh	43.3	42.7	3.4	3.4	38.3	0.0
Incr Delay (d2), s/veh	5.3	0.7	0.1	0.1	3.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.4	1.4	1.5	2.0	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	48.5	43.3	3.5	3.5	41.9	0.4
LnGrp LOS	D	D	A	A	D	A
Approach Vol, veh/h	42		686			1424
Approach Delay, s/veh	47.5		3.5			3.1
Approach LOS	D		A			A

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		83.4		6.6	10.0	73.4
Change Period (Y+Rc), s		5.7		4.0	4.0	5.7
Max Green Setting (Gmax), s		60.3		20.0	20.0	36.3
Max Q Clear Time (g_c+I1), s		2.0		3.7	6.5	7.2
Green Ext Time (p_c), s		12.8		0.0	0.1	4.0

Intersection Summary	
HCM 6th Ctrl Delay	4.1
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	244	0	286	0	1	0	248	1012	0	0	782	140
Future Volume (veh/h)	244	0	286	0	1	0	248	1012	0	0	782	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1870	1856	1870	1870	1870	1664	1708	1723	2067	2007	2052
Adj Flow Rate, veh/h	244	0	56	0	1	0	248	1012	0	0	782	48
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	2	3	2	2	2	6	3	2	2	6	3
Cap, veh/h	403	0	175	0	5	0	291	2159	971	3	1630	743
Arrive On Green	0.11	0.00	0.11	0.00	0.00	0.00	0.18	0.67	0.00	0.00	0.43	0.43
Sat Flow, veh/h	3534	0	1538	0	1870	0	1585	3246	1460	1968	3813	1739
Grp Volume(v), veh/h	244	0	56	0	1	0	248	1012	0	0	782	48
Grp Sat Flow(s),veh/h/ln	1767	0	1538	0	1870	0	1585	1623	1460	1968	1906	1739
Q Serve(g_s), s	4.8	0.0	2.5	0.0	0.0	0.0	11.2	11.2	0.0	0.0	10.9	1.2
Cycle Q Clear(g_c), s	4.8	0.0	2.5	0.0	0.0	0.0	11.2	11.2	0.0	0.0	10.9	1.2
Prop In Lane	1.00		1.00	0.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	403	0	175	0	5	0	291	2159	971	3	1630	743
V/C Ratio(X)	0.61	0.00	0.32	0.00	0.22	0.00	0.85	0.47	0.00	0.00	0.48	0.06
Avail Cap(c_a), veh/h	958	0	417	0	507	0	666	2244	1010	534	2636	1202
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	0.0	30.0	0.0	36.7	0.0	29.1	6.0	0.0	0.0	15.2	12.4
Incr Delay (d2), s/veh	2.2	0.0	1.5	0.0	8.4	0.0	2.8	0.3	0.0	0.0	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	1.0	0.0	0.0	0.0	4.0	2.2	0.0	0.0	3.9	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.3	0.0	31.6	0.0	45.1	0.0	31.9	6.3	0.0	0.0	15.6	12.5
LnGrp LOS	C	A	C	A	D	A	C	A	A	A	B	B
Approach Vol, veh/h		300			1			1260			830	
Approach Delay, s/veh		32.9			45.1			11.3			15.4	
Approach LOS		C			D			B			B	

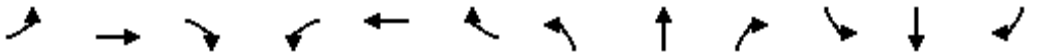
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	55.5		14.1	17.5	37.9		4.2				
Change Period (Y+Rc), s	4.0	6.4		5.7	4.0	6.4		4.0				
Max Green Setting (Gmax), s	20.0	51.0		20.0	31.0	51.0		20.0				
Max Q Clear Time (g_c+I1), s	0.0	13.2		6.8	13.2	12.9		2.0				
Green Ext Time (p_c), s	0.0	23.9		1.6	0.5	18.6		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	15.4
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



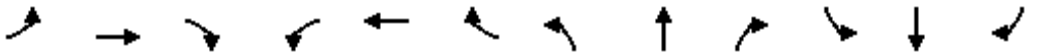
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	0	57	0	0	5	114	1232	0	5	983	46
Future Volume (veh/h)	25	0	57	0	0	5	114	1232	0	5	983	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	25	0	5	0	0	0	114	1232	0	5	983	23
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	99	0	88	0	4	4	181	2130	950	14	1797	802
Arrive On Green	0.06	0.00	0.06	0.00	0.00	0.00	0.10	0.60	0.00	0.01	0.51	0.51
Sat Flow, veh/h	1781	0	1585	0	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	25	0	5	0	0	0	114	1232	0	5	983	23
Grp Sat Flow(s),veh/h/ln	1781	0	1585	0	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.6	0.0	0.1	0.0	0.0	0.0	2.7	9.5	0.0	0.1	8.4	0.3
Cycle Q Clear(g_c), s	0.6	0.0	0.1	0.0	0.0	0.0	2.7	9.5	0.0	0.1	8.4	0.3
Prop In Lane	1.00		1.00	0.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	99	0	88	0	4	4	181	2130	950	14	1797	802
V/C Ratio(X)	0.25	0.00	0.06	0.00	0.00	0.00	0.63	0.58	0.00	0.35	0.55	0.03
Avail Cap(c_a), veh/h	800	0	712	0	840	712	800	5185	2313	800	4228	1886
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.1	0.0	19.9	0.0	0.0	0.0	19.2	5.5	0.0	22.0	7.5	5.5
Incr Delay (d2), s/veh	0.5	0.0	0.1	0.0	0.0	0.0	1.3	0.4	0.0	5.2	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.0	0.0	0.0	1.1	2.1	0.0	0.1	2.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.6	0.0	20.0	0.0	0.0	0.0	20.5	5.9	0.0	27.2	7.9	5.5
LnGrp LOS	C	A	C	A	A	A	C	A	A	C	A	A
Approach Vol, veh/h		30			0			1346			1011	
Approach Delay, s/veh		20.5			0.0			7.1			8.0	
Approach LOS		C						A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		7.1	8.5	28.9		0.0	4.4	33.1				
Change Period (Y+Rc), s		4.6	4.0	6.4		4.0	4.0	6.4				
Max Green Setting (Gmax), s		20.0	20.0	53.0		20.0	20.0	65.0				
Max Q Clear Time (g_c+I1), s		2.6	4.7	10.4		0.0	2.1	11.5				
Green Ext Time (p_c), s		0.0	0.2	10.6		0.0	0.0	15.2				

Intersection Summary	
HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	194	4	280	7	7	1	235	1158	19	5	980	70
Future Volume (veh/h)	194	4	280	7	7	1	235	1158	19	5	980	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	197	0	54	5	10	0	235	1158	10	5	980	23
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	375	0	167	62	131	0	278	2201	982	16	2414	749
Arrive On Green	0.11	0.00	0.11	0.04	0.04	0.00	0.16	0.62	0.62	0.01	0.47	0.47
Sat Flow, veh/h	3563	0	1585	1781	3741	0	1781	3554	1585	1781	5106	1585
Grp Volume(v), veh/h	197	0	54	5	10	0	235	1158	10	5	980	23
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	1870	0	1781	1777	1585	1781	1702	1585
Q Serve(g_s), s	4.5	0.0	2.7	0.2	0.2	0.0	10.9	15.7	0.2	0.2	10.7	0.7
Cycle Q Clear(g_c), s	4.5	0.0	2.7	0.2	0.2	0.0	10.9	15.7	0.2	0.2	10.7	0.7
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	375	0	167	62	131	0	278	2201	982	16	2414	749
V/C Ratio(X)	0.53	0.00	0.32	0.08	0.08	0.00	0.85	0.53	0.01	0.31	0.41	0.03
Avail Cap(c_a), veh/h	836	0	372	418	878	0	648	2376	1060	418	3414	1060
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	0.0	35.3	39.8	39.8	0.0	35.0	9.2	6.2	42.0	14.7	12.0
Incr Delay (d2), s/veh	2.3	0.0	2.3	0.2	0.1	0.0	2.8	0.5	0.0	3.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	1.1	0.1	0.1	0.0	4.6	4.6	0.1	0.1	3.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	0.0	37.6	40.0	39.9	0.0	37.7	9.6	6.2	45.8	14.8	12.1
LnGrp LOS	D	A	D	D	D	A	D	A	A	D	B	B
Approach Vol, veh/h		251			15			1403			1008	
Approach Delay, s/veh		38.3			39.9			14.3			14.9	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	59.2		14.3	17.3	46.7		7.0				
Change Period (Y+Rc), s	4.0	* 6.4		5.3	4.0	6.4		4.0				
Max Green Setting (Gmax), s	20.0	* 57		20.0	31.0	57.0		20.0				
Max Q Clear Time (g_c+I1), s	2.2	17.7		6.5	12.9	12.7		2.2				
Green Ext Time (p_c), s	0.0	33.2		1.5	0.4	27.6		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		16.9	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

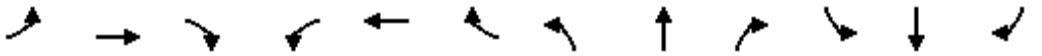
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	198	10	180	80	12	81	131	1236	34	97	1163	68
Future Volume (veh/h)	198	10	180	80	12	81	131	1236	34	97	1163	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	205	0	21	80	12	8	131	1236	18	97	1163	36
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	297	0	132	125	19	127	159	1885	585	544	3063	951
Arrive On Green	0.08	0.00	0.08	0.08	0.08	0.08	0.09	0.37	0.37	0.31	0.60	0.60
Sat Flow, veh/h	3563	0	1585	1559	234	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	205	0	21	92	0	8	131	1236	18	97	1163	36
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1792	0	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	6.7	0.0	1.5	6.0	0.0	0.6	8.7	24.2	0.9	4.8	14.2	1.1
Cycle Q Clear(g_c), s	6.7	0.0	1.5	6.0	0.0	0.6	8.7	24.2	0.9	4.8	14.2	1.1
Prop In Lane	1.00		1.00	0.87		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	297	0	132	144	0	127	159	1885	585	544	3063	951
V/C Ratio(X)	0.69	0.00	0.16	0.64	0.00	0.06	0.83	0.66	0.03	0.18	0.38	0.04
Avail Cap(c_a), veh/h	623	0	277	314	0	277	312	1885	585	544	3063	951
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.5	0.0	51.1	53.5	0.0	51.0	53.7	31.5	24.2	30.6	12.4	9.8
Incr Delay (d2), s/veh	1.1	0.0	0.2	1.8	0.0	0.1	4.1	1.8	0.1	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.6	2.8	0.0	0.2	4.0	9.7	0.3	2.0	4.9	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.6	0.0	51.3	55.2	0.0	51.1	57.8	33.3	24.2	30.7	12.6	9.9
LnGrp LOS	D	A	D	E	A	D	E	C	C	C	B	A
Approach Vol, veh/h		226			100			1385			1296	
Approach Delay, s/veh		54.3			54.9			35.5			13.9	
Approach LOS		D			D			D			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	42.4	50.0		14.0	14.7	77.7		13.6				
Change Period (Y+Rc), s	5.7	* 5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	16.0	* 44		21.0	21.0	39.3		21.0				
Max Q Clear Time (g_c+I1), s	6.8	26.2		8.7	10.7	16.2		8.0				
Green Ext Time (p_c), s	0.1	11.2		0.5	0.1	12.6		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		28.3	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



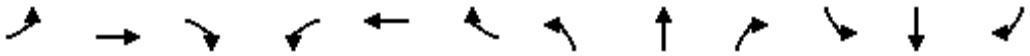
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	117	254	37	85	35	298	1250	55	23	1522	310
Future Volume (veh/h)	200	117	254	37	85	35	298	1250	55	23	1522	310
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	200	117	50	37	85	3	298	1250	30	23	1522	219
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	232	277	235	95	133	113	372	2143	956	56	1872	835
Arrive On Green	0.13	0.15	0.15	0.05	0.07	0.07	0.11	0.60	0.60	0.03	0.53	0.53
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	200	117	50	37	85	3	298	1250	30	23	1522	219
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	13.2	6.8	3.3	2.4	5.3	0.2	10.1	25.8	0.9	1.5	42.5	9.1
Cycle Q Clear(g_c), s	13.2	6.8	3.3	2.4	5.3	0.2	10.1	25.8	0.9	1.5	42.5	9.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	232	277	235	95	133	113	372	2143	956	56	1872	835
V/C Ratio(X)	0.86	0.42	0.21	0.39	0.64	0.03	0.80	0.58	0.03	0.41	0.81	0.26
Avail Cap(c_a), veh/h	386	301	255	312	223	189	605	2143	956	312	1872	835
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.1	46.4	44.9	54.9	54.2	51.9	52.3	14.6	9.6	57.0	23.5	15.6
Incr Delay (d2), s/veh	10.1	1.9	0.8	2.6	7.9	0.2	4.1	1.2	0.1	4.8	4.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	3.2	1.3	1.1	2.7	0.1	4.4	9.4	0.3	0.7	16.9	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.2	48.3	45.8	57.5	62.1	52.0	56.4	15.7	9.7	61.9	27.5	16.4
LnGrp LOS	E	D	D	E	E	D	E	B	A	E	C	B
Approach Vol, veh/h		367			125			1578			1764	
Approach Delay, s/veh		55.0			60.5			23.3			26.5	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	78.4	10.4	23.5	16.9	69.2	19.7	14.2
Change Period (Y+Rc), s	4.0	6.0	4.0	5.7	4.0	6.0	4.0	5.7
Max Green Setting (Gmax), s	21.0	39.0	21.0	19.3	21.0	39.0	26.0	14.3
Max Q Clear Time (g_c+I1), s	3.5	27.8	4.4	8.8	12.1	44.5	15.2	7.3
Green Ext Time (p_c), s	0.0	7.3	0.1	0.7	0.8	0.0	0.5	0.2

Intersection Summary	
HCM 6th Ctrl Delay	29.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



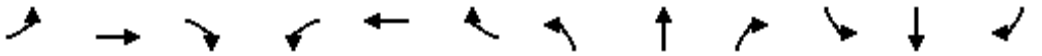
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	423	24	6	251	8	2	5	2	10	5	10
Future Volume (veh/h)	8	423	24	6	251	8	2	5	2	10	5	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	423	22	6	251	7	2	5	0	10	5	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	34	1451	75	26	1474	41	8	20	0	38	19	0
Arrive On Green	0.02	0.42	0.42	0.01	0.42	0.42	0.02	0.02	0.00	0.03	0.03	0.00
Sat Flow, veh/h	1781	3437	178	1781	3531	98	527	1317	0	1207	603	0
Grp Volume(v), veh/h	8	218	227	6	126	132	7	0	0	15	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1838	1781	1777	1853	1844	0	0	1810	0	0
Q Serve(g_s), s	0.1	2.7	2.7	0.1	1.5	1.5	0.1	0.0	0.0	0.3	0.0	0.0
Cycle Q Clear(g_c), s	0.1	2.7	2.7	0.1	1.5	1.5	0.1	0.0	0.0	0.3	0.0	0.0
Prop In Lane	1.00		0.10	1.00		0.05	0.29		0.00	0.67		0.00
Lane Grp Cap(c), veh/h	34	750	776	26	742	773	28	0	0	56	0	0
V/C Ratio(X)	0.23	0.29	0.29	0.23	0.17	0.17	0.25	0.00	0.00	0.27	0.00	0.00
Avail Cap(c_a), veh/h	1065	1593	1649	1065	1593	1662	1268	0	0	1082	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.2	6.4	6.4	16.3	6.1	6.1	16.3	0.0	0.0	15.8	0.0	0.0
Incr Delay (d2), s/veh	1.3	0.5	0.5	1.7	0.2	0.2	1.7	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.5	0.6	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.4	6.8	6.8	18.0	6.4	6.3	18.0	0.0	0.0	16.8	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		453			264			7			15	
Approach Delay, s/veh		7.0			6.6			18.0			16.8	
Approach LOS		A			A			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		4.5	4.5	19.4		5.0	4.6	19.3				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.0	4.0	5.3				
Max Green Setting (Gmax), s		23.0	20.0	30.0		20.0	20.0	30.0				
Max Q Clear Time (g_c+I1), s		2.1	2.1	4.7		2.3	2.1	3.5				
Green Ext Time (p_c), s		0.0	0.0	9.4		0.0	0.0	5.3				

Intersection Summary		
HCM 6th Ctrl Delay		7.2
HCM 6th LOS		A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	183	424	15	21	284	27	6	5	14	21	0	114
Future Volume (veh/h)	183	424	15	21	284	27	6	5	14	21	0	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	183	424	7	21	284	8	6	5	0	21	0	18
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	297	1175	524	66	714	319	26	22	0	129	0	114
Arrive On Green	0.17	0.33	0.33	0.04	0.20	0.20	0.03	0.03	0.00	0.07	0.00	0.07
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	993	828	0	1781	0	1585
Grp Volume(v), veh/h	183	424	7	21	284	8	11	0	0	21	0	18
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1821	0	0	1781	0	1585
Q Serve(g_s), s	3.3	3.2	0.1	0.4	2.4	0.1	0.2	0.0	0.0	0.4	0.0	0.4
Cycle Q Clear(g_c), s	3.3	3.2	0.1	0.4	2.4	0.1	0.2	0.0	0.0	0.4	0.0	0.4
Prop In Lane	1.00		1.00	1.00		1.00	0.55		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	297	1175	524	66	714	319	47	0	0	129	0	114
V/C Ratio(X)	0.62	0.36	0.01	0.32	0.40	0.03	0.23	0.00	0.00	0.16	0.00	0.16
Avail Cap(c_a), veh/h	1279	3061	1365	1023	3061	1365	1045	0	0	1023	0	910
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.5	8.9	7.8	16.3	12.1	11.2	16.6	0.0	0.0	15.2	0.0	15.2
Incr Delay (d2), s/veh	0.8	0.2	0.0	1.0	0.4	0.0	0.9	0.0	0.0	0.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.7	0.0	0.1	0.7	0.0	0.1	0.0	0.0	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.3	9.1	7.8	17.4	12.5	11.2	17.5	0.0	0.0	15.4	0.0	15.4
LnGrp LOS	B	A	A	B	B	B	B	A	A	B	A	B
Approach Vol, veh/h		614			313			11			39	
Approach Delay, s/veh		10.6			12.8			17.5			15.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	4.9	5.3	17.2	7.4	9.8	12.7
Change Period (Y+Rc), s	4.0	4.0	5.7	4.9	4.0	5.7
Max Green Setting (Gmax), s	20.0	20.0	30.0	20.0	25.0	30.0
Max Q Clear Time (g_c+I1), s	2.2	2.4	5.2	2.4	5.3	4.4
Green Ext Time (p_c), s	0.0	0.0	2.2	0.0	0.3	1.4

Intersection Summary	
HCM 6th Ctrl Delay	11.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	482	38	79	292	44	107
Future Volume (veh/h)	482	38	79	292	44	107
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	482	17	79	292	44	19
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1249	557	170	2051	193	172
Arrive On Green	0.35	0.35	0.10	0.58	0.11	0.11
Sat Flow, veh/h	3647	1585	1781	3647	1781	1585
Grp Volume(v), veh/h	482	17	79	292	44	19
Grp Sat Flow(s),veh/h/ln	1777	1585	1781	1777	1781	1585
Q Serve(g_s), s	3.1	0.2	1.3	1.2	0.7	0.3
Cycle Q Clear(g_c), s	3.1	0.2	1.3	1.2	0.7	0.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1249	557	170	2051	193	172
V/C Ratio(X)	0.39	0.03	0.46	0.14	0.23	0.11
Avail Cap(c_a), veh/h	4613	2057	1156	4613	1156	1029
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.5	6.5	13.2	3.0	12.6	12.4
Incr Delay (d2), s/veh	0.3	0.0	2.0	0.1	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.1	0.5	0.1	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.8	6.6	15.1	3.1	12.8	12.5
LnGrp LOS	A	A	B	A	B	B
Approach Vol, veh/h	499			371	63	
Approach Delay, s/veh	7.8			5.6	12.7	
Approach LOS	A			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		23.5		7.3	6.9	16.5
Change Period (Y+Rc), s		5.7		4.0	4.0	5.7
Max Green Setting (Gmax), s		40.0		20.0	20.0	40.0
Max Q Clear Time (g_c+I1), s		3.2		2.7	3.3	5.1
Green Ext Time (p_c), s		3.3		0.1	0.1	5.8

Intersection Summary	
HCM 6th Ctrl Delay	7.3
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

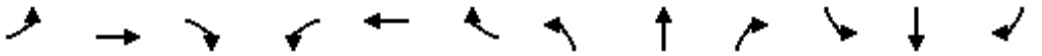
Intersection 203 **Riverside Ave/I-80 WB Ramps** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	1,488	1,463	98.3%	15.8	1.5	B
	Right Turn	208	218	104.8%	6.1	1.4	A
	Subtotal	1,696	1,681	99.1%	14.5	1.4	B
SB	Left Turn						
	Through	879	845	96.1%	8.7	3.3	A
	Right Turn	1,232	1,214	98.5%	9.2	14.5	A
	Subtotal	2,111	2,058	97.5%	9.0	8.6	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	490	519	105.9%	30.4	3.1	C
	Through						
	Right Turn	211	211	99.9%	29.2	3.0	C
	Subtotal	701	730	104.1%	30.1	2.7	C
Total		4,508	4,469	99.1%	14.5	4.2	B

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Existing Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 204 **Riverside Ave/I-80 EB Ramps-Orlando Ave** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	1,168	1,214	103.9%	41.7	9.7	D
	Right Turn	81	77	95.3%	36.7	14.4	D
	Subtotal	1,249	1,291	103.3%	41.4	9.9	D
SB	Left Turn	71	59	83.4%	60.6	6.3	E
	Through	1,070	1,108	103.6%	18.9	2.6	B
	Right Turn						
	Subtotal	1,141	1,168	102.3%	21.0	2.7	C
EB	Left Turn						
	Through	400	388	97.0%	50.3	4.4	D
	Right Turn	209	217	103.7%	27.0	3.0	C
	Subtotal	609	605	99.3%	42.1	3.9	D
WB	Left Turn	226	216	95.6%	51.9	5.5	D
	Through						
	Right Turn	242	232	95.9%	27.8	20.2	C
	Subtotal	468	448	95.7%	39.3	9.8	D
Total		3,467	3,511	101.3%	34.6	4.1	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	225	8	11	223	109	0	5	6	86	8	51
Future Volume (veh/h)	55	225	8	11	223	109	0	5	6	86	8	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	225	3	11	223	39	0	5	0	86	8	11
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	965	431	31	771	344	0	20	17	246	23	238
Arrive On Green	0.07	0.27	0.27	0.02	0.22	0.22	0.00	0.01	0.00	0.15	0.15	0.15
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	0	1870	1585	1636	152	1585
Grp Volume(v), veh/h	55	225	3	11	223	39	0	5	0	94	0	11
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	0	1870	1585	1789	0	1585
Q Serve(g_s), s	1.0	1.6	0.0	0.2	1.7	0.6	0.0	0.1	0.0	1.5	0.0	0.2
Cycle Q Clear(g_c), s	1.0	1.6	0.0	0.2	1.7	0.6	0.0	0.1	0.0	1.5	0.0	0.2
Prop In Lane	1.00		1.00	1.00		1.00	0.00		1.00	0.91		1.00
Lane Grp Cap(c), veh/h	128	965	431	31	771	344	0	20	17	269	0	238
V/C Ratio(X)	0.43	0.23	0.01	0.35	0.29	0.11	0.00	0.25	0.00	0.35	0.00	0.05
Avail Cap(c_a), veh/h	1088	4341	1936	1088	4341	1936	0	1142	968	1475	0	1307
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.5	9.3	8.7	15.9	10.7	10.3	0.0	16.1	0.0	12.5	0.0	11.9
Incr Delay (d2), s/veh	0.8	0.1	0.0	2.5	0.2	0.2	0.0	2.3	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.4	0.0	0.1	0.4	0.2	0.0	0.0	0.0	0.5	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.4	9.4	8.7	18.4	10.9	10.5	0.0	18.4	0.0	12.8	0.0	11.9
LnGrp LOS	B	A	A	B	B	B	A	B	A	B	A	B
Approach Vol, veh/h		283			273			5			105	
Approach Delay, s/veh		10.6			11.2			18.4			12.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.6	14.9		8.9	6.4	13.1		4.4				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	40.0		27.0	20.0	40.0		20.0				
Max Q Clear Time (g_c+I1), s	2.2	3.6		3.5	3.0	3.7		2.1				
Green Ext Time (p_c), s	0.0	3.4		0.2	0.1	3.4		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		11.2	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

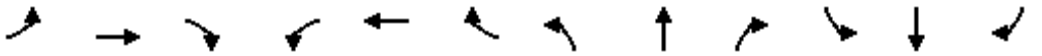
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	290	20	111	370	99	10	10	50	60	10	20
Future Volume (veh/h)	30	290	20	111	370	99	10	10	50	60	10	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	290	7	111	370	46	10	10	50	60	10	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	88	626	279	222	892	398	169	177	150	171	179	152
Arrive On Green	0.05	0.18	0.18	0.12	0.25	0.25	0.09	0.09	0.09	0.10	0.10	0.10
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	30	290	7	111	370	46	10	10	50	60	10	1
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.6	2.9	0.1	2.3	3.5	0.9	0.2	0.2	1.2	1.3	0.2	0.0
Cycle Q Clear(g_c), s	0.6	2.9	0.1	2.3	3.5	0.9	0.2	0.2	1.2	1.3	0.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	88	626	279	222	892	398	169	177	150	171	179	152
V/C Ratio(X)	0.34	0.46	0.03	0.50	0.41	0.12	0.06	0.06	0.33	0.35	0.06	0.01
Avail Cap(c_a), veh/h	897	3580	1597	897	3580	1597	897	942	798	897	942	798
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.2	14.7	13.5	16.2	12.4	11.5	16.4	16.4	16.8	16.8	16.3	16.2
Incr Delay (d2), s/veh	2.2	0.5	0.0	1.7	0.3	0.1	0.1	0.1	1.3	1.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.0	0.0	0.9	1.1	0.3	0.1	0.1	0.4	0.5	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	15.2	13.6	18.0	12.7	11.6	16.5	16.5	18.1	18.0	16.5	16.3
LnGrp LOS	C	B	B	B	B	B	B	B	B	B	B	B
Approach Vol, veh/h		327			527			70			71	
Approach Delay, s/veh		15.7			13.7			17.6			17.8	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.1	6.0	16.0		8.7	8.9	13.0				
Change Period (Y+Rc), s		5.3	4.0	6.0		4.9	4.0	6.0				
Max Green Setting (Gmax), s		20.0	20.0	40.0		20.0	20.0	40.0				
Max Q Clear Time (g_c+I1), s		3.2	2.6	5.5		3.3	4.3	4.9				
Green Ext Time (p_c), s		0.1	0.0	2.8		0.1	0.2	2.0				

Intersection Summary												
HCM 6th Ctrl Delay			14.9									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	261	195	29	56	342	154	41	294	51	120	249	320
Future Volume (veh/h)	261	195	29	56	342	154	41	294	51	120	249	320
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	261	195	0	56	342	0	41	294	0	120	249	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	487	862		265	634		212	555		401	749	
Arrive On Green	0.14	0.24	0.00	0.08	0.18	0.00	0.06	0.16	0.00	0.12	0.21	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	261	195	0	56	342	0	41	294	0	120	249	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	3.4	2.1	0.0	0.7	4.2	0.0	0.5	3.7	0.0	1.5	2.9	0.0
Cycle Q Clear(g_c), s	3.4	2.1	0.0	0.7	4.2	0.0	0.5	3.7	0.0	1.5	2.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	487	862		265	634		212	555		401	749	
V/C Ratio(X)	0.54	0.23		0.21	0.54		0.19	0.53		0.30	0.33	
Avail Cap(c_a), veh/h	1434	2212		1434	2212		1792	2212		1434	2212	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.2	14.6	0.0	20.9	18.0	0.0	21.5	18.7	0.0	19.5	16.1	0.0
Incr Delay (d2), s/veh	0.3	0.2	0.0	0.1	1.2	0.0	0.2	1.2	0.0	0.2	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.7	0.0	0.2	1.5	0.0	0.2	1.3	0.0	0.5	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.6	14.8	0.0	21.0	19.2	0.0	21.7	19.9	0.0	19.7	16.6	0.0
LnGrp LOS	B	B		C	B		C	B		B	B	
Approach Vol, veh/h		456	A		398	A		335	A		369	A
Approach Delay, s/veh		17.6			19.5			20.1			17.6	
Approach LOS		B			B			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	17.4	7.0	16.2	10.8	14.3	9.6	13.5
Change Period (Y+Rc), s	4.0	5.7	4.0	* 6	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	20.0	30.0	25.0	* 30	20.0	30.0	20.0	30.0
Max Q Clear Time (g_c+I1), s	2.7	4.1	2.5	4.9	5.4	6.2	3.5	5.7
Green Ext Time (p_c), s	0.1	1.1	0.1	1.8	0.5	2.5	0.2	1.9

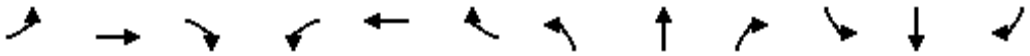
Intersection Summary	
HCM 6th Ctrl Delay	18.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



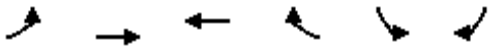
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	310	18	39	570	58	17	119	26	56	67	50
Future Volume (veh/h)	34	310	18	39	570	58	17	119	26	56	67	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	310	15	39	570	53	17	119	20	56	67	30
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	84	975	47	94	947	88	46	182	31	144	210	94
Arrive On Green	0.05	0.28	0.28	0.05	0.29	0.29	0.03	0.12	0.12	0.08	0.17	0.17
Sat Flow, veh/h	1781	3451	166	1781	3287	305	1781	1561	262	1781	1224	548
Grp Volume(v), veh/h	34	159	166	39	308	315	17	0	139	56	0	97
Grp Sat Flow(s),veh/h/ln	1781	1777	1840	1781	1777	1815	1781	0	1823	1781	0	1772
Q Serve(g_s), s	0.8	2.9	2.9	0.9	6.1	6.1	0.4	0.0	3.0	1.2	0.0	2.0
Cycle Q Clear(g_c), s	0.8	2.9	2.9	0.9	6.1	6.1	0.4	0.0	3.0	1.2	0.0	2.0
Prop In Lane	1.00		0.09	1.00		0.17	1.00		0.14	1.00		0.31
Lane Grp Cap(c), veh/h	84	502	520	94	512	523	46	0	213	144	0	304
V/C Ratio(X)	0.41	0.32	0.32	0.42	0.60	0.60	0.37	0.00	0.65	0.39	0.00	0.32
Avail Cap(c_a), veh/h	1008	1530	1585	876	1530	1563	876	0	1121	1095	0	1351
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.8	11.5	11.5	18.7	12.5	12.5	19.5	0.0	17.2	17.7	0.0	14.7
Incr Delay (d2), s/veh	1.2	0.5	0.5	1.1	1.5	1.5	1.8	0.0	3.9	0.6	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.9	0.9	0.3	2.0	2.0	0.2	0.0	1.3	0.4	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.0	12.0	12.0	19.7	14.0	14.0	21.3	0.0	21.1	18.4	0.0	15.4
LnGrp LOS	B	B	B	B	B	B	C	A	C	B	A	B
Approach Vol, veh/h		359			662			156			153	
Approach Delay, s/veh		12.7			14.3			21.1			16.5	
Approach LOS		B			B			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	10.1	6.1	17.2	5.0	12.3	5.9	17.4
Change Period (Y+Rc), s	4.0	5.3	4.0	5.7	4.0	5.3	4.0	5.7
Max Green Setting (Gmax), s	25.0	25.0	20.0	35.0	20.0	31.0	23.0	35.0
Max Q Clear Time (g_c+I1), s	3.2	5.0	2.9	4.9	2.4	4.0	2.8	8.1
Green Ext Time (p_c), s	0.1	0.5	0.0	1.7	0.0	0.4	0.0	3.6

Intersection Summary	
HCM 6th Ctrl Delay	14.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



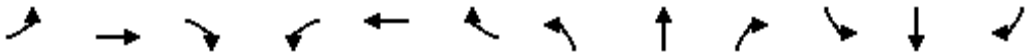
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	20	410	741	49	40	10
Future Volume (veh/h)	20	410	741	49	40	10
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	410	741	45	40	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	64	2153	1430	87	122	109
Arrive On Green	0.04	0.61	0.42	0.42	0.07	0.07
Sat Flow, veh/h	1781	3647	3497	207	1781	1585
Grp Volume(v), veh/h	20	410	387	399	40	1
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1833	1781	1585
Q Serve(g_s), s	0.3	1.4	4.3	4.3	0.6	0.0
Cycle Q Clear(g_c), s	0.3	1.4	4.3	4.3	0.6	0.0
Prop In Lane	1.00			0.11	1.00	1.00
Lane Grp Cap(c), veh/h	64	2153	746	770	122	109
V/C Ratio(X)	0.31	0.19	0.52	0.52	0.33	0.01
Avail Cap(c_a), veh/h	1333	5982	2991	3086	1399	1245
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.6	2.3	5.7	5.7	11.9	11.6
Incr Delay (d2), s/veh	1.0	0.1	0.7	0.7	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.5	0.5	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.6	2.4	6.5	6.5	12.4	11.6
LnGrp LOS	B	A	A	A	B	B
Approach Vol, veh/h		430	786		41	
Approach Delay, s/veh		2.9	6.5		12.4	
Approach LOS		A	A		B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		21.9		4.8	5.0	16.9
Change Period (Y+Rc), s		5.7		3.0	4.0	5.7
Max Green Setting (Gmax), s		45.0		21.0	20.0	45.0
Max Q Clear Time (g_c+I1), s		3.4		2.6	2.3	6.3
Green Ext Time (p_c), s		2.6		0.0	0.0	4.9

Intersection Summary	
HCM 6th Ctrl Delay	5.5
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



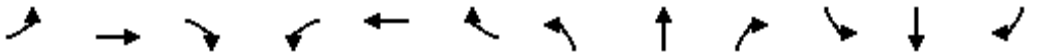
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	414	53	90	763	0	76	0	56	0	0	0
Future Volume (veh/h)	0	414	53	90	763	0	76	0	56	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	414	46	90	763	0	76	0	11	0	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	6	863	95	221	1879	0	247	0	220	0	6	0
Arrive On Green	0.00	0.27	0.27	0.12	0.53	0.00	0.14	0.00	0.14	0.00	0.00	0.00
Sat Flow, veh/h	1781	3226	357	1781	3647	0	1781	0	1585	0	1870	0
Grp Volume(v), veh/h	0	227	233	90	763	0	76	0	11	0	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1806	1781	1777	0	1781	0	1585	0	1870	0
Q Serve(g_s), s	0.0	3.1	3.2	1.4	3.8	0.0	1.1	0.0	0.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	3.1	3.2	1.4	3.8	0.0	1.1	0.0	0.2	0.0	0.0	0.0
Prop In Lane	1.00		0.20	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	6	475	483	221	1879	0	247	0	220	0	6	0
V/C Ratio(X)	0.00	0.48	0.48	0.41	0.41	0.00	0.31	0.00	0.05	0.00	0.00	0.00
Avail Cap(c_a), veh/h	1221	2496	2538	1221	4993	0	1404	0	1249	0	1282	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	9.0	9.0	11.8	4.1	0.0	11.3	0.0	10.9	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.0	1.0	0.4	0.2	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.8	0.8	0.4	0.3	0.0	0.4	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	10.0	10.0	12.2	4.3	0.0	11.6	0.0	10.9	0.0	0.0	0.0
LnGrp LOS	A	A	A	B	A	A	B	A	B	A	A	A
Approach Vol, veh/h		460			853			87			0	
Approach Delay, s/veh		10.0			5.1			11.5			0.0	
Approach LOS		A			A			B				

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	13.5		0.0	0.0	21.1		8.0				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	41.0		20.0	20.0	41.0		23.0				
Max Q Clear Time (g_c+I1), s	3.4	5.2		0.0	0.0	5.8		3.1				
Green Ext Time (p_c), s	0.1	2.6		0.0	0.0	5.3		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		7.1
HCM 6th LOS		A

Notes

User approved pedestrian interval to be less than phase max green.



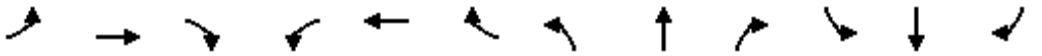
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	513	17	97	859	9	41	19	91	15	8	24
Future Volume (veh/h)	22	513	17	97	859	9	41	19	91	15	8	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	513	15	97	859	9	41	19	15	15	8	4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	59	1194	35	192	1489	16	257	75	206	246	88	206
Arrive On Green	0.03	0.34	0.34	0.11	0.41	0.41	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1781	3526	103	1781	3603	38	539	575	1585	478	678	1585
Grp Volume(v), veh/h	22	258	270	97	424	444	60	0	15	23	0	4
Grp Sat Flow(s),veh/h/ln	1781	1777	1852	1781	1777	1864	1113	0	1585	1156	0	1585
Q Serve(g_s), s	0.4	3.6	3.6	1.7	5.9	5.9	0.3	0.0	0.3	0.0	0.0	0.1
Cycle Q Clear(g_c), s	0.4	3.6	3.6	1.7	5.9	5.9	2.3	0.0	0.3	2.2	0.0	0.1
Prop In Lane	1.00		0.06	1.00		0.02	0.68		1.00	0.65		1.00
Lane Grp Cap(c), veh/h	59	602	627	192	734	770	332	0	206	334	0	206
V/C Ratio(X)	0.37	0.43	0.43	0.50	0.58	0.58	0.18	0.00	0.07	0.07	0.00	0.02
Avail Cap(c_a), veh/h	1102	2472	2577	1102	2472	2593	1076	0	980	1074	0	980
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.3	8.3	8.3	13.6	7.3	7.3	12.9	0.0	12.4	12.4	0.0	12.3
Incr Delay (d2), s/veh	1.4	0.6	0.6	0.8	1.0	0.9	0.1	0.0	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.8	0.8	0.5	1.0	1.1	0.3	0.0	0.1	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.7	8.9	8.9	14.4	8.3	8.2	13.0	0.0	12.4	12.5	0.0	12.3
LnGrp LOS	B	A	A	B	A	A	B	A	B	B	A	B
Approach Vol, veh/h		550			965			75			27	
Approach Delay, s/veh		9.2			8.9			12.9			12.4	
Approach LOS		A			A			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.5	16.7		8.2	5.1	19.1		8.2				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	3.7	5.6		4.2	2.4	7.9		4.3				
Green Ext Time (p_c), s	0.1	2.9		0.0	0.0	5.4		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		9.2	
HCM 6th LOS		A	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	0	6	538	28	6	0	13	29	0	28
Future Volume (veh/h)	2	0	0	6	538	28	6	0	13	29	0	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	0	0	6	538	27	6	0	0	29	0	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	9	762	0	26	736	37	20	0	0	109	0	97
Arrive On Green	0.00	0.00	0.00	0.01	0.42	0.42	0.01	0.00	0.00	0.06	0.00	0.06
Sat Flow, veh/h	1781	1870	0	1781	1766	89	1781	0	0	1781	0	1585
Grp Volume(v), veh/h	2	0	0	6	0	565	6	0	0	29	0	3
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1781	0	1854	1781	0	0	1781	0	1585
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	8.9	0.1	0.0	0.0	0.5	0.0	0.1
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.1	0.0	8.9	0.1	0.0	0.0	0.5	0.0	0.1
Prop In Lane	1.00		0.00	1.00		0.05	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	9	762	0	26	0	773	20	0	0	109	0	97
V/C Ratio(X)	0.23	0.00	0.00	0.23	0.00	0.73	0.30	0.00	0.00	0.27	0.00	0.03
Avail Cap(c_a), veh/h	1018	2940	0	1018	0	2915	1018	0	0	1018	0	906
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.3	0.0	0.0	17.0	0.0	8.6	17.2	0.0	0.0	15.7	0.0	15.5
Incr Delay (d2), s/veh	4.7	0.0	0.0	4.4	0.0	1.8	3.0	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.1	0.0	2.0	0.1	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.1	0.0	0.0	21.5	0.0	10.4	20.2	0.0	0.0	16.2	0.0	15.5
LnGrp LOS	C	A	A	C	A	B	C	A	A	B	A	B
Approach Vol, veh/h		2			571			6			32	
Approach Delay, s/veh		22.1			10.5			20.2			16.1	
Approach LOS		C			B			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.5	19.9		6.1	4.2	20.3		4.4				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	55.0		20.0	20.0	55.0		20.0				
Max Q Clear Time (g_c+I1), s	2.1	0.0		2.5	2.0	10.9		2.1				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	3.6		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		10.9	
HCM 6th LOS		B	

Notes

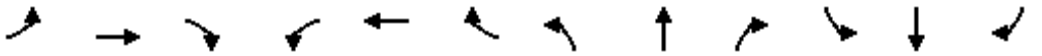
User approved pedestrian interval to be less than phase max green.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	26	200	22	38	215	487
Future Volume (veh/h)	26	200	22	38	215	487
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	26	22	11	215	487
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	100	89	506	429	984	1260
Arrive On Green	0.06	0.06	0.27	0.27	0.24	0.67
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	26	26	22	11	215	487
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	0.5	0.6	0.3	0.2	2.2	4.2
Cycle Q Clear(g_c), s	0.5	0.6	0.3	0.2	2.2	4.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	100	89	506	429	984	1260
V/C Ratio(X)	0.26	0.29	0.04	0.03	0.22	0.39
Avail Cap(c_a), veh/h	1108	986	2024	1715	1519	2580
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.7	16.7	10.0	9.9	4.1	2.7
Incr Delay (d2), s/veh	0.5	0.7	0.1	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.2	0.1	0.1	0.4	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.2	17.4	10.0	10.0	4.1	3.0
LnGrp LOS	B	B	B	A	A	A
Approach Vol, veh/h	52		33			702
Approach Delay, s/veh	17.3		10.0			3.4
Approach LOS	B		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	14.9	16.0			30.9	6.1
Change Period (Y+Rc), s	6.0	6.0			6.0	4.0
Max Green Setting (Gmax), s	20.0	40.0			51.0	23.0
Max Q Clear Time (g_c+I1), s	4.2	2.3			6.2	2.6
Green Ext Time (p_c), s	0.3	0.2			6.9	0.1

Intersection Summary	
HCM 6th Ctrl Delay	4.6
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	540	50	20	430	20	40	10	10	100	10	140
Future Volume (veh/h)	40	540	50	20	430	20	40	10	10	100	10	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	40	540	18	20	430	17	40	10	4	100	10	32
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	108	1152	514	61	1037	41	114	29	11	308	68	217
Arrive On Green	0.06	0.32	0.32	0.03	0.30	0.30	0.09	0.09	0.09	0.17	0.17	0.17
Sat Flow, veh/h	1781	3554	1585	1781	3485	138	1319	330	132	1781	392	1253
Grp Volume(v), veh/h	40	540	18	20	219	228	54	0	0	100	0	42
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1846	1781	0	0	1781	0	1645
Q Serve(g_s), s	1.0	5.6	0.4	0.5	4.6	4.6	1.3	0.0	0.0	2.3	0.0	1.0
Cycle Q Clear(g_c), s	1.0	5.6	0.4	0.5	4.6	4.6	1.3	0.0	0.0	2.3	0.0	1.0
Prop In Lane	1.00		1.00	1.00		0.07	0.74		0.07	1.00		0.76
Lane Grp Cap(c), veh/h	108	1152	514	61	529	549	154	0	0	308	0	284
V/C Ratio(X)	0.37	0.47	0.04	0.33	0.41	0.42	0.35	0.00	0.00	0.32	0.00	0.15
Avail Cap(c_a), veh/h	962	3454	1541	769	1727	1794	769	0	0	769	0	711
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.9	12.5	10.7	21.8	13.0	13.0	19.9	0.0	0.0	16.8	0.0	16.3
Incr Delay (d2), s/veh	0.8	0.6	0.1	1.1	1.0	0.9	1.4	0.0	0.0	0.2	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.9	0.1	0.2	1.7	1.7	0.6	0.0	0.0	0.8	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.7	13.0	10.7	23.0	14.0	14.0	21.3	0.0	0.0	17.0	0.0	16.3
LnGrp LOS	C	B	B	C	B	B	C	A	A	B	A	B
Approach Vol, veh/h		598			467			54			142	
Approach Delay, s/veh		13.5			14.4			21.3			16.8	
Approach LOS		B			B			C			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	8.0	5.6	20.7	12.0	6.8	19.5
Change Period (Y+Rc), s	4.0	4.0	5.7	4.0	4.0	5.7
Max Green Setting (Gmax), s	20.0	20.0	45.0	20.0	25.0	45.0
Max Q Clear Time (g_c+I1), s	3.3	2.5	7.6	4.3	3.0	6.6
Green Ext Time (p_c), s	0.2	0.0	7.4	0.2	0.0	5.3

Intersection Summary	
HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B

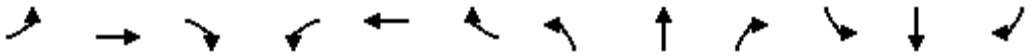
Notes

User approved pedestrian interval to be less than phase max green.

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Existing Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 228 **Cirby Hills Dr-Kaiser Dwy/Cirby Way** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	180	177	98.2%	44.7	7.7	D
	Through						
	Right Turn	343	347	101.1%	13.9	2.5	B
	Subtotal	523	524	100.1%	24.2	4.7	C
SB	Left Turn	18	18	102.2%	49.3	17.9	D
	Through						
	Right Turn	73	69	94.8%	16.7	7.7	B
	Subtotal	91	88	96.3%	23.9	6.3	C
EB	Left Turn	46	43	93.9%	54.4	16.1	D
	Through	850	813	95.6%	16.4	9.8	B
	Right Turn	75	77	102.9%	8.5	5.0	A
	Subtotal	971	933	96.1%	17.5	9.0	B
WB	Left Turn	48	42	88.3%	56.8	9.5	E
	Through	1,385	1,322	95.5%	20.0	4.6	B
	Right Turn	24	24	100.0%	11.6	6.3	B
	Subtotal	1,457	1,388	95.3%	21.0	4.4	C
Total		3,042	2,933	96.4%	20.5	4.8	C



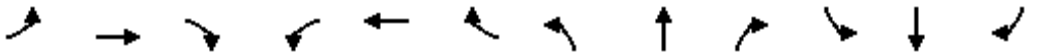
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	40	50	156	17	22	45	496	188	25	665	4
Future Volume (veh/h)	30	40	50	156	17	22	45	496	188	25	665	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	40	5	156	17	5	45	496	87	25	665	4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	74	99	150	224	24	220	102	635	538	74	1172	7
Arrive On Green	0.09	0.09	0.09	0.14	0.14	0.14	0.06	0.34	0.34	0.04	0.32	0.32
Sat Flow, veh/h	785	1046	1585	1614	176	1585	1781	1870	1585	1781	3622	22
Grp Volume(v), veh/h	70	0	5	173	0	5	45	496	87	25	326	343
Grp Sat Flow(s),veh/h/ln	1831	0	1585	1790	0	1585	1781	1870	1585	1781	1777	1866
Q Serve(g_s), s	1.6	0.0	0.1	4.1	0.0	0.1	1.1	10.7	1.7	0.6	6.8	6.8
Cycle Q Clear(g_c), s	1.6	0.0	0.1	4.1	0.0	0.1	1.1	10.7	1.7	0.6	6.8	6.8
Prop In Lane	0.43		1.00	0.90		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	173	0	150	249	0	220	102	635	538	74	575	604
V/C Ratio(X)	0.40	0.00	0.03	0.70	0.00	0.02	0.44	0.78	0.16	0.34	0.57	0.57
Avail Cap(c_a), veh/h	816	0	706	1196	0	1059	793	2124	1800	793	1781	1870
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.1	0.0	18.5	18.4	0.0	16.7	20.5	13.3	10.4	20.9	12.6	12.6
Incr Delay (d2), s/veh	0.6	0.0	0.0	1.3	0.0	0.0	1.1	2.1	0.1	1.0	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	1.6	0.0	0.0	0.4	4.0	0.5	0.3	2.3	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.7	0.0	18.5	19.7	0.0	16.7	21.6	15.4	10.5	21.9	13.4	13.4
LnGrp LOS	B	A	B	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h		75			178			628			694	
Approach Delay, s/veh		19.6			19.7			15.2			13.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.9	20.5		10.2	6.6	19.8		8.3				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	* 5.3		4.0				
Max Green Setting (Gmax), s	20.0	51.0		30.0	20.0	* 45		20.0				
Max Q Clear Time (g_c+I1), s	2.6	12.7		6.1	3.1	8.8		3.6				
Green Ext Time (p_c), s	0.0	2.5		0.4	0.0	2.7		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		15.2	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	144	0	340	374	8	0	260	278	0	337	322
Future Volume (veh/h)	127	144	0	340	374	8	0	260	278	0	337	322
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	127	144	0	340	374	7	0	260	206	0	337	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	0	2	2
Cap, veh/h	178	187	0	412	423	8	0	1000	847	0	1000	
Arrive On Green	0.10	0.10	0.00	0.23	0.23	0.23	0.00	0.53	0.53	0.00	0.53	0.00
Sat Flow, veh/h	1781	1870	0	1781	1830	34	0	1870	1585	0	1870	1585
Grp Volume(v), veh/h	127	144	0	340	0	381	0	260	206	0	337	0
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1781	0	1864	0	1870	1585	0	1870	1585
Q Serve(g_s), s	7.6	8.3	0.0	20.0	0.0	21.7	0.0	8.3	7.6	0.0	11.3	0.0
Cycle Q Clear(g_c), s	7.6	8.3	0.0	20.0	0.0	21.7	0.0	8.3	7.6	0.0	11.3	0.0
Prop In Lane	1.00		0.00	1.00		0.02	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	178	187	0	412	0	431	0	1000	847	0	1000	
V/C Ratio(X)	0.71	0.77	0.00	0.83	0.00	0.88	0.00	0.26	0.24	0.00	0.34	
Avail Cap(c_a), veh/h	481	505	0	536	0	561	0	1000	847	0	1000	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	48.0	48.3	0.0	40.2	0.0	40.9	0.0	13.8	13.7	0.0	14.5	0.0
Incr Delay (d2), s/veh	3.9	5.0	0.0	7.3	0.0	12.0	0.0	0.6	0.7	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	4.1	0.0	9.4	0.0	11.2	0.0	3.6	2.8	0.0	4.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.9	53.2	0.0	47.5	0.0	52.8	0.0	14.5	14.4	0.0	14.8	0.0
LnGrp LOS	D	D	A	D	A	D	A	B	B	A	B	
Approach Vol, veh/h		271			721			466			337	A
Approach Delay, s/veh		52.6			50.3			14.4			14.8	
Approach LOS		D			D			B			B	

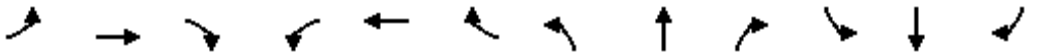
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		63.4		16.3		63.4		30.3				
Change Period (Y+Rc), s		* 4.6		5.3		4.6		4.9				
Max Green Setting (Gmax), s		* 33		29.7		32.4		33.1				
Max Q Clear Time (g_c+I1), s		10.3		10.3		13.3		23.7				
Green Ext Time (p_c), s		4.2		0.7		2.1		1.7				

Intersection Summary		
HCM 6th Ctrl Delay	34.7	
HCM 6th LOS	C	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	348	116	38	404	34	156	38	41	10	49	21
Future Volume (veh/h)	19	348	116	38	404	34	156	38	41	10	49	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	348	76	38	404	30	156	38	8	10	49	4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	84	1063	935	108	940	67	244	48	423	70	229	16
Arrive On Green	0.59	0.59	0.59	0.59	0.59	0.59	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	35	1802	1585	74	1594	113	511	181	1585	0	859	58
Grp Volume(v), veh/h	367	0	76	472	0	0	194	0	8	63	0	0
Grp Sat Flow(s),veh/h/ln	1837	0	1585	1781	0	0	692	0	1585	918	0	0
Q Serve(g_s), s	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.0	0.0	1.2	8.4	0.0	0.0	16.0	0.0	0.2	16.0	0.0	0.0
Prop In Lane	0.05		1.00	0.08		0.06	0.80		1.00	0.16		0.06
Lane Grp Cap(c), veh/h	1147	0	935	1115	0	0	293	0	423	314	0	0
V/C Ratio(X)	0.32	0.00	0.08	0.42	0.00	0.00	0.66	0.00	0.02	0.20	0.00	0.00
Avail Cap(c_a), veh/h	1147	0	935	1115	0	0	293	0	423	314	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.3	0.0	5.3	6.8	0.0	0.0	22.0	0.0	16.2	17.2	0.0	0.0
Incr Delay (d2), s/veh	0.7	0.0	0.2	1.2	0.0	0.0	4.5	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.4	2.9	0.0	0.0	2.8	0.0	0.1	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.0	0.0	5.5	7.9	0.0	0.0	26.5	0.0	16.2	17.4	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C	A	B	B	A	A
Approach Vol, veh/h		443			472			202			63	
Approach Delay, s/veh		6.7			7.9			26.0			17.4	
Approach LOS		A			A			C			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		40.0		20.0		40.0		20.0				
Change Period (Y+Rc), s		4.6		4.0		4.6		4.0				
Max Green Setting (Gmax), s		35.4		16.0		35.4		16.0				
Max Q Clear Time (g_c+I1), s		8.0		18.0		10.4		18.0				
Green Ext Time (p_c), s		1.5		0.0		1.7		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			11.1									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	386	12	19	611	12	25	9	36	4	5	3
Future Volume (veh/h)	4	386	12	19	611	12	25	9	36	4	5	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	386	11	19	611	11	25	9	3	4	5	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	63	1489	42	79	1482	26	143	14	49	95	11	0
Arrive On Green	0.83	0.83	0.83	0.83	0.83	0.83	0.03	0.03	0.03	0.03	0.03	0.00
Sat Flow, veh/h	3	1802	51	21	1794	32	1280	461	1585	285	356	0
Grp Volume(v), veh/h	401	0	0	641	0	0	34	0	3	9	0	0
Grp Sat Flow(s),veh/h/ln	1857	0	0	1846	0	0	1741	0	1585	640	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.0
Cycle Q Clear(g_c), s	2.9	0.0	0.0	5.5	0.0	0.0	1.1	0.0	0.1	1.4	0.0	0.0
Prop In Lane	0.01		0.03	0.03		0.02	0.74		1.00	0.44		0.00
Lane Grp Cap(c), veh/h	1594	0	0	1587	0	0	158	0	49	106	0	0
V/C Ratio(X)	0.25	0.00	0.00	0.40	0.00	0.00	0.22	0.00	0.06	0.08	0.00	0.00
Avail Cap(c_a), veh/h	1594	0	0	1587	0	0	514	0	423	491	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	1.2	0.0	0.0	1.4	0.0	0.0	28.7	0.0	28.2	29.4	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.8	0.0	0.0	0.3	0.0	0.2	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.4	0.0	0.0	0.5	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1.5	0.0	0.0	2.2	0.0	0.0	29.0	0.0	28.4	29.6	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C	A	C	C	A	A
Approach Vol, veh/h		401			641			37			9	
Approach Delay, s/veh		1.5			2.2			28.9			29.6	
Approach LOS		A			A			C			C	

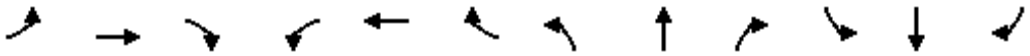
Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	54.2	5.8	54.2	5.8
Change Period (Y+Rc), s	4.6	4.0	* 4.6	4.0
Max Green Setting (Gmax), s	35.4	16.0	* 36	16.0
Max Q Clear Time (g_c+I1), s	4.9	3.1	7.5	3.4
Green Ext Time (p_c), s	1.3	0.0	1.6	0.0

Intersection Summary	
HCM 6th Ctrl Delay	3.1
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



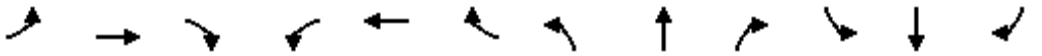
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	341	29	428	538	5	10	4	323	49	141	22
Future Volume (veh/h)	57	341	29	428	538	5	10	4	323	49	141	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	341	26	428	538	5	10	4	158	49	141	17
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	73	580	44	469	1036	10	170	57	643	93	177	20
Arrive On Green	0.04	0.34	0.34	0.26	0.56	0.56	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	1781	1716	131	1781	1850	17	711	401	1585	303	1244	138
Grp Volume(v), veh/h	57	0	367	428	0	543	14	0	158	207	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1847	1781	0	1867	1112	0	1585	1686	0	0
Q Serve(g_s), s	2.9	0.0	14.8	21.0	0.0	16.2	0.0	0.0	5.9	7.9	0.0	0.0
Cycle Q Clear(g_c), s	2.9	0.0	14.8	21.0	0.0	16.2	0.6	0.0	5.9	10.7	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.01	0.71		1.00	0.24		0.08
Lane Grp Cap(c), veh/h	73	0	624	469	0	1046	227	0	643	289	0	0
V/C Ratio(X)	0.78	0.00	0.59	0.91	0.00	0.52	0.06	0.00	0.25	0.72	0.00	0.00
Avail Cap(c_a), veh/h	218	0	624	614	0	1046	275	0	699	348	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.84	0.00	0.84	1.00	0.00	0.00
Uniform Delay (d), s/veh	42.7	0.0	24.6	32.2	0.0	12.3	33.4	0.0	17.7	37.6	0.0	0.0
Incr Delay (d2), s/veh	6.4	0.0	1.3	13.3	0.0	1.8	0.0	0.0	0.1	3.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	6.5	10.5	0.0	6.7	0.3	0.0	2.1	4.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.1	0.0	25.9	45.5	0.0	14.1	33.4	0.0	17.7	41.5	0.0	0.0
LnGrp LOS	D	A	C	D	A	B	C	A	B	D	A	A
Approach Vol, veh/h		424			971			172			207	
Approach Delay, s/veh		29.0			27.9			19.0			41.5	
Approach LOS		C			C			B			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	27.7	35.0		16.8	7.7	55.0		16.8				
Change Period (Y+Rc), s	4.0	4.6		4.0	4.0	4.6		4.0				
Max Green Setting (Gmax), s	31.0	30.4		16.0	11.0	50.4		16.0				
Max Q Clear Time (g_c+I1), s	23.0	16.8		7.9	4.9	18.2		12.7				
Green Ext Time (p_c), s	0.7	1.0		0.2	0.0	2.0		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		28.9	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	74	156	67	104	38	483	1034	22	56	840	10
Future Volume (veh/h)	64	74	156	67	104	38	483	1034	22	56	840	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	74	18	67	104	8	483	1034	13	56	840	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	118	136	221	102	158	224	610	1377	614	0	1140	
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.18	0.39	0.39	0.10	0.32	0.00
Sat Flow, veh/h	848	980	1585	719	1116	1585	3456	3554	1585	0	3554	1585
Grp Volume(v), veh/h	138	0	18	171	0	8	483	1034	13	0	840	0
Grp Sat Flow(s),veh/h/ln	1828	0	1585	1834	0	1585	1728	1777	1585	0	1777	1585
Q Serve(g_s), s	5.3	0.0	0.8	6.7	0.0	0.3	10.2	19.1	0.4	0.0	16.0	0.0
Cycle Q Clear(g_c), s	5.3	0.0	0.8	6.7	0.0	0.3	10.2	19.1	0.4	0.0	16.0	0.0
Prop In Lane	0.46		1.00	0.39		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	254	0	221	259	0	224	610	1377	614	0	1140	
V/C Ratio(X)	0.54	0.00	0.08	0.66	0.00	0.04	0.79	0.75	0.02	0.00	0.74	
Avail Cap(c_a), veh/h	600	0	521	603	0	521	1589	2381	1062	0	2381	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	30.5	0.0	28.5	30.9	0.0	28.2	30.0	20.1	14.4	0.0	23.0	0.0
Incr Delay (d2), s/veh	0.7	0.0	0.1	1.1	0.0	0.0	0.9	1.2	0.0	0.0	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.3	3.0	0.0	0.1	4.0	7.2	0.1	0.0	6.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.2	0.0	28.6	32.0	0.0	28.2	30.9	21.3	14.4	0.0	24.3	0.0
LnGrp LOS	C	A	C	C	A	C	C	C	B	A	C	
Approach Vol, veh/h		156			179			1530			840	A
Approach Delay, s/veh		30.9			31.8			24.3			24.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.4	34.4		14.6	17.4	29.3		14.7				
Change Period (Y+Rc), s	4.9	* 4.9		4.0	4.0	4.9		4.0				
Max Green Setting (Gmax), s	20.0	* 51		25.0	35.0	51.0		25.0				
Max Q Clear Time (g_c+I1), s	0.0	21.1		7.3	12.2	18.0		8.7				
Green Ext Time (p_c), s	0.0	8.4		0.3	1.3	6.4		0.3				

Intersection Summary		
HCM 6th Ctrl Delay		25.2
HCM 6th LOS		C

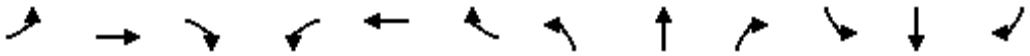
Notes

User approved pedestrian interval to be less than phase max green.

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

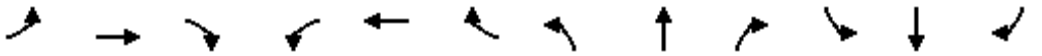
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	538	0	0	443	208	0	0	0	193	0	10
Future Volume (veh/h)	27	538	0	0	443	208	0	0	0	193	0	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	27	538	0	0	443	143	0	0	0	193	0	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	2043	0	0	745	915	0	0	0	318	0	283
Arrive On Green	0.05	0.57	0.00	0.00	0.40	0.40	0.00	0.00	0.00	0.18	0.00	0.18
Sat Flow, veh/h	1781	3647	0	0	1870	1585		0		1781	0	1585
Grp Volume(v), veh/h	27	538	0	0	443	143		0.0		193	0	3
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1870	1585				1781	0	1585
Q Serve(g_s), s	0.5	2.5	0.0	0.0	6.1	1.4				3.2	0.0	0.1
Cycle Q Clear(g_c), s	0.5	2.5	0.0	0.0	6.1	1.4				3.2	0.0	0.1
Prop In Lane	1.00		0.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	95	2043	0	0	745	915				318	0	283
V/C Ratio(X)	0.28	0.26	0.00	0.00	0.59	0.16				0.61	0.00	0.01
Avail Cap(c_a), veh/h	1097	5143	0	0	2707	2577				1261	0	1122
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	14.8	3.5	0.0	0.0	7.7	3.2				12.3	0.0	11.0
Incr Delay (d2), s/veh	0.6	0.1	0.0	0.0	1.0	0.1				0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.3	0.0	0.0	1.6	0.4				1.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.4	3.5	0.0	0.0	8.7	3.3				13.0	0.0	11.0
LnGrp LOS	B	A	A	A	A	A				B	A	B
Approach Vol, veh/h		565			586						196	
Approach Delay, s/veh		4.1			7.4						12.9	
Approach LOS		A			A						B	

Timer - Assigned Phs				4		6	7	8				
Phs Duration (G+Y+Rc), s				22.7		9.8	5.7	16.9				
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s				47.0		23.0	20.0	47.0				
Max Q Clear Time (g_c+I1), s				4.5		5.2	2.5	8.1				
Green Ext Time (p_c), s				5.6		0.2	0.0	4.9				

Intersection Summary												
HCM 6th Ctrl Delay			6.8									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	286	0	461	0	0	0	577	51	0	0	54	544
Future Volume (veh/h)	286	0	461	0	0	0	577	51	0	0	54	544
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h	286	0	301	0	0	0	613	0	0	0	54	291
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	0	2	2	2	2	2	2	0	0	2	2
Cap, veh/h	0	0	0	0	8	0	1217	639	0	0	580	491
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.31	0.31
Sat Flow, veh/h		0		0	1870	0	3563	1870	0	0	1870	1585
Grp Volume(v), veh/h		0.0		0	0	0	613	0	0	0	54	291
Grp Sat Flow(s),veh/h/ln				0	1870	0	1781	1870	0	0	1870	1585
Q Serve(g_s), s				0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.5	3.6
Cycle Q Clear(g_c), s				0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.5	3.6
Prop In Lane				0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				0	8	0	1217	639	0	0	580	491
V/C Ratio(X)				0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.09	0.59
Avail Cap(c_a), veh/h				0	1874	0	6364	3341	0	0	2037	1726
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				0.0	0.0	0.0	6.0	0.0	0.0	0.0	5.6	6.7
Incr Delay (d2), s/veh				0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.1	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	0.0	6.1	0.0	0.0	0.0	5.7	7.1
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					0			613			345	
Approach Delay, s/veh					0.0			6.1			6.9	
Approach LOS								A			A	

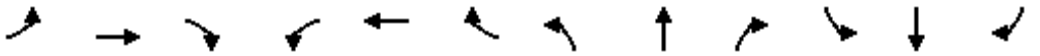
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		11.8				11.1		0.0				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		41.0				25.0		23.0				
Max Q Clear Time (g_c+I1), s		5.1				5.6		0.0				
Green Ext Time (p_c), s		1.2				0.6		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			6.4									
HCM 6th LOS			A									

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



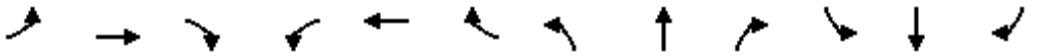
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	450	8	62	538	363	19	5	38	36	95	70
Future Volume (veh/h)	37	450	8	62	538	363	19	5	38	36	95	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	450	3	62	538	287	19	5	3	36	95	55
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	138	1174	524	194	810	431	78	21	87	61	161	93
Arrive On Green	0.08	0.33	0.33	0.11	0.36	0.36	0.05	0.05	0.05	0.18	0.18	0.18
Sat Flow, veh/h	1781	3554	1585	1781	2240	1192	1424	375	1585	341	899	520
Grp Volume(v), veh/h	37	450	3	62	427	398	24	0	3	186	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1656	1799	0	1585	1760	0	0
Q Serve(g_s), s	1.1	5.6	0.1	1.9	11.7	11.8	0.7	0.0	0.1	5.6	0.0	0.0
Cycle Q Clear(g_c), s	1.1	5.6	0.1	1.9	11.7	11.8	0.7	0.0	0.1	5.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.72	0.79		1.00	0.19		0.30
Lane Grp Cap(c), veh/h	138	1174	524	194	643	599	98	0	87	316	0	0
V/C Ratio(X)	0.27	0.38	0.01	0.32	0.66	0.67	0.24	0.00	0.03	0.59	0.00	0.00
Avail Cap(c_a), veh/h	612	2443	1090	612	1221	1138	618	0	545	998	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	25.3	14.9	13.1	23.9	15.6	15.6	26.4	0.0	26.0	21.9	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.4	0.0	0.4	2.0	2.2	0.5	0.0	0.1	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.1	0.0	0.8	4.5	4.3	0.3	0.0	0.0	2.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.7	15.3	13.1	24.3	17.6	17.8	26.8	0.0	26.1	22.5	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	C	A	C	C	A	A
Approach Vol, veh/h		490			887			27			186	
Approach Delay, s/veh		16.1			18.2			26.7			22.5	
Approach LOS		B			B			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		8.5	10.3	24.9		14.5	8.5	26.8				
Change Period (Y+Rc), s		5.3	4.0	5.7		4.0	4.0	5.7				
Max Green Setting (Gmax), s		20.0	20.0	40.0		33.0	20.0	40.0				
Max Q Clear Time (g_c+I1), s		2.7	3.9	7.6		7.6	3.1	13.8				
Green Ext Time (p_c), s		0.0	0.1	4.0		0.4	0.0	7.3				

Intersection Summary												
HCM 6th Ctrl Delay			18.2									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	634	12	133	1088	46	10	4	20	53	4	1
Future Volume (veh/h)	2	634	12	133	1088	46	10	4	20	53	4	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	634	11	133	1088	27	10	4	2	53	4	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	9	1367	24	291	1923	858	229	79	25	320	19	198
Arrive On Green	0.00	0.38	0.38	0.16	0.54	0.54	0.13	0.13	0.13	0.13	0.13	0.00
Sat Flow, veh/h	1781	3574	62	1781	3554	1585	774	633	201	1309	150	1585
Grp Volume(v), veh/h	2	315	330	133	1088	27	16	0	0	57	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1859	1781	1777	1585	1608	0	0	1459	0	1585
Q Serve(g_s), s	0.0	5.9	5.9	3.0	9.0	0.4	0.0	0.0	0.0	1.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	5.9	5.9	3.0	9.0	0.4	0.3	0.0	0.0	1.5	0.0	0.0
Prop In Lane	1.00		0.03	1.00		1.00	0.62		0.12	0.93		1.00
Lane Grp Cap(c), veh/h	9	680	711	291	1923	858	333	0	0	339	0	198
V/C Ratio(X)	0.23	0.46	0.46	0.46	0.57	0.03	0.05	0.00	0.00	0.17	0.00	0.00
Avail Cap(c_a), veh/h	803	1813	1897	923	4107	1832	830	0	0	809	0	718
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.0	10.3	10.3	16.8	6.7	4.8	17.1	0.0	0.0	17.6	0.0	0.0
Incr Delay (d2), s/veh	4.8	0.8	0.8	0.4	0.5	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.0	2.1	1.1	2.3	0.1	0.1	0.0	0.0	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.8	11.1	11.1	17.2	7.2	4.8	17.2	0.0	0.0	17.7	0.0	0.0
LnGrp LOS	C	B	B	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		647			1248			16			57	
Approach Delay, s/veh		11.2			8.2			17.2			17.7	
Approach LOS		B			A			B			B	

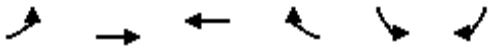
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.5	11.3	22.7		10.5	4.2	29.7				
Change Period (Y+Rc), s		* 4.9	4.0	5.7		4.9	4.0	5.7				
Max Green Setting (Gmax), s		* 20	23.0	45.3		20.1	20.0	51.3				
Max Q Clear Time (g_c+I1), s		2.3	5.0	7.9		3.5	2.0	11.0				
Green Ext Time (p_c), s		0.0	0.2	5.6		0.1	0.0	13.0				

Intersection Summary	
HCM 6th Ctrl Delay	9.5
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

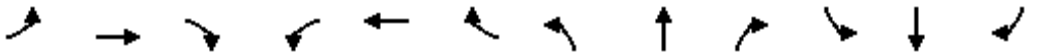
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	11	370	160	18	73	32
Future Volume (veh/h)	11	370	160	18	73	32
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	370	160	18	73	32
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	21	2064	990	306	354	315
Arrive On Green	0.01	0.40	0.19	0.19	0.20	0.20
Sat Flow, veh/h	1781	5274	5274	1577	1781	1585
Grp Volume(v), veh/h	11	370	160	18	73	32
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1577	1781	1585
Q Serve(g_s), s	0.1	0.9	0.5	0.2	0.7	0.3
Cycle Q Clear(g_c), s	0.1	0.9	0.5	0.2	0.7	0.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	21	2064	990	306	354	315
V/C Ratio(X)	0.52	0.18	0.16	0.06	0.21	0.10
Avail Cap(c_a), veh/h	707	7351	5069	1566	2034	1810
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.9	3.9	6.8	6.6	6.7	6.6
Incr Delay (d2), s/veh	18.5	0.0	0.1	0.1	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.0	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.3	3.9	6.8	6.7	7.0	6.7
LnGrp LOS	C	A	A	A	A	A
Approach Vol, veh/h		381	178		105	
Approach Delay, s/veh		4.6	6.8		6.9	
Approach LOS		A	A		A	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			12.1		8.0	4.2	7.9
Change Period (Y+Rc), s			4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s			29.0		23.0	8.0	20.0
Max Q Clear Time (g_c+I1), s			2.9		2.7	2.1	2.5
Green Ext Time (p_c), s			2.2		0.2	0.0	0.8

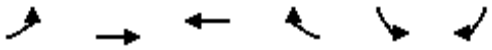
Intersection Summary	
HCM 6th Ctrl Delay	5.6
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	336	49	259	89	135	23	693	626	448	870	66
Future Volume (veh/h)	58	336	49	259	89	135	23	693	626	448	870	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	336	49	259	89	135	23	693	626	448	870	66
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	74	605	188	349	909	282	37	1568	857	446	2743	851
Arrive On Green	0.04	0.12	0.12	0.10	0.18	0.18	0.02	0.31	0.31	0.25	0.54	0.54
Sat Flow, veh/h	1781	5106	1585	3456	5106	1585	1781	5106	2790	1781	5106	1585
Grp Volume(v), veh/h	58	336	49	259	89	135	23	693	626	448	870	66
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1728	1702	1585	1781	1702	1395	1781	1702	1585
Q Serve(g_s), s	2.3	4.5	2.0	5.2	1.0	5.5	0.9	7.8	14.4	18.0	6.8	1.4
Cycle Q Clear(g_c), s	2.3	4.5	2.0	5.2	1.0	5.5	0.9	7.8	14.4	18.0	6.8	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	74	605	188	349	909	282	37	1568	857	446	2743	851
V/C Ratio(X)	0.79	0.56	0.26	0.74	0.10	0.48	0.63	0.44	0.73	1.00	0.32	0.08
Avail Cap(c_a), veh/h	198	2062	640	385	2062	640	198	2062	1126	446	2773	861
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.1	29.9	28.8	31.4	24.7	26.5	34.9	20.0	22.2	26.9	9.3	8.0
Incr Delay (d2), s/veh	16.5	0.8	0.7	6.8	0.0	1.3	16.5	0.2	1.7	43.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.7	0.7	2.3	0.4	2.0	0.5	2.8	4.3	12.2	2.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.6	30.7	29.5	38.2	24.7	27.8	51.4	20.1	23.9	70.4	9.3	8.1
LnGrp LOS	D	C	C	D	C	C	D	C	C	F	A	A
Approach Vol, veh/h		443			483			1342			1384	
Approach Delay, s/veh		33.2			32.8			22.5			29.0	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	26.1	11.3	12.5	5.5	42.6	7.0	16.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	29.0	8.0	29.0	8.0	39.0	8.0	29.0
Max Q Clear Time (g_c+I1), s	20.0	16.4	7.2	6.5	2.9	8.8	4.3	7.5
Green Ext Time (p_c), s	0.0	5.7	0.1	2.1	0.0	6.4	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	27.6
HCM 6th LOS	C



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	76	1289	457	49	73	52
Future Volume (veh/h)	76	1289	457	49	73	52
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	76	1289	457	49	73	52
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	114	2894	1830	566	257	229
Arrive On Green	0.06	0.57	0.36	0.36	0.14	0.14
Sat Flow, veh/h	1781	5274	5274	1581	1781	1585
Grp Volume(v), veh/h	76	1289	457	49	73	52
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1581	1781	1585
Q Serve(g_s), s	1.2	4.1	1.7	0.6	1.0	0.8
Cycle Q Clear(g_c), s	1.2	4.1	1.7	0.6	1.0	0.8
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	114	2894	1830	566	257	229
V/C Ratio(X)	0.67	0.45	0.25	0.09	0.28	0.23
Avail Cap(c_a), veh/h	515	5900	3688	1142	1286	1145
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.7	3.5	6.3	5.9	10.6	10.5
Incr Delay (d2), s/veh	6.6	0.1	0.1	0.1	0.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.2	0.1	0.3	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.2	3.6	6.3	5.9	11.2	11.0
LnGrp LOS	B	A	A	A	B	B
Approach Vol, veh/h		1365	506		125	
Approach Delay, s/veh		4.5	6.3		11.1	
Approach LOS		A	A		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			19.7		8.0	5.8	13.9
Change Period (Y+Rc), s			4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s			32.0		20.0	8.0	20.0
Max Q Clear Time (g_c+I1), s			6.1		3.0	3.2	3.7
Green Ext Time (p_c), s			9.6		0.3	0.1	2.6

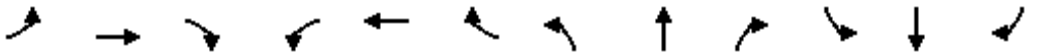
Intersection Summary	
HCM 6th Ctrl Delay	5.3
HCM 6th LOS	A



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1295	67	5	455	50	5
Future Volume (veh/h)	1295	67	5	455	50	5
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1295	31	5	455	50	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2470	765	10	3150	227	202
Arrive On Green	0.48	0.48	0.01	0.62	0.13	0.13
Sat Flow, veh/h	5274	1582	1781	5274	1781	1585
Grp Volume(v), veh/h	1295	31	5	455	50	1
Grp Sat Flow(s),veh/h/ln	1702	1582	1781	1702	1781	1585
Q Serve(g_s), s	5.5	0.3	0.1	1.2	0.8	0.0
Cycle Q Clear(g_c), s	5.5	0.3	0.1	1.2	0.8	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2470	765	10	3150	227	202
V/C Ratio(X)	0.52	0.04	0.52	0.14	0.22	0.00
Avail Cap(c_a), veh/h	3749	1161	455	5053	1194	1063
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.6	4.3	15.5	2.5	12.3	11.9
Incr Delay (d2), s/veh	0.2	0.0	36.7	0.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.1	0.0	0.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.8	4.3	52.2	2.5	12.7	11.9
LnGrp LOS	A	A	D	A	B	B
Approach Vol, veh/h	1326			460	51	
Approach Delay, s/veh	5.7			3.1	12.7	
Approach LOS	A			A	B	

Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	8.0	4.2	19.2	23.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	21.0	8.0	23.0	31.0
Max Q Clear Time (g_c+I1), s	2.8	2.1	7.5	3.2
Green Ext Time (p_c), s	0.1	0.0	7.6	2.9

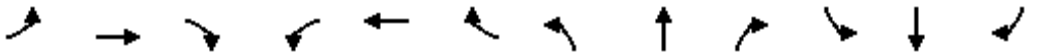
Intersection Summary	
HCM 6th Ctrl Delay	5.3
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	1206	30	85	307	38	37	104	138	240	100	111
Future Volume (veh/h)	58	1206	30	85	307	38	37	104	138	240	100	111
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	1206	30	85	307	38	37	104	138	240	100	111
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	74	1796	558	109	1899	589	53	238	202	295	492	417
Arrive On Green	0.04	0.35	0.35	0.06	0.37	0.37	0.03	0.13	0.13	0.17	0.26	0.26
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	58	1206	30	85	307	38	37	104	138	240	100	111
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	2.2	13.6	0.9	3.2	2.7	1.0	1.4	3.5	5.7	8.8	2.8	3.8
Cycle Q Clear(g_c), s	2.2	13.6	0.9	3.2	2.7	1.0	1.4	3.5	5.7	8.8	2.8	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	74	1796	558	109	1899	589	53	238	202	295	492	417
V/C Ratio(X)	0.79	0.67	0.05	0.78	0.16	0.06	0.70	0.44	0.68	0.81	0.20	0.27
Avail Cap(c_a), veh/h	210	2478	769	183	2402	746	236	880	746	602	1265	1072
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.3	18.7	14.6	31.5	14.3	13.7	32.7	27.4	28.4	27.4	19.5	19.9
Incr Delay (d2), s/veh	16.7	0.4	0.0	11.2	0.0	0.0	15.6	1.3	4.1	5.4	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	5.0	0.3	1.7	1.0	0.4	0.8	1.6	2.3	4.0	1.2	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.0	19.1	14.6	42.6	14.3	13.8	48.3	28.7	32.4	32.8	19.7	20.2
LnGrp LOS	D	B	B	D	B	B	D	C	C	C	B	C
Approach Vol, veh/h		1294			430			279			451	
Approach Delay, s/veh		20.4			19.9			33.1			26.8	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.3	13.7	9.2	28.9	7.0	22.9	7.8	30.3
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	23.0	32.0	7.0	33.0	9.0	46.0	8.0	32.0
Max Q Clear Time (g_c+I1), s	10.8	7.7	5.2	15.6	3.4	5.8	4.2	4.7
Green Ext Time (p_c), s	0.5	1.0	0.0	8.3	0.0	1.0	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	22.9
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	1251	91	355	378	156	37	1101	507	288	910	116
Future Volume (veh/h)	234	1251	91	355	378	156	37	1101	507	288	910	116
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	234	1251	26	355	378	24	37	1101	324	288	910	43
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	918	1466	453	404	633	194	410	1249	555	337	1122	498
Arrive On Green	0.27	0.29	0.29	0.12	0.12	0.12	0.12	0.35	0.35	0.10	0.32	0.32
Sat Flow, veh/h	3456	5106	1577	3456	5106	1566	3456	3554	1578	3456	3554	1578
Grp Volume(v), veh/h	234	1251	26	355	378	24	37	1101	324	288	910	43
Grp Sat Flow(s),veh/h/ln	1728	1702	1577	1728	1702	1566	1728	1777	1578	1728	1777	1578
Q Serve(g_s), s	7.4	32.1	1.2	14.0	9.7	1.5	1.3	40.4	23.2	11.4	32.6	2.7
Cycle Q Clear(g_c), s	7.4	32.1	1.2	14.0	9.7	1.5	1.3	40.4	23.2	11.4	32.6	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	918	1466	453	404	633	194	410	1249	555	337	1122	498
V/C Ratio(X)	0.25	0.85	0.06	0.88	0.60	0.12	0.09	0.88	0.58	0.86	0.81	0.09
Avail Cap(c_a), veh/h	918	1621	501	449	1709	524	410	1308	581	374	1487	660
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	46.7	18.0	60.2	57.4	35.1	54.4	42.2	36.7	61.6	43.6	33.4
Incr Delay (d2), s/veh	0.1	4.5	0.1	15.4	1.3	0.4	0.0	7.7	2.2	14.9	3.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	13.6	0.6	6.8	4.1	0.7	0.6	18.1	8.9	5.5	14.2	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.1	51.1	18.0	75.6	58.8	35.5	54.5	49.9	38.9	76.5	47.3	33.5
LnGrp LOS	D	D	B	E	E	D	D	D	D	E	D	C
Approach Vol, veh/h		1511			757			1462			1241	
Approach Delay, s/veh		48.9			65.9			47.6			53.6	
Approach LOS		D			E			D			D	

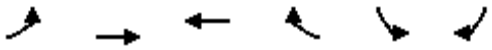
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.5	54.7	20.2	46.2	22.4	49.8	43.2	23.2
Change Period (Y+Rc), s	4.0	6.0	4.0	6.4	6.0	* 6	6.4	* 6
Max Green Setting (Gmax), s	15.0	51.0	18.0	44.0	8.0	* 58	16.0	* 46
Max Q Clear Time (g_c+I1), s	13.4	42.4	16.0	34.1	3.3	34.6	9.4	11.7
Green Ext Time (p_c), s	0.1	6.3	0.2	5.3	0.0	8.7	0.3	2.8

Intersection Summary	
HCM 6th Ctrl Delay	52.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	2164	836	94	204	17
Future Volume (veh/h)	5	2164	836	94	204	17
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	2164	836	78	204	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	17	3413	3002	932	274	244
Arrive On Green	0.01	0.67	0.59	0.59	0.15	0.15
Sat Flow, veh/h	1781	5274	5274	1585	1781	1585
Grp Volume(v), veh/h	5	2164	836	78	204	3
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1585	1781	1585
Q Serve(g_s), s	0.2	13.7	4.5	1.2	6.2	0.1
Cycle Q Clear(g_c), s	0.2	13.7	4.5	1.2	6.2	0.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	17	3413	3002	932	274	244
V/C Ratio(X)	0.30	0.63	0.28	0.08	0.74	0.01
Avail Cap(c_a), veh/h	633	4086	4086	1268	633	564
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.7	5.4	5.7	5.0	22.7	20.2
Incr Delay (d2), s/veh	3.7	0.3	0.1	0.1	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.0	1.2	0.3	2.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.3	5.7	5.8	5.1	24.3	20.2
LnGrp LOS	C	A	A	A	C	C
Approach Vol, veh/h		2169	914		207	
Approach Delay, s/veh		5.8	5.7		24.2	
Approach LOS		A	A		C	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	43.6	12.6	4.5	39.1
Change Period (Y+Rc), s	6.0	4.0	4.0	6.0
Max Green Setting (Gmax), s	45.0	20.0	20.0	45.0
Max Q Clear Time (g_c+I1), s	15.7	8.2	2.2	6.5
Green Ext Time (p_c), s	21.9	0.3	0.0	8.2

Intersection Summary	
HCM 6th Ctrl Delay	6.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



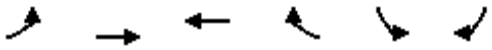
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	2419	12	57	909	18	119
Future Volume (veh/h)	2419	12	57	909	18	119
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2419	9	57	909	18	34
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3216	998	139	3919	148	132
Arrive On Green	0.63	0.63	0.08	0.77	0.08	0.08
Sat Flow, veh/h	5274	1585	1781	5274	1781	1585
Grp Volume(v), veh/h	2419	9	57	909	18	34
Grp Sat Flow(s),veh/h/ln	1702	1585	1781	1702	1781	1585
Q Serve(g_s), s	22.3	0.1	2.0	3.4	0.6	1.3
Cycle Q Clear(g_c), s	22.3	0.1	2.0	3.4	0.6	1.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	3216	998	139	3919	148	132
V/C Ratio(X)	0.75	0.01	0.41	0.23	0.12	0.26
Avail Cap(c_a), veh/h	3428	1064	797	3919	797	709
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.7	4.6	29.4	2.2	28.5	28.8
Incr Delay (d2), s/veh	1.0	0.0	0.7	0.0	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	0.0	0.9	0.5	0.3	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.7	4.6	30.1	2.2	28.6	29.2
LnGrp LOS	A	A	C	A	C	C
Approach Vol, veh/h	2428			966	52	
Approach Delay, s/veh	9.7			3.9	29.0	
Approach LOS	A			A	C	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.6	9.2	48.2		57.4
Change Period (Y+Rc), s		4.0	4.0	6.0		6.0
Max Green Setting (Gmax), s		30.0	30.0	45.0		45.0
Max Q Clear Time (g_c+I1), s		3.3	4.0	24.3		5.4
Green Ext Time (p_c), s		0.1	0.1	17.9		8.3

Intersection Summary	
HCM 6th Ctrl Delay	8.4
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



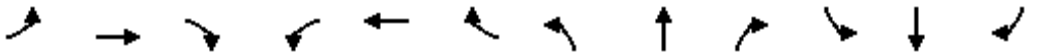
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	51	2402	907	95	282	35
Future Volume (veh/h)	51	2402	907	95	282	35
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	2402	907	40	282	18
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	117	3313	2654	820	343	305
Arrive On Green	0.07	0.65	0.52	0.52	0.19	0.19
Sat Flow, veh/h	1781	5274	5274	1577	1781	1585
Grp Volume(v), veh/h	51	2402	907	40	282	18
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1577	1781	1585
Q Serve(g_s), s	1.7	19.7	6.5	0.8	9.6	0.6
Cycle Q Clear(g_c), s	1.7	19.7	6.5	0.8	9.6	0.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	117	3313	2654	820	343	305
V/C Ratio(X)	0.44	0.73	0.34	0.05	0.82	0.06
Avail Cap(c_a), veh/h	565	3642	3642	1125	875	779
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	7.3	8.8	7.5	24.4	20.8
Incr Delay (d2), s/veh	1.0	0.8	0.1	0.0	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.2	1.8	0.2	4.0	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	29.3	8.1	9.0	7.5	26.3	20.8
LnGrp LOS	C	A	A	A	C	C
Approach Vol, veh/h		2453	947		300	
Approach Delay, s/veh		8.6	8.9		26.0	
Approach LOS		A	A		C	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			46.9		16.2	8.1	38.8
Change Period (Y+Rc), s			6.0		4.0	4.0	6.0
Max Green Setting (Gmax), s			45.0		31.0	20.0	45.0
Max Q Clear Time (g_c+I1), s			21.7		11.6	3.7	8.5
Green Ext Time (p_c), s			19.2		0.6	0.1	7.9

Intersection Summary	
HCM 6th Ctrl Delay	10.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	2566	68	84	1011	155	34	27	114	480	39	53
Future Volume (veh/h)	73	2566	68	84	1011	155	34	27	114	480	39	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	2566	34	84	1011	78	34	27	9	552	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	92	2868	890	103	2900	900	135	142	120	623	327	0
Arrive On Green	0.05	0.56	0.56	0.12	1.00	1.00	0.08	0.08	0.08	0.17	0.00	0.00
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1870	1585	3563	1870	0
Grp Volume(v), veh/h	73	2566	34	84	1011	78	34	27	9	552	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1870	1585	1781	1870	0
Q Serve(g_s), s	6.1	66.4	1.4	6.9	0.0	0.0	2.7	2.0	0.8	22.7	0.0	0.0
Cycle Q Clear(g_c), s	6.1	66.4	1.4	6.9	0.0	0.0	2.7	2.0	0.8	22.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	92	2868	890	103	2900	900	135	142	120	623	327	0
V/C Ratio(X)	0.80	0.89	0.04	0.82	0.35	0.09	0.25	0.19	0.08	0.89	0.00	0.00
Avail Cap(c_a), veh/h	143	2868	890	143	2900	900	143	150	127	1045	549	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.90	0.90	0.90	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	70.4	29.0	14.7	65.6	0.0	0.0	65.3	65.0	64.4	60.4	0.0	0.0
Incr Delay (d2), s/veh	7.3	4.8	0.1	14.5	0.2	0.1	0.4	0.2	0.1	2.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	26.6	0.5	3.4	0.1	0.0	1.2	1.0	0.3	10.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.7	33.8	14.8	80.1	0.2	0.1	65.7	65.3	64.5	63.2	0.0	0.0
LnGrp LOS	E	C	B	F	A	A	E	E	E	E	A	A
Approach Vol, veh/h		2673			1173			70			552	
Approach Delay, s/veh		34.8			5.9			65.4			63.2	
Approach LOS		C			A			E			E	

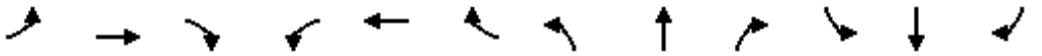
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.0	12.7	90.2		31.1	11.7	91.2				
Change Period (Y+Rc), s		4.6	4.0	6.0		4.9	4.0	6.0				
Max Green Setting (Gmax), s		12.0	12.0	62.5		44.0	12.0	62.5				
Max Q Clear Time (g_c+I1), s		4.7	8.9	68.4		24.7	8.1	2.0				
Green Ext Time (p_c), s		0.1	0.0	0.0		1.6	0.0	18.1				

Intersection Summary	
HCM 6th Ctrl Delay	31.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



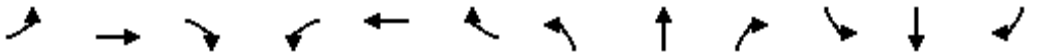
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	2637	394	249	988	487	179	588	452	316	266	83
Future Volume (veh/h)	129	2637	394	249	988	487	179	588	452	316	266	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	129	2637	179	249	988	344	179	588	357	316	266	21
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	229	2915	718	276	2383	740	253	813	362	359	921	411
Arrive On Green	0.13	0.91	0.91	0.05	0.31	0.31	0.07	0.23	0.23	0.10	0.26	0.26
Sat Flow, veh/h	3456	6434	1585	3456	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	129	2637	179	249	988	344	179	588	357	316	266	21
Grp Sat Flow(s),veh/h/ln	1728	1609	1585	1728	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	5.2	32.0	2.1	10.7	22.9	26.2	7.6	22.9	33.6	13.5	9.0	1.5
Cycle Q Clear(g_c), s	5.2	32.0	2.1	10.7	22.9	26.2	7.6	22.9	33.6	13.5	9.0	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	229	2915	718	276	2383	740	253	813	362	359	921	411
V/C Ratio(X)	0.56	0.90	0.25	0.90	0.41	0.47	0.71	0.72	0.98	0.88	0.29	0.05
Avail Cap(c_a), veh/h	230	2917	719	276	2383	740	276	813	362	369	921	411
HCM Platoon Ratio	2.00	2.00	2.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.17	0.17	0.17	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.0	5.4	4.0	70.4	35.4	36.5	67.9	53.5	57.6	66.3	44.5	41.7
Incr Delay (d2), s/veh	0.3	0.9	0.1	28.1	0.5	2.0	5.8	3.4	43.2	19.9	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	2.5	0.6	5.9	10.0	11.0	3.5	10.5	17.5	6.9	4.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.3	6.3	4.0	98.5	35.9	38.5	73.7	56.9	100.7	86.2	44.7	41.8
LnGrp LOS	E	A	A	F	D	D	E	E	F	F	D	D
Approach Vol, veh/h		2945			1581			1124			603	
Approach Delay, s/veh		8.6			46.3			73.5			66.3	
Approach LOS		A			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.6	40.0	16.0	74.0	15.0	44.6	14.0	76.0
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	16.0	34.3	12.0	68.0	12.0	38.3	10.0	70.0
Max Q Clear Time (g_c+I1), s	15.5	35.6	12.7	34.0	9.6	11.0	7.2	28.2
Green Ext Time (p_c), s	0.0	0.0	0.0	32.7	0.1	1.7	0.1	20.7

Intersection Summary	
HCM 6th Ctrl Delay	35.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

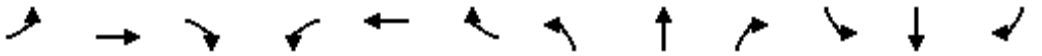


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	3393	10	22	1701	69	17	13	120	15	6	6
Future Volume (veh/h)	2	3393	10	22	1701	69	17	13	120	15	6	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	3393	10	22	1701	69	17	13	120	15	6	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	7	4109	1012	97	4265	1051	314	165	140	83	87	0
Arrive On Green	0.00	0.64	0.64	0.03	0.66	0.66	0.09	0.09	0.09	0.05	0.05	0.00
Sat Flow, veh/h	1781	6434	1585	3456	6434	1585	3563	1870	1585	1781	1870	0
Grp Volume(v), veh/h	2	3393	10	22	1701	69	17	13	120	15	6	0
Grp Sat Flow(s),veh/h/ln	1781	1609	1585	1728	1609	1585	1781	1870	1585	1781	1870	0
Q Serve(g_s), s	0.2	60.5	0.3	0.9	18.2	2.3	0.7	1.0	11.2	1.2	0.5	0.0
Cycle Q Clear(g_c), s	0.2	60.5	0.3	0.9	18.2	2.3	0.7	1.0	11.2	1.2	0.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	7	4109	1012	97	4265	1051	314	165	140	83	87	0
V/C Ratio(X)	0.30	0.83	0.01	0.23	0.40	0.07	0.05	0.08	0.86	0.18	0.07	0.00
Avail Cap(c_a), veh/h	95	4118	1014	184	4265	1051	380	200	169	143	150	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.28	0.28	0.28	0.89	0.89	0.89	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	74.5	20.7	9.9	71.3	11.6	8.9	62.6	62.8	67.4	68.7	68.4	0.0
Incr Delay (d2), s/veh	2.6	0.5	0.0	0.4	0.2	0.1	0.0	0.1	25.8	0.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	20.7	0.1	0.4	6.1	0.8	0.3	0.5	5.5	0.6	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.1	21.2	9.9	71.7	11.8	9.0	62.7	62.9	93.2	69.1	68.5	0.0
LnGrp LOS	E	C	A	E	B	A	E	E	F	E	E	A
Approach Vol, veh/h		3405			1792			150			21	
Approach Delay, s/veh		21.2			12.5			87.1			68.9	
Approach LOS		C			B			F			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		17.2	8.2	101.8		11.0	4.6	105.4				
Change Period (Y+Rc), s		4.0	4.0	6.0		4.0	4.0	6.0				
Max Green Setting (Gmax), s		16.0	8.0	96.0		12.0	8.0	96.0				
Max Q Clear Time (g_c+I1), s		13.2	2.9	62.5		3.2	2.2	20.2				
Green Ext Time (p_c), s		0.1	0.0	33.3		0.0	0.0	42.4				

Intersection Summary												
HCM 6th Ctrl Delay			20.3									
HCM 6th LOS			C									

Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



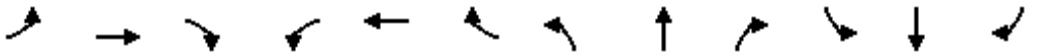
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	3508	5	5	1750	75	5	5	5	248	5	37
Future Volume (veh/h)	15	3508	5	5	1750	75	5	5	5	248	5	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	15	3508	3	5	1750	42	5	5	0	248	7	6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	678	4032	993	233	2426	598	16	17	14	179	188	160
Arrive On Green	0.38	0.63	0.63	0.26	0.75	0.75	0.01	0.01	0.00	0.10	0.10	0.10
Sat Flow, veh/h	1781	6434	1585	1781	6434	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	15	3508	3	5	1750	42	5	5	0	248	7	6
Grp Sat Flow(s),veh/h/ln	1781	1609	1585	1781	1609	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.8	67.1	0.1	0.3	22.0	1.0	0.4	0.4	0.0	15.1	0.5	0.5
Cycle Q Clear(g_c), s	0.8	67.1	0.1	0.3	22.0	1.0	0.4	0.4	0.0	15.1	0.5	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	678	4032	993	233	2426	598	16	17	14	179	188	160
V/C Ratio(X)	0.02	0.87	0.00	0.02	0.72	0.07	0.31	0.29	0.00	1.38	0.04	0.04
Avail Cap(c_a), veh/h	678	4032	993	233	3989	983	83	87	74	179	188	160
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	0.64	0.94	0.94	0.94	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	23.0	10.5	48.2	14.2	11.6	73.9	73.8	0.0	67.4	60.9	60.9
Incr Delay (d2), s/veh	0.0	1.9	0.0	0.0	0.8	0.1	10.4	9.3	0.0	203.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	23.6	0.0	0.1	4.5	0.4	0.2	0.2	0.0	17.1	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.0	24.8	10.5	48.2	14.9	11.7	84.2	83.1	0.0	270.6	60.9	60.9
LnGrp LOS	C	C	B	D	B	B	F	F	A	F	E	E
Approach Vol, veh/h		3526			1797			10			261	
Approach Delay, s/veh		24.8			15.0			83.7			260.1	
Approach LOS		C			B			F			F	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		6.4	23.6	100.0		20.0	61.1	62.6				
Change Period (Y+Rc), s		5.0	4.0	6.0		4.9	4.0	6.0				
Max Green Setting (Gmax), s		7.0	14.0	94.0		15.1	15.0	93.0				
Max Q Clear Time (g_c+I1), s		2.4	2.3	69.1		17.1	2.8	24.0				
Green Ext Time (p_c), s		0.0	0.0	24.6		0.0	0.0	32.6				

Intersection Summary	
HCM 6th Ctrl Delay	32.8
HCM 6th LOS	C

Notes

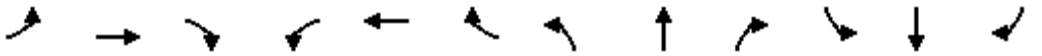
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	3579	12	15	1902	15	10	10	10	10	10	10
Future Volume (veh/h)	12	3579	12	15	1902	15	10	10	10	10	10	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	3579	12	15	1902	15	10	10	10	10	10	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	47	4786	1179	55	4817	1187	85	89	125	28	28	28
Arrive On Green	0.05	1.00	1.00	0.06	1.00	1.00	0.05	0.05	0.05	0.05	0.05	0.05
Sat Flow, veh/h	1781	6434	1585	1781	6434	1585	1781	1870	1585	579	579	579
Grp Volume(v), veh/h	12	3579	12	15	1902	15	10	10	10	30	0	0
Grp Sat Flow(s),veh/h/ln	1781	1609	1585	1781	1609	1585	1781	1870	1585	1737	0	0
Q Serve(g_s), s	1.0	0.0	0.0	1.2	0.0	0.0	0.8	0.8	0.9	2.5	0.0	0.0
Cycle Q Clear(g_c), s	1.0	0.0	0.0	1.2	0.0	0.0	0.8	0.8	0.9	2.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.33		0.33
Lane Grp Cap(c), veh/h	47	4786	1179	55	4817	1187	85	89	125	83	0	0
V/C Ratio(X)	0.26	0.75	0.01	0.27	0.39	0.01	0.12	0.11	0.08	0.36	0.00	0.00
Avail Cap(c_a), veh/h	119	4786	1179	119	4817	1187	119	125	155	116	0	0
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.43	0.43	0.43	0.82	0.82	0.82	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	69.7	0.0	0.0	68.7	0.0	0.0	68.4	68.4	64.1	69.2	0.0	0.0
Incr Delay (d2), s/veh	1.2	0.5	0.0	2.1	0.2	0.0	0.6	0.6	0.3	2.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.2	0.0	0.6	0.1	0.0	0.4	0.4	0.4	1.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.9	0.5	0.0	70.9	0.2	0.0	69.0	69.0	64.4	71.9	0.0	0.0
LnGrp LOS	E	A	A	E	A	A	E	E	E	E	A	A
Approach Vol, veh/h		3603			1932			30			30	
Approach Delay, s/veh		0.7			0.7			67.4			71.9	
Approach LOS		A			A			E			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		11.6	9.1	117.6		11.6	8.4	118.3				
Change Period (Y+Rc), s		4.5	4.5	6.0		4.5	4.5	6.0				
Max Green Setting (Gmax), s		10.0	10.0	100.5		10.0	10.0	100.5				
Max Q Clear Time (g_c+I1), s		4.5	3.2	2.0		2.9	3.0	2.0				
Green Ext Time (p_c), s		0.0	0.0	89.5		0.0	0.0	25.8				

Intersection Summary	
HCM 6th Ctrl Delay	1.5
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	228	2780	591	513	1533	875	337	576	350	705	571	62
Future Volume (veh/h)	228	2780	591	513	1533	875	337	576	350	705	571	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	228	2780	456	513	1533	544	337	576	0	705	571	12
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	230	2475	610	392	2689	663	708	619		714	854	265
Arrive On Green	0.13	0.77	0.77	0.11	0.42	0.42	0.20	0.17	0.00	0.21	0.17	0.17
Sat Flow, veh/h	3456	6434	1585	3456	6434	1585	3456	3554	1585	3456	5106	1585
Grp Volume(v), veh/h	228	2780	456	513	1533	544	337	576	0	705	571	12
Grp Sat Flow(s),veh/h/ln	1728	1609	1585	1728	1609	1585	1728	1777	1585	1728	1702	1585
Q Serve(g_s), s	9.9	57.7	13.0	17.0	27.3	25.1	12.9	24.0	0.0	30.5	15.7	1.0
Cycle Q Clear(g_c), s	9.9	57.7	13.0	17.0	27.3	25.1	12.9	24.0	0.0	30.5	15.7	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	230	2475	610	392	2689	663	708	619		714	854	265
V/C Ratio(X)	0.99	1.12	0.75	1.31	0.57	0.82	0.48	0.93		0.99	0.67	0.05
Avail Cap(c_a), veh/h	230	2475	610	392	2689	663	708	623		714	1566	486
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.9	17.3	4.1	66.5	33.4	11.8	52.5	61.1	0.0	59.3	58.6	52.4
Incr Delay (d2), s/veh	45.2	59.5	4.5	156.7	0.9	11.0	0.2	21.2	0.0	30.3	3.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	16.9	4.8	15.9	10.6	10.1	5.5	12.3	0.0	15.9	6.8	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	110.1	76.8	8.7	223.2	34.2	22.7	52.7	82.3	0.0	89.6	61.8	52.7
LnGrp LOS	F	F	A	F	C	C	D	F		F	E	D
Approach Vol, veh/h		3464			2590			913	A		1288	
Approach Delay, s/veh		70.1			69.2			71.4			76.9	
Approach LOS		E			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	35.0	32.1	21.0	63.7	36.7	30.4	16.0	68.7
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	6.0	* 5.3	6.0	* 6
Max Green Setting (Gmax), s	31.0	26.3	17.0	55.7	12.0	* 46	10.0	* 63
Max Q Clear Time (g_c+I1), s	32.5	26.0	19.0	59.7	14.9	17.7	11.9	29.3
Green Ext Time (p_c), s	0.0	0.2	0.0	0.0	0.0	7.4	0.0	27.7

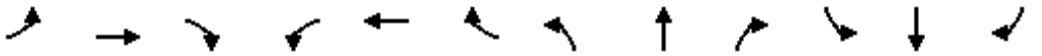
Intersection Summary	
HCM 6th Ctrl Delay	71.0
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

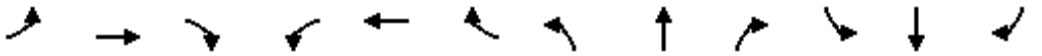
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑↑				↱			↱
Traffic Volume (vph)	0	3268	355	75	1447	0	0	0	61	0	0	1700
Future Volume (vph)	0	3268	355	75	1447	0	0	0	61	0	0	1700
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	6.0	6.0	4.0				4.0			4.0
Lane Util. Factor		0.91	1.00	1.00	0.86				1.00			1.00
Frt		1.00	0.85	1.00	1.00				0.86			0.86
Flt Protected		1.00	1.00	0.95	1.00				1.00			1.00
Satd. Flow (prot)		5085	1583	1770	6408				1611			1611
Flt Permitted		1.00	1.00	0.95	1.00				1.00			1.00
Satd. Flow (perm)		5085	1583	1770	6408				1611			1611
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	3268	355	75	1447	0	0	0	61	0	0	1700
RTOR Reduction (vph)	0	0	101	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	3268	254	75	1447	0	0	0	61	0	0	1700
Turn Type		NA	Perm	Prot	NA				Free			Free
Protected Phases		4		3	Free							
Permitted Phases			4						Free			Free
Actuated Green, G (s)		53.7	53.7	9.3	75.0				75.0			75.0
Effective Green, g (s)		53.7	53.7	9.3	75.0				75.0			75.0
Actuated g/C Ratio		0.72	0.72	0.12	1.00				1.00			1.00
Clearance Time (s)		6.0	6.0	6.0								
Vehicle Extension (s)		5.5	5.5	5.5								
Lane Grp Cap (vph)		3640	1133	219	6408				1611			1611
v/s Ratio Prot		0.64		0.04	0.23							
v/s Ratio Perm			0.16						0.04			c1.06
v/c Ratio		0.90	0.22	0.34	0.23				0.04			1.06
Uniform Delay, d1		8.5	3.6	30.1	0.0				0.0			37.5
Progression Factor		1.00	1.00	0.98	1.00				1.00			1.00
Incremental Delay, d2		4.0	0.5	2.2	0.1				0.0			38.6
Delay (s)		12.5	4.1	31.6	0.1				0.0			76.1
Level of Service		B	A	C	A				A			E
Approach Delay (s)		11.6			1.6			0.0			76.1	
Approach LOS		B			A			A			E	

Intersection Summary			
HCM 2000 Control Delay	25.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.26		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	68.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	3000	329	662	894	388	188	0	620	112	769	440
Future Volume (veh/h)	0	3000	329	662	894	388	188	0	620	112	769	440
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	3000	237	662	894	0	188	0	620	112	769	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	2	2	0	2	2	2	2
Cap, veh/h	0	2402	592	507	2791		0	0	0	273	545	
Arrive On Green	0.00	0.12	0.12	0.15	0.55	0.00	0.00	0.00	0.00	0.15	0.15	0.00
Sat Flow, veh/h	0	6696	1585	3456	5106	1585		0		1781	3554	1585
Grp Volume(v), veh/h	0	3000	237	662	894	0		0.0		112	769	0
Grp Sat Flow(s),veh/h/ln	0	1609	1585	1728	1702	1585				1781	1777	1585
Q Serve(g_s), s	0.0	56.0	20.7	22.0	14.4	0.0				8.5	23.0	0.0
Cycle Q Clear(g_c), s	0.0	56.0	20.7	22.0	14.4	0.0				8.5	23.0	0.0
Prop In Lane	0.00		1.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2402	592	507	2791					273	545	
V/C Ratio(X)	0.00	1.25	0.40	1.31	0.32					0.41	1.41	
Avail Cap(c_a), veh/h	0	2402	592	507	2791					273	545	
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.42	0.42	1.00	1.00	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	65.8	50.3	64.0	18.7	0.0				57.4	63.5	0.0
Incr Delay (d2), s/veh	0.0	113.6	0.5	151.5	0.3	0.0				1.9	195.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	43.1	8.9	20.2	5.6	0.0				3.9	25.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	179.3	50.7	215.5	19.0	0.0				59.3	259.3	0.0
LnGrp LOS	A	F	D	F	B					E	F	
Approach Vol, veh/h		3237			1556	A					881	A
Approach Delay, s/veh		169.9			102.6						233.9	
Approach LOS		F			F						F	

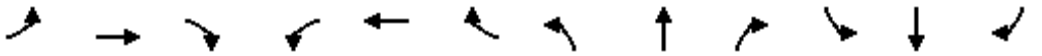
Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		26.0	62.0		29.0		88.0					
Change Period (Y+Rc), s		4.0	6.0		6.0		6.0					
Max Green Setting (Gmax), s		22.0	56.0		23.0		82.0					
Max Q Clear Time (g_c+I1), s		24.0	58.0		25.0		16.4					
Green Ext Time (p_c), s		0.0	0.0		0.0		12.6					

Intersection Summary	
HCM 6th Ctrl Delay	161.4
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	462	577	109	254	62	330	713	62	70	321	5
Future Volume (veh/h)	5	462	577	109	254	62	330	713	62	70	321	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	462	287	109	254	26	330	713	19	70	321	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	10	914	407	140	1174	524	409	995	444	160	738	329
Arrive On Green	0.01	0.26	0.26	0.08	0.33	0.33	0.12	0.28	0.28	0.05	0.21	0.21
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	5	462	287	109	254	26	330	713	19	70	321	5
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	0.2	6.6	9.7	3.6	3.0	0.7	5.5	10.7	0.5	1.2	4.7	0.1
Cycle Q Clear(g_c), s	0.2	6.6	9.7	3.6	3.0	0.7	5.5	10.7	0.5	1.2	4.7	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	10	914	407	140	1174	524	409	995	444	160	738	329
V/C Ratio(X)	0.53	0.51	0.70	0.78	0.22	0.05	0.81	0.72	0.04	0.44	0.43	0.02
Avail Cap(c_a), veh/h	211	1743	777	211	1743	777	409	1622	724	409	1562	697
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.3	18.8	19.9	26.7	14.3	13.5	25.4	19.2	15.5	27.5	20.4	18.6
Incr Delay (d2), s/veh	38.5	0.4	2.2	9.9	0.1	0.0	11.3	1.0	0.0	1.9	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.3	3.4	1.8	1.1	0.2	2.6	3.8	0.2	0.5	1.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.9	19.2	22.2	36.7	14.4	13.5	36.7	20.2	15.6	29.3	20.8	18.6
LnGrp LOS	E	B	C	D	B	B	D	C	B	C	C	B
Approach Vol, veh/h		754			389			1062			396	
Approach Delay, s/veh		20.6			20.6			25.2			22.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	21.6	9.7	20.2	12.0	17.3	5.3	24.5
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	27.0	7.0	29.0	7.0	26.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	3.2	12.7	5.6	11.7	7.5	6.7	2.2	5.0
Green Ext Time (p_c), s	0.0	3.9	0.0	3.5	0.0	1.7	0.0	1.5

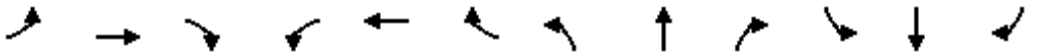
Intersection Summary	
HCM 6th Ctrl Delay	22.8
HCM 6th LOS	C



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	600	10	10	443	10	10
Future Volume (veh/h)	600	10	10	443	10	10
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	600	10	10	443	10	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1386	618	530	1386	310	276
Arrive On Green	0.39	0.39	0.39	0.39	0.17	0.17
Sat Flow, veh/h	3647	1585	811	3647	1781	1585
Grp Volume(v), veh/h	600	10	10	443	10	10
Grp Sat Flow(s),veh/h/ln	1777	1585	811	1777	1781	1585
Q Serve(g_s), s	2.8	0.1	0.2	2.0	0.1	0.1
Cycle Q Clear(g_c), s	2.8	0.1	3.1	2.0	0.1	0.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1386	618	530	1386	310	276
V/C Ratio(X)	0.43	0.02	0.02	0.32	0.03	0.04
Avail Cap(c_a), veh/h	7123	3177	1839	7123	1863	1658
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.1	4.3	6.3	4.9	7.9	7.9
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.4	4.3	6.3	5.0	7.9	7.9
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	610			453	20	
Approach Delay, s/veh	5.3			5.0	7.9	
Approach LOS	A			A	A	

Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		9.0		13.9		13.9
Change Period (Y+Rc), s		5.0		5.0		5.0
Max Green Setting (Gmax), s		24.0		46.0		46.0
Max Q Clear Time (g_c+I1), s		2.1		4.8		5.1
Green Ext Time (p_c), s		0.0		4.3		3.1

Intersection Summary	
HCM 6th Ctrl Delay	5.3
HCM 6th LOS	A



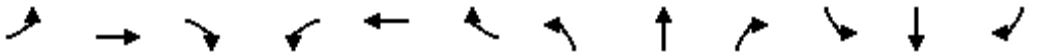
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	503	18	97	306	318	39	1092	54	637	909	78
Future Volume (veh/h)	103	503	18	97	306	318	39	1092	54	637	909	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	103	503	4	97	306	73	39	1092	17	637	909	39
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	252	747	333	250	745	332	76	1547	480	433	2614	812
Arrive On Green	0.07	0.21	0.21	0.07	0.21	0.21	0.04	0.30	0.30	0.24	0.51	0.51
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	103	503	4	97	306	73	39	1092	17	637	909	39
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	3.4	15.5	0.2	3.2	8.9	4.5	2.6	22.6	0.9	29.0	12.6	1.5
Cycle Q Clear(g_c), s	3.4	15.5	0.2	3.2	8.9	4.5	2.6	22.6	0.9	29.0	12.6	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	252	747	333	250	745	332	76	1547	480	433	2614	812
V/C Ratio(X)	0.41	0.67	0.01	0.39	0.41	0.22	0.51	0.71	0.04	1.47	0.35	0.05
Avail Cap(c_a), veh/h	261	1491	665	261	1491	665	120	1782	553	433	2724	846
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.8	43.3	37.3	52.8	40.7	39.0	55.9	36.8	29.3	45.1	17.3	14.6
Incr Delay (d2), s/veh	0.4	2.6	0.0	0.4	0.9	0.8	2.0	1.8	0.1	223.8	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	7.1	0.1	1.4	4.0	1.9	1.2	9.6	0.4	39.6	5.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.2	45.9	37.3	53.1	41.6	39.8	57.9	38.6	29.4	268.9	17.6	14.7
LnGrp LOS	D	D	D	D	D	D	E	D	C	F	B	B
Approach Vol, veh/h		610			476			1148			1585	
Approach Delay, s/veh		47.1			43.7			39.1			118.5	
Approach LOS		D			D			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.0	41.8	12.6	30.8	9.1	66.7	12.7	30.7
Change Period (Y+Rc), s	5.0	5.7	4.0	5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	29.0	41.6	9.0	50.0	8.0	63.6	9.0	50.0
Max Q Clear Time (g_c+I1), s	31.0	24.6	5.2	17.5	4.6	14.6	5.4	10.9
Green Ext Time (p_c), s	0.0	11.5	0.0	7.5	0.0	26.4	0.0	5.2

Intersection Summary	
HCM 6th Ctrl Delay	73.9
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	1021	5	19	551	14	13	5	86	47	5	35
Future Volume (veh/h)	13	1021	5	19	551	14	13	5	86	47	5	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	13	1021	5	19	551	14	13	5	86	47	5	35
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	24	1434	639	34	1454	648	24	10	177	73	29	205
Arrive On Green	0.01	0.40	0.40	0.02	0.41	0.41	0.01	0.12	0.12	0.04	0.15	0.15
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	88	1511	1781	202	1414
Grp Volume(v), veh/h	13	1021	5	19	551	14	13	0	91	47	0	40
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1598	1781	0	1616
Q Serve(g_s), s	0.3	9.2	0.1	0.4	4.1	0.2	0.3	0.0	2.0	1.0	0.0	0.8
Cycle Q Clear(g_c), s	0.3	9.2	0.1	0.4	4.1	0.2	0.3	0.0	2.0	1.0	0.0	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.95	1.00		0.88
Lane Grp Cap(c), veh/h	24	1434	639	34	1454	648	24	0	188	73	0	234
V/C Ratio(X)	0.54	0.71	0.01	0.56	0.38	0.02	0.54	0.00	0.48	0.64	0.00	0.17
Avail Cap(c_a), veh/h	373	1861	830	373	1861	830	373	0	1298	373	0	1312
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.7	9.5	6.8	18.6	7.9	6.7	18.7	0.0	15.8	18.0	0.0	14.3
Incr Delay (d2), s/veh	17.6	0.9	0.0	13.5	0.2	0.0	17.6	0.0	1.9	9.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.2	0.0	0.3	0.9	0.0	0.2	0.0	0.7	0.5	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.3	10.4	6.8	32.1	8.1	6.7	36.3	0.0	17.7	27.0	0.0	14.7
LnGrp LOS	D	B	A	C	A	A	D	A	B	C	A	B
Approach Vol, veh/h		1039			584			104			87	
Approach Delay, s/veh		10.7			8.8			20.0			21.3	
Approach LOS		B			A			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.6	8.5	4.7	19.4	4.5	9.5	4.5	19.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	31.0	8.0	20.0	8.0	31.0	8.0	20.0
Max Q Clear Time (g_c+I1), s	3.0	4.0	2.4	11.2	2.3	2.8	2.3	6.1
Green Ext Time (p_c), s	0.0	0.4	0.0	4.2	0.0	0.2	0.0	2.8

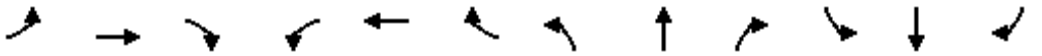
Intersection Summary	
HCM 6th Ctrl Delay	11.2
HCM 6th LOS	B



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1330	112	70	604	72	151
Future Volume (veh/h)	1330	112	70	604	72	151
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1330	112	70	604	72	151
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1794	800	89	2333	250	223
Arrive On Green	0.50	0.50	0.05	0.66	0.14	0.14
Sat Flow, veh/h	3647	1585	1781	3647	1781	1585
Grp Volume(v), veh/h	1330	112	70	604	72	151
Grp Sat Flow(s),veh/h/ln	1777	1585	1781	1777	1781	1585
Q Serve(g_s), s	14.6	1.9	1.9	3.5	1.8	4.5
Cycle Q Clear(g_c), s	14.6	1.9	1.9	3.5	1.8	4.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1794	800	89	2333	250	223
V/C Ratio(X)	0.74	0.14	0.79	0.26	0.29	0.68
Avail Cap(c_a), veh/h	2310	1031	253	3177	579	515
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.6	6.5	23.1	3.5	18.9	20.1
Incr Delay (d2), s/veh	1.0	0.1	13.9	0.1	0.6	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.4	1.0	0.4	0.7	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.6	6.6	37.0	3.6	19.6	23.7
LnGrp LOS	B	A	D	A	B	C
Approach Vol, veh/h	1442			674	223	
Approach Delay, s/veh	10.3			7.0	22.4	
Approach LOS	B			A	C	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		11.9	7.5	29.8		37.3
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0
Max Green Setting (Gmax), s		16.0	7.0	32.0		44.0
Max Q Clear Time (g_c+I1), s		6.5	3.9	16.6		5.5
Green Ext Time (p_c), s		0.5	0.0	8.3		4.1

Intersection Summary	
HCM 6th Ctrl Delay	10.5
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	738	517	615	445	76	266	1397	956	151	1108	77
Future Volume (veh/h)	157	738	517	615	445	76	266	1397	956	151	1108	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	157	738	411	615	445	66	266	1397	838	151	1108	29
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	226	1112	496	403	1018	150	314	2045	635	199	1875	582
Arrive On Green	0.07	0.31	0.31	0.08	0.33	0.33	0.09	0.40	0.40	0.06	0.37	0.37
Sat Flow, veh/h	3456	3554	1585	5023	3107	458	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	157	738	411	615	253	258	266	1397	838	151	1108	29
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1674	1777	1788	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	6.1	24.7	33.0	11.0	15.3	15.5	10.4	31.0	54.9	5.9	24.0	1.6
Cycle Q Clear(g_c), s	6.1	24.7	33.0	11.0	15.3	15.5	10.4	31.0	54.9	5.9	24.0	1.6
Prop In Lane	1.00		1.00	1.00		0.26	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	226	1112	496	403	582	586	314	2045	635	199	1875	582
V/C Ratio(X)	0.69	0.66	0.83	1.53	0.44	0.44	0.85	0.68	1.32	0.76	0.59	0.05
Avail Cap(c_a), veh/h	227	1322	590	403	683	687	328	2045	635	202	1875	582
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.7	40.8	43.7	63.0	36.1	36.2	61.4	33.9	41.1	63.7	35.1	28.0
Incr Delay (d2), s/veh	7.4	1.4	9.6	249.0	0.8	0.8	16.8	1.1	155.0	13.7	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	10.7	13.8	13.9	6.6	6.7	5.1	12.3	47.5	2.9	9.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.1	42.2	53.3	312.0	36.9	37.0	78.2	35.0	196.1	77.4	35.8	28.0
LnGrp LOS	E	D	D	F	D	D	E	D	F	E	D	C
Approach Vol, veh/h		1306			1126			2501			1288	
Approach Delay, s/veh		49.1			187.2			93.6			40.5	
Approach LOS		D			F			F			D	

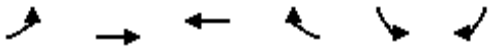
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	61.3	15.0	48.9	16.4	56.7	13.0	50.9
Change Period (Y+Rc), s	4.0	6.4	4.0	* 6	4.0	* 6.4	4.0	6.0
Max Green Setting (Gmax), s	8.0	54.9	11.0	* 51	13.0	* 50	9.0	52.7
Max Q Clear Time (g_c+I1), s	7.9	56.9	13.0	35.0	12.4	26.0	8.1	17.5
Green Ext Time (p_c), s	0.0	0.0	0.0	7.9	0.0	10.6	0.0	3.3

Intersection Summary	
HCM 6th Ctrl Delay	90.2
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	1830	1052	79	81	19
Future Volume (veh/h)	7	1830	1052	79	81	19
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	7	1830	1052	0	81	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	26	2583	2271		161	
Arrive On Green	0.01	0.73	0.64	0.00	0.09	0.00
Sat Flow, veh/h	1781	3647	3647	1585	1781	1585
Grp Volume(v), veh/h	7	1830	1052	0	81	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1781	1585
Q Serve(g_s), s	0.2	15.9	8.3	0.0	2.4	0.0
Cycle Q Clear(g_c), s	0.2	15.9	8.3	0.0	2.4	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	26	2583	2271		161	
V/C Ratio(X)	0.27	0.71	0.46		0.50	
Avail Cap(c_a), veh/h	650	3438	3698		813	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	26.7	4.2	5.1	0.0	23.7	0.0
Incr Delay (d2), s/veh	2.0	0.6	0.3	0.0	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.6	2.0	0.0	1.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.7	4.8	5.3	0.0	24.6	0.0
LnGrp LOS	C	A	A		C	
Approach Vol, veh/h		1837	1052	A	81	A
Approach Delay, s/veh		4.9	5.3		24.6	
Approach LOS		A	A		C	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	45.8	9.0	4.8	41.0
Change Period (Y+Rc), s	6.0	4.0	4.0	* 6
Max Green Setting (Gmax), s	53.0	25.0	20.0	* 57
Max Q Clear Time (g_c+I1), s	17.9	4.4	2.2	10.3
Green Ext Time (p_c), s	21.9	0.1	0.0	12.5

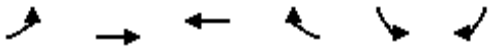
Intersection Summary	
HCM 6th Ctrl Delay	5.6
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	1885	1103	23	46	15
Future Volume (veh/h)	5	1885	1103	23	46	15
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1900	1900
Adj Flow Rate, veh/h	5	1885	1103	23	46	7
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	0	0
Cap, veh/h	17	2692	2424	51	119	18
Arrive On Green	0.01	0.76	0.68	0.68	0.08	0.08
Sat Flow, veh/h	1781	3647	3653	74	1495	227
Grp Volume(v), veh/h	5	1885	551	575	54	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1857	1755	0
Q Serve(g_s), s	0.2	16.3	8.5	8.5	1.7	0.0
Cycle Q Clear(g_c), s	0.2	16.3	8.5	8.5	1.7	0.0
Prop In Lane	1.00			0.04	0.85	0.13
Lane Grp Cap(c), veh/h	17	2692	1210	1265	139	0
V/C Ratio(X)	0.30	0.70	0.45	0.46	0.39	0.00
Avail Cap(c_a), veh/h	599	3404	1881	1966	590	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.3	3.7	4.4	4.4	26.0	0.0
Incr Delay (d2), s/veh	3.7	0.7	0.5	0.4	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.5	2.1	2.1	0.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.0	4.4	4.8	4.8	26.7	0.0
LnGrp LOS	C	A	A	A	C	A
Approach Vol, veh/h		1890	1126		54	
Approach Delay, s/veh		4.5	4.8		26.7	
Approach LOS		A	A		C	

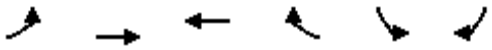
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			50.8		8.7	4.6	46.2
Change Period (Y+Rc), s			5.7		4.0	4.0	5.7
Max Green Setting (Gmax), s			57.0		20.0	20.0	63.0
Max Q Clear Time (g_c+I1), s			18.3		3.7	2.2	10.5
Green Ext Time (p_c), s			26.8		0.1	0.0	12.9

Intersection Summary	
HCM 6th Ctrl Delay	5.0
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



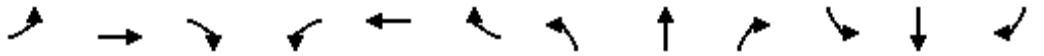
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	32	1870	1152	33	73	50
Future Volume (veh/h)	32	1870	1152	33	73	50
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	32	1870	1152	33	73	24
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	98	2608	2162	62	189	168
Arrive On Green	0.05	0.73	0.61	0.61	0.11	0.11
Sat Flow, veh/h	1781	3647	3621	101	1781	1585
Grp Volume(v), veh/h	32	1870	580	605	73	24
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1851	1781	1585
Q Serve(g_s), s	1.0	17.9	11.4	11.4	2.3	0.8
Cycle Q Clear(g_c), s	1.0	17.9	11.4	11.4	2.3	0.8
Prop In Lane	1.00			0.05	1.00	1.00
Lane Grp Cap(c), veh/h	98	2608	1089	1135	189	168
V/C Ratio(X)	0.33	0.72	0.53	0.53	0.39	0.14
Avail Cap(c_a), veh/h	587	3339	1904	1984	587	523
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.6	4.5	6.7	6.7	25.3	24.6
Incr Delay (d2), s/veh	0.7	0.7	0.6	0.6	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.4	3.3	3.5	1.0	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.3	5.3	7.4	7.4	25.7	24.7
LnGrp LOS	C	A	A	A	C	C
Approach Vol, veh/h		1902	1185		97	
Approach Delay, s/veh		5.7	7.4		25.5	
Approach LOS		A	A		C	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	50.2	10.4	7.3	42.9
Change Period (Y+Rc), s	5.7	4.0	4.0	5.7
Max Green Setting (Gmax), s	57.0	20.0	20.0	65.0
Max Q Clear Time (g_c+I1), s	19.9	4.3	3.0	13.4
Green Ext Time (p_c), s	24.6	0.1	0.0	12.8

Intersection Summary	
HCM 6th Ctrl Delay	6.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	1529	202	194	890	229	131	940	544	387	442	245
Future Volume (veh/h)	158	1529	202	194	890	229	131	940	544	387	442	245
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	158	1529	0	194	890	0	131	940	0	387	442	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	199	1694		1438	3577		171	980		203	1245	
Arrive On Green	0.06	0.37	0.00	0.46	0.78	0.00	0.06	0.31	0.00	0.13	0.39	0.00
Sat Flow, veh/h	3110	4595	1427	3110	4595	1427	3110	3198	1427	1603	3198	1427
Grp Volume(v), veh/h	158	1529	0	194	890	0	131	940	0	387	442	0
Grp Sat Flow(s),veh/h/ln	1555	1532	1427	1555	1532	1427	1555	1599	1427	1603	1599	1427
Q Serve(g_s), s	7.5	47.2	0.0	5.4	8.0	0.0	6.2	43.3	0.0	19.0	14.7	0.0
Cycle Q Clear(g_c), s	7.5	47.2	0.0	5.4	8.0	0.0	6.2	43.3	0.0	19.0	14.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	199	1694		1438	3577		171	980		203	1245	
V/C Ratio(X)	0.79	0.90		0.13	0.25		0.76	0.96		1.91	0.35	
Avail Cap(c_a), veh/h	270	1694		1438	3577		228	987		203	1245	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	69.2	44.8	0.0	23.1	4.6	0.0	69.9	51.1	0.0	65.5	32.5	0.0
Incr Delay (d2), s/veh	7.7	8.3	0.0	0.0	0.1	0.0	7.0	19.6	0.0	425.5	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	18.4	0.0	1.9	2.0	0.0	2.6	19.5	0.0	31.6	5.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.9	53.1	0.0	23.1	4.6	0.0	76.9	70.7	0.0	491.0	32.7	0.0
LnGrp LOS	E	D		C	A		E	E		F	C	
Approach Vol, veh/h		1687	A		1084	A		1071	A		829	A
Approach Delay, s/veh		55.3			7.9			71.5			246.7	
Approach LOS		E			A			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.7	51.7	75.6	61.0	12.3	64.1	13.6	123.0
Change Period (Y+Rc), s	5.7	* 5.7	5.7	* 5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	19.0	* 46	10.0	* 55	11.0	54.3	13.0	52.3
Max Q Clear Time (g_c+I1), s	21.0	45.3	7.4	49.2	8.2	16.7	9.5	10.0
Green Ext Time (p_c), s	0.0	0.7	0.1	4.7	0.1	3.7	0.1	8.6

Intersection Summary	
HCM 6th Ctrl Delay	82.0
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



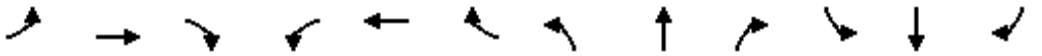
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	2300	143	116	1135	102	231
Future Volume (veh/h)	2300	143	116	1135	102	231
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2300	142	116	1135	102	56
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2907	178	138	3550	132	117
Arrive On Green	0.59	0.59	0.08	0.70	0.07	0.07
Sat Flow, veh/h	5085	301	1781	5274	1781	1585
Grp Volume(v), veh/h	1586	856	116	1135	102	56
Grp Sat Flow(s),veh/h/ln	1702	1813	1781	1702	1781	1585
Q Serve(g_s), s	53.5	54.9	9.6	13.1	8.4	5.1
Cycle Q Clear(g_c), s	53.5	54.9	9.6	13.1	8.4	5.1
Prop In Lane		0.17	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2013	1072	138	3550	132	117
V/C Ratio(X)	0.79	0.80	0.84	0.32	0.77	0.48
Avail Cap(c_a), veh/h	2013	1072	190	3550	428	380
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	23.7	68.3	9.0	68.2	66.7
Incr Delay (d2), s/veh	3.2	6.2	16.0	0.2	3.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.6	23.4	4.9	4.4	3.9	2.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.7	30.0	84.3	9.2	71.8	67.8
LnGrp LOS	C	C	F	A	E	E
Approach Vol, veh/h	2442			1251	158	
Approach Delay, s/veh	27.8			16.2	70.4	
Approach LOS	C			B	E	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		15.1	15.6	94.4		110.0
Change Period (Y+Rc), s		4.0	4.0	5.7		5.7
Max Green Setting (Gmax), s		36.0	16.0	84.3		104.3
Max Q Clear Time (g_c+I1), s		10.4	11.6	56.9		15.1
Green Ext Time (p_c), s		0.7	0.1	27.2		46.4

Intersection Summary	
HCM 6th Ctrl Delay	25.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	498	1752	175	558	906	164	180	996	739	185	440	132
Future Volume (veh/h)	498	1752	175	558	906	164	180	996	739	185	440	132
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	498	1752	0	558	906	0	180	996	0	185	440	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	610	2026		629	1763		224	1134		229	1439	
Arrive On Green	0.18	0.40	0.00	0.13	0.35	0.00	0.06	0.22	0.00	0.07	0.22	0.00
Sat Flow, veh/h	3456	5106	1585	5023	5106	1585	3456	5106	1585	3456	6434	1585
Grp Volume(v), veh/h	498	1752	0	558	906	0	180	996	0	185	440	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1674	1702	1585	1728	1702	1585	1728	1609	1585
Q Serve(g_s), s	20.8	47.3	0.0	16.4	21.2	0.0	7.7	28.3	0.0	7.9	8.5	0.0
Cycle Q Clear(g_c), s	20.8	47.3	0.0	16.4	21.2	0.0	7.7	28.3	0.0	7.9	8.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	610	2026		629	1763		224	1134		229	1439	
V/C Ratio(X)	0.82	0.86		0.89	0.51		0.80	0.88		0.81	0.31	
Avail Cap(c_a), veh/h	703	2087		703	1763		253	1191		253	1501	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	59.4	41.6	0.0	64.6	39.1	0.0	69.2	56.4	0.0	69.1	48.5	0.0
Incr Delay (d2), s/veh	5.7	4.2	0.0	11.4	1.1	0.0	13.2	7.8	0.0	14.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.4	20.0	0.0	7.5	8.9	0.0	3.8	12.7	0.0	3.9	3.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.1	45.8	0.0	75.9	40.2	0.0	82.4	64.1	0.0	83.3	48.7	0.0
LnGrp LOS	E	D		E	D		F	E		F	D	
Approach Vol, veh/h		2250	A		1464	A		1176	A		625	A
Approach Delay, s/veh		50.1			53.8			66.9			58.9	
Approach LOS		D			D			E			E	

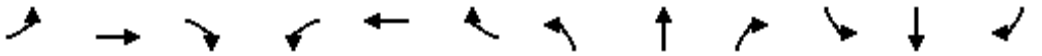
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	39.3	24.8	65.2	13.7	39.5	32.2	57.8
Change Period (Y+Rc), s	4.0	6.0	6.0	5.7	4.0	6.0	5.7	6.0
Max Green Setting (Gmax), s	11.0	35.0	21.0	61.3	11.0	35.0	30.5	51.8
Max Q Clear Time (g_c+I1), s	9.9	30.3	18.4	49.3	9.7	10.5	22.8	23.2
Green Ext Time (p_c), s	0.0	3.1	0.4	10.2	0.0	3.9	0.7	9.4

Intersection Summary	
HCM 6th Ctrl Delay	55.7
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	268	2195	295	159	990	79	317	988	292	68	652	301
Future Volume (veh/h)	268	2195	295	159	990	79	317	988	292	68	652	301
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	268	2195	206	159	990	0	317	988	0	68	652	103
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	316	2179	676	316	2245		362	1071		108	753	336
Arrive On Green	0.09	0.43	0.43	0.09	0.44	0.00	0.10	0.30	0.00	0.03	0.21	0.21
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	268	2195	206	159	990	0	317	988	0	68	652	103
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	11.5	64.0	12.8	6.6	20.2	0.0	13.6	40.3	0.0	2.9	26.6	6.5
Cycle Q Clear(g_c), s	11.5	64.0	12.8	6.6	20.2	0.0	13.6	40.3	0.0	2.9	26.6	6.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	316	2179	676	316	2245		362	1071		108	753	336
V/C Ratio(X)	0.85	1.01	0.30	0.50	0.44		0.88	0.92		0.63	0.87	0.31
Avail Cap(c_a), veh/h	415	2179	676	316	2245		392	1071		276	867	387
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.1	43.0	28.3	64.9	29.2	0.0	66.2	50.7	0.0	71.8	57.0	31.5
Incr Delay (d2), s/veh	9.6	21.1	1.2	0.5	0.2	0.0	17.5	13.0	0.0	2.3	9.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	30.0	5.0	2.9	8.1	0.0	6.8	19.4	0.0	1.3	12.6	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.7	64.1	29.5	65.4	29.4	0.0	83.7	63.7	0.0	74.1	66.0	32.3
LnGrp LOS	E	F	C	E	C		F	E		E	E	C
Approach Vol, veh/h		2669			1149	A		1305	A		823	
Approach Delay, s/veh		62.7			34.4			68.6			62.5	
Approach LOS		E			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	51.6	19.7	70.0	22.1	38.2	17.7	72.0
Change Period (Y+Rc), s	4.0	6.4	6.0	6.0	6.4	* 6.4	4.0	6.0
Max Green Setting (Gmax), s	12.0	41.6	10.0	64.0	17.0	* 37	18.0	58.0
Max Q Clear Time (g_c+I1), s	4.9	42.3	8.6	66.0	15.6	28.6	13.5	22.2
Green Ext Time (p_c), s	0.1	0.0	0.0	0.0	0.1	3.2	0.3	8.4

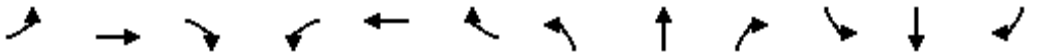
Intersection Summary	
HCM 6th Ctrl Delay	58.5
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	2418	24	42	1154	127	55	76	38	163	28	28
Future Volume (veh/h)	14	2418	24	42	1154	127	55	76	38	163	28	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	2418	0	42	1154	0	55	76	0	163	28	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	17	2427		433	3678		71	99		166	200	
Arrive On Green	0.02	0.95	0.00	0.49	1.00	0.00	0.04	0.05	0.00	0.09	0.11	0.00
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1870	1585	1781	1870	0
Grp Volume(v), veh/h	14	2418	0	42	1154	0	55	76	0	163	28	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1870	1585	1781	1870	0
Q Serve(g_s), s	1.2	66.3	0.0	1.9	0.0	0.0	4.6	6.0	0.0	13.7	2.0	0.0
Cycle Q Clear(g_c), s	1.2	66.3	0.0	1.9	0.0	0.0	4.6	6.0	0.0	13.7	2.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	17	2427		433	3678		71	99		166	200	
V/C Ratio(X)	0.84	1.00		0.10	0.31		0.78	0.77		0.98	0.14	
Avail Cap(c_a), veh/h	143	2427		433	3678		143	436		166	450	
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	73.5	3.6	0.0	29.7	0.0	0.0	71.4	70.1	0.0	67.9	60.8	0.0
Incr Delay (d2), s/veh	31.5	17.4	0.0	0.0	0.1	0.0	6.8	8.8	0.0	63.6	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.4	0.0	0.8	0.0	0.0	2.2	3.1	0.0	9.2	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	105.0	21.0	0.0	29.7	0.1	0.0	78.2	79.0	0.0	131.5	61.1	0.0
LnGrp LOS	F	C		C	A		E	E		F	E	
Approach Vol, veh/h		2432	A		1196	A		131	A		191	A
Approach Delay, s/veh		21.5			1.1			78.6			121.1	
Approach LOS		C			A			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	12.8	42.2	77.0	9.9	20.9	5.4	113.7
Change Period (Y+Rc), s	4.0	* 4.9	5.7	* 5.7	4.0	4.9	4.0	5.7
Max Green Setting (Gmax), s	14.0	* 35	12.0	* 71	12.0	36.1	12.0	71.3
Max Q Clear Time (g_c+I1), s	15.7	8.0	3.9	68.3	6.6	4.0	3.2	2.0
Green Ext Time (p_c), s	0.0	0.3	0.0	3.0	0.0	0.1	0.0	18.8

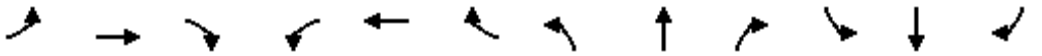
Intersection Summary	
HCM 6th Ctrl Delay	22.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	1343	1060	887	831	258	580	1035	478	215	1418	24
Future Volume (veh/h)	26	1343	1060	887	831	258	580	1035	478	215	1418	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	1343	0	887	831	0	580	1035	0	215	1418	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	138	1328		852	2359		569	1463		261	1362	
Arrive On Green	0.08	0.52	0.00	0.25	0.46	0.00	0.04	0.09	0.00	0.08	0.27	0.00
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	5023	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	26	1343	0	887	831	0	580	1035	0	215	1418	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1674	1702	1585	1728	1702	1585
Q Serve(g_s), s	1.1	39.0	0.0	37.0	15.7	0.0	17.0	29.5	0.0	9.2	40.0	0.0
Cycle Q Clear(g_c), s	1.1	39.0	0.0	37.0	15.7	0.0	17.0	29.5	0.0	9.2	40.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	138	1328		852	2359		569	1463		261	1362	
V/C Ratio(X)	0.19	1.01		1.04	0.35		1.02	0.71		0.82	1.04	
Avail Cap(c_a), veh/h	184	1328		852	2359		569	1463		283	1362	
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	66.7	36.0	0.0	56.5	25.9	0.0	72.2	61.8	0.0	68.4	55.0	0.0
Incr Delay (d2), s/veh	0.2	27.6	0.0	41.9	0.4	0.0	42.5	1.9	0.0	18.3	35.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	15.3	0.0	20.7	6.3	0.0	9.9	13.8	0.0	4.7	21.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.0	63.6	0.0	98.4	26.3	0.0	114.7	63.7	0.0	86.6	90.9	0.0
LnGrp LOS	E	F		F	C		F	E		F	F	
Approach Vol, veh/h		1369	A		1718	A		1615	A		1633	A
Approach Delay, s/veh		63.7			63.5			82.0			90.3	
Approach LOS		E			E			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	50.7	42.0	45.0	20.0	47.7	12.0	75.0
Change Period (Y+Rc), s	5.7	7.7	5.0	6.0	3.0	* 7.7	6.0	* 5.7
Max Green Setting (Gmax), s	12.3	37.3	37.0	39.0	17.0	* 40	8.0	* 69
Max Q Clear Time (g_c+I1), s	11.2	31.5	39.0	41.0	19.0	42.0	3.1	17.7
Green Ext Time (p_c), s	0.1	3.9	0.0	0.0	0.0	0.0	0.0	11.1

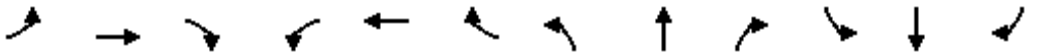
Intersection Summary	
HCM 6th Ctrl Delay	75.2
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	257	4	144	44	2	49	215	1860	19	349	1815	204
Future Volume (veh/h)	257	4	144	44	2	49	215	1860	19	349	1815	204
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	257	4	15	44	2	5	215	1860	19	349	1815	149
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	276	150	127	83	45	38	260	2161	22	1461	3510	1090
Arrive On Green	0.08	0.08	0.08	0.02	0.02	0.02	0.08	0.33	0.33	0.42	0.69	0.69
Sat Flow, veh/h	3456	1870	1585	3456	1870	1585	3456	6616	68	3456	5106	1585
Grp Volume(v), veh/h	257	4	15	44	2	5	215	1357	522	349	1815	149
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1728	1870	1585	1728	1609	1858	1728	1702	1585
Q Serve(g_s), s	11.1	0.3	1.3	1.9	0.2	0.5	9.2	39.5	39.5	9.7	25.9	4.9
Cycle Q Clear(g_c), s	11.1	0.3	1.3	1.9	0.2	0.5	9.2	39.5	39.5	9.7	25.9	4.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	276	150	127	83	45	38	260	1576	607	1461	3510	1090
V/C Ratio(X)	0.93	0.03	0.12	0.53	0.04	0.13	0.83	0.86	0.86	0.24	0.52	0.14
Avail Cap(c_a), veh/h	276	150	127	1152	623	528	276	1576	607	1461	3510	1090
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.6	63.6	64.1	72.4	71.5	71.7	68.4	47.3	47.3	27.8	11.4	8.1
Incr Delay (d2), s/veh	35.9	0.1	0.4	5.2	0.4	1.5	17.7	6.4	14.8	0.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	0.1	0.6	0.9	0.1	0.2	4.6	16.3	20.3	4.0	8.9	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	104.5	63.7	64.5	77.5	71.9	73.2	86.1	53.7	62.1	27.9	11.5	8.1
LnGrp LOS	F	E	E	E	E	E	F	D	E	C	B	A
Approach Vol, veh/h		276			51			2094			2313	
Approach Delay, s/veh		101.7			76.9			59.1			13.8	
Approach LOS		F			E			E			B	

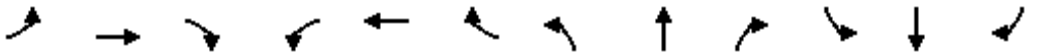
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	70.4	55.0		16.0	15.3	110.1		8.6				
Change Period (Y+Rc), s	7.0	6.0		4.0	4.0	* 7		5.0				
Max Green Setting (Gmax), s	17.0	49.0		12.0	12.0	* 57		50.0				
Max Q Clear Time (g_c+I1), s	11.7	41.5		13.1	11.2	27.9		3.9				
Green Ext Time (p_c), s	0.7	7.3		0.0	0.1	27.4		0.2				

Intersection Summary			
HCM 6th Ctrl Delay		39.6	
HCM 6th LOS		D	

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱				↰	✣	↱↱
Traffic Volume (veh/h)	0	1349	817	0	1893	380	0	0	0	153	0	574
Future Volume (veh/h)	0	1349	817	0	1893	380	0	0	0	153	0	574
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	2067	2067	0	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	0	1349	787	0	1893	0				102	0	544
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	0	2	2				2	2	2
Cap, veh/h	0	3940	1223	0	3566					276	0	737
Arrive On Green	0.00	0.70	0.70	0.00	1.00	0.00				0.15	0.00	0.15
Sat Flow, veh/h	0	5828	1751	0	5274	1585				1781	0	4755
Grp Volume(v), veh/h	0	1349	787	0	1893	0				102	0	544
Grp Sat Flow(s),veh/h/ln	0	1881	1751	0	1702	1585				1781	0	1585
Q Serve(g_s), s	0.0	7.1	18.5	0.0	0.0	0.0				3.8	0.0	8.2
Cycle Q Clear(g_c), s	0.0	7.1	18.5	0.0	0.0	0.0				3.8	0.0	8.2
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3940	1223	0	3566					276	0	737
V/C Ratio(X)	0.00	0.34	0.64	0.00	0.53					0.37	0.00	0.74
Avail Cap(c_a), veh/h	0	3940	1223	0	3566					420	0	1122
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.81	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	4.5	6.2	0.0	0.0	0.0				28.4	0.0	30.2
Incr Delay (d2), s/veh	0.0	0.2	2.6	0.0	0.2	0.0				0.3	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.7	4.8	0.0	0.1	0.0				1.6	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	4.7	8.8	0.0	0.2	0.0				28.7	0.0	30.8
LnGrp LOS	A	A	A	A	A					C	A	C
Approach Vol, veh/h		2136			1893	A					646	
Approach Delay, s/veh		6.2			0.2						30.5	
Approach LOS		A			A						C	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		58.1		16.9		58.1						
Change Period (Y+Rc), s		5.7		5.3		5.7						
Max Green Setting (Gmax), s		46.3		17.7		46.3						
Max Q Clear Time (g_c+I1), s		20.5		10.2		2.0						
Green Ext Time (p_c), s		18.5		1.4		21.3						

Intersection Summary		
HCM 6th Ctrl Delay		7.1
HCM 6th LOS		A

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



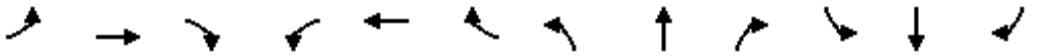
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1137	365	244	1443	830	1092
Future Volume (veh/h)	1137	365	244	1443	830	1092
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	2067	2067	1870	1870	1870	1870
Adj Flow Rate, veh/h	1137	0	244	1443	830	475
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1917		281	2812	1117	621
Arrive On Green	0.68	0.00	0.32	1.00	0.22	0.22
Sat Flow, veh/h	5828	1751	1781	5274	5023	2790
Grp Volume(v), veh/h	1137	0	244	1443	830	475
Grp Sat Flow(s),veh/h/ln	1881	1751	1781	1702	1674	1395
Q Serve(g_s), s	8.1	0.0	9.7	0.0	11.5	12.0
Cycle Q Clear(g_c), s	8.1	0.0	9.7	0.0	11.5	12.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1917		281	2812	1117	621
V/C Ratio(X)	0.59		0.87	0.51	0.74	0.77
Avail Cap(c_a), veh/h	1917		380	2812	1386	770
HCM Platoon Ratio	2.00	2.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.93	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.2	0.0	25.0	0.0	27.2	27.3
Incr Delay (d2), s/veh	0.5	0.0	12.1	0.7	1.2	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	4.1	0.2	4.5	4.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.8	0.0	37.1	0.7	28.4	30.1
LnGrp LOS	A		D	A	C	C
Approach Vol, veh/h	1137	A		1687	1305	
Approach Delay, s/veh	9.8			5.9	29.0	
Approach LOS	A			A	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	15.8	31.2				47.0	24.0
Change Period (Y+Rc), s	4.0	5.7				5.7	7.3
Max Green Setting (Gmax), s	16.0	21.3				41.3	20.7
Max Q Clear Time (g_c+I1), s	11.7	10.1				2.0	14.0
Green Ext Time (p_c), s	0.2	5.4				15.7	2.7

Intersection Summary	
HCM 6th Ctrl Delay	14.3
HCM 6th LOS	B

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



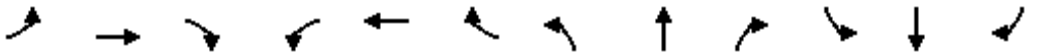
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	322	379	444	253	37	1036	716	410	89	793	117
Future Volume (veh/h)	122	322	379	444	253	37	1036	716	410	89	793	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	2067	2067	2067	1870	1870	1870
Adj Flow Rate, veh/h	122	322	84	444	253	9	1036	716	220	89	793	48
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	166	453	202	276	566	253	619	2338	726	157	1464	454
Arrive On Green	0.05	0.13	0.13	0.08	0.16	0.16	0.16	0.41	0.41	0.05	0.29	0.29
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3818	5642	1751	3456	5106	1585
Grp Volume(v), veh/h	122	322	84	444	253	9	1036	716	220	89	793	48
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1909	1881	1751	1728	1702	1585
Q Serve(g_s), s	5.2	13.0	3.6	12.0	9.7	0.7	24.3	12.8	12.6	3.8	19.7	1.8
Cycle Q Clear(g_c), s	5.2	13.0	3.6	12.0	9.7	0.7	24.3	12.8	12.6	3.8	19.7	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	166	453	202	276	566	253	619	2338	726	157	1464	454
V/C Ratio(X)	0.73	0.71	0.42	1.61	0.45	0.04	1.67	0.31	0.30	0.57	0.54	0.11
Avail Cap(c_a), veh/h	230	1185	528	276	1232	549	619	2338	726	184	1464	454
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.4	62.8	14.7	69.0	57.1	53.3	62.9	29.5	29.4	70.1	45.2	12.0
Incr Delay (d2), s/veh	3.9	3.3	2.2	289.0	0.9	0.1	310.7	0.1	0.4	1.2	1.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	6.1	3.0	16.4	4.4	0.3	38.3	5.7	5.5	1.7	8.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.3	66.0	16.9	358.0	57.9	53.4	373.6	29.6	29.8	71.3	46.6	12.5
LnGrp LOS	E	E	B	F	E	D	F	C	C	E	D	B
Approach Vol, veh/h		528			706			1972			930	
Approach Delay, s/veh		60.1			246.6			210.3			47.2	
Approach LOS		E			F			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	67.9	16.0	24.4	30.0	48.7	11.2	29.2
Change Period (Y+Rc), s	4.0	5.7	4.0	5.3	5.7	5.7	4.0	5.3
Max Green Setting (Gmax), s	8.0	61.0	12.0	50.0	24.3	43.0	10.0	52.0
Max Q Clear Time (g_c+I1), s	5.8	14.8	14.0	15.0	26.3	21.7	7.2	11.7
Green Ext Time (p_c), s	0.0	11.2	0.0	4.1	0.0	8.2	0.0	2.8

Intersection Summary	
HCM 6th Ctrl Delay	160.7
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	33	80	195	14	41	28	506	267	83	776	10
Future Volume (veh/h)	18	33	80	195	14	41	28	506	267	83	776	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	33	80	195	14	41	28	506	267	83	776	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	22	40	97	219	81	237	36	3115	967	103	2303	1027
Arrive On Green	0.01	0.08	0.08	0.12	0.19	0.19	0.02	0.61	0.61	0.06	0.65	0.65
Sat Flow, veh/h	1781	484	1174	1781	420	1229	1781	5106	1585	1781	3554	1585
Grp Volume(v), veh/h	18	0	113	195	0	55	28	506	267	83	776	10
Grp Sat Flow(s),veh/h/ln	1781	0	1659	1781	0	1649	1781	1702	1585	1781	1777	1585
Q Serve(g_s), s	1.5	0.0	10.1	16.2	0.0	4.2	2.3	6.4	11.8	6.9	14.8	0.3
Cycle Q Clear(g_c), s	1.5	0.0	10.1	16.2	0.0	4.2	2.3	6.4	11.8	6.9	14.8	0.3
Prop In Lane	1.00		0.71	1.00		0.75	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	22	0	136	219	0	318	36	3115	967	103	2303	1027
V/C Ratio(X)	0.82	0.00	0.83	0.89	0.00	0.17	0.79	0.16	0.28	0.80	0.34	0.01
Avail Cap(c_a), veh/h	95	0	469	356	0	700	95	3115	967	178	2303	1027
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	73.9	0.0	67.8	64.7	0.0	50.5	73.2	12.7	13.7	69.8	11.9	9.4
Incr Delay (d2), s/veh	22.9	0.0	10.4	9.3	0.0	0.2	13.1	0.1	0.7	5.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	4.7	7.9	0.0	1.8	1.2	2.5	4.5	3.3	5.9	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	96.8	0.0	78.2	74.0	0.0	50.7	86.3	12.8	14.4	75.3	12.0	9.4
LnGrp LOS	F	A	E	E	A	D	F	B	B	E	B	A
Approach Vol, veh/h		131			250			801			869	
Approach Delay, s/veh		80.8			68.9			15.9			18.0	
Approach LOS		F			E			B			B	

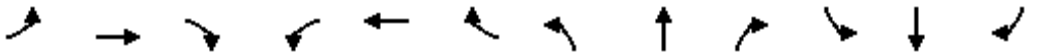
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	97.2	22.5	17.6	7.0	102.9	5.9	34.2
Change Period (Y+Rc), s	4.0	5.7	4.0	* 5.3	4.0	* 5.7	4.0	5.3
Max Green Setting (Gmax), s	15.0	44.3	30.0	* 42	8.0	* 52	8.0	63.7
Max Q Clear Time (g_c+I1), s	8.9	13.8	18.2	12.1	4.3	16.8	3.5	6.2
Green Ext Time (p_c), s	0.1	7.3	0.3	0.4	0.0	7.9	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	27.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

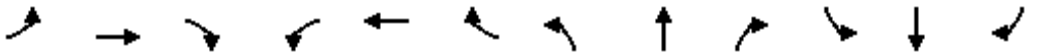
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	9	22	58	2	72	6	1215	46	58	1336	3
Future Volume (veh/h)	9	9	22	58	2	72	6	1215	46	58	1336	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	9	22	58	2	72	6	1215	46	58	1336	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	17	104	46	86	241	108	12	1804	560	86	2017	626
Arrive On Green	0.01	0.03	0.03	0.05	0.07	0.07	0.01	0.35	0.35	0.05	0.39	0.39
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	9	9	22	58	2	72	6	1215	46	58	1336	3
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	0.2	0.1	0.5	1.2	0.0	1.7	0.1	7.7	0.7	1.2	8.2	0.0
Cycle Q Clear(g_c), s	0.2	0.1	0.5	1.2	0.0	1.7	0.1	7.7	0.7	1.2	8.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	17	104	46	86	241	108	12	1804	560	86	2017	626
V/C Ratio(X)	0.53	0.09	0.47	0.68	0.01	0.67	0.52	0.67	0.08	0.68	0.66	0.00
Avail Cap(c_a), veh/h	511	2963	1322	511	2963	1322	511	2129	661	511	2129	661
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	18.1	18.3	18.0	16.7	17.5	19.0	10.5	8.3	18.0	9.5	7.0
Incr Delay (d2), s/veh	23.3	0.4	7.3	9.0	0.0	7.0	32.1	0.7	0.1	9.0	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	0.6	0.0	0.7	0.1	1.9	0.2	0.6	1.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.2	18.5	25.6	27.0	16.7	24.5	51.1	11.2	8.3	27.0	10.2	7.0
LnGrp LOS	D	B	C	C	B	C	D	B	A	C	B	A
Approach Vol, veh/h		40			132			1267			1397	
Approach Delay, s/veh		27.7			25.4			11.3			10.9	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	18.6	6.8	6.1	5.2	20.2	5.4	7.6
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	11.0	16.0	11.0	32.0	11.0	16.0	11.0	32.0
Max Q Clear Time (g_c+I1), s	3.2	9.7	3.2	2.5	2.1	10.2	2.2	3.7
Green Ext Time (p_c), s	0.0	3.8	0.1	0.1	0.0	3.8	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B



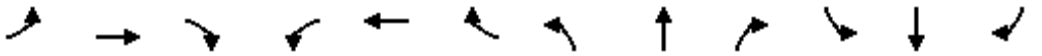
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	136	3	2	80	8	7	1	5	31	1	1
Future Volume (veh/h)	1	136	3	2	80	8	7	1	5	31	1	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	136	3	2	80	8	7	1	5	31	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	5	414	185	5	418	187	13	12	10	519	543	460
Arrive On Green	0.00	0.12	0.12	0.00	0.12	0.12	0.01	0.01	0.01	0.29	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	1	136	3	2	80	8	7	1	5	31	1	1
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.0	1.2	0.1	0.0	0.7	0.2	0.1	0.0	0.1	0.4	0.0	0.0
Cycle Q Clear(g_c), s	0.0	1.2	0.1	0.0	0.7	0.2	0.1	0.0	0.1	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	5	414	185	5	418	187	13	12	10	519	543	460
V/C Ratio(X)	0.19	0.33	0.02	0.39	0.19	0.04	0.52	0.08	0.49	0.06	0.00	0.00
Avail Cap(c_a), veh/h	364	1761	786	364	1813	809	364	1418	1202	571	1581	1340
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.1	13.9	13.4	17.1	13.7	13.4	17.0	16.9	17.0	8.8	8.6	8.6
Incr Delay (d2), s/veh	17.1	0.5	0.0	40.9	0.2	0.1	28.1	2.9	31.6	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	0.0	0.1	0.2	0.0	0.2	0.0	0.1	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	14.4	13.4	57.9	13.9	13.5	45.0	19.8	48.6	8.8	8.6	8.6
LnGrp LOS	C	B	B	E	B	B	D	B	D	A	A	A
Approach Vol, veh/h		140			90			13			33	
Approach Delay, s/veh		14.5			14.8			44.4			8.8	
Approach LOS		B			B			D			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	5.2	5.1	9.0	5.3	15.0	5.0	9.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	* 5
Max Green Setting (Gmax), s	11.0	26.0	7.0	17.0	7.0	29.0	7.0	* 18
Max Q Clear Time (g_c+I1), s	2.4	2.1	2.0	3.2	2.1	2.0	2.0	2.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	15.3
HCM 6th LOS	B

Notes

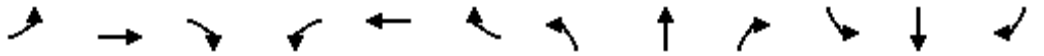
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	140	22	109	55	93	8	922	106	109	1308	9
Future Volume (veh/h)	37	140	22	109	55	93	8	922	106	109	1308	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	140	22	109	55	93	8	922	106	109	1308	9
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	56	276	123	140	444	198	15	1982	615	140	2339	726
Arrive On Green	0.03	0.08	0.08	0.08	0.13	0.13	0.01	0.39	0.39	0.08	0.46	0.46
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	37	140	22	109	55	93	8	922	106	109	1308	9
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	1.1	2.0	0.7	3.2	0.7	2.9	0.2	7.3	2.4	3.2	10.1	0.2
Cycle Q Clear(g_c), s	1.1	2.0	0.7	3.2	0.7	2.9	0.2	7.3	2.4	3.2	10.1	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	56	276	123	140	444	198	15	1982	615	140	2339	726
V/C Ratio(X)	0.66	0.51	0.18	0.78	0.12	0.47	0.54	0.47	0.17	0.78	0.56	0.01
Avail Cap(c_a), veh/h	231	2111	942	331	2375	1059	231	2626	815	231	2720	844
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.8	23.8	23.2	24.3	20.9	21.9	26.6	12.3	10.8	24.4	10.6	8.0
Incr Delay (d2), s/veh	4.8	0.5	0.3	3.4	0.0	0.6	10.6	0.5	0.4	3.5	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.8	0.2	1.4	0.3	1.0	0.1	2.2	0.7	1.3	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.6	24.4	23.5	27.8	21.0	22.5	37.2	12.8	11.2	27.9	11.2	8.0
LnGrp LOS	C	C	C	C	C	C	D	B	B	C	B	A
Approach Vol, veh/h		199			257			1036			1426	
Approach Delay, s/veh		25.4			24.4			12.8			12.5	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	26.2	9.2	9.2	5.5	30.0	6.7	11.7
Change Period (Y+Rc), s	5.0	5.3	5.0	5.0	5.0	5.3	5.0	5.0
Max Green Setting (Gmax), s	7.0	27.7	10.0	32.0	7.0	28.7	7.0	36.0
Max Q Clear Time (g_c+I1), s	5.2	9.3	5.2	4.0	2.2	12.1	3.1	4.9
Green Ext Time (p_c), s	0.0	11.0	0.0	0.6	0.0	12.6	0.0	0.3

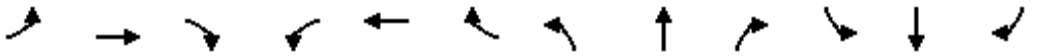
Intersection Summary	
HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	390	5	3	251	5	5	5	4	5	5	1
Future Volume (veh/h)	2	390	5	3	251	5	5	5	4	5	5	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	390	5	3	251	5	5	5	4	5	5	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	6	810	361	6	814	363	10	238	202	10	238	202
Arrive On Green	0.00	0.23	0.23	0.00	0.23	0.23	0.01	0.13	0.13	0.01	0.13	0.13
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	2	390	5	3	251	5	5	5	4	5	5	1
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.0	3.0	0.1	0.1	1.8	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Cycle Q Clear(g_c), s	0.0	3.0	0.1	0.1	1.8	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	6	810	361	6	814	363	10	238	202	10	238	202
V/C Ratio(X)	0.35	0.48	0.01	0.51	0.31	0.01	0.52	0.02	0.02	0.52	0.02	0.00
Avail Cap(c_a), veh/h	397	2939	1311	397	2939	1311	397	1844	1563	397	1725	1462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.7	10.5	9.4	15.6	10.1	9.4	15.6	12.0	12.0	15.6	12.0	12.0
Incr Delay (d2), s/veh	33.6	0.4	0.0	55.5	0.2	0.0	36.7	0.0	0.0	36.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.8	0.0	0.1	0.5	0.0	0.1	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.2	11.0	9.4	71.2	10.3	9.4	52.3	12.0	12.0	52.3	12.0	12.0
LnGrp LOS	D	B	A	E	B	A	D	B	B	D	B	B
Approach Vol, veh/h		397			259			14			11	
Approach Delay, s/veh		11.1			11.0			26.4			30.3	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.2	9.0	5.1	12.2	5.2	9.0	5.1	12.2
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	31.0	7.0	26.0	7.0	29.0	7.0	26.0
Max Q Clear Time (g_c+I1), s	2.1	2.1	2.1	5.0	2.1	2.1	2.0	3.8
Green Ext Time (p_c), s	0.0	0.0	0.0	2.4	0.0	0.0	0.0	1.5

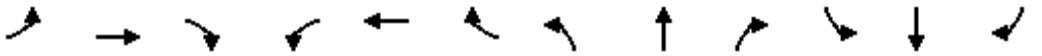
Intersection Summary	
HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	444	43	18	184	4	48	27	33	21	132	22
Future Volume (veh/h)	38	444	43	18	184	4	48	27	33	21	132	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	444	43	18	184	4	48	27	33	21	132	22
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	43	838	374	33	817	365	77	317	269	38	276	234
Arrive On Green	0.02	0.24	0.24	0.02	0.23	0.23	0.04	0.17	0.17	0.02	0.15	0.15
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	38	444	43	18	184	4	48	27	33	21	132	22
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.7	3.5	0.7	0.3	1.4	0.1	0.9	0.4	0.6	0.4	2.1	0.4
Cycle Q Clear(g_c), s	0.7	3.5	0.7	0.3	1.4	0.1	0.9	0.4	0.6	0.4	2.1	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	43	838	374	33	817	365	77	317	269	38	276	234
V/C Ratio(X)	0.88	0.53	0.12	0.55	0.23	0.01	0.62	0.09	0.12	0.55	0.48	0.09
Avail Cap(c_a), veh/h	412	1808	806	412	1808	806	412	1528	1295	412	1528	1295
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.8	10.8	9.7	15.8	10.1	9.6	15.3	11.3	11.4	15.7	12.7	12.0
Incr Delay (d2), s/veh	38.9	0.5	0.1	13.4	0.1	0.0	7.9	0.1	0.2	12.1	1.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.0	0.2	0.2	0.4	0.0	0.4	0.1	0.2	0.2	0.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.6	11.3	9.9	29.2	10.3	9.7	23.2	11.5	11.6	27.8	14.0	12.1
LnGrp LOS	D	B	A	C	B	A	C	B	B	C	B	B
Approach Vol, veh/h		525			206			108			175	
Approach Delay, s/veh		14.4			11.9			16.7			15.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.2	10.0	5.1	12.1	5.9	9.3	5.3	12.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	26.5	7.5	16.5	7.5	26.5	7.5	16.5
Max Q Clear Time (g_c+I1), s	2.4	2.6	2.3	5.5	2.9	4.1	2.7	3.4
Green Ext Time (p_c), s	0.0	0.2	0.0	2.2	0.0	0.7	0.0	0.8

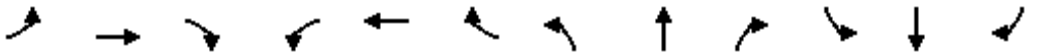
Intersection Summary	
HCM 6th Ctrl Delay	14.3
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	571	8	14	209	5	18	2	82	5	2	13
Future Volume (veh/h)	14	571	8	14	209	5	18	2	82	5	2	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	571	8	14	209	5	18	2	82	5	2	13
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	26	1063	474	26	1063	474	33	232	197	10	208	176
Arrive On Green	0.01	0.30	0.30	0.01	0.30	0.30	0.02	0.12	0.12	0.01	0.11	0.11
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	14	571	8	14	209	5	18	2	82	5	2	13
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.3	4.8	0.1	0.3	1.6	0.1	0.4	0.0	1.7	0.1	0.0	0.3
Cycle Q Clear(g_c), s	0.3	4.8	0.1	0.3	1.6	0.1	0.4	0.0	1.7	0.1	0.0	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	26	1063	474	26	1063	474	33	232	197	10	208	176
V/C Ratio(X)	0.54	0.54	0.02	0.54	0.20	0.01	0.55	0.01	0.42	0.52	0.01	0.07
Avail Cap(c_a), veh/h	347	3264	1456	347	3264	1456	347	1510	1280	347	1458	1235
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.6	10.5	8.9	17.6	9.4	8.9	17.5	13.8	14.5	17.8	14.2	14.3
Incr Delay (d2), s/veh	16.4	0.4	0.0	16.4	0.1	0.0	13.8	0.0	1.4	37.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.4	0.0	0.2	0.4	0.0	0.3	0.0	0.6	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.0	10.9	8.9	34.0	9.5	8.9	31.2	13.8	15.9	54.8	14.2	14.5
LnGrp LOS	C	B	A	C	A	A	C	B	B	D	B	B
Approach Vol, veh/h		593			228			102			20	
Approach Delay, s/veh		11.5			11.0			18.6			24.5	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.2	9.5	5.5	15.7	5.7	9.0	5.5	15.7
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	29.0	7.0	33.0	7.0	28.0	7.0	33.0
Max Q Clear Time (g_c+I1), s	2.1	3.7	2.3	6.8	2.4	2.3	2.3	3.6
Green Ext Time (p_c), s	0.0	0.2	0.0	4.0	0.0	0.0	0.0	1.3

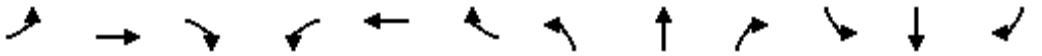
Intersection Summary	
HCM 6th Ctrl Delay	12.4
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	571	39	74	201	9	11	62	28	15	116	12
Future Volume (veh/h)	44	571	39	74	201	9	11	62	28	15	116	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	571	39	74	201	9	11	62	28	15	116	12
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	69	1219	544	100	1281	571	21	215	182	27	222	188
Arrive On Green	0.04	0.34	0.34	0.06	0.36	0.36	0.01	0.11	0.11	0.02	0.12	0.12
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	44	571	39	74	201	9	11	62	28	15	116	12
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	1.0	5.0	0.7	1.6	1.5	0.1	0.2	1.2	0.6	0.3	2.3	0.3
Cycle Q Clear(g_c), s	1.0	5.0	0.7	1.6	1.5	0.1	0.2	1.2	0.6	0.3	2.3	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	69	1219	544	100	1281	571	21	215	182	27	222	188
V/C Ratio(X)	0.64	0.47	0.07	0.74	0.16	0.02	0.54	0.29	0.15	0.55	0.52	0.06
Avail Cap(c_a), veh/h	516	2397	1069	516	2397	1069	516	777	658	516	777	658
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.8	10.2	8.8	18.5	8.6	8.2	19.5	16.1	15.8	19.4	16.4	15.5
Incr Delay (d2), s/veh	9.4	0.6	0.1	10.1	0.1	0.0	20.0	0.7	0.4	16.0	1.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.5	0.2	0.8	0.4	0.0	0.2	0.5	0.2	0.2	0.9	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.2	10.8	8.9	28.6	8.7	8.2	39.6	16.8	16.2	35.4	18.3	15.7
LnGrp LOS	C	B	A	C	A	A	D	B	B	D	B	B
Approach Vol, veh/h		654			284			101			143	
Approach Delay, s/veh		11.9			13.9			19.1			19.9	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	9.1	6.7	18.8	5.0	9.2	6.0	19.5
Change Period (Y+Rc), s	4.5	4.5	4.5	5.2	4.5	4.5	4.5	5.2
Max Green Setting (Gmax), s	11.5	16.5	11.5	26.8	11.5	16.5	11.5	26.8
Max Q Clear Time (g_c+I1), s	2.3	3.2	3.6	7.0	2.2	4.3	3.0	3.5
Green Ext Time (p_c), s	0.0	0.2	0.1	6.6	0.0	0.4	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	14.0
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	511	197	20	31	57	133	54	1871	19	166	1674	265
Future Volume (veh/h)	511	197	20	31	57	133	54	1871	19	166	1674	265
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	354	417	5	31	57	13	54	1871	18	166	1674	113
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	380	399	338	60	110	147	118	2018	19	180	2153	668
Arrive On Green	0.21	0.21	0.21	0.09	0.09	0.09	0.07	0.39	0.39	0.10	0.42	0.42
Sat Flow, veh/h	1781	1870	1585	647	1191	1585	1781	5215	50	1781	5106	1585
Grp Volume(v), veh/h	354	417	5	88	0	13	54	1221	668	166	1674	113
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1838	0	1585	1781	1702	1861	1781	1702	1585
Q Serve(g_s), s	17.4	19.0	0.2	4.1	0.0	0.7	2.6	30.6	30.6	8.2	25.1	4.0
Cycle Q Clear(g_c), s	17.4	19.0	0.2	4.1	0.0	0.7	2.6	30.6	30.6	8.2	25.1	4.0
Prop In Lane	1.00		1.00	0.35		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	380	399	338	170	0	147	118	1317	720	180	2153	668
V/C Ratio(X)	0.93	1.05	0.01	0.52	0.00	0.09	0.46	0.93	0.93	0.92	0.78	0.17
Avail Cap(c_a), veh/h	380	399	338	186	0	160	160	1321	722	180	2153	668
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.4	35.1	27.7	38.5	0.0	37.0	40.1	26.1	26.1	39.7	22.2	16.1
Incr Delay (d2), s/veh	29.2	57.7	0.0	0.9	0.0	0.1	1.0	11.6	18.4	44.9	2.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	14.8	0.1	1.9	0.0	0.3	1.2	13.8	16.5	5.8	9.9	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.7	92.7	27.7	39.4	0.0	37.1	41.1	37.7	44.6	84.6	24.2	16.2
LnGrp LOS	E	F	C	D	A	D	D	D	D	F	C	B
Approach Vol, veh/h		776			101			1943			1953	
Approach Delay, s/veh		79.1			39.1			40.2			28.9	
Approach LOS		E			D			D			C	

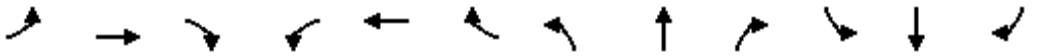
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	40.9		23.0	9.9	44.0		12.3				
Change Period (Y+Rc), s	4.0	6.4		4.0	4.0	6.4		4.0				
Max Green Setting (Gmax), s	9.0	34.6		19.0	8.0	35.6		9.0				
Max Q Clear Time (g_c+I1), s	10.2	32.6		21.0	4.6	27.1		6.1				
Green Ext Time (p_c), s	0.0	1.9		0.0	0.0	7.5		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		41.8	
HCM 6th LOS		D	

Notes

User approved pedestrian interval to be less than phase max green.

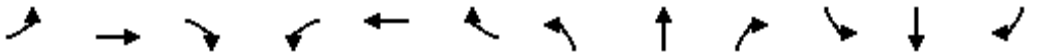
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	1945	33	5	2096	21	14	8	2	52	19	21
Future Volume (veh/h)	8	1945	33	5	2096	21	14	8	2	52	19	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	1945	33	5	2096	21	14	8	2	52	19	21
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	15	2422	752	10	2407	747	25	149	127	73	200	169
Arrive On Green	0.01	0.47	0.47	0.01	0.47	0.47	0.01	0.08	0.08	0.04	0.11	0.11
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	8	1945	33	5	2096	21	14	8	2	52	19	21
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.2	16.2	0.6	0.1	18.4	0.4	0.4	0.2	0.1	1.4	0.5	0.6
Cycle Q Clear(g_c), s	0.2	16.2	0.6	0.1	18.4	0.4	0.4	0.2	0.1	1.4	0.5	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	15	2422	752	10	2407	747	25	149	127	73	200	169
V/C Ratio(X)	0.53	0.80	0.04	0.52	0.87	0.03	0.56	0.05	0.02	0.71	0.10	0.12
Avail Cap(c_a), veh/h	142	2446	759	142	2446	759	142	1269	1076	284	1419	1202
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.7	11.2	7.1	24.8	11.9	7.1	24.5	21.3	21.2	23.7	20.2	20.2
Incr Delay (d2), s/veh	26.4	2.0	0.0	37.9	3.7	0.0	17.8	0.1	0.0	11.9	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.4	0.1	0.2	5.3	0.1	0.3	0.1	0.0	0.8	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.1	13.2	7.1	62.8	15.6	7.1	42.3	21.4	21.3	35.6	20.4	20.6
LnGrp LOS	D	B	A	E	B	A	D	C	C	D	C	C
Approach Vol, veh/h		1986			2122			24			92	
Approach Delay, s/veh		13.2			15.6			33.6			29.0	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	9.0	5.3	28.8	5.7	10.4	5.4	28.6
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	8.0	34.0	4.0	24.0	4.0	38.0	4.0	24.0
Max Q Clear Time (g_c+I1), s	3.4	2.2	2.1	18.2	2.4	2.6	2.2	20.4
Green Ext Time (p_c), s	0.0	0.0	0.0	4.9	0.0	0.1	0.0	3.2

Intersection Summary	
HCM 6th Ctrl Delay	14.9
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	423	1512	63	596	1495	34	69	806	320	96	888	558
Future Volume (veh/h)	423	1512	63	596	1495	34	69	806	320	96	888	558
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	423	1512	22	596	1495	12	69	806	98	96	888	325
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	485	1791	556	528	1809	561	219	1395	433	150	1339	416
Arrive On Green	0.14	0.35	0.35	0.15	0.35	0.35	0.06	0.27	0.27	0.04	0.26	0.26
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	423	1512	22	596	1495	12	69	806	98	96	888	325
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	13.3	30.4	1.0	17.0	29.7	0.5	2.1	15.2	5.3	3.0	17.3	21.2
Cycle Q Clear(g_c), s	13.3	30.4	1.0	17.0	29.7	0.5	2.1	15.2	5.3	3.0	17.3	21.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	485	1791	556	528	1809	561	219	1395	433	150	1339	416
V/C Ratio(X)	0.87	0.84	0.04	1.13	0.83	0.02	0.31	0.58	0.23	0.64	0.66	0.78
Avail Cap(c_a), veh/h	528	1836	570	528	1809	561	249	1698	527	217	1652	513
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.8	33.3	23.8	47.1	32.8	23.4	49.8	34.9	31.3	52.4	36.6	38.1
Incr Delay (d2), s/veh	14.0	4.3	0.1	79.6	3.8	0.0	0.3	0.1	0.1	4.5	0.7	6.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	12.2	0.4	12.7	11.9	0.2	0.9	6.0	1.9	1.4	7.2	8.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.8	37.6	23.8	126.7	36.6	23.4	50.1	35.0	31.4	56.9	37.4	44.3
LnGrp LOS	E	D	C	F	D	C	D	D	C	E	D	D
Approach Vol, veh/h		1957			2103			973			1309	
Approach Delay, s/veh		42.5			62.1			35.7			40.5	
Approach LOS		D			E			D			D	

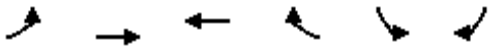
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	35.4	21.0	45.0	11.1	34.2	20.6	45.4
Change Period (Y+Rc), s	5.0	* 5	4.0	6.0	4.0	5.0	5.0	6.0
Max Green Setting (Gmax), s	7.0	* 37	17.0	40.0	8.0	36.0	17.0	39.0
Max Q Clear Time (g_c+I1), s	5.0	17.2	19.0	32.4	4.1	23.2	15.3	31.7
Green Ext Time (p_c), s	0.0	3.5	0.0	6.6	0.0	6.0	0.3	6.3

Intersection Summary	
HCM 6th Ctrl Delay	47.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

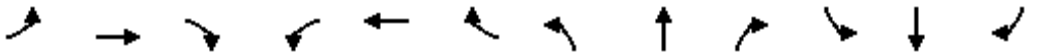
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	242	1687	2031	92	50	91
Future Volume (veh/h)	242	1687	2031	92	50	91
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	242	1687	2031	92	50	91
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	307	3638	2277	707	178	158
Arrive On Green	0.17	0.71	0.45	0.45	0.10	0.10
Sat Flow, veh/h	1781	5274	5274	1585	1781	1585
Grp Volume(v), veh/h	242	1687	2031	92	50	91
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1585	1781	1585
Q Serve(g_s), s	6.9	7.6	19.5	1.8	1.4	2.9
Cycle Q Clear(g_c), s	6.9	7.6	19.5	1.8	1.4	2.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	307	3638	2277	707	178	158
V/C Ratio(X)	0.79	0.46	0.89	0.13	0.28	0.58
Avail Cap(c_a), veh/h	736	4890	2301	714	970	863
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.1	3.3	13.6	8.7	22.2	22.9
Incr Delay (d2), s/veh	4.5	0.1	4.8	0.1	0.9	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.6	6.2	0.5	0.6	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.6	3.4	18.4	8.8	23.1	26.2
LnGrp LOS	C	A	B	A	C	C
Approach Vol, veh/h		1929	2123		141	
Approach Delay, s/veh		6.2	18.0		25.1	
Approach LOS		A	B		C	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			42.9		10.3	14.2	28.7
Change Period (Y+Rc), s			5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s			51.0		29.0	22.0	24.0
Max Q Clear Time (g_c+I1), s			9.6		4.9	8.9	21.5
Green Ext Time (p_c), s			16.7		0.4	0.5	2.3

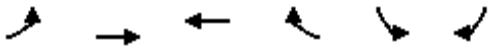
Intersection Summary	
HCM 6th Ctrl Delay	12.8
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	477	1248	13	288	1478	291	37	536	562	270	683	611
Future Volume (veh/h)	477	1248	13	288	1478	291	37	536	562	270	683	611
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	477	1248	4	288	1478	139	37	536	408	270	683	422
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	368	1725	535	351	1700	528	88	1528	474	234	1745	542
Arrive On Green	0.11	0.34	0.34	0.10	0.33	0.33	0.03	0.30	0.30	0.07	0.34	0.34
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	477	1248	4	288	1478	139	37	536	408	270	683	422
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	11.0	22.1	0.2	8.4	28.1	6.6	1.1	8.5	25.1	7.0	10.5	24.7
Cycle Q Clear(g_c), s	11.0	22.1	0.2	8.4	28.1	6.6	1.1	8.5	25.1	7.0	10.5	24.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	368	1725	535	351	1700	528	88	1528	474	234	1745	542
V/C Ratio(X)	1.30	0.72	0.01	0.82	0.87	0.26	0.42	0.35	0.86	1.15	0.39	0.78
Avail Cap(c_a), veh/h	368	1780	553	368	1780	553	234	1928	599	234	1928	599
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.1	30.0	22.7	45.5	32.3	25.2	49.6	28.3	34.2	48.1	25.8	30.5
Incr Delay (d2), s/veh	151.9	1.4	0.0	13.2	4.8	0.3	3.2	0.1	10.1	106.2	0.1	6.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.3	8.7	0.1	4.1	11.6	2.4	0.5	3.3	10.4	6.4	4.0	9.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	198.1	31.4	22.7	58.7	37.1	25.5	52.8	28.5	44.2	154.4	26.0	36.5
LnGrp LOS	F	C	C	E	D	C	D	C	D	F	C	D
Approach Vol, veh/h		1729			1905			981			1375	
Approach Delay, s/veh		77.4			39.5			35.9			54.4	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	35.9	15.5	39.9	7.6	40.3	16.0	39.4
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	39.0	11.0	36.0	7.0	39.0	11.0	36.0
Max Q Clear Time (g_c+I1), s	9.0	27.1	10.4	24.1	3.1	26.7	13.0	30.1
Green Ext Time (p_c), s	0.0	3.8	0.1	6.2	0.0	4.7	0.0	4.3

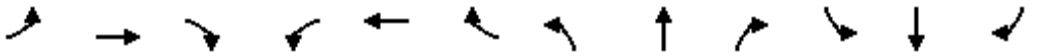
Intersection Summary	
HCM 6th Ctrl Delay	53.3
HCM 6th LOS	D



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	2075	2052	172	31	5
Future Volume (veh/h)	5	2075	2052	172	31	5
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	2075	2052	172	31	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	10	3731	3212	997	137	122
Arrive On Green	0.01	0.73	0.63	0.63	0.08	0.08
Sat Flow, veh/h	1781	5274	5274	1585	1781	1585
Grp Volume(v), veh/h	5	2075	2052	172	31	5
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1585	1781	1585
Q Serve(g_s), s	0.1	9.6	13.0	2.3	0.8	0.2
Cycle Q Clear(g_c), s	0.1	9.6	13.0	2.3	0.8	0.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	10	3731	3212	997	137	122
V/C Ratio(X)	0.52	0.56	0.64	0.17	0.23	0.04
Avail Cap(c_a), veh/h	240	5207	4028	1250	1028	915
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.8	3.2	6.0	4.0	22.5	22.2
Incr Delay (d2), s/veh	38.0	0.1	0.2	0.1	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.4	2.1	0.4	0.4	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	63.8	3.3	6.2	4.1	23.4	22.3
LnGrp LOS	E	A	A	A	C	C
Approach Vol, veh/h		2080	2224		36	
Approach Delay, s/veh		3.5	6.0		23.2	
Approach LOS		A	A		C	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			43.0		9.0	5.3	37.7
Change Period (Y+Rc), s			5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s			53.0		30.0	7.0	41.0
Max Q Clear Time (g_c+I1), s			11.6		2.8	2.1	15.0
Green Ext Time (p_c), s			22.9		0.1	0.0	17.7

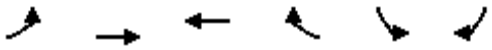
Intersection Summary	
HCM 6th Ctrl Delay	4.9
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	1934	161	7	1912	97	208	61	12	154	116	104
Future Volume (veh/h)	11	1934	161	7	1912	97	208	61	12	154	116	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	1934	161	7	1912	97	208	61	12	154	116	104
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	20	2108	654	13	2089	648	257	277	235	197	214	182
Arrive On Green	0.01	0.41	0.41	0.01	0.41	0.41	0.14	0.15	0.15	0.11	0.11	0.11
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	11	1934	161	7	1912	97	208	61	12	154	116	104
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.3	20.1	3.7	0.2	19.9	2.2	6.3	1.6	0.4	4.7	3.3	3.5
Cycle Q Clear(g_c), s	0.3	20.1	3.7	0.2	19.9	2.2	6.3	1.6	0.4	4.7	3.3	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	20	2108	654	13	2089	648	257	277	235	197	214	182
V/C Ratio(X)	0.55	0.92	0.25	0.53	0.92	0.15	0.81	0.22	0.05	0.78	0.54	0.57
Avail Cap(c_a), veh/h	159	2108	654	159	2092	649	317	1133	960	317	1133	960
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.6	15.6	10.8	27.8	15.7	10.4	23.3	21.0	20.5	24.3	23.5	23.6
Incr Delay (d2), s/veh	21.5	7.2	0.4	29.7	7.1	0.2	11.9	0.4	0.1	6.6	2.1	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	7.2	1.1	0.2	7.1	0.6	3.3	0.7	0.1	2.2	1.5	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.1	22.8	11.1	57.4	22.8	10.6	35.1	21.4	20.6	30.9	25.6	26.4
LnGrp LOS	D	C	B	E	C	B	D	C	C	C	C	C
Approach Vol, veh/h		2106			2016			281			374	
Approach Delay, s/veh		22.0			22.3			31.5			28.0	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	12.3	4.4	29.2	12.1	10.4	4.6	29.0
Change Period (Y+Rc), s	4.0	4.0	4.0	6.0	4.0	4.0	4.0	6.0
Max Green Setting (Gmax), s	10.0	34.0	5.0	23.0	10.0	34.0	5.0	23.0
Max Q Clear Time (g_c+I1), s	6.7	3.6	2.2	22.1	8.3	5.5	2.3	21.9
Green Ext Time (p_c), s	0.1	0.3	0.0	0.9	0.1	0.9	0.0	1.1

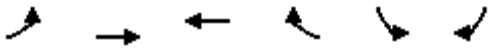
Intersection Summary	
HCM 6th Ctrl Delay	23.2
HCM 6th LOS	C



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	201	1899	1950	272	53	66
Future Volume (veh/h)	201	1899	1950	272	53	66
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	201	1899	1950	272	53	66
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	260	3453	2118	658	166	147
Arrive On Green	0.15	0.68	0.41	0.41	0.09	0.09
Sat Flow, veh/h	1781	5274	5274	1585	1781	1585
Grp Volume(v), veh/h	201	1899	1950	272	53	66
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1585	1781	1585
Q Serve(g_s), s	4.7	8.3	15.7	5.3	1.2	1.7
Cycle Q Clear(g_c), s	4.7	8.3	15.7	5.3	1.2	1.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	260	3453	2118	658	166	147
V/C Ratio(X)	0.77	0.55	0.92	0.41	0.32	0.45
Avail Cap(c_a), veh/h	493	4124	2121	658	1233	1097
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.8	3.6	12.0	9.0	18.4	18.6
Incr Delay (d2), s/veh	4.9	0.1	7.2	0.4	1.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.4	5.1	1.2	0.5	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.7	3.8	19.2	9.4	19.5	20.7
LnGrp LOS	C	A	B	A	B	C
Approach Vol, veh/h		2100	2222		119	
Approach Delay, s/veh		5.6	18.0		20.2	
Approach LOS		A	B		C	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			34.3		9.0	11.3	23.0
Change Period (Y+Rc), s			5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s			35.0		30.0	12.0	18.0
Max Q Clear Time (g_c+I1), s			10.3		3.7	6.7	17.7
Green Ext Time (p_c), s			15.1		0.3	0.2	0.3

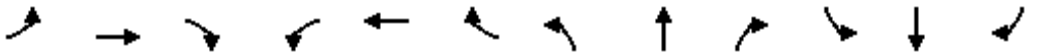
Intersection Summary	
HCM 6th Ctrl Delay	12.2
HCM 6th LOS	B



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	1943	2173	103	91	49
Future Volume (veh/h)	8	1943	2173	103	91	49
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	1943	2173	103	91	49
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	15	3283	2666	828	191	170
Arrive On Green	0.01	0.64	0.52	0.52	0.11	0.11
Sat Flow, veh/h	1781	5274	5274	1585	1781	1585
Grp Volume(v), veh/h	8	1943	2173	103	91	49
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1585	1781	1585
Q Serve(g_s), s	0.2	8.8	14.2	1.3	1.9	1.1
Cycle Q Clear(g_c), s	0.2	8.8	14.2	1.3	1.9	1.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	15	3283	2666	828	191	170
V/C Ratio(X)	0.53	0.59	0.82	0.12	0.48	0.29
Avail Cap(c_a), veh/h	333	4270	2740	851	1401	1246
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.8	4.1	8.0	4.9	16.8	16.5
Incr Delay (d2), s/veh	25.6	0.2	2.0	0.1	1.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.5	2.7	0.2	0.8	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	45.4	4.3	9.9	5.0	18.6	17.4
LnGrp LOS	D	A	A	A	B	B
Approach Vol, veh/h		1951	2276		140	
Approach Delay, s/veh		4.5	9.7		18.2	
Approach LOS		A	A		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			31.3		8.8	4.8	26.4
Change Period (Y+Rc), s			5.5		4.5	4.5	5.5
Max Green Setting (Gmax), s			33.5		31.5	7.5	21.5
Max Q Clear Time (g_c+I1), s			10.8		3.9	2.2	16.2
Green Ext Time (p_c), s			14.7		0.4	0.0	4.7

Intersection Summary	
HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A



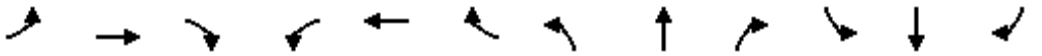
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	574	1355	106	282	1025	311	235	1085	285	449	738	1006
Future Volume (veh/h)	574	1355	106	282	1025	311	235	1085	285	449	738	1006
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1870	1870	1841	1841	1870	1870	1870	1841	1870	1841
Adj Flow Rate, veh/h	574	1355	38	282	1025	158	235	1085	146	449	738	978
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	2	2	4	4	2	2	2	4	2	4
Cap, veh/h	636	1678	529	299	1174	364	290	1497	465	428	1711	814
Arrive On Green	0.19	0.33	0.33	0.09	0.23	0.23	0.08	0.29	0.29	0.13	0.34	0.34
Sat Flow, veh/h	3401	5025	1585	3456	5025	1560	3456	5106	1585	3401	5106	1560
Grp Volume(v), veh/h	574	1355	38	282	1025	158	235	1085	146	449	738	978
Grp Sat Flow(s),veh/h/ln	1700	1675	1585	1728	1675	1560	1728	1702	1585	1700	1702	1560
Q Serve(g_s), s	21.0	31.3	2.1	10.3	25.0	11.0	8.5	24.2	9.1	16.0	14.3	42.6
Cycle Q Clear(g_c), s	21.0	31.3	2.1	10.3	25.0	11.0	8.5	24.2	9.1	16.0	14.3	42.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	636	1678	529	299	1174	364	290	1497	465	428	1711	814
V/C Ratio(X)	0.90	0.81	0.07	0.94	0.87	0.43	0.81	0.73	0.31	1.05	0.43	1.20
Avail Cap(c_a), veh/h	749	1700	536	299	1174	364	353	1591	494	428	1711	814
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.5	38.6	28.9	57.7	46.9	41.5	57.2	40.3	35.0	55.6	32.8	30.4
Incr Delay (d2), s/veh	11.8	3.3	0.1	36.7	7.9	1.6	9.2	1.8	0.6	56.9	0.3	102.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	12.6	0.8	5.9	10.9	4.3	4.1	10.4	3.5	10.0	5.6	45.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.3	41.9	29.0	94.4	54.8	43.1	66.5	42.1	35.6	112.4	33.1	132.4
LnGrp LOS	E	D	C	F	D	D	E	D	D	F	C	F
Approach Vol, veh/h		1967			1465			1466			2165	
Approach Delay, s/veh		47.6			61.2			45.4			94.4	
Approach LOS		D			E			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	43.7	15.0	48.5	14.7	49.0	27.8	35.7
Change Period (Y+Rc), s	4.0	6.4	4.0	6.0	4.0	6.4	4.0	6.0
Max Green Setting (Gmax), s	16.0	39.6	11.0	43.0	13.0	42.6	28.0	26.0
Max Q Clear Time (g_c+I1), s	18.0	26.2	12.3	33.3	10.5	44.6	23.0	27.0
Green Ext Time (p_c), s	0.0	7.6	0.0	9.2	0.2	0.0	0.8	0.0

Intersection Summary	
HCM 6th Ctrl Delay	64.3
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.



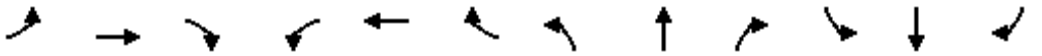
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	560	1536	0	0	1245	87	0	0	0	132	0	275
Future Volume (veh/h)	560	1536	0	0	1245	87	0	0	0	132	0	275
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	0	0	1870	0	1870
Adj Flow Rate, veh/h	560	1536	0	0	1245	87	0	0	0	132	0	275
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	0	2	2	2	0	0	2	0	2
Cap, veh/h	664	2836	0	0	1997	891	2	0	0	165	0	0
Arrive On Green	0.19	0.80	0.00	0.00	0.56	0.56	0.00	0.00	0.00	0.09	0.00	0.00
Sat Flow, veh/h	3456	3647	0	0	3647	1585	1781	0		1781	132	
Grp Volume(v), veh/h	560	1536	0	0	1245	87	0	0.0		132	44.0	
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1781			1781	D	
Q Serve(g_s), s	14.3	14.1	0.0	0.0	21.6	2.3	0.0			6.6		
Cycle Q Clear(g_c), s	14.3	14.1	0.0	0.0	21.6	2.3	0.0			6.6		
Prop In Lane	1.00		0.00	0.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	664	2836	0	0	1997	891	2			165		
V/C Ratio(X)	0.84	0.54	0.00	0.00	0.62	0.10	0.00			0.80		
Avail Cap(c_a), veh/h	1170	2836	0	0	2290	1021	603			389		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00			1.00		
Uniform Delay (d), s/veh	35.6	3.3	0.0	0.0	13.5	9.3	0.0			40.7		
Incr Delay (d2), s/veh	1.1	0.3	0.0	0.0	0.6	0.1	0.0			3.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	5.7	2.0	0.0	0.0	7.2	0.7	0.0			2.9		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.8	3.6	0.0	0.0	14.1	9.4	0.0			44.0		
LnGrp LOS	D	A	A	A	B	A	A			D		
Approach Vol, veh/h		2096			1332							
Approach Delay, s/veh		12.4			13.8							
Approach LOS		B			B							

Timer - Assigned Phs	1			4	5		7	8				
Phs Duration (G+Y+Rc), s	12.5			79.1	0.0		21.6	57.5				
Change Period (Y+Rc), s	4.0			6.0	4.0		4.0	6.0				
Max Green Setting (Gmax), s	20.0			59.0	31.0		31.0	59.0				
Max Q Clear Time (g_c+I1), s	8.6			16.1	0.0		16.3	23.6				
Green Ext Time (p_c), s	0.2			37.2	0.0		1.3	27.8				

Intersection Summary												
HCM 6th Ctrl Delay			14.1									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.



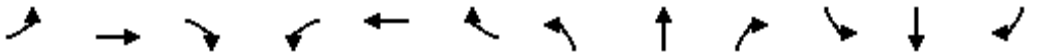
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	215	1341	122	50	815	167	233	448	84	264	88	298
Future Volume (veh/h)	215	1341	122	50	815	167	233	448	84	264	88	298
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	215	1341	66	50	815	0	233	448	31	264	88	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	227	1206	534	64	881		200	385	562	227	76	
Arrive On Green	0.13	0.34	0.34	0.04	0.25	0.00	0.32	0.32	0.32	0.17	0.17	0.00
Sat Flow, veh/h	1781	3554	1573	1781	3554	1585	629	1210	1585	1352	451	1585
Grp Volume(v), veh/h	215	1341	66	50	815	0	681	0	31	352	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1573	1781	1777	1585	1839	0	1585	1803	0	1585
Q Serve(g_s), s	17.8	50.6	4.3	4.1	33.3	0.0	47.4	0.0	1.9	25.0	0.0	0.0
Cycle Q Clear(g_c), s	17.8	50.6	4.3	4.1	33.3	0.0	47.4	0.0	1.9	25.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.34		1.00	0.75		1.00
Lane Grp Cap(c), veh/h	227	1206	534	64	881		585	0	562	303	0	
V/C Ratio(X)	0.95	1.11	0.12	0.78	0.92		1.16	0.00	0.06	1.16	0.00	
Avail Cap(c_a), veh/h	227	1206	534	96	907		585	0	562	303	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	64.5	49.2	33.9	71.2	54.6	0.0	50.8	0.0	31.7	62.0	0.0	0.0
Incr Delay (d2), s/veh	44.3	62.2	0.2	10.8	15.3	0.0	91.3	0.0	0.0	103.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.9	32.7	1.7	2.1	16.8	0.0	36.6	0.0	0.8	20.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	108.8	111.4	34.1	81.9	69.9	0.0	142.0	0.0	31.7	165.5	0.0	0.0
LnGrp LOS	F	F	C	F	E		F	A	C	F	A	
Approach Vol, veh/h		1622			865	A		712			352	A
Approach Delay, s/veh		107.9			70.6			137.2			165.5	
Approach LOS		F			E			F			F	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		52.0	9.4	56.6		31.0	23.0	42.9				
Change Period (Y+Rc), s		4.6	4.0	6.0		6.0	4.0	6.0				
Max Green Setting (Gmax), s		47.4	8.0	49.0		25.0	19.0	38.0				
Max Q Clear Time (g_c+I1), s		49.4	6.1	52.6		27.0	19.8	35.3				
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	1.6				

Intersection Summary	
HCM 6th Ctrl Delay	110.4
HCM 6th LOS	F

Notes

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	456	934	55	290	79	437	1432	60	66	1092	127
Future Volume (veh/h)	179	456	934	55	290	79	437	1432	60	66	1092	127
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	179	456	757	55	290	34	437	1432	19	66	1092	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	228	1548	691	71	1455	649	444	1709	531	84	1293	
Arrive On Green	0.07	0.44	0.44	0.04	0.41	0.41	0.13	0.33	0.33	0.05	0.25	0.00
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	179	456	757	55	290	34	437	1432	19	66	1092	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1702	1585	1781	1702	1585
Q Serve(g_s), s	7.1	11.6	61.0	4.3	7.3	1.8	17.7	36.3	1.1	5.1	28.4	0.0
Cycle Q Clear(g_c), s	7.1	11.6	61.0	4.3	7.3	1.8	17.7	36.3	1.1	5.1	28.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	228	1548	691	71	1455	649	444	1709	531	84	1293	
V/C Ratio(X)	0.78	0.29	1.10	0.78	0.20	0.05	0.98	0.84	0.04	0.79	0.84	
Avail Cap(c_a), veh/h	296	1548	691	102	1472	657	444	1709	531	102	1293	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	64.4	25.6	39.5	66.6	26.6	25.0	60.9	43.1	31.4	66.0	49.7	0.0
Incr Delay (d2), s/veh	7.3	0.2	63.5	12.3	0.1	0.1	38.3	5.1	0.1	22.7	5.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	4.8	34.5	2.2	3.1	0.7	9.9	15.4	0.4	2.8	12.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.7	25.8	103.0	78.9	26.7	25.0	99.1	48.1	31.5	88.7	55.2	0.0
LnGrp LOS	E	C	F	E	C	C	F	D	C	F	E	
Approach Vol, veh/h		1392			379			1888			1158	A
Approach Delay, s/veh		73.7			34.2			59.8			57.1	
Approach LOS		E			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	52.9	9.6	67.0	22.0	41.4	13.2	63.3
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	* 6
Max Green Setting (Gmax), s	8.0	43.0	8.0	61.0	18.0	33.0	12.0	* 58
Max Q Clear Time (g_c+I1), s	7.1	38.3	6.3	63.0	19.7	30.4	9.1	9.3
Green Ext Time (p_c), s	0.0	3.1	0.0	0.0	0.0	1.7	0.1	3.1

Intersection Summary	
HCM 6th Ctrl Delay	61.1
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	548	53	330	400	508	163	1034	273	433	741	52
Future Volume (veh/h)	26	548	53	330	400	508	163	1034	273	433	741	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	548	0	330	400	293	163	1034	96	433	741	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	180	723		409	958	427	358	1253	559	472	1370	
Arrive On Green	0.05	0.20	0.00	0.12	0.27	0.27	0.10	0.35	0.35	0.14	0.39	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	26	548	0	330	400	293	163	1034	96	433	741	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	0.7	13.8	0.0	8.9	8.8	15.8	4.2	25.3	4.0	11.8	15.4	0.0
Cycle Q Clear(g_c), s	0.7	13.8	0.0	8.9	8.8	15.8	4.2	25.3	4.0	11.8	15.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	180	723		409	958	427	358	1253	559	472	1370	
V/C Ratio(X)	0.14	0.76		0.81	0.42	0.69	0.46	0.83	0.17	0.92	0.54	
Avail Cap(c_a), veh/h	363	1270		654	1568	700	399	1568	700	472	1643	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	43.1	35.7	0.0	40.9	28.6	31.1	40.1	28.1	21.2	40.6	22.7	0.0
Incr Delay (d2), s/veh	0.1	0.6	0.0	1.6	0.1	0.7	0.3	3.4	0.2	22.4	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	6.0	0.0	3.8	3.7	6.0	1.7	10.2	1.5	6.1	5.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.2	36.3	0.0	42.5	28.7	31.9	40.5	31.5	21.4	62.9	23.2	0.0
LnGrp LOS	D	D		D	C	C	D	C	C	E	C	
Approach Vol, veh/h		574	A		1023			1293			1174	A
Approach Delay, s/veh		36.6			34.1			31.9			37.8	
Approach LOS		D			C			C			D	

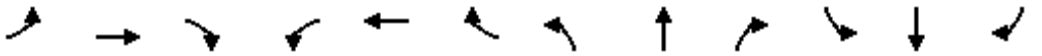
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	39.5	15.3	23.4	13.9	42.7	9.0	29.7
Change Period (Y+Rc), s	4.0	6.0	4.0	4.0	4.0	6.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	42.0	18.0	34.0	11.0	44.0	10.0	42.0
Max Q Clear Time (g_c+I1), s	13.8	27.3	10.9	15.8	6.2	17.4	2.7	17.8
Green Ext Time (p_c), s	0.0	6.3	0.4	2.5	0.1	4.9	0.0	2.3

Intersection Summary	
HCM 6th Ctrl Delay	34.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	877	115	50	806	444	177	557	33	643	612	290
Future Volume (veh/h)	124	877	115	50	806	444	177	557	33	643	612	290
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	124	877	115	50	806	0	177	557	0	643	612	290
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	374	1093	485	235	951		480	658		714	899	398
Arrive On Green	0.11	0.31	0.31	0.07	0.27	0.00	0.14	0.19	0.00	0.21	0.25	0.25
Sat Flow, veh/h	3456	3554	1577	3456	3554	1585	3456	3554	1585	3456	3554	1576
Grp Volume(v), veh/h	124	877	115	50	806	0	177	557	0	643	612	290
Grp Sat Flow(s),veh/h/ln	1728	1777	1577	1728	1777	1585	1728	1777	1585	1728	1777	1576
Q Serve(g_s), s	2.6	17.6	4.2	1.1	16.6	0.0	3.6	11.7	0.0	14.0	12.0	13.0
Cycle Q Clear(g_c), s	2.6	17.6	4.2	1.1	16.6	0.0	3.6	11.7	0.0	14.0	12.0	13.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	374	1093	485	235	951		480	658		714	899	398
V/C Ratio(X)	0.33	0.80	0.24	0.21	0.85		0.37	0.85		0.90	0.68	0.73
Avail Cap(c_a), veh/h	402	1285	570	357	1239		491	688		714	918	407
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	24.6	20.0	34.1	26.9	0.0	30.3	30.5	0.0	29.9	26.1	26.5
Incr Delay (d2), s/veh	0.2	2.7	0.1	0.2	3.6	0.0	0.2	10.2	0.0	14.1	2.6	7.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	7.4	1.5	0.4	7.2	0.0	1.5	5.8	0.0	7.0	5.2	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	27.3	20.1	34.3	30.4	0.0	30.4	40.7	0.0	44.1	28.7	34.1
LnGrp LOS	C	C	C	C	C		C	D		D	C	C
Approach Vol, veh/h		1116			856	A		734	A		1545	
Approach Delay, s/veh		27.1			30.7			38.2			36.1	
Approach LOS		C			C			D			D	

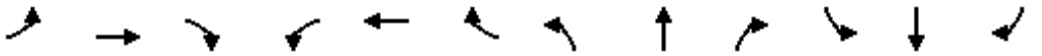
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	20.3	12.4	24.7	14.8	25.6	9.3	27.8
Change Period (Y+Rc), s	4.0	6.0	4.0	4.0	4.0	6.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	15.0	9.0	27.0	11.0	20.0	8.0	28.0
Max Q Clear Time (g_c+I1), s	16.0	13.7	4.6	18.6	5.6	15.0	3.1	19.6
Green Ext Time (p_c), s	0.0	0.6	0.1	1.7	0.2	3.0	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	33.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	11	145	26	3	3	73	1236	9	2	1459	21
Future Volume (veh/h)	30	11	145	26	3	3	73	1236	9	2	1459	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	11	145	26	3	3	73	1236	9	2	1459	21
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	190	70	228	96	11	11	158	1844	823	8	1545	689
Arrive On Green	0.14	0.14	0.14	0.07	0.07	0.07	0.09	0.52	0.52	0.00	0.43	0.43
Sat Flow, veh/h	1320	484	1585	1437	166	166	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	41	0	145	32	0	0	73	1236	9	2	1459	21
Grp Sat Flow(s),veh/h/ln	1804	0	1585	1769	0	0	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.3	0.0	5.8	1.2	0.0	0.0	2.6	17.3	0.2	0.1	26.5	0.5
Cycle Q Clear(g_c), s	1.3	0.0	5.8	1.2	0.0	0.0	2.6	17.3	0.2	0.1	26.5	0.5
Prop In Lane	0.73		1.00	0.81		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	260	0	228	118	0	0	158	1844	823	8	1545	689
V/C Ratio(X)	0.16	0.00	0.64	0.27	0.00	0.00	0.46	0.67	0.01	0.26	0.94	0.03
Avail Cap(c_a), veh/h	423	0	372	289	0	0	423	1844	823	291	1546	690
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.2	0.0	27.2	29.9	0.0	0.0	29.2	11.9	7.8	33.4	18.2	10.9
Incr Delay (d2), s/veh	0.1	0.0	1.1	0.5	0.0	0.0	0.8	1.2	0.0	6.3	12.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.1	0.5	0.0	0.0	1.0	5.2	0.0	0.0	11.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.4	0.0	28.3	30.3	0.0	0.0	30.0	13.1	7.8	39.7	30.5	10.9
LnGrp LOS	C	A	C	C	A	A	C	B	A	D	C	B
Approach Vol, veh/h		186			32			1318			1482	
Approach Delay, s/veh		27.6			30.3			14.0			30.3	
Approach LOS		C			C			B			C	

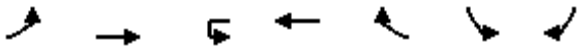
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.3	40.6		13.9	10.0	35.0		8.5				
Change Period (Y+Rc), s	4.0	5.7		* 4.2	4.0	5.7		4.0				
Max Green Setting (Gmax), s	11.0	29.3		* 16	16.0	29.3		11.0				
Max Q Clear Time (g_c+I1), s	2.1	19.3		7.8	4.6	28.5		3.2				
Green Ext Time (p_c), s	0.0	9.1		0.2	0.1	0.8		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	23.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	811	2554	0	1805	51	87	288
Future Volume (veh/h)	811	2554	0	1805	51	87	288
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	811	2554		1805	0	87	0
Peak Hour Factor	1.00	1.00		1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	677	4453		2343		109	
Arrive On Green	0.38	0.87		0.92	0.00	0.06	0.00
Sat Flow, veh/h	1781	5274		5274	1585	1781	1585
Grp Volume(v), veh/h	811	2554		1805	0	87	0
Grp Sat Flow(s),veh/h/ln	1781	1702		1702	1585	1781	1585
Q Serve(g_s), s	57.0	19.2		14.9	0.0	7.2	0.0
Cycle Q Clear(g_c), s	57.0	19.2		14.9	0.0	7.2	0.0
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	677	4453		2343		109	
V/C Ratio(X)	1.20	0.57		0.77		0.80	
Avail Cap(c_a), veh/h	677	4453		2343		380	
HCM Platoon Ratio	1.00	1.00		2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		0.91	0.00	1.00	0.00
Uniform Delay (d), s/veh	46.5	2.5		4.0	0.0	69.5	0.0
Incr Delay (d2), s/veh	103.1	0.5		2.3	0.0	12.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	43.7	3.2		2.3	0.0	3.7	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	149.6	3.0		6.2	0.0	82.0	0.0
LnGrp LOS	F	A		A		F	
Approach Vol, veh/h		3365		1805	A	87	A
Approach Delay, s/veh		38.3		6.2		82.0	
Approach LOS		D		A		F	

Timer - Assigned Phs		2		4	5	6	
Phs Duration (G+Y+Rc), s		135.8		14.2	62.0	73.8	
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0	
Max Green Setting (Gmax), s		96.0		32.0	57.0	46.0	
Max Q Clear Time (g_c+I1), s		21.2		9.2	59.0	16.9	
Green Ext Time (p_c), s		44.9		0.2	0.0	15.7	

Intersection Summary	
HCM 6th Ctrl Delay	28.0
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	2572	69	101	1751	105	148
Future Volume (veh/h)	2572	69	101	1751	105	148
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2572	0	101	1751	105	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3132		122	3619	128	
Arrive On Green	0.82	0.00	0.07	0.71	0.07	0.00
Sat Flow, veh/h	5274	1585	1781	5274	1781	1585
Grp Volume(v), veh/h	2572	0	101	1751	105	0
Grp Sat Flow(s),veh/h/ln	1702	1585	1781	1702	1781	1585
Q Serve(g_s), s	42.2	0.0	8.4	22.8	8.7	0.0
Cycle Q Clear(g_c), s	42.2	0.0	8.4	22.8	8.7	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	3132		122	3619	128	
V/C Ratio(X)	0.82		0.83	0.48	0.82	
Avail Cap(c_a), veh/h	3132		178	3619	404	
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.63	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	9.2	0.0	69.0	9.7	68.7	0.0
Incr Delay (d2), s/veh	1.6	0.0	12.3	0.5	4.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	0.0	4.2	7.8	4.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.9	0.0	81.3	10.2	73.5	0.0
LnGrp LOS	B		F	B	E	
Approach Vol, veh/h	2572	A		1852	105	A
Approach Delay, s/veh	10.9			14.0	73.5	
Approach LOS	B			B	E	

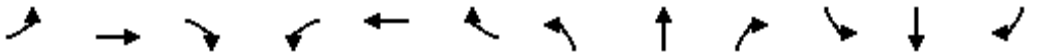
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		14.8	14.3	97.7		112.0
Change Period (Y+Rc), s		4.0	4.0	5.7		5.7
Max Green Setting (Gmax), s		34.0	15.0	87.3		106.3
Max Q Clear Time (g_c+I1), s		10.7	10.4	44.2		24.8
Green Ext Time (p_c), s		0.2	0.1	36.1		29.5

Intersection Summary	
HCM 6th Ctrl Delay	13.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	2464	5	11	1643	1039	2	2	23	435	2	207
Future Volume (veh/h)	251	2464	5	11	1643	1039	2	2	23	435	2	207
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	251	2464	5	11	1643	0	2	2	23	436	0	207
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	275	3444	1069	13	3395		35	3	29	847	0	251
Arrive On Green	0.15	0.67	0.67	0.01	0.53	0.00	0.02	0.02	0.02	0.16	0.00	0.16
Sat Flow, veh/h	1781	5106	1585	1781	6434	1585	1781	128	1476	5344	0	1585
Grp Volume(v), veh/h	251	2464	5	11	1643	0	2	0	25	436	0	207
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1609	1585	1781	0	1605	1781	0	1585
Q Serve(g_s), s	20.8	45.5	0.2	0.9	24.3	0.0	0.2	0.0	2.3	11.2	0.0	19.0
Cycle Q Clear(g_c), s	20.8	45.5	0.2	0.9	24.3	0.0	0.2	0.0	2.3	11.2	0.0	19.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.92	1.00		1.00
Lane Grp Cap(c), veh/h	275	3444	1069	13	3395		35	0	31	847	0	251
V/C Ratio(X)	0.91	0.72	0.00	0.84	0.48		0.06	0.00	0.80	0.51	0.00	0.82
Avail Cap(c_a), veh/h	380	3444	1069	95	3395		95	0	86	1318	0	391
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.84	0.84	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	62.4	15.3	8.0	74.4	22.5	0.0	72.2	0.0	73.2	57.8	0.0	61.1
Incr Delay (d2), s/veh	17.7	1.3	0.0	33.2	0.2	0.0	0.3	0.0	15.6	0.5	0.0	8.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.6	16.3	0.1	0.5	8.9	0.0	0.1	0.0	1.1	5.1	0.0	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.2	16.7	8.0	107.6	22.6	0.0	72.4	0.0	88.8	58.3	0.0	69.5
LnGrp LOS	F	B	A	F	C		E	A	F	E	A	E
Approach Vol, veh/h		2720			1654	A		27			643	
Approach Delay, s/veh		22.5			23.2			87.6			61.9	
Approach LOS		C			C			F			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		6.9	5.1	106.9		31.1	27.2	84.8				
Change Period (Y+Rc), s		4.0	4.0	5.7		7.3	4.0	5.7				
Max Green Setting (Gmax), s		8.0	8.0	76.0		37.0	32.0	52.0				
Max Q Clear Time (g_c+I1), s		4.3	2.9	47.5		21.0	22.8	26.3				
Green Ext Time (p_c), s		0.0	0.0	28.3		2.8	0.3	24.1				

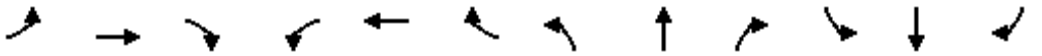
Intersection Summary	
HCM 6th Ctrl Delay	28.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

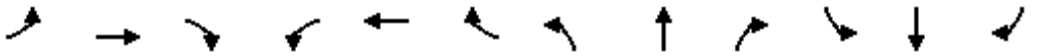


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	2	49	9	6	55	40	2577	43	40	2853	29
Future Volume (veh/h)	61	2	49	9	6	55	40	2577	43	40	2853	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	0	13	8	8	55	40	2577	31	40	2853	28
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	106	0	47	83	87	74	52	5045	1243	75	3966	1231
Arrive On Green	0.03	0.00	0.03	0.05	0.05	0.05	0.03	0.78	0.78	0.02	0.78	0.78
Sat Flow, veh/h	3563	0	1585	1781	1870	1585	1781	6434	1585	3456	5106	1585
Grp Volume(v), veh/h	62	0	13	8	8	55	40	2577	31	40	2853	28
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	1870	1585	1781	1609	1585	1728	1702	1585
Q Serve(g_s), s	2.6	0.0	1.2	0.6	0.6	5.1	3.3	21.6	0.6	1.7	42.4	0.6
Cycle Q Clear(g_c), s	2.6	0.0	1.2	0.6	0.6	5.1	3.3	21.6	0.6	1.7	42.4	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	106	0	47	83	87	74	52	5045	1243	75	3966	1231
V/C Ratio(X)	0.59	0.00	0.28	0.10	0.09	0.74	0.77	0.51	0.02	0.54	0.72	0.02
Avail Cap(c_a), veh/h	285	0	127	451	474	402	143	5045	1243	276	3966	1231
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.77	0.77	0.77	0.67	0.67	0.67
Uniform Delay (d), s/veh	71.9	0.0	71.2	68.5	68.5	70.6	72.3	5.8	3.6	72.6	8.5	3.8
Incr Delay (d2), s/veh	1.9	0.0	1.2	0.5	0.4	12.5	6.9	0.1	0.0	1.5	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.5	0.3	0.3	2.3	1.6	5.9	0.2	0.8	12.7	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.8	0.0	72.4	68.9	68.9	83.1	79.3	5.9	3.6	74.1	9.2	3.8
LnGrp LOS	E	A	E	E	E	F	E	A	A	E	A	A
Approach Vol, veh/h		75			71			2648			2921	
Approach Delay, s/veh		73.5			79.9			7.0			10.1	
Approach LOS		E			E			A			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		11.0	8.4	122.2		8.4	7.2	123.3				
Change Period (Y+Rc), s		4.0	4.0	5.7		4.0	4.0	5.7				
Max Green Setting (Gmax), s		38.0	12.0	70.3		12.0	12.0	70.3				
Max Q Clear Time (g_c+I1), s		7.1	5.3	44.4		4.6	3.7	23.6				
Green Ext Time (p_c), s		0.2	0.0	24.3		0.1	0.0	38.9				

Intersection Summary												
HCM 6th Ctrl Delay			10.4									
HCM 6th LOS			B									

Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	2607	292	187	2455	33	199	35	141	14	7	6
Future Volume (veh/h)	12	2607	292	187	2455	33	199	35	141	14	7	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	2607	211	187	2455	0	224	0	11	10	12	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1368	2715	669	1273	2537		270	0	120	29	30	
Arrive On Green	0.40	0.42	0.42	0.74	0.79	0.00	0.08	0.00	0.08	0.02	0.02	0.00
Sat Flow, veh/h	3456	6434	1585	3456	6434	1585	3563	0	1585	1781	1870	1585
Grp Volume(v), veh/h	12	2607	211	187	2455	0	224	0	11	10	12	0
Grp Sat Flow(s),veh/h/ln	1728	1609	1585	1728	1609	1585	1781	0	1585	1781	1870	1585
Q Serve(g_s), s	0.3	59.1	13.3	2.4	51.1	0.0	9.3	0.0	1.0	0.8	1.0	0.0
Cycle Q Clear(g_c), s	0.3	59.1	13.3	2.4	51.1	0.0	9.3	0.0	1.0	0.8	1.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1368	2715	669	1273	2537		270	0	120	29	30	
V/C Ratio(X)	0.01	0.96	0.32	0.15	0.97		0.83	0.00	0.09	0.35	0.40	
Avail Cap(c_a), veh/h	1368	2715	669	1273	2544		285	0	127	534	561	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.59	0.59	0.59	0.69	0.69	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.5	42.1	28.9	12.8	15.0	0.0	68.4	0.0	64.5	73.0	73.1	0.0
Incr Delay (d2), s/veh	0.0	6.8	0.7	0.0	8.8	0.0	17.1	0.0	0.2	7.2	8.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	23.8	5.1	0.9	6.9	0.0	4.9	0.0	0.4	0.4	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.5	49.0	29.6	12.8	23.8	0.0	85.4	0.0	64.8	80.2	81.5	0.0
LnGrp LOS	C	D	C	B	C		F	A	E	F	F	
Approach Vol, veh/h		2830			2642	A		235			22	A
Approach Delay, s/veh		47.4			23.0			84.5			80.9	
Approach LOS		D			C			F			F	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.4	59.2	69.0		6.4	63.4	64.8				
Change Period (Y+Rc), s		4.0	4.0	5.7		4.0	4.0	5.7				
Max Green Setting (Gmax), s		12.0	12.0	63.3		45.0	16.0	59.3				
Max Q Clear Time (g_c+I1), s		11.3	4.4	61.1		3.0	2.3	53.1				
Green Ext Time (p_c), s		0.1	0.2	2.2		0.1	0.0	6.0				

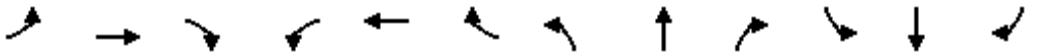
Intersection Summary	
HCM 6th Ctrl Delay	37.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	223	1798	741	88	1770	643	545	399	70	681	536	360
Future Volume (veh/h)	223	1798	741	88	1770	643	545	399	70	681	536	360
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	223	1798	0	88	1770	0	545	399	0	681	536	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	288	1896		129	2175		589	574		998	786	
Arrive On Green	0.11	0.74	0.00	0.07	0.68	0.00	0.17	0.11	0.00	0.20	0.15	0.00
Sat Flow, veh/h	5023	5106	1585	3456	6434	1585	3456	5106	1585	5023	5106	1585
Grp Volume(v), veh/h	223	1798	0	88	1770	0	545	399	0	681	536	0
Grp Sat Flow(s),veh/h/ln	1674	1702	1585	1728	1609	1585	1728	1702	1585	1674	1702	1585
Q Serve(g_s), s	6.5	46.0	0.0	3.7	29.7	0.0	23.3	11.3	0.0	18.9	14.9	0.0
Cycle Q Clear(g_c), s	6.5	46.0	0.0	3.7	29.7	0.0	23.3	11.3	0.0	18.9	14.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	288	1896		129	2175		589	574		998	786	
V/C Ratio(X)	0.78	0.95		0.68	0.81		0.93	0.69		0.68	0.68	
Avail Cap(c_a), veh/h	375	1913		184	2175		622	1328		998	1321	
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.70	0.70	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	65.5	18.1	0.0	68.5	20.9	0.0	61.3	64.1	0.0	55.7	60.0	0.0
Incr Delay (d2), s/veh	3.7	8.3	0.0	2.4	3.5	0.0	18.8	2.2	0.0	1.9	2.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	8.8	0.0	1.6	6.8	0.0	11.6	4.9	0.0	8.1	6.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.2	26.4	0.0	70.9	24.4	0.0	80.1	66.3	0.0	57.7	62.3	0.0
LnGrp LOS	E	C		E	C		F	E		E	E	
Approach Vol, veh/h		2021	A		1858	A		944	A		1217	A
Approach Delay, s/veh		31.1			26.6			74.3			59.7	
Approach LOS		C			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	37.1	22.9	9.6	61.7	29.6	30.4	14.6	56.7
Change Period (Y+Rc), s	7.3	6.0	4.0	* 6	4.0	* 7.3	6.0	6.0
Max Green Setting (Gmax), s	23.8	39.0	8.0	* 56	27.0	* 39	11.2	50.7
Max Q Clear Time (g_c+I1), s	20.9	13.3	5.7	48.0	25.3	16.9	8.5	31.7
Green Ext Time (p_c), s	0.9	3.6	0.0	7.3	0.3	6.2	0.1	14.6

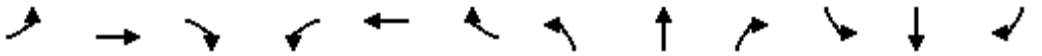
Intersection Summary	
HCM 6th Ctrl Delay	42.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	2458	8	16	2286	347	13	8	4	110	0	52
Future Volume (veh/h)	84	2458	8	16	2286	347	13	8	4	110	0	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	84	2458	8	16	2286	347	10	11	4	110	0	52
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	3334	821	29	2977	733	38	40	34	179	0	80
Arrive On Green	0.06	0.52	0.52	0.02	0.46	0.46	0.02	0.02	0.02	0.05	0.00	0.05
Sat Flow, veh/h	1781	6434	1585	1781	6434	1585	1781	1870	1585	3563	0	1585
Grp Volume(v), veh/h	84	2458	8	16	2286	347	10	11	4	110	0	52
Grp Sat Flow(s),veh/h/ln	1781	1609	1585	1781	1609	1585	1781	1870	1585	1781	0	1585
Q Serve(g_s), s	7.0	44.7	0.4	1.3	44.4	22.6	0.8	0.9	0.4	4.5	0.0	4.8
Cycle Q Clear(g_c), s	7.0	44.7	0.4	1.3	44.4	22.6	0.8	0.9	0.4	4.5	0.0	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	104	3334	821	29	2977	733	38	40	34	179	0	80
V/C Ratio(X)	0.81	0.74	0.01	0.55	0.77	0.47	0.26	0.27	0.12	0.61	0.00	0.65
Avail Cap(c_a), veh/h	166	3334	821	95	2977	733	95	100	85	950	0	423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	69.8	28.2	17.5	73.2	33.6	27.7	72.2	72.2	72.0	69.8	0.0	69.9
Incr Delay (d2), s/veh	6.1	1.0	0.0	6.0	2.0	2.2	1.3	1.3	0.6	4.2	0.0	10.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	16.6	0.1	0.7	17.1	8.8	0.4	0.4	0.2	2.2	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.9	29.1	17.5	79.3	35.6	29.9	73.5	73.6	72.5	74.0	0.0	80.6
LnGrp LOS	E	C	B	E	D	C	E	E	E	E	A	F
Approach Vol, veh/h		2550			2649			25			162	
Approach Delay, s/veh		30.7			35.1			73.4			76.1	
Approach LOS		C			D			E			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		7.2	6.4	83.7		12.1	14.7	75.4				
Change Period (Y+Rc), s		4.0	4.0	6.0		4.6	6.0	* 6				
Max Green Setting (Gmax), s		8.0	8.0	75.4		40.0	14.0	* 69				
Max Q Clear Time (g_c+I1), s		2.9	3.3	46.7		6.8	9.0	46.4				
Green Ext Time (p_c), s		0.0	0.0	25.7		0.7	0.0	21.0				

Intersection Summary	
HCM 6th Ctrl Delay	34.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	121	2319	132	284	1942	262	489	270	306	756	308	168
Future Volume (veh/h)	121	2319	132	284	1942	262	489	270	306	756	308	168
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1988	1988	1988	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	121	2319	73	284	1942	189	489	270	181	756	308	65
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	168	1918	595	961	3059	949	276	386	172	392	504	225
Arrive On Green	0.05	0.35	0.35	0.28	0.60	0.60	0.08	0.11	0.11	0.11	0.14	0.14
Sat Flow, veh/h	3673	5427	1685	3456	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	121	2319	73	284	1942	189	489	270	181	756	308	65
Grp Sat Flow(s),veh/h/ln	1837	1809	1685	1728	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	4.9	53.0	3.4	9.7	36.9	8.1	12.0	11.0	9.7	17.0	12.2	5.5
Cycle Q Clear(g_c), s	4.9	53.0	3.4	9.7	36.9	8.1	12.0	11.0	9.7	17.0	12.2	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	168	1918	595	961	3059	949	276	386	172	392	504	225
V/C Ratio(X)	0.72	1.21	0.12	0.30	0.63	0.20	1.77	0.70	1.05	1.93	0.61	0.29
Avail Cap(c_a), veh/h	196	1918	595	961	3059	949	276	1239	553	392	1350	602
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.65	0.65	0.65	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.6	48.5	19.6	42.6	19.5	13.7	69.0	64.5	23.9	66.5	60.5	57.6
Incr Delay (d2), s/veh	9.2	99.3	0.4	0.1	0.4	0.1	360.3	3.1	51.0	428.0	1.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	40.7	1.8	4.1	13.8	0.0	19.1	5.1	6.0	30.7	5.6	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.8	147.8	20.0	42.7	19.8	13.8	429.3	67.5	75.0	494.5	61.9	58.4
LnGrp LOS	E	F	C	D	B	B	F	E	F	F	E	E
Approach Vol, veh/h		2513			2415			940			1129	
Approach Delay, s/veh		140.9			22.1			257.2			351.3	
Approach LOS		F			C			F			F	

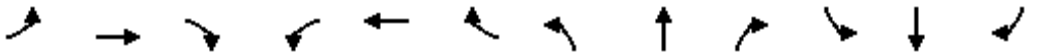
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	22.3	47.7	59.0	16.0	27.3	10.9	95.9
Change Period (Y+Rc), s	4.0	* 6	6.0	* 6	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	17.0	* 52	8.0	* 53	12.0	57.0	8.0	53.0
Max Q Clear Time (g_c+I1), s	19.0	13.0	11.7	55.0	14.0	14.2	6.9	38.9
Green Ext Time (p_c), s	0.0	3.3	0.0	0.0	0.0	2.6	0.0	12.9

Intersection Summary	
HCM 6th Ctrl Delay	149.4
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	392	2441	548	236	2020	53	278	218	172	26	59	190
Future Volume (veh/h)	392	2441	548	236	2020	53	278	218	172	26	59	190
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	392	2441	0	236	2020	28	278	218	0	26	59	112
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	439	3195		253	2921	907	524	258		33	90	134
Arrive On Green	0.04	0.21	0.00	0.15	1.00	1.00	0.10	0.14	0.00	0.02	0.05	0.05
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	5023	1870	1585	1781	1870	2790
Grp Volume(v), veh/h	392	2441	0	236	2020	28	278	218	0	26	59	112
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1674	1870	1585	1781	1870	1395
Q Serve(g_s), s	16.9	67.6	0.0	10.1	0.0	0.0	7.9	17.1	0.0	2.2	4.7	4.8
Cycle Q Clear(g_c), s	16.9	67.6	0.0	10.1	0.0	0.0	7.9	17.1	0.0	2.2	4.7	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	439	3195		253	2921	907	524	258		33	90	134
V/C Ratio(X)	0.89	0.76		0.93	0.69	0.03	0.53	0.85		0.79	0.66	0.84
Avail Cap(c_a), veh/h	461	3195		253	2921	907	524	461		95	362	539
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.8	49.1	0.0	63.6	0.0	0.0	63.7	63.1	0.0	73.3	70.2	46.1
Incr Delay (d2), s/veh	2.2	0.2	0.0	37.8	0.8	0.0	0.5	11.3	0.0	14.4	3.0	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	30.9	0.0	5.4	0.2	0.0	3.4	8.9	0.0	1.1	2.3	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.0	49.2	0.0	101.4	0.8	0.0	64.2	74.4	0.0	87.7	73.2	51.2
LnGrp LOS	E	D		F	A	A	E	E		F	E	D
Approach Vol, veh/h		2833	A		2284			496	A		197	
Approach Delay, s/veh		52.5			11.2			68.7			62.6	
Approach LOS		D			B			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	28.4	15.0	99.9	23.3	11.8	23.0	91.8
Change Period (Y+Rc), s	4.0	* 7.7	4.0	6.0	7.7	4.6	4.0	6.0
Max Green Setting (Gmax), s	8.0	* 37	11.0	74.3	13.4	29.0	20.0	65.3
Max Q Clear Time (g_c+I1), s	4.2	19.1	12.1	69.6	9.9	6.8	18.9	2.0
Green Ext Time (p_c), s	0.0	1.6	0.0	4.6	0.2	0.4	0.1	40.0

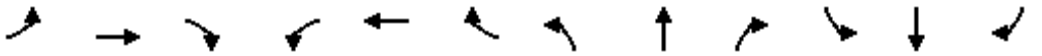
Intersection Summary	
HCM 6th Ctrl Delay	38.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	469	2081	4	26	1633	116	1	5	1	101	5	680
Future Volume (veh/h)	469	2081	4	26	1633	116	1	5	1	101	5	680
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	469	2081	4	26	1633	69	1	5	0	105	0	44
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	514	2537	5	47	1770	549	18	19	16	166	0	148
Arrive On Green	0.30	0.96	0.96	0.03	0.35	0.35	0.01	0.01	0.00	0.05	0.00	0.05
Sat Flow, veh/h	3456	5262	10	1781	5106	1585	1781	1870	1585	3563	0	3170
Grp Volume(v), veh/h	469	1346	739	26	1633	69	1	5	0	105	0	44
Grp Sat Flow(s),veh/h/ln	1728	1702	1869	1781	1702	1585	1781	1870	1585	1781	0	1585
Q Serve(g_s), s	19.6	10.1	10.1	2.2	46.1	4.5	0.1	0.4	0.0	4.3	0.0	2.0
Cycle Q Clear(g_c), s	19.6	10.1	10.1	2.2	46.1	4.5	0.1	0.4	0.0	4.3	0.0	2.0
Prop In Lane	1.00		0.01	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	514	1641	901	47	1770	549	18	19	16	166	0	148
V/C Ratio(X)	0.91	0.82	0.82	0.55	0.92	0.13	0.05	0.26	0.00	0.63	0.00	0.30
Avail Cap(c_a), veh/h	714	1702	934	95	1770	549	249	262	222	665	0	592
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.8	1.6	1.6	72.1	47.1	33.5	73.5	73.7	0.0	70.2	0.0	69.1
Incr Delay (d2), s/veh	10.7	3.4	6.1	3.7	9.5	0.5	0.5	2.6	0.0	1.5	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	1.6	2.5	1.0	20.5	1.8	0.0	0.2	0.0	2.0	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.4	5.0	7.6	75.8	56.6	33.9	74.0	76.3	0.0	71.7	0.0	69.6
LnGrp LOS	E	A	A	E	E	C	E	E	A	E	A	E
Approach Vol, veh/h		2554			1728			6			149	
Approach Delay, s/veh		16.3			56.0			75.9			71.1	
Approach LOS		B			E			E			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		5.5	8.0	78.3		11.0	28.3	58.0				
Change Period (Y+Rc), s		4.0	4.0	6.0		4.0	6.0	* 6				
Max Green Setting (Gmax), s		21.0	8.0	75.0		28.0	31.0	* 52				
Max Q Clear Time (g_c+I1), s		2.4	4.2	12.1		6.3	21.6	48.1				
Green Ext Time (p_c), s		0.0	0.0	39.6		0.2	0.7	3.4				

Intersection Summary		
HCM 6th Ctrl Delay		33.7
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

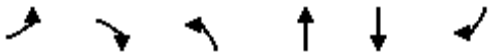
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	338	176	1545	108	151	2032
Future Volume (veh/h)	338	176	1545	108	151	2032
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	338	176	1545	108	151	2032
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	368	328	3063	951	174	3697
Arrive On Green	0.21	0.21	1.00	1.00	0.10	0.72
Sat Flow, veh/h	1781	1585	5274	1585	1781	5274
Grp Volume(v), veh/h	338	176	1545	108	151	2032
Grp Sat Flow(s),veh/h/ln	1781	1585	1702	1585	1781	1702
Q Serve(g_s), s	27.9	14.9	0.0	0.0	12.5	27.4
Cycle Q Clear(g_c), s	27.9	14.9	0.0	0.0	12.5	27.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	368	328	3063	951	174	3697
V/C Ratio(X)	0.92	0.54	0.50	0.11	0.87	0.55
Avail Cap(c_a), veh/h	558	497	3063	951	273	3697
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.94	0.94	1.00	1.00
Uniform Delay (d), s/veh	58.3	53.1	0.0	0.0	66.7	9.5
Incr Delay (d2), s/veh	13.5	1.0	0.6	0.2	10.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.0	13.2	0.2	0.1	6.1	9.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	71.8	54.1	0.6	0.2	77.2	10.1
LnGrp LOS	E	D	A	A	E	B
Approach Vol, veh/h	514		1653			2183
Approach Delay, s/veh	65.7		0.5			14.7
Approach LOS	E		A			B

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				115.0		35.0	18.6	96.4
Change Period (Y+Rc), s				6.4		4.0	4.0	6.4
Max Green Setting (Gmax), s				92.6		47.0	23.0	65.6
Max Q Clear Time (g_c+I1), s				29.4		29.9	14.5	2.0
Green Ext Time (p_c), s				35.4		1.1	0.1	21.4

Intersection Summary								
HCM 6th Ctrl Delay			15.4					
HCM 6th LOS			B					



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	158	81	302	1495	2041	329
Future Volume (veh/h)	158	81	302	1495	2041	329
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	158	81	302	1495	2041	329
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	230	105	319	3312	2263	702
Arrive On Green	0.07	0.07	0.36	1.00	0.89	0.89
Sat Flow, veh/h	3456	1585	1781	5274	5274	1585
Grp Volume(v), veh/h	158	81	302	1495	2041	329
Grp Sat Flow(s),veh/h/ln	1728	1585	1781	1702	1702	1585
Q Serve(g_s), s	6.7	7.5	24.7	0.0	34.0	6.1
Cycle Q Clear(g_c), s	6.7	7.5	24.7	0.0	34.0	6.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	230	105	319	3312	2263	702
V/C Ratio(X)	0.69	0.77	0.95	0.45	0.90	0.47
Avail Cap(c_a), veh/h	991	454	344	3312	2263	702
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.88	0.88	0.76	0.76
Uniform Delay (d), s/veh	68.5	68.9	47.5	0.0	6.7	5.1
Incr Delay (d2), s/veh	1.4	4.4	30.4	0.4	5.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	3.1	11.7	0.1	4.0	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	69.9	73.3	77.9	0.4	11.7	6.8
LnGrp LOS	E	E	E	A	B	A
Approach Vol, veh/h	239			1797	2370	
Approach Delay, s/veh	71.0			13.4	11.0	
Approach LOS	E			B	B	

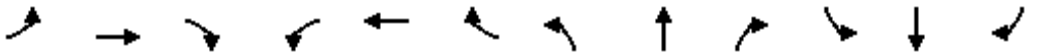
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		14.0	30.8	72.5		103.3
Change Period (Y+Rc), s		4.0	4.0	6.0		* 6
Max Green Setting (Gmax), s		43.0	29.0	64.0		* 97
Max Q Clear Time (g_c+I1), s		9.5	26.7	36.0		2.0
Green Ext Time (p_c), s		0.4	0.1	23.6		31.6

Intersection Summary	
HCM 6th Ctrl Delay	15.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	15	214	3	31	5	170	1755	3	13	1901	208
Future Volume (veh/h)	37	15	214	3	31	5	170	1755	3	13	1901	208
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	30	63	3	31	1	170	1755	2	13	1901	152
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	33	103	88	6	72	2	192	2598	806	20	2105	654
Arrive On Green	0.02	0.06	0.06	0.00	0.04	0.04	0.11	0.51	0.51	0.01	0.41	0.41
Sat Flow, veh/h	1781	1870	1585	1781	1802	58	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	26	30	63	3	0	32	170	1755	2	13	1901	152
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1860	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	2.2	2.3	5.9	0.3	0.0	2.5	14.1	38.6	0.1	1.1	52.3	9.3
Cycle Q Clear(g_c), s	2.2	2.3	5.9	0.3	0.0	2.5	14.1	38.6	0.1	1.1	52.3	9.3
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	33	103	88	6	0	74	192	2598	806	20	2105	654
V/C Ratio(X)	0.79	0.29	0.72	0.54	0.00	0.43	0.89	0.68	0.00	0.65	0.90	0.23
Avail Cap(c_a), veh/h	95	545	462	95	0	558	202	2598	806	95	2128	660
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.70	0.70	0.70
Uniform Delay (d), s/veh	73.3	68.0	69.7	74.7	0.0	70.3	66.0	27.6	18.1	73.9	41.3	28.6
Incr Delay (d2), s/veh	14.4	2.4	16.1	26.7	0.0	2.9	32.2	1.4	0.0	9.1	4.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.2	2.7	0.2	0.0	1.3	8.0	15.4	0.0	0.5	22.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.7	70.5	85.8	101.3	0.0	73.3	98.2	29.0	18.1	83.0	45.6	28.9
LnGrp LOS	F	E	F	F	A	E	F	C	B	F	D	C
Approach Vol, veh/h		119			35			1927			2066	
Approach Delay, s/veh		82.4			75.7			35.1			44.6	
Approach LOS		F			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.5	13.6	20.1	67.4	6.8	11.3	5.7	81.8
Change Period (Y+Rc), s	4.0	5.3	4.0	5.5	4.0	* 5.3	4.0	5.5
Max Green Setting (Gmax), s	8.0	43.7	17.0	62.5	8.0	* 45	8.0	71.5
Max Q Clear Time (g_c+I1), s	2.3	7.9	16.1	54.3	4.2	4.5	3.1	40.6
Green Ext Time (p_c), s	0.0	0.6	0.0	7.6	0.0	0.1	0.0	22.5

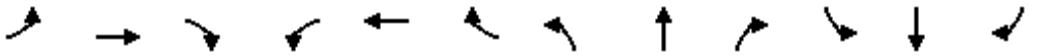
Intersection Summary	
HCM 6th Ctrl Delay	41.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	36	15	170	376	351	35	1571	136	134	1811	52
Future Volume (veh/h)	6	36	15	170	376	351	35	1571	136	134	1811	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	36	15	170	376	0	35	1571	0	134	1811	52
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	11	56	23	192	521		45	3234		156	3549	102
Arrive On Green	0.01	0.04	0.04	0.11	0.15	0.00	0.03	0.63	0.00	0.09	0.70	0.70
Sat Flow, veh/h	1781	1254	522	1781	3554	1585	1781	5106	1585	1781	5102	146
Grp Volume(v), veh/h	6	0	51	170	376	0	35	1571	0	134	1208	655
Grp Sat Flow(s),veh/h/ln	1781	0	1776	1781	1777	1585	1781	1702	1585	1781	1702	1844
Q Serve(g_s), s	0.5	0.0	4.2	14.1	15.1	0.0	2.9	24.4	0.0	11.1	25.1	25.1
Cycle Q Clear(g_c), s	0.5	0.0	4.2	14.1	15.1	0.0	2.9	24.4	0.0	11.1	25.1	25.1
Prop In Lane	1.00		0.29	1.00		1.00	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	11	0	79	192	521		45	3234		156	2368	1283
V/C Ratio(X)	0.57	0.00	0.65	0.88	0.72		0.78	0.49		0.86	0.51	0.51
Avail Cap(c_a), veh/h	95	0	426	249	1151		95	3234		214	2368	1283
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	74.4	0.0	70.5	66.0	61.1	0.0	72.7	14.6	0.0	67.5	10.8	10.8
Incr Delay (d2), s/veh	16.8	0.0	23.0	21.0	3.8	0.0	10.2	0.2	0.0	17.2	0.8	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	2.4	7.6	7.2	0.0	1.5	8.9	0.0	5.7	8.8	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.2	0.0	93.5	87.0	65.0	0.0	82.9	14.7	0.0	84.8	11.6	12.2
LnGrp LOS	F	A	F	F	E		F	B		F	B	B
Approach Vol, veh/h		57			546	A		1606	A		1997	
Approach Delay, s/veh		93.3			71.8			16.2			16.7	
Approach LOS		F			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.2	12.0	7.8	110.1	4.9	27.3	17.1	100.7
Change Period (Y+Rc), s	4.0	* 5.3	4.0	5.7	4.0	5.3	4.0	5.7
Max Green Setting (Gmax), s	21.0	* 36	8.0	66.4	8.0	48.6	18.0	56.4
Max Q Clear Time (g_c+I1), s	16.1	6.2	4.9	27.1	2.5	17.1	13.1	26.4
Green Ext Time (p_c), s	0.1	0.5	0.0	26.6	0.0	4.8	0.1	19.0

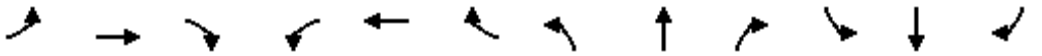
Intersection Summary	
HCM 6th Ctrl Delay	24.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	223	1641	105	48	1649	645	282	928	54	1237	573	160
Future Volume (veh/h)	223	1641	105	48	1649	645	282	928	54	1237	573	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	223	1641	36	48	1649	0	282	928	13	1237	573	79
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	1915	595	81	1729		329	1151	357	1172	1914	594
Arrive On Green	0.06	0.38	0.38	0.02	0.34	0.00	0.10	0.23	0.23	0.08	0.12	0.12
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1585	5023	5106	1585
Grp Volume(v), veh/h	223	1641	36	48	1649	0	282	928	13	1237	573	79
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1585	1674	1702	1585
Q Serve(g_s), s	9.0	44.4	2.2	2.1	47.3	0.0	12.1	25.8	0.9	35.0	15.3	6.7
Cycle Q Clear(g_c), s	9.0	44.4	2.2	2.1	47.3	0.0	12.1	25.8	0.9	35.0	15.3	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	207	1915	595	81	1729		329	1151	357	1172	1914	594
V/C Ratio(X)	1.08	0.86	0.06	0.59	0.95		0.86	0.81	0.04	1.06	0.30	0.13
Avail Cap(c_a), veh/h	207	1915	595	184	1729		438	1328	412	1172	1914	594
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.5	43.2	30.0	72.5	48.5	0.0	66.8	55.0	35.6	69.2	47.8	44.0
Incr Delay (d2), s/veh	84.0	5.2	0.2	2.5	12.5	0.0	9.8	3.8	0.1	42.2	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	19.6	0.9	0.9	22.1	0.0	5.7	11.3	0.4	20.3	7.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	154.5	48.4	30.2	75.1	61.0	0.0	76.6	58.8	35.7	111.4	47.9	44.2
LnGrp LOS	F	D	C	E	E		E	E	D	F	D	D
Approach Vol, veh/h		1900			1697	A		1223			1889	
Approach Delay, s/veh		60.5			61.4			62.6			89.4	
Approach LOS		E			E			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	62.3	18.3	61.9	13.0	56.8	40.7	39.5
Change Period (Y+Rc), s	4.0	6.0	4.0	5.7	4.0	6.0	5.7	* 5.7
Max Green Setting (Gmax), s	8.0	48.3	19.0	55.0	9.0	47.3	35.0	* 39
Max Q Clear Time (g_c+I1), s	4.1	46.4	14.1	17.3	11.0	49.3	37.0	27.8
Green Ext Time (p_c), s	0.0	1.7	0.2	6.8	0.0	0.0	0.0	6.0

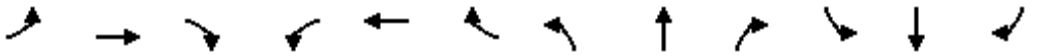
Intersection Summary	
HCM 6th Ctrl Delay	69.2
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



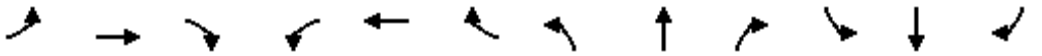
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	0	29	34	0	110	11	1120	11	36	562	13
Future Volume (veh/h)	35	0	29	34	0	110	11	1120	11	36	562	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	0	29	34	0	110	11	1120	11	36	562	13
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	169	0	150	254	0	226	39	1555	15	105	1661	38
Arrive On Green	0.09	0.00	0.09	0.14	0.00	0.14	0.02	0.43	0.43	0.06	0.47	0.47
Sat Flow, veh/h	1781	0	1585	1781	0	1585	1781	3605	35	1781	3550	82
Grp Volume(v), veh/h	35	0	29	34	0	110	11	552	579	36	281	294
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1585	1781	1777	1864	1781	1777	1856
Q Serve(g_s), s	1.2	0.0	1.1	1.1	0.0	4.2	0.4	16.6	16.6	1.3	6.5	6.5
Cycle Q Clear(g_c), s	1.2	0.0	1.1	1.1	0.0	4.2	0.4	16.6	16.6	1.3	6.5	6.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		0.04
Lane Grp Cap(c), veh/h	169	0	150	254	0	226	39	766	804	105	831	868
V/C Ratio(X)	0.21	0.00	0.19	0.13	0.00	0.49	0.28	0.72	0.72	0.34	0.34	0.34
Avail Cap(c_a), veh/h	549	0	488	549	0	488	549	1122	1177	549	1286	1343
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.1	0.0	27.1	24.3	0.0	25.7	31.2	15.2	15.2	29.4	10.9	10.9
Incr Delay (d2), s/veh	0.2	0.0	0.2	0.1	0.0	0.6	1.4	2.2	2.1	0.7	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.4	0.4	0.0	1.5	0.2	6.0	6.3	0.5	2.2	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.4	0.0	27.3	24.4	0.0	26.3	32.6	17.4	17.3	30.1	11.3	11.3
LnGrp LOS	C	A	C	C	A	C	C	B	B	C	B	B
Approach Vol, veh/h		64			144			1142			611	
Approach Delay, s/veh		27.3			25.8			17.5			12.4	
Approach LOS		C			C			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.2	5.4	36.1		13.3	7.8	33.7				
Change Period (Y+Rc), s		4.0	4.0	5.7		4.0	4.0	5.7				
Max Green Setting (Gmax), s		20.0	20.0	47.0		20.0	20.0	41.0				
Max Q Clear Time (g_c+I1), s		3.2	2.4	8.5		6.2	3.3	18.6				
Green Ext Time (p_c), s		0.1	0.0	4.6		0.3	0.0	9.4				

Intersection Summary	
HCM 6th Ctrl Delay	16.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	363	612	91	687	512	587	606	191	108	456	28
Future Volume (veh/h)	28	363	612	91	687	512	587	606	191	108	456	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2001	1924	1924	2001	1924	1924	2001	1924	1924	1954	1879	1879
Adj Flow Rate, veh/h	28	363	612	91	687	512	587	606	191	108	456	28
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	98	952	743	181	1111	493	727	1128	501	185	754	334
Arrive On Green	0.05	0.26	0.26	0.09	0.30	0.30	0.20	0.31	0.31	0.10	0.21	0.21
Sat Flow, veh/h	1906	3656	1621	1906	3656	1623	3698	3656	1623	1861	3571	1581
Grp Volume(v), veh/h	28	363	612	91	687	512	587	606	191	108	456	28
Grp Sat Flow(s),veh/h/ln	1906	1828	1621	1906	1828	1623	1849	1828	1623	1861	1785	1581
Q Serve(g_s), s	1.2	6.8	21.7	3.8	13.4	25.3	12.6	11.4	7.7	4.6	9.6	1.2
Cycle Q Clear(g_c), s	1.2	6.8	21.7	3.8	13.4	25.3	12.6	11.4	7.7	4.6	9.6	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	98	952	743	181	1111	493	727	1128	501	185	754	334
V/C Ratio(X)	0.29	0.38	0.82	0.50	0.62	1.04	0.81	0.54	0.38	0.58	0.61	0.08
Avail Cap(c_a), veh/h	206	1745	1095	206	1727	767	1022	1670	741	201	1043	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.0	25.3	19.7	35.8	24.8	29.0	31.9	23.8	22.5	35.8	29.7	26.4
Incr Delay (d2), s/veh	0.6	0.6	5.8	0.8	1.0	41.3	2.2	0.6	0.7	2.0	1.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.8	9.8	1.7	5.4	14.4	5.4	4.5	2.7	2.1	3.9	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.6	25.8	25.4	36.6	25.8	70.3	34.1	24.4	23.2	37.8	31.0	26.5
LnGrp LOS	D	C	C	D	C	F	C	C	C	D	C	C
Approach Vol, veh/h		1003			1290			1384			592	
Approach Delay, s/veh		25.9			44.2			28.4			32.1	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	27.4	20.4	23.6	8.3	31.0	12.3	31.7
Change Period (Y+Rc), s	4.0	* 5.7	4.0	* 6	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	9.0	* 40	23.0	* 24	9.0	39.3	9.0	38.0
Max Q Clear Time (g_c+I1), s	5.8	8.8	14.6	11.6	3.2	15.4	6.6	13.4
Green Ext Time (p_c), s	0.1	3.0	1.8	5.5	0.0	9.2	0.1	9.3

Intersection Summary	
HCM 6th Ctrl Delay	33.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



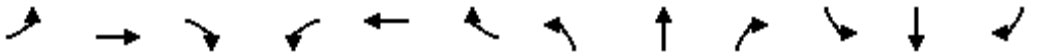
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	932	45	85	1154	140	103
Future Volume (veh/h)	932	45	85	1154	140	103
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	932	45	85	1154	140	103
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1416	631	223	2147	346	308
Arrive On Green	0.40	0.40	0.13	0.60	0.19	0.19
Sat Flow, veh/h	3647	1585	1781	3647	1781	1585
Grp Volume(v), veh/h	932	45	85	1154	140	103
Grp Sat Flow(s),veh/h/ln	1777	1585	1781	1777	1781	1585
Q Serve(g_s), s	10.6	0.9	2.2	9.4	3.4	2.8
Cycle Q Clear(g_c), s	10.6	0.9	2.2	9.4	3.4	2.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1416	631	223	2147	346	308
V/C Ratio(X)	0.66	0.07	0.38	0.54	0.40	0.33
Avail Cap(c_a), veh/h	2506	1118	754	4296	897	798
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.2	9.2	19.9	5.8	17.5	17.2
Incr Delay (d2), s/veh	0.8	0.1	0.4	0.3	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.2	0.8	1.6	1.3	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.0	9.3	20.3	6.1	17.8	17.5
LnGrp LOS	B	A	C	A	B	B
Approach Vol, veh/h	977			1239	243	
Approach Delay, s/veh	12.8			7.0	17.6	
Approach LOS	B			A	B	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		13.6	10.2	25.8		36.0
Change Period (Y+Rc), s		4.0	4.0	6.0		6.0
Max Green Setting (Gmax), s		25.0	21.0	35.0		60.0
Max Q Clear Time (g_c+I1), s		5.4	4.2	12.6		11.4
Green Ext Time (p_c), s		0.5	0.1	7.2		11.2

Intersection Summary	
HCM 6th Ctrl Delay	10.4
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	185	747	62	429	249	751	1685	38	96	893	33
Future Volume (veh/h)	110	185	747	62	429	249	751	1685	38	96	893	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	110	185	0	62	429	0	751	1685	0	96	893	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	182	528		192	538		819	2836		345	2193	
Arrive On Green	0.05	0.15	0.00	0.06	0.15	0.00	0.24	0.56	0.00	0.10	0.43	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	110	185	0	62	429	0	751	1685	0	96	893	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	4.7	7.0	0.0	2.6	17.5	0.0	31.8	32.9	0.0	3.9	18.1	0.0
Cycle Q Clear(g_c), s	4.7	7.0	0.0	2.6	17.5	0.0	31.8	32.9	0.0	3.9	18.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	182	528		192	538		819	2836		345	2193	
V/C Ratio(X)	0.60	0.35		0.32	0.80		0.92	0.59		0.28	0.41	
Avail Cap(c_a), veh/h	207	694		230	727		1129	2836		345	2193	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	69.5	57.3	0.0	68.1	61.4	0.0	55.8	22.1	0.0	62.5	29.6	0.0
Incr Delay (d2), s/veh	2.0	0.7	0.0	0.4	6.0	0.0	7.7	0.9	0.0	0.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	3.1	0.0	1.1	8.2	0.0	14.2	12.4	0.0	1.7	7.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.5	58.0	0.0	68.5	67.4	0.0	63.5	23.1	0.0	62.7	29.8	0.0
LnGrp LOS	E	E		E	E		E	C		E	C	
Approach Vol, veh/h		295	A		491	A		2436	A		989	A
Approach Delay, s/veh		63.1			67.5			35.5			33.0	
Approach LOS		E			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.7	89.0	12.3	28.0	39.5	70.1	11.9	28.4
Change Period (Y+Rc), s	5.7	* 5.7	4.0	5.7	4.0	5.7	4.0	* 5.7
Max Green Setting (Gmax), s	8.0	* 83	10.0	29.3	49.0	42.3	9.0	* 31
Max Q Clear Time (g_c+I1), s	5.9	34.9	4.6	9.0	33.8	20.1	6.7	19.5
Green Ext Time (p_c), s	0.0	19.0	0.0	1.1	1.8	6.3	0.0	2.3

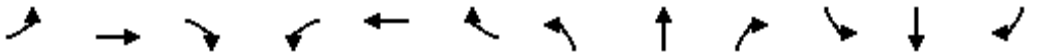
Intersection Summary	
HCM 6th Ctrl Delay	40.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

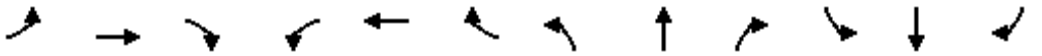
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	166	759	0	0	661	277	0	0	0	552	0	152
Future Volume (veh/h)	166	759	0	0	661	277	0	0	0	552	0	152
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841				1841	0	1841
Adj Flow Rate, veh/h	166	759	0	0	661	277				552	0	152
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	4	4	0	0	4	4				4	0	4
Cap, veh/h	212	1647	0	0	992	439				629	0	560
Arrive On Green	0.12	0.47	0.00	0.00	0.28	0.28				0.36	0.00	0.36
Sat Flow, veh/h	1753	3589	0	0	3589	1546				1753	0	1560
Grp Volume(v), veh/h	166	759	0	0	661	277				552	0	152
Grp Sat Flow(s),veh/h/ln	1753	1749	0	0	1749	1546				1753	0	1560
Q Serve(g_s), s	5.6	8.9	0.0	0.0	10.1	9.5				17.8	0.0	4.2
Cycle Q Clear(g_c), s	5.6	8.9	0.0	0.0	10.1	9.5				17.8	0.0	4.2
Prop In Lane	1.00		0.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	212	1647	0	0	992	439				629	0	560
V/C Ratio(X)	0.78	0.46	0.00	0.00	0.67	0.63				0.88	0.00	0.27
Avail Cap(c_a), veh/h	580	2024	0	0	3065	1355				1131	0	1006
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	25.8	10.8	0.0	0.0	19.1	18.9				18.1	0.0	13.8
Incr Delay (d2), s/veh	2.4	0.2	0.0	0.0	0.8	1.5				1.6	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	2.6	0.0	0.0	3.6	3.0				6.8	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.2	11.0	0.0	0.0	19.9	20.4				19.7	0.0	13.9
LnGrp LOS	C	B	A	A	B	C				B	A	B
Approach Vol, veh/h		925			938						704	
Approach Delay, s/veh		14.1			20.0						18.5	
Approach LOS		B			C						B	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		34.2		26.3	11.3	22.9						
Change Period (Y+Rc), s		5.7		4.6	4.0	5.7						
Max Green Setting (Gmax), s		35.0		39.0	20.0	53.0						
Max Q Clear Time (g_c+I1), s		10.9		19.8	7.6	12.1						
Green Ext Time (p_c), s		3.5		1.9	0.2	4.6						

Intersection Summary												
HCM 6th Ctrl Delay			17.5									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	1180	12	9	890	220	25	9	18	154	7	58
Future Volume (veh/h)	107	1180	12	9	890	220	25	9	18	154	7	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1885	1826	1826	1885	1885	1885	1791	1791	1732
Adj Flow Rate, veh/h	107	1180	12	9	890	220	25	9	18	154	7	58
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	5	5	5	1	5	5	1	1	1	1	1	5
Cap, veh/h	139	1892	19	12	1613	712	69	22	43	208	9	183
Arrive On Green	0.08	0.54	0.54	0.01	0.46	0.46	0.04	0.04	0.04	0.13	0.13	0.13
Sat Flow, veh/h	1739	3518	36	1795	3469	1531	1795	561	1122	1635	74	1433
Grp Volume(v), veh/h	107	582	610	9	890	220	25	0	27	161	0	58
Grp Sat Flow(s),veh/h/ln	1739	1735	1819	1795	1735	1531	1795	0	1683	1709	0	1433
Q Serve(g_s), s	3.7	14.3	14.3	0.3	11.3	5.5	0.8	0.0	1.0	5.5	0.0	2.3
Cycle Q Clear(g_c), s	3.7	14.3	14.3	0.3	11.3	5.5	0.8	0.0	1.0	5.5	0.0	2.3
Prop In Lane	1.00		0.02	1.00		1.00	1.00		0.67	0.96		1.00
Lane Grp Cap(c), veh/h	139	933	978	12	1613	712	69	0	65	218	0	183
V/C Ratio(X)	0.77	0.62	0.62	0.72	0.55	0.31	0.36	0.00	0.42	0.74	0.00	0.32
Avail Cap(c_a), veh/h	569	1277	1339	587	3802	1677	587	0	551	335	0	281
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.6	9.8	9.8	30.3	11.8	10.2	28.7	0.0	28.7	25.7	0.0	24.3
Incr Delay (d2), s/veh	3.4	0.7	0.7	24.9	0.3	0.2	1.2	0.0	1.6	1.9	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	3.9	4.1	0.2	3.4	1.5	0.4	0.0	0.4	2.3	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.0	10.5	10.5	55.2	12.1	10.5	29.9	0.0	30.3	27.6	0.0	24.6
LnGrp LOS	C	B	B	E	B	B	C	A	C	C	A	C
Approach Vol, veh/h		1299			1119			52			219	
Approach Delay, s/veh		12.2			12.1			30.1			26.8	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.4	38.6		6.3	8.9	34.1		11.8				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	67.0		12.0				
Max Q Clear Time (g_c+I1), s	2.3	16.3		3.0	5.7	13.3		7.5				
Green Ext Time (p_c), s	0.0	15.0		0.1	0.1	15.1		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		13.7	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1020	333	346	966	278	404
Future Volume (veh/h)	1020	333	346	966	278	404
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1020	236	346	966	278	390
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1144	785	598	2471	313	810
Arrive On Green	0.32	0.32	0.34	0.70	0.18	0.18
Sat Flow, veh/h	3647	1573	1781	3647	1781	1585
Grp Volume(v), veh/h	1020	236	346	966	278	390
Grp Sat Flow(s),veh/h/ln	1777	1573	1781	1777	1781	1585
Q Serve(g_s), s	41.0	13.3	24.0	17.1	22.9	0.0
Cycle Q Clear(g_c), s	41.0	13.3	24.0	17.1	22.9	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1144	785	598	2471	313	810
V/C Ratio(X)	0.89	0.30	0.58	0.39	0.89	0.48
Avail Cap(c_a), veh/h	1381	890	598	2471	428	912
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.94	0.94	0.86	0.86
Uniform Delay (d), s/veh	48.4	22.3	41.1	9.6	60.4	23.8
Incr Delay (d2), s/veh	6.7	0.2	0.9	0.4	11.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.7	6.9	10.5	6.1	11.4	16.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	55.1	22.5	42.0	10.0	71.9	23.9
LnGrp LOS	E	C	D	A	E	C
Approach Vol, veh/h	1256			1312	668	
Approach Delay, s/veh	49.0			18.4	43.9	
Approach LOS	D			B	D	

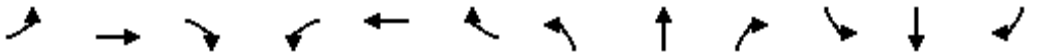
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	56.0	54.0		30.3		110.0
Change Period (Y+Rc), s	5.7	* 5.7		4.0		5.7
Max Green Setting (Gmax), s	42.0	* 58		36.0		104.3
Max Q Clear Time (g_c+I1), s	26.0	43.0		24.9		19.1
Green Ext Time (p_c), s	0.6	5.3		1.5		5.0

Intersection Summary	
HCM 6th Ctrl Delay	35.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

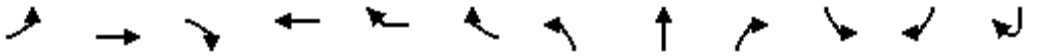
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1116	308	459	523	0	0	0	1420	0	0	789
Future Volume (vph)	0	1116	308	459	523	0	0	0	1420	0	0	789
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.7	5.7	4.0	4.0				4.0			4.0
Lane Util. Factor		0.91	1.00	0.97	0.95				1.00			1.00
Frpb, ped/bikes		1.00	0.98	1.00	1.00				1.00			1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00				1.00			1.00
Frt		1.00	0.85	1.00	1.00				0.86			0.86
Flt Protected		1.00	1.00	0.95	1.00				1.00			1.00
Satd. Flow (prot)		5085	1555	3433	3539				1611			1611
Flt Permitted		1.00	1.00	0.95	1.00				1.00			1.00
Satd. Flow (perm)		5085	1555	3433	3539				1611			1611
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1116	308	459	523	0	0	0	1420	0	0	789
RTOR Reduction (vph)	0	0	62	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1116	246	459	523	0	0	0	1420	0	0	789
Confl. Peds. (#/hr)			5									
Turn Type		NA	Perm	Prot	NA				Free			Free
Protected Phases		2		1	Free							
Permitted Phases			2						Free			Free
Actuated Green, G (s)		50.8	50.8	14.5	75.0				75.0			75.0
Effective Green, g (s)		50.8	50.8	14.5	75.0				75.0			75.0
Actuated g/C Ratio		0.68	0.68	0.19	1.00				1.00			1.00
Clearance Time (s)		5.7	5.7	4.0								
Vehicle Extension (s)		3.4	3.4	2.0								
Lane Grp Cap (vph)		3444	1053	663	3539				1611			1611
v/s Ratio Prot		0.22		0.13	0.15							
v/s Ratio Perm			0.16						c0.88			0.49
v/c Ratio		0.32	0.23	0.69	0.15				0.88			0.49
Uniform Delay, d1		5.0	4.6	28.2	0.0				0.0			0.0
Progression Factor		0.60	0.42	0.98	1.00				1.00			1.00
Incremental Delay, d2		0.2	0.4	2.0	0.1				7.3			1.1
Delay (s)		3.2	2.3	29.7	0.1				7.3			1.1
Level of Service		A	A	C	A				A			A
Approach Delay (s)		3.0			13.9			7.3			1.1	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	6.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	9.7
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

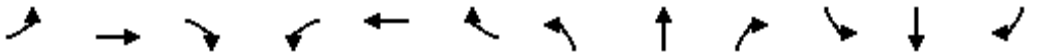


Movement	EBL	EBT	EBR	WBT	WBR	WBR2	NBL2	NBT	NBR	SBL	SBR	SBR2
Lane Configurations												
Traffic Volume (vph)	238	1946	352	601	1744	99	147	639	1023	289	234	96
Future Volume (vph)	238	1946	352	601	1744	99	147	639	1023	289	234	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.7	4.0	5.7	5.7	5.7	4.0	5.3	4.0	4.0	5.7	
Lane Util. Factor	0.97	0.95	1.00	0.86	0.86	1.00	1.00	0.95	1.00	0.97	0.88	
Frpb, ped/bikes	1.00	1.00	0.98	0.99	0.98	1.00	1.00	1.00	0.99	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	0.91	0.85	0.85	1.00	1.00	0.85	1.00	0.85	
Flt Protected	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3539	1548	4332	1337	1583	1770	3539	1562	3433	2787	
Flt Permitted	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3539	1548	4332	1337	1583	1770	3539	1562	3433	2787	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	238	1946	352	601	1744	99	147	639	1023	289	234	96
RTOR Reduction (vph)	0	0	0	0	0	53	0	0	0	0	44	0
Lane Group Flow (vph)	238	1946	352	1473	872	46	147	639	1023	289	286	0
Confl. Peds. (#/hr)			5		5				5		5	
Turn Type	Prot	NA	Free	NA	Perm	Perm	Prot	NA	Free	Prot	pt+ov	
Protected Phases	5	2		6			3	8		7	4 5	
Permitted Phases			Free		6	6			Free			
Actuated Green, G (s)	17.6	90.6	150.0	69.0	69.0	69.0	26.2	34.4	150.0	10.0	35.4	
Effective Green, g (s)	17.6	90.6	150.0	69.0	69.0	69.0	26.2	34.4	150.0	10.0	35.4	
Actuated g/C Ratio	0.12	0.60	1.00	0.46	0.46	0.46	0.17	0.23	1.00	0.07	0.24	
Clearance Time (s)	4.0	5.7		5.7	5.7	5.7	4.0	5.3		4.0		
Vehicle Extension (s)	2.0	3.5		5.6	5.6	5.6	2.0	2.8		3.5		
Lane Grp Cap (vph)	402	2137	1548	1992	615	728	309	811	1562	228	657	
v/s Ratio Prot	0.07	c0.55		0.34			0.08	c0.18		c0.08	0.10	
v/s Ratio Perm			0.23		c0.65	0.03			c0.65			
v/c Ratio	0.59	0.91	0.23	1.28dr	1.42	0.06	0.48	0.79	0.65	1.27	0.43	
Uniform Delay, d1	62.8	26.1	0.0	33.1	40.5	22.5	55.7	54.4	0.0	70.0	48.8	
Progression Factor	1.10	0.73	1.00	0.50	0.60	0.32	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.1	5.4	0.3	1.6	195.9	0.1	0.4	5.0	2.2	150.3	0.2	
Delay (s)	70.3	24.4	0.3	18.1	220.3	7.4	56.1	59.4	2.2	220.3	49.0	
Level of Service	E	C	A	B	F	A	E	E	A	F	D	
Approach Delay (s)		25.4		89.8				26.8				
Approach LOS		C		F				C				

Intersection Summary			
HCM 2000 Control Delay	55.6	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	19.4
Intersection Capacity Utilization	112.8%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	386	2434	438	78	1993	83	210	253	81	125	285	241
Future Volume (veh/h)	386	2434	438	78	1993	83	210	253	81	125	285	241
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	386	2434	0	78	1993	0	210	253	0	125	285	32
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	423	2214		199	2299		335	578		229	518	159
Arrive On Green	0.25	0.87	0.00	0.06	0.36	0.00	0.07	0.11	0.00	0.07	0.10	0.10
Sat Flow, veh/h	3456	5106	1585	3456	6434	1585	5023	5106	1585	3456	5106	1562
Grp Volume(v), veh/h	386	2434	0	78	1993	0	210	253	0	125	285	32
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1609	1585	1674	1702	1585	1728	1702	1562
Q Serve(g_s), s	16.3	65.0	0.0	3.3	43.3	0.0	6.1	6.9	0.0	5.3	8.0	2.8
Cycle Q Clear(g_c), s	16.3	65.0	0.0	3.3	43.3	0.0	6.1	6.9	0.0	5.3	8.0	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	423	2214		199	2299		335	578		229	518	159
V/C Ratio(X)	0.91	1.10		0.39	0.87		0.63	0.44		0.55	0.55	0.20
Avail Cap(c_a), veh/h	438	2214		207	2299		335	1648		230	1566	479
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.39	0.39	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	10.0	0.0	68.1	44.9	0.0	68.2	62.1	0.0	67.8	64.1	61.8
Incr Delay (d2), s/veh	10.6	48.1	0.0	0.5	4.7	0.0	2.8	0.7	0.0	1.5	1.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	13.8	0.0	1.4	17.7	0.0	2.7	3.0	0.0	2.4	3.5	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.4	58.0	0.0	68.6	49.6	0.0	71.0	62.8	0.0	69.3	65.2	62.6
LnGrp LOS	E	F		E	D		E	E		E	E	E
Approach Vol, veh/h		2820	A		2071	A		463	A		442	
Approach Delay, s/veh		59.2			50.3			66.5			66.2	
Approach LOS		E			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	23.0	12.7	70.7	16.0	20.9	24.1	59.3
Change Period (Y+Rc), s	4.0	* 6	4.0	5.7	6.0	5.7	5.7	* 5.7
Max Green Setting (Gmax), s	10.0	* 48	9.0	63.6	10.0	46.0	19.0	* 54
Max Q Clear Time (g_c+I1), s	7.3	8.9	5.3	67.0	8.1	10.0	18.3	45.3
Green Ext Time (p_c), s	0.1	1.7	0.0	0.0	0.1	1.8	0.1	6.5

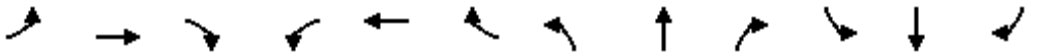
Intersection Summary	
HCM 6th Ctrl Delay	57.1
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	2040	327	34	1756	21	165	279	8	59	250	88
Future Volume (veh/h)	118	2040	327	34	1756	21	165	279	8	59	250	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	118	2040	0	34	1756	0	165	279	0	59	250	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	140	2767		220	3055		188	538		75	313	
Arrive On Green	0.08	0.54	0.00	0.12	0.60	0.00	0.11	0.15	0.00	0.04	0.09	0.00
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	118	2040	0	34	1756	0	165	279	0	59	250	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	9.8	45.7	0.0	2.6	31.6	0.0	13.7	10.8	0.0	4.9	10.4	0.0
Cycle Q Clear(g_c), s	9.8	45.7	0.0	2.6	31.6	0.0	13.7	10.8	0.0	4.9	10.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	140	2767		220	3055		188	538		75	313	
V/C Ratio(X)	0.84	0.74		0.15	0.57		0.88	0.52		0.78	0.80	
Avail Cap(c_a), veh/h	214	2767		220	3055		273	775		119	457	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	68.2	26.2	0.0	58.7	18.4	0.0	66.1	58.6	0.0	71.1	67.1	0.0
Incr Delay (d2), s/veh	10.5	1.8	0.0	0.1	0.4	0.0	14.7	1.6	0.0	6.5	8.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	18.0	0.0	1.2	11.9	0.0	6.9	4.9	0.0	2.4	5.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.6	28.0	0.0	58.8	18.8	0.0	80.8	60.2	0.0	77.6	75.6	0.0
LnGrp LOS	E	C		E	B		F	E		E	E	
Approach Vol, veh/h		2158	A		1790	A		444	A		309	A
Approach Delay, s/veh		30.8			19.5			67.8			76.0	
Approach LOS		C			B			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	28.4	24.3	87.0	19.8	18.9	15.8	95.5
Change Period (Y+Rc), s	4.0	* 5.7	5.7	* 5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	10.0	* 33	7.0	* 81	23.0	19.3	18.0	70.3
Max Q Clear Time (g_c+I1), s	6.9	12.8	4.6	47.7	15.7	12.4	11.8	33.6
Green Ext Time (p_c), s	0.0	2.1	0.0	22.8	0.2	0.8	0.1	20.1

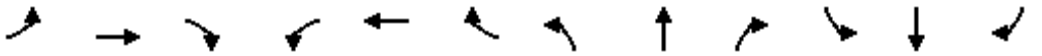
Intersection Summary	
HCM 6th Ctrl Delay	33.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	168	209	53	233	65	124	1682	53	189	1729	54
Future Volume (veh/h)	79	168	209	53	233	65	124	1682	53	189	1729	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	79	168	0	53	233	0	124	1682	0	189	1729	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	376		68	316		146	2111		212	2358	
Arrive On Green	0.06	0.11	0.00	0.04	0.09	0.00	0.08	0.41	0.00	0.12	0.46	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	79	168	0	53	233	0	124	1682	0	189	1729	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	6.6	6.7	0.0	4.4	9.6	0.0	10.3	43.2	0.0	15.7	41.3	0.0
Cycle Q Clear(g_c), s	6.6	6.7	0.0	4.4	9.6	0.0	10.3	43.2	0.0	15.7	41.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	98	376		68	316		146	2111		212	2358	
V/C Ratio(X)	0.80	0.45		0.78	0.74		0.85	0.80		0.89	0.73	
Avail Cap(c_a), veh/h	143	806		119	758		214	2111		297	2358	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	70.0	62.9	0.0	71.5	66.6	0.0	67.9	38.5	0.0	65.1	32.9	0.0
Incr Delay (d2), s/veh	11.8	1.7	0.0	7.0	6.7	0.0	13.1	3.2	0.0	17.0	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	3.1	0.0	2.1	4.6	0.0	5.2	18.1	0.0	8.0	16.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.9	64.6	0.0	78.5	73.3	0.0	81.0	41.7	0.0	82.1	34.2	0.0
LnGrp LOS	F	E		E	E		F	D		F	C	
Approach Vol, veh/h		247	A		286	A		1806	A		1918	A
Approach Delay, s/veh		70.1			74.3			44.4			38.9	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	21.2	16.3	75.0	12.3	18.6	23.6	67.7
Change Period (Y+Rc), s	4.0	5.3	4.0	5.7	4.0	5.3	5.7	* 5.7
Max Green Setting (Gmax), s	10.0	34.0	18.0	69.0	12.0	32.0	25.0	* 62
Max Q Clear Time (g_c+I1), s	6.4	8.7	12.3	43.3	8.6	11.6	17.7	45.2
Green Ext Time (p_c), s	0.0	1.3	0.1	15.9	0.0	1.7	0.2	11.5

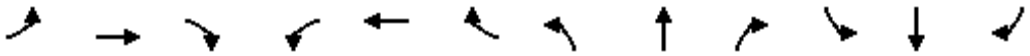
Intersection Summary	
HCM 6th Ctrl Delay	45.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	308	1518	357	60	1309	652	362	1030	28	726	865	163
Future Volume (veh/h)	308	1518	357	60	1309	652	362	1030	28	726	865	163
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	308	1518	242	60	1309	0	362	1030	26	726	865	144
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	348	2016	626	97	1576		500	1256	32	799	1096	182
Arrive On Green	0.20	0.79	0.79	0.03	0.31	0.00	0.14	0.25	0.25	0.16	0.25	0.25
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5122	129	5023	4412	731
Grp Volume(v), veh/h	308	1518	242	60	1309	0	362	684	372	726	666	343
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1847	1674	1702	1739
Q Serve(g_s), s	13.0	23.2	3.9	2.6	35.7	0.0	15.0	28.5	28.5	21.3	27.4	27.7
Cycle Q Clear(g_c), s	13.0	23.2	3.9	2.6	35.7	0.0	15.0	28.5	28.5	21.3	27.4	27.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07	1.00		0.42
Lane Grp Cap(c), veh/h	348	2016	626	97	1576		500	835	453	799	846	432
V/C Ratio(X)	0.88	0.75	0.39	0.62	0.83		0.72	0.82	0.82	0.91	0.79	0.79
Avail Cap(c_a), veh/h	392	2016	626	138	1576		530	930	505	871	999	510
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.0	12.0	3.3	72.1	48.2	0.0	61.3	53.5	53.5	62.0	52.7	52.8
Incr Delay (d2), s/veh	17.8	1.8	0.5	2.4	5.2	0.0	3.8	6.0	10.5	12.0	4.3	8.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	4.6	2.0	1.2	15.6	0.0	6.8	12.7	14.4	9.9	12.1	12.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.9	13.7	3.8	74.5	53.4	0.0	65.1	59.4	64.0	74.0	56.9	61.1
LnGrp LOS	E	B	A	E	D		E	E	E	E	E	E
Approach Vol, veh/h		2068			1369	A		1418			1735	
Approach Delay, s/veh		22.0			54.4			62.1			64.9	
Approach LOS		C			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	65.2	27.4	43.0	21.1	52.3	27.9	42.5
Change Period (Y+Rc), s	4.0	6.0	5.7	* 5.7	6.0	* 6	4.0	5.7
Max Green Setting (Gmax), s	6.0	57.3	23.0	* 44	17.0	* 46	26.0	41.0
Max Q Clear Time (g_c+I1), s	4.6	25.2	17.0	29.7	15.0	37.7	23.3	30.5
Green Ext Time (p_c), s	0.0	19.2	0.4	7.6	0.1	6.0	0.6	6.3

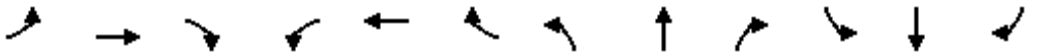
Intersection Summary	
HCM 6th Ctrl Delay	48.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



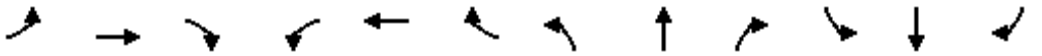
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	1096	10	13	1299	15	45	2	6	23	4	59
Future Volume (veh/h)	49	1096	10	13	1299	15	45	2	6	23	4	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	1096	10	13	1299	15	45	2	6	23	4	59
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	1924	18	45	1757	20	148	34	102	160	28	166
Arrive On Green	0.07	0.53	0.53	0.03	0.49	0.49	0.08	0.08	0.08	0.10	0.10	0.10
Sat Flow, veh/h	1781	3608	33	1781	3598	42	1781	412	1236	1528	266	1585
Grp Volume(v), veh/h	49	540	566	13	641	673	45	0	8	27	0	59
Grp Sat Flow(s),veh/h/ln	1781	1777	1864	1781	1777	1863	1781	0	1648	1794	0	1585
Q Serve(g_s), s	1.8	14.2	14.2	0.5	20.1	20.2	1.7	0.0	0.3	1.0	0.0	2.4
Cycle Q Clear(g_c), s	1.8	14.2	14.2	0.5	20.1	20.2	1.7	0.0	0.3	1.0	0.0	2.4
Prop In Lane	1.00		0.02	1.00		0.02	1.00		0.75	0.85		1.00
Lane Grp Cap(c), veh/h	125	947	994	45	868	910	148	0	137	188	0	166
V/C Ratio(X)	0.39	0.57	0.57	0.29	0.74	0.74	0.30	0.00	0.06	0.14	0.00	0.36
Avail Cap(c_a), veh/h	511	1147	1203	511	1147	1202	511	0	473	515	0	455
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.0	10.9	10.9	33.3	14.3	14.3	30.1	0.0	29.5	28.4	0.0	29.0
Incr Delay (d2), s/veh	0.7	0.9	0.9	1.3	2.6	2.5	0.4	0.0	0.1	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	5.0	5.2	0.2	7.7	8.0	0.7	0.0	0.1	0.4	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.7	11.8	11.8	34.6	16.8	16.7	30.5	0.0	29.5	28.5	0.0	29.5
LnGrp LOS	C	B	B	C	B	B	C	A	C	C	A	C
Approach Vol, veh/h		1155			1327			53			86	
Approach Delay, s/veh		12.7			17.0			30.4			29.2	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.8	42.9		9.8	8.9	39.7		11.3				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	2.5	16.2		3.7	3.8	22.2		4.4				
Green Ext Time (p_c), s	0.0	10.6		0.1	0.1	11.9		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		15.7	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



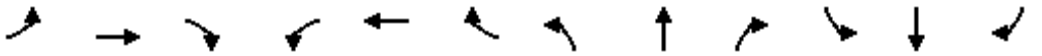
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	530	40	37	1213	130	51	4	26	46	37	16
Future Volume (veh/h)	109	530	40	37	1213	130	51	4	26	46	37	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	109	530	33	37	1213	53	51	4	14	46	37	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	169	1558	97	95	1481	660	129	10	36	113	90	177
Arrive On Green	0.10	0.46	0.46	0.05	0.42	0.42	0.10	0.10	0.10	0.11	0.11	0.11
Sat Flow, veh/h	1781	3398	211	1781	3554	1585	1288	101	354	1009	811	1585
Grp Volume(v), veh/h	109	277	286	37	1213	53	69	0	0	83	0	3
Grp Sat Flow(s),veh/h/ln	1781	1777	1832	1781	1777	1585	1742	0	0	1820	0	1585
Q Serve(g_s), s	3.7	6.3	6.3	1.3	18.9	1.3	2.3	0.0	0.0	2.7	0.0	0.1
Cycle Q Clear(g_c), s	3.7	6.3	6.3	1.3	18.9	1.3	2.3	0.0	0.0	2.7	0.0	0.1
Prop In Lane	1.00		0.12	1.00		1.00	0.74		0.20	0.55		1.00
Lane Grp Cap(c), veh/h	169	815	840	95	1481	660	175	0	0	203	0	177
V/C Ratio(X)	0.64	0.34	0.34	0.39	0.82	0.08	0.39	0.00	0.00	0.41	0.00	0.02
Avail Cap(c_a), veh/h	597	1042	1074	313	1516	676	306	0	0	610	0	532
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.3	10.9	10.9	28.7	16.2	11.0	26.4	0.0	0.0	25.9	0.0	24.8
Incr Delay (d2), s/veh	1.5	1.1	1.1	1.0	5.2	0.2	0.5	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.2	2.3	0.5	7.3	0.4	1.0	0.0	0.0	1.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.8	12.0	12.0	29.6	21.4	11.3	26.9	0.0	0.0	26.4	0.0	24.8
LnGrp LOS	C	B	B	C	C	B	C	A	A	C	A	C
Approach Vol, veh/h		672			1303			69			86	
Approach Delay, s/veh		14.7			21.2			26.9			26.3	
Approach LOS		B			C			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.3	7.3	34.0		11.0	9.9	31.4				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.0	4.0	5.3				
Max Green Setting (Gmax), s		11.0	11.0	36.7		21.0	21.0	26.7				
Max Q Clear Time (g_c+I1), s		4.3	3.3	8.3		4.7	5.7	20.9				
Green Ext Time (p_c), s		0.1	0.0	9.1		0.1	0.2	5.2				

Intersection Summary	
HCM 6th Ctrl Delay	19.5
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	411	55	49	671	348	521	1411	99	232	986	139
Future Volume (veh/h)	129	411	55	49	671	348	521	1411	99	232	986	139
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	129	411	0	49	671	0	521	1411	0	232	986	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	152	915		160	778		576	1903		279	1406	
Arrive On Green	0.09	0.26	0.00	0.05	0.22	0.00	0.17	0.37	0.00	0.08	0.28	0.00
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	129	411	0	49	671	0	521	1411	0	232	986	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	10.7	14.6	0.0	2.1	27.3	0.0	22.2	35.9	0.0	9.9	26.0	0.0
Cycle Q Clear(g_c), s	10.7	14.6	0.0	2.1	27.3	0.0	22.2	35.9	0.0	9.9	26.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	152	915		160	778		576	1903		279	1406	
V/C Ratio(X)	0.85	0.45		0.31	0.86		0.90	0.74		0.83	0.70	
Avail Cap(c_a), veh/h	226	1192		184	931		714	1916		369	1406	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	67.7	46.7	0.0	69.2	56.4	0.0	61.3	40.8	0.0	67.9	48.8	0.0
Incr Delay (d2), s/veh	12.2	0.6	0.0	0.4	8.3	0.0	11.7	1.8	0.0	9.0	2.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	6.4	0.0	0.9	12.9	0.0	10.4	14.7	0.0	4.6	11.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.9	47.3	0.0	69.6	64.7	0.0	73.0	42.6	0.0	76.9	51.8	0.0
LnGrp LOS	E	D		E	E		E	D		E	D	
Approach Vol, veh/h		540	A		720	A		1932	A		1218	A
Approach Delay, s/veh		55.1			65.0			50.8			56.5	
Approach LOS		E			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.1	61.6	11.0	44.3	30.7	47.0	16.8	38.5
Change Period (Y+Rc), s	4.0	5.7	4.0	5.7	5.7	* 5.7	4.0	5.7
Max Green Setting (Gmax), s	16.0	56.3	8.0	50.3	31.0	* 41	19.0	39.3
Max Q Clear Time (g_c+I1), s	11.9	37.9	4.1	16.6	24.2	28.0	12.7	29.3
Green Ext Time (p_c), s	0.2	10.6	0.0	3.4	0.8	6.1	0.1	3.6

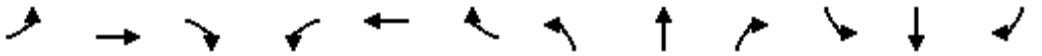
Intersection Summary	
HCM 6th Ctrl Delay	55.2
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

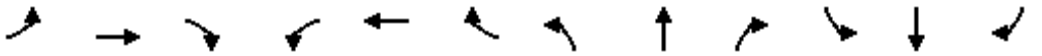
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	680	5	0	393	321	2	2	5	407	5	7
Future Volume (veh/h)	5	680	5	0	393	321	2	2	5	407	5	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	680	5	0	393	321	2	2	5	407	5	7
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	7	1612	12	0	633	976	4	4	9	488	6	440
Arrive On Green	0.00	0.45	0.45	0.00	0.34	0.34	0.01	0.01	0.01	0.28	0.28	0.28
Sat Flow, veh/h	1781	3616	27	0	1870	1585	374	374	935	1761	22	1585
Grp Volume(v), veh/h	5	334	351	0	393	321	9	0	0	412	0	7
Grp Sat Flow(s),veh/h/ln	1781	1777	1866	0	1870	1585	1683	0	0	1782	0	1585
Q Serve(g_s), s	0.1	6.2	6.2	0.0	8.5	4.7	0.3	0.0	0.0	10.5	0.0	0.2
Cycle Q Clear(g_c), s	0.1	6.2	6.2	0.0	8.5	4.7	0.3	0.0	0.0	10.5	0.0	0.2
Prop In Lane	1.00		0.01	0.00		1.00	0.22		0.56	0.99		1.00
Lane Grp Cap(c), veh/h	7	792	832	0	633	976	16	0	0	494	0	440
V/C Ratio(X)	0.70	0.42	0.42	0.00	0.62	0.33	0.57	0.00	0.00	0.83	0.00	0.02
Avail Cap(c_a), veh/h	111	2209	2320	0	2325	2410	488	0	0	1145	0	1018
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.0	9.1	9.1	0.0	13.4	4.5	23.8	0.0	0.0	16.4	0.0	12.7
Incr Delay (d2), s/veh	36.4	0.4	0.4	0.0	1.0	0.2	11.3	0.0	0.0	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.8	1.9	0.0	3.0	2.3	0.1	0.0	0.0	3.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.4	9.5	9.5	0.0	14.4	4.7	35.1	0.0	0.0	17.8	0.0	12.7
LnGrp LOS	E	A	A	A	B	A	D	A	A	B	A	B
Approach Vol, veh/h		690			714			9			419	
Approach Delay, s/veh		9.9			10.0			35.1			17.7	
Approach LOS		A			B			D			B	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		26.4		17.4	5.2	21.2		4.5				
Change Period (Y+Rc), s		4.9		4.0	5.0	4.9		4.0				
Max Green Setting (Gmax), s		60.0		31.0	3.0	60.0		14.0				
Max Q Clear Time (g_c+I1), s		8.2		12.5	2.1	10.5		2.3				
Green Ext Time (p_c), s		3.3		1.0	0.0	5.8		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			11.9									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1077	10	3	675	0	11	0	5	91	5	28
Future Volume (veh/h)	0	1077	10	3	675	0	11	0	5	91	5	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1077	0	3	675	0	11	0	5	91	5	28
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	0	2	2	2	2	2	2
Cap, veh/h	0	1818		12	2112	0	37	0	17	227	31	176
Arrive On Green	0.00	0.51	0.00	0.01	0.59	0.00	0.03	0.00	0.03	0.13	0.13	0.13
Sat Flow, veh/h	0	3647	1585	1781	3647	0	1179	0	536	1781	246	1377
Grp Volume(v), veh/h	0	1077	0	3	675	0	16	0	0	91	0	33
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1781	1777	0	1715	0	0	1781	0	1623
Q Serve(g_s), s	0.0	11.1	0.0	0.1	5.0	0.0	0.5	0.0	0.0	2.5	0.0	0.9
Cycle Q Clear(g_c), s	0.0	11.1	0.0	0.1	5.0	0.0	0.5	0.0	0.0	2.5	0.0	0.9
Prop In Lane	0.00		1.00	1.00		0.00	0.69		0.31	1.00		0.85
Lane Grp Cap(c), veh/h	0	1818		12	2112	0	54	0	0	227	0	207
V/C Ratio(X)	0.00	0.59		0.26	0.32	0.00	0.29	0.00	0.00	0.40	0.00	0.16
Avail Cap(c_a), veh/h	0	3121		680	4478	0	688	0	0	680	0	620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	9.0	0.0	25.9	5.3	0.0	24.8	0.0	0.0	21.0	0.0	20.3
Incr Delay (d2), s/veh	0.0	0.3	0.0	4.3	0.1	0.0	1.1	0.0	0.0	0.4	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.1	0.0	0.0	1.1	0.0	0.2	0.0	0.0	1.0	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	9.3	0.0	30.2	5.4	0.0	25.9	0.0	0.0	21.4	0.0	20.5
LnGrp LOS	A	A		C	A	A	C	A	A	C	A	C
Approach Vol, veh/h		1077	A		678			16			124	
Approach Delay, s/veh		9.3			5.5			25.9			21.2	
Approach LOS		A			A			C			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	4.3	31.7		10.7		36.0		5.7				
Change Period (Y+Rc), s	4.0	4.9		4.0		4.9		4.0				
Max Green Setting (Gmax), s	20.0	46.0		20.0		66.0		21.0				
Max Q Clear Time (g_c+I1), s	2.1	13.1		4.5		7.0		2.5				
Green Ext Time (p_c), s	0.0	13.7		0.2		8.1		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	8.9	
HCM 6th LOS	A	

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



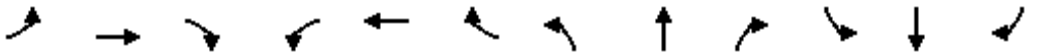
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1068	20	131	764	64	238
Future Volume (veh/h)	1068	20	131	764	64	238
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1068	20	131	764	64	238
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1703	32	171	2303	329	293
Arrive On Green	0.48	0.48	0.10	0.65	0.18	0.18
Sat Flow, veh/h	3662	67	1781	3647	1781	1585
Grp Volume(v), veh/h	532	556	131	764	64	238
Grp Sat Flow(s),veh/h/ln	1777	1858	1781	1777	1781	1585
Q Serve(g_s), s	11.9	11.9	3.8	5.1	1.6	7.7
Cycle Q Clear(g_c), s	11.9	11.9	3.8	5.1	1.6	7.7
Prop In Lane		0.04	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	848	887	171	2303	329	293
V/C Ratio(X)	0.63	0.63	0.77	0.33	0.19	0.81
Avail Cap(c_a), veh/h	1334	1395	501	2667	501	446
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.4	10.4	23.5	4.2	18.4	20.8
Incr Delay (d2), s/veh	0.8	0.8	2.7	0.1	0.1	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	3.6	1.6	1.0	0.6	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.2	11.2	26.2	4.3	18.5	24.4
LnGrp LOS	B	B	C	A	B	C
Approach Vol, veh/h	1088			895	302	
Approach Delay, s/veh	11.2			7.5	23.2	
Approach LOS	B			A	C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.1	30.3		13.9		39.4
Change Period (Y+Rc), s	4.0	4.9		4.0		4.9
Max Green Setting (Gmax), s	15.0	40.0		15.0		40.0
Max Q Clear Time (g_c+I1), s	5.8	13.9		9.7		7.1
Green Ext Time (p_c), s	0.1	11.5		0.3		10.3

Intersection Summary	
HCM 6th Ctrl Delay	11.3
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

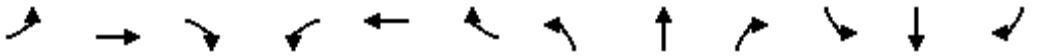


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	1225	4	23	1025	81	3	3	8	280	4	36
Future Volume (veh/h)	52	1225	4	23	1025	81	3	3	8	280	4	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	1225	4	23	1025	77	3	3	0	283	0	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	2460	8	59	2200	165	10	10	0	371	0	165
Arrive On Green	0.05	0.68	0.68	0.03	0.66	0.66	0.01	0.01	0.00	0.10	0.00	0.10
Sat Flow, veh/h	1781	3633	12	1781	3350	252	912	912	0	3563	0	1585
Grp Volume(v), veh/h	52	599	630	23	544	558	6	0	0	283	0	5
Grp Sat Flow(s),veh/h/ln	1781	1777	1868	1781	1777	1825	1825	0	0	1781	0	1585
Q Serve(g_s), s	2.8	16.4	16.4	1.3	15.1	15.1	0.3	0.0	0.0	7.7	0.0	0.3
Cycle Q Clear(g_c), s	2.8	16.4	16.4	1.3	15.1	15.1	0.3	0.0	0.0	7.7	0.0	0.3
Prop In Lane	1.00		0.01	1.00		0.14	0.50		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	95	1203	1265	59	1167	1198	20	0	0	371	0	165
V/C Ratio(X)	0.55	0.50	0.50	0.39	0.47	0.47	0.31	0.00	0.00	0.76	0.00	0.03
Avail Cap(c_a), veh/h	214	1203	1265	214	1167	1198	219	0	0	691	0	307
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	46.1	7.9	7.9	47.4	8.5	8.5	49.1	0.0	0.0	43.6	0.0	40.3
Incr Delay (d2), s/veh	1.8	1.5	1.4	1.6	0.3	0.3	3.2	0.0	0.0	2.5	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	5.7	5.9	0.6	5.2	5.4	0.2	0.0	0.0	3.5	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.9	9.3	9.3	48.9	8.8	8.8	52.3	0.0	0.0	46.0	0.0	40.3
LnGrp LOS	D	A	A	D	A	A	D	A	A	D	A	D
Approach Vol, veh/h		1281			1125			6			288	
Approach Delay, s/veh		10.9			9.6			52.3			45.9	
Approach LOS		B			A			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	72.6		15.0	9.3	70.6		5.1				
Change Period (Y+Rc), s	4.0	4.9		4.6	4.0	4.9		4.0				
Max Green Setting (Gmax), s	12.0	39.1		19.4	12.0	39.1		12.0				
Max Q Clear Time (g_c+I1), s	3.3	18.4		9.7	4.8	17.1		2.3				
Green Ext Time (p_c), s	0.0	16.8		0.7	0.1	16.7		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		14.2	
HCM 6th LOS		B	

Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	1319	18	69	1113	536	24	11	37	504	10	165
Future Volume (veh/h)	265	1319	18	69	1113	536	24	11	37	504	10	165
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	265	1319	17	69	1113	366	24	11	2	511	0	39
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	285	1917	25	89	1663	1009	46	48	41	600	0	267
Arrive On Green	0.11	0.39	0.39	0.05	0.47	0.47	0.03	0.03	0.03	0.17	0.00	0.17
Sat Flow, veh/h	1781	3316	43	1781	3554	1585	1781	1870	1585	3563	0	1585
Grp Volume(v), veh/h	265	595	741	69	1113	366	24	11	2	511	0	39
Grp Sat Flow(s),veh/h/ln	1781	1496	1863	1781	1777	1585	1781	1870	1585	1781	0	1585
Q Serve(g_s), s	14.8	33.2	33.2	3.8	24.3	10.9	1.3	0.6	0.1	13.9	0.0	2.1
Cycle Q Clear(g_c), s	14.8	33.2	33.2	3.8	24.3	10.9	1.3	0.6	0.1	13.9	0.0	2.1
Prop In Lane	1.00		0.02	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	285	865	1077	89	1663	1009	46	48	41	600	0	267
V/C Ratio(X)	0.93	0.69	0.69	0.78	0.67	0.36	0.52	0.23	0.05	0.85	0.00	0.15
Avail Cap(c_a), veh/h	285	865	1077	143	1663	1009	143	150	127	823	0	366
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.1	23.1	23.1	47.0	20.6	8.6	48.1	47.7	47.5	40.4	0.0	35.5
Incr Delay (d2), s/veh	34.7	4.4	3.6	5.4	1.1	0.3	3.4	0.9	0.2	5.5	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	12.9	15.9	1.8	9.3	5.4	0.6	0.3	0.1	6.5	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.8	27.5	26.7	52.4	21.7	8.9	51.5	48.6	47.7	45.8	0.0	35.6
LnGrp LOS	E	C	C	D	C	A	D	D	D	D	A	D
Approach Vol, veh/h		1601			1548			37			550	
Approach Delay, s/veh		35.6			20.0			50.5			45.1	
Approach LOS		D			C			D			D	

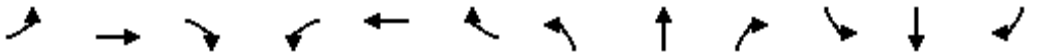
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	62.7		21.7	20.0	51.7		6.6				
Change Period (Y+Rc), s	4.0	4.9		4.9	4.0	4.9		4.0				
Max Green Setting (Gmax), s	8.0	43.1		23.1	16.0	35.1		8.0				
Max Q Clear Time (g_c+I1), s	5.8	35.2		15.9	16.8	26.3		3.3				
Green Ext Time (p_c), s	0.0	5.0		0.9	0.0	5.9		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		30.7	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1352	281	0	1449	812	0	0	0	400	698	269
Future Volume (veh/h)	0	1352	281	0	1449	812	0	0	0	400	698	269
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	0	1352	0	0	1532	0				400	698	260
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	0	2	2				2	2	2
Cap, veh/h	0	1737		0	1828					729	765	649
Arrive On Green	0.00	0.65	0.00	0.00	0.16	0.00				0.41	0.41	0.41
Sat Flow, veh/h	0	3647	1585	0	3741	1585				1781	1870	1585
Grp Volume(v), veh/h	0	1352	0	0	1532	0				400	698	260
Grp Sat Flow(s),veh/h/ln	0	1777	1585	0	1870	1585				1781	1870	1585
Q Serve(g_s), s	0.0	27.0	0.0	0.0	39.7	0.0				17.1	35.2	11.6
Cycle Q Clear(g_c), s	0.0	27.0	0.0	0.0	39.7	0.0				17.1	35.2	11.6
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1737		0	1828					729	765	649
V/C Ratio(X)	0.00	0.78		0.00	0.84					0.55	0.91	0.40
Avail Cap(c_a), veh/h	0	1737		0	1828					1152	1210	1026
HCM Platoon Ratio	1.00	1.33	1.33	1.00	0.33	0.33				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	0.71	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	13.7	0.0	0.0	38.1	0.0				22.5	27.8	20.9
Incr Delay (d2), s/veh	0.0	3.5	0.0	0.0	2.7	0.0				0.2	4.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.5	0.0	0.0	20.4	0.0				7.0	16.1	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	17.2	0.0	0.0	40.8	0.0				22.7	32.6	21.0
LnGrp LOS	A	B		A	D					C	C	C
Approach Vol, veh/h		1352	A		1532	A					1358	
Approach Delay, s/veh		17.2			40.8						27.5	
Approach LOS		B			D						C	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		53.8		46.2		53.8						
Change Period (Y+Rc), s		4.9		5.3		4.9						
Max Green Setting (Gmax), s		25.1		64.7		25.1						
Max Q Clear Time (g_c+I1), s		29.0		37.2		41.7						
Green Ext Time (p_c), s		0.0		3.8		0.0						

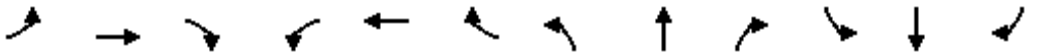
Intersection Summary		
HCM 6th Ctrl Delay	29.0	
HCM 6th LOS	C	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

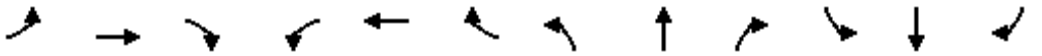
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	254	1498	0	0	1589	268	0	0	1352	0	0	672
Future Volume (vph)	254	1498	0	0	1589	268	0	0	1352	0	0	672
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			5.3	5.3			4.0			4.0
Lane Util. Factor	1.00	0.91			0.91	1.00			1.00			0.88
Frt	1.00	1.00			1.00	0.85			0.86			0.85
Flt Protected	0.95	1.00			1.00	1.00			1.00			1.00
Satd. Flow (prot)	1770	5085			5085	1583			1611			2787
Flt Permitted	0.95	1.00			1.00	1.00			1.00			1.00
Satd. Flow (perm)	1770	5085			5085	1583			1611			2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	254	1498	0	0	1589	268	0	0	1352	0	0	672
RTOR Reduction (vph)	0	0	0	0	0	129	0	0	0	0	0	35
Lane Group Flow (vph)	254	1498	0	0	1589	139	0	0	1352	0	0	637
Turn Type	Prot	NA			NA	Perm			Free			Over
Protected Phases	5	Free			6							5
Permitted Phases						6			Free			
Actuated Green, G (s)	14.8	50.0			25.9	25.9			50.0			14.8
Effective Green, g (s)	14.8	50.0			25.9	25.9			50.0			14.8
Actuated g/C Ratio	0.30	1.00			0.52	0.52			1.00			0.30
Clearance Time (s)	4.0				5.3	5.3						4.0
Vehicle Extension (s)	2.0				3.4	3.4						2.0
Lane Grp Cap (vph)	523	5085			2634	819			1611			824
v/s Ratio Prot	0.14	0.29			0.31							0.23
v/s Ratio Perm						0.09			c0.84			
v/c Ratio	0.49	0.29			0.60	0.17			0.84			0.77
Uniform Delay, d1	14.5	0.0			8.4	6.4			0.0			16.1
Progression Factor	0.76	1.00			1.00	1.00			1.00			1.00
Incremental Delay, d2	0.0	0.0			1.0	0.4			5.4			4.1
Delay (s)	11.0	0.0			9.5	6.8			5.4			20.2
Level of Service	B	A			A	A			A			C
Approach Delay (s)		1.6			9.1			5.4			20.2	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	7.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	9.3
Intersection Capacity Utilization	62.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	377	2147	326	185	1313	87	275	457	140	94	320	269
Future Volume (veh/h)	377	2147	326	185	1313	87	275	457	140	94	320	269
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	377	2147	267	185	1313	82	275	457	41	94	320	210
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	427	2328	867	521	3068	191	319	639	283	259	859	460
Arrive On Green	0.12	0.46	0.46	0.15	0.49	0.49	0.09	0.18	0.18	0.07	0.17	0.17
Sat Flow, veh/h	3456	5106	1580	3456	6236	389	3456	3554	1572	3456	5106	1571
Grp Volume(v), veh/h	377	2147	267	185	1015	380	275	457	41	94	320	210
Grp Sat Flow(s),veh/h/ln	1728	1702	1580	1728	1609	1799	1728	1777	1572	1728	1702	1571
Q Serve(g_s), s	16.1	59.2	6.2	7.2	20.3	20.4	11.8	18.2	3.3	3.9	8.3	16.4
Cycle Q Clear(g_c), s	16.1	59.2	6.2	7.2	20.3	20.4	11.8	18.2	3.3	3.9	8.3	16.4
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	427	2328	867	521	2374	885	319	639	283	259	859	460
V/C Ratio(X)	0.88	0.92	0.31	0.36	0.43	0.43	0.86	0.72	0.15	0.36	0.37	0.46
Avail Cap(c_a), veh/h	553	2328	867	521	2374	885	346	1099	486	259	1328	604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.81	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.7	38.3	6.9	57.1	24.5	24.5	67.1	57.9	51.8	66.0	55.4	43.4
Incr Delay (d2), s/veh	9.2	6.3	0.7	0.1	0.2	0.4	17.2	2.6	0.4	0.3	0.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	25.5	2.6	3.2	7.9	8.9	6.0	8.4	1.3	1.7	3.6	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.9	44.6	7.6	57.3	24.7	24.9	84.4	60.5	52.2	66.3	56.0	45.0
LnGrp LOS	E	D	A	E	C	C	F	E	D	E	E	D
Approach Vol, veh/h		2791			1580			773			624	
Approach Delay, s/veh		45.0			28.6			68.5			53.8	
Approach LOS		D			C			E			D	

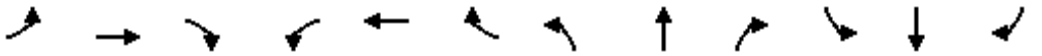
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.9	73.7	17.8	30.5	22.5	79.1	16.5	31.9
Change Period (Y+Rc), s	5.3	* 5.3	4.0	5.3	4.0	5.3	5.3	* 4.9
Max Green Setting (Gmax), s	9.0	* 68	15.0	39.0	24.0	53.4	8.0	* 46
Max Q Clear Time (g_c+I1), s	9.2	61.2	13.8	18.4	18.1	22.4	5.9	20.2
Green Ext Time (p_c), s	0.0	6.8	0.1	5.3	0.4	16.0	0.0	5.2

Intersection Summary	
HCM 6th Ctrl Delay	44.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	2197	80	35	1471	61	62	21	24	62	16	52
Future Volume (veh/h)	104	2197	80	35	1471	61	62	21	24	62	16	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	104	2197	79	35	1471	41	62	21	1	39	48	4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	124	3809	136	45	3617	1119	83	87	74	107	113	93
Arrive On Green	0.14	1.00	1.00	0.03	0.71	0.71	0.05	0.05	0.05	0.06	0.06	0.06
Sat Flow, veh/h	1781	5060	181	1781	5106	1579	1781	1870	1585	1781	1870	1546
Grp Volume(v), veh/h	104	1475	801	35	1471	41	62	21	1	39	48	4
Grp Sat Flow(s),veh/h/ln	1781	1702	1837	1781	1702	1579	1781	1870	1585	1781	1870	1546
Q Serve(g_s), s	8.5	0.0	0.0	2.9	17.7	1.2	5.2	1.6	0.1	3.2	3.7	0.4
Cycle Q Clear(g_c), s	8.5	0.0	0.0	2.9	17.7	1.2	5.2	1.6	0.1	3.2	3.7	0.4
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	124	2563	1383	45	3617	1119	83	87	74	107	113	93
V/C Ratio(X)	0.84	0.58	0.58	0.78	0.41	0.04	0.75	0.24	0.01	0.36	0.43	0.04
Avail Cap(c_a), veh/h	190	2563	1383	95	3617	1119	107	112	95	451	474	392
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.63	0.63	0.63	0.87	0.87	0.87	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.7	0.0	0.0	72.7	9.0	6.5	70.7	69.0	68.2	67.7	68.0	66.4
Incr Delay (d2), s/veh	7.2	0.6	1.1	9.0	0.1	0.0	16.7	1.1	0.1	0.8	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.2	0.4	1.5	6.3	0.4	2.8	0.8	0.0	1.5	1.8	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.0	0.6	1.1	81.7	9.1	6.6	87.4	70.0	68.3	68.5	68.9	66.5
LnGrp LOS	E	A	A	F	A	A	F	E	E	E	E	E
Approach Vol, veh/h		2380			1547			84			91	
Approach Delay, s/veh		3.8			10.7			82.8			68.6	
Approach LOS		A			B			F			E	

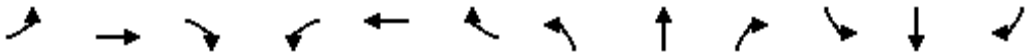
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.8	118.2		13.0	14.4	111.6		11.0				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	8.0	77.7		38.0	16.0	69.7		9.0				
Max Q Clear Time (g_c+I1), s	4.9	2.0		5.7	10.5	19.7		7.2				
Green Ext Time (p_c), s	0.0	53.7		0.2	0.0	29.4		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	9.5	
HCM 6th LOS	A	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	2098	157	56	1403	112	156	62	47	50	46	8
Future Volume (veh/h)	28	2098	157	56	1403	112	156	62	47	50	46	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	28	2098	122	56	1403	79	126	105	33	50	46	4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	358	3239	990	72	2373	721	161	123	39	207	196	17
Arrive On Green	0.40	1.00	1.00	0.04	0.46	0.46	0.09	0.09	0.09	0.12	0.12	0.12
Sat Flow, veh/h	1781	5106	1560	1781	5106	1551	1781	1364	429	1781	1688	147
Grp Volume(v), veh/h	28	2098	122	56	1403	79	126	0	138	50	0	50
Grp Sat Flow(s),veh/h/ln	1781	1702	1560	1781	1702	1551	1781	0	1793	1781	0	1834
Q Serve(g_s), s	1.5	0.0	0.0	4.7	30.4	4.3	10.4	0.0	11.4	3.8	0.0	3.7
Cycle Q Clear(g_c), s	1.5	0.0	0.0	4.7	30.4	4.3	10.4	0.0	11.4	3.8	0.0	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		0.08
Lane Grp Cap(c), veh/h	358	3239	990	72	2373	721	161	0	162	207	0	213
V/C Ratio(X)	0.08	0.65	0.12	0.78	0.59	0.11	0.78	0.00	0.85	0.24	0.00	0.23
Avail Cap(c_a), veh/h	358	3239	990	95	2373	721	178	0	179	468	0	482
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.77	0.92	0.92	0.92	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.2	0.0	0.0	71.3	29.6	22.6	66.8	0.0	67.3	60.3	0.0	60.3
Incr Delay (d2), s/veh	0.0	0.8	0.2	17.3	1.0	0.3	17.5	0.0	27.9	0.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.2	0.1	2.5	12.6	1.7	5.5	0.0	6.5	1.8	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.3	0.8	0.2	88.6	30.6	22.9	84.4	0.0	95.2	60.5	0.0	60.5
LnGrp LOS	D	A	A	F	C	C	F	A	F	E	A	E
Approach Vol, veh/h		2248			1538			264			100	
Approach Delay, s/veh		1.2			32.4			90.0			60.5	
Approach LOS		A			C			F			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	100.4		22.0	35.5	75.0		17.5				
Change Period (Y+Rc), s	4.0	5.3		4.6	5.3	* 5.3		4.0				
Max Green Setting (Gmax), s	8.0	69.7		39.4	8.0	* 70		15.0				
Max Q Clear Time (g_c+I1), s	6.7	2.0		5.8	3.5	32.4		13.4				
Green Ext Time (p_c), s	0.0	55.1		0.2	0.0	23.7		0.2				

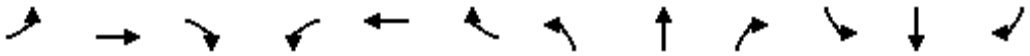
Intersection Summary			
HCM 6th Ctrl Delay		19.8	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	2084	40	25	1524	23	13	5	14	16	0	34
Future Volume (veh/h)	71	2084	40	25	1524	23	13	5	14	16	0	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.95	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	71	2084	39	25	1524	22	13	5	1	16	0	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	89	2721	51	556	4127	60	15	46	9	19	0	50
Arrive On Green	0.10	1.00	1.00	0.31	0.80	0.80	0.01	0.03	0.03	0.01	0.00	0.03
Sat Flow, veh/h	1781	5160	96	1781	5186	75	1781	1499	300	1781	0	1513
Grp Volume(v), veh/h	71	1374	749	25	1000	546	13	0	6	16	0	3
Grp Sat Flow(s),veh/h/ln	1781	1702	1852	1781	1702	1857	1781	0	1798	1781	0	1513
Q Serve(g_s), s	5.9	0.0	0.0	1.5	12.7	12.7	1.1	0.0	0.5	1.3	0.0	0.3
Cycle Q Clear(g_c), s	5.9	0.0	0.0	1.5	12.7	12.7	1.1	0.0	0.5	1.3	0.0	0.3
Prop In Lane	1.00		0.05	1.00		0.04	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	89	1795	977	556	2709	1478	15	0	55	19	0	50
V/C Ratio(X)	0.80	0.77	0.77	0.04	0.37	0.37	0.85	0.00	0.11	0.83	0.00	0.06
Avail Cap(c_a), veh/h	143	1795	977	556	2709	1478	95	0	456	95	0	383
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	0.79	0.79	0.79	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	66.8	0.0	0.0	36.0	4.4	4.4	74.3	0.0	70.7	74.0	0.0	70.3
Incr Delay (d2), s/veh	4.1	2.1	3.9	0.0	0.2	0.4	69.3	0.0	0.8	55.9	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.5	1.0	0.6	3.9	4.3	0.8	0.0	0.2	0.9	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.0	2.1	3.9	36.0	4.6	4.8	143.5	0.0	71.5	129.9	0.0	70.8
LnGrp LOS	E	A	A	D	A	A	F	A	E	F	A	E
Approach Vol, veh/h		2194			1571			19			19	
Approach Delay, s/veh		4.9			5.2			120.8			120.6	
Approach LOS		A			A			F			F	

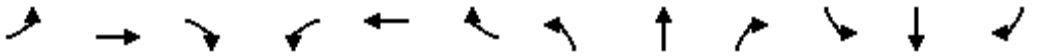
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	51.7	84.0	5.3	9.0	11.5	124.3	5.6	8.6
Change Period (Y+Rc), s	4.9	* 4.9	4.0	4.0	4.0	4.9	4.0	4.0
Max Green Setting (Gmax), s	8.0	* 79	8.0	38.0	12.0	75.1	8.0	38.0
Max Q Clear Time (g_c+I1), s	3.5	2.0	3.1	2.3	7.9	14.7	3.3	2.5
Green Ext Time (p_c), s	0.0	66.5	0.0	0.0	0.0	40.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	6.2
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	325	1696	93	160	1292	214	212	843	323	164	418	68
Future Volume (veh/h)	325	1696	93	160	1292	214	212	843	323	164	418	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	325	1696	0	160	1292	0	212	843	205	164	418	15
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	376	2090		546	2385		258	1073	331	209	1058	326
Arrive On Green	0.04	0.14	0.00	0.32	0.93	0.00	0.07	0.21	0.21	0.06	0.21	0.21
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1574	3456	5106	1574
Grp Volume(v), veh/h	325	1696	0	160	1292	0	212	843	205	164	418	15
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1574	1728	1702	1574
Q Serve(g_s), s	14.0	48.4	0.0	5.2	5.1	0.0	9.1	23.4	17.7	7.0	10.6	1.1
Cycle Q Clear(g_c), s	14.0	48.4	0.0	5.2	5.1	0.0	9.1	23.4	17.7	7.0	10.6	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	376	2090		546	2385		258	1073	331	209	1058	326
V/C Ratio(X)	0.86	0.81		0.29	0.54		0.82	0.79	0.62	0.78	0.39	0.05
Avail Cap(c_a), veh/h	484	2090		546	2385		346	1484	457	276	1396	430
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.2	59.2	0.0	45.0	2.8	0.0	68.4	56.0	53.8	69.5	51.3	47.6
Incr Delay (d2), s/veh	8.8	3.0	0.0	0.1	0.3	0.0	8.4	1.8	1.6	7.3	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	22.8	0.0	2.1	1.1	0.0	4.3	10.1	7.1	3.3	4.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.0	62.3	0.0	45.1	3.1	0.0	76.8	57.8	55.4	76.8	51.6	47.6
LnGrp LOS	E	E		D	A		E	E	E	E	D	D
Approach Vol, veh/h		2021	A		1452	A		1260			597	
Approach Delay, s/veh		65.1			7.8			60.6			58.4	
Approach LOS		E			A			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.7	66.7	16.2	37.4	20.3	76.1	15.4	38.2
Change Period (Y+Rc), s	6.0	* 5.3	5.0	6.3	4.0	6.0	6.3	* 6.7
Max Green Setting (Gmax), s	12.0	* 61	15.0	41.0	21.0	51.7	12.0	* 44
Max Q Clear Time (g_c+I1), s	7.2	50.4	11.1	12.6	16.0	7.1	9.0	25.4
Green Ext Time (p_c), s	0.1	9.7	0.1	2.9	0.3	16.7	0.1	5.4

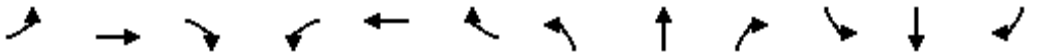
Intersection Summary	
HCM 6th Ctrl Delay	47.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	264	2128	198	286	1888	137	374	1213	228	256	1009	219
Future Volume (veh/h)	264	2128	198	286	1888	137	374	1213	228	256	1009	219
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	264	2128	78	286	1888	0	374	1213	0	256	1009	90
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	299	2008	619	322	2109		369	1430		300	1329	408
Arrive On Green	0.09	0.39	0.39	0.09	0.41	0.00	0.11	0.28	0.00	0.09	0.26	0.26
Sat Flow, veh/h	3456	5106	1573	3456	5106	1585	3456	5106	1585	3456	5106	1567
Grp Volume(v), veh/h	264	2128	78	286	1888	0	374	1213	0	256	1009	90
Grp Sat Flow(s),veh/h/ln	1728	1702	1573	1728	1702	1585	1728	1702	1585	1728	1702	1567
Q Serve(g_s), s	11.3	59.0	3.4	12.3	51.6	0.0	16.0	33.6	0.0	11.0	27.3	6.8
Cycle Q Clear(g_c), s	11.3	59.0	3.4	12.3	51.6	0.0	16.0	33.6	0.0	11.0	27.3	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	299	2008	619	322	2109		369	1430		300	1329	408
V/C Ratio(X)	0.88	1.06	0.13	0.89	0.90		1.01	0.85		0.85	0.76	0.22
Avail Cap(c_a), veh/h	299	2008	619	322	2109		369	1464		323	1396	428
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.7	45.5	14.8	67.2	41.0	0.0	67.0	51.0	0.0	67.5	51.2	43.5
Incr Delay (d2), s/veh	24.1	38.0	0.4	24.0	5.5	0.0	50.6	5.0	0.0	17.1	2.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	31.0	1.8	6.4	21.9	0.0	9.4	14.4	0.0	5.4	11.5	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.8	83.5	15.2	91.3	46.5	0.0	117.6	56.0	0.0	84.7	53.8	43.9
LnGrp LOS	F	F	B	F	D		F	E		F	D	D
Approach Vol, veh/h		2470			2174	A		1587	A		1355	
Approach Delay, s/veh		82.3			52.4			70.5			58.9	
Approach LOS		F			D			E			E	

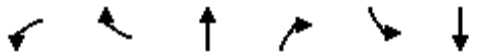
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	65.0	20.0	45.0	17.0	68.0	17.0	48.0
Change Period (Y+Rc), s	6.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	12.0	59.0	16.0	41.0	13.0	60.0	14.0	43.0
Max Q Clear Time (g_c+I1), s	14.3	61.0	18.0	29.3	13.3	53.6	13.0	35.6
Green Ext Time (p_c), s	0.0	0.0	0.0	9.2	0.0	6.2	0.1	6.4

Intersection Summary	
HCM 6th Ctrl Delay	67.1
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	433	1440	452	549	1445	848
Future Volume (veh/h)	433	1440	452	549	1445	848
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	433	0	452	337	1445	848
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	483		852	380	1737	1463
Arrive On Green	0.14	0.00	0.24	0.24	0.50	0.78
Sat Flow, veh/h	3456	2790	3647	1585	3456	1870
Grp Volume(v), veh/h	433	0	452	337	1445	848
Grp Sat Flow(s),veh/h/ln	1728	1395	1777	1585	1728	1870
Q Serve(g_s), s	18.5	0.0	16.6	30.8	53.6	27.1
Cycle Q Clear(g_c), s	18.5	0.0	16.6	30.8	53.6	27.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	483		852	380	1737	1463
V/C Ratio(X)	0.90		0.53	0.89	0.83	0.58
Avail Cap(c_a), veh/h	521		955	426	1737	1463
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.54	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.4	0.0	49.7	55.1	31.9	6.5
Incr Delay (d2), s/veh	10.8	0.0	0.7	19.1	3.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	0.0	7.4	14.2	22.5	9.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	74.2	0.0	50.4	74.2	35.6	7.1
LnGrp LOS	E		D	E	D	A
Approach Vol, veh/h	433	A	789			2293
Approach Delay, s/veh	74.2		60.6			25.0
Approach LOS	E		E			C

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	81.4	41.9			123.3	26.7
Change Period (Y+Rc), s	6.0	* 6			6.0	5.7
Max Green Setting (Gmax), s	69.7	* 40			115.7	22.6
Max Q Clear Time (g_c+I1), s	55.6	32.8			29.1	20.5
Green Ext Time (p_c), s	6.5	3.1			9.2	0.5

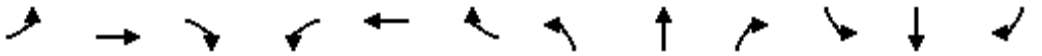
Intersection Summary	
HCM 6th Ctrl Delay	39.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	412	1552	30	135	1465	95	79	230	127	45	140	329
Future Volume (veh/h)	412	1552	30	135	1465	95	79	230	127	45	140	329
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	412	1552	29	135	1465	51	79	230	29	45	140	129
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	983	2289	43	181	1414	631	99	274	233	58	232	197
Arrive On Green	0.28	0.64	0.64	0.05	0.40	0.40	0.06	0.15	0.15	0.03	0.12	0.12
Sat Flow, veh/h	3456	3569	67	3456	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	412	772	809	135	1465	51	79	230	29	45	140	129
Grp Sat Flow(s),veh/h/ln	1728	1777	1858	1728	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	14.5	41.3	41.5	5.8	59.7	2.5	6.6	17.9	2.4	3.8	10.6	6.9
Cycle Q Clear(g_c), s	14.5	41.3	41.5	5.8	59.7	2.5	6.6	17.9	2.4	3.8	10.6	6.9
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	983	1140	1192	181	1414	631	99	274	233	58	232	197
V/C Ratio(X)	0.42	0.68	0.68	0.74	1.04	0.08	0.80	0.84	0.12	0.77	0.60	0.66
Avail Cap(c_a), veh/h	983	1140	1192	369	1414	631	190	486	412	190	478	405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.37	0.37	0.37	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.6	17.0	17.1	70.1	45.2	19.7	70.0	62.3	55.6	72.0	62.2	21.9
Incr Delay (d2), s/veh	0.0	1.2	1.2	2.3	33.7	0.1	5.6	10.6	0.4	7.9	3.7	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	16.2	17.0	2.6	32.1	1.2	3.2	9.4	1.0	1.9	5.3	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.6	18.3	18.3	72.3	78.9	19.8	75.6	72.8	56.0	79.9	65.9	27.3
LnGrp LOS	D	B	B	E	F	B	E	E	E	E	E	C
Approach Vol, veh/h		1993			1651			338			314	
Approach Delay, s/veh		23.5			76.5			72.0			52.0	
Approach LOS		C			E			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	27.3	11.9	101.9	12.3	23.9	48.4	65.4
Change Period (Y+Rc), s	4.0	* 5.3	4.0	5.7	4.0	5.3	5.7	* 5.7
Max Green Setting (Gmax), s	16.0	* 39	16.0	60.7	16.0	38.3	17.0	* 60
Max Q Clear Time (g_c+I1), s	5.8	19.9	7.8	43.5	8.6	12.6	16.5	61.7
Green Ext Time (p_c), s	0.0	2.1	0.1	11.4	0.0	1.9	0.1	0.0

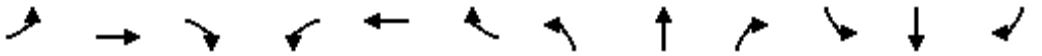
Intersection Summary	
HCM 6th Ctrl Delay	49.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	1674	37	15	1713	26	17	1	20	49	3	16
Future Volume (veh/h)	15	1674	37	15	1713	26	17	1	20	49	3	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	15	1674	37	15	1713	26	17	1	20	49	3	16
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	18	2999	66	18	3023	46	66	13	50	103	5	20
Arrive On Green	0.02	1.00	1.00	0.01	0.84	0.84	0.05	0.05	0.05	0.05	0.05	0.05
Sat Flow, veh/h	1781	3555	78	1781	3583	54	569	242	901	1120	92	373
Grp Volume(v), veh/h	15	835	876	15	848	891	38	0	0	68	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1856	1781	1777	1861	1713	0	0	1585	0	0
Q Serve(g_s), s	1.3	0.0	0.0	1.3	21.4	21.6	0.0	0.0	0.0	3.0	0.0	0.0
Cycle Q Clear(g_c), s	1.3	0.0	0.0	1.3	21.4	21.6	3.2	0.0	0.0	6.2	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.03	0.45		0.53	0.72		0.24
Lane Grp Cap(c), veh/h	18	1499	1566	18	1499	1570	129	0	0	128	0	0
V/C Ratio(X)	0.83	0.56	0.56	0.83	0.57	0.57	0.29	0.00	0.00	0.53	0.00	0.00
Avail Cap(c_a), veh/h	95	1499	1566	95	1499	1570	336	0	0	329	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	73.4	0.0	0.0	74.1	3.5	3.5	68.5	0.0	0.0	69.7	0.0	0.0
Incr Delay (d2), s/veh	29.0	1.5	1.4	28.9	0.6	0.5	0.5	0.0	0.0	1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.6	0.6	0.7	5.4	5.7	1.4	0.0	0.0	2.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	102.3	1.5	1.4	103.0	4.1	4.1	69.0	0.0	0.0	71.0	0.0	0.0
LnGrp LOS	F	A	A	F	A	A	E	A	A	E	A	A
Approach Vol, veh/h		1726			1754			38			68	
Approach Delay, s/veh		2.3			4.9			69.0			71.0	
Approach LOS		A			A			E			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.2	5.5	132.2		12.2	5.5	132.2				
Change Period (Y+Rc), s		4.0	4.0	5.7		4.0	4.0	5.7				
Max Green Setting (Gmax), s		29.0	8.0	99.3		29.0	8.0	99.3				
Max Q Clear Time (g_c+I1), s		8.2	3.3	2.0		5.2	3.3	23.6				
Green Ext Time (p_c), s		0.2	0.0	17.7		0.1	0.0	28.9				

Intersection Summary	
HCM 6th Ctrl Delay	5.6
HCM 6th LOS	A

Notes

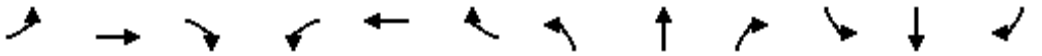
User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1765	8	213	1767	0	241
Future Volume (vph)	1765	8	213	1767	0	241
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.7		6.0	4.0		6.0
Lane Util. Factor	0.91		0.97	0.95		1.00
Frt	1.00		1.00	1.00		0.86
Flt Protected	1.00		0.95	1.00		1.00
Satd. Flow (prot)	5082		3433	3539		1611
Flt Permitted	1.00		0.95	1.00		1.00
Satd. Flow (perm)	5082		3433	3539		1611
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1765	8	213	1767	0	241
RTOR Reduction (vph)	0	0	0	0	0	9
Lane Group Flow (vph)	1773	0	213	1767	0	232
Turn Type	NA		Prot	NA		Over
Protected Phases	4		3	Free		3
Permitted Phases						
Actuated Green, G (s)	46.2		15.1	75.0		15.1
Effective Green, g (s)	46.2		15.1	75.0		15.1
Actuated g/C Ratio	0.62		0.20	1.00		0.20
Clearance Time (s)	7.7		6.0			6.0
Vehicle Extension (s)	3.5		2.0			2.0
Lane Grp Cap (vph)	3130		691	3539		324
v/s Ratio Prot	0.35		0.06	0.50		c0.14
v/s Ratio Perm						
v/c Ratio	0.57		0.31	0.50		0.72
Uniform Delay, d1	8.5		25.5	0.0		28.0
Progression Factor	1.28		1.12	1.00		1.00
Incremental Delay, d2	0.6		0.1	0.3		6.2
Delay (s)	11.5		28.5	0.3		34.1
Level of Service	B		C	A		C
Approach Delay (s)	11.5			3.4	34.1	
Approach LOS	B			A	C	

Intersection Summary			
HCM 2000 Control Delay	8.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	224	854	928	439	902	293	889	830	187	151	395	189
Future Volume (veh/h)	224	854	928	439	902	293	889	830	187	151	395	189
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	224	854	0	439	902	167	889	830	73	151	395	79
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	964		415	1137	507	829	1087	485	196	582	181
Arrive On Green	0.02	0.09	0.00	0.12	0.32	0.32	0.24	0.31	0.31	0.06	0.11	0.11
Sat Flow, veh/h	3456	3554	2790	3456	3554	1585	3456	3554	1585	3456	5106	1585
Grp Volume(v), veh/h	224	854	0	439	902	167	889	830	73	151	395	79
Grp Sat Flow(s),veh/h/ln	1728	1777	1395	1728	1777	1585	1728	1777	1585	1728	1702	1585
Q Serve(g_s), s	9.0	35.6	0.0	18.0	34.7	7.8	36.0	31.7	5.0	6.5	11.1	7.0
Cycle Q Clear(g_c), s	9.0	35.6	0.0	18.0	34.7	7.8	36.0	31.7	5.0	6.5	11.1	7.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	207	964		415	1137	507	829	1087	485	196	582	181
V/C Ratio(X)	1.08	0.89		1.06	0.79	0.33	1.07	0.76	0.15	0.77	0.68	0.44
Avail Cap(c_a), veh/h	207	964		415	1137	507	829	1493	666	253	1294	402
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	0.00	0.73	0.73	0.73	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	73.5	66.0	0.0	66.0	46.5	16.2	57.0	47.1	37.9	69.8	63.8	62.0
Incr Delay (d2), s/veh	78.2	8.1	0.0	54.2	4.2	1.3	52.4	2.0	0.2	7.4	1.9	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	18.2	0.0	11.0	15.8	3.0	21.5	14.2	2.0	3.1	4.9	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	151.7	74.1	0.0	120.2	50.7	17.4	109.4	49.1	38.1	77.2	65.7	64.3
LnGrp LOS	F	E		F	D	B	F	D	D	E	E	E
Approach Vol, veh/h		1078	A		1508			1792			625	
Approach Delay, s/veh		90.2			67.3			78.6			68.3	
Approach LOS		F			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	51.2	22.0	46.4	41.3	22.4	14.7	53.7
Change Period (Y+Rc), s	4.0	5.3	4.0	5.7	5.3	* 5.3	5.7	* 5.7
Max Green Setting (Gmax), s	11.0	63.0	18.0	39.0	36.0	* 38	9.0	* 48
Max Q Clear Time (g_c+I1), s	8.5	33.7	20.0	37.6	38.0	13.1	11.0	36.7
Green Ext Time (p_c), s	0.1	8.8	0.0	0.8	0.0	3.9	0.0	5.6

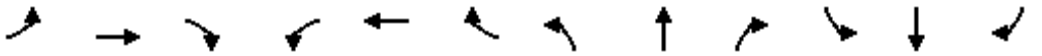
Intersection Summary	
HCM 6th Ctrl Delay	76.4
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



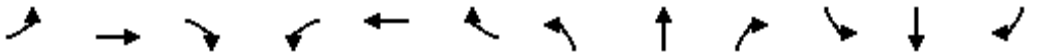
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	922	45	107	1604	5	21	1	482	8	2	13
Future Volume (veh/h)	4	922	45	107	1604	5	21	1	482	8	2	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2106	2106	2106	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	922	44	107	1604	5	21	1	482	8	2	13
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	6	2056	98	136	2188	7	295	14	396	24	6	26
Arrive On Green	0.01	1.00	1.00	0.15	1.00	1.00	0.17	0.17	0.17	0.02	0.02	0.02
Sat Flow, veh/h	2006	3888	186	1781	3634	11	1704	81	1585	1439	360	1585
Grp Volume(v), veh/h	4	474	492	107	784	825	22	0	482	10	0	13
Grp Sat Flow(s),veh/h/ln	2006	2001	2073	1781	1777	1868	1785	0	1585	1798	0	1585
Q Serve(g_s), s	0.3	0.0	0.0	8.7	0.0	0.0	1.5	0.0	26.0	0.8	0.0	1.2
Cycle Q Clear(g_c), s	0.3	0.0	0.0	8.7	0.0	0.0	1.5	0.0	26.0	0.8	0.0	1.2
Prop In Lane	1.00		0.09	1.00		0.01	0.95		1.00	0.80		1.00
Lane Grp Cap(c), veh/h	6	1058	1096	136	1070	1125	309	0	396	30	0	26
V/C Ratio(X)	0.65	0.45	0.45	0.79	0.73	0.73	0.07	0.00	1.22	0.34	0.00	0.50
Avail Cap(c_a), veh/h	107	1058	1096	475	1070	1125	309	0	396	96	0	85
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.76	0.76	0.76	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	74.5	0.0	0.0	62.4	0.0	0.0	51.9	0.0	56.3	73.0	0.0	73.2
Incr Delay (d2), s/veh	33.1	0.4	0.3	2.9	3.4	3.3	0.0	0.0	119.2	2.5	0.0	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.1	0.1	3.8	1.0	1.0	0.7	0.0	28.2	0.4	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	107.5	0.4	0.3	65.3	3.4	3.3	51.9	0.0	175.4	75.4	0.0	78.5
LnGrp LOS	F	A	A	E	A	A	D	A	F	E	A	E
Approach Vol, veh/h		970			1716			504			23	
Approach Delay, s/veh		0.8			7.2			170.1			77.2	
Approach LOS		A			A			F			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.4	85.0		30.0	4.5	96.0		6.5				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	40.0	58.3		26.0	8.0	90.3		8.0				
Max Q Clear Time (g_c+I1), s	10.7	2.0		28.0	2.3	2.0		3.2				
Green Ext Time (p_c), s	0.9	37.5		0.0	0.0	81.9		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		31.3
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.



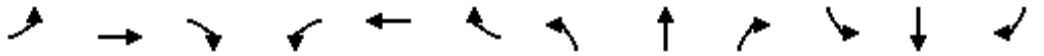
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1400	12	28	1411	0	305	0	284	0	0	0
Future Volume (veh/h)	0	1400	12	28	1411	0	305	0	284	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	0	1870	0	1870	0
Adj Flow Rate, veh/h	0	1400	12	28	1411	0	305	0	284	0	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	0	2	0	2	0	2	0
Cap, veh/h	0	2053	18	36	2187	0	331	0	0	0	1	0
Arrive On Green	0.00	0.57	0.57	0.02	0.62	0.00	0.19	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	3704	31	1781	3647	0	1781	305		0	-74814	0
Grp Volume(v), veh/h	0	689	723	28	1411	0	305	80.8		0	0	0
Grp Sat Flow(s),veh/h/ln	0	1777	1865	1781	1777	0	1781	F		0	1870	0
Q Serve(g_s), s	0.0	41.0	41.0	2.3	38.0	0.0	25.2			0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	41.0	41.0	2.3	38.0	0.0	25.2			0.0	0.0	0.0
Prop In Lane	0.00		0.02	1.00		0.00	1.00			0.00		0.00
Lane Grp Cap(c), veh/h	0	1010	1060	36	2187	0	331			0	1	0
V/C Ratio(X)	0.00	0.68	0.68	0.79	0.65	0.00	0.92			0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	1010	1060	95	2187	0	428			0	100	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00
Upstream Filter(I)	0.00	0.79	0.79	1.00	1.00	0.00	1.00			0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	22.8	22.8	73.2	18.4	0.0	60.0			0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.6	1.6	13.2	1.5	0.0	20.8			0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	16.9	17.7	1.2	15.3	0.0	13.3			0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	24.4	24.3	86.3	19.9	0.0	80.8			0.0	0.0	0.0
LnGrp LOS	A	C	C	F	B	A	F			A	A	A
Approach Vol, veh/h		1412			1439						0	
Approach Delay, s/veh		24.4			21.2						0.0	
Approach LOS		C			C							

Timer - Assigned Phs	1	2				6	7	8				
Phs Duration (G+Y+Rc), s	7.0	91.0				98.0	31.9	0.0				
Change Period (Y+Rc), s	4.0	5.7				5.7	4.0	4.0				
Max Green Setting (Gmax), s	8.0	80.3				92.3	36.0	8.0				
Max Q Clear Time (g_c+I1), s	4.3	43.0				40.0	27.2	0.0				
Green Ext Time (p_c), s	0.0	11.9				14.4	0.6	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			28.4									
HCM 6th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	418	1071	271	126	892	71	347	1273	45	228	859	188
Future Volume (veh/h)	418	1071	271	126	892	71	347	1273	45	228	859	188
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	418	1071	0	126	892	66	347	1273	16	228	859	76
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	403	1210		193	984	73	374	1244	545	230	1146	502
Arrive On Green	0.12	0.34	0.00	0.11	0.59	0.59	0.11	0.35	0.35	0.07	0.32	0.32
Sat Flow, veh/h	3456	3554	1585	3456	3349	248	3456	3554	1556	3456	3554	1555
Grp Volume(v), veh/h	418	1071	0	126	473	485	347	1273	16	228	859	76
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1820	1728	1777	1556	1728	1777	1555
Q Serve(g_s), s	14.0	34.1	0.0	4.2	28.2	28.2	11.9	42.0	0.8	7.9	25.9	4.2
Cycle Q Clear(g_c), s	14.0	34.1	0.0	4.2	28.2	28.2	11.9	42.0	0.8	7.9	25.9	4.2
Prop In Lane	1.00		1.00	1.00		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	403	1210		193	522	535	374	1244	545	230	1146	502
V/C Ratio(X)	1.04	0.89		0.65	0.91	0.91	0.93	1.02	0.03	0.99	0.75	0.15
Avail Cap(c_a), veh/h	403	1253		239	548	561	374	1244	545	230	1146	502
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.0	37.4	0.0	52.2	23.3	23.3	53.0	39.0	25.6	56.0	36.3	29.0
Incr Delay (d2), s/veh	54.7	7.8	0.0	2.2	18.7	18.3	28.3	31.6	0.1	56.1	3.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	15.6	0.0	1.8	9.9	10.1	6.6	23.0	0.3	5.2	11.4	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	107.7	45.2	0.0	54.4	41.9	41.6	81.4	70.6	25.7	112.1	39.3	29.2
LnGrp LOS	F	D		D	D	D	F	F	C	F	D	C
Approach Vol, veh/h		1489	A		1084			1636			1163	
Approach Delay, s/veh		62.7			43.2			72.5			52.9	
Approach LOS		E			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	46.6	17.0	44.0	18.0	40.6	13.3	47.7
Change Period (Y+Rc), s	5.3	* 5.7	4.0	5.3	4.0	5.3	5.3	* 5.7
Max Green Setting (Gmax), s	8.3	* 42	13.0	37.4	14.0	37.0	8.0	* 42
Max Q Clear Time (g_c+I1), s	6.2	36.1	13.9	27.9	16.0	30.2	9.9	44.0
Green Ext Time (p_c), s	0.0	4.7	0.0	6.4	0.0	4.9	0.0	0.0

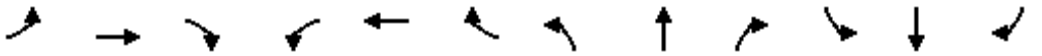
Intersection Summary	
HCM 6th Ctrl Delay	59.6
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	1255	15	18	1021	77	32	108	161	22	11	35
Future Volume (veh/h)	60	1255	15	18	1021	77	32	108	161	22	11	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	1255	15	18	1021	77	32	108	161	22	11	35
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	77	1999	24	22	1721	130	54	182	200	42	21	55
Arrive On Green	0.09	1.00	1.00	0.01	0.51	0.51	0.13	0.13	0.13	0.03	0.03	0.03
Sat Flow, veh/h	1781	3596	43	1781	3348	252	423	1427	1566	1207	603	1585
Grp Volume(v), veh/h	60	620	650	18	542	556	140	0	161	33	0	35
Grp Sat Flow(s),veh/h/ln	1781	1777	1862	1781	1777	1823	1849	0	1566	1810	0	1585
Q Serve(g_s), s	4.0	0.0	0.0	1.2	25.6	25.6	8.6	0.0	12.0	2.2	0.0	2.6
Cycle Q Clear(g_c), s	4.0	0.0	0.0	1.2	25.6	25.6	8.6	0.0	12.0	2.2	0.0	2.6
Prop In Lane	1.00		0.02	1.00		0.14	0.23		1.00	0.67		1.00
Lane Grp Cap(c), veh/h	77	988	1035	22	914	938	236	0	200	63	0	55
V/C Ratio(X)	0.78	0.63	0.63	0.84	0.59	0.59	0.59	0.00	0.81	0.53	0.00	0.64
Avail Cap(c_a), veh/h	134	988	1035	119	914	938	370	0	313	121	0	106
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.3	0.0	0.0	59.2	20.4	20.4	49.4	0.0	50.9	56.9	0.0	57.2
Incr Delay (d2), s/veh	6.3	1.7	1.7	25.5	2.8	2.8	0.9	0.0	3.8	2.5	0.0	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.5	0.5	0.7	10.7	11.0	4.1	0.0	4.9	1.0	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.6	1.7	1.7	84.6	23.2	23.1	50.3	0.0	54.7	59.5	0.0	61.6
LnGrp LOS	E	A	A	F	C	C	D	A	D	E	A	E
Approach Vol, veh/h		1330			1116			301			68	
Approach Delay, s/veh		4.3			24.2			52.6			60.6	
Approach LOS		A			C			D			E	

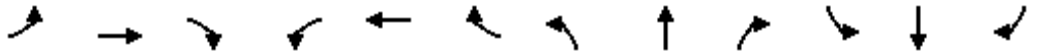
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	72.0		8.2	10.5	67.0		19.3				
Change Period (Y+Rc), s	4.0	5.3		4.0	5.3	* 5.3		4.0				
Max Green Setting (Gmax), s	8.0	62.7		8.0	9.0	* 62		24.0				
Max Q Clear Time (g_c+I1), s	3.2	2.0		4.6	6.0	27.6		14.0				
Green Ext Time (p_c), s	0.0	17.5		0.0	0.0	12.3		0.6				

Intersection Summary		
HCM 6th Ctrl Delay		18.7
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



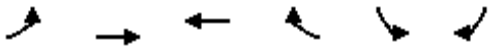
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	1370	5	16	1122	18	5	5	5	83	5	5
Future Volume (veh/h)	47	1370	5	16	1122	18	5	5	5	83	5	5
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	47	1370	5	16	1122	18	5	5	5	83	5	5
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	56	2197	8	21	2095	34	113	31	21	259	7	110
Arrive On Green	0.03	0.61	0.61	0.01	0.59	0.59	0.07	0.07	0.07	0.07	0.07	0.07
Sat Flow, veh/h	1774	3617	13	1774	3565	57	160	445	303	1577	95	1583
Grp Volume(v), veh/h	47	670	705	16	557	583	15	0	0	88	0	5
Grp Sat Flow(s),veh/h/ln	1774	1770	1860	1774	1770	1853	908	0	0	1672	0	1583
Q Serve(g_s), s	1.2	11.2	11.2	0.4	8.9	8.9	0.0	0.0	0.0	0.0	0.0	0.1
Cycle Q Clear(g_c), s	1.2	11.2	11.2	0.4	8.9	8.9	2.3	0.0	0.0	2.3	0.0	0.1
Prop In Lane	1.00		0.01	1.00		0.03	0.33		0.33	0.94		1.00
Lane Grp Cap(c), veh/h	56	1075	1130	21	1040	1089	165	0	0	265	0	110
V/C Ratio(X)	0.83	0.62	0.62	0.75	0.54	0.54	0.09	0.00	0.00	0.33	0.00	0.05
Avail Cap(c_a), veh/h	416	2440	2565	416	2440	2555	1572	0	0	1558	0	1552
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.6	5.8	5.8	23.1	5.8	5.8	20.5	0.0	0.0	21.4	0.0	20.4
Incr Delay (d2), s/veh	11.2	0.7	0.7	17.5	0.5	0.5	0.2	0.0	0.0	0.5	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	5.6	5.9	0.3	4.3	4.5	0.2	0.0	0.0	1.1	0.0	0.1
LnGrp Delay(d),s/veh	33.8	6.5	6.5	40.6	6.3	6.3	20.7	0.0	0.0	21.9	0.0	20.5
LnGrp LOS	C	A	A	D	A	A	C			C		C
Approach Vol, veh/h		1422			1156			15			93	
Approach Delay, s/veh		7.4			6.8			20.7			21.8	
Approach LOS		A			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.6	33.8		8.6	5.5	32.9		8.6
Change Period (Y+Rc), s	4.0	5.3		* 5.3	4.0	5.3		5.3
Max Green Setting (Gmax), s	11.0	64.7		* 46	11.0	64.7		44.7
Max Q Clear Time (g_c+I1), s	2.4	13.2		4.3	3.2	10.9		4.3
Green Ext Time (p_c), s	0.0	15.3		0.3	0.0	11.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	7.7
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



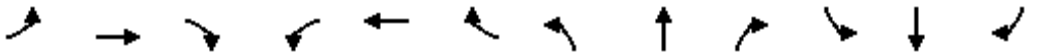
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	781	625	857	468	211	395
Future Volume (veh/h)	781	625	857	468	211	395
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	781	625	857	404	211	375
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1044	548	858	401	663	768
Arrive On Green	0.29	0.29	0.37	0.37	0.19	0.19
Sat Flow, veh/h	3563	1870	2443	1100	3456	1585
Grp Volume(v), veh/h	781	625	647	614	211	375
Grp Sat Flow(s),veh/h/ln	1781	1870	1777	1672	1728	1585
Q Serve(g_s), s	19.3	28.5	35.3	35.5	5.1	15.5
Cycle Q Clear(g_c), s	19.3	28.5	35.3	35.5	5.1	15.5
Prop In Lane	1.00			0.66	1.00	1.00
Lane Grp Cap(c), veh/h	1044	548	649	611	663	768
V/C Ratio(X)	0.75	1.14	1.00	1.01	0.32	0.49
Avail Cap(c_a), veh/h	1044	548	649	611	924	888
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	34.4	30.8	30.9	33.8	16.9
Incr Delay (d2), s/veh	3.3	83.3	34.5	38.0	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	24.9	20.2	19.7	2.1	8.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.4	117.7	65.3	68.8	33.9	17.1
LnGrp LOS	C	F	E	F	C	B
Approach Vol, veh/h		1406	1261		586	
Approach Delay, s/veh		71.4	67.0		23.2	
Approach LOS		E	E		C	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		33.8		22.6		40.8
Change Period (Y+Rc), s		5.3		4.0		5.3
Max Green Setting (Gmax), s		28.5		26.0		35.5
Max Q Clear Time (g_c+I1), s		30.5		17.5		37.5
Green Ext Time (p_c), s		0.0		1.1		0.0

Intersection Summary		
HCM 6th Ctrl Delay	61.0	
HCM 6th LOS	E	

Notes

User approved volume balancing among the lanes for turning movement.



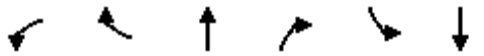
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	230	553	32	26	939	15	178	31	20	18	11	129
Future Volume (veh/h)	230	553	32	26	939	15	178	31	20	18	11	129
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	230	553	32	26	939	15	178	31	20	18	11	129
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	288	956	810	74	1400	22	320	45	24	292	155	335
Arrive On Green	0.16	0.51	0.51	0.04	0.39	0.39	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1781	1870	1585	1781	3580	57	975	214	114	890	736	1585
Grp Volume(v), veh/h	230	553	32	26	466	488	229	0	0	29	0	129
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1860	1303	0	0	1626	0	1585
Q Serve(g_s), s	7.0	11.6	0.6	0.8	12.2	12.2	8.8	0.0	0.0	0.0	0.0	3.9
Cycle Q Clear(g_c), s	7.0	11.6	0.6	0.8	12.2	12.2	9.5	0.0	0.0	0.7	0.0	3.9
Prop In Lane	1.00		1.00	1.00		0.03	0.78		0.09	0.62		1.00
Lane Grp Cap(c), veh/h	288	956	810	74	695	727	389	0	0	447	0	335
V/C Ratio(X)	0.80	0.58	0.04	0.35	0.67	0.67	0.59	0.00	0.00	0.06	0.00	0.39
Avail Cap(c_a), veh/h	633	1496	1268	633	1421	1487	581	0	0	665	0	563
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.7	9.6	6.9	26.2	14.1	14.1	21.4	0.0	0.0	17.8	0.0	19.1
Incr Delay (d2), s/veh	2.0	0.9	0.0	1.1	1.8	1.7	0.5	0.0	0.0	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	3.6	0.1	0.3	4.3	4.4	2.7	0.0	0.0	0.3	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.7	10.4	6.9	27.3	15.9	15.9	21.9	0.0	0.0	17.8	0.0	19.3
LnGrp LOS	C	B	A	C	B	B	C	A	A	B	A	B
Approach Vol, veh/h		815			980			229			158	
Approach Delay, s/veh		14.3			16.2			21.9			19.1	
Approach LOS		B			B			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	34.1		15.9	13.1	27.3		15.9				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	2.8	13.6		5.9	9.0	14.2		11.5				
Green Ext Time (p_c), s	0.0	4.7		0.3	0.3	7.8		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		16.3	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



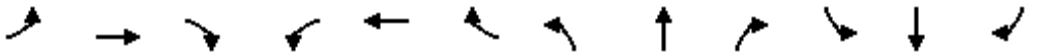
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	235	379	534	515	317	284
Future Volume (veh/h)	235	379	534	515	317	284
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	235	379	534	515	317	284
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	399	680	761	1000	366	1238
Arrive On Green	0.22	0.22	0.41	0.41	0.21	0.66
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	235	379	534	515	317	284
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	9.6	14.6	19.2	14.4	14.0	4.9
Cycle Q Clear(g_c), s	9.6	14.6	19.2	14.4	14.0	4.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	399	680	761	1000	366	1238
V/C Ratio(X)	0.59	0.56	0.70	0.52	0.87	0.23
Avail Cap(c_a), veh/h	878	1107	1152	1331	987	1238
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	17.4	20.0	8.2	31.2	5.5
Incr Delay (d2), s/veh	0.5	0.3	2.4	0.8	2.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	5.0	8.4	8.2	6.1	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.7	17.6	22.4	9.0	33.6	5.6
LnGrp LOS	C	B	C	A	C	A
Approach Vol, veh/h	614		1049			601
Approach Delay, s/veh	21.9		15.8			20.4
Approach LOS	C		B			C

Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		59.0			20.7	38.3	22.2
Change Period (Y+Rc), s		5.3			4.0	* 5.3	4.0
Max Green Setting (Gmax), s		50.0			45.0	* 50	40.0
Max Q Clear Time (g_c+I1), s		6.9			16.0	21.2	16.6
Green Ext Time (p_c), s		2.1			0.7	11.8	1.6

Intersection Summary	
HCM 6th Ctrl Delay	18.7
HCM 6th LOS	B

Notes

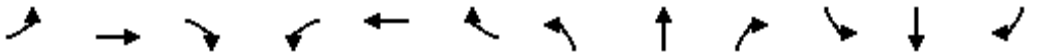
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	24	111	149	7	91	27	742	68	60	950	13
Future Volume (veh/h)	49	24	111	149	7	91	27	742	68	60	950	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	24	111	149	7	91	27	742	68	60	950	13
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	73	187	158	197	317	269	46	1438	447	84	1550	481
Arrive On Green	0.04	0.10	0.10	0.11	0.17	0.17	0.03	0.28	0.28	0.05	0.30	0.30
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	49	24	111	149	7	91	27	742	68	60	950	13
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	1.2	0.5	2.9	3.5	0.1	2.2	0.7	5.3	1.4	1.4	6.9	0.3
Cycle Q Clear(g_c), s	1.2	0.5	2.9	3.5	0.1	2.2	0.7	5.3	1.4	1.4	6.9	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	73	187	158	197	317	269	46	1438	447	84	1550	481
V/C Ratio(X)	0.67	0.13	0.70	0.75	0.02	0.34	0.59	0.52	0.15	0.71	0.61	0.03
Avail Cap(c_a), veh/h	328	1377	1167	615	1678	1422	287	2232	693	287	2232	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.5	17.8	18.9	18.7	15.0	15.9	21.0	13.1	11.7	20.4	13.0	10.6
Incr Delay (d2), s/veh	10.1	0.3	5.5	5.8	0.0	0.7	11.6	0.3	0.2	10.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.2	1.2	1.6	0.1	0.7	0.4	1.5	0.4	0.7	1.9	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.6	18.1	24.5	24.5	15.1	16.6	32.6	13.4	11.9	30.8	13.3	10.7
LnGrp LOS	C	B	C	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		184			247			837			1023	
Approach Delay, s/veh		25.3			21.3			13.9			14.3	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	17.2	9.8	9.3	6.1	18.2	6.8	12.4
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	19.0	15.0	32.0	7.0	19.0	8.0	39.0
Max Q Clear Time (g_c+I1), s	3.4	7.3	5.5	4.9	2.7	8.9	3.2	4.2
Green Ext Time (p_c), s	0.0	3.8	0.2	0.5	0.0	4.3	0.0	0.3

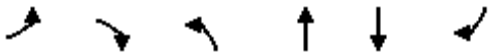
Intersection Summary	
HCM 6th Ctrl Delay	15.8
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	3	130	0	1	28	31	831	0	41	1254	14
Future Volume (veh/h)	51	3	130	0	1	28	31	831	0	41	1254	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	3	130	0	1	28	31	831	0	41	1254	14
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	357	303	4	51	43	52	2099	651	65	2136	663
Arrive On Green	0.04	0.19	0.19	0.00	0.03	0.03	0.03	0.41	0.00	0.04	0.42	0.42
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	51	3	130	0	1	28	31	831	0	41	1254	14
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	1.2	0.1	3.0	0.0	0.0	0.7	0.7	4.7	0.0	0.9	7.8	0.2
Cycle Q Clear(g_c), s	1.2	0.1	3.0	0.0	0.0	0.7	0.7	4.7	0.0	0.9	7.8	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	76	357	303	4	51	43	52	2099	651	65	2136	663
V/C Ratio(X)	0.67	0.01	0.43	0.00	0.02	0.64	0.60	0.40	0.00	0.63	0.59	0.02
Avail Cap(c_a), veh/h	473	1444	1223	473	1444	1223	473	3202	994	473	3202	994
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.5	13.6	14.8	0.0	19.6	20.0	19.9	8.6	0.0	19.7	9.3	7.1
Incr Delay (d2), s/veh	9.6	0.0	1.0	0.0	0.2	14.9	10.7	0.1	0.0	9.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.0	0.0	0.0	0.4	0.4	1.1	0.0	0.5	1.8	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.2	13.6	15.7	0.0	19.8	34.8	30.6	8.7	0.0	29.5	9.6	7.1
LnGrp LOS	C	B	B	A	B	C	C	A	A	C	A	A
Approach Vol, veh/h		184			29			862			1309	
Approach Delay, s/veh		19.4			34.3			9.5			10.2	
Approach LOS		B			C			A			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	22.0	0.0	12.9	6.2	22.3	6.8	6.1
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	11.0	26.0	11.0	32.0	11.0	26.0	11.0	32.0
Max Q Clear Time (g_c+I1), s	2.9	6.7	0.0	5.0	2.7	9.8	3.2	2.7
Green Ext Time (p_c), s	0.0	5.1	0.0	0.4	0.0	7.5	0.0	0.1

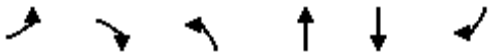
Intersection Summary	
HCM 6th Ctrl Delay	10.9
HCM 6th LOS	B



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	205	124	63	1256	1096	105
Future Volume (veh/h)	205	124	63	1256	1096	105
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	205	124	63	1256	1096	105
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	326	290	95	2942	2056	637
Arrive On Green	0.18	0.18	0.05	0.58	0.40	0.40
Sat Flow, veh/h	1781	1585	1781	5274	5274	1581
Grp Volume(v), veh/h	205	124	63	1256	1096	105
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1702	1702	1581
Q Serve(g_s), s	3.5	2.3	1.2	4.6	5.4	1.4
Cycle Q Clear(g_c), s	3.5	2.3	1.2	4.6	5.4	1.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	326	290	95	2942	2056	637
V/C Ratio(X)	0.63	0.43	0.67	0.43	0.53	0.16
Avail Cap(c_a), veh/h	1073	955	429	4921	3076	952
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.5	12.0	15.4	4.0	7.5	6.3
Incr Delay (d2), s/veh	2.0	1.0	7.8	0.1	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.1	0.5	0.2	0.9	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.5	13.0	23.2	4.1	7.8	6.5
LnGrp LOS	B	B	C	A	A	A
Approach Vol, veh/h	329			1319	1201	
Approach Delay, s/veh	14.0			5.0	7.6	
Approach LOS	B			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		23.1		10.1	5.8	17.4
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		32.0		20.0	8.0	20.0
Max Q Clear Time (g_c+I1), s		6.6		5.5	3.2	7.4
Green Ext Time (p_c), s		9.3		0.9	0.0	5.9

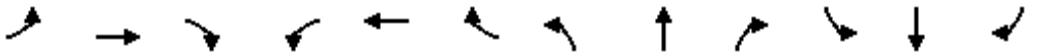
Intersection Summary	
HCM 6th Ctrl Delay	7.1
HCM 6th LOS	A



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	47	50	19	1305	1210	10
Future Volume (veh/h)	47	50	19	1305	1210	10
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	50	19	1305	1210	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	133	119	35	3308	2500	774
Arrive On Green	0.07	0.07	0.02	0.65	0.49	0.49
Sat Flow, veh/h	1781	1585	1781	5274	5274	1582
Grp Volume(v), veh/h	47	50	19	1305	1210	10
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1702	1702	1582
Q Serve(g_s), s	0.7	0.9	0.3	3.5	4.6	0.1
Cycle Q Clear(g_c), s	0.7	0.9	0.3	3.5	4.6	0.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	133	119	35	3308	2500	774
V/C Ratio(X)	0.35	0.42	0.54	0.39	0.48	0.01
Avail Cap(c_a), veh/h	1235	1099	494	5663	4248	1316
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.7	12.7	14.0	2.4	4.9	3.8
Incr Delay (d2), s/veh	1.6	2.4	12.6	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.8	0.2	0.0	0.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.3	15.1	26.6	2.5	5.1	3.8
LnGrp LOS	B	B	C	A	A	A
Approach Vol, veh/h	97			1324	1220	
Approach Delay, s/veh	14.7			2.8	5.1	
Approach LOS	B			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		22.7		6.2	4.6	18.1
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		32.0		20.0	8.0	24.0
Max Q Clear Time (g_c+I1), s		5.5		2.9	2.3	6.6
Green Ext Time (p_c), s		9.9		0.2	0.0	7.5

Intersection Summary	
HCM 6th Ctrl Delay	4.3
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	5	105	6	5	25	25	1332	5	5	1364	16
Future Volume (veh/h)	84	5	105	6	5	25	25	1332	5	5	1364	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	84	5	105	6	5	25	25	1332	5	5	1364	16
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	7	156	12	10	48	42	2274	704	10	2180	675
Arrive On Green	0.17	0.17	0.17	0.04	0.04	0.04	0.02	0.45	0.45	0.01	0.43	0.43
Sat Flow, veh/h	722	43	903	274	228	1140	1781	5106	1581	1781	5106	1581
Grp Volume(v), veh/h	194	0	0	36	0	0	25	1332	5	5	1364	16
Grp Sat Flow(s),veh/h/ln	1668	0	0	1642	0	0	1781	1702	1581	1781	1702	1581
Q Serve(g_s), s	5.2	0.0	0.0	1.0	0.0	0.0	0.7	9.4	0.1	0.1	10.0	0.3
Cycle Q Clear(g_c), s	5.2	0.0	0.0	1.0	0.0	0.0	0.7	9.4	0.1	0.1	10.0	0.3
Prop In Lane	0.43		0.54	0.17		0.69	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	288	0	0	69	0	0	42	2274	704	10	2180	675
V/C Ratio(X)	0.67	0.00	0.00	0.52	0.00	0.00	0.59	0.59	0.01	0.52	0.63	0.02
Avail Cap(c_a), veh/h	1325	0	0	1304	0	0	298	3095	958	298	3095	958
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.5	0.0	0.0	22.4	0.0	0.0	23.1	10.0	7.4	23.7	10.7	7.9
Incr Delay (d2), s/veh	2.7	0.0	0.0	6.0	0.0	0.0	12.6	0.2	0.0	37.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.0	0.5	0.0	0.0	0.4	2.3	0.0	0.1	2.6	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.2	0.0	0.0	28.4	0.0	0.0	35.8	10.2	7.4	61.5	11.0	7.9
LnGrp LOS	C	A	A	C	A	A	D	B	A	E	B	A
Approach Vol, veh/h		194			36			1362			1385	
Approach Delay, s/veh		21.2			28.4			10.7			11.2	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.3	25.3		12.3	5.1	24.4		6.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	8.0	29.0		38.0	8.0	29.0		38.0				
Max Q Clear Time (g_c+I1), s	2.1	11.4		7.2	2.7	12.0		3.0				
Green Ext Time (p_c), s	0.0	8.4		1.3	0.0	8.4		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			11.8									
HCM 6th LOS			B									



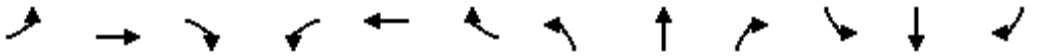
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	839	89	61	714	48	15
Future Volume (veh/h)	839	89	61	714	48	15
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	839	89	61	714	48	15
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2074	925	155	2633	158	141
Arrive On Green	0.58	0.58	0.09	0.74	0.09	0.09
Sat Flow, veh/h	3647	1585	1781	3647	1781	1585
Grp Volume(v), veh/h	839	89	61	714	48	15
Grp Sat Flow(s),veh/h/ln	1777	1585	1781	1777	1781	1585
Q Serve(g_s), s	7.3	1.4	1.8	3.7	1.4	0.5
Cycle Q Clear(g_c), s	7.3	1.4	1.8	3.7	1.4	0.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2074	925	155	2633	158	141
V/C Ratio(X)	0.40	0.10	0.39	0.27	0.30	0.11
Avail Cap(c_a), veh/h	2811	1254	783	2811	783	697
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.5	5.2	24.6	2.4	24.3	23.8
Incr Delay (d2), s/veh	0.2	0.1	0.6	0.1	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.4	0.8	0.6	0.6	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	6.7	5.3	25.2	2.5	24.7	24.0
LnGrp LOS	A	A	C	A	C	C
Approach Vol, veh/h	928			775	63	
Approach Delay, s/veh	6.5			4.3	24.5	
Approach LOS	A			A	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	8.9	38.9				47.8	9.0
Change Period (Y+Rc), s	4.0	5.7				5.7	4.0
Max Green Setting (Gmax), s	25.0	45.0				45.0	25.0
Max Q Clear Time (g_c+I1), s	3.8	9.3				5.7	3.4
Green Ext Time (p_c), s	0.1	23.9				21.3	0.1

Intersection Summary	
HCM 6th Ctrl Delay	6.2
HCM 6th LOS	A

Notes

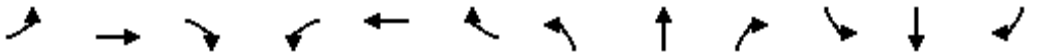
User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	192	9	46	55	17	92	32	897	17	27	873	79
Future Volume (veh/h)	192	9	46	55	17	92	32	897	17	27	873	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	192	9	46	55	17	92	32	897	17	27	873	79
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	246	325	276	80	151	128	53	1476	458	46	1456	452
Arrive On Green	0.14	0.17	0.17	0.04	0.08	0.08	0.03	0.29	0.29	0.03	0.29	0.29
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	192	9	46	55	17	92	32	897	17	27	873	79
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	4.5	0.2	1.1	1.3	0.4	2.4	0.8	6.5	0.3	0.6	6.3	1.6
Cycle Q Clear(g_c), s	4.5	0.2	1.1	1.3	0.4	2.4	0.8	6.5	0.3	0.6	6.3	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	246	325	276	80	151	128	53	1476	458	46	1456	452
V/C Ratio(X)	0.78	0.03	0.17	0.69	0.11	0.72	0.61	0.61	0.04	0.59	0.60	0.17
Avail Cap(c_a), veh/h	374	1396	1183	291	1265	1072	291	2144	665	291	1905	591
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.9	14.7	15.1	20.2	18.3	19.2	20.6	13.1	11.0	20.7	13.2	11.5
Incr Delay (d2), s/veh	5.8	0.0	0.3	10.1	0.3	7.3	10.8	0.4	0.0	11.6	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.1	0.4	0.7	0.2	1.0	0.4	1.8	0.1	0.4	1.8	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.7	14.7	15.3	30.2	18.6	26.6	31.3	13.6	11.0	32.2	13.6	11.7
LnGrp LOS	C	B	B	C	B	C	C	B	B	C	B	B
Approach Vol, veh/h		247			164			946			979	
Approach Delay, s/veh		21.8			27.0			14.1			14.0	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	17.4	6.9	12.5	6.3	17.2	10.9	8.5
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	18.0	7.0	32.0	7.0	16.0	9.0	29.0
Max Q Clear Time (g_c+I1), s	2.6	8.5	3.3	3.1	2.8	8.3	6.5	4.4
Green Ext Time (p_c), s	0.0	3.9	0.0	0.1	0.0	3.4	0.1	0.3

Intersection Summary	
HCM 6th Ctrl Delay	15.8
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	73	126	235	22	1	37	878	117	3	958	14
Future Volume (veh/h)	68	73	126	235	22	1	37	878	117	3	958	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	73	126	235	22	1	37	878	117	3	958	14
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	89	232	197	303	457	387	58	1748	543	6	1598	496
Arrive On Green	0.05	0.12	0.12	0.17	0.24	0.24	0.03	0.34	0.34	0.00	0.31	0.31
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	68	73	126	235	22	1	37	878	117	3	958	14
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	1.8	1.7	3.6	6.0	0.4	0.0	1.0	6.4	2.5	0.1	7.5	0.3
Cycle Q Clear(g_c), s	1.8	1.7	3.6	6.0	0.4	0.0	1.0	6.4	2.5	0.1	7.5	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	89	232	197	303	457	387	58	1748	543	6	1598	496
V/C Ratio(X)	0.76	0.31	0.64	0.78	0.05	0.00	0.64	0.50	0.22	0.52	0.60	0.03
Avail Cap(c_a), veh/h	415	1307	1108	679	1584	1343	302	1838	571	302	1838	571
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.2	18.8	19.7	18.7	13.6	13.5	22.6	12.3	11.0	23.5	13.7	11.2
Incr Delay (d2), s/veh	12.6	0.8	3.4	4.3	0.0	0.0	11.1	0.6	0.5	56.4	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.7	1.3	2.5	0.2	0.0	0.5	1.9	0.8	0.1	2.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.8	19.6	23.1	23.0	13.7	13.5	33.6	13.0	11.6	79.9	14.7	11.3
LnGrp LOS	C	B	C	C	B	B	C	B	B	E	B	B
Approach Vol, veh/h		267			258			1032			975	
Approach Delay, s/veh		25.1			22.2			13.5			14.9	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.2	21.2	12.0	9.9	5.5	19.8	6.4	15.5
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	17.0	18.0	33.0	8.0	17.0	11.0	40.0
Max Q Clear Time (g_c+I1), s	2.1	8.4	8.0	5.6	3.0	9.5	3.8	2.4
Green Ext Time (p_c), s	0.0	5.9	0.5	0.8	0.0	5.3	0.1	0.1

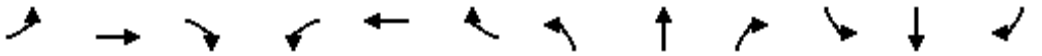
Intersection Summary	
HCM 6th Ctrl Delay	16.2
HCM 6th LOS	B



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	68	0	1039	30	1	1321
Future Volume (veh/h)	68	0	1039	30	1	1321
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	0	1039	30	1	1321
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	104	92	2129	661	6	3025
Arrive On Green	0.06	0.00	0.42	0.42	0.00	0.59
Sat Flow, veh/h	1781	1585	5274	1585	1781	5274
Grp Volume(v), veh/h	68	0	1039	30	1	1321
Grp Sat Flow(s),veh/h/ln	1781	1585	1702	1585	1781	1702
Q Serve(g_s), s	1.1	0.0	4.3	0.3	0.0	4.1
Cycle Q Clear(g_c), s	1.1	0.0	4.3	0.3	0.0	4.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	104	92	2129	661	6	3025
V/C Ratio(X)	0.65	0.00	0.49	0.05	0.16	0.44
Avail Cap(c_a), veh/h	1803	1605	3565	1107	684	6417
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.2	0.0	6.1	5.0	14.3	3.2
Incr Delay (d2), s/veh	6.8	0.0	0.2	0.0	11.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.5	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.0	0.0	6.3	5.0	25.9	3.3
LnGrp LOS	B	A	A	A	C	A
Approach Vol, veh/h	68		1069			1322
Approach Delay, s/veh	20.0		6.3			3.3
Approach LOS	B		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.0	16.9			22.0	6.7
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	11.0	20.0			36.0	29.0
Max Q Clear Time (g_c+I1), s	2.0	6.3			6.1	3.1
Green Ext Time (p_c), s	0.0	5.7			10.5	0.1

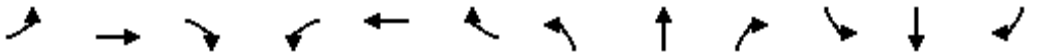
Intersection Summary	
HCM 6th Ctrl Delay	5.1
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	6	54	151	20	10	13	1117	50	5	1297	138
Future Volume (veh/h)	51	6	54	151	20	10	13	1117	50	5	1297	138
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	6	54	151	20	10	13	1117	50	5	1297	138
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	90	76	201	221	187	24	1815	563	10	1774	551
Arrive On Green	0.04	0.05	0.05	0.11	0.12	0.12	0.01	0.36	0.36	0.01	0.35	0.35
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	51	6	54	151	20	10	13	1117	50	5	1297	138
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	1.2	0.1	1.4	3.4	0.4	0.2	0.3	7.5	0.9	0.1	9.3	2.6
Cycle Q Clear(g_c), s	1.2	0.1	1.4	3.4	0.4	0.2	0.3	7.5	0.9	0.1	9.3	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	76	90	76	201	221	187	24	1815	563	10	1774	551
V/C Ratio(X)	0.67	0.07	0.71	0.75	0.09	0.05	0.54	0.62	0.09	0.52	0.73	0.25
Avail Cap(c_a), veh/h	469	1431	1213	682	1655	1403	469	1954	607	469	1954	607
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.7	19.0	19.6	18.0	16.4	16.4	20.5	11.1	9.0	20.7	11.9	9.8
Incr Delay (d2), s/veh	9.7	0.3	11.5	5.6	0.2	0.1	17.9	0.5	0.1	37.4	1.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.1	0.7	1.5	0.2	0.1	0.2	1.9	0.2	0.1	2.5	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.4	19.3	31.1	23.6	16.6	16.5	38.4	11.6	9.0	58.1	13.2	10.0
LnGrp LOS	C	B	C	C	B	B	D	B	A	E	B	A
Approach Vol, veh/h		111			181			1180			1440	
Approach Delay, s/veh		29.7			22.4			11.8			13.1	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.2	19.9	9.7	7.0	5.6	19.5	6.8	9.9
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	11.0	16.0	16.0	32.0	11.0	16.0	11.0	37.0
Max Q Clear Time (g_c+I1), s	2.1	9.5	5.4	3.4	2.3	11.3	3.2	2.4
Green Ext Time (p_c), s	0.0	3.7	0.3	0.1	0.0	3.2	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B



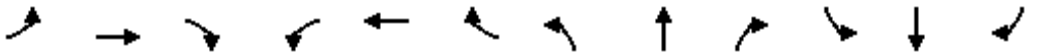
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	89	6	88	39	83	5	1548	44	41	664	26
Future Volume (veh/h)	76	89	6	88	39	83	5	1548	44	41	664	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	76	89	6	88	39	83	5	1548	44	41	664	26
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	197	206	175	177	186	158	19	1753	782	107	1928	860
Arrive On Green	0.11	0.11	0.11	0.10	0.10	0.10	0.01	0.49	0.49	0.06	0.54	0.54
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	76	89	6	88	39	83	5	1548	44	41	664	26
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	3.2	3.5	0.3	3.7	1.5	4.0	0.2	31.2	1.2	1.8	8.4	0.6
Cycle Q Clear(g_c), s	3.2	3.5	0.3	3.7	1.5	4.0	0.2	31.2	1.2	1.8	8.4	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	197	206	175	177	186	158	19	1753	782	107	1928	860
V/C Ratio(X)	0.39	0.43	0.03	0.50	0.21	0.53	0.27	0.88	0.06	0.38	0.34	0.03
Avail Cap(c_a), veh/h	447	469	398	447	469	398	447	1784	796	447	1928	860
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.9	33.1	31.7	34.0	33.0	34.1	39.1	18.1	10.5	36.0	10.3	8.5
Incr Delay (d2), s/veh	0.5	0.5	0.0	0.8	0.2	1.0	2.8	5.9	0.1	0.8	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.6	0.1	1.6	0.7	1.5	0.1	12.8	0.4	0.8	3.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.4	33.6	31.7	34.8	33.2	35.1	41.9	24.0	10.6	36.9	10.5	8.5
LnGrp LOS	C	C	C	C	C	D	D	C	B	D	B	A
Approach Vol, veh/h		171			210			1597			731	
Approach Delay, s/veh		33.5			34.6			23.7			11.9	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.8	45.3		12.8	4.8	49.2		12.8				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.9				
Max Green Setting (Gmax), s	20.0	40.0		20.0	20.0	40.0		20.0				
Max Q Clear Time (g_c+I1), s	3.8	33.2		5.5	2.2	10.4		6.0				
Green Ext Time (p_c), s	0.0	6.1		0.3	0.0	8.8		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		22.0	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.



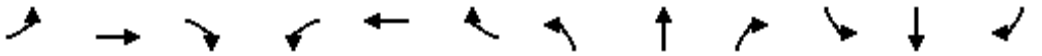
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	6	256	76	4	33	192	1436	81	25	818	28
Future Volume (veh/h)	86	6	256	76	4	33	192	1436	81	25	818	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	86	6	256	76	4	33	192	1436	81	25	818	28
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	121	340	288	94	330	280	223	1611	718	41	1281	571
Arrive On Green	0.08	0.20	0.20	0.06	0.20	0.20	0.14	0.50	0.50	0.03	0.40	0.40
Sat Flow, veh/h	1603	1683	1427	1603	1683	1427	1603	3198	1427	1603	3198	1427
Grp Volume(v), veh/h	86	6	256	76	4	33	192	1436	81	25	818	28
Grp Sat Flow(s),veh/h/ln	1603	1683	1427	1603	1683	1427	1603	1599	1427	1603	1599	1427
Q Serve(g_s), s	5.0	0.3	16.6	4.5	0.2	1.8	11.2	38.5	2.8	1.5	19.6	1.1
Cycle Q Clear(g_c), s	5.0	0.3	16.6	4.5	0.2	1.8	11.2	38.5	2.8	1.5	19.6	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	121	340	288	94	330	280	223	1611	718	41	1281	571
V/C Ratio(X)	0.71	0.02	0.89	0.81	0.01	0.12	0.86	0.89	0.11	0.61	0.64	0.05
Avail Cap(c_a), veh/h	135	689	584	118	672	569	303	1679	749	118	1343	599
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	30.4	36.9	44.3	30.8	31.5	40.1	21.3	12.4	45.9	23.0	17.5
Incr Delay (d2), s/veh	11.3	0.0	3.7	26.9	0.0	0.1	13.4	6.7	0.1	14.0	1.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.1	6.0	2.5	0.1	0.6	5.2	14.8	0.9	0.7	7.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.4	30.4	40.6	71.2	30.8	31.6	53.5	28.0	12.6	60.0	24.3	17.5
LnGrp LOS	D	C	D	E	C	C	D	C	B	E	C	B
Approach Vol, veh/h		348			113			1709			871	
Approach Delay, s/veh		43.8			58.2			30.1			25.1	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	54.0	10.6	23.3	17.2	44.1	11.2	22.7
Change Period (Y+Rc), s	5.0	6.0	5.0	4.0	4.0	6.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	50.0	7.0	39.0	18.0	40.0	8.0	38.0
Max Q Clear Time (g_c+I1), s	3.5	40.5	6.5	18.6	13.2	21.6	7.0	3.8
Green Ext Time (p_c), s	0.0	7.4	0.0	0.7	0.2	7.1	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	31.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



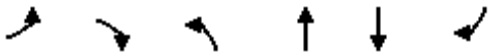
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	2	247	42	6	11	90	1451	21	11	1133	22
Future Volume (veh/h)	97	2	247	42	6	11	90	1451	21	11	1133	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	97	2	247	42	6	11	90	1451	21	11	1133	22
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	312	6	283	108	15	110	141	1673	746	141	1673	746
Arrive On Green	0.18	0.18	0.18	0.07	0.07	0.07	0.08	0.47	0.47	0.08	0.47	0.47
Sat Flow, veh/h	1747	36	1585	1568	224	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	99	0	247	48	0	11	90	1451	21	11	1133	22
Grp Sat Flow(s),veh/h/ln	1783	0	1585	1792	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.3	0.0	13.5	2.3	0.0	0.6	4.3	32.4	0.6	0.5	22.0	0.7
Cycle Q Clear(g_c), s	4.3	0.0	13.5	2.3	0.0	0.6	4.3	32.4	0.6	0.5	22.0	0.7
Prop In Lane	0.98		1.00	0.87		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	318	0	283	124	0	110	141	1673	746	141	1673	746
V/C Ratio(X)	0.31	0.00	0.87	0.39	0.00	0.10	0.64	0.87	0.03	0.08	0.68	0.03
Avail Cap(c_a), veh/h	402	0	357	404	0	357	401	1722	768	401	1673	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.7	0.0	35.5	39.5	0.0	38.7	39.6	21.0	12.6	37.9	18.2	12.6
Incr Delay (d2), s/veh	0.2	0.0	15.0	0.7	0.0	0.1	1.8	5.2	0.0	0.1	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	6.3	1.0	0.0	0.2	1.9	13.7	0.2	0.2	8.8	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.9	0.0	50.5	40.2	0.0	38.9	41.5	26.2	12.6	38.0	19.6	12.6
LnGrp LOS	C	A	D	D	A	D	D	C	B	D	B	B
Approach Vol, veh/h		346			59			1562			1166	
Approach Delay, s/veh		45.2			40.0			26.9			19.7	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	47.8		19.8	11.0	47.8		10.1				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	43.0		20.0	20.0	40.0		20.0				
Max Q Clear Time (g_c+I1), s	2.5	34.4		15.5	6.3	24.0		4.3				
Green Ext Time (p_c), s	0.0	7.4		0.4	0.1	10.7		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		26.5	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.



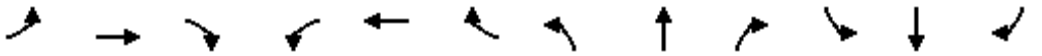
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	247	185	100	1396	1253	153
Future Volume (veh/h)	247	185	100	1396	1253	153
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	247	185	100	1396	1253	153
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	315	281	161	2377	1837	819
Arrive On Green	0.18	0.18	0.09	0.67	0.52	0.52
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	247	185	100	1396	1253	153
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	8.6	7.1	3.5	13.9	17.1	3.3
Cycle Q Clear(g_c), s	8.6	7.1	3.5	13.9	17.1	3.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	315	281	161	2377	1837	819
V/C Ratio(X)	0.78	0.66	0.62	0.59	0.68	0.19
Avail Cap(c_a), veh/h	632	562	632	2377	2356	1051
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.5	24.9	28.4	5.9	11.7	8.4
Incr Delay (d2), s/veh	1.6	1.0	1.5	0.6	1.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	6.2	1.5	3.7	5.9	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.1	25.9	29.9	6.4	12.6	8.6
LnGrp LOS	C	C	C	A	B	A
Approach Vol, veh/h	432			1496	1406	
Approach Delay, s/veh	26.6			8.0	12.2	
Approach LOS	C			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		49.4		15.5	9.8	39.5
Change Period (Y+Rc), s		6.0		4.0	4.0	6.0
Max Green Setting (Gmax), s		43.0		23.0	23.0	43.0
Max Q Clear Time (g_c+I1), s		15.9		10.6	5.5	19.1
Green Ext Time (p_c), s		16.0		0.9	0.2	14.5

Intersection Summary		
HCM 6th Ctrl Delay		12.2
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	17	120	24	34	25	62	1483	46	29	1304	65
Future Volume (veh/h)	129	17	120	24	34	25	62	1483	46	29	1304	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	129	17	120	24	34	25	62	1483	46	29	1304	65
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	188	197	167	134	141	120	136	1809	807	86	1708	762
Arrive On Green	0.11	0.11	0.11	0.08	0.08	0.08	0.08	0.51	0.51	0.05	0.48	0.48
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	129	17	120	24	34	25	62	1483	46	29	1304	65
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.4	0.6	5.6	1.0	1.3	1.1	2.6	27.1	1.1	1.2	23.2	1.7
Cycle Q Clear(g_c), s	5.4	0.6	5.6	1.0	1.3	1.1	2.6	27.1	1.1	1.2	23.2	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	188	197	167	134	141	120	136	1809	807	86	1708	762
V/C Ratio(X)	0.69	0.09	0.72	0.18	0.24	0.21	0.46	0.82	0.06	0.34	0.76	0.09
Avail Cap(c_a), veh/h	462	486	412	462	486	412	462	1984	885	462	1984	885
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	31.1	33.4	33.4	33.5	33.4	34.0	15.9	9.6	35.5	16.4	10.8
Incr Delay (d2), s/veh	1.7	0.1	2.2	0.2	0.3	0.3	0.9	3.1	0.1	0.9	2.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.3	2.2	0.4	0.6	0.4	1.0	9.1	0.3	0.5	7.8	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.9	31.2	35.5	33.6	33.9	33.8	34.9	19.0	9.6	36.3	18.4	10.9
LnGrp LOS	C	C	D	C	C	C	C	B	A	D	B	B
Approach Vol, veh/h		266			83			1591			1398	
Approach Delay, s/veh		35.0			33.8			19.4			18.4	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.7	45.2		13.0	9.9	43.0		11.1				
Change Period (Y+Rc), s	4.0	6.0		4.9	4.0	6.0		5.3				
Max Green Setting (Gmax), s	20.0	43.0		20.0	20.0	43.0		20.0				
Max Q Clear Time (g_c+I1), s	3.2	29.1		7.6	4.6	25.2		3.3				
Green Ext Time (p_c), s	0.0	10.1		0.5	0.1	11.0		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		20.6	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.



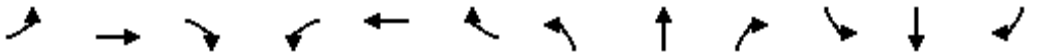
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	80	5	1785	36	5	1811
Future Volume (veh/h)	80	5	1785	36	5	1811
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	5	1785	36	5	1811
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	105	7	2638	819	10	3370
Arrive On Green	0.06	0.06	0.52	0.52	0.01	0.66
Sat Flow, veh/h	1646	103	5274	1585	1781	5274
Grp Volume(v), veh/h	86	0	1785	36	5	1811
Grp Sat Flow(s),veh/h/ln	1770	0	1702	1585	1781	1702
Q Serve(g_s), s	1.7	0.0	9.4	0.4	0.1	6.8
Cycle Q Clear(g_c), s	1.7	0.0	9.4	0.4	0.1	6.8
Prop In Lane	0.93	0.06		1.00	1.00	
Lane Grp Cap(c), veh/h	113	0	2638	819	10	3370
V/C Ratio(X)	0.76	0.00	0.68	0.04	0.52	0.54
Avail Cap(c_a), veh/h	1416	0	2819	875	541	5073
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.7	0.0	6.5	4.3	18.0	3.2
Incr Delay (d2), s/veh	10.0	0.0	0.6	0.0	37.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	1.3	0.1	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.7	0.0	7.1	4.4	55.0	3.4
LnGrp LOS	C	A	A	A	D	A
Approach Vol, veh/h	86		1821			1816
Approach Delay, s/veh	26.7		7.1			3.5
Approach LOS	C		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.2	23.7			28.9	7.3
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	11.0	20.0			36.0	29.0
Max Q Clear Time (g_c+I1), s	2.1	11.4			8.8	3.7
Green Ext Time (p_c), s	0.0	6.5			15.1	0.2

Intersection Summary	
HCM 6th Ctrl Delay	5.8
HCM 6th LOS	A

Notes

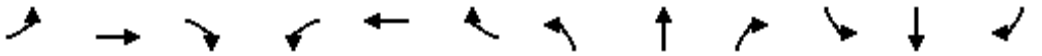
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	1	46	63	2	35	12	1825	17	9	1940	96
Future Volume (veh/h)	59	1	46	63	2	35	12	1825	17	9	1940	96
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	1	46	63	2	35	12	1825	17	9	1940	96
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	3	135	85	8	134	22	2626	814	17	2612	809
Arrive On Green	0.05	0.09	0.09	0.05	0.09	0.09	0.01	0.51	0.51	0.01	0.51	0.51
Sat Flow, veh/h	1781	34	1546	1781	86	1502	1781	5106	1582	1781	5106	1582
Grp Volume(v), veh/h	59	0	47	63	0	37	12	1825	17	9	1940	96
Grp Sat Flow(s),veh/h/ln	1781	0	1580	1781	0	1588	1781	1702	1582	1781	1702	1582
Q Serve(g_s), s	1.5	0.0	1.3	1.6	0.0	1.0	0.3	12.7	0.2	0.2	14.0	1.5
Cycle Q Clear(g_c), s	1.5	0.0	1.3	1.6	0.0	1.0	0.3	12.7	0.2	0.2	14.0	1.5
Prop In Lane	1.00		0.98	1.00		0.95	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	0	138	85	0	142	22	2626	814	17	2612	809
V/C Ratio(X)	0.72	0.00	0.34	0.74	0.00	0.26	0.55	0.69	0.02	0.54	0.74	0.12
Avail Cap(c_a), veh/h	304	0	1043	304	0	1049	304	2626	814	304	2612	809
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.1	0.0	20.1	22.1	0.0	19.9	23.0	8.6	5.6	23.1	9.0	6.0
Incr Delay (d2), s/veh	11.5	0.0	1.4	11.9	0.0	1.0	19.4	1.5	0.0	23.9	2.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.5	0.9	0.0	0.4	0.2	3.0	0.1	0.2	3.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.6	0.0	21.6	33.9	0.0	20.9	42.5	10.2	5.6	47.1	11.0	6.3
LnGrp LOS	C	A	C	C	A	C	D	B	A	D	B	A
Approach Vol, veh/h		106			100			1854			2045	
Approach Delay, s/veh		28.3			29.1			10.3			10.9	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.4	28.1	6.2	8.1	4.6	28.0	6.1	8.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	24.0	8.0	31.0	8.0	24.0	8.0	31.0
Max Q Clear Time (g_c+I1), s	2.2	14.7	3.6	3.3	2.3	16.0	3.5	3.0
Green Ext Time (p_c), s	0.0	7.1	0.0	0.2	0.0	6.5	0.0	0.1

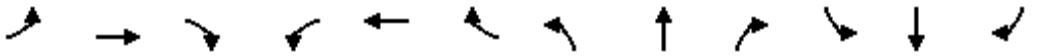
Intersection Summary	
HCM 6th Ctrl Delay	11.5
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	7	161	127	8	51	62	933	39	10	319	28
Future Volume (veh/h)	185	7	161	127	8	51	62	933	39	10	319	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	185	7	161	127	8	51	62	933	39	10	319	28
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	288	11	266	198	12	187	82	1110	495	18	984	439
Arrive On Green	0.17	0.17	0.17	0.12	0.12	0.12	0.05	0.31	0.31	0.01	0.28	0.28
Sat Flow, veh/h	1719	65	1585	1680	106	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	192	0	161	135	0	51	62	933	39	10	319	28
Grp Sat Flow(s),veh/h/ln	1784	0	1585	1786	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.1	0.0	4.8	3.7	0.0	1.5	1.8	12.5	0.9	0.3	3.6	0.7
Cycle Q Clear(g_c), s	5.1	0.0	4.8	3.7	0.0	1.5	1.8	12.5	0.9	0.3	3.6	0.7
Prop In Lane	0.96		1.00	0.94		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	299	0	266	211	0	187	82	1110	495	18	984	439
V/C Ratio(X)	0.64	0.00	0.61	0.64	0.00	0.27	0.76	0.84	0.08	0.54	0.32	0.06
Avail Cap(c_a), veh/h	909	0	807	910	0	807	384	1183	528	384	1183	528
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.8	0.0	19.7	21.5	0.0	20.5	24.1	16.4	12.4	25.1	14.7	13.6
Incr Delay (d2), s/veh	2.3	0.0	2.2	3.2	0.0	0.8	13.4	5.3	0.1	22.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	1.7	1.6	0.0	0.5	1.0	4.9	0.3	0.2	1.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.1	0.0	21.9	24.7	0.0	21.3	37.5	21.7	12.4	47.6	14.9	13.7
LnGrp LOS	C	A	C	C	A	C	D	C	B	D	B	B
Approach Vol, veh/h		353			186			1034			357	
Approach Delay, s/veh		22.0			23.8			22.3			15.7	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	20.9		13.6	7.3	19.1		11.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	11.0	17.0		26.0	11.0	17.0		26.0				
Max Q Clear Time (g_c+I1), s	2.3	14.5		7.1	3.8	5.6		5.7				
Green Ext Time (p_c), s	0.0	1.4		1.5	0.1	1.5		0.8				

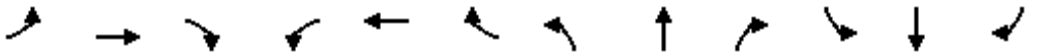
Intersection Summary												
HCM 6th Ctrl Delay			21.2									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	6	53	51	3	44	58	1029	31	12	574	20
Future Volume (veh/h)	36	6	53	51	3	44	58	1029	31	12	574	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	6	53	51	3	44	58	1029	31	12	574	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	100	17	103	111	7	105	84	1285	573	22	1161	518
Arrive On Green	0.06	0.06	0.06	0.07	0.07	0.07	0.05	0.36	0.36	0.01	0.33	0.33
Sat Flow, veh/h	1537	256	1585	1687	99	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	42	0	53	54	0	44	58	1029	31	12	574	20
Grp Sat Flow(s),veh/h/ln	1793	0	1585	1786	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.9	0.0	1.3	1.2	0.0	1.1	1.3	10.5	0.5	0.3	5.2	0.3
Cycle Q Clear(g_c), s	0.9	0.0	1.3	1.2	0.0	1.1	1.3	10.5	0.5	0.3	5.2	0.3
Prop In Lane	0.86		1.00	0.94		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	116	0	103	118	0	105	84	1285	573	22	1161	518
V/C Ratio(X)	0.36	0.00	0.52	0.46	0.00	0.42	0.69	0.80	0.05	0.54	0.49	0.04
Avail Cap(c_a), veh/h	1154	0	1020	1149	0	1020	397	1407	628	749	2111	942
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.1	0.0	18.3	18.2	0.0	18.1	19.0	11.6	8.4	19.8	10.9	9.3
Incr Delay (d2), s/veh	1.9	0.0	3.9	2.8	0.0	2.7	9.5	3.1	0.0	18.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.5	0.5	0.0	0.4	0.7	3.3	0.1	0.2	1.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.0	0.0	22.2	20.9	0.0	20.8	28.4	14.7	8.4	38.7	11.3	9.3
LnGrp LOS	B	A	C	C	A	C	C	B	A	D	B	A
Approach Vol, veh/h		95			98			1118			606	
Approach Delay, s/veh		21.2			20.9			15.3			11.7	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	19.6		7.6	6.9	18.2		7.7				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	17.0	16.0		26.0	9.0	24.0		26.0				
Max Q Clear Time (g_c+I1), s	2.3	12.5		3.3	3.3	7.2		3.2				
Green Ext Time (p_c), s	0.0	2.1		0.3	0.0	3.4		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		14.7	
HCM 6th LOS		B	



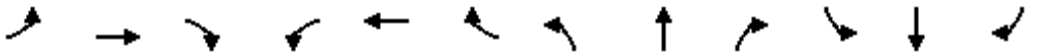
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	95	112	5	7	33	104	1058	12	207	528	95
Future Volume (veh/h)	86	95	112	5	7	33	104	1058	12	207	528	95
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	86	95	112	5	7	33	104	1058	12	207	528	95
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	113	124	206	129	135	115	144	1521	679	249	1731	772
Arrive On Green	0.13	0.13	0.13	0.07	0.07	0.07	0.08	0.43	0.43	0.14	0.49	0.49
Sat Flow, veh/h	868	959	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	181	0	112	5	7	33	104	1058	12	207	528	95
Grp Sat Flow(s),veh/h/ln	1827	0	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	7.4	0.0	5.1	0.2	0.3	1.5	4.4	18.7	0.3	8.7	6.9	2.5
Cycle Q Clear(g_c), s	7.4	0.0	5.1	0.2	0.3	1.5	4.4	18.7	0.3	8.7	6.9	2.5
Prop In Lane	0.48		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	237	0	206	129	135	115	144	1521	679	249	1731	772
V/C Ratio(X)	0.76	0.00	0.54	0.04	0.05	0.29	0.72	0.70	0.02	0.83	0.31	0.12
Avail Cap(c_a), veh/h	475	0	412	463	486	412	463	2078	927	463	2078	927
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	0.0	31.4	33.2	33.2	33.8	34.5	17.9	12.7	32.2	11.9	10.8
Incr Delay (d2), s/veh	1.9	0.0	0.8	0.0	0.1	0.5	2.5	1.0	0.0	2.7	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	1.9	0.1	0.1	0.6	2.0	7.2	0.1	3.8	2.5	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.3	0.0	32.2	33.3	33.3	34.3	37.0	18.9	12.7	34.9	12.1	10.9
LnGrp LOS	C	A	C	C	C	C	D	B	B	C	B	B
Approach Vol, veh/h		293			45			1174			830	
Approach Delay, s/veh		33.5			34.1			20.4			17.6	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.8	38.6		14.0	10.2	43.2		9.6				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	10.7	20.7		9.4	6.4	8.9		3.5				
Green Ext Time (p_c), s	0.2	12.3		0.6	0.1	6.9		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			21.3									
HCM 6th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.



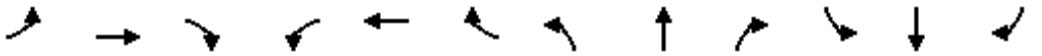
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	17	27	68	12	48	13	1168	215	22	647	10
Future Volume (veh/h)	17	17	27	68	12	48	13	1168	215	22	647	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	17	17	27	68	12	48	13	1168	215	22	647	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	73	73	127	215	225	191	40	1791	799	62	1836	819
Arrive On Green	0.08	0.08	0.08	0.12	0.12	0.12	0.02	0.50	0.50	0.03	0.52	0.52
Sat Flow, veh/h	912	912	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	34	0	27	68	12	48	13	1168	215	22	647	10
Grp Sat Flow(s),veh/h/ln	1825	0	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.2	0.0	1.1	2.4	0.4	1.9	0.5	16.5	5.3	0.8	7.3	0.2
Cycle Q Clear(g_c), s	1.2	0.0	1.1	2.4	0.4	1.9	0.5	16.5	5.3	0.8	7.3	0.2
Prop In Lane	0.50		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	147	0	127	215	225	191	40	1791	799	62	1836	819
V/C Ratio(X)	0.23	0.00	0.21	0.32	0.05	0.25	0.33	0.65	0.27	0.35	0.35	0.01
Avail Cap(c_a), veh/h	536	0	466	523	549	466	523	2349	1048	523	2349	1048
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.3	0.0	29.3	27.4	26.5	27.2	32.8	12.5	9.7	32.1	9.7	8.0
Incr Delay (d2), s/veh	0.3	0.0	0.3	0.3	0.0	0.3	1.7	0.6	0.3	1.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.4	1.0	0.2	0.7	0.2	5.8	1.7	0.4	2.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.6	0.0	29.6	27.7	26.5	27.4	34.5	13.1	10.0	33.4	9.9	8.0
LnGrp LOS	C	A	C	C	C	C	C	B	A	C	A	A
Approach Vol, veh/h		61			128			1396			679	
Approach Delay, s/veh		29.6			27.5			12.8			10.6	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	40.0		9.5	5.5	40.9		12.2				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	2.8	18.5		3.2	2.5	9.3		4.4				
Green Ext Time (p_c), s	0.0	15.8		0.1	0.0	8.0		0.2				

Intersection Summary			
HCM 6th Ctrl Delay		13.4	
HCM 6th LOS		B	

Notes

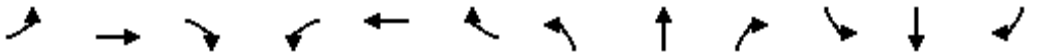
User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	327	7	77	18	6	43	64	1090	162	18	513	192
Future Volume (veh/h)	327	7	77	18	6	43	64	1090	162	18	513	192
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	327	7	77	18	6	43	64	1090	162	18	513	192
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	384	8	349	108	36	127	105	1363	202	45	1026	382
Arrive On Green	0.22	0.22	0.22	0.08	0.08	0.08	0.06	0.44	0.44	0.03	0.41	0.41
Sat Flow, veh/h	1746	37	1585	1352	451	1585	1781	3104	460	1781	2534	944
Grp Volume(v), veh/h	334	0	77	24	0	43	64	623	629	18	359	346
Grp Sat Flow(s),veh/h/ln	1783	0	1585	1803	0	1585	1781	1777	1787	1781	1777	1700
Q Serve(g_s), s	13.5	0.0	3.0	0.9	0.0	1.9	2.6	22.7	22.9	0.7	11.3	11.4
Cycle Q Clear(g_c), s	13.5	0.0	3.0	0.9	0.0	1.9	2.6	22.7	22.9	0.7	11.3	11.4
Prop In Lane	0.98		1.00	0.75		1.00	1.00		0.26	1.00		0.55
Lane Grp Cap(c), veh/h	392	0	349	145	0	127	105	780	785	45	720	689
V/C Ratio(X)	0.85	0.00	0.22	0.17	0.00	0.34	0.61	0.80	0.80	0.40	0.50	0.50
Avail Cap(c_a), veh/h	855	0	760	264	0	232	498	812	817	261	720	689
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	0.0	24.0	32.2	0.0	32.6	34.5	18.2	18.2	36.1	16.6	16.7
Incr Delay (d2), s/veh	2.0	0.0	0.1	0.2	0.0	0.6	2.1	5.8	5.9	2.2	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	0.0	1.1	0.4	0.0	0.7	1.1	9.1	9.2	0.3	4.1	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	0.0	24.1	32.4	0.0	33.2	36.6	24.0	24.1	38.2	17.4	17.4
LnGrp LOS	C	A	C	C	A	C	D	C	C	D	B	B
Approach Vol, veh/h		411			67			1316			723	
Approach Delay, s/veh		29.0			32.9			24.6			17.9	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.9	38.7		20.5	8.4	36.1		10.0				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	11.0	34.3		36.0	21.0	24.3		11.0				
Max Q Clear Time (g_c+I1), s	2.7	24.9		15.5	4.6	13.4		3.9				
Green Ext Time (p_c), s	0.0	8.1		1.0	0.1	6.2		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		23.6	
HCM 6th LOS		C	



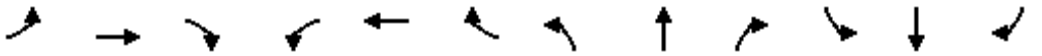
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	27	78	36	4	46	36	1096	14	4	551	24
Future Volume (veh/h)	125	27	78	36	4	46	36	1096	14	4	551	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	125	27	78	36	4	46	36	1096	14	4	551	24
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	205	44	220	74	8	94	95	1557	20	13	1343	58
Arrive On Green	0.14	0.14	0.14	0.11	0.11	0.11	0.05	0.43	0.43	0.01	0.39	0.39
Sat Flow, veh/h	1477	319	1585	701	78	895	1781	3593	46	1781	3469	151
Grp Volume(v), veh/h	152	0	78	86	0	0	36	542	568	4	282	293
Grp Sat Flow(s),veh/h/ln	1796	0	1585	1674	0	0	1781	1777	1862	1781	1777	1843
Q Serve(g_s), s	4.5	0.0	2.5	2.7	0.0	0.0	1.1	14.0	14.0	0.1	6.5	6.5
Cycle Q Clear(g_c), s	4.5	0.0	2.5	2.7	0.0	0.0	1.1	14.0	14.0	0.1	6.5	6.5
Prop In Lane	0.82		1.00	0.42		0.53	1.00		0.02	1.00		0.08
Lane Grp Cap(c), veh/h	249	0	220	176	0	0	95	770	807	13	688	714
V/C Ratio(X)	0.61	0.00	0.36	0.49	0.00	0.00	0.38	0.70	0.70	0.30	0.41	0.41
Avail Cap(c_a), veh/h	448	0	395	418	0	0	444	959	1005	444	959	995
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.7	0.0	21.9	23.7	0.0	0.0	25.7	13.0	13.0	27.7	12.5	12.5
Incr Delay (d2), s/veh	2.4	0.0	1.0	2.1	0.0	0.0	0.9	2.2	2.1	4.5	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.9	1.1	0.0	0.0	0.5	5.1	5.4	0.1	2.3	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.2	0.0	22.9	25.8	0.0	0.0	26.6	15.2	15.1	32.2	13.0	13.0
LnGrp LOS	C	A	C	C	A	A	C	B	B	C	B	B
Approach Vol, veh/h		230			86			1146			579	
Approach Delay, s/veh		24.4			25.8			15.5			13.2	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.4	30.0		11.8	7.0	27.4		9.9				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	14.0	30.3		14.0	14.0	30.3		14.0				
Max Q Clear Time (g_c+I1), s	2.1	16.0		6.5	3.1	8.5		4.7				
Green Ext Time (p_c), s	0.0	8.4		0.6	0.0	4.7		0.2				

Intersection Summary			
HCM 6th Ctrl Delay		16.3	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



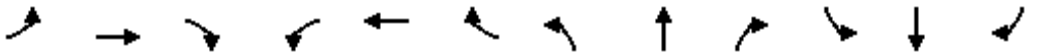
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	21	318	23	17	35	108	1083	9	7	669	10
Future Volume (veh/h)	118	21	318	23	17	35	108	1083	9	7	669	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	118	21	318	23	17	35	108	1083	9	7	669	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	380	68	395	94	69	142	161	1386	12	23	1097	16
Arrive On Green	0.25	0.25	0.25	0.09	0.09	0.09	0.09	0.38	0.38	0.01	0.31	0.31
Sat Flow, veh/h	1523	271	1585	1045	773	1585	1781	3612	30	1781	3584	54
Grp Volume(v), veh/h	139	0	318	40	0	35	108	533	559	7	332	347
Grp Sat Flow(s),veh/h/ln	1794	0	1585	1818	0	1585	1781	1777	1865	1781	1777	1861
Q Serve(g_s), s	4.2	0.0	12.6	1.4	0.0	1.4	3.9	17.7	17.7	0.3	10.7	10.7
Cycle Q Clear(g_c), s	4.2	0.0	12.6	1.4	0.0	1.4	3.9	17.7	17.7	0.3	10.7	10.7
Prop In Lane	0.85		1.00	0.57		1.00	1.00		0.02	1.00		0.03
Lane Grp Cap(c), veh/h	447	0	395	163	0	142	161	682	716	23	544	569
V/C Ratio(X)	0.31	0.00	0.80	0.24	0.00	0.25	0.67	0.78	0.78	0.31	0.61	0.61
Avail Cap(c_a), veh/h	965	0	852	299	0	260	559	910	955	293	645	675
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.5	0.0	23.6	28.4	0.0	28.4	29.5	18.2	18.2	32.8	19.8	19.8
Incr Delay (d2), s/veh	0.4	0.0	3.9	0.8	0.0	0.9	1.8	3.7	3.6	2.8	1.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	4.9	0.6	0.0	0.5	1.7	7.2	7.6	0.1	4.3	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.8	0.0	27.5	29.1	0.0	29.2	31.3	21.9	21.7	35.6	21.4	21.3
LnGrp LOS	C	A	C	C	A	C	C	C	C	D	C	C
Approach Vol, veh/h		457			75			1200			686	
Approach Delay, s/veh		25.5			29.2			22.6			21.5	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.1	26.2		10.0	4.9	31.4		20.7				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	21.0	24.3		11.0	11.0	34.3		36.0				
Max Q Clear Time (g_c+I1), s	5.9	12.7		3.4	2.3	19.7		14.6				
Green Ext Time (p_c), s	0.2	3.1		0.1	0.0	6.0		2.1				

Intersection Summary			
HCM 6th Ctrl Delay		23.1	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	18	7	131	62	81	50	1403	17	128	631	67
Future Volume (veh/h)	52	18	7	131	62	81	50	1403	17	128	631	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	42	7	131	62	81	50	1403	17	128	631	67
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	249	261	212	178	187	159	100	1633	20	159	1576	167
Arrive On Green	0.14	0.14	0.14	0.10	0.10	0.10	0.06	0.45	0.45	0.09	0.49	0.49
Sat Flow, veh/h	1781	1870	1517	1781	1870	1585	1781	3595	44	1781	3234	343
Grp Volume(v), veh/h	35	42	7	131	62	81	50	693	727	128	346	352
Grp Sat Flow(s),veh/h/ln	1781	1870	1517	1781	1870	1585	1781	1777	1861	1781	1777	1800
Q Serve(g_s), s	1.5	1.7	0.3	6.3	2.7	4.2	2.4	30.6	30.7	6.2	10.9	10.9
Cycle Q Clear(g_c), s	1.5	1.7	0.3	6.3	2.7	4.2	2.4	30.6	30.7	6.2	10.9	10.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		0.19
Lane Grp Cap(c), veh/h	249	261	212	178	187	159	100	807	846	159	866	877
V/C Ratio(X)	0.14	0.16	0.03	0.73	0.33	0.51	0.50	0.86	0.86	0.81	0.40	0.40
Avail Cap(c_a), veh/h	630	661	536	327	343	291	162	930	974	162	930	942
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.1	33.2	32.6	38.3	36.7	37.4	40.2	21.4	21.4	39.2	14.3	14.3
Incr Delay (d2), s/veh	0.2	0.2	0.0	4.3	0.8	1.9	1.4	7.7	7.4	22.7	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.8	0.1	2.9	1.3	1.7	1.0	12.7	13.2	3.6	3.9	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.3	33.4	32.6	42.6	37.5	39.3	41.6	29.1	28.9	61.9	14.7	14.7
LnGrp LOS	C	C	C	D	D	D	D	C	C	E	B	B
Approach Vol, veh/h		84			274			1470			826	
Approach Delay, s/veh		33.3			40.5			29.4			22.0	
Approach LOS		C			D			C			C	

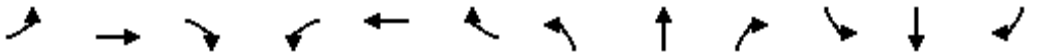
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.8	45.5		14.1	8.9	48.4		16.3				
Change Period (Y+Rc), s	4.0	5.7		5.3	4.0	5.7		4.0				
Max Green Setting (Gmax), s	8.0	45.9		16.1	8.0	45.9		31.0				
Max Q Clear Time (g_c+I1), s	8.2	32.7		8.3	4.4	12.9		3.7				
Green Ext Time (p_c), s	0.0	7.2		0.5	0.0	4.1		0.2				

Intersection Summary	
HCM 6th Ctrl Delay	28.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

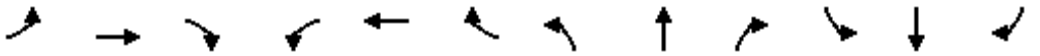
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	0	136	49	0	56	130	1352	43	36	563	70
Future Volume (vph)	106	0	136	49	0	56	130	1352	43	36	563	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0	4.0	5.7		4.0	5.7	5.7
Lane Util. Factor	1.00		1.00	1.00		1.00	1.00	0.95		1.00	0.95	1.00
Frt	1.00		0.85	1.00		0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95		1.00	0.95		1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770		1583	1770		1583	1770	3523		1770	3539	1583
Flt Permitted	0.95		1.00	0.95		1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770		1583	1770		1583	1770	3523		1770	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	106	0	136	49	0	56	130	1352	43	36	563	70
RTOR Reduction (vph)	0	0	119	0	0	52	0	1	0	0	0	44
Lane Group Flow (vph)	106	0	17	49	0	4	130	1394	0	36	563	26
Turn Type	Prot		Perm	Prot		Perm	Prot	NA		Prot	NA	Perm
Protected Phases	8			7			5	2		1	6	
Permitted Phases			8			7						6
Actuated Green, G (s)	11.7		11.7	7.1		7.1	10.4	42.1		4.2	35.9	35.9
Effective Green, g (s)	11.7		11.7	7.1		7.1	10.4	42.1		4.2	35.9	35.9
Actuated g/C Ratio	0.12		0.12	0.07		0.07	0.11	0.44		0.04	0.37	0.37
Clearance Time (s)	4.0		4.0	4.0		4.0	4.0	5.7		4.0	5.7	5.7
Vehicle Extension (s)	2.0		2.0	2.0		2.0	2.0	4.5		2.0	4.5	4.5
Lane Grp Cap (vph)	214		192	130		116	190	1538		77	1317	589
v/s Ratio Prot	c0.06			c0.03			c0.07	c0.40		0.02	0.16	
v/s Ratio Perm			0.01			0.00						0.02
v/c Ratio	0.50		0.09	0.38		0.04	0.68	0.91		0.47	0.43	0.04
Uniform Delay, d1	39.6		37.6	42.5		41.5	41.4	25.3		45.0	22.6	19.3
Progression Factor	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.7		0.1	0.7		0.0	7.9	8.3		1.6	0.4	0.1
Delay (s)	40.2		37.7	43.2		41.5	49.3	33.6		46.6	23.0	19.4
Level of Service	D		D	D		D	D	C		D	C	B
Approach Delay (s)		38.8			42.3			35.0			23.9	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	32.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	96.4	Sum of lost time (s)	21.7
Intersection Capacity Utilization	62.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	7	41	115	4	21	235	1124	157	119	1064	388
Future Volume (veh/h)	41	7	41	115	4	21	235	1124	157	119	1064	388
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	0	0	115	4	0	235	1124	0	119	1064	388
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	243	0		181	6		389	2337		445	1588	708
Arrive On Green	0.07	0.00	0.00	0.11	0.11	0.00	0.12	0.46	0.00	0.11	0.45	0.45
Sat Flow, veh/h	3563	0	1585	1724	60	1585	1781	5106	1585	1781	3554	1585
Grp Volume(v), veh/h	46	0	0	119	0	0	235	1124	0	119	1064	388
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1784	0	1585	1781	1702	1585	1781	1777	1585
Q Serve(g_s), s	0.8	0.0	0.0	4.4	0.0	0.0	4.5	10.4	0.0	2.2	16.1	12.2
Cycle Q Clear(g_c), s	0.8	0.0	0.0	4.4	0.0	0.0	4.5	10.4	0.0	2.2	16.1	12.2
Prop In Lane	1.00		1.00	0.97		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	243	0		187	0		389	2337		445	1588	708
V/C Ratio(X)	0.19	0.00		0.64	0.00		0.60	0.48		0.27	0.67	0.55
Avail Cap(c_a), veh/h	1045	0		523	0		836	2996		781	2085	930
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.0	0.0	0.0	29.3	0.0	0.0	12.0	12.9	0.0	8.2	14.9	13.8
Incr Delay (d2), s/veh	0.3	0.0	0.0	3.5	0.0	0.0	0.6	0.3	0.0	0.3	0.9	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	2.0	0.0	0.0	1.2	3.1	0.0	0.6	5.1	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.3	0.0	0.0	32.8	0.0	0.0	12.5	13.1	0.0	8.6	15.8	15.0
LnGrp LOS	C	A		C	A		B	B		A	B	B
Approach Vol, veh/h		46	A		119	A		1359	A		1571	
Approach Delay, s/veh		30.3			32.8			13.0			15.1	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.2	37.2		8.7	11.9	36.5		11.2				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	40.0		20.0	25.0	40.0		20.0				
Max Q Clear Time (g_c+I1), s	4.2	12.4		2.8	6.5	18.1		6.4				
Green Ext Time (p_c), s	0.3	10.5		0.1	0.4	12.3		0.3				

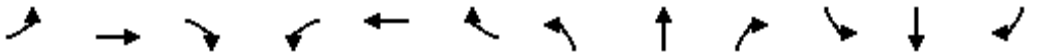
Intersection Summary			
HCM 6th Ctrl Delay		15.1	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



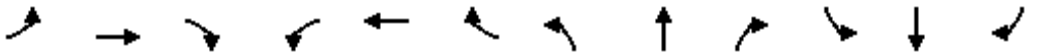
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	4	9	101	4	95	108	1308	167	281	630	117
Future Volume (veh/h)	9	4	9	101	4	95	108	1308	167	281	630	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	4	9	101	4	95	108	1308	167	281	630	117
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	71	20	46	197	7	170	500	1740	776	359	1879	838
Arrive On Green	0.04	0.04	0.04	0.11	0.11	0.11	0.05	0.49	0.49	0.11	0.53	0.53
Sat Flow, veh/h	1781	512	1151	1781	64	1530	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	9	0	13	101	0	99	108	1308	167	281	630	117
Grp Sat Flow(s),veh/h/ln	1781	0	1663	1781	0	1595	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.3	0.0	0.5	3.8	0.0	4.2	2.1	21.1	4.3	5.2	7.2	2.7
Cycle Q Clear(g_c), s	0.3	0.0	0.5	3.8	0.0	4.2	2.1	21.1	4.3	5.2	7.2	2.7
Prop In Lane	1.00		0.69	1.00		0.96	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	71	0	66	197	0	177	500	1740	776	359	1879	838
V/C Ratio(X)	0.13	0.00	0.20	0.51	0.00	0.56	0.22	0.75	0.22	0.78	0.34	0.14
Avail Cap(c_a), veh/h	629	0	587	503	0	450	683	2559	1141	674	2559	1141
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.8	0.0	32.9	29.7	0.0	29.9	8.1	14.6	10.3	13.7	9.6	8.5
Incr Delay (d2), s/veh	0.3	0.0	0.5	0.8	0.0	1.0	0.2	1.0	0.2	1.4	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.2	1.6	0.0	1.6	0.6	6.5	1.2	1.8	2.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.1	0.0	33.4	30.4	0.0	30.9	8.3	15.6	10.5	15.1	9.7	8.6
LnGrp LOS	C	A	C	C	A	C	A	B	B	B	A	A
Approach Vol, veh/h		22			200			1583			1028	
Approach Delay, s/veh		33.3			30.7			14.5			11.1	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	40.7		6.8	8.7	43.4		11.8				
Change Period (Y+Rc), s	4.0	6.0		4.0	5.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	51.0		25.0	11.0	51.0		20.0				
Max Q Clear Time (g_c+I1), s	7.2	23.1		2.5	4.1	9.2		6.2				
Green Ext Time (p_c), s	0.3	11.6		0.0	0.1	5.2		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		14.6	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



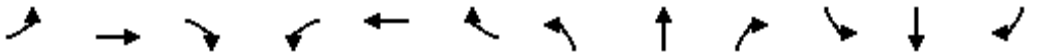
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	5	4	15	3	79	293	1391	28	146	547	5
Future Volume (veh/h)	5	5	4	15	3	79	293	1391	28	146	547	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	5	4	15	3	79	293	1391	28	146	547	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	19	19	15	154	31	163	635	1838	820	329	1793	16
Arrive On Green	0.03	0.03	0.03	0.10	0.10	0.10	0.11	0.52	0.52	0.09	0.50	0.50
Sat Flow, veh/h	625	625	500	1496	299	1585	1781	3554	1585	1781	3608	33
Grp Volume(v), veh/h	14	0	0	18	0	79	293	1391	28	146	269	283
Grp Sat Flow(s),veh/h/ln	1749	0	0	1796	0	1585	1781	1777	1585	1781	1777	1864
Q Serve(g_s), s	0.6	0.0	0.0	0.7	0.0	3.6	5.9	23.7	0.7	2.8	6.9	6.9
Cycle Q Clear(g_c), s	0.6	0.0	0.0	0.7	0.0	3.6	5.9	23.7	0.7	2.8	6.9	6.9
Prop In Lane	0.36		0.29	0.83		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	53	0	0	185	0	163	635	1838	820	329	883	927
V/C Ratio(X)	0.26	0.00	0.00	0.10	0.00	0.48	0.46	0.76	0.03	0.44	0.30	0.31
Avail Cap(c_a), veh/h	458	0	0	471	0	415	910	2096	935	639	1048	1099
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.2	0.0	0.0	31.0	0.0	32.3	7.6	14.6	9.1	12.4	11.4	11.4
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.1	0.0	0.8	0.2	1.8	0.0	0.4	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.3	0.0	1.4	1.5	7.6	0.2	0.8	2.2	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.1	0.0	0.0	31.1	0.0	33.2	7.8	16.4	9.1	12.8	11.8	11.7
LnGrp LOS	D	A	A	C	A	C	A	B	A	B	B	B
Approach Vol, veh/h		14			97			1712			698	
Approach Delay, s/veh		37.1			32.8			14.8			12.0	
Approach LOS		D			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.7	45.5		6.3	14.2	43.9		11.8				
Change Period (Y+Rc), s	6.0	6.0		4.0	6.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	4.8	25.7		2.6	7.9	8.9		5.6				
Green Ext Time (p_c), s	0.1	13.8		0.0	0.3	5.9		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		14.9	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	5	63	4	5	1	8	1547	182	14	570	9
Future Volume (veh/h)	64	5	63	4	5	1	8	1547	182	14	570	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	5	63	4	5	1	8	1547	182	14	570	9
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	16	198	41	43	36	559	1983	884	207	2931	46
Arrive On Green	0.12	0.12	0.12	0.02	0.02	0.02	0.01	0.56	0.56	0.02	0.57	0.57
Sat Flow, veh/h	1658	130	1585	1781	1870	1585	1781	3554	1585	1781	5178	82
Grp Volume(v), veh/h	69	0	63	4	5	1	8	1547	182	14	374	205
Grp Sat Flow(s),veh/h/ln	1787	0	1585	1781	1870	1585	1781	1777	1585	1781	1702	1856
Q Serve(g_s), s	2.3	0.0	2.4	0.1	0.2	0.0	0.1	22.4	3.8	0.2	3.5	3.5
Cycle Q Clear(g_c), s	2.3	0.0	2.4	0.1	0.2	0.0	0.1	22.4	3.8	0.2	3.5	3.5
Prop In Lane	0.93		1.00	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	223	0	198	41	43	36	559	1983	884	207	1927	1050
V/C Ratio(X)	0.31	0.00	0.32	0.10	0.12	0.03	0.01	0.78	0.21	0.07	0.19	0.19
Avail Cap(c_a), veh/h	544	0	483	542	569	483	1080	2434	1086	713	2332	1271
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.2	0.0	26.2	31.4	31.4	31.4	6.2	11.4	7.3	9.9	6.9	7.0
Incr Delay (d2), s/veh	0.3	0.0	0.3	0.4	0.4	0.1	0.0	1.5	0.2	0.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.9	0.1	0.1	0.0	0.0	6.0	0.9	0.1	0.8	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.5	0.0	26.6	31.8	31.9	31.5	6.2	12.9	7.4	9.9	7.0	7.1
LnGrp LOS	C	A	C	C	C	C	A	B	A	A	A	A
Approach Vol, veh/h		132			10			1737			593	
Approach Delay, s/veh		26.5			31.8			12.3			7.1	
Approach LOS		C			C			B			A	

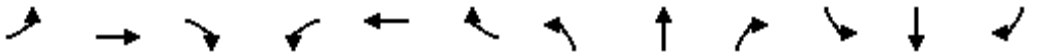
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	42.7		12.2	4.8	43.2		5.5				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	2.2	24.4		4.4	2.1	5.5		2.2				
Green Ext Time (p_c), s	0.0	12.3		0.0	0.0	3.6		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		11.9	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	8	130	89	13	55	88	1674	28	8	1122	24
Future Volume (veh/h)	99	8	130	89	13	55	88	1674	28	8	1122	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	99	8	130	89	13	55	88	1674	28	8	1122	24
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	188	15	175	129	19	131	115	2815	47	11	2501	53
Arrive On Green	0.11	0.11	0.11	0.08	0.08	0.08	0.06	0.54	0.54	0.01	0.49	0.49
Sat Flow, veh/h	1654	134	1543	1564	228	1585	1781	5171	86	1781	5143	110
Grp Volume(v), veh/h	107	0	130	102	0	55	88	1102	600	8	742	404
Grp Sat Flow(s),veh/h/ln	1788	0	1543	1792	0	1585	1781	1702	1854	1781	1702	1849
Q Serve(g_s), s	4.2	0.0	6.1	4.1	0.0	2.5	3.6	16.3	16.3	0.3	10.7	10.7
Cycle Q Clear(g_c), s	4.2	0.0	6.1	4.1	0.0	2.5	3.6	16.3	16.3	0.3	10.7	10.7
Prop In Lane	0.93		1.00	0.87		1.00	1.00		0.05	1.00		0.06
Lane Grp Cap(c), veh/h	203	0	175	148	0	131	115	1853	1009	11	1655	899
V/C Ratio(X)	0.53	0.00	0.74	0.69	0.00	0.42	0.77	0.59	0.59	0.73	0.45	0.45
Avail Cap(c_a), veh/h	479	0	414	480	0	425	477	2509	1366	477	2509	1363
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	0.0	32.0	33.3	0.0	32.5	34.4	11.5	11.5	37.0	12.6	12.6
Incr Delay (d2), s/veh	0.8	0.0	2.3	2.1	0.0	0.8	4.0	0.7	1.3	29.0	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	2.3	1.9	0.0	1.0	1.6	4.6	5.2	0.2	3.3	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.0	0.0	34.3	35.4	0.0	33.3	38.4	12.1	12.7	66.0	13.2	13.7
LnGrp LOS	C	A	C	D	A	C	D	B	B	E	B	B
Approach Vol, veh/h		237			157			1790			1154	
Approach Delay, s/veh		33.3			34.7			13.6			13.7	
Approach LOS		C			C			B			B	

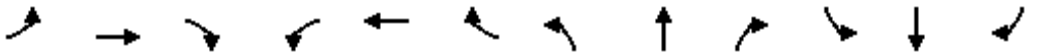
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.5	46.6		11.1	8.8	42.3		12.5				
Change Period (Y+Rc), s	4.0	6.0		4.9	4.0	* 6		4.0				
Max Green Setting (Gmax), s	20.0	55.0		20.0	20.0	* 55		20.0				
Max Q Clear Time (g_c+I1), s	2.3	18.3		6.1	5.6	12.7		8.1				
Green Ext Time (p_c), s	0.0	22.3		0.3	0.1	16.9		0.5				

Intersection Summary			
HCM 6th Ctrl Delay		16.0	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	194	667	119	157	166	143	77	1473	132	183	975	84
Future Volume (veh/h)	194	667	119	157	166	143	77	1473	132	183	975	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	194	667	31	157	166	47	77	1473	0	183	975	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	242	791	348	181	1299	399	164	2402		230	2500	
Arrive On Green	0.07	0.22	0.22	0.10	0.25	0.25	0.05	0.47	0.00	0.07	0.49	0.00
Sat Flow, veh/h	3456	3554	1564	1781	5106	1566	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	194	667	31	157	166	47	77	1473	0	183	975	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1564	1781	1702	1566	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	7.7	25.2	2.2	12.2	3.5	3.2	3.0	30.1	0.0	7.3	16.9	0.0
Cycle Q Clear(g_c), s	7.7	25.2	2.2	12.2	3.5	3.2	3.0	30.1	0.0	7.3	16.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	242	791	348	181	1299	399	164	2402		230	2500	
V/C Ratio(X)	0.80	0.84	0.09	0.87	0.13	0.12	0.47	0.61		0.79	0.39	
Avail Cap(c_a), veh/h	272	965	424	267	1751	537	197	2402		247	2500	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	64.1	52.1	43.2	61.9	40.2	40.1	65.0	27.6	0.0	64.4	22.5	0.0
Incr Delay (d2), s/veh	12.6	6.2	0.1	12.7	0.1	0.2	0.8	0.6	0.0	13.8	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	11.5	0.8	6.0	1.4	1.2	1.3	11.8	0.0	3.6	6.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.7	58.3	43.3	74.6	40.3	40.3	65.7	28.2	0.0	78.2	23.0	0.0
LnGrp LOS	E	E	D	E	D	D	E	C		E	C	
Approach Vol, veh/h		892			370			1550	A		1158	A
Approach Delay, s/veh		61.8			54.8			30.1			31.7	
Approach LOS		E			D			C			C	

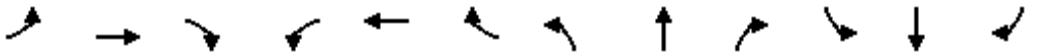
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	74.2	13.8	41.3	13.3	71.6	18.3	36.9
Change Period (Y+Rc), s	4.0	5.7	4.0	5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	8.0	53.6	11.0	48.0	10.0	51.6	21.0	38.0
Max Q Clear Time (g_c+I1), s	5.0	18.9	9.7	5.5	9.3	32.1	14.2	27.2
Green Ext Time (p_c), s	0.0	9.4	0.1	1.2	0.0	11.7	0.1	2.9

Intersection Summary	
HCM 6th Ctrl Delay	40.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	0	38	26	1	16	21	1675	9	11	1194	8
Future Volume (veh/h)	37	0	38	26	1	16	21	1675	9	11	1194	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	0	38	26	1	16	21	1675	9	11	1194	8
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	5	50	91	12	36	50	2095	11	765	4257	29
Arrive On Green	0.06	0.00	0.06	0.06	0.06	0.06	0.03	0.40	0.40	0.43	0.81	0.81
Sat Flow, veh/h	707	88	817	812	197	598	1781	5241	28	1781	5233	35
Grp Volume(v), veh/h	75	0	0	43	0	0	21	1088	596	11	777	425
Grp Sat Flow(s),veh/h/ln	1612	0	0	1607	0	0	1781	1702	1865	1781	1702	1864
Q Serve(g_s), s	2.8	0.0	0.0	0.0	0.0	0.0	1.6	39.5	39.5	0.5	7.7	7.7
Cycle Q Clear(g_c), s	6.2	0.0	0.0	3.4	0.0	0.0	1.6	39.5	39.5	0.5	7.7	7.7
Prop In Lane	0.49		0.51	0.60		0.37	1.00		0.02	1.00		0.02
Lane Grp Cap(c), veh/h	136	0	0	139	0	0	50	1361	746	765	2769	1516
V/C Ratio(X)	0.55	0.00	0.00	0.31	0.00	0.00	0.42	0.80	0.80	0.01	0.28	0.28
Avail Cap(c_a), veh/h	460	0	0	455	0	0	115	1904	1043	765	2769	1516
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.5	0.0	0.0	63.3	0.0	0.0	66.9	37.1	37.1	22.9	3.2	3.2
Incr Delay (d2), s/veh	3.4	0.0	0.0	1.2	0.0	0.0	2.1	2.0	3.6	0.0	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	0.0	1.5	0.0	0.0	0.8	16.1	18.0	0.2	1.9	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.0	0.0	0.0	64.6	0.0	0.0	69.0	39.1	40.7	22.9	3.4	3.6
LnGrp LOS	E	A	A	E	A	A	E	D	D	C	A	A
Approach Vol, veh/h		75			43			1705			1213	
Approach Delay, s/veh		68.0			64.6			40.0			3.7	
Approach LOS		E			E			D			A	

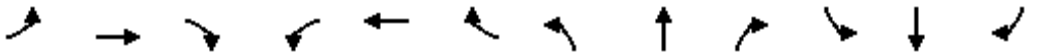
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.9	119.6		12.5	65.8	61.7		12.5				
Change Period (Y+Rc), s	4.0	5.7		4.0	5.7	* 5.7		4.0				
Max Green Setting (Gmax), s	9.0	78.3		39.0	9.0	* 78		39.0				
Max Q Clear Time (g_c+I1), s	3.6	9.7		8.2	2.5	41.5		5.4				
Green Ext Time (p_c), s	0.0	9.3		0.3	0.0	14.5		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		26.5
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	195	273	129	219	35	177	1673	46	101	1987	31
Future Volume (veh/h)	171	195	273	129	219	35	177	1673	46	101	1987	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	171	195	179	129	219	0	177	1673	0	101	1987	30
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	196	534	236	176	324		225	2529		147	2450	37
Arrive On Green	0.11	0.15	0.15	0.05	0.09	0.00	0.06	0.50	0.00	0.04	0.47	0.47
Sat Flow, veh/h	1781	3554	1569	3456	3554	1585	3456	5106	1585	3456	5182	78
Grp Volume(v), veh/h	171	195	179	129	219	0	177	1673	0	101	1305	712
Grp Sat Flow(s),veh/h/ln	1781	1777	1569	1728	1777	1585	1728	1702	1585	1728	1702	1856
Q Serve(g_s), s	13.2	6.9	15.3	5.2	8.4	0.0	7.1	34.4	0.0	4.0	45.9	46.0
Cycle Q Clear(g_c), s	13.2	6.9	15.3	5.2	8.4	0.0	7.1	34.4	0.0	4.0	45.9	46.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	196	534	236	176	324		225	2529		147	1610	878
V/C Ratio(X)	0.87	0.37	0.76	0.73	0.68		0.79	0.66		0.69	0.81	0.81
Avail Cap(c_a), veh/h	293	916	405	197	536		247	2529		197	1610	878
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.3	53.5	57.1	65.5	61.6	0.0	64.5	26.5	0.0	66.1	31.5	31.6
Incr Delay (d2), s/veh	12.1	0.6	6.5	9.4	3.3	0.0	12.6	0.7	0.0	2.7	4.5	8.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	3.2	6.4	2.5	3.9	0.0	3.5	13.7	0.0	1.8	19.2	21.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.5	54.0	63.6	74.9	64.9	0.0	77.1	27.2	0.0	68.8	36.1	39.6
LnGrp LOS	E	D	E	E	E		E	C		E	D	D
Approach Vol, veh/h		545			348	A		1850	A		2118	
Approach Delay, s/veh		63.3			68.6			32.0			38.8	
Approach LOS		E			E			C			D	

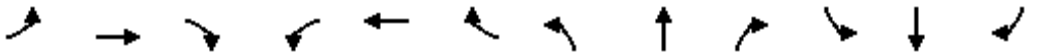
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.4	18.4	9.9	75.3	11.1	26.7	13.1	72.2
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	23.0	21.1	8.0	68.2	8.0	36.1	10.0	66.2
Max Q Clear Time (g_c+I1), s	15.2	10.4	6.0	36.4	7.2	17.3	9.1	48.0
Green Ext Time (p_c), s	0.2	0.9	0.0	12.9	0.0	2.2	0.0	11.4

Intersection Summary	
HCM 6th Ctrl Delay	41.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	179	81	114	16	164	155	619	317	542	1164	54
Future Volume (veh/h)	25	179	81	114	16	164	155	619	317	542	1164	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	25	179	81	114	0	175	155	619	317	542	1164	54
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	426	231	195	379	0	338	192	1331	594	631	1597	712
Arrive On Green	0.12	0.12	0.12	0.11	0.00	0.11	0.11	0.37	0.37	0.18	0.45	0.45
Sat Flow, veh/h	3456	1870	1585	3563	0	3170	1781	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	25	179	81	114	0	175	155	619	317	542	1164	54
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1781	0	1585	1781	1777	1585	1728	1777	1585
Q Serve(g_s), s	0.5	7.8	4.0	2.5	0.0	4.4	7.2	11.1	13.2	12.8	22.6	1.6
Cycle Q Clear(g_c), s	0.5	7.8	4.0	2.5	0.0	4.4	7.2	11.1	13.2	12.8	22.6	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	426	231	195	379	0	338	192	1331	594	631	1597	712
V/C Ratio(X)	0.06	0.78	0.41	0.30	0.00	0.52	0.81	0.47	0.53	0.86	0.73	0.08
Avail Cap(c_a), veh/h	819	443	376	844	0	751	422	1978	882	819	2484	1108
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.7	35.9	34.2	34.8	0.0	35.7	36.8	20.0	20.6	33.5	19.0	13.2
Incr Delay (d2), s/veh	0.0	2.1	0.5	0.2	0.0	0.5	3.1	0.3	1.0	6.0	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.6	1.5	1.1	0.0	1.7	3.2	4.5	4.8	5.5	8.1	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.7	38.0	34.7	35.0	0.0	36.1	39.9	20.4	21.7	39.5	19.9	13.3
LnGrp LOS	C	D	C	C	A	D	D	C	C	D	B	B
Approach Vol, veh/h		285			289			1091			1760	
Approach Delay, s/veh		36.6			35.7			23.5			25.7	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.4	37.6		14.4	13.1	43.9		13.0				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	47.0		20.0	20.0	59.0		20.0				
Max Q Clear Time (g_c+I1), s	14.8	15.2		9.8	9.2	24.6		6.4				
Green Ext Time (p_c), s	0.6	8.7		0.6	0.1	13.3		0.5				

Intersection Summary			
HCM 6th Ctrl Delay		26.8	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



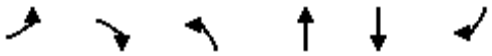
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	214	130	682	277	89	597
Future Volume (veh/h)	214	130	682	277	89	597
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	214	130	682	277	89	597
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	328	292	1450	647	161	2094
Arrive On Green	0.18	0.18	0.41	0.41	0.09	0.59
Sat Flow, veh/h	1781	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	214	130	682	277	89	597
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1781	1777
Q Serve(g_s), s	4.9	3.2	6.2	5.5	2.1	3.7
Cycle Q Clear(g_c), s	4.9	3.2	6.2	5.5	2.1	3.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	328	292	1450	647	161	2094
V/C Ratio(X)	0.65	0.45	0.47	0.43	0.55	0.29
Avail Cap(c_a), veh/h	1010	899	2822	1259	808	2822
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.7	16.0	9.6	9.4	19.2	4.5
Incr Delay (d2), s/veh	2.2	1.1	0.5	0.9	1.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.1	1.9	1.6	0.8	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.9	17.1	10.0	10.2	20.3	4.6
LnGrp LOS	B	B	B	B	C	A
Approach Vol, veh/h	344		959			686
Approach Delay, s/veh	18.2		10.1			6.7
Approach LOS	B		B			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.0	24.0			32.0	12.1
Change Period (Y+Rc), s	4.0	6.0			6.0	4.0
Max Green Setting (Gmax), s	20.0	35.0			35.0	25.0
Max Q Clear Time (g_c+I1), s	4.1	8.2			5.7	6.9
Green Ext Time (p_c), s	0.1	9.8			6.0	1.3

Intersection Summary		
HCM 6th Ctrl Delay	10.3	
HCM 6th LOS	B	

Notes

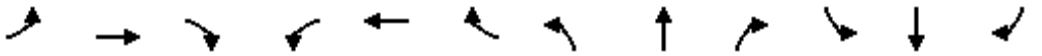
User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	364	602	879	645	61
Future Volume (veh/h)	22	364	602	879	645	61
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	364	602	879	645	61
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	393	350	644	2280	750	334
Arrive On Green	0.22	0.22	0.36	0.64	0.21	0.21
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	22	364	602	879	645	61
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	0.7	16.0	23.6	8.5	12.7	2.3
Cycle Q Clear(g_c), s	0.7	16.0	23.6	8.5	12.7	2.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	393	350	644	2280	750	334
V/C Ratio(X)	0.06	1.04	0.93	0.39	0.86	0.18
Avail Cap(c_a), veh/h	393	350	688	2401	784	350
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	28.3	22.3	6.2	27.6	23.5
Incr Delay (d2), s/veh	0.1	59.2	19.4	0.1	9.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	5.7	12.5	2.6	6.1	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.4	87.5	41.7	6.3	36.9	23.7
LnGrp LOS	C	F	D	A	D	C
Approach Vol, veh/h	386			1481	706	
Approach Delay, s/veh	83.8			20.7	35.7	
Approach LOS	F			C	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		51.5		21.0	31.2	20.3
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		49.0		16.0	28.0	16.0
Max Q Clear Time (g_c+I1), s		10.5		18.0	25.6	14.7
Green Ext Time (p_c), s		7.6		0.0	0.6	0.6

Intersection Summary	
HCM 6th Ctrl Delay	34.3
HCM 6th LOS	C



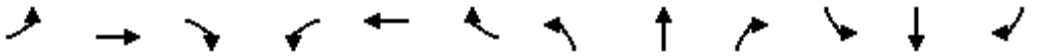
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	11	26	55	0	176	5	1403	51	201	890	15
Future Volume (veh/h)	18	11	26	55	0	176	5	1403	51	201	890	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	11	26	55	0	176	5	1403	51	201	890	15
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	88	59	95	252	0	204	16	2166	79	231	2648	45
Arrive On Green	0.13	0.13	0.13	0.13	0.00	0.13	0.01	0.62	0.62	0.13	0.74	0.74
Sat Flow, veh/h	358	453	727	1461	0	1567	1781	3497	127	1781	3576	60
Grp Volume(v), veh/h	55	0	0	55	0	176	5	712	742	201	442	463
Grp Sat Flow(s),veh/h/ln	1539	0	0	1461	0	1567	1781	1777	1847	1781	1777	1859
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	12.8	0.3	29.6	29.8	12.9	10.0	10.0
Cycle Q Clear(g_c), s	3.3	0.0	0.0	3.2	0.0	12.8	0.3	29.6	29.8	12.9	10.0	10.0
Prop In Lane	0.33		0.47	1.00		1.00	1.00		0.07	1.00		0.03
Lane Grp Cap(c), veh/h	242	0	0	252	0	204	16	1101	1144	231	1316	1377
V/C Ratio(X)	0.23	0.00	0.00	0.22	0.00	0.86	0.31	0.65	0.65	0.87	0.34	0.34
Avail Cap(c_a), veh/h	429	0	0	427	0	404	306	1236	1285	382	1328	1389
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.5	0.0	0.0	45.4	0.0	49.6	57.3	14.1	14.1	49.7	5.2	5.2
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	4.1	4.1	1.3	1.2	5.9	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.0	1.5	0.0	5.3	0.2	10.5	11.0	5.9	2.8	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.7	0.0	0.0	45.6	0.0	53.7	61.4	15.3	15.3	55.6	5.4	5.4
LnGrp LOS	D	A	A	D	A	D	E	B	B	E	A	A
Approach Vol, veh/h		55			231			1459			1106	
Approach Delay, s/veh		45.7			51.8			15.5			14.6	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.1	78.1		19.2	5.0	92.2		19.2				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	25.0	81.0		30.0	20.0	87.0		30.0				
Max Q Clear Time (g_c+I1), s	14.9	31.8		5.3	2.3	12.0		14.8				
Green Ext Time (p_c), s	0.3	40.4		0.1	0.0	28.4		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		18.6	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	3	50	19	5	16	18	1237	38	24	835	27
Future Volume (veh/h)	124	3	50	19	5	16	18	1237	38	24	835	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	124	3	5	19	5	2	18	1237	23	24	835	26
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	139	3	127	59	15	64	49	1315	585	550	2361	74
Arrive On Green	0.08	0.08	0.08	0.04	0.04	0.04	0.03	0.37	0.37	0.31	0.67	0.67
Sat Flow, veh/h	1741	42	1585	1424	375	1561	1781	3554	1581	1781	3518	110
Grp Volume(v), veh/h	127	0	5	24	0	2	18	1237	23	24	422	439
Grp Sat Flow(s),veh/h/ln	1783	0	1585	1799	0	1561	1781	1777	1581	1781	1777	1850
Q Serve(g_s), s	7.1	0.0	0.3	1.3	0.0	0.1	1.0	33.6	0.9	0.9	10.2	10.2
Cycle Q Clear(g_c), s	7.1	0.0	0.3	1.3	0.0	0.1	1.0	33.6	0.9	0.9	10.2	10.2
Prop In Lane	0.98		1.00	0.79		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	143	0	127	74	0	64	49	1315	585	550	1193	1242
V/C Ratio(X)	0.89	0.00	0.04	0.32	0.00	0.03	0.37	0.94	0.04	0.04	0.35	0.35
Avail Cap(c_a), veh/h	143	0	127	522	0	453	143	1315	585	550	1193	1242
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.6	0.0	42.5	46.6	0.0	46.0	47.8	30.4	20.1	24.2	7.1	7.1
Incr Delay (d2), s/veh	43.4	0.0	0.0	0.9	0.0	0.1	1.7	14.2	0.1	0.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.0	0.1	0.6	0.0	0.0	0.4	15.4	0.3	0.4	2.9	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	89.0	0.0	42.5	47.5	0.0	46.1	49.5	44.6	20.3	24.2	7.4	7.4
LnGrp LOS	F	A	D	D	A	D	D	D	C	C	A	A
Approach Vol, veh/h		132			26			1278			885	
Approach Delay, s/veh		87.2			47.4			44.3			7.9	
Approach LOS		F			D			D			A	

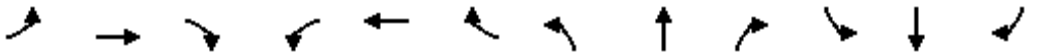
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	36.9	43.0		12.0	6.8	73.1		8.1				
Change Period (Y+Rc), s	6.0	* 6		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	8.0	* 37		8.0	8.0	37.0		29.0				
Max Q Clear Time (g_c+I1), s	2.9	35.6		9.1	3.0	12.2		3.3				
Green Ext Time (p_c), s	0.0	1.3		0.0	0.0	17.2		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		32.9
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	346	0	842	6	2	2	203	932	0	1	764	136
Future Volume (veh/h)	346	0	842	6	2	2	203	932	0	1	764	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	346	0	0	6	2	2	203	932	0	1	764	136
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	392	0		39	19	19	268	2439	0	3	2170	968
Arrive On Green	0.11	0.00	0.00	0.02	0.02	0.02	0.08	0.69	0.00	0.00	0.61	0.61
Sat Flow, veh/h	3563	0	1585	1781	858	858	3456	3647	0	1781	3554	1585
Grp Volume(v), veh/h	346	0	0	6	0	4	203	932	0	1	764	136
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1716	1728	1777	0	1781	1777	1585
Q Serve(g_s), s	9.6	0.0	0.0	0.3	0.0	0.2	5.8	11.2	0.0	0.1	10.7	3.7
Cycle Q Clear(g_c), s	9.6	0.0	0.0	0.3	0.0	0.2	5.8	11.2	0.0	0.1	10.7	3.7
Prop In Lane	1.00		1.00	1.00		0.50	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	392	0		39	0	37	268	2439	0	3	2170	968
V/C Ratio(X)	0.88	0.00		0.15	0.00	0.11	0.76	0.38	0.00	0.29	0.35	0.14
Avail Cap(c_a), veh/h	392	0		641	0	618	276	2439	0	125	2170	968
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	0.0	0.0	48.0	0.0	48.0	45.2	6.7	0.0	49.8	9.7	8.3
Incr Delay (d2), s/veh	19.8	0.0	0.0	0.7	0.0	0.5	9.9	0.5	0.0	16.6	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.0	0.0	0.2	0.0	0.1	2.8	3.8	0.0	0.0	3.4	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.6	0.0	0.0	48.7	0.0	48.4	55.1	7.1	0.0	66.5	9.8	8.4
LnGrp LOS	E	A		D	A	D	E	A	A	E	A	A
Approach Vol, veh/h		346	A		10			1135			901	
Approach Delay, s/veh		63.6			48.6			15.7			9.6	
Approach LOS		E			D			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.2	74.6		15.0	11.7	67.1		6.2				
Change Period (Y+Rc), s	4.0	* 6		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	7.0	* 28		11.0	8.0	27.0		36.0				
Max Q Clear Time (g_c+I1), s	2.1	13.2		11.6	7.8	12.7		2.3				
Green Ext Time (p_c), s	0.0	5.8		0.0	0.0	4.8		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	20.5
HCM 6th LOS	C

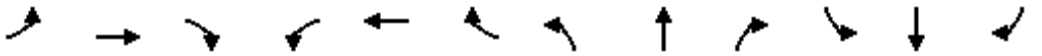
Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

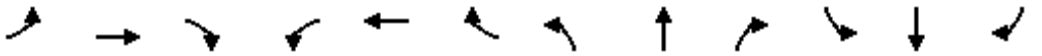
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	17	17	5	14	125	35	938	5	450	1050	68
Future Volume (veh/h)	96	17	17	5	14	125	35	938	5	450	1050	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	96	17	17	5	14	125	35	938	5	450	1050	68
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	136	65	65	49	137	160	47	1110	495	494	1910	124
Arrive On Green	0.08	0.08	0.08	0.10	0.10	0.10	0.03	0.31	0.31	0.28	0.56	0.56
Sat Flow, veh/h	1781	858	858	486	1360	1585	1781	3554	1585	1781	3388	219
Grp Volume(v), veh/h	96	0	34	19	0	125	35	938	5	450	550	568
Grp Sat Flow(s),veh/h/ln	1781	0	1716	1846	0	1585	1781	1777	1585	1781	1777	1831
Q Serve(g_s), s	4.5	0.0	1.6	0.8	0.0	6.6	1.7	21.2	0.2	21.0	16.8	16.8
Cycle Q Clear(g_c), s	4.5	0.0	1.6	0.8	0.0	6.6	1.7	21.2	0.2	21.0	16.8	16.8
Prop In Lane	1.00		0.50	0.26		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	136	0	131	186	0	160	47	1110	495	494	1002	1032
V/C Ratio(X)	0.71	0.00	0.26	0.10	0.00	0.78	0.75	0.84	0.01	0.91	0.55	0.55
Avail Cap(c_a), veh/h	456	0	439	473	0	406	145	1282	572	622	1137	1172
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	0.0	37.4	35.1	0.0	37.7	41.5	27.6	20.4	30.0	11.9	11.9
Incr Delay (d2), s/veh	6.6	0.0	1.0	0.2	0.0	8.0	20.5	4.8	0.0	15.2	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.7	0.4	0.0	2.9	1.0	9.0	0.1	10.4	5.8	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.3	0.0	38.4	35.3	0.0	45.7	62.1	32.4	20.4	45.2	12.3	12.3
LnGrp LOS	D	A	D	D	A	D	E	C	C	D	B	B
Approach Vol, veh/h		130			144			978			1568	
Approach Delay, s/veh		43.5			44.3			33.4			21.7	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	28.8	31.8		11.5	7.3	53.4		13.7				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	30.0	31.0		22.0	7.0	55.0		22.0				
Max Q Clear Time (g_c+I1), s	23.0	23.2		6.5	3.7	18.8		8.6				
Green Ext Time (p_c), s	0.9	3.7		0.3	0.0	8.4		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		27.9	
HCM 6th LOS		C	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	0	29	34	0	42	33	1188	9	29	742	43
Future Volume (veh/h)	64	0	29	34	0	42	33	1188	9	29	742	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	0	8	34	0	10	33	1188	5	29	742	39
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	333	0	148	124	0	110	88	1756	783	80	1740	776
Arrive On Green	0.09	0.00	0.09	0.07	0.00	0.07	0.05	0.49	0.49	0.04	0.49	0.49
Sat Flow, veh/h	3563	0	1585	1781	0	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	64	0	8	34	0	10	33	1188	5	29	742	39
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.0	0.0	0.3	1.1	0.0	0.4	1.1	15.1	0.1	0.9	8.0	0.8
Cycle Q Clear(g_c), s	1.0	0.0	0.3	1.1	0.0	0.4	1.1	15.1	0.1	0.9	8.0	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	333	0	148	124	0	110	88	1756	783	80	1740	776
V/C Ratio(X)	0.19	0.00	0.05	0.27	0.00	0.09	0.37	0.68	0.01	0.36	0.43	0.05
Avail Cap(c_a), veh/h	1199	0	533	599	0	533	599	2691	1200	599	2691	1200
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.9	0.0	24.5	26.2	0.0	25.9	27.4	11.4	7.6	27.6	9.8	7.9
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.4	0.0	0.1	1.0	0.6	0.0	1.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.1	0.4	0.0	0.1	0.5	5.0	0.0	0.4	2.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.0	0.0	24.6	26.7	0.0	26.0	28.3	12.0	7.6	28.6	10.0	8.0
LnGrp LOS	C	A	C	C	A	C	C	B	A	C	A	A
Approach Vol, veh/h		72			44			1226			810	
Approach Delay, s/veh		24.9			26.5			12.4			10.6	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.7	35.1		9.6	6.9	34.8		8.1				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	2.9	17.1		3.0	3.1	10.0		3.1				
Green Ext Time (p_c), s	0.0	12.3		0.1	0.0	7.4		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		12.4	
HCM 6th LOS		B	

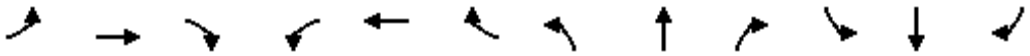
Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	3	37	16	4	51	18
Future Volume (veh/h)	3	37	16	4	51	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	39	17	4	54	19
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	130	116	149	127	139	775
Arrive On Green	0.07	0.07	0.08	0.08	0.08	0.41
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	3	39	17	4	54	19
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	0.0	0.5	0.2	0.0	0.6	0.1
Cycle Q Clear(g_c), s	0.0	0.5	0.2	0.0	0.6	0.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	130	116	149	127	139	775
V/C Ratio(X)	0.02	0.34	0.11	0.03	0.39	0.02
Avail Cap(c_a), veh/h	1918	1706	2110	1788	639	3260
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.4	8.6	8.3	8.3	8.5	3.4
Incr Delay (d2), s/veh	0.1	1.7	0.3	0.1	1.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	0.0	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.5	10.3	8.7	8.4	10.3	3.4
LnGrp LOS	A	B	A	A	B	A
Approach Vol, veh/h	42		21			73
Approach Delay, s/veh	10.2		8.6			8.5
Approach LOS	B		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.5	6.6			13.1	6.4
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	7.0	22.0			34.0	21.0
Max Q Clear Time (g_c+I1), s	2.6	2.2			2.1	2.5
Green Ext Time (p_c), s	0.0	0.0			0.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	9.0
HCM 6th LOS	A

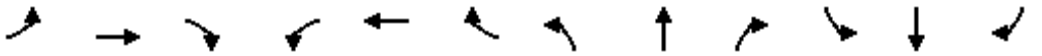


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	700	34	56	1250	16	51	15	25	9	61	10
Future Volume (veh/h)	10	700	34	56	1250	16	51	15	25	9	61	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	700	34	56	1250	16	33	40	25	9	61	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	14	1642	732	79	1771	790	109	115	97	12	79	13
Arrive On Green	0.01	0.46	0.46	0.04	0.50	0.50	0.06	0.06	0.06	0.06	0.06	0.06
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	205	1387	227
Grp Volume(v), veh/h	10	700	34	56	1250	16	33	40	25	80	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1819	0	0
Q Serve(g_s), s	0.3	6.2	0.6	1.5	12.8	0.2	0.8	1.0	0.7	2.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	6.2	0.6	1.5	12.8	0.2	0.8	1.0	0.7	2.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.11		0.12
Lane Grp Cap(c), veh/h	14	1642	732	79	1771	790	109	115	97	104	0	0
V/C Ratio(X)	0.72	0.43	0.05	0.71	0.71	0.02	0.30	0.35	0.26	0.77	0.00	0.00
Avail Cap(c_a), veh/h	567	2262	1009	756	2639	1177	567	595	505	579	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.3	8.5	7.0	22.2	9.1	6.0	21.2	21.2	21.1	21.9	0.0	0.0
Incr Delay (d2), s/veh	22.5	0.2	0.0	4.4	0.7	0.0	0.6	0.7	0.5	4.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.6	0.1	0.6	3.1	0.1	0.3	0.4	0.2	0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.8	8.7	7.0	26.6	9.8	6.0	21.7	21.9	21.6	26.5	0.0	0.0
LnGrp LOS	D	A	A	C	A	A	C	C	C	C	A	A
Approach Vol, veh/h		744			1322			98			80	
Approach Delay, s/veh		9.2			10.5			21.8			26.5	
Approach LOS		A			B			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		6.9	6.1	27.5		6.7	4.4	29.2				
Change Period (Y+Rc), s		4.0	4.0	5.7		4.0	4.0	5.7				
Max Green Setting (Gmax), s		15.0	20.0	30.0		15.0	15.0	35.0				
Max Q Clear Time (g_c+I1), s		3.0	3.5	8.2		4.0	2.3	14.8				
Green Ext Time (p_c), s		0.1	0.1	4.8		0.1	0.0	8.7				

Intersection Summary	
HCM 6th Ctrl Delay	11.1
HCM 6th LOS	B

Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	535	126	63	537	17	70	19	43	33	39	151
Future Volume (veh/h)	105	535	126	63	537	17	70	19	43	33	39	151
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	535	126	63	537	17	44	55	43	33	39	151
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	137	1370	611	79	1255	560	124	130	110	245	257	218
Arrive On Green	0.08	0.39	0.39	0.04	0.35	0.35	0.07	0.07	0.07	0.14	0.14	0.14
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	105	535	126	63	537	17	44	55	43	33	39	151
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	2.9	5.4	2.6	1.7	5.7	0.3	1.2	1.4	1.3	0.8	0.9	4.5
Cycle Q Clear(g_c), s	2.9	5.4	2.6	1.7	5.7	0.3	1.2	1.4	1.3	0.8	0.9	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	137	1370	611	79	1255	560	124	130	110	245	257	218
V/C Ratio(X)	0.77	0.39	0.21	0.79	0.43	0.03	0.36	0.42	0.39	0.13	0.15	0.69
Avail Cap(c_a), veh/h	542	2163	965	723	2524	1126	723	759	643	542	569	482
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	11.0	10.1	23.3	12.1	10.4	21.9	22.0	21.9	18.7	18.7	20.3
Incr Delay (d2), s/veh	3.4	0.3	0.3	6.6	0.4	0.0	0.6	0.8	0.8	0.2	0.3	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.6	0.7	0.8	1.7	0.1	0.4	0.6	0.4	0.3	0.4	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.7	11.2	10.4	29.9	12.5	10.5	22.5	22.8	22.8	18.9	19.0	24.2
LnGrp LOS	C	B	B	C	B	B	C	C	C	B	B	C
Approach Vol, veh/h		766			617			142			223	
Approach Delay, s/veh		13.1			14.2			22.7			22.5	
Approach LOS		B			B			C			C	

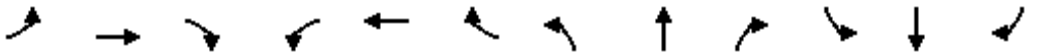
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		7.4	6.2	24.3		11.4	7.8	22.7				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.6	4.0	5.3				
Max Green Setting (Gmax), s		20.0	20.0	30.0		15.0	15.0	35.0				
Max Q Clear Time (g_c+I1), s		3.4	3.7	7.4		6.5	4.9	7.7				
Green Ext Time (p_c), s		0.2	0.1	9.5		0.6	0.1	9.7				

Intersection Summary	
HCM 6th Ctrl Delay	15.5
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

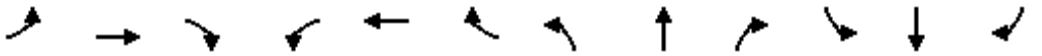


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	543	73	44	457	2	89	26	6	1	12	24
Future Volume (veh/h)	68	543	73	44	457	2	89	26	6	1	12	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	543	73	44	457	2	60	66	6	1	12	24
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	84	1450	647	52	1386	618	140	133	12	5	58	54
Arrive On Green	0.05	0.41	0.41	0.03	0.39	0.39	0.08	0.08	0.08	0.03	0.03	0.03
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1689	154	143	1720	1585
Grp Volume(v), veh/h	68	543	73	44	457	2	60	0	72	13	0	24
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1843	1863	0	1585
Q Serve(g_s), s	1.5	4.1	1.1	0.9	3.5	0.0	1.2	0.0	1.4	0.3	0.0	0.6
Cycle Q Clear(g_c), s	1.5	4.1	1.1	0.9	3.5	0.0	1.2	0.0	1.4	0.3	0.0	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.08	0.08		1.00
Lane Grp Cap(c), veh/h	84	1450	647	52	1386	618	140	0	145	63	0	54
V/C Ratio(X)	0.81	0.37	0.11	0.84	0.33	0.00	0.43	0.00	0.50	0.21	0.00	0.45
Avail Cap(c_a), veh/h	695	2775	1238	695	2775	1238	1159	0	1199	727	0	619
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.1	8.0	7.1	18.6	8.2	7.2	16.9	0.0	17.0	18.1	0.0	18.2
Incr Delay (d2), s/veh	6.7	0.3	0.1	12.7	0.2	0.0	2.1	0.0	2.6	0.6	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.9	0.2	0.5	1.0	0.0	0.5	0.0	0.6	0.1	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.9	8.2	7.2	31.3	8.4	7.2	18.9	0.0	19.6	18.6	0.0	20.3
LnGrp LOS	C	A	A	C	A	A	B	A	B	B	A	C
Approach Vol, veh/h		684			503			132			37	
Approach Delay, s/veh		9.8			10.4			19.3			19.7	
Approach LOS		A			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		7.0	5.1	21.0		5.3	5.8	20.3				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.0	4.0	5.3				
Max Green Setting (Gmax), s		25.0	15.0	30.0		15.0	15.0	30.0				
Max Q Clear Time (g_c+I1), s		3.4	2.9	6.1		2.6	3.5	5.5				
Green Ext Time (p_c), s		0.4	0.0	9.6		0.0	0.1	8.8				

Intersection Summary	
HCM 6th Ctrl Delay	11.2
HCM 6th LOS	B

Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	290	277	12	341	81	136	25	8	23	56	16
Future Volume (veh/h)	33	290	277	12	341	81	136	25	8	23	56	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	33	290	277	12	341	81	154	0	8	23	56	16
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	87	1025	596	15	761	340	311	0	138	34	82	99
Arrive On Green	0.05	0.32	0.32	0.01	0.24	0.24	0.10	0.00	0.10	0.07	0.07	0.07
Sat Flow, veh/h	1603	3198	1427	1603	3198	1427	3206	0	1427	483	1176	1427
Grp Volume(v), veh/h	33	290	277	12	341	81	154	0	8	79	0	16
Grp Sat Flow(s),veh/h/ln	1603	1599	1427	1603	1599	1427	1603	0	1427	1659	0	1427
Q Serve(g_s), s	0.7	2.3	4.8	0.3	3.1	1.6	1.6	0.0	0.2	1.6	0.0	0.4
Cycle Q Clear(g_c), s	0.7	2.3	4.8	0.3	3.1	1.6	1.6	0.0	0.2	1.6	0.0	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.29		1.00
Lane Grp Cap(c), veh/h	87	1025	596	15	761	340	311	0	138	115	0	99
V/C Ratio(X)	0.38	0.28	0.47	0.79	0.45	0.24	0.50	0.00	0.06	0.69	0.00	0.16
Avail Cap(c_a), veh/h	934	2794	1384	934	2794	1246	2334	0	1038	966	0	831
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.7	8.7	7.2	17.0	11.2	10.6	14.7	0.0	14.1	15.6	0.0	15.0
Incr Delay (d2), s/veh	1.0	0.2	0.9	28.0	0.7	0.6	1.2	0.0	0.2	2.7	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.5	1.2	0.2	0.8	0.4	0.5	0.0	0.0	0.6	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.7	9.0	8.1	45.0	11.8	11.1	15.9	0.0	14.3	18.3	0.0	15.3
LnGrp LOS	B	A	A	D	B	B	B	A	B	B	A	B
Approach Vol, veh/h		600			434			162			95	
Approach Delay, s/veh		9.0			12.6			15.9			17.8	
Approach LOS		A			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		7.3	4.3	16.3		6.4	7.2	13.5				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.0	5.3	* 5.3				
Max Green Setting (Gmax), s		25.0	20.0	30.0		20.0	20.0	* 30				
Max Q Clear Time (g_c+I1), s		3.6	2.3	6.8		3.6	2.7	5.1				
Green Ext Time (p_c), s		0.7	0.0	4.2		0.1	0.0	3.1				

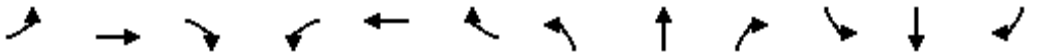
Intersection Summary	
HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	167	44	115	79	27	14	31	1029	67	35	1313	156
Future Volume (veh/h)	167	44	115	79	27	14	31	1029	67	35	1313	156
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1864	1864	1864	1870	1870	1870	1776	1776	1776	2027	2027	2027
Adj Flow Rate, veh/h	167	44	115	79	27	14	31	1029	67	35	1313	156
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	300	63	164	456	117	60	68	1844	571	85	2126	658
Arrive On Green	0.17	0.14	0.14	0.13	0.10	0.10	0.04	0.38	0.38	0.04	0.38	0.38
Sat Flow, veh/h	1776	455	1189	3456	1159	601	1692	4849	1501	1931	5535	1714
Grp Volume(v), veh/h	167	0	159	79	0	41	31	1029	67	35	1313	156
Grp Sat Flow(s),veh/h/ln	1776	0	1645	1728	0	1760	1692	1616	1501	1931	1845	1714
Q Serve(g_s), s	5.4	0.0	5.7	1.3	0.0	1.3	1.1	10.4	1.8	1.1	11.9	1.7
Cycle Q Clear(g_c), s	5.4	0.0	5.7	1.3	0.0	1.3	1.1	10.4	1.8	1.1	11.9	1.7
Prop In Lane	1.00		0.72	1.00		0.34	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	300	0	226	456	0	177	68	1844	571	85	2126	658
V/C Ratio(X)	0.56	0.00	0.70	0.17	0.00	0.23	0.46	0.56	0.12	0.41	0.62	0.24
Avail Cap(c_a), veh/h	458	0	390	2452	0	1249	573	1900	588	654	2169	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	0.0	25.5	23.9	0.0	25.7	29.1	15.1	12.5	28.9	15.4	2.5
Incr Delay (d2), s/veh	0.6	0.0	3.4	0.1	0.0	0.2	1.8	0.7	0.2	1.2	0.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	2.3	0.5	0.0	0.6	0.4	3.0	0.6	0.5	4.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.2	0.0	28.9	24.0	0.0	25.9	30.9	15.8	12.7	30.1	16.3	2.9
LnGrp LOS	C	A	C	C	A	C	C	B	B	C	B	A
Approach Vol, veh/h		326			120			1127			1504	
Approach Delay, s/veh		26.5			24.6			16.0			15.2	
Approach LOS		C			C			B			B	

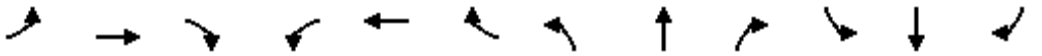
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	29.3	12.2	13.8	6.5	29.5	15.8	10.2
Change Period (Y+Rc), s	4.0	5.7	4.0	5.3	4.0	5.7	5.3	* 4
Max Green Setting (Gmax), s	21.0	24.3	44.0	14.7	21.0	24.3	16.0	* 44
Max Q Clear Time (g_c+I1), s	3.1	12.4	3.3	7.7	3.1	13.9	7.4	3.3
Green Ext Time (p_c), s	0.0	10.5	0.2	0.5	0.0	9.9	0.2	0.1

Intersection Summary	
HCM 6th Ctrl Delay	17.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	131	138	169	234	14	129	1154	77	44	1461	50
Future Volume (veh/h)	26	131	138	169	234	14	129	1154	77	44	1461	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	131	138	169	234	14	129	1154	77	44	1461	50
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	32	388	173	229	275	16	184	3284	1020	79	3128	971
Arrive On Green	0.02	0.11	0.11	0.07	0.16	0.16	0.11	1.00	1.00	0.02	0.61	0.61
Sat Flow, veh/h	1781	3554	1585	3456	1747	105	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	26	131	138	169	0	248	129	1154	77	44	1461	50
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	0	1852	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	1.7	4.1	10.2	5.8	0.0	15.6	4.3	0.0	0.0	1.5	18.6	1.5
Cycle Q Clear(g_c), s	1.7	4.1	10.2	5.8	0.0	15.6	4.3	0.0	0.0	1.5	18.6	1.5
Prop In Lane	1.00		1.00	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	32	388	173	229	0	292	184	3284	1020	79	3128	971
V/C Ratio(X)	0.80	0.34	0.80	0.74	0.00	0.85	0.70	0.35	0.08	0.56	0.47	0.05
Avail Cap(c_a), veh/h	312	583	260	605	0	304	605	3284	1020	605	3128	971
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.7	49.4	52.1	55.0	0.0	49.2	52.7	0.0	0.0	58.0	12.6	9.3
Incr Delay (d2), s/veh	15.5	0.7	11.9	1.7	0.0	19.9	1.8	0.3	0.1	2.3	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.9	4.6	2.6	0.0	8.8	1.8	0.1	0.0	0.7	6.6	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.2	50.1	64.0	56.7	0.0	69.1	54.5	0.3	0.1	60.3	12.9	9.3
LnGrp LOS	E	D	E	E	A	E	D	A	A	E	B	A
Approach Vol, veh/h		295			417			1360			1555	
Approach Delay, s/veh		58.8			64.1			5.4			14.1	
Approach LOS		E			E			A			B	

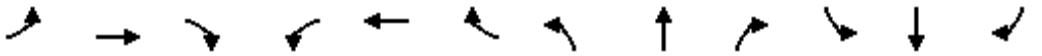
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	82.9	12.0	18.4	10.4	79.2	6.2	24.2
Change Period (Y+Rc), s	4.0	* 5.7	4.0	5.3	4.0	5.7	4.0	5.3
Max Green Setting (Gmax), s	21.0	* 40	21.0	19.7	21.0	39.3	21.0	19.7
Max Q Clear Time (g_c+I1), s	3.5	2.0	7.8	12.2	6.3	20.6	3.7	17.6
Green Ext Time (p_c), s	0.0	19.2	0.2	0.9	0.2	14.9	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	20.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

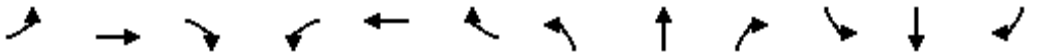


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	62	168	219	54	40	278	1373	316	71	1702	58
Future Volume (veh/h)	58	62	168	219	54	40	278	1373	316	71	1702	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	111	115	219	54	40	278	1373	316	71	1702	58
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	164	172	146	294	82	61	343	2298	713	733	2875	892
Arrive On Green	0.09	0.09	0.09	0.08	0.08	0.08	0.20	0.90	0.90	0.21	0.56	0.56
Sat Flow, veh/h	1781	1870	1585	3563	998	739	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	58	111	115	219	0	94	278	1373	316	71	1702	58
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1737	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	3.7	6.9	8.5	7.2	0.0	6.3	9.2	7.0	4.0	2.0	26.2	2.0
Cycle Q Clear(g_c), s	3.7	6.9	8.5	7.2	0.0	6.3	9.2	7.0	4.0	2.0	26.2	2.0
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	172	146	294	0	143	343	2298	713	733	2875	892
V/C Ratio(X)	0.35	0.65	0.79	0.74	0.00	0.66	0.81	0.60	0.44	0.10	0.59	0.06
Avail Cap(c_a), veh/h	233	245	207	466	0	227	634	2298	713	733	2875	892
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.1	52.6	53.3	53.8	0.0	53.4	47.0	3.6	3.5	38.0	17.2	11.9
Incr Delay (d2), s/veh	1.3	4.0	12.3	3.7	0.0	5.0	4.6	1.2	2.0	0.0	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	3.4	3.9	3.4	0.0	3.0	3.8	1.6	1.3	0.8	9.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.4	56.6	65.7	57.5	0.0	58.4	51.6	4.8	5.5	38.0	17.7	12.0
LnGrp LOS	D	E	E	E	A	E	D	A	A	D	B	B
Approach Vol, veh/h		284			313			1967			1831	
Approach Delay, s/veh		59.4			57.8			11.5			18.3	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	29.5	59.0		15.2	16.9	71.6		16.3				
Change Period (Y+Rc), s	4.0	5.0		5.3	5.0	4.0		5.3				
Max Green Setting (Gmax), s	15.0	54.0		15.7	22.0	47.0		15.7				
Max Q Clear Time (g_c+I1), s	4.0	9.0		9.2	11.2	28.2		10.5				
Green Ext Time (p_c), s	0.1	29.1		0.7	0.7	15.5		0.5				

Intersection Summary		
HCM 6th Ctrl Delay		20.7
HCM 6th LOS		C

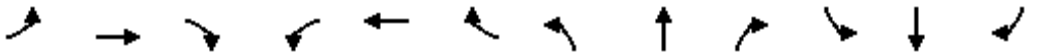
Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	363	0	0	1367	512	717	0	0	1908	219
Future Volume (vph)	0	0	363	0	0	1367	512	717	0	0	1908	219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			5.3	3.0	5.9			5.3	5.3
Lane Util. Factor			1.00			0.88	0.97	0.91			0.91	1.00
Frt			0.86			0.85	1.00	1.00			1.00	0.85
Flt Protected			1.00			1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)			1611			2787	3433	5085			5085	1583
Flt Permitted			1.00			1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)			1611			2787	3433	5085			5085	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	363	0	0	1367	512	717	0	0	1908	219
RTOR Reduction (vph)	0	0	0	0	0	106	0	0	0	0	0	129
Lane Group Flow (vph)	0	0	363	0	0	1261	512	717	0	0	1908	90
Turn Type			Free			Prot	Prot	NA			NA	Perm
Protected Phases						1	5	2			6	
Permitted Phases			Free									6
Actuated Green, G (s)			60.0			24.7	27.0	24.1			24.7	24.7
Effective Green, g (s)			60.0			24.7	27.0	24.1			24.7	24.7
Actuated g/C Ratio			1.00			0.41	0.45	0.40			0.41	0.41
Clearance Time (s)						5.3	3.0	5.9			5.3	5.3
Vehicle Extension (s)						4.3	2.0	4.9			4.3	4.3
Lane Grp Cap (vph)			1611			1147	1544	2042			2093	651
v/s Ratio Prot						c0.45	c0.15	0.14			0.38	
v/s Ratio Perm			0.23									0.06
v/c Ratio			0.23			1.10	0.33	0.35			0.91	0.14
Uniform Delay, d1			0.0			17.6	10.7	12.5			16.6	11.0
Progression Factor			1.00			1.00	0.43	0.47			1.15	3.04
Incremental Delay, d2			0.3			58.1	0.0	0.4			6.1	0.4
Delay (s)			0.3			75.8	4.6	6.4			25.2	33.8
Level of Service			A			E	A	A			C	C
Approach Delay (s)		0.3			75.8			5.6			26.1	
Approach LOS		A			E			A			C	

Intersection Summary			
HCM 2000 Control Delay	32.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	11.2
Intersection Capacity Utilization	71.0%	ICU Level of Service	C
Analysis Period (min)	15		

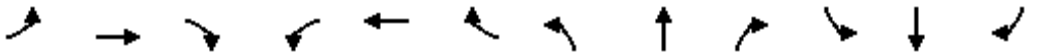
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	789	0	0	156	0	1073	222	1119	1152	0
Future Volume (vph)	0	0	789	0	0	156	0	1073	222	1119	1152	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			5.3			4.0		5.3	5.3	5.3	5.3	
Lane Util. Factor			0.88			1.00		0.91	1.00	0.97	0.91	
Frt			0.85			0.86		1.00	0.85	1.00	1.00	
Flt Protected			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2787			1611		5085	1583	3433	5085	
Flt Permitted			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2787			1611		5085	1583	3433	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	789	0	0	156	0	1073	222	1119	1152	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	25	0	0	0
Lane Group Flow (vph)	0	0	789	0	0	156	0	1073	197	1119	1152	0
Turn Type			Prot			Free		NA	Perm	Prot	NA	
Protected Phases			5					2		1	6	
Permitted Phases						Free			2			
Actuated Green, G (s)			22.4			60.0		24.7	24.7	24.7	27.0	
Effective Green, g (s)			22.4			60.0		24.7	24.7	24.7	27.0	
Actuated g/C Ratio			0.37			1.00		0.41	0.41	0.41	0.45	
Clearance Time (s)			5.3					5.3	5.3	5.3	5.3	
Vehicle Extension (s)			4.3					4.9	4.9	2.0	4.9	
Lane Grp Cap (vph)			1040			1611		2093	651	1413	2288	
v/s Ratio Prot			c0.28					0.21		c0.33	0.23	
v/s Ratio Perm						c0.10			0.12			
v/c Ratio			0.76			0.10		0.51	0.30	0.79	0.50	
Uniform Delay, d1			16.4			0.0		13.2	11.9	15.4	11.7	
Progression Factor			1.00			1.00		1.06	1.03	0.40	0.43	
Incremental Delay, d2			3.6			0.1		0.9	1.2	1.2	0.6	
Delay (s)			20.0			0.1		14.9	13.4	7.3	5.6	
Level of Service			B			A		B	B	A	A	
Approach Delay (s)		20.0			0.1			14.6			6.5	
Approach LOS		B			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	11.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.6
Intersection Capacity Utilization	61.5%	ICU Level of Service	B
Analysis Period (min)	15		

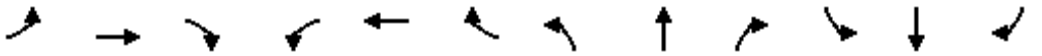
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	14	10	10	1	10	14	35	5	2	31	10
Future Volume (veh/h)	10	14	10	10	1	10	14	35	5	2	31	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	14	10	10	1	10	14	35	5	2	31	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	13	19	13	13	1	13	20	623	87	8	256	83
Arrive On Green	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.20	0.20	0.00	0.19	0.19
Sat Flow, veh/h	515	721	515	803	80	803	1781	3131	437	1781	1355	437
Grp Volume(v), veh/h	34	0	0	21	0	0	14	20	20	2	0	41
Grp Sat Flow(s),veh/h/ln	1752	0	0	1686	0	0	1781	1777	1792	1781	0	1792
Q Serve(g_s), s	0.4	0.0	0.0	0.3	0.0	0.0	0.2	0.2	0.2	0.0	0.0	0.4
Cycle Q Clear(g_c), s	0.4	0.0	0.0	0.3	0.0	0.0	0.2	0.2	0.2	0.0	0.0	0.4
Prop In Lane	0.29		0.29	0.48		0.48	1.00		0.24	1.00		0.24
Lane Grp Cap(c), veh/h	45	0	0	28	0	0	20	353	356	8	0	339
V/C Ratio(X)	0.76	0.00	0.00	0.76	0.00	0.00	0.70	0.06	0.06	0.24	0.00	0.12
Avail Cap(c_a), veh/h	1658	0	0	638	0	0	1686	3364	3392	675	0	2968
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.2	0.0	0.0	10.3	0.0	0.0	10.4	6.9	6.9	10.5	0.0	7.1
Incr Delay (d2), s/veh	9.2	0.0	0.0	14.3	0.0	0.0	15.3	0.1	0.1	5.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.4	0.0	0.0	24.7	0.0	0.0	25.7	6.9	6.9	15.8	0.0	7.3
LnGrp LOS	B	A	A	C	A	A	C	A	A	B	A	A
Approach Vol, veh/h		34			21			54			43	
Approach Delay, s/veh		19.4			24.7			11.8			7.7	
Approach LOS		B			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.0	8.2		4.3	4.2	8.0		4.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	8.0	40.0		8.0	20.0	35.0		20.0				
Max Q Clear Time (g_c+I1), s	2.0	2.2		2.3	2.2	2.4		2.4				
Green Ext Time (p_c), s	0.0	0.2		0.0	0.0	0.2		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		14.1	
HCM 6th LOS		B	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	6	5	39	11	123	9	1136	46	117	1511	126
Future Volume (veh/h)	29	6	5	39	11	123	9	1136	46	117	1511	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	29	6	0	39	11	0	9	1136	0	117	1511	126
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	5	5	5	5	5	5
Cap, veh/h	92	32		110	38		22	3784		174	4008	1240
Arrive On Green	0.02	0.02	0.00	0.02	0.02	0.00	0.01	0.76	0.00	0.10	1.00	1.00
Sat Flow, veh/h	5344	1870	1585	5344	1870	1585	3374	4985	1547	3374	4985	1542
Grp Volume(v), veh/h	29	6	0	39	11	0	9	1136	0	117	1511	126
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1687	1662	1547	1687	1662	1542
Q Serve(g_s), s	0.6	0.4	0.0	0.9	0.7	0.0	0.3	8.5	0.0	4.0	0.0	0.0
Cycle Q Clear(g_c), s	0.6	0.4	0.0	0.9	0.7	0.0	0.3	8.5	0.0	4.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	92	32		110	38		22	3784		174	4008	1240
V/C Ratio(X)	0.32	0.19		0.35	0.29		0.41	0.30		0.67	0.38	0.10
Avail Cap(c_a), veh/h	713	249		672	235		450	3784		450	4008	1240
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.3	58.1	0.0	58.0	57.9	0.0	59.4	4.5	0.0	52.8	0.0	0.0
Incr Delay (d2), s/veh	1.9	2.7	0.0	2.7	5.5	0.0	4.5	0.2	0.0	1.7	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.2	0.0	0.4	0.4	0.0	0.1	2.4	0.0	1.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.2	60.9	0.0	60.6	63.4	0.0	63.9	4.7	0.0	54.5	0.1	0.1
LnGrp LOS	E	E		E	E		E	A		D	A	A
Approach Vol, veh/h		35	A		50	A		1145	A		1754	
Approach Delay, s/veh		60.3			61.2			5.2			3.8	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.2	96.4		7.4	4.8	101.8		6.1				
Change Period (Y+Rc), s	4.0	5.3		4.9	4.0	5.3		4.0				
Max Green Setting (Gmax), s	16.0	54.7		15.1	16.0	54.7		16.0				
Max Q Clear Time (g_c+I1), s	6.0	10.5		2.9	2.3	2.0		2.6				
Green Ext Time (p_c), s	0.3	34.1		0.2	0.0	47.9		0.1				

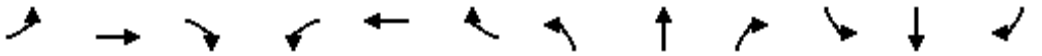
Intersection Summary		
HCM 6th Ctrl Delay		5.9
HCM 6th LOS		A

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



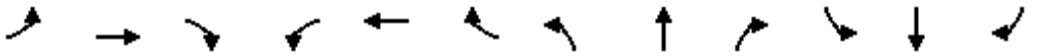
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	5	184	18	5	4	193	920	4	10	1200	63
Future Volume (veh/h)	87	5	184	18	5	4	193	920	4	10	1200	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	87	5	184	18	5	4	193	920	4	10	1200	63
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	239	14	224	71	20	79	234	2056	9	31	1607	717
Arrive On Green	0.14	0.14	0.14	0.05	0.05	0.05	0.13	0.57	0.57	0.02	0.45	0.45
Sat Flow, veh/h	1689	97	1585	1409	391	1585	1781	3629	16	1781	3554	1585
Grp Volume(v), veh/h	92	0	184	23	0	4	193	451	473	10	1200	63
Grp Sat Flow(s),veh/h/ln	1786	0	1585	1800	0	1585	1781	1777	1868	1781	1777	1585
Q Serve(g_s), s	3.9	0.0	9.5	1.0	0.0	0.2	8.9	12.4	12.4	0.5	23.5	1.9
Cycle Q Clear(g_c), s	3.9	0.0	9.5	1.0	0.0	0.2	8.9	12.4	12.4	0.5	23.5	1.9
Prop In Lane	0.95		1.00	0.78		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	253	0	224	90	0	79	234	1007	1058	31	1607	717
V/C Ratio(X)	0.36	0.00	0.82	0.26	0.00	0.05	0.82	0.45	0.45	0.32	0.75	0.09
Avail Cap(c_a), veh/h	424	0	377	257	0	226	487	1583	1664	423	2491	1111
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.7	0.0	35.1	38.5	0.0	38.1	35.6	10.6	10.6	40.9	19.1	13.1
Incr Delay (d2), s/veh	0.3	0.0	2.8	0.5	0.0	0.1	2.8	0.5	0.4	2.2	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	3.8	0.5	0.0	0.1	4.0	4.5	4.7	0.2	9.2	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	0.0	37.9	39.0	0.0	38.2	38.4	11.1	11.0	43.1	20.1	13.2
LnGrp LOS	C	A	D	D	A	D	D	B	B	D	C	B
Approach Vol, veh/h		276			27			1117			1273	
Approach Delay, s/veh		36.3			38.9			15.8			19.9	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	53.7		16.8	15.1	44.1		8.2				
Change Period (Y+Rc), s	4.0	6.0		4.9	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	75.0		20.0	23.0	59.0		12.0				
Max Q Clear Time (g_c+I1), s	2.5	14.4		11.5	10.9	25.5		3.0				
Green Ext Time (p_c), s	0.0	7.9		0.4	0.3	12.6		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		20.1	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	13	478	13	16	11	357	918	8	3	1090	309
Future Volume (veh/h)	188	13	478	13	16	11	357	918	8	3	1090	309
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	197	0	478	13	16	11	357	918	8	3	1090	309
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	893	0	597	43	52	82	435	1913	17	13	1461	652
Arrive On Green	0.25	0.00	0.25	0.05	0.05	0.05	0.13	0.53	0.53	0.01	0.41	0.41
Sat Flow, veh/h	3563	0	1585	820	1009	1585	3456	3610	31	1781	3554	1585
Grp Volume(v), veh/h	197	0	478	29	0	11	357	452	474	3	1090	309
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1829	0	1585	1728	1777	1865	1781	1777	1585
Q Serve(g_s), s	4.7	0.0	27.0	1.6	0.0	0.7	10.9	17.3	17.3	0.2	28.1	15.4
Cycle Q Clear(g_c), s	4.7	0.0	27.0	1.6	0.0	0.7	10.9	17.3	17.3	0.2	28.1	15.4
Prop In Lane	1.00		1.00	0.45		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	893	0	597	95	0	82	435	941	988	13	1461	652
V/C Ratio(X)	0.22	0.00	0.80	0.31	0.00	0.13	0.82	0.48	0.48	0.23	0.75	0.47
Avail Cap(c_a), veh/h	893	0	597	340	0	294	738	1042	1094	331	1748	780
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.0	0.0	30.0	49.2	0.0	48.8	45.9	16.0	16.0	53.2	26.9	23.2
Incr Delay (d2), s/veh	0.1	0.0	7.7	0.7	0.0	0.3	1.5	0.9	0.8	3.4	2.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	12.2	0.8	0.0	0.3	4.6	6.7	7.0	0.1	11.7	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	0.0	37.7	49.9	0.0	49.0	47.4	16.8	16.8	56.6	29.1	24.4
LnGrp LOS	C	A	D	D	A	D	D	B	B	E	C	C
Approach Vol, veh/h		675			40			1283			1402	
Approach Delay, s/veh		36.1			49.6			25.3			28.1	
Approach LOS		D			D			C			C	

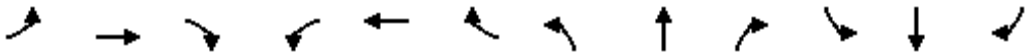
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	62.4		31.0	17.5	49.6		9.6				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	20.0	63.2		27.0	23.0	53.0		20.0				
Max Q Clear Time (g_c+I1), s	2.2	19.3		29.0	12.9	30.1		3.6				
Green Ext Time (p_c), s	0.0	11.0		0.0	0.7	14.2		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		28.9	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	157	0	608	0	583	517	923	522	0
Future Volume (veh/h)	0	0	0	157	0	608	0	583	517	923	522	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	0	1870	1870	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	0	0	0	183	0	57	0	583	139	923	522	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	2	0	2	2	2	0	2	2	2	2	0
Cap, veh/h	0	4	0	345	0	153	0	1068	476	1170	2554	0
Arrive On Green	0.00	0.00	0.00	0.10	0.00	0.10	0.00	0.30	0.30	0.34	0.72	0.00
Sat Flow, veh/h	0	-74814	0	3563	0	1585	0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	0	0	0	183	0	57	0	583	139	923	522	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	0	1585	0	1777	1585	1728	1777	0
Q Serve(g_s), s	0.0	0.0	0.0	2.5	0.0	1.7	0.0	6.9	3.4	12.1	2.4	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.5	0.0	1.7	0.0	6.9	3.4	12.1	2.4	0.0
Prop In Lane	0.00		0.00	1.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	4	0	345	0	153	0	1068	476	1170	2554	0
V/C Ratio(X)	0.00	0.00	0.00	0.53	0.00	0.37	0.00	0.55	0.29	0.79	0.20	0.00
Avail Cap(c_a), veh/h	0	1114	0	1698	0	755	0	2336	1042	2470	5130	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	21.7	0.0	21.3	0.0	14.7	13.5	15.0	2.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.5	0.0	0.6	0.0	0.7	0.6	0.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	1.0	0.0	1.5	0.0	2.5	1.1	4.1	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	22.1	0.0	21.9	0.0	15.5	14.1	15.5	2.4	0.0
LnGrp LOS	A	A	A	C	A	C	A	B	B	B	A	A
Approach Vol, veh/h		0			240			722			1445	
Approach Delay, s/veh		0.0			22.1			15.2			10.8	
Approach LOS					C			B			B	

Timer - Assigned Phs	2	4	6	7	8
Phs Duration (G+Y+Rc), s	0.0	41.5	8.9	21.1	20.4
Change Period (Y+Rc), s	4.0	5.3	4.0	4.0	* 5.3
Max Green Setting (Gmax), s	30.0	72.7	24.0	36.0	* 33
Max Q Clear Time (g_c+I1), s	0.0	4.4	4.5	14.1	8.9
Green Ext Time (p_c), s	0.0	4.0	0.6	2.9	6.2

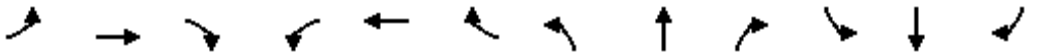
Intersection Summary	
HCM 6th Ctrl Delay	13.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



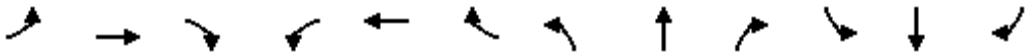
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	445	10	34	26	15	31	24	690	0	58	439	70
Future Volume (veh/h)	445	10	34	26	15	31	24	690	0	58	439	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	484	0	0	26	15	31	24	690	0	58	439	70
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	680	357	0	60	35	83	31	1220	0	71	1125	178
Arrive On Green	0.19	0.00	0.00	0.05	0.05	0.05	0.02	0.34	0.00	0.04	0.37	0.37
Sat Flow, veh/h	3563	1870	0	1150	663	1585	1781	3647	0	1781	3073	487
Grp Volume(v), veh/h	484	0	0	41	0	31	24	690	0	58	253	256
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1813	0	1585	1781	1777	0	1781	1777	1783
Q Serve(g_s), s	5.8	0.0	0.0	1.0	0.0	0.9	0.6	7.2	0.0	1.5	4.8	4.8
Cycle Q Clear(g_c), s	5.8	0.0	0.0	1.0	0.0	0.9	0.6	7.2	0.0	1.5	4.8	4.8
Prop In Lane	1.00		0.00	0.63		1.00	1.00		0.00	1.00		0.27
Lane Grp Cap(c), veh/h	680	357	0	95	0	83	31	1220	0	71	650	653
V/C Ratio(X)	0.71	0.00	0.00	0.43	0.00	0.37	0.78	0.57	0.00	0.81	0.39	0.39
Avail Cap(c_a), veh/h	2046	1074	0	721	0	630	629	2826	0	629	1413	1417
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.2	0.0	0.0	20.8	0.0	20.7	22.2	12.1	0.0	21.6	10.6	10.6
Incr Delay (d2), s/veh	0.5	0.0	0.0	1.1	0.0	1.0	14.6	0.5	0.0	8.0	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.0	0.4	0.0	0.3	0.4	2.4	0.0	0.7	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.7	0.0	0.0	21.9	0.0	21.7	36.7	12.6	0.0	29.6	11.1	11.1
LnGrp LOS	B	A	A	C	A	C	D	B	A	C	B	B
Approach Vol, veh/h		484			72			714			567	
Approach Delay, s/veh		17.7			21.8			13.4			13.0	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.8	20.4		12.6	4.8	21.5		6.4				
Change Period (Y+Rc), s	4.0	4.9		4.0	4.0	4.9		4.0				
Max Green Setting (Gmax), s	16.0	36.0		26.0	16.0	36.0		18.0				
Max Q Clear Time (g_c+I1), s	3.5	9.2		7.8	2.6	6.8		3.0				
Green Ext Time (p_c), s	0.0	6.4		0.9	0.0	4.1		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		14.7	
HCM 6th LOS		B	

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	8	29	56	3	9	58	682	15	17	472	23
Future Volume (veh/h)	67	8	29	56	3	9	58	682	15	17	472	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	8	29	56	3	9	58	682	15	17	472	23
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	116	14	115	94	5	88	70	1335	29	23	1206	59
Arrive On Green	0.07	0.07	0.07	0.06	0.06	0.06	0.04	0.38	0.38	0.01	0.35	0.35
Sat Flow, veh/h	1599	191	1585	1695	91	1585	1781	3555	78	1781	3449	168
Grp Volume(v), veh/h	75	0	29	59	0	9	58	341	356	17	243	252
Grp Sat Flow(s),veh/h/ln	1790	0	1585	1786	0	1585	1781	1777	1856	1781	1777	1840
Q Serve(g_s), s	1.4	0.0	0.6	1.1	0.0	0.2	1.1	5.2	5.2	0.3	3.6	3.6
Cycle Q Clear(g_c), s	1.4	0.0	0.6	1.1	0.0	0.2	1.1	5.2	5.2	0.3	3.6	3.6
Prop In Lane	0.89		1.00	0.95		1.00	1.00		0.04	1.00		0.09
Lane Grp Cap(c), veh/h	130	0	115	99	0	88	70	667	697	23	621	643
V/C Ratio(X)	0.58	0.00	0.25	0.60	0.00	0.10	0.83	0.51	0.51	0.73	0.39	0.39
Avail Cap(c_a), veh/h	1331	0	1179	919	0	816	815	1829	1911	815	1829	1895
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.7	0.0	15.3	16.1	0.0	15.7	16.7	8.4	8.4	17.2	8.6	8.6
Incr Delay (d2), s/veh	1.5	0.0	0.4	2.1	0.0	0.2	9.3	0.8	0.7	15.0	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.2	0.4	0.0	0.1	0.6	1.5	1.5	0.2	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.2	0.0	15.7	18.3	0.0	15.9	25.9	9.2	9.2	32.2	9.1	9.1
LnGrp LOS	B	A	B	B	A	B	C	A	A	C	A	A
Approach Vol, veh/h		104			68			755			512	
Approach Delay, s/veh		16.8			18.0			10.5			9.8	
Approach LOS		B			B			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.5	18.0		6.5	5.4	17.1		5.9				
Change Period (Y+Rc), s	4.0	4.9		4.0	4.0	4.9		4.0				
Max Green Setting (Gmax), s	16.0	36.0		26.0	16.0	36.0		18.0				
Max Q Clear Time (g_c+I1), s	2.3	7.2		3.4	3.1	5.6		3.1				
Green Ext Time (p_c), s	0.0	5.9		0.3	0.0	4.0		0.1				

Intersection Summary												
HCM 6th Ctrl Delay			11.0									
HCM 6th LOS			B									



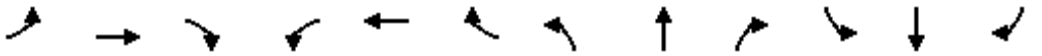
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	59	118	499	58	284	602
Future Volume (veh/h)	59	118	499	58	284	602
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	118	499	58	284	602
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	582	267	1793	557	352	3224
Arrive On Green	0.17	0.17	0.35	0.35	0.20	0.63
Sat Flow, veh/h	3456	1585	5274	1585	1781	5274
Grp Volume(v), veh/h	59	118	499	58	284	602
Grp Sat Flow(s),veh/h/ln	1728	1585	1702	1585	1781	1702
Q Serve(g_s), s	0.7	3.2	3.4	1.2	7.4	2.4
Cycle Q Clear(g_c), s	0.7	3.2	3.4	1.2	7.4	2.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	582	267	1793	557	352	3224
V/C Ratio(X)	0.10	0.44	0.28	0.10	0.81	0.19
Avail Cap(c_a), veh/h	1426	654	4213	1308	735	4213
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.0	18.1	11.3	10.6	18.6	3.7
Incr Delay (d2), s/veh	0.0	0.4	0.1	0.1	1.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.0	0.9	0.3	2.5	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.1	18.5	11.5	10.7	20.2	3.8
LnGrp LOS	B	B	B	B	C	A
Approach Vol, veh/h	177		557			886
Approach Delay, s/veh	18.0		11.4			9.1
Approach LOS	B		B			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	13.6	22.7			36.3	12.2
Change Period (Y+Rc), s	4.0	5.7			5.7	4.0
Max Green Setting (Gmax), s	20.0	40.0			40.0	20.0
Max Q Clear Time (g_c+I1), s	9.4	5.4			4.4	5.2
Green Ext Time (p_c), s	0.4	11.6			14.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	10.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

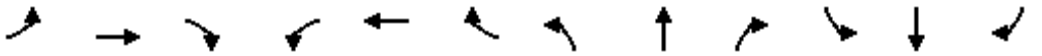


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	441	40	271	455	118	105	12	71	149	6	59
Future Volume (veh/h)	79	441	40	271	455	118	105	12	71	149	6	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	79	441	40	271	455	118	105	12	71	153	0	59
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	202	952	85	335	1401	435	243	28	240	548	0	244
Arrive On Green	0.11	0.20	0.20	0.19	0.27	0.27	0.15	0.15	0.15	0.15	0.00	0.15
Sat Flow, veh/h	1781	4771	427	1781	5106	1585	1606	184	1585	3563	0	1585
Grp Volume(v), veh/h	79	313	168	271	455	118	117	0	71	153	0	59
Grp Sat Flow(s),veh/h/ln	1781	1702	1793	1781	1702	1585	1790	0	1585	1781	0	1585
Q Serve(g_s), s	2.3	4.6	4.7	8.2	4.0	3.3	3.3	0.0	2.2	2.1	0.0	1.8
Cycle Q Clear(g_c), s	2.3	4.6	4.7	8.2	4.0	3.3	3.3	0.0	2.2	2.1	0.0	1.8
Prop In Lane	1.00		0.24	1.00		1.00	0.90		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	202	679	358	335	1401	435	271	0	240	548	0	244
V/C Ratio(X)	0.39	0.46	0.47	0.81	0.32	0.27	0.43	0.00	0.30	0.28	0.00	0.24
Avail Cap(c_a), veh/h	632	2718	1432	1264	4077	1266	953	0	844	1264	0	563
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.2	19.9	19.9	21.9	16.3	16.0	21.7	0.0	21.2	21.1	0.0	20.9
Incr Delay (d2), s/veh	0.5	1.0	1.9	1.8	0.3	0.7	0.4	0.0	0.3	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.7	1.9	3.2	1.4	1.1	1.4	0.0	0.8	0.9	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	20.9	21.9	23.7	16.6	16.7	22.1	0.0	21.5	21.2	0.0	21.1
LnGrp LOS	C	C	C	C	B	B	C	A	C	C	A	C
Approach Vol, veh/h		560			844			188			212	
Approach Delay, s/veh		21.6			18.9			21.9			21.2	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.6	16.5		12.5	10.4	20.8		12.7				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	40.0	45.0		30.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	10.2	6.7		5.3	4.3	6.0		4.1				
Green Ext Time (p_c), s	0.6	4.6		0.4	0.1	5.9		0.5				

Intersection Summary			
HCM 6th Ctrl Delay		20.3	
HCM 6th LOS		C	

Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	208	806	321	79	390	140	238	330	137	99	398	79
Future Volume (veh/h)	208	806	321	79	390	140	238	330	137	99	398	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	2145	2145	2145
Adj Flow Rate, veh/h	208	806	321	79	390	140	238	330	137	99	398	79
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	253	1236	551	132	995	444	287	1282	398	163	996	309
Arrive On Green	0.14	0.35	0.35	0.07	0.28	0.28	0.16	0.25	0.25	0.08	0.17	0.17
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	5106	1585	2043	5857	1818
Grp Volume(v), veh/h	208	806	321	79	390	140	238	330	137	99	398	79
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1702	1585	2043	1952	1818
Q Serve(g_s), s	8.7	14.7	12.7	3.3	6.8	5.4	10.0	4.0	5.5	3.6	4.7	2.9
Cycle Q Clear(g_c), s	8.7	14.7	12.7	3.3	6.8	5.4	10.0	4.0	5.5	3.6	4.7	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	253	1236	551	132	995	444	287	1282	398	163	996	309
V/C Ratio(X)	0.82	0.65	0.58	0.60	0.39	0.32	0.83	0.26	0.34	0.61	0.40	0.26
Avail Cap(c_a), veh/h	463	1432	639	694	1801	803	1088	2588	803	664	2664	827
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.1	21.2	20.5	34.5	22.4	21.9	31.3	23.1	23.6	34.2	28.4	27.7
Incr Delay (d2), s/veh	2.6	1.2	1.6	1.6	0.3	0.5	2.4	0.2	0.8	1.3	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	6.0	4.5	1.5	2.8	1.9	4.2	1.5	2.0	1.8	2.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.7	22.3	22.1	36.1	22.7	22.4	33.6	23.2	24.4	35.6	28.8	28.4
LnGrp LOS	C	C	C	D	C	C	C	C	C	D	C	C
Approach Vol, veh/h		1335			609			705			576	
Approach Delay, s/veh		24.2			24.4			27.0			29.9	
Approach LOS		C			C			C			C	

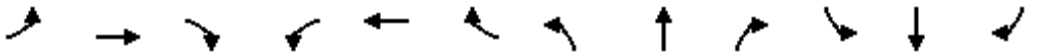
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	32.5	16.4	18.4	14.9	27.2	10.2	24.6
Change Period (Y+Rc), s	4.0	* 5.7	4.0	5.3	4.0	5.7	4.0	5.3
Max Green Setting (Gmax), s	30.0	* 31	47.0	35.0	20.0	39.0	25.0	39.0
Max Q Clear Time (g_c+I1), s	5.3	16.7	12.0	6.7	10.7	8.8	5.6	7.5
Green Ext Time (p_c), s	0.1	10.0	0.5	6.4	0.3	6.6	0.2	6.0

Intersection Summary	
HCM 6th Ctrl Delay	25.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	2	7	40	3	128	11	700	50	194	586	7
Future Volume (veh/h)	13	2	7	40	3	128	11	700	50	194	586	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1988	1988	1988	1870	1945	1870	2145	2231	2145
Adj Flow Rate, veh/h	13	2	0	40	3	23	11	700	47	194	586	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	7	47	146	11	139	40	1572	105	275	3409	1018
Arrive On Green	0.03	0.03	0.00	0.08	0.08	0.08	0.02	0.45	0.45	0.13	0.56	0.56
Sat Flow, veh/h	1554	239	1585	1767	133	1681	1781	3512	236	2043	6091	1818
Grp Volume(v), veh/h	15	0	0	43	0	23	11	368	379	194	586	3
Grp Sat Flow(s),veh/h/ln	1793	0	1585	1900	0	1681	1781	1848	1900	2043	2030	1818
Q Serve(g_s), s	0.5	0.0	0.0	1.2	0.0	0.7	0.3	7.8	7.8	5.1	2.7	0.0
Cycle Q Clear(g_c), s	0.5	0.0	0.0	1.2	0.0	0.7	0.3	7.8	7.8	5.1	2.7	0.0
Prop In Lane	0.87		1.00	0.93		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	53	0	47	157	0	139	40	827	850	275	3409	1018
V/C Ratio(X)	0.28	0.00	0.00	0.27	0.00	0.17	0.28	0.45	0.45	0.71	0.17	0.00
Avail Cap(c_a), veh/h	633	0	560	772	0	683	629	1469	1511	1119	4842	1445
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.9	0.0	0.0	24.4	0.0	24.2	27.2	10.8	10.8	23.4	6.1	5.5
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.3	0.0	0.2	1.4	0.8	0.8	1.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.5	0.0	0.3	0.1	2.6	2.7	2.3	0.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.9	0.0	0.0	24.7	0.0	24.4	28.6	11.6	11.6	24.7	6.1	5.5
LnGrp LOS	C	A	A	C	A	C	C	B	B	C	A	A
Approach Vol, veh/h		15			66			758			783	
Approach Delay, s/veh		27.9			24.6			11.9			10.7	
Approach LOS		C			C			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		5.7	5.3	37.0		8.7	11.6	30.6				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.0	4.0	5.3				
Max Green Setting (Gmax), s		20.0	20.0	45.0		23.0	31.0	45.0				
Max Q Clear Time (g_c+I1), s		2.5	2.3	4.7		3.2	7.1	9.8				
Green Ext Time (p_c), s		0.0	0.0	12.9		0.1	0.4	15.5				

Intersection Summary												
HCM 6th Ctrl Delay			12.0									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.



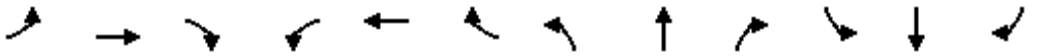
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	8	101	715	12	72	599
Future Volume (veh/h)	8	101	715	12	72	599
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	101	715	12	72	599
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	238	212	1291	22	208	2126
Arrive On Green	0.13	0.13	0.36	0.36	0.12	0.60
Sat Flow, veh/h	1781	1585	3670	60	1781	3647
Grp Volume(v), veh/h	8	101	355	372	72	599
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1860	1781	1777
Q Serve(g_s), s	0.1	2.0	5.3	5.3	1.2	2.7
Cycle Q Clear(g_c), s	0.1	2.0	5.3	5.3	1.2	2.7
Prop In Lane	1.00	1.00		0.03	1.00	
Lane Grp Cap(c), veh/h	238	212	641	671	208	2126
V/C Ratio(X)	0.03	0.48	0.55	0.55	0.35	0.28
Avail Cap(c_a), veh/h	1073	954	2193	2296	1073	4387
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.5	13.3	8.5	8.5	13.5	3.2
Incr Delay (d2), s/veh	0.0	0.6	1.0	1.0	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.3	1.4	0.4	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.5	13.9	9.5	9.5	13.9	3.3
LnGrp LOS	B	B	A	A	B	A
Approach Vol, veh/h	109		727			671
Approach Delay, s/veh	13.8		9.5			4.4
Approach LOS	B		A			A

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				24.8		8.4	7.9	16.9
Change Period (Y+Rc), s				4.9		4.0	4.0	4.9
Max Green Setting (Gmax), s				41.0		20.0	20.0	41.0
Max Q Clear Time (g_c+I1), s				4.7		4.0	3.2	7.3
Green Ext Time (p_c), s				2.7		0.2	0.1	4.7

Intersection Summary			
HCM 6th Ctrl Delay		7.5	
HCM 6th LOS		A	

Notes

User approved pedestrian interval to be less than phase max green.



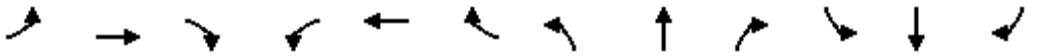
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	5	2	17	2	34	6	1696	29	14	1372	38
Future Volume (veh/h)	9	5	2	17	2	34	6	1696	29	14	1372	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	5	2	17	2	34	6	1696	29	14	1372	38
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	35	19	47	108	13	107	19	2416	41	41	2445	1091
Arrive On Green	0.03	0.03	0.03	0.07	0.07	0.07	0.01	0.68	0.68	0.02	0.69	0.69
Sat Flow, veh/h	1165	647	1585	1602	188	1585	1781	3575	61	1781	3554	1585
Grp Volume(v), veh/h	14	0	2	19	0	34	6	841	884	14	1372	38
Grp Sat Flow(s),veh/h/ln	1812	0	1585	1790	0	1585	1781	1777	1859	1781	1777	1585
Q Serve(g_s), s	0.6	0.0	0.1	0.8	0.0	1.7	0.3	24.7	24.9	0.7	16.6	0.6
Cycle Q Clear(g_c), s	0.6	0.0	0.1	0.8	0.0	1.7	0.3	24.7	24.9	0.7	16.6	0.6
Prop In Lane	0.64		1.00	0.89		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	54	0	47	120	0	107	19	1201	1256	41	2445	1091
V/C Ratio(X)	0.26	0.00	0.04	0.16	0.00	0.32	0.31	0.70	0.70	0.34	0.56	0.03
Avail Cap(c_a), veh/h	428	0	374	422	0	374	420	1447	1514	420	2977	1328
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.2	0.0	40.0	37.3	0.0	37.7	41.6	8.5	8.5	40.8	6.7	4.2
Incr Delay (d2), s/veh	0.9	0.0	0.1	0.2	0.0	0.6	3.3	2.3	2.2	1.8	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.4	0.0	0.7	0.1	7.6	8.0	0.3	4.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.2	0.0	40.1	37.5	0.0	38.3	44.9	10.7	10.7	42.5	7.2	4.3
LnGrp LOS	D	A	D	D	A	D	D	B	B	D	A	A
Approach Vol, veh/h		16			53			1731			1424	
Approach Delay, s/veh		41.0			38.0			10.8			7.5	
Approach LOS		D			D			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.0	62.6		6.5	4.9	63.6		9.7				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	20.0	69.0		20.0	20.0	71.0		20.0				
Max Q Clear Time (g_c+I1), s	2.7	26.9		2.6	2.3	18.6		3.7				
Green Ext Time (p_c), s	0.0	30.4		0.0	0.0	24.4		0.1				

Intersection Summary	
HCM 6th Ctrl Delay	9.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



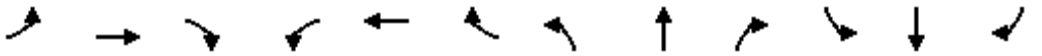
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	25	36	116	30	136	31	1580	39	108	1201	37
Future Volume (veh/h)	62	25	36	116	30	136	31	1580	39	108	1201	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	25	36	116	30	136	31	1580	39	108	1201	37
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	153	59	86	250	41	184	61	1865	46	137	2002	62
Arrive On Green	0.09	0.09	0.09	0.14	0.14	0.14	0.03	0.53	0.53	0.08	0.57	0.57
Sat Flow, veh/h	1781	693	998	1781	289	1311	1781	3543	87	1781	3518	108
Grp Volume(v), veh/h	62	0	61	116	0	166	31	791	828	108	606	632
Grp Sat Flow(s),veh/h/ln	1781	0	1691	1781	0	1601	1781	1777	1854	1781	1777	1850
Q Serve(g_s), s	3.3	0.0	3.5	6.1	0.0	10.1	1.7	38.6	38.9	6.1	22.7	22.7
Cycle Q Clear(g_c), s	3.3	0.0	3.5	6.1	0.0	10.1	1.7	38.6	38.9	6.1	22.7	22.7
Prop In Lane	1.00		0.59	1.00		0.82	1.00		0.05	1.00		0.06
Lane Grp Cap(c), veh/h	153	0	145	250	0	225	61	935	976	137	1011	1052
V/C Ratio(X)	0.41	0.00	0.42	0.46	0.00	0.74	0.51	0.85	0.85	0.79	0.60	0.60
Avail Cap(c_a), veh/h	280	0	266	438	0	394	280	1009	1053	438	1011	1052
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.0	0.0	44.1	40.1	0.0	41.9	48.2	20.5	20.6	46.1	14.3	14.3
Incr Delay (d2), s/veh	1.5	0.0	1.7	1.1	0.0	4.0	2.4	7.2	7.1	3.8	1.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	1.5	2.8	0.0	4.3	0.8	16.0	16.7	2.7	8.3	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.5	0.0	45.7	41.3	0.0	45.9	50.6	27.8	27.7	49.9	15.5	15.5
LnGrp LOS	D	A	D	D	A	D	D	C	C	D	B	B
Approach Vol, veh/h		123			282			1650			1346	
Approach Delay, s/veh		45.6			44.0			28.2			18.2	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.5	63.1		18.3	11.8	58.8		12.7				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	16.0	57.7		25.0	25.0	57.7		16.0				
Max Q Clear Time (g_c+I1), s	3.7	24.7		12.1	8.1	40.9		5.5				
Green Ext Time (p_c), s	0.0	9.7		0.8	0.2	12.6		0.2				

Intersection Summary			
HCM 6th Ctrl Delay		26.2	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.



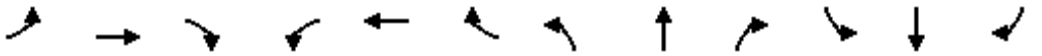
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	33	33	58	17	5	11	1540	13	26	1117	51
Future Volume (veh/h)	46	33	33	58	17	5	11	1540	13	26	1117	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1945	1870	1870	1945	1870	1870	1841	1841	1870	1841	1841
Adj Flow Rate, veh/h	46	33	33	58	17	5	11	1540	13	26	1117	51
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	4	4	2	4	4
Cap, veh/h	70	50	100	80	24	87	15	2921	25	31	2845	130
Arrive On Green	0.06	0.06	0.06	0.06	0.06	0.06	0.01	0.57	0.57	0.02	0.58	0.58
Sat Flow, veh/h	1101	790	1571	1448	424	1571	1781	5140	43	1781	4925	225
Grp Volume(v), veh/h	79	0	33	75	0	5	11	1004	549	26	760	408
Grp Sat Flow(s),veh/h/ln	1890	0	1571	1873	0	1571	1781	1675	1833	1781	1675	1800
Q Serve(g_s), s	2.5	0.0	1.2	2.4	0.0	0.2	0.4	11.1	11.1	0.9	7.4	7.4
Cycle Q Clear(g_c), s	2.5	0.0	1.2	2.4	0.0	0.2	0.4	11.1	11.1	0.9	7.4	7.4
Prop In Lane	0.58		1.00	0.77		1.00	1.00		0.02	1.00		0.12
Lane Grp Cap(c), veh/h	120	0	100	104	0	87	15	1904	1042	31	1935	1040
V/C Ratio(X)	0.66	0.00	0.33	0.72	0.00	0.06	0.74	0.53	0.53	0.83	0.39	0.39
Avail Cap(c_a), veh/h	252	0	209	250	0	209	238	1904	1042	238	1935	1040
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	0.0	26.9	27.9	0.0	26.9	29.7	8.0	8.0	29.4	6.9	6.9
Incr Delay (d2), s/veh	2.3	0.0	0.7	3.5	0.0	0.1	20.4	0.3	0.6	18.2	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.4	1.1	0.0	0.1	0.2	2.8	3.2	0.5	2.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.7	0.0	27.6	31.4	0.0	27.0	50.1	8.3	8.5	47.6	7.5	8.0
LnGrp LOS	C	A	C	C	A	C	D	A	A	D	A	A
Approach Vol, veh/h		112			80			1564			1194	
Approach Delay, s/veh		29.1			31.1			8.7			8.6	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		7.3	4.5	40.4		7.8	5.1	39.8				
Change Period (Y+Rc), s		4.0	4.0	5.7		4.0	4.0	5.7				
Max Green Setting (Gmax), s		8.0	8.0	18.3		8.0	8.0	18.3				
Max Q Clear Time (g_c+I1), s		4.4	2.4	9.4		4.5	2.9	13.1				
Green Ext Time (p_c), s		0.0	0.0	7.4		0.1	0.0	4.9				

Intersection Summary												
HCM 6th Ctrl Delay			10.0									
HCM 6th LOS			B									

Notes

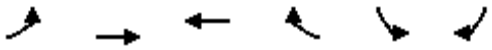
User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	0	10	59	0	1	89	1553	137	9	1140	4
Future Volume (vph)	15	0	10	59	0	1	89	1553	137	9	1140	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0	4.0	5.7		4.0	5.7	
Lane Util. Factor	1.00		1.00	1.00		1.00	1.00	0.91		1.00	0.91	
Frpb, ped/bikes	1.00		0.95	1.00		0.97	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00	
Frt	1.00		0.85	1.00		0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95		1.00	0.95		1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770		1498	1770		1529	1770	5012		1770	5082	
Flt Permitted	0.95		1.00	0.95		1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770		1498	1770		1529	1770	5012		1770	5082	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	15	0	10	59	0	1	89	1553	137	9	1140	4
RTOR Reduction (vph)	0	0	10	0	0	1	0	10	0	0	1	0
Lane Group Flow (vph)	15	0	0	59	0	0	89	1680	0	9	1143	0
Confl. Peds. (#/hr)	4		4	4		4	4		4	4		4
Confl. Bikes (#/hr)			2			2			2			2
Turn Type	Prot		Perm	Prot		Perm	Prot	NA		Prot	NA	
Protected Phases	5			6			3	8		7	4	
Permitted Phases			5			6						
Actuated Green, G (s)	2.3		2.3	4.3		4.3	5.8	31.6		1.1	26.9	
Effective Green, g (s)	2.3		2.3	4.3		4.3	5.8	31.6		1.1	26.9	
Actuated g/C Ratio	0.04		0.04	0.07		0.07	0.10	0.53		0.02	0.45	
Clearance Time (s)	4.0		4.0	4.0		4.0	4.0	5.7		4.0	5.7	
Vehicle Extension (s)	2.0		2.0	2.0		2.0	2.0	4.3		2.0	4.3	
Lane Grp Cap (vph)	67		57	126		109	171	2639		32	2278	
v/s Ratio Prot	c0.01			c0.03			c0.05	c0.34		0.01	0.22	
v/s Ratio Perm			0.00			0.00						
v/c Ratio	0.22		0.01	0.47		0.00	0.52	0.64		0.28	0.50	
Uniform Delay, d1	28.0		27.8	26.8		25.9	25.8	10.1		29.1	11.8	
Progression Factor	1.00		1.00	1.00		1.00	1.00	1.00		1.58	0.43	
Incremental Delay, d2	0.6		0.0	1.0		0.0	1.3	0.6		1.7	0.8	
Delay (s)	28.6		27.8	27.8		25.9	27.1	10.7		47.7	5.8	
Level of Service	C		C	C		C	C	B		D	A	
Approach Delay (s)		28.3			27.7			11.5			6.1	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	19.7
Intersection Capacity Utilization	51.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



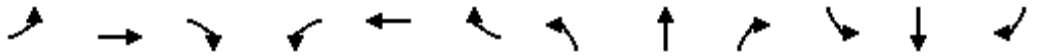
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	50	265	415	183	46	23
Future Volume (veh/h)	50	265	415	183	46	23
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	50	265	415	183	46	23
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	181	2121	1299	579	180	161
Arrive On Green	0.10	0.60	0.37	0.37	0.10	0.10
Sat Flow, veh/h	1781	3647	3647	1585	1781	1585
Grp Volume(v), veh/h	50	265	415	183	46	23
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1781	1585
Q Serve(g_s), s	0.8	1.0	2.6	2.6	0.7	0.4
Cycle Q Clear(g_c), s	0.8	1.0	2.6	2.6	0.7	0.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	181	2121	1299	579	180	161
V/C Ratio(X)	0.28	0.12	0.32	0.32	0.25	0.14
Avail Cap(c_a), veh/h	1156	4612	4612	2057	1156	1028
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.8	2.7	7.0	7.0	12.8	12.6
Incr Delay (d2), s/veh	0.3	0.1	0.3	0.7	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.1	0.7	0.6	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.1	2.8	7.3	7.7	13.1	12.8
LnGrp LOS	B	A	A	A	B	B
Approach Vol, veh/h		315	598		69	
Approach Delay, s/veh		4.4	7.5		13.0	
Approach LOS		A	A		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			23.7		7.1	7.1	16.6
Change Period (Y+Rc), s			5.3		4.0	4.0	5.3
Max Green Setting (Gmax), s			40.0		20.0	20.0	40.0
Max Q Clear Time (g_c+I1), s			3.0		2.7	2.8	4.6
Green Ext Time (p_c), s			2.7		0.1	0.1	6.7

Intersection Summary	
HCM 6th Ctrl Delay	6.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	474	345	54	222	11	641	510	80	10	418	74
Future Volume (veh/h)	68	474	345	54	222	11	641	510	80	10	418	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	474	0	54	222	0	641	510	0	10	418	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	103	627		93	606		692	1861		27	765	
Arrive On Green	0.06	0.18	0.00	0.05	0.17	0.00	0.39	0.52	0.00	0.01	0.15	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	5274	0
Grp Volume(v), veh/h	68	474	0	54	222	0	641	510	0	10	418	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1702	0
Q Serve(g_s), s	3.0	10.3	0.0	2.4	4.5	0.0	28.0	6.5	0.0	0.5	6.2	0.0
Cycle Q Clear(g_c), s	3.0	10.3	0.0	2.4	4.5	0.0	28.0	6.5	0.0	0.5	6.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	103	627		93	606		692	1861		27	765	
V/C Ratio(X)	0.66	0.76		0.58	0.37		0.93	0.27		0.38	0.55	
Avail Cap(c_a), veh/h	437	872		437	1090		1115	1861		437	2193	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.6	31.9	0.0	37.8	29.9	0.0	23.8	10.8	0.0	39.8	32.1	0.0
Incr Delay (d2), s/veh	2.7	3.5	0.0	2.2	0.8	0.0	6.0	0.2	0.0	3.2	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	4.6	0.0	1.1	1.9	0.0	12.1	2.4	0.0	0.2	2.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.3	35.3	0.0	39.9	30.7	0.0	29.8	11.0	0.0	43.0	33.3	0.0
LnGrp LOS	D	D		D	C		C	B		D	C	
Approach Vol, veh/h		542	A		276	A		1151	A		428	A
Approach Delay, s/veh		36.0			32.5			21.4			33.5	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	20.1	35.7	17.5	8.7	19.6	5.2	48.0
Change Period (Y+Rc), s	4.0	5.7	4.0	5.3	4.0	* 5.7	4.0	5.3
Max Green Setting (Gmax), s	20.0	20.0	51.0	35.0	20.0	* 25	20.0	35.0
Max Q Clear Time (g_c+I1), s	4.4	12.3	30.0	8.2	5.0	6.5	2.5	8.5
Green Ext Time (p_c), s	0.1	2.0	1.7	4.0	0.1	1.7	0.0	5.0

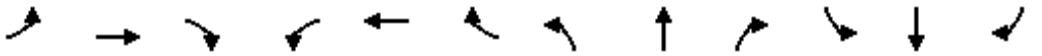
Intersection Summary	
HCM 6th Ctrl Delay	28.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	32	40	47	10	28	14	1340	61	66	513	6
Future Volume (veh/h)	14	32	40	47	10	28	14	1340	61	66	513	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	32	40	47	10	0	14	1340	61	66	513	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	108	117	129	177	24		490	2174	99	84	1321	
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.00	0.28	0.63	0.63	0.05	0.37	0.00
Sat Flow, veh/h	366	1440	1585	825	301	1585	1781	3462	157	1781	3647	0
Grp Volume(v), veh/h	46	0	40	57	0	0	14	687	714	66	513	0
Grp Sat Flow(s),veh/h/ln	1806	0	1585	1126	0	1585	1781	1777	1842	1781	1777	0
Q Serve(g_s), s	0.0	0.0	1.4	1.9	0.0	0.0	0.3	14.1	14.1	2.2	6.4	0.0
Cycle Q Clear(g_c), s	1.4	0.0	1.4	3.3	0.0	0.0	0.3	14.1	14.1	2.2	6.4	0.0
Prop In Lane	0.30		1.00	0.82		1.00	1.00		0.09	1.00		0.00
Lane Grp Cap(c), veh/h	225	0	129	201	0		490	1116	1157	84	1321	
V/C Ratio(X)	0.20	0.00	0.31	0.28	0.00		0.03	0.62	0.62	0.79	0.39	
Avail Cap(c_a), veh/h	401	0	293	346	0		490	1116	1157	356	1321	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.0	0.0	26.0	27.1	0.0	0.0	15.9	6.8	6.8	28.3	13.8	0.0
Incr Delay (d2), s/veh	0.3	0.0	1.0	0.6	0.0	0.0	0.0	1.2	1.1	5.9	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.5	0.8	0.0	0.0	0.1	3.3	3.4	1.0	2.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.3	0.0	27.0	27.7	0.0	0.0	15.9	7.9	7.9	34.2	14.7	0.0
LnGrp LOS	C	A	C	C	A		B	A	A	C	B	
Approach Vol, veh/h		86			57	A		1415			579	A
Approach Delay, s/veh		26.6			27.7			8.0			16.9	
Approach LOS		C			C			A			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.8	22.2	28.0		9.8	6.8	43.4				
Change Period (Y+Rc), s		4.9	5.7	* 5.7		4.9	4.0	5.7				
Max Green Setting (Gmax), s		11.1	12.0	* 22		11.1	12.0	22.3				
Max Q Clear Time (g_c+I1), s		5.3	2.3	8.4		3.4	4.2	16.1				
Green Ext Time (p_c), s		0.0	0.0	2.6		0.1	0.0	4.0				

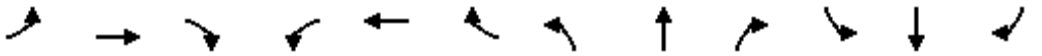
Intersection Summary	
HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	4	6	8	5	13	1	1389	35	32	506	6
Future Volume (veh/h)	12	4	6	8	5	13	1	1389	35	32	506	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	4	6	8	5	13	1	1389	35	32	506	6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	70	13	80	65	23	80	2	2744	69	40	2864	34
Arrive On Green	0.05	0.05	0.05	0.05	0.05	0.05	0.00	0.77	0.77	0.02	0.80	0.80
Sat Flow, veh/h	10	265	1585	6	458	1585	1781	3542	89	1781	3597	43
Grp Volume(v), veh/h	16	0	6	13	0	13	1	696	728	32	250	262
Grp Sat Flow(s),veh/h/ln	275	0	1585	464	0	1585	1781	1777	1854	1781	1777	1863
Q Serve(g_s), s	0.0	0.0	0.3	0.0	0.0	0.7	0.1	13.1	13.1	1.6	3.0	3.0
Cycle Q Clear(g_c), s	4.6	0.0	0.3	4.6	0.0	0.7	0.1	13.1	13.1	1.6	3.0	3.0
Prop In Lane	0.75		1.00	0.62		1.00	1.00		0.05	1.00		0.02
Lane Grp Cap(c), veh/h	84	0	80	88	0	80	2	1377	1437	40	1415	1483
V/C Ratio(X)	0.19	0.00	0.07	0.15	0.00	0.16	0.51	0.51	0.51	0.81	0.18	0.18
Avail Cap(c_a), veh/h	439	0	458	458	0	458	396	1377	1437	396	1415	1483
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.79	0.79	0.79	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	0.0	40.7	40.9	0.0	40.9	44.9	3.8	3.8	43.8	2.2	2.2
Incr Delay (d2), s/veh	0.4	0.0	0.1	0.3	0.0	0.3	48.4	0.4	0.4	13.3	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.1	0.3	0.0	0.3	0.0	2.8	2.9	0.8	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.9	0.0	40.9	41.2	0.0	41.2	93.3	4.1	4.1	57.1	2.4	2.4
LnGrp LOS	D	A	D	D	A	D	F	A	A	E	A	A
Approach Vol, veh/h		22			26			1425			544	
Approach Delay, s/veh		41.6			41.2			4.2			5.7	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.1	77.3		8.6	6.0	75.4		8.6				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	30.3		26.0	20.0	30.3		26.0				
Max Q Clear Time (g_c+I1), s	2.1	5.0		6.6	3.6	15.1		6.6				
Green Ext Time (p_c), s	0.0	3.4		0.0	0.0	9.2		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		5.5	
HCM 6th LOS		A	

Notes

User approved pedestrian interval to be less than phase max green.



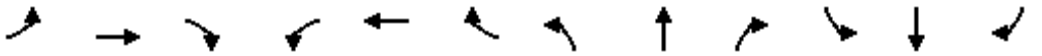
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	62	121	1340	25	68	478
Future Volume (veh/h)	62	121	1340	25	68	478
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	121	1340	25	68	478
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	177	157	2495	47	88	2818
Arrive On Green	0.10	0.10	0.70	0.70	0.10	1.00
Sat Flow, veh/h	1781	1585	3662	67	1781	3647
Grp Volume(v), veh/h	62	121	667	698	68	478
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1858	1781	1777
Q Serve(g_s), s	2.9	6.7	16.3	16.3	3.4	0.0
Cycle Q Clear(g_c), s	2.9	6.7	16.3	16.3	3.4	0.0
Prop In Lane	1.00	1.00		0.04	1.00	
Lane Grp Cap(c), veh/h	177	157	1242	1299	88	2818
V/C Ratio(X)	0.35	0.77	0.54	0.54	0.77	0.17
Avail Cap(c_a), veh/h	396	352	1242	1299	396	2818
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.99	0.99
Uniform Delay (d), s/veh	37.8	39.5	6.5	6.5	40.1	0.0
Incr Delay (d2), s/veh	0.4	3.0	0.5	0.5	5.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	5.9	5.1	5.4	1.5	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.3	42.5	7.1	7.0	45.3	0.1
LnGrp LOS	D	D	A	A	D	A
Approach Vol, veh/h	183		1365			546
Approach Delay, s/veh	41.1		7.0			5.8
Approach LOS	D		A			A

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		77.1		12.9	8.4	68.6
Change Period (Y+Rc), s		5.7		4.0	4.0	5.7
Max Green Setting (Gmax), s		60.3		20.0	20.0	36.3
Max Q Clear Time (g_c+I1), s		2.0		8.7	5.4	18.3
Green Ext Time (p_c), s		3.1		0.3	0.1	8.3

Intersection Summary	
HCM 6th Ctrl Delay	9.7
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

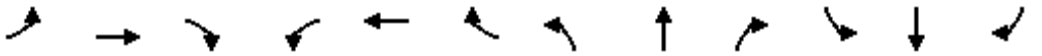


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	197	5	207	1	1	1	237	1139	1	5	1176	370
Future Volume (veh/h)	197	5	207	1	1	1	237	1139	1	5	1176	370
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1870	1856	1870	1870	1870	1664	1708	1723	2067	2007	2052
Adj Flow Rate, veh/h	201	0	207	1	1	1	237	1139	1	5	1176	370
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	2	3	2	2	2	6	3	2	2	6	3
Cap, veh/h	568	0	248	4	4	4	269	2025	911	20	1772	808
Arrive On Green	0.16	0.00	0.16	0.01	0.01	0.01	0.17	0.62	0.62	0.01	0.46	0.46
Sat Flow, veh/h	3534	0	1543	579	579	579	1585	3246	1460	1968	3813	1739
Grp Volume(v), veh/h	201	0	207	3	0	0	237	1139	1	5	1176	370
Grp Sat Flow(s),veh/h/ln	1767	0	1543	1737	0	0	1585	1623	1460	1968	1906	1739
Q Serve(g_s), s	5.1	0.0	13.2	0.2	0.0	0.0	14.8	20.7	0.0	0.3	24.3	14.7
Cycle Q Clear(g_c), s	5.1	0.0	13.2	0.2	0.0	0.0	14.8	20.7	0.0	0.3	24.3	14.7
Prop In Lane	1.00		1.00	0.33		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	568	0	248	12	0	0	269	2025	911	20	1772	808
V/C Ratio(X)	0.35	0.00	0.83	0.24	0.00	0.00	0.88	0.56	0.00	0.25	0.66	0.46
Avail Cap(c_a), veh/h	695	0	304	342	0	0	483	2025	911	387	1913	872
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.0	0.0	41.3	50.2	0.0	0.0	41.2	11.1	7.2	49.9	21.0	18.5
Incr Delay (d2), s/veh	0.6	0.0	16.9	3.6	0.0	0.0	3.8	0.5	0.0	2.3	1.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	6.1	0.1	0.0	0.0	5.7	5.9	0.0	0.1	9.7	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.5	0.0	58.2	53.8	0.0	0.0	45.0	11.6	7.2	52.2	22.0	19.1
LnGrp LOS	D	A	E	D	A	A	D	B	A	D	C	B
Approach Vol, veh/h		408			3			1377			1551	
Approach Delay, s/veh		48.5			53.8			17.3			21.4	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	69.8		22.0	21.2	53.6		4.7				
Change Period (Y+Rc), s	4.0	6.4		5.7	4.0	6.4		4.0				
Max Green Setting (Gmax), s	20.0	51.0		20.0	31.0	51.0		20.0				
Max Q Clear Time (g_c+I1), s	2.3	22.7		15.2	16.8	26.3		2.2				
Green Ext Time (p_c), s	0.0	21.4		1.1	0.4	21.0		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		23.1
HCM 6th LOS		C

Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



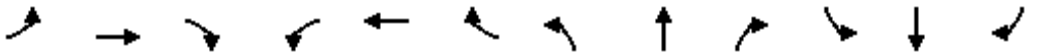
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	5	94	1	5	1	37	1321	5	4	1351	17
Future Volume (veh/h)	51	5	94	1	5	1	37	1321	5	4	1351	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	5	94	1	5	1	37	1321	5	4	1351	9
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	185	18	180	5	23	23	80	2052	915	11	1916	854
Arrive On Green	0.11	0.11	0.11	0.01	0.01	0.01	0.04	0.58	0.58	0.01	0.54	0.54
Sat Flow, veh/h	1629	160	1585	309	1546	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	56	0	94	6	0	1	37	1321	5	4	1351	9
Grp Sat Flow(s),veh/h/ln	1789	0	1585	1855	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.9	0.0	3.7	0.2	0.0	0.0	1.3	16.5	0.1	0.1	18.6	0.2
Cycle Q Clear(g_c), s	1.9	0.0	3.7	0.2	0.0	0.0	1.3	16.5	0.1	0.1	18.6	0.2
Prop In Lane	0.91		1.00	0.17		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	203	0	180	27	0	23	80	2052	915	11	1916	854
V/C Ratio(X)	0.28	0.00	0.52	0.22	0.00	0.04	0.46	0.64	0.01	0.35	0.71	0.01
Avail Cap(c_a), veh/h	542	0	481	562	0	481	540	3502	1562	540	2855	1274
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.8	0.0	27.6	32.1	0.0	32.0	30.7	9.4	5.9	32.6	11.3	7.0
Incr Delay (d2), s/veh	0.3	0.0	0.9	1.5	0.0	0.3	1.6	0.5	0.0	6.6	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.4	0.1	0.0	0.0	0.6	5.3	0.0	0.1	6.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.0	0.0	28.4	33.6	0.0	32.3	32.3	9.9	5.9	39.3	12.1	7.1
LnGrp LOS	C	A	C	C	A	C	C	A	A	D	B	A
Approach Vol, veh/h		150			7			1363			1364	
Approach Delay, s/veh		27.9			33.5			10.5			12.1	
Approach LOS		C			C			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.1	7.0	42.0		5.0	4.4	44.5				
Change Period (Y+Rc), s		4.6	4.0	6.4		4.0	4.0	6.4				
Max Green Setting (Gmax), s		20.0	20.0	53.0		20.0	20.0	65.0				
Max Q Clear Time (g_c+I1), s		5.7	3.3	20.6		2.2	2.1	18.5				
Green Ext Time (p_c), s		0.3	0.0	14.9		0.0	0.0	16.5				

Intersection Summary	
HCM 6th Ctrl Delay	12.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	1	304	12	11	3	438	1215	18	7	1204	236
Future Volume (veh/h)	137	1	304	12	11	3	438	1215	18	7	1204	236
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	138	0	45	8	17	0	438	1215	11	7	1204	131
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	342	0	152	91	191	0	474	2234	996	22	1915	595
Arrive On Green	0.10	0.00	0.10	0.05	0.05	0.00	0.27	0.63	0.63	0.01	0.38	0.38
Sat Flow, veh/h	3563	0	1585	1781	3741	0	1781	3554	1585	1781	5106	1585
Grp Volume(v), veh/h	138	0	45	8	17	0	438	1215	11	7	1204	131
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	1870	0	1781	1777	1585	1781	1702	1585
Q Serve(g_s), s	3.4	0.0	2.5	0.4	0.4	0.0	22.3	17.9	0.2	0.4	17.9	5.2
Cycle Q Clear(g_c), s	3.4	0.0	2.5	0.4	0.4	0.0	22.3	17.9	0.2	0.4	17.9	5.2
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	342	0	152	91	191	0	474	2234	996	22	1915	595
V/C Ratio(X)	0.40	0.00	0.30	0.09	0.09	0.00	0.92	0.54	0.01	0.32	0.63	0.22
Avail Cap(c_a), veh/h	1992	0	886	192	402	0	556	2244	1001	153	2032	631
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	0.0	39.1	42.0	42.0	0.0	33.2	9.7	6.5	45.5	23.8	19.8
Incr Delay (d2), s/veh	1.6	0.0	2.2	0.2	0.1	0.0	18.4	0.6	0.0	3.0	0.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	1.0	0.2	0.2	0.0	11.2	5.6	0.1	0.2	6.5	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.1	0.0	41.3	42.2	42.1	0.0	51.7	10.3	6.5	48.5	24.5	20.1
LnGrp LOS	D	A	D	D	D	A	D	B	A	D	C	C
Approach Vol, veh/h		183			25			1664			1342	
Approach Delay, s/veh		41.1			42.1			21.2			24.2	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	64.8		14.2	28.7	41.3		8.8				
Change Period (Y+Rc), s	4.0	* 6.4		5.3	4.0	6.4		4.0				
Max Green Setting (Gmax), s	8.0	* 59		52.0	29.0	37.0		10.0				
Max Q Clear Time (g_c+I1), s	2.4	19.9		5.4	24.3	19.9		2.4				
Green Ext Time (p_c), s	0.0	33.7		1.6	0.5	14.9		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	23.7	
HCM 6th LOS	C	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	14	117	25	4	23	106	1748	92	62	1304	35
Future Volume (veh/h)	127	14	117	25	4	23	106	1748	92	62	1304	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	137	0	117	25	4	23	106	1748	92	62	1304	35
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	323	0	144	91	15	94	128	2223	690	509	3374	1047
Arrive On Green	0.09	0.00	0.09	0.06	0.06	0.06	0.07	0.44	0.44	0.29	0.66	0.66
Sat Flow, veh/h	3563	0	1585	1546	247	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	137	0	117	29	0	23	106	1748	92	62	1304	35
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1793	0	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	5.5	0.0	10.9	2.3	0.0	2.1	8.8	44.1	5.2	3.9	17.5	1.1
Cycle Q Clear(g_c), s	5.5	0.0	10.9	2.3	0.0	2.1	8.8	44.1	5.2	3.9	17.5	1.1
Prop In Lane	1.00		1.00	0.86		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	323	0	144	106	0	94	128	2223	690	509	3374	1047
V/C Ratio(X)	0.42	0.00	0.82	0.27	0.00	0.25	0.83	0.79	0.13	0.12	0.39	0.03
Avail Cap(c_a), veh/h	1093	0	486	120	0	106	190	2223	690	509	3374	1047
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.5	0.0	67.0	67.5	0.0	67.4	68.7	36.4	25.4	39.6	11.6	8.8
Incr Delay (d2), s/veh	0.3	0.0	4.2	0.5	0.0	0.5	11.3	2.9	0.4	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	4.6	1.1	0.0	0.9	4.3	18.2	2.0	1.7	6.2	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.8	0.0	71.2	68.0	0.0	67.9	80.0	39.3	25.8	39.7	11.8	8.9
LnGrp LOS	E	A	E	E	A	E	E	D	C	D	B	A
Approach Vol, veh/h		254			52			1946			1401	
Approach Delay, s/veh		67.8			68.0			40.8			12.9	
Approach LOS		E			E			D			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	48.6	71.0		17.6	14.7	104.8		12.9				
Change Period (Y+Rc), s	5.7	* 5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	11.0	* 65		46.0	16.0	60.3		10.0				
Max Q Clear Time (g_c+I1), s	5.9	46.1		12.9	10.8	19.5		4.3				
Green Ext Time (p_c), s	0.0	15.7		0.7	0.1	19.4		0.0				

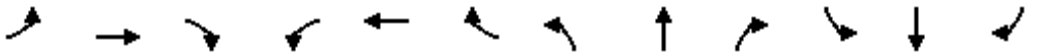
Intersection Summary		
HCM 6th Ctrl Delay		32.4
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



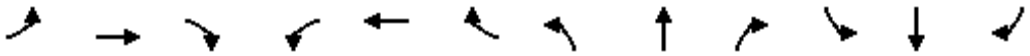
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	411	101	321	58	110	96	192	1924	39	9	1378	294
Future Volume (veh/h)	411	101	321	58	110	96	192	1924	39	9	1378	294
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.71	1.00		0.87	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	411	101	182	58	110	14	192	1924	21	9	1378	187
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	309	364	217	97	142	104	207	3089	929	26	2857	852
Arrive On Green	0.17	0.19	0.19	0.05	0.08	0.08	0.06	0.61	0.61	0.01	0.56	0.56
Sat Flow, veh/h	1781	1870	1118	1781	1870	1380	3456	5106	1535	1781	5106	1523
Grp Volume(v), veh/h	411	101	182	58	110	14	192	1924	21	9	1378	187
Grp Sat Flow(s),veh/h/ln	1781	1870	1118	1781	1870	1380	1728	1702	1535	1781	1702	1523
Q Serve(g_s), s	26.0	6.9	23.5	4.8	8.7	1.4	8.3	35.8	0.8	0.8	24.4	9.2
Cycle Q Clear(g_c), s	26.0	6.9	23.5	4.8	8.7	1.4	8.3	35.8	0.8	0.8	24.4	9.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	309	364	217	97	142	104	207	3089	929	26	2857	852
V/C Ratio(X)	1.33	0.28	0.84	0.60	0.78	0.13	0.93	0.62	0.02	0.35	0.48	0.22
Avail Cap(c_a), veh/h	309	798	477	119	599	442	207	3089	929	95	2857	852
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.0	51.5	58.1	69.3	68.1	64.7	70.2	18.8	11.9	73.2	19.9	16.6
Incr Delay (d2), s/veh	169.6	0.8	14.3	5.7	13.4	0.9	42.3	1.0	0.0	7.7	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	26.0	3.3	7.4	2.3	4.6	0.5	4.8	13.3	0.3	0.4	9.2	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	231.6	52.2	72.5	75.0	81.5	65.6	112.5	19.7	11.9	80.9	20.2	16.8
LnGrp LOS	F	D	E	E	F	E	F	B	B	F	C	B
Approach Vol, veh/h		694			182			2137			1574	
Approach Delay, s/veh		163.8			78.2			28.0			20.1	
Approach LOS		F			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	96.8	12.2	34.9	13.0	89.9	30.0	17.1
Change Period (Y+Rc), s	4.0	6.0	4.0	5.7	4.0	6.0	4.0	5.7
Max Green Setting (Gmax), s	8.0	48.3	10.0	64.0	9.0	47.3	26.0	48.0
Max Q Clear Time (g_c+I1), s	2.8	37.8	6.8	25.5	10.3	26.4	28.0	10.7
Green Ext Time (p_c), s	0.0	9.0	0.0	2.9	0.0	13.2	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	47.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.



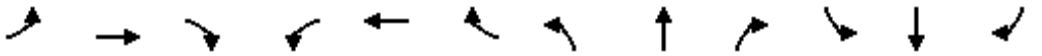
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	291	19	24	563	8	25	2	27	14	5	10
Future Volume (veh/h)	1	291	19	24	563	8	25	2	27	14	5	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	291	19	24	563	8	25	2	27	14	5	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	4	1302	85	93	1558	22	70	6	75	46	16	33
Arrive On Green	0.00	0.38	0.38	0.05	0.43	0.43	0.09	0.09	0.09	0.05	0.05	0.05
Sat Flow, veh/h	1781	3388	220	1781	3587	51	778	62	840	831	297	594
Grp Volume(v), veh/h	1	152	158	24	279	292	54	0	0	29	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1831	1781	1777	1861	1680	0	0	1722	0	0
Q Serve(g_s), s	0.0	2.4	2.4	0.5	4.3	4.4	1.2	0.0	0.0	0.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	2.4	2.4	0.5	4.3	4.4	1.2	0.0	0.0	0.7	0.0	0.0
Prop In Lane	1.00		0.12	1.00		0.03	0.46		0.50	0.48		0.34
Lane Grp Cap(c), veh/h	4	683	704	93	772	808	150	0	0	94	0	0
V/C Ratio(X)	0.23	0.22	0.22	0.26	0.36	0.36	0.36	0.00	0.00	0.31	0.00	0.00
Avail Cap(c_a), veh/h	863	1291	1330	863	1291	1352	936	0	0	834	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.6	8.6	8.6	18.8	7.8	7.8	17.7	0.0	0.0	18.8	0.0	0.0
Incr Delay (d2), s/veh	9.3	0.4	0.4	0.5	0.6	0.6	0.5	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.7	0.7	0.2	1.1	1.2	0.4	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.8	8.9	8.9	19.3	8.5	8.4	18.2	0.0	0.0	19.4	0.0	0.0
LnGrp LOS	C	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		311			595			54			29	
Approach Delay, s/veh		9.0			8.9			18.2			19.4	
Approach LOS		A			A			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		7.7	6.2	21.2		6.3	4.1	23.2				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.0	4.0	5.3				
Max Green Setting (Gmax), s		23.0	20.0	30.0		20.0	20.0	30.0				
Max Q Clear Time (g_c+I1), s		3.2	2.5	4.4		2.7	2.0	6.4				
Green Ext Time (p_c), s		0.1	0.0	6.4		0.0	0.0	11.6				

Intersection Summary	
HCM 6th Ctrl Delay	9.7
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	262	3	14	450	14	7	0	21	63	2	353
Future Volume (veh/h)	73	262	3	14	450	14	7	0	21	63	2	353
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	262	3	14	450	14	7	0	21	63	2	353
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	161	956	427	44	724	323	24	0	71	461	15	422
Arrive On Green	0.09	0.27	0.27	0.02	0.20	0.20	0.06	0.00	0.06	0.27	0.27	0.27
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	407	0	1222	1729	55	1585
Grp Volume(v), veh/h	73	262	3	14	450	14	28	0	0	65	0	353
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1630	0	0	1784	0	1585
Q Serve(g_s), s	1.9	2.8	0.1	0.4	5.6	0.3	0.8	0.0	0.0	1.4	0.0	10.2
Cycle Q Clear(g_c), s	1.9	2.8	0.1	0.4	5.6	0.3	0.8	0.0	0.0	1.4	0.0	10.2
Prop In Lane	1.00		1.00	1.00		1.00	0.25		0.75	0.97		1.00
Lane Grp Cap(c), veh/h	161	956	427	44	724	323	95	0	0	475	0	422
V/C Ratio(X)	0.45	0.27	0.01	0.32	0.62	0.04	0.29	0.00	0.00	0.14	0.00	0.84
Avail Cap(c_a), veh/h	913	2186	975	731	2186	975	668	0	0	732	0	650
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.0	14.1	13.0	23.4	17.7	15.6	22.0	0.0	0.0	13.6	0.0	16.9
Incr Delay (d2), s/veh	0.7	0.2	0.0	1.5	1.0	0.1	0.6	0.0	0.0	0.0	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.9	0.0	0.2	2.0	0.1	0.3	0.0	0.0	0.5	0.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.8	14.2	13.1	24.9	18.7	15.7	22.6	0.0	0.0	13.7	0.0	20.2
LnGrp LOS	C	B	B	C	B	B	C	A	A	B	A	C
Approach Vol, veh/h		338			478			28			418	
Approach Delay, s/veh		15.9			18.8			22.6			19.2	
Approach LOS		B			B			C			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		6.8	5.2	18.8		17.9	8.4	15.6				
Change Period (Y+Rc), s		4.0	4.0	5.7		4.9	4.0	5.7				
Max Green Setting (Gmax), s		20.0	20.0	30.0		20.0	25.0	30.0				
Max Q Clear Time (g_c+I1), s		2.8	2.4	4.8		12.2	3.9	7.6				
Green Ext Time (p_c), s		0.0	0.0	1.3		0.8	0.1	2.3				

Intersection Summary												
HCM 6th Ctrl Delay			18.2									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	316	55	311	356	93	138
Future Volume (veh/h)	316	55	311	356	93	138
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	316	55	311	356	93	138
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	802	358	403	1977	340	302
Arrive On Green	0.23	0.23	0.23	0.56	0.19	0.19
Sat Flow, veh/h	3647	1585	1781	3647	1781	1585
Grp Volume(v), veh/h	316	55	311	356	93	138
Grp Sat Flow(s),veh/h/ln	1777	1585	1781	1777	1781	1585
Q Serve(g_s), s	2.9	1.1	6.3	1.9	1.7	3.0
Cycle Q Clear(g_c), s	2.9	1.1	6.3	1.9	1.7	3.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	802	358	403	1977	340	302
V/C Ratio(X)	0.39	0.15	0.77	0.18	0.27	0.46
Avail Cap(c_a), veh/h	3705	1653	929	3705	929	826
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.6	11.9	13.9	4.2	13.3	13.8
Incr Delay (d2), s/veh	0.5	0.3	3.2	0.1	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.3	2.4	0.4	0.6	2.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.1	12.2	17.1	4.3	13.4	14.2
LnGrp LOS	B	B	B	A	B	B
Approach Vol, veh/h	371			667	231	
Approach Delay, s/veh	13.0			10.2	13.9	
Approach LOS	B			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		27.0		11.3	12.7	14.4
Change Period (Y+Rc), s		5.7		4.0	4.0	5.7
Max Green Setting (Gmax), s		40.0		20.0	20.0	40.0
Max Q Clear Time (g_c+I1), s		3.9		5.0	8.3	4.9
Green Ext Time (p_c), s		4.1		0.3	0.7	3.9

Intersection Summary	
HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

Notes

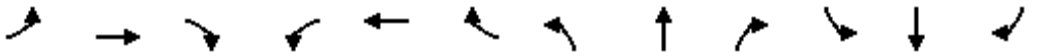
User approved pedestrian interval to be less than phase max green.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	322	10	286	971	445	256
Future Volume (veh/h)	322	10	286	971	445	256
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	322	2	286	674	445	256
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	419	192	821	696	466	1421
Arrive On Green	0.12	0.12	0.44	0.44	0.26	0.76
Sat Flow, veh/h	3456	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	322	2	286	674	445	256
Grp Sat Flow(s),veh/h/ln	1728	1585	1870	1585	1781	1870
Q Serve(g_s), s	7.6	0.1	8.5	34.9	20.7	3.2
Cycle Q Clear(g_c), s	7.6	0.1	8.5	34.9	20.7	3.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	419	192	821	696	466	1421
V/C Ratio(X)	0.77	0.01	0.35	0.97	0.96	0.18
Avail Cap(c_a), veh/h	657	301	822	697	466	1422
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.8	32.5	15.6	23.0	30.6	2.8
Incr Delay (d2), s/veh	3.0	0.0	0.3	26.3	30.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	3.5	17.1	12.5	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.8	32.6	15.9	49.4	61.3	2.9
LnGrp LOS	D	C	B	D	E	A
Approach Vol, veh/h	324		960			701
Approach Delay, s/veh	38.8		39.4			39.9
Approach LOS	D		D			D

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	27.0	42.0			69.0	15.2
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	22.0	37.0			64.0	16.0
Max Q Clear Time (g_c+I1), s	22.7	36.9			5.2	9.6
Green Ext Time (p_c), s	0.0	0.0			1.7	0.6

Intersection Summary		
HCM 6th Ctrl Delay		39.5
HCM 6th LOS		D



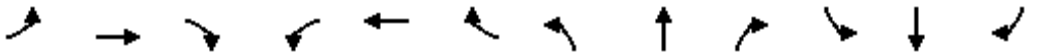
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	398	0	295	0	1835	158	0	873	889
Future Volume (veh/h)	0	0	0	398	0	295	0	1835	158	0	873	889
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				398	0	295	0	1835	0	0	873	0
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				746	0	342	0	2356		0	2356	
Arrive On Green				0.22	0.00	0.22	0.00	0.66	0.00	0.00	0.66	0.00
Sat Flow, veh/h				3456	0	1585	0	3647	1585	0	3647	2790
Grp Volume(v), veh/h				398	0	295	0	1835	0	0	873	0
Grp Sat Flow(s),veh/h/ln				1728	0	1585	0	1777	1585	0	1777	1395
Q Serve(g_s), s				8.9	0.0	15.7	0.0	31.5	0.0	0.0	9.6	0.0
Cycle Q Clear(g_c), s				8.9	0.0	15.7	0.0	31.5	0.0	0.0	9.6	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				746	0	342	0	2356		0	2356	
V/C Ratio(X)				0.53	0.00	0.86	0.00	0.78		0.00	0.37	
Avail Cap(c_a), veh/h				1224	0	561	0	2802		0	2356	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				30.4	0.0	33.1	0.0	10.3	0.0	0.0	6.6	0.0
Incr Delay (d2), s/veh				0.2	0.0	3.9	0.0	1.3	0.0	0.0	0.1	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.7	0.0	6.2	0.0	9.6	0.0	0.0	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.6	0.0	37.0	0.0	11.6	0.0	0.0	6.7	0.0
LnGrp LOS				C	A	D	A	B		A	A	
Approach Vol, veh/h					693			1835	A		873	A
Approach Delay, s/veh					33.3			11.6			6.7	
Approach LOS					C			B			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	63.3		63.3		24.2			
Change Period (Y+Rc), s	5.3		5.3		5.3			
Max Green Setting (Gmax), s	69.0		47.0		31.0			
Max Q Clear Time (g_c+I1), s	33.5		11.6		17.7			
Green Ext Time (p_c), s	24.5		9.4		1.2			

Intersection Summary		
HCM 6th Ctrl Delay	14.8	
HCM 6th LOS	B	

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



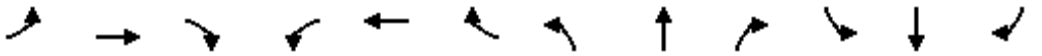
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	395	147	93	0	184	0	1607	126	61	922	0
Future Volume (veh/h)	0	395	147	93	0	184	0	1607	126	61	922	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	0	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	0	395	147	93	0	184	0	1607	126	61	922	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	0	2	0	2	2	2	2	0
Cap, veh/h	0	538	240	225	0	0	0	1886	841	117	2262	0
Arrive On Green	0.00	0.15	0.15	0.07	0.00	0.00	0.00	0.53	0.53	0.07	0.64	0.00
Sat Flow, veh/h	0	3647	1585	3456	93		0	3647	1585	1781	3647	0
Grp Volume(v), veh/h	0	395	147	93	45.0		0	1607	126	61	922	0
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1728	D		0	1777	1585	1781	1777	0
Q Serve(g_s), s	0.0	10.5	8.6	2.6			0.0	38.5	4.0	3.3	12.6	0.0
Cycle Q Clear(g_c), s	0.0	10.5	8.6	2.6			0.0	38.5	4.0	3.3	12.6	0.0
Prop In Lane	0.00		1.00	1.00			0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	538	240	225			0	1886	841	117	2262	0
V/C Ratio(X)	0.00	0.73	0.61	0.41			0.00	0.85	0.15	0.52	0.41	0.00
Avail Cap(c_a), veh/h	0	967	431	696			0	2112	942	359	2262	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00			0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	40.2	39.4	44.6			0.0	20.0	11.9	44.9	8.9	0.0
Incr Delay (d2), s/veh	0.0	1.8	2.3	0.5			0.0	3.3	0.1	1.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.7	3.5	1.1			0.0	14.9	1.3	1.5	4.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	42.0	41.7	45.0			0.0	23.3	12.0	46.2	9.0	0.0
LnGrp LOS	A	D	D	D			A	C	B	D	A	A
Approach Vol, veh/h		542						1733			983	
Approach Delay, s/veh		41.9						22.5			11.3	
Approach LOS		D						C			B	

Timer - Assigned Phs	1	2	3	4		6
Phs Duration (G+Y+Rc), s	10.5	58.0	10.5	20.3		68.5
Change Period (Y+Rc), s	4.0	5.3	4.0	5.3		5.3
Max Green Setting (Gmax), s	20.0	59.0	20.0	27.0		59.0
Max Q Clear Time (g_c+I1), s	5.3	40.5	4.6	12.5		14.6
Green Ext Time (p_c), s	0.0	12.2	0.1	2.5		8.1

Intersection Summary	
HCM 6th Ctrl Delay	23.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



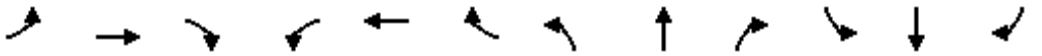
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	504	5	11	412	404	8	41	10	434	15	90
Future Volume (veh/h)	53	504	5	11	412	404	8	41	10	434	15	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	504	5	11	412	404	8	41	10	434	15	90
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	100	1245	555	30	1105	493	24	123	126	496	17	456
Arrive On Green	0.06	0.35	0.35	0.02	0.31	0.31	0.08	0.08	0.08	0.29	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	303	1552	1585	1725	60	1585
Grp Volume(v), veh/h	53	504	5	11	412	404	49	0	10	449	0	90
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1855	0	1585	1784	0	1585
Q Serve(g_s), s	2.0	7.3	0.1	0.4	6.1	15.9	1.7	0.0	0.4	16.2	0.0	2.9
Cycle Q Clear(g_c), s	2.0	7.3	0.1	0.4	6.1	15.9	1.7	0.0	0.4	16.2	0.0	2.9
Prop In Lane	1.00		1.00	1.00		1.00	0.16		1.00	0.97		1.00
Lane Grp Cap(c), veh/h	100	1245	555	30	1105	493	147	0	126	513	0	456
V/C Ratio(X)	0.53	0.40	0.01	0.37	0.37	0.82	0.33	0.00	0.08	0.88	0.00	0.20
Avail Cap(c_a), veh/h	290	1263	563	290	1263	563	989	0	845	951	0	845
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.0	16.6	14.3	32.9	18.1	21.5	29.4	0.0	28.8	22.9	0.0	18.2
Incr Delay (d2), s/veh	1.6	0.2	0.0	2.9	0.2	8.7	0.5	0.0	0.1	1.9	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.6	0.0	0.2	2.2	6.3	0.7	0.0	0.1	6.4	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.7	16.9	14.3	35.7	18.4	30.2	29.9	0.0	28.9	24.8	0.0	18.3
LnGrp LOS	C	B	B	D	B	C	C	A	C	C	A	B
Approach Vol, veh/h		562			827			59			539	
Approach Delay, s/veh		18.3			24.4			29.7			23.7	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	29.7		23.4	7.8	27.0		9.4				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	11.0	24.0		36.0	11.0	24.0		36.0				
Max Q Clear Time (g_c+I1), s	2.4	9.3		18.2	4.0	17.9		3.7				
Green Ext Time (p_c), s	0.0	5.4		1.2	0.0	3.1		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		22.7	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.



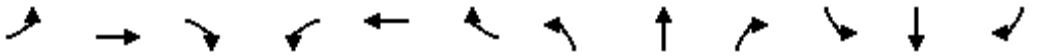
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	969	20	194	876	145	20	100	100	120	50	28
Future Volume (veh/h)	54	969	20	194	876	145	20	100	100	120	50	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	969	20	194	876	145	20	100	100	120	50	28
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	116	1315	587	243	1569	700	176	185	157	176	185	157
Arrive On Green	0.07	0.37	0.37	0.14	0.44	0.44	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	54	969	20	194	876	145	20	100	100	120	50	28
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	2.0	16.5	0.6	7.4	12.7	3.9	0.7	3.5	4.2	4.5	1.7	1.1
Cycle Q Clear(g_c), s	2.0	16.5	0.6	7.4	12.7	3.9	0.7	3.5	4.2	4.5	1.7	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	116	1315	587	243	1569	700	176	185	157	176	185	157
V/C Ratio(X)	0.47	0.74	0.03	0.80	0.56	0.21	0.11	0.54	0.64	0.68	0.27	0.18
Avail Cap(c_a), veh/h	511	2039	909	511	2039	909	511	536	455	501	526	446
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	19.0	14.0	29.2	14.4	12.0	28.6	29.9	30.2	30.3	29.1	28.8
Incr Delay (d2), s/veh	2.9	0.8	0.0	5.9	0.3	0.1	0.3	2.4	4.2	4.6	0.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	6.4	0.2	3.4	4.7	1.3	0.3	1.7	1.7	2.1	0.8	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.3	19.8	14.0	35.1	14.7	12.1	28.9	32.3	34.5	34.9	29.9	29.3
LnGrp LOS	C	B	B	D	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1043			1215			220			198	
Approach Delay, s/veh		20.5			17.7			33.0			32.8	
Approach LOS		C			B			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.2	8.5	36.8		12.2	13.5	31.8				
Change Period (Y+Rc), s		5.3	4.0	6.0		5.3	4.0	6.0				
Max Green Setting (Gmax), s		20.0	20.0	40.0		19.6	20.0	40.0				
Max Q Clear Time (g_c+I1), s		6.2	4.0	14.7		6.5	9.4	18.5				
Green Ext Time (p_c), s		0.7	0.1	7.4		0.5	0.4	7.3				

Intersection Summary												
HCM 6th Ctrl Delay			21.2									
HCM 6th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	676	600	47	41	212	107	48	753	71	150	481	1110
Future Volume (veh/h)	676	600	47	41	212	107	48	753	71	150	481	1110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	676	600	0	41	212	0	48	753	0	150	481	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	756	1032		188	364		207	949		318	1162	
Arrive On Green	0.22	0.29	0.00	0.05	0.10	0.00	0.06	0.27	0.00	0.09	0.33	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	676	600	0	41	212	0	48	753	0	150	481	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	13.7	10.4	0.0	0.8	4.1	0.0	1.0	14.2	0.0	3.0	7.6	0.0
Cycle Q Clear(g_c), s	13.7	10.4	0.0	0.8	4.1	0.0	1.0	14.2	0.0	3.0	7.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	756	1032		188	364		207	949		318	1162	
V/C Ratio(X)	0.89	0.58		0.22	0.58		0.23	0.79		0.47	0.41	
Avail Cap(c_a), veh/h	766	1196		766	1196		1005	1181		766	1196	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.4	21.9	0.0	32.7	30.9	0.0	32.4	24.6	0.0	31.1	18.9	0.0
Incr Delay (d2), s/veh	12.5	0.8	0.0	0.2	2.5	0.0	0.2	3.6	0.0	0.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	3.8	0.0	0.3	1.7	0.0	0.4	5.8	0.0	1.2	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.9	22.6	0.0	32.9	33.5	0.0	32.6	28.2	0.0	31.5	19.3	0.0
LnGrp LOS	D	C		C	C		C	C		C	B	
Approach Vol, veh/h		1276	A		253	A		801	A		631	A
Approach Delay, s/veh		31.8			33.4			28.4			22.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	26.7	8.3	29.3	21.5	13.1	12.4	25.3
Change Period (Y+Rc), s	4.0	5.7	4.0	5.7	5.7	* 5.7	5.7	* 6
Max Green Setting (Gmax), s	16.0	24.3	21.0	24.3	16.0	* 24	16.0	* 24
Max Q Clear Time (g_c+I1), s	2.8	12.4	3.0	9.6	15.7	6.1	5.0	16.2
Green Ext Time (p_c), s	0.0	3.0	0.1	3.1	0.1	1.3	0.2	3.0

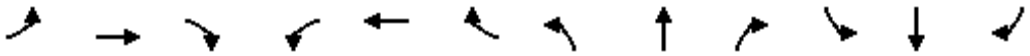
Intersection Summary	
HCM 6th Ctrl Delay	29.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



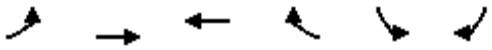
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	624	33	46	232	27	35	196	88	168	129	96
Future Volume (veh/h)	160	624	33	46	232	27	35	196	88	168	129	96
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	160	624	33	46	232	27	35	196	88	168	129	96
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	919	49	99	664	76	81	242	109	215	272	203
Arrive On Green	0.12	0.27	0.27	0.06	0.21	0.21	0.05	0.20	0.20	0.12	0.27	0.27
Sat Flow, veh/h	1781	3433	181	1781	3211	370	1781	1223	549	1781	996	741
Grp Volume(v), veh/h	160	323	334	46	127	132	35	0	284	168	0	225
Grp Sat Flow(s),veh/h/ln	1781	1777	1838	1781	1777	1804	1781	0	1772	1781	0	1737
Q Serve(g_s), s	4.6	8.6	8.6	1.3	3.2	3.3	1.0	0.0	8.1	4.9	0.0	5.7
Cycle Q Clear(g_c), s	4.6	8.6	8.6	1.3	3.2	3.3	1.0	0.0	8.1	4.9	0.0	5.7
Prop In Lane	1.00		0.10	1.00		0.20	1.00		0.31	1.00		0.43
Lane Grp Cap(c), veh/h	207	475	492	99	368	373	81	0	351	215	0	475
V/C Ratio(X)	0.77	0.68	0.68	0.46	0.35	0.35	0.43	0.00	0.81	0.78	0.00	0.47
Avail Cap(c_a), veh/h	537	1014	1049	369	847	860	369	0	491	369	0	481
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.8	17.4	17.4	24.3	18.0	18.0	24.7	0.0	20.3	22.7	0.0	16.1
Incr Delay (d2), s/veh	2.3	2.3	2.2	1.3	0.7	0.8	1.3	0.0	7.4	2.3	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	3.2	3.3	0.5	1.2	1.3	0.4	0.0	3.7	1.9	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.1	19.7	19.6	25.5	18.7	18.8	26.0	0.0	27.8	25.0	0.0	17.0
LnGrp LOS	C	B	B	C	B	B	C	A	C	C	A	B
Approach Vol, veh/h		817			305			319			393	
Approach Delay, s/veh		20.7			19.8			27.6			20.4	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	15.8	7.0	19.9	6.4	19.8	10.2	16.7
Change Period (Y+Rc), s	4.0	5.3	4.0	5.7	4.0	5.3	4.0	5.7
Max Green Setting (Gmax), s	11.0	14.7	11.0	30.3	11.0	14.7	16.0	25.3
Max Q Clear Time (g_c+I1), s	6.9	10.1	3.3	10.6	3.0	7.7	6.6	5.3
Green Ext Time (p_c), s	0.1	0.5	0.0	3.6	0.0	0.5	0.2	1.2

Intersection Summary	
HCM 6th Ctrl Delay	21.7
HCM 6th LOS	C

Notes

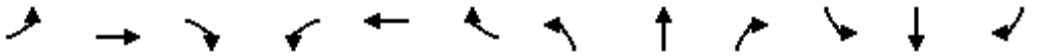
User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	21	899	341	29	80	20
Future Volume (veh/h)	21	899	341	29	80	20
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	899	341	29	80	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	68	1832	1058	89	249	222
Arrive On Green	0.04	0.52	0.32	0.32	0.14	0.14
Sat Flow, veh/h	1781	3647	3410	280	1781	1585
Grp Volume(v), veh/h	21	899	182	188	80	20
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1820	1781	1585
Q Serve(g_s), s	0.3	4.1	2.0	2.0	1.0	0.3
Cycle Q Clear(g_c), s	0.3	4.1	2.0	2.0	1.0	0.3
Prop In Lane	1.00			0.15	1.00	1.00
Lane Grp Cap(c), veh/h	68	1832	567	581	249	222
V/C Ratio(X)	0.31	0.49	0.32	0.32	0.32	0.09
Avail Cap(c_a), veh/h	1129	7645	3823	3915	1905	1696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.8	4.0	6.5	6.5	9.8	9.5
Incr Delay (d2), s/veh	1.0	0.3	0.4	0.4	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.3	0.3	0.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.8	4.2	6.9	7.0	10.1	9.5
LnGrp LOS	B	A	A	A	B	A
Approach Vol, veh/h		920	370		100	
Approach Delay, s/veh		4.4	7.0		9.9	
Approach LOS		A	A		A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		18.7		6.5	5.0	13.8
Change Period (Y+Rc), s		5.7		3.0	4.0	5.7
Max Green Setting (Gmax), s		54.3		27.0	16.0	54.3
Max Q Clear Time (g_c+I1), s		6.1		3.0	2.3	4.0
Green Ext Time (p_c), s		6.9		0.2	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	5.5
HCM 6th LOS	A



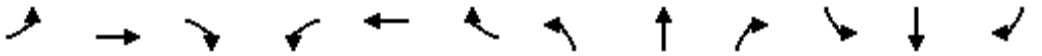
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	843	52	131	227	10	129	5	143	10	5	10
Future Volume (veh/h)	10	843	52	131	227	10	129	5	143	10	5	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	843	52	131	227	10	129	5	143	10	5	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	32	1215	75	201	1569	69	255	10	236	32	16	32
Arrive On Green	0.02	0.36	0.36	0.11	0.45	0.45	0.15	0.15	0.15	0.05	0.05	0.05
Sat Flow, veh/h	1781	3400	210	1781	3468	152	1718	67	1585	685	343	685
Grp Volume(v), veh/h	10	441	454	131	116	121	134	0	143	25	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1833	1781	1777	1843	1784	0	1585	1713	0	0
Q Serve(g_s), s	0.3	11.2	11.2	3.7	2.0	2.0	3.7	0.0	4.5	0.7	0.0	0.0
Cycle Q Clear(g_c), s	0.3	11.2	11.2	3.7	2.0	2.0	3.7	0.0	4.5	0.7	0.0	0.0
Prop In Lane	1.00		0.11	1.00		0.08	0.96		1.00	0.40		0.40
Lane Grp Cap(c), veh/h	32	635	655	201	804	834	265	0	236	80	0	0
V/C Ratio(X)	0.31	0.69	0.69	0.65	0.14	0.15	0.51	0.00	0.61	0.31	0.00	0.00
Avail Cap(c_a), veh/h	673	1376	1420	673	1376	1428	775	0	689	647	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	25.7	14.5	14.5	22.5	8.5	8.5	20.7	0.0	21.1	24.4	0.0	0.0
Incr Delay (d2), s/veh	2.0	1.8	1.8	1.3	0.1	0.1	0.6	0.0	0.9	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.9	4.0	1.4	0.6	0.6	1.5	0.0	1.6	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.7	16.3	16.3	23.8	8.6	8.6	21.3	0.0	22.0	25.2	0.0	0.0
LnGrp LOS	C	B	B	C	A	A	C	A	C	C	A	A
Approach Vol, veh/h		905			368			277			25	
Approach Delay, s/veh		16.4			14.0			21.7			25.2	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	24.6		6.5	5.0	29.6		11.9				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	41.0		20.0	20.0	41.0		23.0				
Max Q Clear Time (g_c+I1), s	5.7	13.2		2.7	2.3	4.0		6.5				
Green Ext Time (p_c), s	0.2	5.7		0.0	0.0	1.2		0.6				

Intersection Summary			
HCM 6th Ctrl Delay		16.9	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



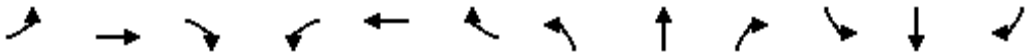
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	980	21	59	336	4	27	10	133	57	15	24
Future Volume (veh/h)	9	980	21	59	336	4	27	10	133	57	15	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	980	21	59	336	4	27	10	133	57	15	24
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	24	1325	28	110	1513	18	117	28	528	127	21	528
Arrive On Green	0.01	0.37	0.37	0.06	0.42	0.42	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1781	3557	76	1781	3597	43	34	83	1585	53	64	1585
Grp Volume(v), veh/h	9	490	511	59	166	174	37	0	133	72	0	24
Grp Sat Flow(s),veh/h/ln	1781	1777	1857	1781	1777	1863	117	0	1585	117	0	1585
Q Serve(g_s), s	0.3	14.0	14.0	1.9	3.5	3.5	0.5	0.0	3.6	1.0	0.0	0.6
Cycle Q Clear(g_c), s	0.3	14.0	14.0	1.9	3.5	3.5	19.5	0.0	3.6	19.6	0.0	0.6
Prop In Lane	1.00		0.04	1.00		0.02	0.73		1.00	0.79		1.00
Lane Grp Cap(c), veh/h	24	662	692	110	748	784	145	0	528	148	0	528
V/C Ratio(X)	0.37	0.74	0.74	0.54	0.22	0.22	0.26	0.00	0.25	0.49	0.00	0.05
Avail Cap(c_a), veh/h	605	1359	1420	605	1359	1424	155	0	539	158	0	539
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.8	16.0	16.0	26.8	10.9	10.9	17.1	0.0	14.3	24.8	0.0	13.3
Incr Delay (d2), s/veh	3.5	2.2	2.1	1.5	0.2	0.2	0.3	0.0	0.1	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.8	5.0	0.8	1.1	1.1	0.3	0.0	1.2	1.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.3	18.2	18.1	28.3	11.1	11.1	17.4	0.0	14.4	25.7	0.0	13.3
LnGrp LOS	C	B	B	C	B	B	B	A	B	C	A	B
Approach Vol, veh/h		1010			399			170			96	
Approach Delay, s/veh		18.3			13.6			15.0			22.6	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.7	27.9		23.8	4.8	30.7		23.8				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	3.9	16.0		21.6	2.3	5.5		21.5				
Green Ext Time (p_c), s	0.1	6.4		0.0	0.0	1.8		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		17.1
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.



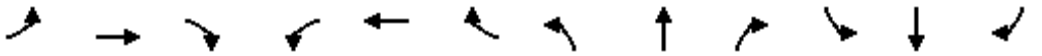
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	239	1066	20	40	495	92	20	5	40	82	5	42
Future Volume (veh/h)	239	1066	20	40	495	92	20	5	40	82	5	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	239	1066	20	40	495	92	20	5	40	82	5	42
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	296	1484	28	132	969	179	40	10	81	217	21	175
Arrive On Green	0.17	0.42	0.42	0.07	0.32	0.32	0.08	0.08	0.08	0.12	0.12	0.12
Sat Flow, veh/h	1781	3568	67	1781	2994	554	511	128	1022	1781	171	1440
Grp Volume(v), veh/h	239	531	555	40	293	294	65	0	0	82	0	47
Grp Sat Flow(s),veh/h/ln	1781	1777	1858	1781	1777	1771	1661	0	0	1781	0	1611
Q Serve(g_s), s	7.4	14.2	14.2	1.2	7.6	7.7	2.1	0.0	0.0	2.4	0.0	1.5
Cycle Q Clear(g_c), s	7.4	14.2	14.2	1.2	7.6	7.7	2.1	0.0	0.0	2.4	0.0	1.5
Prop In Lane	1.00		0.04	1.00		0.31	0.31		0.62	1.00		0.89
Lane Grp Cap(c), veh/h	296	739	773	132	575	573	131	0	0	217	0	196
V/C Ratio(X)	0.81	0.72	0.72	0.30	0.51	0.51	0.50	0.00	0.00	0.38	0.00	0.24
Avail Cap(c_a), veh/h	623	1709	1787	623	1709	1703	581	0	0	623	0	563
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.0	13.9	13.9	25.1	15.7	15.7	25.3	0.0	0.0	23.1	0.0	22.7
Incr Delay (d2), s/veh	2.0	1.8	1.7	1.3	0.9	1.0	1.1	0.0	0.0	0.4	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	4.6	4.8	0.5	2.6	2.6	0.8	0.0	0.0	1.0	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.0	15.7	15.6	26.4	16.6	16.6	26.3	0.0	0.0	23.5	0.0	22.9
LnGrp LOS	C	B	B	C	B	B	C	A	A	C	A	C
Approach Vol, veh/h		1325			627			65			129	
Approach Delay, s/veh		17.3			17.2			26.3			23.3	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.2	29.5		11.0	13.5	24.2		8.5				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	55.0		20.0	20.0	55.0		20.0				
Max Q Clear Time (g_c+I1), s	3.2	16.2		4.4	9.4	9.7		4.1				
Green Ext Time (p_c), s	0.1	7.5		0.2	0.3	3.4		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		17.9	
HCM 6th LOS		B	

Notes

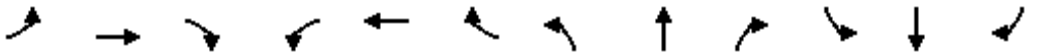
User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	1	8	101	3	18	21	1080	110	6	984	17
Future Volume (veh/h)	6	1	8	101	3	18	21	1080	110	6	984	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	1	8	101	3	18	21	1080	110	6	984	17
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	12	18	15	128	140	119	37	1849	574	12	1775	551
Arrive On Green	0.01	0.01	0.01	0.07	0.07	0.07	0.02	0.36	0.36	0.01	0.35	0.35
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	6	1	8	101	3	18	21	1080	110	6	984	17
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	0.1	0.0	0.2	2.0	0.1	0.4	0.4	6.2	1.7	0.1	5.7	0.3
Cycle Q Clear(g_c), s	0.1	0.0	0.2	2.0	0.1	0.4	0.4	6.2	1.7	0.1	5.7	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	12	18	15	128	140	119	37	1849	574	12	1775	551
V/C Ratio(X)	0.52	0.06	0.53	0.79	0.02	0.15	0.56	0.58	0.19	0.52	0.55	0.03
Avail Cap(c_a), veh/h	343	1646	1395	343	1749	1482	343	2528	785	343	2528	785
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.0	17.8	17.9	16.6	15.6	15.7	17.6	9.4	7.9	18.0	9.6	7.8
Incr Delay (d2), s/veh	31.9	1.3	25.6	10.3	0.1	0.6	12.5	0.3	0.2	31.9	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.2	1.1	0.0	0.1	0.3	1.4	0.4	0.1	1.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.9	19.1	43.5	26.9	15.6	16.3	30.1	9.7	8.1	49.9	9.9	7.8
LnGrp LOS	D	B	D	C	B	B	C	A	A	D	A	A
Approach Vol, veh/h		15			122			1211			1007	
Approach Delay, s/veh		44.5			25.1			9.9			10.1	
Approach LOS		D			C			A			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.2	18.2	7.6	5.3	5.8	17.6	5.2	7.7
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	18.0	7.0	32.0	7.0	18.0	7.0	34.0
Max Q Clear Time (g_c+I1), s	2.1	8.2	4.0	2.2	2.4	7.7	2.1	2.4
Green Ext Time (p_c), s	0.0	4.9	0.1	0.0	0.0	4.5	0.0	0.0

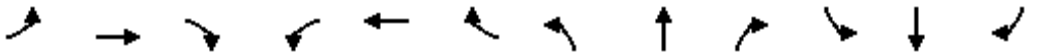
Intersection Summary	
HCM 6th Ctrl Delay	11.0
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	29	70	228	7	30	22	1160	110	16	1070	7
Future Volume (veh/h)	21	29	70	228	7	30	22	1160	110	16	1070	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	29	70	228	7	30	22	1160	110	16	1070	7
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	36	125	106	296	398	337	38	1763	547	28	1737	539
Arrive On Green	0.02	0.07	0.07	0.17	0.21	0.21	0.02	0.35	0.35	0.02	0.34	0.34
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	21	29	70	228	7	30	22	1160	110	16	1070	7
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	0.6	0.7	2.1	6.0	0.1	0.7	0.6	9.5	2.4	0.4	8.6	0.1
Cycle Q Clear(g_c), s	0.6	0.7	2.1	6.0	0.1	0.7	0.6	9.5	2.4	0.4	8.6	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	36	125	106	296	398	337	38	1763	547	28	1737	539
V/C Ratio(X)	0.58	0.23	0.66	0.77	0.02	0.09	0.59	0.66	0.20	0.56	0.62	0.01
Avail Cap(c_a), veh/h	253	1214	1029	795	1897	1608	253	2279	707	253	2279	707
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.9	21.8	22.4	19.7	15.3	15.6	23.9	13.7	11.4	24.1	13.6	10.8
Incr Delay (d2), s/veh	13.9	0.9	6.8	4.3	0.0	0.1	13.6	0.5	0.2	16.2	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.3	0.9	2.5	0.1	0.2	0.4	2.8	0.7	0.3	2.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.9	22.7	29.2	23.9	15.4	15.7	37.5	14.1	11.5	40.3	13.9	10.8
LnGrp LOS	D	C	C	C	B	B	D	B	B	D	B	B
Approach Vol, veh/h		120			265			1292			1093	
Approach Delay, s/veh		29.2			22.8			14.3			14.3	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	22.0	13.2	8.3	6.0	21.8	6.0	15.5
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	22.0	22.0	32.0	7.0	22.0	7.0	50.0
Max Q Clear Time (g_c+I1), s	2.4	11.5	8.0	4.1	2.6	10.6	2.6	2.7
Green Ext Time (p_c), s	0.0	5.5	0.5	0.3	0.0	5.2	0.0	0.1

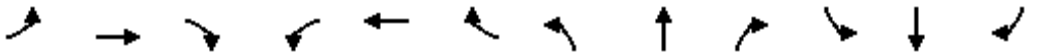
Intersection Summary	
HCM 6th Ctrl Delay	15.8
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	9	102	109	3	17	29	1197	38	70	1330	15
Future Volume (veh/h)	54	9	102	109	3	17	29	1197	38	70	1330	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	9	102	109	3	17	29	1197	38	70	1330	15
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	77	161	137	141	229	194	48	1814	563	91	1936	601
Arrive On Green	0.04	0.09	0.09	0.08	0.12	0.12	0.03	0.36	0.36	0.05	0.38	0.38
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	54	9	102	109	3	17	29	1197	38	70	1330	15
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	1.4	0.2	3.0	2.8	0.1	0.5	0.8	9.4	0.8	1.8	10.4	0.3
Cycle Q Clear(g_c), s	1.4	0.2	3.0	2.8	0.1	0.5	0.8	9.4	0.8	1.8	10.4	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	77	161	137	141	229	194	48	1814	563	91	1936	601
V/C Ratio(X)	0.71	0.06	0.75	0.77	0.01	0.09	0.61	0.66	0.07	0.77	0.69	0.02
Avail Cap(c_a), veh/h	263	1264	1071	338	1343	1138	263	2339	726	263	2339	726
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.4	19.9	21.1	21.4	18.3	18.4	22.8	12.9	10.1	22.2	12.3	9.2
Incr Delay (d2), s/veh	11.2	0.1	7.9	8.6	0.0	0.2	11.8	0.5	0.0	13.0	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.1	1.3	1.4	0.0	0.2	0.4	2.6	0.2	1.0	2.9	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.6	20.0	29.0	30.0	18.3	18.6	34.6	13.3	10.1	35.2	13.0	9.2
LnGrp LOS	C	C	C	C	B	B	C	B	B	D	B	A
Approach Vol, veh/h		165			129			1264			1415	
Approach Delay, s/veh		30.0			28.2			13.7			14.1	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	22.1	8.8	9.1	6.3	23.3	7.0	10.8
Change Period (Y+Rc), s	5.0	5.3	5.0	5.0	5.0	5.3	5.0	5.0
Max Green Setting (Gmax), s	7.0	21.7	9.0	32.0	7.0	21.7	7.0	34.0
Max Q Clear Time (g_c+I1), s	3.8	11.4	4.8	5.0	2.8	12.4	3.4	2.5
Green Ext Time (p_c), s	0.0	5.5	0.1	0.3	0.0	5.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	15.4
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	111	53	27	65	5	30	44	31	5	105	90
Future Volume (veh/h)	52	111	53	27	65	5	30	44	31	5	105	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	111	53	27	65	5	30	44	31	5	105	90
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	84	277	233	48	219	17	53	222	156	10	179	154
Arrive On Green	0.05	0.15	0.15	0.03	0.13	0.13	0.03	0.22	0.22	0.01	0.19	0.19
Sat Flow, veh/h	1781	1870	1574	1781	1714	132	1781	1019	718	1781	927	795
Grp Volume(v), veh/h	52	111	53	27	0	70	30	0	75	5	0	195
Grp Sat Flow(s),veh/h/ln	1781	1870	1574	1781	0	1845	1781	0	1737	1781	0	1722
Q Serve(g_s), s	0.9	1.6	0.9	0.4	0.0	1.0	0.5	0.0	1.1	0.1	0.0	3.1
Cycle Q Clear(g_c), s	0.9	1.6	0.9	0.4	0.0	1.0	0.5	0.0	1.1	0.1	0.0	3.1
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.41	1.00		0.46
Lane Grp Cap(c), veh/h	84	277	233	48	0	236	53	0	378	10	0	333
V/C Ratio(X)	0.62	0.40	0.23	0.56	0.00	0.30	0.57	0.00	0.20	0.52	0.00	0.59
Avail Cap(c_a), veh/h	745	1659	1396	447	0	1328	507	0	1774	447	0	1701
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.0	11.5	11.2	14.4	0.0	11.8	14.3	0.0	9.6	14.8	0.0	11.0
Incr Delay (d2), s/veh	7.3	0.9	0.5	10.0	0.0	0.7	9.4	0.0	0.3	36.6	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.5	0.2	0.3	0.0	0.3	0.3	0.0	0.3	0.1	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.3	12.5	11.7	24.4	0.0	12.5	23.7	0.0	9.8	51.4	0.0	12.6
LnGrp LOS	C	B	B	C	A	B	C	A	A	D	A	B
Approach Vol, veh/h		216			97			105			200	
Approach Delay, s/veh		14.4			15.8			13.8			13.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.7	11.0	5.3	8.9	5.4	10.3	5.9	8.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	30.5	7.5	26.5	8.5	29.5	12.5	21.5
Max Q Clear Time (g_c+I1), s	2.1	3.1	2.4	3.6	2.5	5.1	2.9	3.0
Green Ext Time (p_c), s	0.0	0.3	0.0	0.7	0.0	1.1	0.1	0.2

Intersection Summary	
HCM 6th Ctrl Delay	14.3
HCM 6th LOS	B



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	37	483	601	30	240	450
Future Volume (veh/h)	37	483	601	30	240	450
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	143	601	12	240	450
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	221	197	726	615	298	1239
Arrive On Green	0.12	0.12	0.39	0.39	0.17	0.66
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	37	143	601	12	240	450
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	0.9	4.1	13.6	0.2	6.1	5.0
Cycle Q Clear(g_c), s	0.9	4.1	13.6	0.2	6.1	5.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	221	197	726	615	298	1239
V/C Ratio(X)	0.17	0.73	0.83	0.02	0.80	0.36
Avail Cap(c_a), veh/h	609	542	959	813	380	1558
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.3	19.7	12.9	8.8	18.7	3.5
Incr Delay (d2), s/veh	0.4	5.1	4.7	0.0	9.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.6	5.4	0.1	3.0	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.7	24.8	17.6	8.8	28.2	3.7
LnGrp LOS	B	C	B	A	C	A
Approach Vol, veh/h	180		613			690
Approach Delay, s/veh	23.6		17.4			12.2
Approach LOS	C		B			B

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	12.8	23.2			36.0	10.8
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	10.0	24.0			39.0	16.0
Max Q Clear Time (g_c+I1), s	8.1	15.6			7.0	6.1
Green Ext Time (p_c), s	0.1	2.6			3.1	0.4

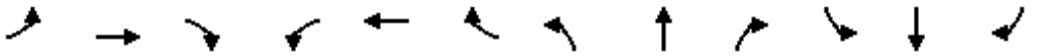
Intersection Summary	
HCM 6th Ctrl Delay	15.7
HCM 6th LOS	B



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	60	202	356	44	121	474
Future Volume (veh/h)	60	202	356	44	121	474
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	202	356	44	121	474
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	299	266	576	488	609	1145
Arrive On Green	0.17	0.17	0.31	0.31	0.17	0.61
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	60	202	356	44	121	474
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	1.3	5.5	7.4	0.9	1.6	6.0
Cycle Q Clear(g_c), s	1.3	5.5	7.4	0.9	1.6	6.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	299	266	576	488	609	1145
V/C Ratio(X)	0.20	0.76	0.62	0.09	0.20	0.41
Avail Cap(c_a), veh/h	901	802	1646	1395	1085	2099
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.3	18.0	13.4	11.2	6.6	4.6
Incr Delay (d2), s/veh	0.1	1.7	2.1	0.2	0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.9	2.9	0.3	0.4	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.4	19.7	15.5	11.3	6.7	5.0
LnGrp LOS	B	B	B	B	A	A
Approach Vol, veh/h	262		400			595
Approach Delay, s/veh	19.0		15.1			5.4
Approach LOS	B		B			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	13.8	20.0			33.8	11.6
Change Period (Y+Rc), s	6.0	6.0			6.0	4.0
Max Green Setting (Gmax), s	20.0	40.0			51.0	23.0
Max Q Clear Time (g_c+I1), s	3.6	9.4			8.0	7.5
Green Ext Time (p_c), s	0.1	4.6			6.6	0.4

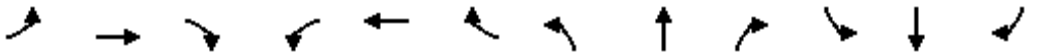
Intersection Summary	
HCM 6th Ctrl Delay	11.3
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	600	5	5	443	5	5	5	5	5	5	5
Future Volume (veh/h)	5	600	5	5	443	5	5	5	5	5	5	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	600	5	5	443	5	5	5	5	5	5	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	10	1249	556	10	1249	556	10	36	36	10	36	36
Arrive On Green	0.01	0.35	0.35	0.01	0.35	0.35	0.01	0.04	0.04	0.01	0.04	0.04
Sat Flow, veh/h	1781	3554	1581	1781	3554	1581	1781	856	856	1781	856	856
Grp Volume(v), veh/h	5	600	5	5	443	5	5	0	10	5	0	10
Grp Sat Flow(s),veh/h/ln	1781	1777	1581	1781	1777	1581	1781	0	1712	1781	0	1712
Q Serve(g_s), s	0.1	3.5	0.1	0.1	2.5	0.1	0.1	0.0	0.2	0.1	0.0	0.2
Cycle Q Clear(g_c), s	0.1	3.5	0.1	0.1	2.5	0.1	0.1	0.0	0.2	0.1	0.0	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.50	1.00		0.50
Lane Grp Cap(c), veh/h	10	1249	556	10	1249	556	10	0	73	10	0	73
V/C Ratio(X)	0.51	0.48	0.01	0.51	0.35	0.01	0.51	0.00	0.14	0.51	0.00	0.14
Avail Cap(c_a), veh/h	530	3437	1529	530	3437	1529	464	0	2038	530	0	2102
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.3	6.8	5.7	13.3	6.5	5.7	13.3	0.0	12.4	13.3	0.0	12.4
Incr Delay (d2), s/veh	36.4	0.3	0.0	36.4	0.2	0.0	36.4	0.0	0.9	36.4	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.6	0.0	0.1	0.4	0.0	0.1	0.0	0.1	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.7	7.1	5.7	49.7	6.6	5.7	49.7	0.0	13.3	49.7	0.0	13.3
LnGrp LOS	D	A	A	D	A	A	D	A	B	D	A	B
Approach Vol, veh/h		610			453			15			15	
Approach Delay, s/veh		7.4			7.1			25.4			25.4	
Approach LOS		A			A			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.1	5.1	4.1	13.4	4.1	5.1	4.1	13.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	32.0	8.0	26.0	7.0	33.0	8.0	26.0
Max Q Clear Time (g_c+I1), s	2.1	2.2	2.1	5.5	2.1	2.2	2.1	4.5
Green Ext Time (p_c), s	0.0	0.0	0.0	3.7	0.0	0.0	0.0	2.7

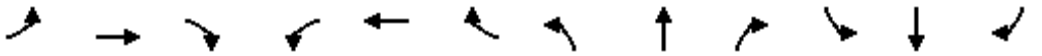
Intersection Summary	
HCM 6th Ctrl Delay	7.8
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	1	9	78	2	93	4	605	137	115	264	10
Future Volume (veh/h)	6	1	9	78	2	93	4	605	137	115	264	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	1	9	78	2	93	4	605	137	115	264	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	22	138	117	207	238	202	15	1247	387	260	1609	500
Arrive On Green	0.01	0.07	0.07	0.06	0.13	0.13	0.00	0.24	0.24	0.08	0.32	0.32
Sat Flow, veh/h	3456	1870	1585	3456	1870	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	6	1	9	78	2	93	4	605	137	115	264	10
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1728	1870	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	0.1	0.0	0.2	0.8	0.0	2.0	0.0	3.7	2.6	1.2	1.4	0.2
Cycle Q Clear(g_c), s	0.1	0.0	0.2	0.8	0.0	2.0	0.0	3.7	2.6	1.2	1.4	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	22	138	117	207	238	202	15	1247	387	260	1609	500
V/C Ratio(X)	0.27	0.01	0.08	0.38	0.01	0.46	0.27	0.49	0.35	0.44	0.16	0.02
Avail Cap(c_a), veh/h	1039	818	693	1039	818	693	1039	2373	737	1039	2373	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.1	15.7	15.8	16.5	13.9	14.8	18.2	11.9	11.4	16.2	9.0	8.6
Incr Delay (d2), s/veh	6.3	0.0	0.3	1.1	0.0	1.6	9.1	0.3	0.5	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.1	0.3	0.0	0.7	0.0	1.0	0.7	0.4	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.4	15.7	16.1	17.7	14.0	16.4	27.3	12.1	12.0	17.4	9.1	8.6
LnGrp LOS	C	B	B	B	B	B	C	B	B	B	A	A
Approach Vol, veh/h		16			173			746			389	
Approach Delay, s/veh		19.1			17.0			12.2			11.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	13.9	7.2	7.7	5.2	16.5	5.2	9.7
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	11.0	17.0	11.0	16.0	11.0	17.0	11.0	16.0
Max Q Clear Time (g_c+I1), s	3.2	5.7	2.8	2.2	2.0	3.4	2.1	4.0
Green Ext Time (p_c), s	0.2	3.2	0.1	0.0	0.0	1.2	0.0	0.2

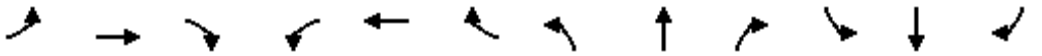
Intersection Summary	
HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	162	10	12	118	14	15	6	31	5	2	55
Future Volume (veh/h)	92	162	10	12	118	14	15	6	31	5	2	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	92	162	10	12	118	14	15	6	31	5	2	55
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	629	280	23	424	189	83	87	74	227	238	202
Arrive On Green	0.07	0.18	0.18	0.01	0.12	0.12	0.05	0.05	0.05	0.13	0.13	0.13
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	92	162	10	12	118	14	15	6	31	5	2	55
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	1.6	1.2	0.2	0.2	1.0	0.2	0.3	0.1	0.6	0.1	0.0	1.0
Cycle Q Clear(g_c), s	1.6	1.2	0.2	0.2	1.0	0.2	0.3	0.1	0.6	0.1	0.0	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	125	629	280	23	424	189	83	87	74	227	238	202
V/C Ratio(X)	0.73	0.26	0.04	0.53	0.28	0.07	0.18	0.07	0.42	0.02	0.01	0.27
Avail Cap(c_a), veh/h	624	2715	1211	624	2715	1211	1361	1429	1211	907	953	807
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.3	11.1	10.7	15.4	12.6	12.3	14.4	14.3	14.6	12.0	12.0	12.4
Incr Delay (d2), s/veh	8.1	0.2	0.1	18.1	0.4	0.2	1.0	0.3	3.8	0.0	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.4	0.0	0.2	0.3	0.1	0.1	0.0	0.2	0.0	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.4	11.4	10.8	33.5	13.0	12.5	15.4	14.7	18.4	12.0	12.0	13.1
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		264			144			52			62	
Approach Delay, s/veh		15.2			14.6			17.1			13.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		6.5	5.4	10.6		9.0	7.2	8.7				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		24.0	11.0	24.0		16.0	11.0	24.0				
Max Q Clear Time (g_c+I1), s		2.6	2.2	3.2		3.0	3.6	3.0				
Green Ext Time (p_c), s		0.1	0.0	0.9		0.1	0.1	0.6				

Intersection Summary	
HCM 6th Ctrl Delay	15.0
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	5	5	7	5	127	5	1219	8	21	936	5
Future Volume (veh/h)	5	5	5	7	5	127	5	1219	8	21	936	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	5	5	7	5	127	5	1219	8	21	936	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	10	199	169	13	203	172	10	1826	567	37	1905	591
Arrive On Green	0.01	0.11	0.11	0.01	0.11	0.11	0.01	0.36	0.36	0.02	0.37	0.37
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	5	5	5	7	5	127	5	1219	8	21	936	5
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	0.1	0.1	0.1	0.2	0.1	3.1	0.1	7.9	0.1	0.5	5.5	0.1
Cycle Q Clear(g_c), s	0.1	0.1	0.1	0.2	0.1	3.1	0.1	7.9	0.1	0.5	5.5	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	10	199	169	13	203	172	10	1826	567	37	1905	591
V/C Ratio(X)	0.52	0.03	0.03	0.52	0.02	0.74	0.52	0.67	0.01	0.57	0.49	0.01
Avail Cap(c_a), veh/h	497	760	644	497	760	644	497	2203	684	497	2203	684
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.5	15.8	15.8	19.5	15.7	17.0	19.5	10.7	8.2	19.1	9.5	7.8
Incr Delay (d2), s/veh	37.2	0.1	0.1	28.4	0.0	6.1	37.2	0.6	0.0	12.8	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.2	0.0	1.2	0.1	2.0	0.0	0.3	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.8	15.8	15.8	47.9	15.7	23.1	56.8	11.3	8.2	31.9	9.7	7.8
LnGrp LOS	E	B	B	D	B	C	E	B	A	C	A	A
Approach Vol, veh/h		15			139			1232			962	
Approach Delay, s/veh		29.5			24.1			11.4			10.2	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	19.1	5.3	9.2	5.2	19.7	5.2	9.3
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	11.0	17.0	11.0	16.0	11.0	17.0	11.0	16.0
Max Q Clear Time (g_c+I1), s	2.5	9.9	2.2	2.1	2.1	7.5	2.1	5.1
Green Ext Time (p_c), s	0.0	4.2	0.0	0.0	0.0	4.0	0.0	0.3

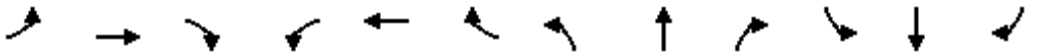
Intersection Summary	
HCM 6th Ctrl Delay	11.8
HCM 6th LOS	B



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	45	5	113	107	5	144
Future Volume (veh/h)	45	5	113	107	5	144
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	45	5	113	107	5	144
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	399	178	162	1531	202	180
Arrive On Green	0.11	0.11	0.09	0.43	0.11	0.11
Sat Flow, veh/h	3647	1585	1781	3647	1781	1585
Grp Volume(v), veh/h	45	5	113	107	5	144
Grp Sat Flow(s),veh/h/ln	1777	1585	1781	1777	1781	1585
Q Serve(g_s), s	0.2	0.1	1.4	0.4	0.1	1.9
Cycle Q Clear(g_c), s	0.2	0.1	1.4	0.4	0.1	1.9
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	399	178	162	1531	202	180
V/C Ratio(X)	0.11	0.03	0.70	0.07	0.02	0.80
Avail Cap(c_a), veh/h	3562	1589	1217	4210	893	794
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.8	8.7	9.7	3.7	8.6	9.5
Incr Delay (d2), s/veh	0.1	0.1	5.4	0.0	0.0	7.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.5	0.0	0.0	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.9	8.7	15.1	3.7	8.7	17.4
LnGrp LOS	A	A	B	A	A	B
Approach Vol, veh/h	50			220	149	
Approach Delay, s/veh	8.9			9.5	17.1	
Approach LOS	A			A	B	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		7.5	7.0	7.5		14.5
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0
Max Green Setting (Gmax), s		11.0	15.0	22.0		26.0
Max Q Clear Time (g_c+I1), s		3.9	3.4	2.2		2.4
Green Ext Time (p_c), s		0.2	0.2	0.2		0.5

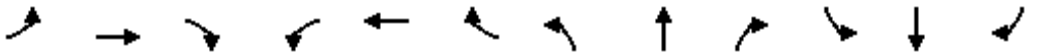
Intersection Summary	
HCM 6th Ctrl Delay	12.2
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	7	219	167	1	5	73	652	157	5	519	5
Future Volume (veh/h)	5	7	219	167	1	5	73	652	157	5	519	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	7	219	167	1	5	73	652	157	5	519	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	19	335	284	299	487	412	190	1259	391	19	1007	312
Arrive On Green	0.01	0.18	0.18	0.09	0.26	0.26	0.05	0.25	0.25	0.01	0.20	0.20
Sat Flow, veh/h	3456	1870	1585	3456	1870	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	5	7	219	167	1	5	73	652	157	5	519	5
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1728	1870	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	0.1	0.1	5.5	1.9	0.0	0.1	0.8	4.6	3.4	0.1	3.8	0.1
Cycle Q Clear(g_c), s	0.1	0.1	5.5	1.9	0.0	0.1	0.8	4.6	3.4	0.1	3.8	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	19	335	284	299	487	412	190	1259	391	19	1007	312
V/C Ratio(X)	0.27	0.02	0.77	0.56	0.00	0.01	0.39	0.52	0.40	0.27	0.52	0.02
Avail Cap(c_a), veh/h	917	722	612	917	722	612	917	2094	650	917	2094	650
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.5	14.0	16.2	18.2	11.4	11.4	18.9	13.5	13.1	20.5	14.9	13.4
Incr Delay (d2), s/veh	7.5	0.0	4.5	1.6	0.0	0.0	1.3	0.3	0.7	7.5	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	2.1	0.8	0.0	0.0	0.3	1.3	1.1	0.0	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.0	14.1	20.7	19.8	11.4	11.4	20.2	13.8	13.7	28.0	15.3	13.4
LnGrp LOS	C	B	C	B	B	B	C	B	B	C	B	B
Approach Vol, veh/h		231			173			882			529	
Approach Delay, s/veh		20.6			19.5			14.3			15.4	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.2	15.2	8.6	12.4	7.3	13.2	5.2	15.8
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	11.0	17.0	11.0	16.0	11.0	17.0	11.0	16.0
Max Q Clear Time (g_c+I1), s	2.1	6.6	3.9	7.5	2.8	5.8	2.1	2.1
Green Ext Time (p_c), s	0.0	3.4	0.3	0.5	0.1	2.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	15.9
HCM 6th LOS	B



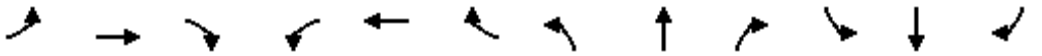
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	218	279	20	22	695	137	50	10	23	32	10	54
Future Volume (veh/h)	218	279	20	22	695	137	50	10	23	32	10	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	218	279	20	22	695	137	50	10	23	32	10	54
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	266	1752	781	62	1120	221	97	19	45	210	30	162
Arrive On Green	0.15	0.49	0.49	0.04	0.38	0.38	0.09	0.09	0.09	0.12	0.12	0.12
Sat Flow, veh/h	1781	3554	1585	1781	2959	583	1043	209	480	1781	254	1370
Grp Volume(v), veh/h	218	279	20	22	417	415	83	0	0	32	0	64
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1765	1732	0	0	1781	0	1624
Q Serve(g_s), s	8.0	2.9	0.4	0.8	12.9	13.0	3.1	0.0	0.0	1.1	0.0	2.5
Cycle Q Clear(g_c), s	8.0	2.9	0.4	0.8	12.9	13.0	3.1	0.0	0.0	1.1	0.0	2.5
Prop In Lane	1.00		1.00	1.00		0.33	0.60		0.28	1.00		0.84
Lane Grp Cap(c), veh/h	266	1752	781	62	672	668	161	0	0	210	0	191
V/C Ratio(X)	0.82	0.16	0.03	0.35	0.62	0.62	0.51	0.00	0.00	0.15	0.00	0.33
Avail Cap(c_a), veh/h	656	2357	1051	525	1179	1171	511	0	0	525	0	479
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.0	9.5	8.8	32.0	17.1	17.1	29.3	0.0	0.0	26.9	0.0	27.5
Incr Delay (d2), s/veh	2.4	0.1	0.0	1.3	1.7	1.8	2.5	0.0	0.0	0.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	1.0	0.1	0.4	5.1	5.1	1.4	0.0	0.0	0.5	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.3	9.5	8.9	33.2	18.9	18.9	31.8	0.0	0.0	27.0	0.0	27.9
LnGrp LOS	C	A	A	C	B	B	C	A	A	C	A	C
Approach Vol, veh/h		517			854			83			96	
Approach Delay, s/veh		18.3			19.2			31.8			27.6	
Approach LOS		B			B			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.3	6.4	39.1		12.0	14.1	31.4				
Change Period (Y+Rc), s		4.0	4.0	5.7		4.0	4.0	5.7				
Max Green Setting (Gmax), s		20.0	20.0	45.0		20.0	25.0	45.0				
Max Q Clear Time (g_c+I1), s		5.1	2.8	4.9		4.5	10.0	15.0				
Green Ext Time (p_c), s		0.3	0.0	3.6		0.2	0.3	10.7				

Intersection Summary												
HCM 6th Ctrl Delay			20.1									
HCM 6th LOS			C									

Notes

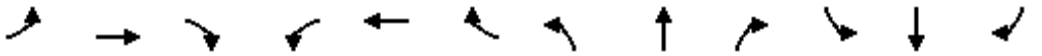
User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	5	44	47	7	67	66	114	16	15	87	104
Future Volume (veh/h)	76	5	44	47	7	67	66	114	16	15	87	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	76	5	44	47	7	67	66	114	16	15	87	104
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	115	260	219	79	221	186	103	373	315	28	294	248
Arrive On Green	0.06	0.14	0.14	0.04	0.12	0.12	0.06	0.20	0.20	0.02	0.16	0.16
Sat Flow, veh/h	1781	1870	1575	1781	1870	1575	1781	1870	1577	1781	1870	1575
Grp Volume(v), veh/h	76	5	44	47	7	67	66	114	16	15	87	104
Grp Sat Flow(s),veh/h/ln	1781	1870	1575	1781	1870	1575	1781	1870	1577	1781	1870	1575
Q Serve(g_s), s	1.1	0.1	0.7	0.7	0.1	1.0	1.0	1.4	0.2	0.2	1.1	1.6
Cycle Q Clear(g_c), s	1.1	0.1	0.7	0.7	0.1	1.0	1.0	1.4	0.2	0.2	1.1	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	115	260	219	79	221	186	103	373	315	28	294	248
V/C Ratio(X)	0.66	0.02	0.20	0.60	0.03	0.36	0.64	0.31	0.05	0.53	0.30	0.42
Avail Cap(c_a), veh/h	536	1547	1302	536	1547	1302	536	1617	1364	536	1617	1362
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.2	9.9	10.1	12.5	10.4	10.8	12.3	9.1	8.6	13.0	9.9	10.1
Incr Delay (d2), s/veh	6.3	0.0	0.4	7.1	0.1	1.2	6.4	0.5	0.1	14.8	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.2	0.4	0.0	0.3	0.4	0.4	0.1	0.2	0.3	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.5	9.9	10.6	19.6	10.4	12.0	18.6	9.5	8.7	27.8	10.5	11.2
LnGrp LOS	B	A	B	B	B	B	B	A	A	C	B	B
Approach Vol, veh/h		125			121			196			206	
Approach Delay, s/veh		15.3			14.8			12.5			12.1	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.4	9.3	5.2	7.7	5.5	8.2	5.7	7.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	23.0	8.0	22.0	8.0	23.0	8.0	22.0
Max Q Clear Time (g_c+I1), s	2.2	3.4	2.7	2.7	3.0	3.6	3.1	3.0
Green Ext Time (p_c), s	0.0	0.5	0.0	0.1	0.0	0.7	0.1	0.2

Intersection Summary	
HCM 6th Ctrl Delay	13.4
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	915	189	120	1486	32	79	0	29	27	0	69
Future Volume (veh/h)	88	915	189	120	1486	32	79	0	29	27	0	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	2106	2106	2106	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	915	189	120	1486	32	79	0	29	27	0	69
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	108	2462	1098	143	2817	61	107	0	190	103	0	92
Arrive On Green	0.06	0.69	0.69	0.14	1.00	1.00	0.06	0.00	0.06	0.06	0.00	0.06
Sat Flow, veh/h	1781	3554	1585	2006	4005	86	1781	0	3170	1781	0	1585
Grp Volume(v), veh/h	88	915	189	120	741	777	79	0	29	27	0	69
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	2006	2001	2090	1781	0	1585	1781	0	1585
Q Serve(g_s), s	7.3	16.0	6.2	8.7	0.0	0.0	6.5	0.0	1.3	2.2	0.0	6.4
Cycle Q Clear(g_c), s	7.3	16.0	6.2	8.7	0.0	0.0	6.5	0.0	1.3	2.2	0.0	6.4
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	108	2462	1098	143	1407	1470	107	0	190	103	0	92
V/C Ratio(X)	0.81	0.37	0.17	0.84	0.53	0.53	0.74	0.00	0.15	0.26	0.00	0.75
Avail Cap(c_a), veh/h	178	2462	1098	227	1407	1470	154	0	275	333	0	296
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.46	0.46	0.46	0.82	0.82	0.82	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	69.6	9.5	8.0	63.4	0.0	0.0	69.3	0.0	66.9	67.6	0.0	69.6
Incr Delay (d2), s/veh	2.6	0.2	0.2	6.4	0.4	0.4	4.7	0.0	0.1	0.5	0.0	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	5.9	2.1	4.4	0.2	0.2	3.1	0.0	0.5	1.0	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.2	9.7	8.2	69.8	0.4	0.4	74.0	0.0	67.0	68.1	0.0	74.2
LnGrp LOS	E	A	A	E	A	A	E	A	E	E	A	E
Approach Vol, veh/h		1192			1638			108			96	
Approach Delay, s/veh		14.1			5.5			72.1			72.5	
Approach LOS		B			A			E			E	

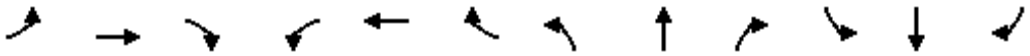
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		13.0	14.7	109.6		12.7	13.1	111.2				
Change Period (Y+Rc), s		4.0	4.0	5.7		4.0	4.0	5.7				
Max Green Setting (Gmax), s		13.0	17.0	74.3		28.0	15.0	76.3				
Max Q Clear Time (g_c+I1), s		8.5	10.7	18.0		8.4	9.3	2.0				
Green Ext Time (p_c), s		0.1	0.1	14.8		0.2	0.0	30.4				

Intersection Summary		
HCM 6th Ctrl Delay		13.4
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



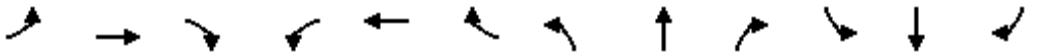
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	90	59	234	27	37	44	837	309	23	461	5
Future Volume (veh/h)	47	90	59	234	27	37	44	837	309	23	461	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	90	59	234	27	37	44	837	309	23	461	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	61	118	154	276	32	273	82	908	769	62	1707	19
Arrive On Green	0.10	0.10	0.10	0.17	0.17	0.17	0.05	0.49	0.49	0.03	0.47	0.47
Sat Flow, veh/h	631	1208	1585	1605	185	1585	1781	1870	1585	1781	3601	39
Grp Volume(v), veh/h	137	0	59	261	0	37	44	837	309	23	227	239
Grp Sat Flow(s),veh/h/ln	1839	0	1585	1790	0	1585	1781	1870	1585	1781	1777	1863
Q Serve(g_s), s	6.0	0.0	2.9	11.6	0.0	1.6	2.0	34.3	10.2	1.0	6.3	6.4
Cycle Q Clear(g_c), s	6.0	0.0	2.9	11.6	0.0	1.6	2.0	34.3	10.2	1.0	6.3	6.4
Prop In Lane	0.34		1.00	0.90		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	179	0	154	308	0	273	82	908	769	62	842	883
V/C Ratio(X)	0.77	0.00	0.38	0.85	0.00	0.14	0.53	0.92	0.40	0.37	0.27	0.27
Avail Cap(c_a), veh/h	246	0	212	566	0	501	238	1016	861	238	989	1038
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.2	0.0	34.8	33.0	0.0	28.9	38.4	19.7	13.5	38.8	13.1	13.1
Incr Delay (d2), s/veh	5.8	0.0	0.6	2.5	0.0	0.1	2.0	12.4	0.3	1.4	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	1.1	5.1	0.0	0.6	0.9	16.6	3.5	0.5	2.4	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.0	0.0	35.4	35.5	0.0	28.9	40.3	32.2	13.9	40.2	13.2	13.2
LnGrp LOS	D	A	D	D	A	C	D	C	B	D	B	B
Approach Vol, veh/h		196			298			1190			489	
Approach Delay, s/veh		40.0			34.7			27.7			14.5	
Approach LOS		D			C			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	45.2		18.2	7.8	44.3		12.0				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	* 5.3		4.0				
Max Green Setting (Gmax), s	11.0	44.7		26.0	11.0	* 46		11.0				
Max Q Clear Time (g_c+I1), s	3.0	36.3		13.6	4.0	8.4		8.0				
Green Ext Time (p_c), s	0.0	3.6		0.6	0.0	1.8		0.1				

Intersection Summary	
HCM 6th Ctrl Delay	26.8
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	351	495	5	294	207	3	0	419	344	0	230	216
Future Volume (veh/h)	351	495	5	294	207	3	0	419	344	0	230	216
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	351	495	5	294	207	3	0	419	344	0	230	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	0	2	2
Cap, veh/h	530	550	6	358	370	5	0	597	506	0	597	
Arrive On Green	0.30	0.30	0.30	0.20	0.20	0.20	0.00	0.32	0.32	0.00	0.32	0.00
Sat Flow, veh/h	1781	1848	19	1781	1839	27	0	1870	1585	0	1870	1585
Grp Volume(v), veh/h	351	0	500	294	0	210	0	419	344	0	230	0
Grp Sat Flow(s),veh/h/ln	1781	0	1867	1781	0	1866	0	1870	1585	0	1870	1585
Q Serve(g_s), s	14.0	0.0	20.8	12.8	0.0	8.2	0.0	15.9	15.3	0.0	7.7	0.0
Cycle Q Clear(g_c), s	14.0	0.0	20.8	12.8	0.0	8.2	0.0	15.9	15.3	0.0	7.7	0.0
Prop In Lane	1.00		0.01	1.00		0.01	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	530	0	556	358	0	375	0	597	506	0	597	
V/C Ratio(X)	0.66	0.00	0.90	0.82	0.00	0.56	0.00	0.70	0.68	0.00	0.39	
Avail Cap(c_a), veh/h	593	0	621	900	0	943	0	1038	879	0	1038	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	24.9	0.0	27.3	31.0	0.0	29.2	0.0	24.2	24.0	0.0	21.4	0.0
Incr Delay (d2), s/veh	2.1	0.0	14.7	3.5	0.0	1.0	0.0	3.2	3.4	0.0	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	0.0	11.1	5.6	0.0	3.6	0.0	7.3	6.0	0.0	3.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.0	0.0	42.1	34.6	0.0	30.2	0.0	27.5	27.4	0.0	22.1	0.0
LnGrp LOS	C	A	D	C	A	C	A	C	C	A	C	
Approach Vol, veh/h		851			504			763			230	A
Approach Delay, s/veh		35.8			32.7			27.5			22.1	
Approach LOS		D			C			C			C	

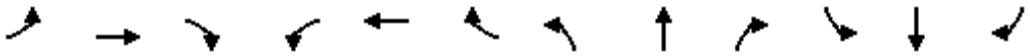
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		30.5		29.4		30.5		21.2				
Change Period (Y+Rc), s		* 4.6		5.3		4.6		4.9				
Max Green Setting (Gmax), s		* 45		27.0		45.0		41.0				
Max Q Clear Time (g_c+I1), s		17.9		22.8		9.7		14.8				
Green Ext Time (p_c), s		7.9		1.3		1.6		1.5				

Intersection Summary		
HCM 6th Ctrl Delay		31.1
HCM 6th LOS		C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

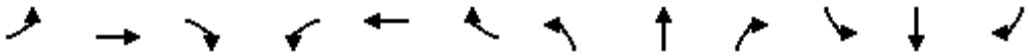
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	459	238	24	469	21	151	32	36	1	8	4
Future Volume (veh/h)	18	459	238	24	469	21	151	32	36	1	8	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	459	238	24	469	21	151	32	36	1	8	4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	195	772	674	201	720	31	533	45	241	198	119	56
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	26	1816	1585	36	1693	74	1383	293	1585	49	783	369
Grp Volume(v), veh/h	477	0	238	514	0	0	183	0	36	13	0	0
Grp Sat Flow(s),veh/h/ln	1842	0	1585	1803	0	0	1676	0	1585	1201	0	0
Q Serve(g_s), s	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.0	0.0	2.1	4.5	0.0	0.0	2.0	0.0	0.4	2.0	0.0	0.0
Prop In Lane	0.04		1.00	0.05		0.04	0.83		1.00	0.08		0.31
Lane Grp Cap(c), veh/h	967	0	674	952	0	0	578	0	241	373	0	0
V/C Ratio(X)	0.49	0.00	0.35	0.54	0.00	0.00	0.32	0.00	0.15	0.03	0.00	0.00
Avail Cap(c_a), veh/h	2854	0	2337	2773	0	0	1941	0	1714	1973	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.5	0.0	4.0	4.6	0.0	0.0	8.1	0.0	7.5	7.4	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.3	0.4	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.1	0.3	0.0	0.0	0.4	0.0	0.1	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.8	0.0	4.2	5.0	0.0	0.0	8.3	0.0	7.6	7.4	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		715			514			219			13	
Approach Delay, s/veh		4.6			5.0			8.2			7.4	
Approach LOS		A			A			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.3		7.1		13.3		7.1				
Change Period (Y+Rc), s		4.6		4.0		4.6		4.0				
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0				
Max Q Clear Time (g_c+I1), s		6.0		4.0		6.5		4.0				
Green Ext Time (p_c), s		2.6		0.4		1.9		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			5.3									
HCM 6th LOS			A									



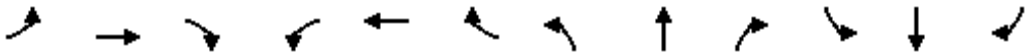
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	663	13	36	431	117	12	48	43	29	20	20
Future Volume (veh/h)	89	663	13	36	431	117	12	48	43	29	20	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	89	663	13	36	431	117	12	48	43	29	20	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	235	875	16	187	749	194	213	123	132	250	23	23
Arrive On Green	0.55	0.55	0.55	0.55	0.55	0.55	0.08	0.08	0.08	0.08	0.08	0.08
Sat Flow, veh/h	117	1582	29	46	1355	351	368	1474	1585	402	277	277
Grp Volume(v), veh/h	765	0	0	584	0	0	60	0	43	69	0	0
Grp Sat Flow(s),veh/h/ln	1728	0	0	1752	0	0	1842	0	1585	956	0	0
Q Serve(g_s), s	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.1	0.0	0.0
Cycle Q Clear(g_c), s	7.9	0.0	0.0	5.1	0.0	0.0	0.7	0.0	0.6	1.8	0.0	0.0
Prop In Lane	0.12		0.02	0.06		0.20	0.20		1.00	0.42		0.29
Lane Grp Cap(c), veh/h	1125	0	0	1130	0	0	336	0	132	296	0	0
V/C Ratio(X)	0.68	0.00	0.00	0.52	0.00	0.00	0.18	0.00	0.33	0.23	0.00	0.00
Avail Cap(c_a), veh/h	2301	0	0	2363	0	0	1813	0	1475	1581	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.0	0.0	0.0	3.5	0.0	0.0	10.3	0.0	10.2	11.1	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.5	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.2	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.6	0.0	0.0	3.6	0.0	0.0	10.4	0.0	10.7	11.3	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h		765			584			103			69	
Approach Delay, s/veh		4.6			3.6			10.5			11.3	
Approach LOS		A			A			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		17.7		6.0		17.7		6.0				
Change Period (Y+Rc), s		4.6		4.0		* 4.6		4.0				
Max Green Setting (Gmax), s		30.0		22.0		* 31		22.0				
Max Q Clear Time (g_c+I1), s		9.9		2.7		7.1		3.8				
Green Ext Time (p_c), s		3.1		0.2		1.6		0.1				

Intersection Summary												
HCM 6th Ctrl Delay			4.9									
HCM 6th LOS			A									

Notes

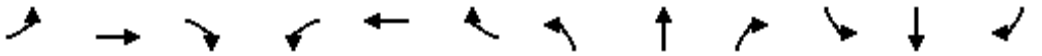
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	383	30	276	561	4	22	46	450	14	19	16
Future Volume (veh/h)	58	383	30	276	561	4	22	46	450	14	19	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	383	30	276	561	4	22	46	450	14	19	16
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	72	474	37	348	801	6	201	365	739	165	204	133
Arrive On Green	0.04	0.28	0.28	0.20	0.43	0.43	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1781	1712	134	1781	1855	13	384	1347	1585	260	752	491
Grp Volume(v), veh/h	58	0	413	276	0	565	68	0	450	49	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1846	1781	0	1868	1731	0	1585	1503	0	0
Q Serve(g_s), s	1.6	0.0	10.2	7.3	0.0	12.1	0.0	0.0	10.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.6	0.0	10.2	7.3	0.0	12.1	1.4	0.0	10.4	1.0	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.01	0.32		1.00	0.29		0.33
Lane Grp Cap(c), veh/h	72	0	512	348	0	807	566	0	739	502	0	0
V/C Ratio(X)	0.81	0.00	0.81	0.79	0.00	0.70	0.12	0.00	0.61	0.10	0.00	0.00
Avail Cap(c_a), veh/h	435	0	1390	1015	0	1710	794	0	955	687	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.4	0.0	16.5	18.8	0.0	11.4	13.5	0.0	9.8	13.4	0.0	0.0
Incr Delay (d2), s/veh	7.7	0.0	2.5	1.6	0.0	0.9	0.0	0.0	0.3	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	4.1	2.8	0.0	4.2	0.5	0.0	2.7	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.0	0.0	19.0	20.4	0.0	12.3	13.6	0.0	10.1	13.5	0.0	0.0
LnGrp LOS	C	A	B	C	A	B	B	A	B	B	A	A
Approach Vol, veh/h		471			841			518			49	
Approach Delay, s/veh		20.5			14.9			10.5			13.5	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.6	18.2		17.3	6.0	25.8		17.3				
Change Period (Y+Rc), s	4.0	4.6		4.0	4.0	4.6		4.0				
Max Green Setting (Gmax), s	28.0	37.0		20.0	12.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	9.3	12.2		12.4	3.6	14.1		3.0				
Green Ext Time (p_c), s	0.6	1.4		0.9	0.0	2.1		0.1				

Intersection Summary												
HCM 6th Ctrl Delay			15.1									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	117	377	44	76	12	300	905	8	53	1154	10
Future Volume (veh/h)	95	117	377	44	76	12	300	905	8	53	1154	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	95	117	163	44	76	2	300	905	4	53	1154	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	119	147	230	83	143	196	403	1188	530	0	1469	
Arrive On Green	0.15	0.15	0.15	0.12	0.12	0.12	0.12	0.33	0.33	0.19	0.41	0.00
Sat Flow, veh/h	820	1010	1585	673	1163	1585	3456	3554	1585	0	3554	1585
Grp Volume(v), veh/h	212	0	163	120	0	2	300	905	4	0	1154	0
Grp Sat Flow(s),veh/h/ln	1829	0	1585	1837	0	1585	1728	1777	1585	0	1777	1585
Q Serve(g_s), s	9.4	0.0	8.2	5.1	0.0	0.1	7.1	19.1	0.1	0.0	23.7	0.0
Cycle Q Clear(g_c), s	9.4	0.0	8.2	5.1	0.0	0.1	7.1	19.1	0.1	0.0	23.7	0.0
Prop In Lane	0.45		1.00	0.37		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	266	0	230	227	0	196	403	1188	530	0	1469	
V/C Ratio(X)	0.80	0.00	0.71	0.53	0.00	0.01	0.74	0.76	0.01	0.00	0.79	
Avail Cap(c_a), veh/h	545	0	472	547	0	472	1440	2158	962	0	2158	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	34.7	0.0	34.2	34.5	0.0	32.3	35.9	25.0	18.7	0.0	21.4	0.0
Incr Delay (d2), s/veh	2.1	0.0	1.5	0.7	0.0	0.0	1.0	1.4	0.0	0.0	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.0	3.2	2.3	0.0	0.0	2.9	7.7	0.1	0.0	9.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.8	0.0	35.7	35.2	0.0	32.3	36.9	26.4	18.7	0.0	22.9	0.0
LnGrp LOS	D	A	D	D	A	C	D	C	B	A	C	
Approach Vol, veh/h		375			122			1209			1154	A
Approach Delay, s/veh		36.3			35.2			29.0			22.9	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.5	33.0		16.2	13.8	39.6		14.4				
Change Period (Y+Rc), s	4.9	* 4.9		4.0	4.0	4.9		4.0				
Max Green Setting (Gmax), s	20.0	* 51		25.0	35.0	51.0		25.0				
Max Q Clear Time (g_c+I1), s	0.0	21.1		11.4	9.1	25.7		7.1				
Green Ext Time (p_c), s	0.0	7.0		0.8	0.8	9.0		0.2				

Intersection Summary			
HCM 6th Ctrl Delay		27.8	
HCM 6th LOS		C	

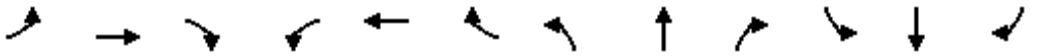
Notes

User approved pedestrian interval to be less than phase max green.

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.



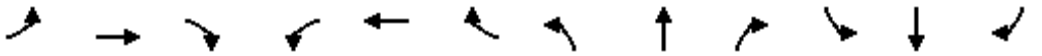
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	523	0	5	675	227	5	5	5	266	5	5
Future Volume (veh/h)	5	523	0	5	675	227	5	5	5	266	5	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	523	0	5	675	180	5	5	5	272	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	19	2080	0	75	920	782	20	20	20	492	258	0
Arrive On Green	0.01	0.59	0.00	0.49	0.49	0.49	0.03	0.03	0.03	0.14	0.00	0.00
Sat Flow, veh/h	1781	3647	0	3	1864	1585	579	579	579	3563	1870	0
Grp Volume(v), veh/h	5	523	0	680	0	180	15	0	0	272	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1867	0	1585	1737	0	0	1781	1870	0
Q Serve(g_s), s	0.1	3.5	0.0	0.0	0.0	3.2	0.4	0.0	0.0	3.5	0.0	0.0
Cycle Q Clear(g_c), s	0.1	3.5	0.0	14.3	0.0	3.2	0.4	0.0	0.0	3.5	0.0	0.0
Prop In Lane	1.00		0.00	0.01		1.00	0.33		0.33	1.00		0.00
Lane Grp Cap(c), veh/h	19	2080	0	995	0	782	59	0	0	492	258	0
V/C Ratio(X)	0.26	0.25	0.00	0.68	0.00	0.23	0.25	0.00	0.00	0.55	0.00	0.00
Avail Cap(c_a), veh/h	720	3378	0	1843	0	1507	386	0	0	1657	870	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.3	5.0	0.0	10.0	0.0	7.2	23.3	0.0	0.0	19.9	0.0	0.0
Incr Delay (d2), s/veh	2.7	0.1	0.0	1.1	0.0	0.2	0.8	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.9	0.0	4.4	0.0	0.8	0.2	0.0	0.0	1.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.9	5.1	0.0	11.1	0.0	7.4	24.1	0.0	0.0	20.2	0.0	0.0
LnGrp LOS	C	A	A	B	A	A	C	A	A	C	A	A
Approach Vol, veh/h		528			860			15			272	
Approach Delay, s/veh		5.3			10.3			24.1			20.2	
Approach LOS		A			B			C			C	

Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		5.7		32.9		10.8	4.5	28.4				
Change Period (Y+Rc), s		4.0		4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		11.0		47.0		23.0	20.0	47.0				
Max Q Clear Time (g_c+I1), s		2.4		5.5		5.5	2.1	16.3				
Green Ext Time (p_c), s		0.0		5.4		0.4	0.0	8.1				

Intersection Summary												
HCM 6th Ctrl Delay			10.5									
HCM 6th LOS			B									

Notes

User approved volume balancing among the lanes for turning movement.

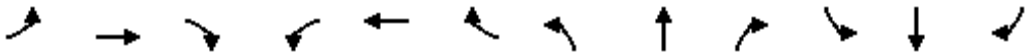


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	496	0	684	0	0	0	461	44	0	0	34	288
Future Volume (veh/h)	496	0	684	0	0	0	461	44	0	0	34	288
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h	496	0	684	0	0	0	492	0	0	0	34	288
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	0	2	2	2	2	2	2	0	0	2	2
Cap, veh/h	0	0	0	0	8	0	1205	633	0	0	575	487
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.31	0.31
Sat Flow, veh/h		0		0	1870	0	3563	1870	0	0	1870	1585
Grp Volume(v), veh/h		0.0		0	0	0	492	0	0	0	34	288
Grp Sat Flow(s),veh/h/ln				0	1870	0	1781	1870	0	0	1870	1585
Q Serve(g_s), s				0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.3	3.5
Cycle Q Clear(g_c), s				0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.3	3.5
Prop In Lane				0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				0	8	0	1205	633	0	0	575	487
V/C Ratio(X)				0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.06	0.59
Avail Cap(c_a), veh/h				0	1906	0	6471	3397	0	0	2072	1756
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				0.0	0.0	0.0	5.7	0.0	0.0	0.0	5.5	6.6
Incr Delay (d2), s/veh				0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	0.0	5.8	0.0	0.0	0.0	5.5	7.0
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					0			492			322	
Approach Delay, s/veh					0.0			5.8			6.9	
Approach LOS								A			A	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		11.6				10.9		0.0				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		41.0				25.0		23.0				
Max Q Clear Time (g_c+I1), s		4.4				5.5		0.0				
Green Ext Time (p_c), s		1.0				0.6		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	6.2	
HCM 6th LOS	A	

Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



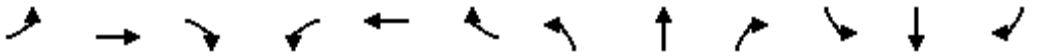
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	877	14	120	459	181	56	122	205	54	277	101
Future Volume (veh/h)	113	877	14	120	459	181	56	122	205	54	277	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	113	877	4	120	459	151	56	122	31	54	277	92
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	184	1089	486	186	809	264	70	151	190	60	306	102
Arrive On Green	0.10	0.31	0.31	0.10	0.31	0.31	0.12	0.12	0.12	0.26	0.26	0.26
Sat Flow, veh/h	1781	3554	1585	1781	2633	859	579	1262	1585	228	1171	389
Grp Volume(v), veh/h	113	877	4	120	309	301	178	0	31	423	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1716	1841	0	1585	1789	0	0
Q Serve(g_s), s	5.5	20.7	0.2	5.9	13.3	13.5	8.6	0.0	1.6	20.9	0.0	0.0
Cycle Q Clear(g_c), s	5.5	20.7	0.2	5.9	13.3	13.5	8.6	0.0	1.6	20.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.50	0.31		1.00	0.13		0.22
Lane Grp Cap(c), veh/h	184	1089	486	186	546	527	221	0	190	467	0	0
V/C Ratio(X)	0.61	0.81	0.01	0.65	0.56	0.57	0.81	0.00	0.16	0.91	0.00	0.00
Avail Cap(c_a), veh/h	234	1313	586	195	618	596	626	0	539	751	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	39.1	29.1	22.0	39.2	26.5	26.5	39.1	0.0	36.0	32.6	0.0	0.0
Incr Delay (d2), s/veh	1.2	3.8	0.0	5.0	1.6	1.7	2.6	0.0	0.1	6.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	9.1	0.1	2.8	5.7	5.6	4.0	0.0	0.6	9.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.4	32.9	22.0	44.2	28.0	28.2	41.7	0.0	36.2	39.0	0.0	0.0
LnGrp LOS	D	C	C	D	C	C	D	A	D	D	A	A
Approach Vol, veh/h		994			730			209			423	
Approach Delay, s/veh		33.7			30.8			40.9			39.0	
Approach LOS		C			C			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.2	13.5	33.6		27.8	13.4	33.7				
Change Period (Y+Rc), s		5.3	4.0	5.7		4.0	4.0	5.7				
Max Green Setting (Gmax), s		31.0	10.0	33.7		38.3	12.0	31.7				
Max Q Clear Time (g_c+I1), s		10.6	7.9	22.7		22.9	7.5	15.5				
Green Ext Time (p_c), s		0.4	0.0	5.2		0.9	0.1	4.2				

Intersection Summary												
HCM 6th Ctrl Delay			34.4									
HCM 6th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	1104	15	61	716	47	33	26	49	147	9	9
Future Volume (veh/h)	15	1104	15	61	716	47	33	26	49	147	9	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	15	1104	15	61	716	47	33	26	49	147	9	9
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	59	1667	23	174	1879	838	95	74	72	296	13	288
Arrive On Green	0.03	0.46	0.46	0.10	0.53	0.53	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1781	3590	49	1781	3554	1585	72	407	398	954	69	1585
Grp Volume(v), veh/h	15	546	573	61	716	47	108	0	0	156	0	9
Grp Sat Flow(s),veh/h/ln	1781	1777	1862	1781	1777	1585	877	0	0	1022	0	1585
Q Serve(g_s), s	0.5	13.6	13.6	1.8	6.8	0.8	0.4	0.0	0.0	0.0	0.0	0.3
Cycle Q Clear(g_c), s	0.5	13.6	13.6	1.8	6.8	0.8	9.2	0.0	0.0	8.8	0.0	0.3
Prop In Lane	1.00		0.03	1.00		1.00	0.31		0.45	0.94		1.00
Lane Grp Cap(c), veh/h	59	825	865	174	1879	838	242	0	0	308	0	288
V/C Ratio(X)	0.25	0.66	0.66	0.35	0.38	0.06	0.45	0.00	0.00	0.51	0.00	0.03
Avail Cap(c_a), veh/h	625	1412	1479	718	3197	1426	508	0	0	538	0	559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.9	11.8	11.8	24.0	7.9	6.5	20.6	0.0	0.0	22.7	0.0	19.2
Incr Delay (d2), s/veh	0.8	1.6	1.5	0.4	0.2	0.0	0.5	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.8	5.0	0.7	2.1	0.2	1.2	0.0	0.0	1.9	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.7	13.4	13.3	24.5	8.1	6.6	21.1	0.0	0.0	23.2	0.0	19.2
LnGrp LOS	C	B	B	C	A	A	C	A	A	C	A	B
Approach Vol, veh/h		1134			824			108			165	
Approach Delay, s/veh		13.5			9.3			21.1			22.9	
Approach LOS		B			A			C			C	

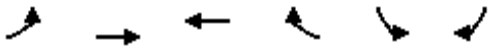
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.3	9.6	32.2		15.3	5.9	35.9				
Change Period (Y+Rc), s		* 4.9	4.0	5.7		4.9	4.0	5.7				
Max Green Setting (Gmax), s		* 20	23.0	45.3		20.1	20.0	51.3				
Max Q Clear Time (g_c+I1), s		11.2	3.8	15.6		10.8	2.5	8.8				
Green Ext Time (p_c), s		0.2	0.1	10.9		0.4	0.0	7.8				

Intersection Summary	
HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

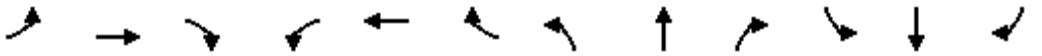
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	175	385	82	29	12
Future Volume (veh/h)	22	175	385	82	29	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	175	385	82	29	12
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	41	2332	1290	399	323	287
Arrive On Green	0.02	0.46	0.25	0.25	0.18	0.18
Sat Flow, veh/h	1781	5274	5274	1579	1781	1585
Grp Volume(v), veh/h	22	175	385	82	29	12
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1579	1781	1585
Q Serve(g_s), s	0.3	0.4	1.3	0.9	0.3	0.1
Cycle Q Clear(g_c), s	0.3	0.4	1.3	0.9	0.3	0.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	41	2332	1290	399	323	287
V/C Ratio(X)	0.54	0.08	0.30	0.21	0.09	0.04
Avail Cap(c_a), veh/h	645	6704	4624	1430	1855	1651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.7	3.4	6.7	6.5	7.5	7.5
Incr Delay (d2), s/veh	10.7	0.0	0.1	0.3	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.1	0.1	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.3	3.4	6.8	6.8	7.6	7.5
LnGrp LOS	C	A	A	A	A	A
Approach Vol, veh/h		197	467		41	
Approach Delay, s/veh		5.4	6.8		7.6	
Approach LOS		A	A		A	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			14.1		8.0	4.5	9.6
Change Period (Y+Rc), s			4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s			29.0		23.0	8.0	20.0
Max Q Clear Time (g_c+I1), s			2.4		2.3	2.3	3.3
Green Ext Time (p_c), s			1.0		0.1	0.0	2.3

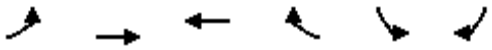
Intersection Summary	
HCM 6th Ctrl Delay	6.4
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	131	22	772	357	388	55	856	360	212	754	54
Future Volume (veh/h)	51	131	22	772	357	388	55	856	360	212	754	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	131	22	772	357	388	55	856	360	212	754	54
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	65	370	115	937	1569	487	69	1393	761	260	1940	602
Arrive On Green	0.04	0.07	0.07	0.27	0.31	0.31	0.04	0.27	0.27	0.15	0.38	0.38
Sat Flow, veh/h	1781	5106	1585	3456	5106	1585	1781	5106	2790	1781	5106	1585
Grp Volume(v), veh/h	51	131	22	772	357	388	55	856	360	212	754	54
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1728	1702	1585	1781	1702	1395	1781	1702	1585
Q Serve(g_s), s	1.9	1.6	0.9	14.1	3.5	15.1	2.1	9.9	7.3	7.8	7.2	1.5
Cycle Q Clear(g_c), s	1.9	1.6	0.9	14.1	3.5	15.1	2.1	9.9	7.3	7.8	7.2	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	65	370	115	937	1569	487	69	1393	761	260	1940	602
V/C Ratio(X)	0.78	0.35	0.19	0.82	0.23	0.80	0.79	0.61	0.47	0.82	0.39	0.09
Avail Cap(c_a), veh/h	264	2198	682	1334	3411	1059	159	2198	1201	397	2880	894
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	29.7	29.4	23.0	17.4	21.4	32.1	21.4	20.5	27.9	15.2	13.4
Incr Delay (d2), s/veh	18.3	0.6	0.8	2.9	0.1	3.0	18.1	0.4	0.5	7.6	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.6	0.3	5.3	1.2	5.1	1.2	3.5	2.1	3.5	2.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	30.3	30.2	26.0	17.5	24.4	50.2	21.8	20.9	35.4	15.3	13.5
LnGrp LOS	D	C	C	C	B	C	D	C	C	D	B	B
Approach Vol, veh/h		204			1517			1271			1020	
Approach Delay, s/veh		35.3			23.6			22.8			19.4	
Approach LOS		D			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	22.4	22.3	8.9	6.6	29.6	6.5	24.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	15.0	29.0	26.0	29.0	6.0	38.0	10.0	45.0
Max Q Clear Time (g_c+I1), s	9.8	11.9	16.1	3.6	4.1	9.2	3.9	17.1
Green Ext Time (p_c), s	0.3	6.5	2.2	0.7	0.0	5.3	0.0	3.6

Intersection Summary	
HCM 6th Ctrl Delay	22.9
HCM 6th LOS	C



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	85	642	1386	98	78	109
Future Volume (veh/h)	85	642	1386	98	78	109
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	642	1386	98	78	109
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	115	3236	2316	717	241	214
Arrive On Green	0.06	0.63	0.45	0.45	0.14	0.14
Sat Flow, veh/h	1781	5274	5274	1582	1781	1585
Grp Volume(v), veh/h	85	642	1386	98	78	109
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1582	1781	1585
Q Serve(g_s), s	1.6	1.8	7.0	1.2	1.4	2.2
Cycle Q Clear(g_c), s	1.6	1.8	7.0	1.2	1.4	2.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	115	3236	2316	717	241	214
V/C Ratio(X)	0.74	0.20	0.60	0.14	0.32	0.51
Avail Cap(c_a), veh/h	412	4721	2951	914	1029	916
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.9	2.7	7.1	5.5	13.5	13.9
Incr Delay (d2), s/veh	8.9	0.0	0.2	0.1	0.8	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.1	0.2	0.5	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.8	2.7	7.3	5.6	14.3	15.8
LnGrp LOS	C	A	A	A	B	B
Approach Vol, veh/h		727	1484		187	
Approach Delay, s/veh		5.3	7.2		15.2	
Approach LOS		A	A		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			25.9		8.7	6.2	19.7
Change Period (Y+Rc), s			4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s			32.0		20.0	8.0	20.0
Max Q Clear Time (g_c+I1), s			3.8		4.2	3.6	9.0
Green Ext Time (p_c), s			4.3		0.5	0.1	6.6

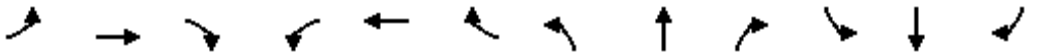
Intersection Summary	
HCM 6th Ctrl Delay	7.3
HCM 6th LOS	A



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	710	9	5	1472	12	5
Future Volume (veh/h)	710	9	5	1472	12	5
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	710	4	5	1472	12	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2344	726	10	3055	238	212
Arrive On Green	0.46	0.46	0.01	0.60	0.13	0.13
Sat Flow, veh/h	5274	1582	1781	5274	1781	1585
Grp Volume(v), veh/h	710	4	5	1472	12	1
Grp Sat Flow(s),veh/h/ln	1702	1582	1781	1702	1781	1585
Q Serve(g_s), s	2.6	0.0	0.1	4.9	0.2	0.0
Cycle Q Clear(g_c), s	2.6	0.0	0.1	4.9	0.2	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2344	726	10	3055	238	212
V/C Ratio(X)	0.30	0.01	0.52	0.48	0.05	0.00
Avail Cap(c_a), veh/h	3931	1218	477	5298	1252	1114
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.1	4.4	14.8	3.4	11.3	11.2
Incr Delay (d2), s/veh	0.1	0.0	36.6	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.1	0.0	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.1	4.4	51.4	3.5	11.4	11.2
LnGrp LOS	A	A	D	A	B	B
Approach Vol, veh/h	714			1477	13	
Approach Delay, s/veh	5.1			3.7	11.4	
Approach LOS	A			A	B	

Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	8.0	4.2	17.7	21.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	21.0	8.0	23.0	31.0
Max Q Clear Time (g_c+I1), s	2.2	2.1	4.6	6.9
Green Ext Time (p_c), s	0.0	0.0	4.2	11.0

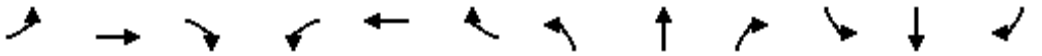
Intersection Summary	
HCM 6th Ctrl Delay	4.2
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	526	48	127	1361	247	36	54	69	84	81	75
Future Volume (veh/h)	137	526	48	127	1361	247	36	54	69	84	81	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	137	526	48	127	1361	247	36	54	69	84	81	75
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	175	2167	673	162	2131	662	54	156	132	111	216	183
Arrive On Green	0.10	0.42	0.42	0.09	0.42	0.42	0.03	0.08	0.08	0.06	0.12	0.12
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	137	526	48	127	1361	247	36	54	69	84	81	75
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	4.4	3.9	1.1	4.1	12.5	6.4	1.2	1.6	2.5	2.7	2.4	2.6
Cycle Q Clear(g_c), s	4.4	3.9	1.1	4.1	12.5	6.4	1.2	1.6	2.5	2.7	2.4	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	175	2167	673	162	2131	662	54	156	132	111	216	183
V/C Ratio(X)	0.78	0.24	0.07	0.78	0.64	0.37	0.67	0.35	0.52	0.76	0.38	0.41
Avail Cap(c_a), veh/h	241	2854	886	211	2767	859	272	1014	859	694	1457	1235
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.0	10.9	10.1	26.3	13.7	11.9	28.3	25.5	25.9	27.3	24.1	24.2
Incr Delay (d2), s/veh	10.8	0.1	0.0	13.2	0.3	0.3	13.4	1.3	3.1	10.1	1.1	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	1.3	0.3	2.2	4.2	2.0	0.7	0.7	1.0	1.4	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.8	11.0	10.1	39.4	14.0	12.2	41.7	26.8	29.1	37.4	25.2	25.7
LnGrp LOS	D	B	B	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		711			1735			159			240	
Approach Delay, s/veh		15.9			15.6			31.2			29.6	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	9.9	10.4	30.1	6.8	11.8	10.8	29.6
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	23.0	32.0	7.0	33.0	9.0	46.0	8.0	32.0
Max Q Clear Time (g_c+I1), s	4.7	4.5	6.1	5.9	3.2	4.6	6.4	14.5
Green Ext Time (p_c), s	0.2	0.5	0.0	4.0	0.0	0.7	0.0	10.1

Intersection Summary	
HCM 6th Ctrl Delay	17.7
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	595	26	619	1444	417	105	950	478	119	1189	202
Future Volume (veh/h)	123	595	26	619	1444	417	105	950	478	119	1189	202
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	123	595	8	619	1444	292	105	950	234	119	1189	105
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	178	1436	443	487	1817	562	201	1280	569	228	1255	558
Arrive On Green	0.05	0.28	0.28	0.14	0.36	0.36	0.06	0.36	0.36	0.07	0.35	0.35
Sat Flow, veh/h	3456	5106	1577	3456	5106	1578	3456	3554	1578	3456	3554	1578
Grp Volume(v), veh/h	123	595	8	619	1444	292	105	950	234	119	1189	105
Grp Sat Flow(s),veh/h/ln	1728	1702	1577	1728	1702	1578	1728	1777	1578	1728	1777	1578
Q Serve(g_s), s	4.7	12.8	0.4	19.0	34.2	15.4	4.0	31.4	15.0	4.5	43.8	6.2
Cycle Q Clear(g_c), s	4.7	12.8	0.4	19.0	34.2	15.4	4.0	31.4	15.0	4.5	43.8	6.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	178	1436	443	487	1817	562	201	1280	569	228	1255	558
V/C Ratio(X)	0.69	0.41	0.02	1.27	0.79	0.52	0.52	0.74	0.41	0.52	0.95	0.19
Avail Cap(c_a), veh/h	231	1691	522	487	2085	644	205	1280	569	231	1266	562
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.8	39.4	21.9	57.9	39.0	21.0	61.6	37.6	32.4	60.8	42.3	30.2
Incr Delay (d2), s/veh	3.1	0.2	0.0	136.9	2.2	1.1	1.0	2.8	0.9	0.9	14.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	5.2	0.2	17.3	13.9	5.5	1.7	13.4	5.6	1.9	20.6	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.0	39.6	21.9	194.8	41.1	22.1	62.6	40.4	33.3	61.8	57.1	30.5
LnGrp LOS	E	D	C	F	D	C	E	D	C	E	E	C
Approach Vol, veh/h		726			2355			1289			1413	
Approach Delay, s/veh		43.9			79.2			40.9			55.5	
Approach LOS		D			E			D			E	

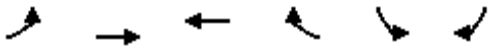
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.9	54.5	23.0	44.3	13.8	53.6	13.3	53.9
Change Period (Y+Rc), s	4.0	6.0	4.0	6.4	6.0	* 6	6.4	* 6
Max Green Setting (Gmax), s	9.0	47.0	19.0	44.6	8.0	* 48	9.0	* 55
Max Q Clear Time (g_c+I1), s	6.5	33.4	21.0	14.8	6.0	45.8	6.7	36.2
Green Ext Time (p_c), s	0.0	7.8	0.0	3.7	0.0	1.7	0.0	11.7

Intersection Summary	
HCM 6th Ctrl Delay	60.4
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	6	1271	2493	243	157	10
Future Volume (veh/h)	6	1271	2493	243	157	10
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	1271	2493	243	157	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	20	3677	3313	1028	230	205
Arrive On Green	0.01	0.72	0.65	0.65	0.13	0.13
Sat Flow, veh/h	1781	5274	5274	1585	1781	1585
Grp Volume(v), veh/h	6	1271	2493	243	157	10
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1585	1781	1585
Q Serve(g_s), s	0.2	6.2	22.2	4.2	5.6	0.4
Cycle Q Clear(g_c), s	0.2	6.2	22.2	4.2	5.6	0.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	20	3677	3313	1028	230	205
V/C Ratio(X)	0.30	0.35	0.75	0.24	0.68	0.05
Avail Cap(c_a), veh/h	537	3677	3461	1074	537	477
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.6	3.5	8.0	4.8	27.6	25.3
Incr Delay (d2), s/veh	3.2	0.1	1.0	0.2	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.3	6.2	1.1	2.4	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.8	3.5	9.0	5.0	28.9	25.4
LnGrp LOS	D	A	A	A	C	C
Approach Vol, veh/h		1277	2736		167	
Approach Delay, s/veh		3.7	8.7		28.7	
Approach LOS		A	A		C	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			53.8		12.6	4.7	49.1
Change Period (Y+Rc), s			6.0		4.0	4.0	6.0
Max Green Setting (Gmax), s			45.0		20.0	20.0	45.0
Max Q Clear Time (g_c+I1), s			8.2		7.6	2.2	24.2
Green Ext Time (p_c), s			12.8		0.3	0.0	18.8

Intersection Summary	
HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



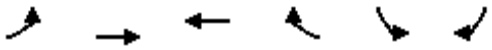
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1458	33	213	2719	25	133
Future Volume (veh/h)	1458	33	213	2719	25	133
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1458	33	213	2719	25	133
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2476	769	269	3579	243	216
Arrive On Green	0.48	0.48	0.15	0.70	0.14	0.14
Sat Flow, veh/h	5274	1585	1781	5274	1781	1585
Grp Volume(v), veh/h	1458	33	213	2719	25	133
Grp Sat Flow(s),veh/h/ln	1702	1585	1781	1702	1781	1585
Q Serve(g_s), s	12.7	0.7	7.1	21.0	0.8	4.9
Cycle Q Clear(g_c), s	12.7	0.7	7.1	21.0	0.8	4.9
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2476	769	269	3579	243	216
V/C Ratio(X)	0.59	0.04	0.79	0.76	0.10	0.61
Avail Cap(c_a), veh/h	3736	1160	869	3736	869	773
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.4	8.3	25.2	5.9	23.3	25.0
Incr Delay (d2), s/veh	0.3	0.0	2.0	1.0	0.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.2	3.0	4.6	0.3	1.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.7	8.4	27.2	6.9	23.3	26.1
LnGrp LOS	B	A	C	A	C	C
Approach Vol, veh/h	1491			2932	158	
Approach Delay, s/veh	11.7			8.4	25.6	
Approach LOS	B			A	C	

Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	12.4	13.3	35.8	49.1
Change Period (Y+Rc), s	4.0	4.0	6.0	6.0
Max Green Setting (Gmax), s	30.0	30.0	45.0	45.0
Max Q Clear Time (g_c+I1), s	6.9	9.1	14.7	23.0
Green Ext Time (p_c), s	0.4	0.4	14.5	20.1

Intersection Summary	
HCM 6th Ctrl Delay	10.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	45	1547	2871	301	185	29
Future Volume (veh/h)	45	1547	2871	301	185	29
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	45	1547	2871	301	185	29
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	102	3727	3152	974	236	210
Arrive On Green	0.06	0.73	0.62	0.62	0.13	0.13
Sat Flow, veh/h	1781	5274	5274	1579	1781	1585
Grp Volume(v), veh/h	45	1547	2871	301	185	29
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1579	1781	1585
Q Serve(g_s), s	1.8	8.5	35.7	6.5	7.3	1.2
Cycle Q Clear(g_c), s	1.8	8.5	35.7	6.5	7.3	1.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	102	3727	3152	974	236	210
V/C Ratio(X)	0.44	0.42	0.91	0.31	0.78	0.14
Avail Cap(c_a), veh/h	491	3727	3164	978	760	677
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.1	3.8	12.2	6.6	30.5	27.8
Incr Delay (d2), s/veh	1.1	0.1	4.6	0.3	2.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.4	10.4	1.6	3.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.2	3.9	16.7	6.8	32.7	27.9
LnGrp LOS	C	A	B	A	C	C
Approach Vol, veh/h		1592	3172		214	
Approach Delay, s/veh		4.8	15.8		32.0	
Approach LOS		A	B		C	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			59.0		13.6	8.2	50.8
Change Period (Y+Rc), s			6.0		4.0	4.0	6.0
Max Green Setting (Gmax), s			45.0		31.0	20.0	45.0
Max Q Clear Time (g_c+I1), s			10.5		9.3	3.8	37.7
Green Ext Time (p_c), s			15.3		0.4	0.0	7.1

Intersection Summary	
HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 10 **Diamond Creek Blvd-Prarie Woods Wy/Blue Oaks Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	23	21	90.4%	59.5	17.3	E
	Through	11	12	112.7%	66.3	21.7	E
	Right Turn	46	48	104.3%	16.2	10.4	B
	Subtotal	80	81	101.5%	34.5	7.7	C
SB	Left Turn	368	368	100.0%	132.3	51.3	F
	Through	33	31	93.3%	137.7	53.3	F
	Right Turn	112	116	103.9%	144.8	57.0	F
	Subtotal	513	515	100.4%	135.9	52.8	F
EB	Left Turn	72	72	99.4%	65.3	16.2	E
	Through	1,650	1,662	100.7%	17.5	2.2	B
	Right Turn	38	42	109.5%	6.3	2.5	A
	Subtotal	1,760	1,775	100.9%	19.2	2.4	B
WB	Left Turn	39	36	92.3%	77.1	7.6	E
	Through	3,035	2,454	80.8%	22.5	5.8	C
	Right Turn	351	296	84.4%	14.2	2.3	B
	Subtotal	3,425	2,786	81.3%	22.3	5.3	C
Total		5,778	5,158	89.3%	32.8	7.4	C

Intersection 11 **Woodcreek Oaks Blvd/Blue Oaks Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	504	397	78.7%	277.1	54.1	F
	Through	428	444	103.6%	70.3	11.4	E
	Right Turn	291	293	100.6%	26.8	2.5	C
	Subtotal	1,223	1,133	92.7%	132.1	20.7	F
SB	Left Turn	379	242	63.7%	341.5	43.5	F
	Through	745	522	70.1%	416.7	40.1	F
	Right Turn	46	32	69.6%	323.1	57.5	F
	Subtotal	1,170	796	68.0%	390.6	42.4	F
EB	Left Turn	186	178	95.5%	128.9	39.8	F
	Through	1,721	1,732	100.6%	39.7	7.9	D
	Right Turn	157	160	101.7%	19.3	5.5	B
	Subtotal	2,064	2,069	100.2%	46.1	9.6	D
WB	Left Turn	685	568	82.9%	87.3	13.5	F
	Through	2,875	2,351	81.8%	52.7	7.9	D
	Right Turn	330	276	83.8%	37.5	9.3	D
	Subtotal	3,890	3,196	82.1%	57.6	8.7	E
Total		8,347	7,194	86.2%	102.8	6.7	F

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 12 **Walgreens Dwy-Roseville Pkwy/Blue Oaks Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	10	9	92.0%	49.1	33.4	D
	Through	12	12	96.7%	74.9	33.9	E
	Right Turn	20	21	104.0%	10.6	4.3	B
	Subtotal	42	42	99.0%	40.3	11.8	D
SB	Left Turn	57	55	96.8%	58.0	13.1	E
	Through	19	14	71.6%	55.7	19.1	E
	Right Turn	11	9	83.6%	18.1	16.9	B
	Subtotal	87	78	89.7%	51.9	8.1	D
EB	Left Turn	6	3	53.3%	82.4	66.8	F
	Through	2,100	1,973	94.0%	17.4	4.9	B
	Right Turn	285	262	92.1%	7.5	2.0	A
	Subtotal	2,391	2,239	93.6%	16.3	4.4	B
WB	Left Turn	166	137	82.7%	67.5	8.3	E
	Through	3,869	3,202	82.8%	18.7	4.9	B
	Right Turn	44	32	72.7%	3.3	1.4	A
	Subtotal	4,079	3,372	82.7%	20.5	4.7	C
Total		6,599	5,730	86.8%	19.5	3.3	B

Intersection 13 **New Meadow Dr/Blue Oaks Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	6	112.0%	58.9	45.5	E
	Through	5	6	112.0%	71.8	48.0	E
	Right Turn	5	5	104.0%	6.6	6.5	A
	Subtotal	15	16	109.3%	57.7	23.5	E
SB	Left Turn	136	126	92.9%	58.3	10.3	E
	Through	5	3	64.0%	38.6	41.9	D
	Right Turn	33	42	126.1%	24.5	15.6	C
	Subtotal	174	171	98.4%	50.5	10.5	D
EB	Left Turn	44	41	93.6%	56.5	15.5	E
	Through	2,128	1,993	93.7%	11.0	2.5	B
	Right Turn	5	5	104.0%	3.8	3.5	A
	Subtotal	2,177	2,040	93.7%	11.8	2.5	B
WB	Left Turn	5	4	72.0%	61.9	63.4	E
	Through	4,041	3,337	82.6%	19.0	2.5	B
	Right Turn	253	215	85.1%	10.2	1.4	B
	Subtotal	4,299	3,556	82.7%	18.5	2.5	B
Total		6,665	5,783	86.8%	17.2	2.3	B

Intersection 14 **Collector C/Blue Oaks Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	12	9	76.7%	63.7	36.4	E
	Through	10	8	80.0%	59.9	32.0	E
	Right Turn	10	10	100.0%	13.4	13.1	B
	Subtotal	32	27	85.0%	53.2	18.4	D
SB	Left Turn	10	6	64.0%	61.7	39.1	E
	Through	10	12	124.0%	78.5	29.3	E
	Right Turn	12	12	96.7%	32.9	24.5	C
	Subtotal	32	30	95.0%	62.5	18.8	E
EB	Left Turn	14	11	80.0%	58.3	24.7	E
	Through	2,284	2,170	95.0%	8.3	1.6	A
	Right Turn	14	17	120.0%	4.6	0.8	A
	Subtotal	2,312	2,198	95.1%	8.5	1.6	A
WB	Left Turn	10	11	108.0%	67.2	26.8	E
	Through	4,188	3,480	83.1%	13.0	0.8	B
	Right Turn	10	3	28.0%	4.0	4.6	A
	Subtotal	4,208	3,494	83.0%	13.1	0.9	B
Total		6,584	5,749	87.3%	11.8	1.0	B

Intersection 15 **Foothills Blvd/Blue Oaks Blvd** **Signal**

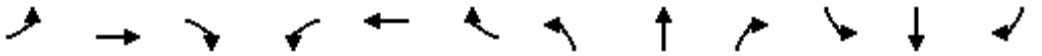
Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	711	502	70.7%	276.3	48.1	F
	Through	859	602	70.1%	317.5	41.1	F
	Right Turn	554	513	92.6%	27.3	10.9	C
	Subtotal	2,124	1,618	76.2%	212.6	31.9	F
SB	Left Turn	683	491	71.9%	291.4	27.7	F
	Through	779	788	101.1%	72.8	7.8	E
	Right Turn	273	273	99.9%	45.1	6.9	D
	Subtotal	1,735	1,552	89.4%	137.2	10.5	F
EB	Left Turn	119	114	96.1%	66.2	11.6	E
	Through	2,035	1,912	93.9%	51.0	5.5	D
	Right Turn	150	141	93.9%	26.6	6.6	C
	Subtotal	2,304	2,167	94.0%	50.2	5.1	D
WB	Left Turn	468	403	86.2%	154.8	20.3	F
	Through	3,224	2,701	83.8%	164.3	28.2	F
	Right Turn	523	439	83.9%	109.2	25.6	F
	Subtotal	4,215	3,543	84.1%	156.6	26.0	F
Total		10,378	8,879	85.6%	137.3	11.6	F

Intersection 16 **SR 65 NB Ramps-Fidelity Wy/Blue Oaks Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	242	157	65.0%	151.4	86.5	F
	Subtotal	242	157	65.0%	151.4	86.5	F
SB	Left Turn						
	Through						
	Right Turn	1,409	1,364	96.8%	67.6	28.3	E
	Subtotal	1,409	1,364	96.8%	67.6	28.3	E
EB	Left Turn						
	Through	3,117	2,680	86.0%	33.2	12.2	C
	Right Turn						
	Subtotal	3,117	2,680	86.0%	33.2	12.2	C
WB	Left Turn	60	51	84.7%	24.7	6.6	C
	Through	2,643	2,515	95.2%	11.0	2.9	B
	Right Turn						
	Subtotal	2,703	2,566	94.9%	11.3	2.9	B
Total		7,471	6,767	90.6%	34.2	5.7	C

Intersection 17 **SR 65 SB Ramps-Washington Blvd/Blue Oaks Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	643	570	88.7%	185.2	30.1	F
	Through						
	Right Turn	1,264	1,205	95.3%	82.0	19.1	F
	Subtotal	1,907	1,775	93.1%	115.1	16.4	F
SB	Left Turn	198	166	83.6%	214.8	52.8	F
	Through	527	451	85.5%	234.0	52.1	F
	Right Turn	546	484	88.7%	140.9	49.9	F
	Subtotal	1,271	1,101	86.6%	191.0	52.4	F
EB	Left Turn						
	Through	1,853	1,524	82.2%	98.8	7.6	F
	Right Turn	1,287	1,036	80.5%	103.7	7.2	F
	Subtotal	3,140	2,560	81.5%	100.8	7.0	F
WB	Left Turn	535	528	98.7%	122.2	44.0	F
	Through	1,514	1,518	100.3%	40.3	17.5	D
	Right Turn	248	242	97.4%	18.9	16.0	B
	Subtotal	2,297	2,288	99.6%	57.3	23.4	E
Total		8,615	7,723	89.6%	103.9	14.2	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	332	427	84	490	71	681	448	124	64	811	5
Future Volume (veh/h)	5	332	427	84	490	71	681	448	124	64	811	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	332	178	84	490	20	681	448	52	64	811	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	9	582	260	108	779	348	755	1643	733	137	1008	449
Arrive On Green	0.01	0.16	0.16	0.06	0.22	0.22	0.22	0.46	0.46	0.04	0.28	0.28
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	5	332	178	84	490	20	681	448	52	64	811	1
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	0.2	6.3	7.7	3.4	9.1	0.7	14.0	5.7	1.3	1.3	15.5	0.0
Cycle Q Clear(g_c), s	0.2	6.3	7.7	3.4	9.1	0.7	14.0	5.7	1.3	1.3	15.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	9	582	260	108	779	348	755	1643	733	137	1008	449
V/C Ratio(X)	0.53	0.57	0.69	0.78	0.63	0.06	0.90	0.27	0.07	0.47	0.80	0.00
Avail Cap(c_a), veh/h	170	1262	563	170	1262	563	755	1699	758	331	1262	563
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	28.2	28.8	33.9	25.9	22.6	27.8	12.1	10.9	34.4	24.3	18.8
Incr Delay (d2), s/veh	39.5	0.9	3.2	11.3	0.8	0.1	14.0	0.1	0.0	2.4	3.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.5	3.0	1.7	3.7	0.3	6.7	1.9	0.4	0.6	6.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.8	29.1	32.0	45.2	26.7	22.7	41.8	12.2	11.0	36.8	27.5	18.8
LnGrp LOS	E	C	C	D	C	C	D	B	B	D	C	B
Approach Vol, veh/h		515			594			1181			876	
Approach Delay, s/veh		30.6			29.2			29.2			28.1	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	38.8	9.4	17.0	21.0	25.8	5.4	21.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	35.0	7.0	26.0	16.0	26.0	7.0	26.0
Max Q Clear Time (g_c+I1), s	3.3	7.7	5.4	9.7	16.0	17.5	2.2	11.1
Green Ext Time (p_c), s	0.0	2.9	0.0	2.3	0.0	3.3	0.0	2.7

Intersection Summary	
HCM 6th Ctrl Delay	29.1
HCM 6th LOS	C

Notes

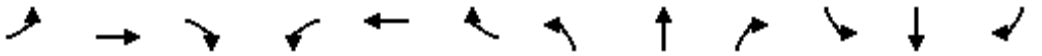
User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	549	10	10	656	10	10
Future Volume (veh/h)	549	10	10	656	10	10
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	549	10	10	656	10	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1469	655	562	1469	299	266
Arrive On Green	0.41	0.41	0.41	0.41	0.17	0.17
Sat Flow, veh/h	3647	1585	850	3647	1781	1585
Grp Volume(v), veh/h	549	10	10	656	10	10
Grp Sat Flow(s),veh/h/ln	1777	1585	850	1777	1781	1585
Q Serve(g_s), s	2.6	0.1	0.2	3.2	0.1	0.1
Cycle Q Clear(g_c), s	2.6	0.1	2.8	3.2	0.1	0.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1469	655	562	1469	299	266
V/C Ratio(X)	0.37	0.02	0.02	0.45	0.03	0.04
Avail Cap(c_a), veh/h	6850	3055	1850	6850	1791	1594
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.9	4.1	5.8	5.0	8.3	8.3
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.0	4.1	5.8	5.2	8.4	8.4
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	559			666	20	
Approach Delay, s/veh	5.0			5.3	8.4	
Approach LOS	A			A	A	

Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		9.0		14.9		14.9
Change Period (Y+Rc), s		5.0		5.0		5.0
Max Green Setting (Gmax), s		24.0		46.0		46.0
Max Q Clear Time (g_c+I1), s		2.1		4.6		5.2
Green Ext Time (p_c), s		0.0		3.9		4.8

Intersection Summary	
HCM 6th Ctrl Delay	5.2
HCM 6th LOS	A



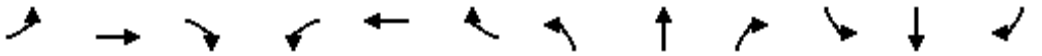
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	363	30	58	547	359	20	998	83	284	1290	114
Future Volume (veh/h)	80	363	30	58	547	359	20	998	83	284	1290	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	363	30	58	547	359	20	998	83	284	1290	114
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	316	900	402	277	860	384	56	1205	374	327	2045	635
Arrive On Green	0.09	0.25	0.25	0.08	0.24	0.24	0.03	0.24	0.24	0.18	0.40	0.40
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	80	363	30	58	547	359	20	998	83	284	1290	114
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	1.8	7.0	1.2	1.3	11.4	18.3	0.9	15.3	3.5	12.8	16.7	3.8
Cycle Q Clear(g_c), s	1.8	7.0	1.2	1.3	11.4	18.3	0.9	15.3	3.5	12.8	16.7	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	316	900	402	277	860	384	56	1205	374	327	2045	635
V/C Ratio(X)	0.25	0.40	0.07	0.21	0.64	0.94	0.36	0.83	0.22	0.87	0.63	0.18
Avail Cap(c_a), veh/h	836	900	402	836	860	384	431	1236	384	970	2045	635
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	25.7	23.5	35.6	28.1	30.7	39.2	30.0	25.5	32.8	19.9	16.0
Incr Delay (d2), s/veh	0.2	0.7	0.2	0.1	2.4	31.1	1.5	5.5	0.7	2.8	1.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.0	0.5	0.5	5.0	10.0	0.4	6.7	1.4	5.6	6.5	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.1	26.4	23.7	35.7	30.5	61.8	40.7	35.5	26.2	35.5	21.4	16.6
LnGrp LOS	D	C	C	D	C	E	D	D	C	D	C	B
Approach Vol, veh/h		473			964			1101			1688	
Approach Delay, s/veh		27.7			42.4			34.9			23.4	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.2	25.2	10.6	26.6	6.6	38.8	11.6	25.7
Change Period (Y+Rc), s	5.0	5.7	4.0	5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	45.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Max Q Clear Time (g_c+I1), s	14.8	17.3	3.3	9.0	2.9	18.7	3.8	20.3
Green Ext Time (p_c), s	0.4	2.2	0.1	3.2	0.0	1.2	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	31.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	663	13	84	905	42	6	5	31	18	1	13
Future Volume (veh/h)	30	663	13	84	905	42	6	5	31	18	1	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	663	13	84	905	42	6	5	31	18	1	13
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	51	1254	559	113	1377	614	12	25	158	33	14	186
Arrive On Green	0.03	0.35	0.35	0.06	0.39	0.39	0.01	0.11	0.11	0.02	0.12	0.12
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	225	1394	1781	114	1488
Grp Volume(v), veh/h	30	663	13	84	905	42	6	0	36	18	0	14
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1619	1781	0	1603
Q Serve(g_s), s	0.6	5.3	0.2	1.6	7.4	0.6	0.1	0.0	0.7	0.4	0.0	0.3
Cycle Q Clear(g_c), s	0.6	5.3	0.2	1.6	7.4	0.6	0.1	0.0	0.7	0.4	0.0	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.86	1.00		0.93
Lane Grp Cap(c), veh/h	51	1254	559	113	1377	614	12	0	183	33	0	200
V/C Ratio(X)	0.58	0.53	0.02	0.74	0.66	0.07	0.52	0.00	0.20	0.55	0.00	0.07
Avail Cap(c_a), veh/h	403	2009	896	403	2009	896	403	0	1419	403	0	1404
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.0	9.1	7.5	16.3	8.9	6.8	17.5	0.0	14.2	17.2	0.0	13.7
Incr Delay (d2), s/veh	10.1	0.3	0.0	9.2	0.5	0.0	31.9	0.0	0.5	13.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.2	0.0	0.8	1.6	0.1	0.1	0.0	0.2	0.2	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.0	9.5	7.5	25.4	9.4	6.9	49.4	0.0	14.7	30.9	0.0	13.8
LnGrp LOS	C	A	A	C	A	A	D	A	B	C	A	B
Approach Vol, veh/h		706			1031			42			32	
Approach Delay, s/veh		10.2			10.6			19.7			23.4	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.6	8.0	6.2	16.5	4.2	8.4	5.0	17.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	31.0	8.0	20.0	8.0	31.0	8.0	20.0
Max Q Clear Time (g_c+I1), s	2.4	2.7	3.6	7.3	2.1	2.3	2.6	9.4
Green Ext Time (p_c), s	0.0	0.1	0.1	3.4	0.0	0.0	0.0	4.3

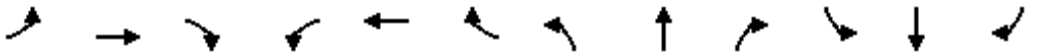
Intersection Summary	
HCM 6th Ctrl Delay	10.9
HCM 6th LOS	B



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	872	108	239	1371	150	101
Future Volume (veh/h)	872	108	239	1371	150	101
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	872	108	239	1371	150	101
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1346	600	275	2287	241	215
Arrive On Green	0.38	0.38	0.15	0.64	0.14	0.14
Sat Flow, veh/h	3647	1585	1781	3647	1781	1585
Grp Volume(v), veh/h	872	108	239	1371	150	101
Grp Sat Flow(s),veh/h/ln	1777	1585	1781	1777	1781	1585
Q Serve(g_s), s	9.1	2.1	5.9	10.1	3.6	2.7
Cycle Q Clear(g_c), s	9.1	2.1	5.9	10.1	3.6	2.7
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1346	600	275	2287	241	215
V/C Ratio(X)	0.65	0.18	0.87	0.60	0.62	0.47
Avail Cap(c_a), veh/h	2511	1120	275	3453	629	560
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.6	9.4	18.7	4.7	18.5	18.1
Incr Delay (d2), s/veh	0.5	0.1	24.2	0.3	2.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.5	3.8	1.1	1.5	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.1	9.5	42.9	4.9	21.1	19.7
LnGrp LOS	B	A	D	A	C	B
Approach Vol, veh/h	980			1610	251	
Approach Delay, s/veh	11.8			10.6	20.5	
Approach LOS	B			B	C	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		11.1	12.0	22.1		34.1
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0
Max Green Setting (Gmax), s		16.0	7.0	32.0		44.0
Max Q Clear Time (g_c+I1), s		5.6	7.9	11.1		12.1
Green Ext Time (p_c), s		0.5	0.0	6.0		11.8

Intersection Summary	
HCM 6th Ctrl Delay	11.9
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	633	323	1127	940	168	600	1146	817	142	1376	176
Future Volume (veh/h)	112	633	323	1127	940	168	600	1146	817	142	1376	176
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	112	633	130	1127	940	157	600	1146	504	142	1376	61
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	234	634	283	1115	1013	169	582	1992	618	185	1406	437
Arrive On Green	0.07	0.18	0.18	0.22	0.33	0.33	0.17	0.39	0.39	0.05	0.28	0.28
Sat Flow, veh/h	3456	3554	1585	5023	3047	509	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	112	633	130	1127	548	549	600	1146	504	142	1376	61
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1674	1777	1779	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	4.1	23.3	9.6	29.0	38.9	38.9	22.0	23.1	37.2	5.3	34.9	3.8
Cycle Q Clear(g_c), s	4.1	23.3	9.6	29.0	38.9	38.9	22.0	23.1	37.2	5.3	34.9	3.8
Prop In Lane	1.00		1.00	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	234	634	283	1115	591	591	582	1992	618	185	1406	437
V/C Ratio(X)	0.48	1.00	0.46	1.01	0.93	0.93	1.03	0.58	0.81	0.77	0.98	0.14
Avail Cap(c_a), veh/h	238	634	283	1115	591	591	582	1992	618	185	1406	437
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.7	53.7	48.1	50.8	42.1	42.1	54.3	31.3	35.6	61.0	47.0	35.7
Incr Delay (d2), s/veh	0.6	35.5	2.0	29.7	21.3	21.4	45.6	0.5	8.8	15.9	19.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	13.2	3.9	14.8	19.7	19.8	12.8	9.0	15.1	2.7	16.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.3	89.2	50.1	80.6	63.4	63.5	100.0	31.9	44.4	77.0	66.0	36.0
LnGrp LOS	E	F	D	F	E	E	F	C	D	E	E	D
Approach Vol, veh/h		875			2224			2250			1579	
Approach Delay, s/veh		79.6			72.1			52.8			65.9	
Approach LOS		E			E			D			E	

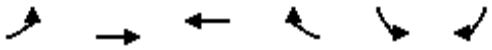
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	57.4	33.0	29.3	26.0	42.4	12.8	49.5
Change Period (Y+Rc), s	4.0	6.4	4.0	* 6	4.0	* 6.4	4.0	6.0
Max Green Setting (Gmax), s	7.0	50.6	29.0	* 23	22.0	* 36	9.0	43.0
Max Q Clear Time (g_c+I1), s	7.3	39.2	31.0	25.3	24.0	36.9	6.1	40.9
Green Ext Time (p_c), s	0.0	8.1	0.0	0.0	0.0	0.0	0.1	1.3

Intersection Summary	
HCM 6th Ctrl Delay	65.4
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	23	1528	2083	123	124	16
Future Volume (veh/h)	23	1528	2083	123	124	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	1528	2083	0	124	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	69	2844	2548		158	
Arrive On Green	0.04	0.80	0.72	0.00	0.09	0.00
Sat Flow, veh/h	1781	3647	3647	1585	1781	1585
Grp Volume(v), veh/h	23	1528	2083	0	124	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1781	1585
Q Serve(g_s), s	1.1	13.6	36.1	0.0	6.1	0.0
Cycle Q Clear(g_c), s	1.1	13.6	36.1	0.0	6.1	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	69	2844	2548		158	
V/C Ratio(X)	0.33	0.54	0.82		0.79	
Avail Cap(c_a), veh/h	317	2844	2548		515	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	42.1	3.1	8.7	0.0	40.2	0.0
Incr Delay (d2), s/veh	1.0	0.7	2.4	0.0	3.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.1	11.4	0.0	2.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.1	3.9	11.1	0.0	43.4	0.0
LnGrp LOS	D	A	B		D	
Approach Vol, veh/h		1551	2083	A	124	A
Approach Delay, s/veh		4.5	11.1		43.4	
Approach LOS		A	B		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			78.0		12.0	7.5	70.5
Change Period (Y+Rc), s			6.0		4.0	4.0	* 6
Max Green Setting (Gmax), s			54.0		26.0	16.0	* 34
Max Q Clear Time (g_c+I1), s			15.6		8.1	3.1	38.1
Green Ext Time (p_c), s			17.9		0.2	0.0	0.0

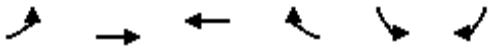
Intersection Summary	
HCM 6th Ctrl Delay	9.4
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



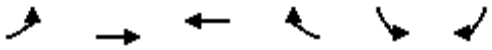
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	17	1664	2147	48	58	17
Future Volume (veh/h)	17	1664	2147	48	58	17
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1900	1900
Adj Flow Rate, veh/h	17	1664	2147	48	58	17
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	0	0
Cap, veh/h	48	2902	2648	59	100	29
Arrive On Green	0.03	0.82	0.75	0.75	0.08	0.08
Sat Flow, veh/h	1781	3647	3647	79	1324	388
Grp Volume(v), veh/h	17	1664	1069	1126	76	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1856	1734	0
Q Serve(g_s), s	0.8	14.5	34.7	35.3	3.8	0.0
Cycle Q Clear(g_c), s	0.8	14.5	34.7	35.3	3.8	0.0
Prop In Lane	1.00			0.04	0.76	0.22
Lane Grp Cap(c), veh/h	48	2902	1324	1383	131	0
V/C Ratio(X)	0.35	0.57	0.81	0.81	0.58	0.00
Avail Cap(c_a), veh/h	317	2902	1324	1383	501	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	43.0	2.8	7.3	7.4	40.2	0.0
Incr Delay (d2), s/veh	1.6	0.8	4.1	4.1	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.0	10.9	11.6	1.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.7	3.7	11.5	11.6	41.7	0.0
LnGrp LOS	D	A	B	B	D	A
Approach Vol, veh/h		1681	2195		76	
Approach Delay, s/veh		4.1	11.5		41.7	
Approach LOS		A	B		D	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	79.2	10.8	6.4	72.8
Change Period (Y+Rc), s	5.7	4.0	4.0	5.7
Max Green Setting (Gmax), s	54.3	26.0	16.0	34.3
Max Q Clear Time (g_c+I1), s	16.5	5.8	2.8	37.3
Green Ext Time (p_c), s	22.6	0.1	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	8.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



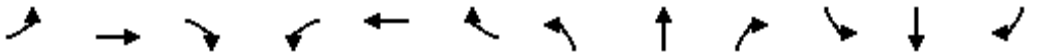
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	63	1604	2190	68	43	33
Future Volume (veh/h)	63	1604	2190	68	43	33
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	63	1604	2190	68	43	33
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	126	2902	2469	76	135	120
Arrive On Green	0.07	0.82	0.70	0.70	0.08	0.08
Sat Flow, veh/h	1781	3647	3612	109	1781	1585
Grp Volume(v), veh/h	63	1604	1100	1158	43	33
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1850	1781	1585
Q Serve(g_s), s	3.1	13.6	43.6	44.9	2.1	1.8
Cycle Q Clear(g_c), s	3.1	13.6	43.6	44.9	2.1	1.8
Prop In Lane	1.00			0.06	1.00	1.00
Lane Grp Cap(c), veh/h	126	2902	1247	1298	135	120
V/C Ratio(X)	0.50	0.55	0.88	0.89	0.32	0.28
Avail Cap(c_a), veh/h	317	2902	1247	1298	515	458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.3	2.8	10.5	10.7	39.4	39.3
Incr Delay (d2), s/veh	1.2	0.8	8.0	8.4	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.8	16.0	17.2	0.9	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.5	3.5	18.5	19.1	39.9	39.7
LnGrp LOS	D	A	B	B	D	D
Approach Vol, veh/h		1667	2258		76	
Approach Delay, s/veh		5.0	18.8		39.8	
Approach LOS		A	B		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			79.2		10.8	10.3	68.9
Change Period (Y+Rc), s			5.7		4.0	4.0	5.7
Max Green Setting (Gmax), s			54.3		26.0	16.0	34.3
Max Q Clear Time (g_c+I1), s			15.6		4.1	5.1	46.9
Green Ext Time (p_c), s			20.6		0.1	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	13.4
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	236	1298	190	354	1836	534	241	598	328	275	1027	251
Future Volume (veh/h)	236	1298	190	354	1836	534	241	598	328	275	1027	251
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	236	1298	0	354	1836	0	241	598	0	275	1027	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	233	1582		1055	2860		233	772		380	967	
Arrive On Green	0.08	0.34	0.00	0.34	0.62	0.00	0.08	0.24	0.00	0.12	0.30	0.00
Sat Flow, veh/h	3110	4595	1427	3110	4595	1427	3110	3198	1427	3110	3198	1427
Grp Volume(v), veh/h	236	1298	0	354	1836	0	241	598	0	275	1027	0
Grp Sat Flow(s),veh/h/ln	1555	1532	1427	1555	1532	1427	1555	1599	1427	1555	1599	1427
Q Serve(g_s), s	9.0	31.0	0.0	10.2	30.1	0.0	9.0	20.9	0.0	10.2	36.3	0.0
Cycle Q Clear(g_c), s	9.0	31.0	0.0	10.2	30.1	0.0	9.0	20.9	0.0	10.2	36.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	233	1582		1055	2860		233	772		380	967	
V/C Ratio(X)	1.01	0.82		0.34	0.64		1.03	0.78		0.72	1.06	
Avail Cap(c_a), veh/h	233	1582		1055	2860		233	941		380	967	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	55.5	36.0	0.0	29.6	14.2	0.0	55.5	42.5	0.0	50.7	41.8	0.0
Incr Delay (d2), s/veh	62.0	4.9	0.0	0.1	0.6	0.0	67.8	4.2	0.0	5.9	46.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	11.5	0.0	3.6	9.0	0.0	5.6	8.4	0.0	4.2	19.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	117.5	40.9	0.0	29.6	14.9	0.0	123.3	46.7	0.0	56.6	88.6	0.0
LnGrp LOS	F	D		C	B		F	D		E	F	
Approach Vol, veh/h		1534	A		2190	A		839	A		1302	A
Approach Delay, s/veh		52.7			17.3			68.7			81.8	
Approach LOS		D			B			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.4	34.6	46.5	47.0	13.0	42.0	13.0	80.5
Change Period (Y+Rc), s	5.7	* 5.7	5.7	* 5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	10.0	* 35	14.0	* 41	9.0	36.3	9.0	46.3
Max Q Clear Time (g_c+I1), s	12.2	22.9	12.2	33.0	11.0	38.3	11.0	32.1
Green Ext Time (p_c), s	0.0	3.6	0.2	5.6	0.0	0.0	0.0	11.0

Intersection Summary	
HCM 6th Ctrl Delay	48.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1807	103	200	2471	142	117
Future Volume (veh/h)	1807	103	200	2471	142	117
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1807	103	200	2471	142	117
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2669	152	230	3587	181	161
Arrive On Green	0.54	0.54	0.13	0.70	0.10	0.10
Sat Flow, veh/h	5108	281	1781	5274	1781	1585
Grp Volume(v), veh/h	1244	666	200	2471	142	117
Grp Sat Flow(s),veh/h/ln	1702	1817	1781	1702	1781	1585
Q Serve(g_s), s	31.8	31.9	13.2	33.5	9.3	8.6
Cycle Q Clear(g_c), s	31.8	31.9	13.2	33.5	9.3	8.6
Prop In Lane		0.15	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1839	981	230	3587	181	161
V/C Ratio(X)	0.68	0.68	0.87	0.69	0.78	0.73
Avail Cap(c_a), veh/h	1839	981	386	3587	386	343
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	20.0	51.3	10.3	52.6	52.3
Incr Delay (d2), s/veh	2.0	3.8	5.5	1.1	2.8	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.8	13.2	6.0	10.2	4.2	3.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.0	23.8	56.8	11.4	55.4	54.6
LnGrp LOS	C	C	E	B	E	D
Approach Vol, veh/h	1910			2671	259	
Approach Delay, s/veh	22.6			14.8	55.1	
Approach LOS	C			B	E	

Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	16.2	19.5	70.5	90.0
Change Period (Y+Rc), s	4.0	4.0	5.7	5.7
Max Green Setting (Gmax), s	26.0	26.0	38.3	84.3
Max Q Clear Time (g_c+I1), s	11.3	15.2	33.9	35.5
Green Ext Time (p_c), s	0.9	0.3	4.3	48.3

Intersection Summary	
HCM 6th Ctrl Delay	20.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Intersection 31 **Foothills Blvd/Pleasant Grove Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	324	308	95.2%	170.2	56.6	F
	Through	408	414	101.5%	49.5	8.6	D
	Right Turn	703	705	100.3%	11.1	10.9	B
	Subtotal	1,435	1,428	99.5%	56.8	19.7	E
SB	Left Turn	237	225	94.9%	108.6	10.4	F
	Through	1,481	1,321	89.2%	100.6	6.1	F
	Right Turn	456	418	91.7%	17.0	5.2	B
	Subtotal	2,174	1,964	90.3%	83.8	6.1	F
EB	Left Turn	277	291	105.0%	144.6	50.3	F
	Through	1,439	1,500	104.2%	116.1	46.4	F
	Right Turn	201	218	108.7%	50.3	37.0	D
	Subtotal	1,917	2,009	104.8%	113.2	45.0	F
WB	Left Turn	818	518	63.3%	159.7	27.8	F
	Through	1,773	1,404	79.2%	40.9	7.9	D
	Right Turn	140	112	80.0%	14.0	4.9	B
	Subtotal	2,731	2,034	74.5%	69.8	10.4	E
Total		8,257	7,434	90.0%	82.7	13.9	F

Intersection 32 **Washington Blvd/Pleasant Grove Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	286	258	90.3%	193.1	55.4	F
	Through	556	590	106.1%	37.3	4.5	D
	Right Turn	319	316	99.2%	5.4	0.8	A
	Subtotal	1,161	1,165	100.3%	63.3	14.9	E
SB	Left Turn	165	117	71.0%	147.6	16.0	F
	Through	1,261	1,145	90.8%	106.0	15.2	F
	Right Turn	238	233	97.8%	77.2	15.6	E
	Subtotal	1,664	1,495	89.9%	104.7	15.2	F
EB	Left Turn	202	162	80.4%	228.5	52.2	F
	Through	1,801	1,610	89.4%	133.9	24.8	F
	Right Turn	264	229	86.8%	110.7	24.0	F
	Subtotal	2,267	2,001	88.3%	139.1	19.5	F
WB	Left Turn	442	286	64.7%	158.0	40.6	F
	Through	2,131	1,703	79.9%	81.5	19.4	F
	Right Turn	65	49	75.7%	41.4	22.4	D
	Subtotal	2,638	2,038	77.3%	91.4	21.2	F
Total		7,730	6,700	86.7%	103.8	12.8	F

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 33 **Hallisy Dr/Pleasant Grove Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	374	362	96.8%	168.5	71.7	F
	Through	82	71	86.8%	155.2	62.0	F
	Right Turn	28	30	108.6%	156.3	85.5	F
	Subtotal	484	464	95.8%	166.0	71.0	F
SB	Left Turn	65	65	99.7%	68.3	10.5	E
	Through	25	28	112.0%	69.5	20.3	E
	Right Turn	15	12	82.7%	4.2	4.8	A
	Subtotal	105	105	100.2%	61.4	10.3	E
EB	Left Turn	14	12	88.6%	103.8	28.9	F
	Through	2,093	1,772	84.7%	15.7	2.7	B
	Right Turn	17	14	84.7%	6.1	1.2	A
	Subtotal	2,124	1,799	84.7%	16.2	2.9	B
WB	Left Turn	81	75	92.3%	83.2	29.5	F
	Through	2,295	2,048	89.3%	48.9	30.9	D
	Right Turn	106	97	91.7%	24.3	17.5	C
	Subtotal	2,482	2,220	89.5%	49.0	30.5	D
Total		5,195	4,588	88.3%	47.7	15.1	D

Intersection 35 **Pleasant Grove Blvd/Highland Pointe Dr** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	376	341	90.6%	90.1	14.3	F
	Through	2,014	1,784	88.6%	41.4	7.4	D
	Right Turn	12	9	73.3%	17.0	6.3	B
	Subtotal	2,402	2,134	88.8%	49.2	5.1	D
SB	Left Turn	184	152	82.8%	79.7	11.0	E
	Through	2,066	1,828	88.5%	53.0	14.3	D
	Right Turn	272	250	91.8%	15.9	5.1	B
	Subtotal	2,522	2,230	88.4%	50.7	12.8	D
EB	Left Turn	644	482	74.8%	247.8	25.0	F
	Through						
	Right Turn	358	348	97.1%	63.2	24.8	E
	Subtotal	1,002	829	82.8%	170.6	25.5	F
WB	Left Turn	139	118	84.6%	69.4	15.8	E
	Through						
	Right Turn	402	271	67.5%	242.0	44.3	F
	Subtotal	541	389	71.9%	190.6	36.2	F
Total		6,467	5,582	86.3%	77.5	6.2	E

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 34 **Roseville Pkwy/Pleasant Grove Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1,110	934	84.2%	89.8	6.1	F
	Through	1,304	1,037	79.5%	105.0	26.7	F
	Right Turn	836	690	82.5%	4.5	0.6	A
	Subtotal	3,250	2,661	81.9%	73.7	10.4	E
SB	Left Turn	379	328	86.6%	173.1	47.7	F
	Through	993	894	90.0%	224.8	51.3	F
	Right Turn	28	25	90.0%	127.6	54.8	F
	Subtotal	1,400	1,248	89.1%	209.4	51.1	F
EB	Left Turn	35	34	98.3%	138.8	38.6	F
	Through	1,257	1,288	102.4%	153.6	51.0	F
	Right Turn	781	779	99.8%	62.9	46.4	E
	Subtotal	2,073	2,101	101.4%	119.8	49.3	F
WB	Left Turn	697	516	74.1%	204.9	19.2	F
	Through	1,527	1,456	95.4%	42.2	4.7	D
	Right Turn	282	276	97.7%	10.5	3.9	B
	Subtotal	2,506	2,248	89.7%	75.6	6.4	E
Total		9,229	8,258	89.5%	106.1	13.9	F

Intersection 36 **SR 65 SB Ramps/Pleasant Grove Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	127	118	92.9%	103.1	48.0	F
	Through						
	Right Turn	549	524	95.4%	116.2	49.5	F
	Subtotal	676	642	94.9%	113.8	49.2	F
EB	Left Turn						
	Through	1,997	1,578	79.0%	19.3	1.9	B
	Right Turn	1,029	804	78.1%	9.6	1.3	A
	Subtotal	3,026	2,382	78.7%	16.0	1.6	B
WB	Left Turn						
	Through	2,094	1,918	91.6%	13.6	3.4	B
	Right Turn	549	489	89.1%	9.8	1.4	A
	Subtotal	2,643	2,407	91.1%	12.9	2.9	B
Total		6,345	5,431	85.6%	26.1	6.3	C

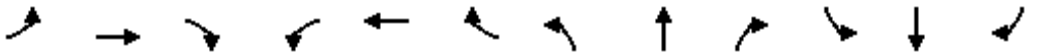
Intersection 37 **SR 65 NB Ramps/Pleasant Grove Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	835	875	104.8%	24.3	4.0	C
	Through						
	Right Turn	1,260	1,248	99.1%	52.2	16.4	D
	Subtotal	2,095	2,123	101.3%	40.8	11.0	D
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	1,542	1,232	79.9%	39.6	9.1	D
	Right Turn	582	455	78.2%	9.7	1.0	A
	Subtotal	2,124	1,687	79.4%	31.6	7.4	C
WB	Left Turn	219	179	81.6%	55.7	8.4	E
	Through	1,808	1,599	88.4%	21.9	5.1	C
	Right Turn						
	Subtotal	2,027	1,778	87.7%	25.4	4.6	C
Total		6,246	5,588	89.5%	33.1	5.2	C

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 38 **Pleasant Grove Blvd/Fairway Dr** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1,013	880	86.8%	59.3	4.0	E
	Through	1,178	1,092	92.7%	35.8	2.3	D
	Right Turn	521	492	94.5%	23.3	4.3	C
	Subtotal	2,712	2,464	90.9%	41.7	2.4	D
SB	Left Turn	101	106	105.0%	88.2	16.3	F
	Through	696	760	109.2%	78.7	14.2	E
	Right Turn	194	189	97.5%	37.9	12.7	D
	Subtotal	991	1,055	106.5%	72.7	12.3	E
EB	Left Turn	286	262	91.5%	67.1	7.5	E
	Through	566	602	106.3%	55.9	5.4	E
	Right Turn	690	545	79.0%	199.0	43.7	F
	Subtotal	1,542	1,408	91.3%	113.4	16.5	F
WB	Left Turn	619	464	75.0%	170.7	25.0	F
	Through	606	567	93.5%	67.3	13.6	E
	Right Turn	116	115	99.3%	42.2	13.3	D
	Subtotal	1,341	1,146	85.5%	106.8	18.7	F
Total		6,586	6,074	92.2%	76.0	5.7	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	14	34	229	32	87	91	1098	268	109	602	1
Future Volume (veh/h)	14	14	34	229	32	87	91	1098	268	109	602	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	14	3	229	32	20	91	1098	155	109	602	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	17	20	4	253	157	98	112	3289	1021	131	2327	1038
Arrive On Green	0.01	0.01	0.01	0.14	0.15	0.15	0.06	0.64	0.64	0.07	0.65	0.65
Sat Flow, veh/h	1781	1493	320	1781	1076	673	1781	5106	1585	1781	3554	1585
Grp Volume(v), veh/h	14	0	17	229	0	52	91	1098	155	109	602	1
Grp Sat Flow(s),veh/h/ln	1781	0	1813	1781	0	1749	1781	1702	1585	1781	1777	1585
Q Serve(g_s), s	1.2	0.0	1.4	19.0	0.0	3.9	7.6	14.6	5.8	9.1	10.6	0.0
Cycle Q Clear(g_c), s	1.2	0.0	1.4	19.0	0.0	3.9	7.6	14.6	5.8	9.1	10.6	0.0
Prop In Lane	1.00		0.18	1.00		0.38	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	17	0	25	253	0	256	112	3289	1021	131	2327	1038
V/C Ratio(X)	0.84	0.00	0.69	0.90	0.00	0.20	0.81	0.33	0.15	0.83	0.26	0.00
Avail Cap(c_a), veh/h	95	0	508	356	0	738	178	3289	1021	202	2327	1038
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	74.2	0.0	73.7	63.3	0.0	56.3	69.4	12.1	10.5	68.6	10.8	8.9
Incr Delay (d2), s/veh	31.4	0.0	25.8	16.7	0.0	0.3	6.6	0.3	0.3	9.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.8	9.8	0.0	1.8	3.7	5.6	2.1	4.5	4.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	105.6	0.0	99.5	80.0	0.0	56.7	76.0	12.4	10.8	77.9	10.9	8.9
LnGrp LOS	F	A	F	E	A	E	E	B	B	E	B	A
Approach Vol, veh/h		31			281			1344			712	
Approach Delay, s/veh		102.2			75.7			16.5			21.1	
Approach LOS		F			E			B			C	

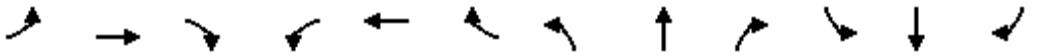
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	102.3	25.3	7.3	13.4	103.9	5.4	27.2
Change Period (Y+Rc), s	4.0	5.7	4.0	* 5.3	4.0	* 5.7	4.0	5.3
Max Green Setting (Gmax), s	17.0	42.7	30.0	* 42	15.0	* 46	8.0	63.3
Max Q Clear Time (g_c+I1), s	11.1	16.6	21.0	3.4	9.6	12.6	3.2	5.9
Green Ext Time (p_c), s	0.1	12.1	0.3	0.0	0.1	5.6	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	26.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

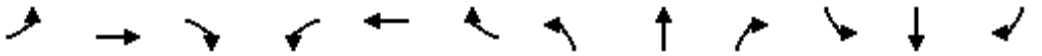
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	3	8	42	8	61	21	1618	57	70	1515	9
Future Volume (veh/h)	4	3	8	42	8	61	21	1618	57	70	1515	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	3	8	42	8	61	21	1618	57	70	1515	9
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	8	73	33	66	190	85	37	1980	615	96	2150	667
Arrive On Green	0.00	0.02	0.02	0.04	0.05	0.05	0.02	0.39	0.39	0.05	0.42	0.42
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	4	3	8	42	8	61	21	1618	57	70	1515	9
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	0.1	0.0	0.2	0.9	0.1	1.5	0.5	11.4	0.9	1.5	9.8	0.1
Cycle Q Clear(g_c), s	0.1	0.0	0.2	0.9	0.1	1.5	0.5	11.4	0.9	1.5	9.8	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	8	73	33	66	190	85	37	1980	615	96	2150	667
V/C Ratio(X)	0.52	0.04	0.24	0.63	0.04	0.72	0.57	0.82	0.09	0.73	0.70	0.01
Avail Cap(c_a), veh/h	490	2844	1269	490	2844	1269	490	2044	634	490	2150	667
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.9	19.2	19.3	19.0	17.9	18.6	19.4	11.0	7.8	18.6	9.5	6.7
Incr Delay (d2), s/veh	44.5	0.2	3.8	9.5	0.1	10.8	12.9	2.7	0.1	9.9	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.1	0.5	0.0	0.7	0.3	3.0	0.2	0.8	2.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.4	19.4	23.1	28.5	18.0	29.4	32.3	13.6	7.8	28.6	10.6	6.7
LnGrp LOS	E	B	C	C	B	C	C	B	A	C	B	A
Approach Vol, veh/h		15			111			1696			1594	
Approach Delay, s/veh		33.4			28.2			13.7			11.4	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	20.5	6.5	5.8	5.8	21.8	5.2	7.1
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	11.0	16.0	11.0	32.0	11.0	16.0	11.0	32.0
Max Q Clear Time (g_c+I1), s	3.5	13.4	2.9	2.2	2.5	11.8	2.1	3.5
Green Ext Time (p_c), s	0.1	2.1	0.0	0.0	0.0	3.2	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	13.1
HCM 6th LOS	B



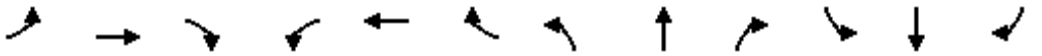
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	80	7	1	128	34	4	1	3	14	1	2
Future Volume (veh/h)	1	80	7	1	128	34	4	1	3	14	1	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	80	7	1	128	34	4	1	3	14	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	5	416	185	5	416	185	8	8	7	521	547	464
Arrive On Green	0.00	0.12	0.12	0.00	0.12	0.12	0.00	0.00	0.00	0.29	0.29	0.29
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	1	80	7	1	128	34	4	1	3	14	1	2
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.0	0.7	0.1	0.0	1.1	0.7	0.1	0.0	0.1	0.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.7	0.1	0.0	1.1	0.7	0.1	0.0	0.1	0.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	5	416	185	5	416	185	8	8	7	521	547	464
V/C Ratio(X)	0.19	0.19	0.04	0.19	0.31	0.18	0.51	0.12	0.43	0.03	0.00	0.00
Avail Cap(c_a), veh/h	365	1767	788	365	1819	811	365	1422	1205	573	1587	1345
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.0	13.6	13.4	17.0	13.8	13.6	17.0	17.0	17.0	8.6	8.6	8.6
Incr Delay (d2), s/veh	16.9	0.2	0.1	16.9	0.4	0.5	44.2	6.6	37.6	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.2	0.0	0.0	0.4	0.2	0.1	0.0	0.1	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.0	13.9	13.5	34.0	14.2	14.1	61.2	23.5	54.6	8.6	8.6	8.6
LnGrp LOS	C	B	B	C	B	B	E	C	D	A	A	A
Approach Vol, veh/h		88			163			8			17	
Approach Delay, s/veh		14.1			14.3			54.0			8.6	
Approach LOS		B			B			D			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	5.1	5.0	9.0	5.1	15.0	5.0	9.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	* 5
Max Green Setting (Gmax), s	11.0	26.0	7.0	17.0	7.0	29.0	7.0	* 18
Max Q Clear Time (g_c+I1), s	2.2	2.1	2.0	2.7	2.1	2.0	2.0	3.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	15.0
HCM 6th LOS	B

Notes

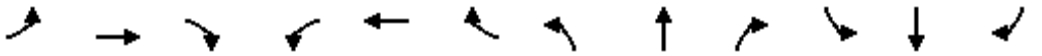
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	61	18	175	130	68	32	1451	144	57	1222	41
Future Volume (veh/h)	13	61	18	175	130	68	32	1451	144	57	1222	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	13	61	18	175	130	68	32	1451	144	57	1222	41
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	23	163	73	220	557	249	48	2488	772	72	2557	794
Arrive On Green	0.01	0.05	0.05	0.12	0.16	0.16	0.03	0.49	0.49	0.04	0.50	0.50
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	13	61	18	175	130	68	32	1451	144	57	1222	41
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	0.5	1.1	0.7	6.4	2.1	2.5	1.2	13.6	3.4	2.1	10.5	0.9
Cycle Q Clear(g_c), s	0.5	1.1	0.7	6.4	2.1	2.5	1.2	13.6	3.4	2.1	10.5	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	23	163	73	220	557	249	48	2488	772	72	2557	794
V/C Ratio(X)	0.57	0.37	0.25	0.79	0.23	0.27	0.67	0.58	0.19	0.79	0.48	0.05
Avail Cap(c_a), veh/h	186	1696	756	930	3286	1465	186	2794	867	186	2794	867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.9	31.1	30.9	28.6	24.7	24.9	32.3	12.3	9.7	31.9	11.0	8.6
Incr Delay (d2), s/veh	8.0	0.5	0.6	2.5	0.1	0.2	5.9	0.6	0.3	7.1	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.5	0.3	2.7	0.9	0.9	0.6	4.2	1.1	1.0	3.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.9	31.6	31.5	31.0	24.8	25.1	38.3	12.9	10.0	39.0	11.4	8.7
LnGrp LOS	D	C	C	C	C	C	D	B	B	D	B	A
Approach Vol, veh/h		92			373			1627			1320	
Approach Delay, s/veh		32.9			27.8			13.2			12.5	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	38.0	13.3	8.1	6.8	38.9	5.9	15.5
Change Period (Y+Rc), s	5.0	5.3	5.0	5.0	5.0	5.3	5.0	5.0
Max Green Setting (Gmax), s	7.0	36.7	35.0	32.0	7.0	36.7	7.0	62.0
Max Q Clear Time (g_c+I1), s	4.1	15.6	8.4	3.1	3.2	12.5	2.5	4.5
Green Ext Time (p_c), s	0.0	17.0	0.2	0.2	0.0	16.2	0.0	0.6

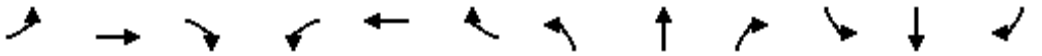
Intersection Summary	
HCM 6th Ctrl Delay	15.0
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	259	5	2	402	5	5	5	1	5	5	2
Future Volume (veh/h)	1	259	5	2	402	5	5	5	1	5	5	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	259	5	2	402	5	5	5	1	5	5	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	6	825	368	6	829	370	10	237	201	10	237	201
Arrive On Green	0.00	0.23	0.23	0.00	0.23	0.23	0.01	0.13	0.13	0.01	0.13	0.13
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	1	259	5	2	402	5	5	5	1	5	5	2
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.0	1.9	0.1	0.0	3.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0
Cycle Q Clear(g_c), s	0.0	1.9	0.1	0.0	3.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	6	825	368	6	829	370	10	237	201	10	237	201
V/C Ratio(X)	0.18	0.31	0.01	0.35	0.48	0.01	0.52	0.02	0.00	0.52	0.02	0.01
Avail Cap(c_a), veh/h	395	2927	1305	395	2927	1305	395	1837	1556	395	1718	1456
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.7	10.0	9.3	15.7	10.5	9.3	15.7	12.1	12.0	15.7	12.1	12.1
Incr Delay (d2), s/veh	14.3	0.2	0.0	33.9	0.4	0.0	36.7	0.0	0.0	36.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.5	0.0	0.1	0.9	0.0	0.1	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	10.3	9.4	49.6	10.9	9.3	52.4	12.1	12.1	52.4	12.1	12.1
LnGrp LOS	C	B	A	D	B	A	D	B	B	D	B	B
Approach Vol, veh/h		265			409			11			12	
Approach Delay, s/veh		10.3			11.1			30.4			28.9	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.2	9.0	5.1	12.3	5.2	9.0	5.0	12.4
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	31.0	7.0	26.0	7.0	29.0	7.0	26.0
Max Q Clear Time (g_c+I1), s	2.1	2.1	2.0	3.9	2.1	2.1	2.0	5.1
Green Ext Time (p_c), s	0.0	0.0	0.0	1.5	0.0	0.0	0.0	2.5

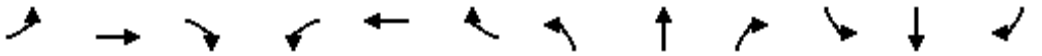
Intersection Summary	
HCM 6th Ctrl Delay	11.4
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	215	33	32	487	25	36	123	24	7	44	41
Future Volume (veh/h)	22	215	33	32	487	25	36	123	24	7	44	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	215	33	32	487	25	36	123	24	7	44	41
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	24	840	374	55	902	403	61	288	244	13	238	201
Arrive On Green	0.01	0.24	0.24	0.03	0.25	0.25	0.03	0.15	0.15	0.01	0.13	0.13
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	22	215	33	32	487	25	36	123	24	7	44	41
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.4	1.5	0.5	0.6	3.7	0.4	0.6	1.9	0.4	0.1	0.7	0.7
Cycle Q Clear(g_c), s	0.4	1.5	0.5	0.6	3.7	0.4	0.6	1.9	0.4	0.1	0.7	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	24	840	374	55	902	403	61	288	244	13	238	201
V/C Ratio(X)	0.93	0.26	0.09	0.58	0.54	0.06	0.59	0.43	0.10	0.52	0.19	0.20
Avail Cap(c_a), veh/h	424	1861	830	424	1861	830	424	1573	1333	424	1573	1333
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.5	9.8	9.4	15.1	10.2	8.9	15.0	12.1	11.5	15.6	12.3	12.3
Incr Delay (d2), s/veh	68.0	0.2	0.1	9.2	0.5	0.1	8.7	1.0	0.2	27.9	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.4	0.1	0.3	1.0	0.1	0.3	0.6	0.1	0.1	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.5	9.9	9.5	24.3	10.7	9.0	23.7	13.1	11.6	43.4	12.7	12.8
LnGrp LOS	F	A	A	C	B	A	C	B	B	D	B	B
Approach Vol, veh/h		270			544			183			92	
Approach Delay, s/veh		15.9			11.4			15.0			15.1	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.7	9.3	5.5	11.9	5.6	8.5	4.9	12.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	26.5	7.5	16.5	7.5	26.5	7.5	16.5
Max Q Clear Time (g_c+I1), s	2.1	3.9	2.6	3.5	2.6	2.7	2.4	5.7
Green Ext Time (p_c), s	0.0	0.6	0.0	1.1	0.0	0.3	0.0	2.4

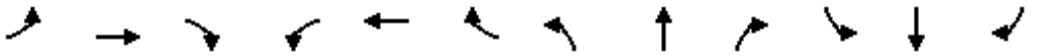
Intersection Summary	
HCM 6th Ctrl Delay	13.4
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	276	18	84	594	5	8	5	31	5	1	5
Future Volume (veh/h)	5	276	18	84	594	5	8	5	31	5	1	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	276	18	84	594	5	8	5	31	5	1	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	10	896	400	113	1102	492	15	217	183	10	211	179
Arrive On Green	0.01	0.25	0.25	0.06	0.31	0.31	0.01	0.12	0.12	0.01	0.11	0.11
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	5	276	18	84	594	5	8	5	31	5	1	5
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.1	2.2	0.3	1.6	4.9	0.1	0.2	0.1	0.6	0.1	0.0	0.1
Cycle Q Clear(g_c), s	0.1	2.2	0.3	1.6	4.9	0.1	0.2	0.1	0.6	0.1	0.0	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	10	896	400	113	1102	492	15	217	183	10	211	179
V/C Ratio(X)	0.52	0.31	0.05	0.74	0.54	0.01	0.53	0.02	0.17	0.52	0.00	0.03
Avail Cap(c_a), veh/h	351	3302	1473	351	3302	1473	351	1527	1294	351	1475	1250
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.6	10.8	10.0	16.3	10.1	8.5	17.5	13.9	14.2	17.6	14.0	14.0
Incr Delay (d2), s/veh	37.0	0.2	0.0	9.2	0.4	0.0	25.3	0.0	0.4	37.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.7	0.1	0.8	1.4	0.0	0.2	0.0	0.2	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.6	11.0	10.1	25.6	10.6	8.5	42.8	14.0	14.6	54.6	14.0	14.1
LnGrp LOS	D	B	B	C	B	A	D	B	B	D	B	B
Approach Vol, veh/h		299			683			44			11	
Approach Delay, s/veh		11.6			12.4			19.7			32.5	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.2	9.1	7.3	14.0	5.3	9.0	5.2	16.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	29.0	7.0	33.0	7.0	28.0	7.0	33.0
Max Q Clear Time (g_c+I1), s	2.1	2.6	3.6	4.2	2.2	2.1	2.1	6.9
Green Ext Time (p_c), s	0.0	0.1	0.0	1.8	0.0	0.0	0.0	4.1

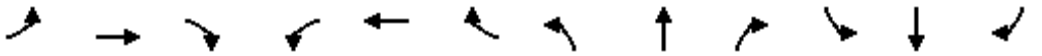
Intersection Summary	
HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	270	18	58	569	11	46	168	101	5	107	63
Future Volume (veh/h)	18	270	18	58	569	11	46	168	101	5	107	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	270	18	58	569	11	46	168	101	5	107	63
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	32	1106	493	85	1211	540	72	294	249	10	229	194
Arrive On Green	0.02	0.31	0.31	0.05	0.34	0.34	0.04	0.16	0.16	0.01	0.12	0.12
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	18	270	18	58	569	11	46	168	101	5	107	63
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.4	2.2	0.3	1.3	4.9	0.2	1.0	3.3	2.2	0.1	2.1	1.4
Cycle Q Clear(g_c), s	0.4	2.2	0.3	1.3	4.9	0.2	1.0	3.3	2.2	0.1	2.1	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	32	1106	493	85	1211	540	72	294	249	10	229	194
V/C Ratio(X)	0.56	0.24	0.04	0.68	0.47	0.02	0.64	0.57	0.41	0.52	0.47	0.33
Avail Cap(c_a), veh/h	524	2438	1087	524	2438	1087	524	790	669	524	790	669
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	10.0	9.4	18.3	10.1	8.5	18.5	15.3	14.8	19.4	16.0	15.7
Incr Delay (d2), s/veh	14.1	0.2	0.1	9.2	0.6	0.0	9.2	1.8	1.1	37.2	1.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.7	0.1	0.7	1.5	0.0	0.5	1.3	0.7	0.1	0.8	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.1	10.3	9.4	27.5	10.7	8.6	27.7	17.0	15.9	56.6	17.5	16.6
LnGrp LOS	C	B	A	C	B	A	C	B	B	E	B	B
Approach Vol, veh/h		306			638			315			175	
Approach Delay, s/veh		11.6			12.2			18.2			18.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.7	10.6	6.4	17.4	6.1	9.3	5.2	18.5
Change Period (Y+Rc), s	4.5	4.5	4.5	5.2	4.5	4.5	4.5	5.2
Max Green Setting (Gmax), s	11.5	16.5	11.5	26.8	11.5	16.5	11.5	26.8
Max Q Clear Time (g_c+I1), s	2.1	5.3	3.3	4.2	3.0	4.1	2.4	6.9
Green Ext Time (p_c), s	0.0	0.9	0.1	3.1	0.0	0.5	0.0	6.4

Intersection Summary	
HCM 6th Ctrl Delay	14.1
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	424	51	42	16	212	249	21	1753	47	180	2223	474
Future Volume (veh/h)	424	51	42	16	212	249	21	1753	47	180	2223	474
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	460	0	8	16	212	126	21	1753	17	180	2223	278
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	546	0	243	19	254	233	62	2143	665	187	2500	776
Arrive On Green	0.15	0.00	0.15	0.15	0.15	0.15	0.03	0.42	0.42	0.10	0.49	0.49
Sat Flow, veh/h	3563	0	1585	131	1733	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	460	0	8	228	0	126	21	1753	17	180	2223	278
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1864	0	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	13.2	0.0	0.5	12.5	0.0	7.7	1.2	31.8	0.7	10.5	41.3	11.4
Cycle Q Clear(g_c), s	13.2	0.0	0.5	12.5	0.0	7.7	1.2	31.8	0.7	10.5	41.3	11.4
Prop In Lane	1.00		1.00	0.07		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	546	0	243	273	0	233	62	2143	665	187	2500	776
V/C Ratio(X)	0.84	0.00	0.03	0.83	0.00	0.54	0.34	0.82	0.03	0.96	0.89	0.36
Avail Cap(c_a), veh/h	1393	0	620	515	0	438	136	2221	689	187	2500	776
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.2	0.0	37.8	43.5	0.0	41.5	49.4	26.9	17.8	46.7	24.2	16.6
Incr Delay (d2), s/veh	1.4	0.0	0.0	2.6	0.0	0.7	1.2	2.6	0.0	54.7	4.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	0.0	0.2	5.9	0.0	3.1	0.6	13.0	0.2	7.5	16.8	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.6	0.0	37.8	46.1	0.0	42.2	50.6	29.5	17.9	101.4	28.7	17.0
LnGrp LOS	D	A	D	D	A	D	D	C	B	F	C	B
Approach Vol, veh/h		468			354			1791			2681	
Approach Delay, s/veh		44.4			44.7			29.7			32.4	
Approach LOS		D			D			C			C	

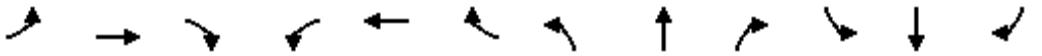
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	50.4		20.1	7.7	57.7		19.4				
Change Period (Y+Rc), s	4.0	6.4		4.0	4.0	6.4		4.0				
Max Green Setting (Gmax), s	11.0	45.6		41.0	8.0	48.6		29.0				
Max Q Clear Time (g_c+I1), s	12.5	33.8		15.2	3.2	43.3		14.5				
Green Ext Time (p_c), s	0.0	10.2		0.9	0.0	5.2		0.9				

Intersection Summary												
HCM 6th Ctrl Delay			33.3									
HCM 6th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.

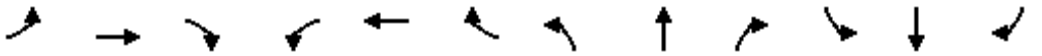
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	2201	14	6	2265	52	48	21	12	22	10	7
Future Volume (veh/h)	18	2201	14	6	2265	52	48	21	12	22	10	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	2201	14	6	2265	52	48	21	12	22	10	7
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	31	2465	765	11	2408	747	69	180	153	37	147	125
Arrive On Green	0.02	0.48	0.48	0.01	0.47	0.47	0.04	0.10	0.10	0.02	0.08	0.08
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	18	2201	14	6	2265	52	48	21	12	22	10	7
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.5	19.9	0.2	0.2	21.4	0.9	1.4	0.5	0.4	0.6	0.3	0.2
Cycle Q Clear(g_c), s	0.5	19.9	0.2	0.2	21.4	0.9	1.4	0.5	0.4	0.6	0.3	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	31	2465	765	11	2408	747	69	180	153	37	147	125
V/C Ratio(X)	0.57	0.89	0.02	0.53	0.94	0.07	0.70	0.12	0.08	0.59	0.07	0.06
Avail Cap(c_a), veh/h	140	2465	765	140	2411	748	140	1251	1060	280	1398	1185
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	12.0	6.9	25.2	12.8	7.3	24.1	21.0	20.9	24.7	21.7	21.7
Incr Delay (d2), s/veh	15.3	4.6	0.0	32.9	8.2	0.0	11.9	0.3	0.2	13.8	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	5.9	0.1	0.2	7.1	0.2	0.8	0.2	0.1	0.4	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.1	16.6	6.9	58.1	21.0	7.4	36.0	21.3	21.1	38.5	21.9	21.9
LnGrp LOS	D	B	A	E	C	A	D	C	C	D	C	C
Approach Vol, veh/h		2233			2323			81			39	
Approach Delay, s/veh		16.7			20.8			30.0			31.2	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	9.9	5.3	29.5	7.0	9.0	5.9	29.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	8.0	34.0	4.0	24.0	4.0	38.0	4.0	24.0
Max Q Clear Time (g_c+I1), s	2.6	2.5	2.2	21.9	3.4	2.3	2.5	23.4
Green Ext Time (p_c), s	0.0	0.1	0.0	1.9	0.0	0.0	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	19.1
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	619	1511	105	345	1719	82	108	1069	343	52	996	497
Future Volume (veh/h)	619	1511	105	345	1719	82	108	1069	343	52	996	497
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	619	1511	49	345	1719	27	108	1069	127	52	996	281
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	615	2132	662	402	1776	551	218	1417	440	93	1273	395
Arrive On Green	0.18	0.42	0.42	0.12	0.35	0.35	0.06	0.28	0.28	0.03	0.25	0.25
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	619	1511	49	345	1719	27	108	1069	127	52	996	281
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	22.0	30.3	2.3	12.1	40.9	1.4	3.7	23.7	7.8	1.8	22.5	20.0
Cycle Q Clear(g_c), s	22.0	30.3	2.3	12.1	40.9	1.4	3.7	23.7	7.8	1.8	22.5	20.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	615	2132	662	402	1776	551	218	1417	440	93	1273	395
V/C Ratio(X)	1.01	0.71	0.07	0.86	0.97	0.05	0.50	0.75	0.29	0.56	0.78	0.71
Avail Cap(c_a), veh/h	615	2132	662	503	1776	551	224	1569	487	196	1528	474
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.8	29.8	21.6	53.6	39.6	26.8	56.0	40.8	35.1	59.4	43.3	42.3
Incr Delay (d2), s/veh	37.9	1.5	0.1	9.9	14.7	0.1	0.6	1.6	0.1	5.2	2.3	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.3	11.7	0.8	5.6	18.3	0.5	1.6	9.8	2.9	0.9	9.7	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.8	31.3	21.8	63.6	54.4	26.8	56.7	42.4	35.2	64.6	45.5	46.3
LnGrp LOS	F	C	C	E	D	C	E	D	D	E	D	D
Approach Vol, veh/h		2179			2091			1304			1329	
Approach Delay, s/veh		47.4			55.5			42.9			46.4	
Approach LOS		D			E			D			D	

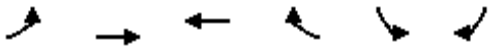
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	39.3	18.4	57.6	11.8	35.8	27.0	49.0
Change Period (Y+Rc), s	5.0	* 5	4.0	6.0	4.0	5.0	5.0	6.0
Max Green Setting (Gmax), s	7.0	* 38	18.0	48.0	8.0	37.0	22.0	43.0
Max Q Clear Time (g_c+I1), s	3.8	25.7	14.1	32.3	5.7	24.5	24.0	42.9
Green Ext Time (p_c), s	0.0	4.0	0.3	12.8	0.0	6.3	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	48.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

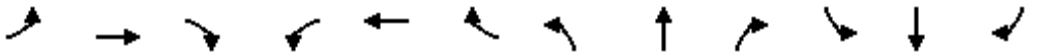
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	143	1759	1942	113	143	203
Future Volume (veh/h)	143	1759	1942	113	143	203
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	143	1759	1942	113	143	203
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	189	3252	2235	694	316	281
Arrive On Green	0.11	0.64	0.44	0.44	0.18	0.18
Sat Flow, veh/h	1781	5274	5274	1585	1781	1585
Grp Volume(v), veh/h	143	1759	1942	113	143	203
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1585	1781	1585
Q Serve(g_s), s	4.2	10.3	18.6	2.3	3.9	6.5
Cycle Q Clear(g_c), s	4.2	10.3	18.6	2.3	3.9	6.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	189	3252	2235	694	316	281
V/C Ratio(X)	0.75	0.54	0.87	0.16	0.45	0.72
Avail Cap(c_a), veh/h	728	4835	2275	706	959	853
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.4	5.4	13.7	9.2	19.8	20.9
Incr Delay (d2), s/veh	6.0	0.1	3.9	0.1	1.0	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	1.7	5.9	0.6	1.6	5.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	29.4	5.6	17.6	9.3	20.8	24.4
LnGrp LOS	C	A	B	A	C	C
Approach Vol, veh/h		1902	2055		346	
Approach Delay, s/veh		7.3	17.1		22.9	
Approach LOS		A	B		C	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	39.3	14.6	10.7	28.6
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	51.0	29.0	22.0	24.0
Max Q Clear Time (g_c+I1), s	12.3	8.5	6.2	20.6
Green Ext Time (p_c), s	17.3	1.1	0.3	3.0

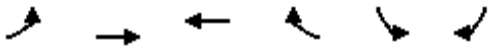
Intersection Summary	
HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	648	1220	36	582	1399	274	24	751	297	202	694	640
Future Volume (veh/h)	648	1220	36	582	1399	274	24	751	297	202	694	640
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	648	1220	11	582	1399	176	24	751	78	202	694	337
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	698	1722	534	651	1651	513	66	1097	340	233	1342	417
Arrive On Green	0.20	0.34	0.34	0.19	0.32	0.32	0.02	0.21	0.21	0.07	0.26	0.26
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	648	1220	11	582	1399	176	24	751	78	202	694	337
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	19.1	21.6	0.5	17.1	26.5	8.8	0.7	14.1	4.2	6.0	12.1	20.7
Cycle Q Clear(g_c), s	19.1	21.6	0.5	17.1	26.5	8.8	0.7	14.1	4.2	6.0	12.1	20.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	698	1722	534	651	1651	513	66	1097	340	233	1342	417
V/C Ratio(X)	0.93	0.71	0.02	0.89	0.85	0.34	0.36	0.68	0.23	0.87	0.52	0.81
Avail Cap(c_a), veh/h	698	1769	549	698	1769	549	233	1769	549	233	1769	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.7	30.0	23.0	41.2	32.8	26.8	50.3	37.6	33.7	48.0	32.7	35.9
Incr Delay (d2), s/veh	18.7	1.3	0.0	13.5	3.8	0.4	3.3	0.8	0.3	27.5	0.3	6.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	8.5	0.2	8.2	10.8	3.2	0.3	5.7	1.6	3.4	4.8	8.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.4	31.3	23.0	54.7	36.6	27.2	53.6	38.3	34.0	75.5	33.0	42.6
LnGrp LOS	E	C	C	D	D	C	D	D	C	E	C	D
Approach Vol, veh/h		1879			2157			853			1233	
Approach Delay, s/veh		40.9			40.7			38.4			42.6	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	27.3	24.6	40.0	7.0	32.3	26.0	38.6
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	36.0	21.0	36.0	7.0	36.0	21.0	36.0
Max Q Clear Time (g_c+I1), s	8.0	16.1	19.1	23.6	2.7	22.7	21.1	28.5
Green Ext Time (p_c), s	0.0	4.9	0.5	6.2	0.0	4.6	0.0	5.1

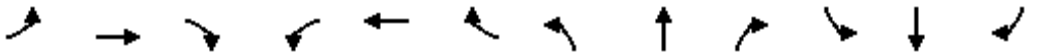
Intersection Summary	
HCM 6th Ctrl Delay	40.8
HCM 6th LOS	D



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	1714	2251	68	131	5
Future Volume (veh/h)	5	1714	2251	68	131	5
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	1714	2251	68	131	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	10	3650	3178	987	198	177
Arrive On Green	0.01	0.71	0.62	0.62	0.11	0.11
Sat Flow, veh/h	1781	5274	5274	1585	1781	1585
Grp Volume(v), veh/h	5	1714	2251	68	131	5
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1585	1781	1585
Q Serve(g_s), s	0.2	8.3	17.1	1.0	4.1	0.2
Cycle Q Clear(g_c), s	0.2	8.3	17.1	1.0	4.1	0.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	10	3650	3178	987	198	177
V/C Ratio(X)	0.53	0.47	0.71	0.07	0.66	0.03
Avail Cap(c_a), veh/h	124	4440	3641	1130	929	827
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.5	3.5	7.3	4.3	24.5	22.8
Incr Delay (d2), s/veh	38.4	0.1	0.5	0.0	3.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.9	3.5	0.2	1.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	66.9	3.6	7.9	4.3	28.2	22.8
LnGrp LOS	E	A	A	A	C	C
Approach Vol, veh/h		1719	2319		136	
Approach Delay, s/veh		3.8	7.8		28.0	
Approach LOS		A	A		C	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	46.1	11.4	5.3	40.8
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	50.0	30.0	4.0	41.0
Max Q Clear Time (g_c+I1), s	10.3	6.1	2.2	19.1
Green Ext Time (p_c), s	16.8	0.3	0.0	16.7

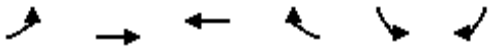
Intersection Summary	
HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	1526	216	18	2109	149	193	96	10	63	67	17
Future Volume (veh/h)	102	1526	216	18	2109	149	193	96	10	63	67	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	102	1526	216	18	2109	149	193	96	10	63	67	17
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	130	2336	725	31	2051	637	241	310	263	80	141	120
Arrive On Green	0.07	0.46	0.46	0.02	0.40	0.40	0.14	0.17	0.17	0.04	0.08	0.08
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	102	1526	216	18	2109	149	193	96	10	63	67	17
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	3.2	13.2	4.9	0.6	23.0	3.6	6.0	2.6	0.3	2.0	2.0	0.6
Cycle Q Clear(g_c), s	3.2	13.2	4.9	0.6	23.0	3.6	6.0	2.6	0.3	2.0	2.0	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	130	2336	725	31	2051	637	241	310	263	80	141	120
V/C Ratio(X)	0.78	0.65	0.30	0.58	1.03	0.23	0.80	0.31	0.04	0.79	0.47	0.14
Avail Cap(c_a), veh/h	156	2336	725	156	2051	637	311	1111	941	311	1111	941
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.1	12.0	9.8	27.9	17.1	11.3	24.0	21.0	20.0	27.1	25.4	24.7
Incr Delay (d2), s/veh	19.1	0.9	0.4	16.0	27.4	0.4	10.9	0.6	0.1	15.7	2.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	3.9	1.3	0.4	12.0	1.0	3.0	1.1	0.1	1.1	0.9	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.2	12.9	10.2	44.0	44.6	11.7	34.9	21.6	20.1	42.8	27.8	25.3
LnGrp LOS	D	B	B	D	F	B	C	C	C	D	C	C
Approach Vol, veh/h		1844			2276			299			147	
Approach Delay, s/veh		14.3			42.4			30.1			33.9	
Approach LOS		B			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.6	13.5	5.0	32.2	11.7	8.3	8.2	29.0
Change Period (Y+Rc), s	4.0	4.0	4.0	6.0	4.0	4.0	4.0	6.0
Max Green Setting (Gmax), s	10.0	34.0	5.0	23.0	10.0	34.0	5.0	23.0
Max Q Clear Time (g_c+I1), s	4.0	4.6	2.6	15.2	8.0	4.0	5.2	25.0
Green Ext Time (p_c), s	0.0	0.5	0.0	6.8	0.1	0.4	0.0	0.0

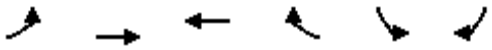
Intersection Summary	
HCM 6th Ctrl Delay	30.0
HCM 6th LOS	C



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	169	1431	1968	122	193	306
Future Volume (veh/h)	169	1431	1968	122	193	306
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	169	1431	1968	122	193	306
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	208	3247	2309	717	410	365
Arrive On Green	0.12	0.64	0.45	0.45	0.23	0.23
Sat Flow, veh/h	1781	5274	5274	1585	1781	1585
Grp Volume(v), veh/h	169	1431	1968	122	193	306
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1585	1781	1585
Q Serve(g_s), s	6.9	10.6	25.7	3.4	7.0	13.8
Cycle Q Clear(g_c), s	6.9	10.6	25.7	3.4	7.0	13.8
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	208	3247	2309	717	410	365
V/C Ratio(X)	0.81	0.44	0.85	0.17	0.47	0.84
Avail Cap(c_a), veh/h	262	3488	2394	743	692	616
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	6.9	18.2	12.1	24.8	27.4
Incr Delay (d2), s/veh	14.1	0.1	3.1	0.1	0.8	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	2.7	9.0	1.1	2.9	11.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	46.3	7.0	21.3	12.2	25.7	32.6
LnGrp LOS	D	A	C	B	C	C
Approach Vol, veh/h		1600	2090		499	
Approach Delay, s/veh		11.1	20.8		29.9	
Approach LOS		B	C		C	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			52.5		22.2	13.7	38.8
Change Period (Y+Rc), s			5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s			51.0		29.0	11.0	35.0
Max Q Clear Time (g_c+I1), s			12.6		15.8	8.9	27.7
Green Ext Time (p_c), s			12.7		1.4	0.1	6.1

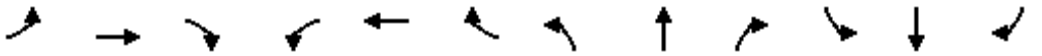
Intersection Summary	
HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	57	1566	2080	77	53	11
Future Volume (veh/h)	57	1566	2080	77	53	11
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	1566	2080	77	53	11
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	83	3372	2577	800	173	154
Arrive On Green	0.05	0.66	0.50	0.50	0.10	0.10
Sat Flow, veh/h	1781	5274	5274	1585	1781	1585
Grp Volume(v), veh/h	57	1566	2080	77	53	11
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1585	1781	1585
Q Serve(g_s), s	1.3	6.2	14.0	1.0	1.1	0.3
Cycle Q Clear(g_c), s	1.3	6.2	14.0	1.0	1.1	0.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	83	3372	2577	800	173	154
V/C Ratio(X)	0.69	0.46	0.81	0.10	0.31	0.07
Avail Cap(c_a), veh/h	324	4150	2664	827	1361	1211
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.4	3.4	8.5	5.3	17.3	16.9
Incr Delay (d2), s/veh	9.7	0.1	1.9	0.1	1.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.3	2.9	0.2	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	29.0	3.5	10.4	5.4	18.3	17.1
LnGrp LOS	C	A	B	A	B	B
Approach Vol, veh/h		1623	2157		64	
Approach Delay, s/veh		4.4	10.2		18.1	
Approach LOS		A	B		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			32.7		8.5	6.4	26.3
Change Period (Y+Rc), s			5.5		4.5	4.5	5.5
Max Green Setting (Gmax), s			33.5		31.5	7.5	21.5
Max Q Clear Time (g_c+I1), s			8.2		3.1	3.3	16.0
Green Ext Time (p_c), s			12.2		0.1	0.0	4.8

Intersection Summary	
HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A



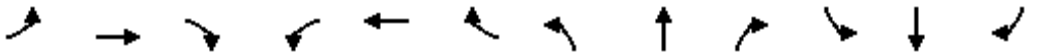
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	541	843	208	280	1406	291	161	783	554	351	1344	586
Future Volume (veh/h)	541	843	208	280	1406	291	161	783	554	351	1344	586
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1870	1870	1841	1841	1870	1870	1870	1841	1870	1841
Adj Flow Rate, veh/h	541	843	67	280	1406	151	161	783	365	351	1344	559
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	2	2	4	4	2	2	2	4	2	4
Cap, veh/h	510	1581	499	327	1302	404	184	1366	424	323	1780	778
Arrive On Green	0.15	0.31	0.31	0.09	0.26	0.26	0.10	0.27	0.27	0.18	0.35	0.35
Sat Flow, veh/h	3401	5025	1585	3456	5025	1560	1781	5106	1585	1753	5106	1560
Grp Volume(v), veh/h	541	843	67	280	1406	151	161	783	365	351	1344	559
Grp Sat Flow(s),veh/h/ln	1700	1675	1585	1728	1675	1560	1781	1702	1585	1753	1702	1560
Q Serve(g_s), s	22.0	20.3	4.4	11.7	38.0	11.6	13.1	19.5	32.1	27.0	34.1	41.1
Cycle Q Clear(g_c), s	22.0	20.3	4.4	11.7	38.0	11.6	13.1	19.5	32.1	27.0	34.1	41.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	510	1581	499	327	1302	404	184	1366	424	323	1780	778
V/C Ratio(X)	1.06	0.53	0.13	0.86	1.08	0.37	0.88	0.57	0.86	1.09	0.75	0.72
Avail Cap(c_a), veh/h	510	1581	499	377	1302	404	207	1483	460	323	1832	794
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.3	41.4	36.0	65.4	54.3	44.6	64.8	46.5	51.1	59.8	42.2	28.7
Incr Delay (d2), s/veh	56.8	0.6	0.2	14.2	49.4	1.1	27.7	0.7	15.3	75.5	2.0	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.2	8.2	1.7	5.7	21.6	4.6	7.4	8.4	14.3	18.3	14.0	15.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	119.1	42.0	36.2	79.6	103.7	45.7	92.6	47.1	66.4	135.3	44.2	32.2
LnGrp LOS	F	D	D	E	F	D	F	D	E	F	D	C
Approach Vol, veh/h		1451			1837			1309			2254	
Approach Delay, s/veh		70.4			95.3			58.1			55.4	
Approach LOS		E			F			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.0	45.6	17.9	52.1	19.1	57.5	26.0	44.0
Change Period (Y+Rc), s	4.0	6.4	4.0	6.0	4.0	6.4	4.0	6.0
Max Green Setting (Gmax), s	27.0	42.6	16.0	44.0	17.0	52.6	22.0	38.0
Max Q Clear Time (g_c+I1), s	29.0	34.1	13.7	22.3	15.1	43.1	24.0	40.0
Green Ext Time (p_c), s	0.0	5.1	0.2	15.5	0.1	7.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	69.8
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.



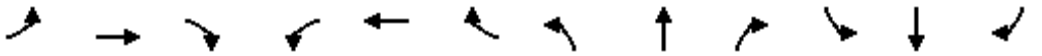
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	399	1417	0	0	1266	103	0	0	0	80	0	639
Future Volume (veh/h)	399	1417	0	0	1266	103	0	0	0	80	0	639
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	0	0	1870	0	1870
Adj Flow Rate, veh/h	399	1417	0	0	1266	103	0	0	0	80	0	639
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	0	2	2	2	0	0	2	0	2
Cap, veh/h	506	2842	0	0	2152	960	2	0	0	144	0	0
Arrive On Green	0.15	0.80	0.00	0.00	0.61	0.61	0.00	0.00	0.00	0.08	0.00	0.00
Sat Flow, veh/h	3456	3647	0	0	3647	1585	1781	0		1781	80	
Grp Volume(v), veh/h	399	1417	0	0	1266	103	0	0.0		80	38.3	
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1781			1781	D	
Q Serve(g_s), s	9.3	11.1	0.0	0.0	18.3	2.3	0.0			3.6		
Cycle Q Clear(g_c), s	9.3	11.1	0.0	0.0	18.3	2.3	0.0			3.6		
Prop In Lane	1.00		0.00	0.00		1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	506	2842	0	0	2152	960	2			144		
V/C Ratio(X)	0.79	0.50	0.00	0.00	0.59	0.11	0.00			0.56		
Avail Cap(c_a), veh/h	1280	2842	0	0	2505	1117	64			426		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00			1.00		
Uniform Delay (d), s/veh	34.5	2.8	0.0	0.0	10.1	7.0	0.0			37.0		
Incr Delay (d2), s/veh	1.0	0.2	0.0	0.0	0.4	0.1	0.0			1.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
%ile BackOfQ(50%),veh/ln	3.7	1.1	0.0	0.0	5.4	0.6	0.0			1.5		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.5	3.0	0.0	0.0	10.5	7.0	0.0			38.3		
LnGrp LOS	D	A	A	A	B	A	A			D		
Approach Vol, veh/h		1816			1369							
Approach Delay, s/veh		10.1			10.2							
Approach LOS		B			B							

Timer - Assigned Phs	1			4	5		7	8				
Phs Duration (G+Y+Rc), s	10.8			72.9	0.0		16.3	56.7				
Change Period (Y+Rc), s	4.0			6.0	4.0		4.0	6.0				
Max Green Setting (Gmax), s	20.0			59.0	3.0		31.0	59.0				
Max Q Clear Time (g_c+I1), s	5.6			13.1	0.0		11.3	20.3				
Green Ext Time (p_c), s	0.1			37.3	0.0		0.9	30.4				

Intersection Summary												
HCM 6th Ctrl Delay			10.9									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.



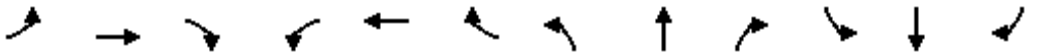
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	354	1026	81	57	1291	212	164	54	42	195	479	53
Future Volume (veh/h)	354	1026	81	57	1291	212	164	54	42	195	479	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	354	1026	34	57	1291	0	164	54	8	195	479	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	265	1500	665	73	1116		181	60	277	141	346	
Arrive On Green	0.15	0.42	0.42	0.04	0.31	0.00	0.13	0.13	0.13	0.26	0.26	0.00
Sat Flow, veh/h	1781	3554	1576	1781	3554	1585	1356	447	1585	533	1310	1585
Grp Volume(v), veh/h	354	1026	34	57	1291	0	218	0	8	674	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1576	1781	1777	1585	1803	0	1585	1844	0	1585
Q Serve(g_s), s	22.0	34.7	1.9	4.7	46.4	0.0	17.6	0.0	0.6	39.0	0.0	0.0
Cycle Q Clear(g_c), s	22.0	34.7	1.9	4.7	46.4	0.0	17.6	0.0	0.6	39.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.75		1.00	0.29		1.00
Lane Grp Cap(c), veh/h	265	1500	665	73	1116		241	0	277	487	0	
V/C Ratio(X)	1.33	0.68	0.05	0.78	1.16		0.91	0.00	0.03	1.38	0.00	
Avail Cap(c_a), veh/h	265	1500	665	121	1116		268	0	301	487	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	62.9	34.7	25.2	70.2	50.7	0.0	63.1	0.0	50.6	54.4	0.0	0.0
Incr Delay (d2), s/veh	173.9	1.6	0.1	6.6	80.9	0.0	28.2	0.0	0.0	185.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.8	15.4	0.7	2.3	33.1	0.0	10.0	0.0	0.3	43.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	236.8	36.3	25.3	76.8	131.5	0.0	91.3	0.0	50.6	239.9	0.0	0.0
LnGrp LOS	F	D	C	E	F		F	A	D	F	A	
Approach Vol, veh/h		1414			1348	A		226			674	A
Approach Delay, s/veh		86.2			129.2			89.8			239.9	
Approach LOS		F			F			F			F	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.3	10.1	68.3		45.0	26.0	52.4				
Change Period (Y+Rc), s		4.6	4.0	6.0		6.0	4.0	6.0				
Max Green Setting (Gmax), s		22.0	10.0	58.4		39.0	22.0	46.4				
Max Q Clear Time (g_c+I1), s		19.6	6.7	36.7		41.0	24.0	48.4				
Green Ext Time (p_c), s		0.1	0.0	10.3		0.0	0.0	0.0				

Intersection Summary	
HCM 6th Ctrl Delay	130.6
HCM 6th LOS	F

Notes

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	394	450	62	553	103	717	1351	70	150	2059	222
Future Volume (veh/h)	234	394	450	62	553	103	717	1351	70	150	2059	222
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	234	394	191	62	553	23	717	1351	33	150	2059	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	230	766	342	79	686	306	645	2603	808	173	2146	
Arrive On Green	0.07	0.22	0.22	0.04	0.19	0.19	0.19	0.51	0.51	0.10	0.42	0.00
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	234	394	191	62	553	23	717	1351	33	150	2059	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1702	1585	1781	1702	1585
Q Serve(g_s), s	10.0	14.7	16.1	5.2	22.3	1.8	28.0	26.5	1.6	12.5	58.8	0.0
Cycle Q Clear(g_c), s	10.0	14.7	16.1	5.2	22.3	1.8	28.0	26.5	1.6	12.5	58.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	230	766	342	79	686	306	645	2603	808	173	2146	
V/C Ratio(X)	1.02	0.51	0.56	0.79	0.81	0.08	1.11	0.52	0.04	0.87	0.96	
Avail Cap(c_a), veh/h	230	1019	454	95	995	444	645	2603	808	249	2146	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	70.0	51.9	52.5	71.0	57.8	49.5	61.0	24.5	18.4	66.8	42.2	0.0
Incr Delay (d2), s/veh	63.4	0.9	2.4	24.3	5.4	0.2	70.1	0.7	0.1	14.7	11.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	6.5	6.5	2.9	10.3	0.7	18.2	10.3	0.6	6.2	25.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	133.4	52.8	54.9	95.3	63.2	49.8	131.1	25.2	18.5	81.4	53.8	0.0
LnGrp LOS	F	D	D	F	E	D	F	C	B	F	D	
Approach Vol, veh/h		819			638			2101			2209	A
Approach Delay, s/veh		76.3			65.8			61.3			55.7	
Approach LOS		E			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.6	82.5	10.6	38.3	32.0	69.0	14.0	35.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	* 6
Max Green Setting (Gmax), s	21.0	58.0	8.0	43.0	28.0	51.0	10.0	* 42
Max Q Clear Time (g_c+I1), s	14.5	28.5	7.2	18.1	30.0	60.8	12.0	24.3
Green Ext Time (p_c), s	0.1	9.0	0.0	4.5	0.0	0.0	0.0	4.7

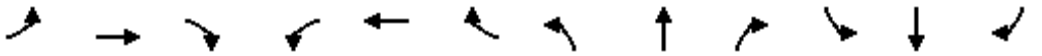
Intersection Summary	
HCM 6th Ctrl Delay	61.8
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	611	252	377	731	589	45	874	288	349	1372	14
Future Volume (veh/h)	58	611	252	377	731	589	45	874	288	349	1372	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	611	0	377	731	326	45	874	143	349	1372	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	252	785		417	955	426	228	1042	465	374	1554	
Arrive On Green	0.07	0.22	0.00	0.12	0.27	0.27	0.07	0.29	0.29	0.21	0.44	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	58	611	0	377	731	326	45	874	143	349	1372	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.8	18.8	0.0	12.5	22.0	22.0	1.4	26.7	8.1	22.3	41.0	0.0
Cycle Q Clear(g_c), s	1.8	18.8	0.0	12.5	22.0	22.0	1.4	26.7	8.1	22.3	41.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	252	785		417	955	426	228	1042	465	374	1554	
V/C Ratio(X)	0.23	0.78		0.90	0.77	0.77	0.20	0.84	0.31	0.93	0.88	
Avail Cap(c_a), veh/h	298	1409		417	1532	683	298	1287	574	384	1746	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.7	42.5	0.0	50.3	39.1	39.1	51.3	38.4	31.8	45.0	29.9	0.0
Incr Delay (d2), s/veh	0.2	0.6	0.0	22.1	0.5	1.1	0.2	4.6	0.5	28.5	5.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	8.3	0.0	6.7	9.6	8.6	0.6	11.5	3.2	12.3	17.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.9	43.2	0.0	72.5	39.6	40.2	51.4	43.1	32.4	73.6	35.4	0.0
LnGrp LOS	D	D		E	D	D	D	D	C	E	D	
Approach Vol, veh/h		669	A		1434			1062			1721	A
Approach Delay, s/veh		43.8			48.3			42.0			43.2	
Approach LOS		D			D			D			D	

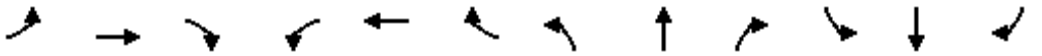
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.4	40.0	18.0	29.6	11.7	56.7	12.5	35.2
Change Period (Y+Rc), s	4.0	6.0	4.0	4.0	4.0	6.0	4.0	4.0
Max Green Setting (Gmax), s	25.0	42.0	14.0	46.0	10.0	57.0	10.0	50.0
Max Q Clear Time (g_c+I1), s	24.3	28.7	14.5	20.8	3.4	43.0	3.8	24.0
Green Ext Time (p_c), s	0.0	5.2	0.0	3.1	0.0	7.7	0.0	4.2

Intersection Summary	
HCM 6th Ctrl Delay	44.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	825	222	58	1115	524	200	518	66	500	662	241
Future Volume (veh/h)	186	825	222	58	1115	524	200	518	66	500	662	241
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	186	825	115	58	1115	0	200	518	0	500	662	114
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	318	1346	598	225	1250		390	806		498	918	407
Arrive On Green	0.09	0.38	0.38	0.07	0.35	0.00	0.11	0.23	0.00	0.14	0.26	0.26
Sat Flow, veh/h	3456	3554	1579	3456	3554	1585	3456	3554	1585	3456	3554	1576
Grp Volume(v), veh/h	186	825	115	58	1115	0	200	518	0	500	662	114
Grp Sat Flow(s),veh/h/ln	1728	1777	1579	1728	1777	1585	1728	1777	1585	1728	1777	1576
Q Serve(g_s), s	5.0	18.2	4.7	1.6	28.8	0.0	5.3	12.8	0.0	14.0	16.5	5.6
Cycle Q Clear(g_c), s	5.0	18.2	4.7	1.6	28.8	0.0	5.3	12.8	0.0	14.0	16.5	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	318	1346	598	225	1250		390	806		498	918	407
V/C Ratio(X)	0.58	0.61	0.19	0.26	0.89		0.51	0.64		1.00	0.72	0.28
Avail Cap(c_a), veh/h	320	1346	598	960	1792		427	1280		498	1353	600
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.3	24.4	20.2	43.2	29.7	0.0	40.6	34.0	0.0	41.6	32.8	28.8
Incr Delay (d2), s/veh	1.8	0.6	0.1	0.2	3.4	0.0	0.4	1.7	0.0	41.3	2.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	7.6	1.7	0.7	12.5	0.0	2.3	5.6	0.0	8.7	7.2	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.1	25.0	20.3	43.4	33.1	0.0	41.0	35.7	0.0	82.9	35.0	29.5
LnGrp LOS	D	C	C	D	C		D	D		F	C	C
Approach Vol, veh/h		1126			1173	A		718	A		1276	
Approach Delay, s/veh		27.7			33.6			37.1			53.3	
Approach LOS		C			C			D			D	

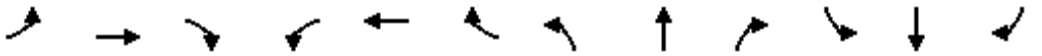
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	28.0	12.9	38.2	15.0	31.1	10.3	40.8
Change Period (Y+Rc), s	4.0	6.0	4.0	4.0	4.0	6.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	35.0	9.0	49.0	12.0	37.0	27.0	31.0
Max Q Clear Time (g_c+I1), s	16.0	14.8	7.0	30.8	7.3	18.5	3.6	20.2
Green Ext Time (p_c), s	0.0	4.5	0.1	3.4	0.2	6.6	0.1	2.3

Intersection Summary	
HCM 6th Ctrl Delay	38.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	4	71	23	5	1	123	1549	15	4	1258	12
Future Volume (veh/h)	9	4	71	23	5	1	123	1549	15	4	1258	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	4	71	23	5	1	123	1549	15	4	1258	12
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	136	61	173	85	19	4	173	2087	931	15	1772	790
Arrive On Green	0.11	0.11	0.11	0.06	0.06	0.06	0.10	0.59	0.59	0.01	0.50	0.50
Sat Flow, veh/h	1252	556	1585	1418	308	62	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	13	0	71	29	0	0	123	1549	15	4	1258	12
Grp Sat Flow(s),veh/h/ln	1808	0	1585	1788	0	0	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.5	0.0	3.2	1.2	0.0	0.0	5.1	24.3	0.3	0.2	20.9	0.3
Cycle Q Clear(g_c), s	0.5	0.0	3.2	1.2	0.0	0.0	5.1	24.3	0.3	0.2	20.9	0.3
Prop In Lane	0.69		1.00	0.79		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	197	0	173	108	0	0	173	2087	931	15	1772	790
V/C Ratio(X)	0.07	0.00	0.41	0.27	0.00	0.00	0.71	0.74	0.02	0.26	0.71	0.02
Avail Cap(c_a), veh/h	474	0	416	469	0	0	701	2087	931	468	1865	832
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	0.0	31.7	34.2	0.0	0.0	33.4	11.5	6.6	37.5	14.8	9.7
Incr Delay (d2), s/veh	0.1	0.0	0.6	0.5	0.0	0.0	2.0	1.7	0.0	3.4	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	1.2	0.5	0.0	0.0	2.1	7.3	0.1	0.1	7.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.5	0.0	32.2	34.7	0.0	0.0	35.4	13.2	6.6	40.9	16.3	9.7
LnGrp LOS	C	A	C	C	A	A	D	B	A	D	B	A
Approach Vol, veh/h		84			29			1687			1274	
Approach Delay, s/veh		32.0			34.7			14.7			16.3	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.6	50.5		12.5	11.4	43.7		8.6				
Change Period (Y+Rc), s	4.0	5.7		* 4.2	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	40.0		* 20	30.0	40.0		20.0				
Max Q Clear Time (g_c+I1), s	2.2	26.3		5.2	7.1	22.9		3.2				
Green Ext Time (p_c), s	0.0	13.1		0.1	0.2	15.1		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		16.0
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 63 **Gibson Dr (W)/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	71	60	83.9%	80.2	13.5	F
	Through						
	Right Turn	878	845	96.3%	25.9	13.6	C
	Subtotal	949	905	95.3%	29.5	13.2	C
EB	Left Turn	396	326	82.4%	65.9	11.8	E
	Through	2,075	1,872	90.2%	20.9	13.5	C
	Right Turn						
	Subtotal	2,471	2,199	89.0%	27.4	13.1	C
WB	Left Turn						
	Through	2,372	2,118	89.3%	57.5	19.9	E
	Right Turn	95	84	88.4%	34.4	13.5	C
	Subtotal	2,467	2,202	89.3%	56.6	19.5	E
Total		5,887	5,306	90.1%	39.7	10.1	D

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 64 **Chase Dr/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	61	54	89.2%	64.2	13.3	E
	Through						
	Right Turn	62	69	111.0%	2.1	0.4	A
	Subtotal	123	123	100.2%	29.0	6.0	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	2,036	1,837	90.2%	38.5	14.2	D
	Right Turn	110	93	84.4%	17.4	10.3	B
	Subtotal	2,146	1,930	89.9%	37.5	14.0	D
WB	Left Turn	523	482	92.1%	74.8	5.8	E
	Through	2,406	2,265	94.1%	16.0	1.8	B
	Right Turn						
	Subtotal	2,929	2,746	93.8%	26.3	2.6	C
Total		5,198	4,799	92.3%	30.7	5.7	C

Intersection 65 **Gibson Dr (E) /Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	2	1	60.0%	12.0	25.5	B
	Through	6	7	120.0%	67.4	41.8	E
	Right Turn	10	10	104.0%	28.8	17.7	C
	Subtotal	18	19	104.4%	50.8	19.7	D
SB	Left Turn	1,227	943	76.9%	174.1	38.9	F
	Through	5	3	64.0%	102.1	115.9	F
	Right Turn	381	336	88.2%	139.4	39.4	F
	Subtotal	1,613	1,282	79.5%	165.2	39.0	F
EB	Left Turn	237	158	66.5%	202.6	56.2	F
	Through	1,851	1,664	89.9%	46.3	8.2	D
	Right Turn	10	9	88.0%	42.1	22.5	D
	Subtotal	2,098	1,830	87.2%	60.3	12.5	E
WB	Left Turn	35	30	85.7%	98.0	19.7	F
	Through	2,546	2,494	98.0%	47.3	17.1	D
	Right Turn	661	658	99.5%	24.7	13.0	C
	Subtotal	3,242	3,182	98.1%	43.2	15.7	D
Total		6,971	6,314	90.6%	72.6	11.3	E

Intersection 66 **West Dr/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	70	70	100.0%	82.8	8.2	F
	Through	2,974	2,810	94.5%	25.3	3.9	C
	Right Turn	98	96	97.6%	6.8	1.0	A
	Subtotal	3,142	2,976	94.7%	26.0	3.9	C
SB	Left Turn	174	137	78.6%	93.6	11.4	F
	Through	2,861	2,288	80.0%	69.5	23.7	E
	Right Turn	53	38	71.7%	54.7	20.2	D
	Subtotal	3,088	2,462	79.7%	70.6	22.8	E
EB	Left Turn	60	62	102.7%	78.2	17.2	E
	Through	6	6	93.3%	45.1	41.0	D
	Right Turn	52	56	107.7%	40.3	5.5	D
	Subtotal	118	123	104.4%	61.0	10.7	E
WB	Left Turn	141	138	98.2%	58.2	6.7	E
	Through	5	4	72.0%	42.6	32.8	D
	Right Turn	208	223	107.1%	37.3	9.7	D
	Subtotal	354	365	103.1%	45.5	6.5	D
Total		6,702	5,926	88.4%	46.5	9.3	D

Intersection 67 **Reserve Dr/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	373	401	107.5%	61.2	7.7	E
	Through	43	47	108.8%	64.1	17.6	E
	Right Turn	395	410	103.9%	58.9	25.9	E
	Subtotal	811	858	105.8%	60.5	15.0	E
SB	Left Turn	155	164	105.5%	56.3	9.1	E
	Through	62	81	130.3%	57.7	13.8	E
	Right Turn	82	82	99.5%	1.0	0.5	A
	Subtotal	299	326	109.0%	43.0	9.0	D
EB	Left Turn	43	30	70.7%	102.9	27.2	F
	Through	2,665	2,050	76.9%	104.0	19.0	F
	Right Turn	346	268	77.3%	88.1	20.4	F
	Subtotal	3,054	2,348	76.9%	102.3	18.8	F
WB	Left Turn	329	269	81.7%	92.6	13.5	F
	Through	2,687	2,503	93.2%	33.1	6.9	C
	Right Turn	183	178	97.5%	16.7	4.8	B
	Subtotal	3,199	2,950	92.2%	37.5	6.2	D
Total		7,363	6,483	88.0%	64.2	7.7	E

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 68 **Galleria Blvd/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	607	635	104.6%	87.7	23.5	F
	Through	914	930	101.7%	89.6	33.3	F
	Right Turn	76	64	84.2%	14.6	17.6	B
	Subtotal	1,597	1,628	102.0%	86.3	28.6	F
SB	Left Turn	859	709	82.5%	122.0	29.0	F
	Through	759	704	92.8%	45.6	2.6	D
	Right Turn	567	554	97.6%	12.1	3.1	B
	Subtotal	2,185	1,966	90.0%	64.0	12.9	E
EB	Left Turn	825	657	79.7%	159.8	25.2	F
	Through	1,567	1,339	85.4%	60.6	7.2	E
	Right Turn	823	707	85.9%	21.5	5.4	C
	Subtotal	3,215	2,703	84.1%	74.6	9.5	E
WB	Left Turn	248	213	86.0%	89.2	6.0	F
	Through	2,025	1,857	91.7%	49.1	4.5	D
	Right Turn	772	721	93.4%	6.6	1.0	A
	Subtotal	3,045	2,791	91.7%	41.2	3.8	D
Total		10,042	9,089	90.5%	64.1	4.8	E

Intersection 69 **Creekside Ridge Dr/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	39	40	101.5%	69.2	8.9	E
	Through	7	10	137.1%	69.9	42.3	E
	Right Turn	30	34	114.7%	7.0	2.6	A
	Subtotal	76	84	110.0%	44.1	4.2	D
SB	Left Turn	323	319	98.7%	57.3	7.4	E
	Through	1	1	120.0%	8.7	24.1	A
	Right Turn	160	171	106.8%	40.4	6.6	D
	Subtotal	484	491	101.4%	51.3	6.4	D
EB	Left Turn	77	74	96.1%	61.1	11.2	E
	Through	2,396	1,998	83.4%	15.1	1.5	B
	Right Turn	7	7	102.9%	6.2	1.0	A
	Subtotal	2,480	2,079	83.8%	16.7	1.6	B
WB	Left Turn	16	15	92.5%	110.2	37.6	F
	Through	2,706	2,406	88.9%	34.9	7.0	C
	Right Turn	351	296	84.4%	27.2	4.2	C
	Subtotal	3,073	2,717	88.4%	34.5	6.7	C
Total		6,113	5,371	87.9%	29.3	3.2	C

Intersection 70 **Taylor Rd/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	620	451	72.8%	219.2	28.0	F
	Through	736	616	83.7%	252.8	31.0	F
	Right Turn	239	164	68.6%	243.8	26.6	F
	Subtotal	1,595	1,231	77.2%	239.2	28.5	F
SB	Left Turn	557	488	87.5%	123.3	32.7	F
	Through	401	410	102.1%	82.5	29.4	F
	Right Turn	264	265	100.5%	38.7	26.4	D
	Subtotal	1,222	1,162	95.1%	89.8	30.6	F
EB	Left Turn	251	231	92.1%	110.6	10.8	F
	Through	2,234	1,914	85.7%	62.0	12.7	E
	Right Turn	264	217	82.3%	31.1	8.3	C
	Subtotal	2,749	2,362	85.9%	64.0	10.9	E
WB	Left Turn	256	209	81.6%	77.8	9.4	E
	Through	2,109	2,017	95.6%	63.2	6.5	E
	Right Turn	914	704	77.0%	90.2	10.6	F
	Subtotal	3,279	2,930	89.4%	70.7	6.2	E
Total		8,845	7,686	86.9%	98.3	7.4	F

Intersection 71 **N Sunrise Ave/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	575	602	104.8%	111.8	31.9	F
	Through	118	106	89.5%	52.4	19.3	D
	Right Turn	499	486	97.5%	13.9	20.5	B
	Subtotal	1,192	1,194	100.2%	66.8	26.1	E
SB	Left Turn	46	44	94.8%	227.7	48.5	F
	Through	299	242	80.9%	165.3	54.2	F
	Right Turn	322	282	87.6%	33.5	3.5	C
	Subtotal	667	568	85.1%	105.0	25.9	F
EB	Left Turn	134	120	89.6%	92.7	15.3	F
	Through	2,333	1,921	82.3%	60.3	16.3	E
	Right Turn	593	470	79.2%	22.0	8.1	C
	Subtotal	3,060	2,511	82.1%	54.8	15.0	D
WB	Left Turn	325	295	90.8%	119.7	24.2	F
	Through	2,382	2,155	90.5%	74.9	10.3	E
	Right Turn	28	28	100.0%	50.3	10.8	D
	Subtotal	2,735	2,478	90.6%	80.1	11.2	F
Total		7,654	6,751	88.2%	70.4	8.9	E

Intersection 72 **Secret Ravine Pkwy/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	4	6	150.0%	50.3	37.2	D
	Through						
	Right Turn						
	Subtotal	4	6	150.0%	50.3	37.2	D
SB	Left Turn	151	142	93.8%	69.6	6.2	E
	Through						
	Right Turn	625	607	97.1%	34.4	4.1	C
	Subtotal	776	748	96.4%	41.0	4.2	D
EB	Left Turn	823	640	77.7%	60.6	5.7	E
	Through	1,991	1,647	82.7%	18.6	1.8	B
	Right Turn	4	3	80.0%	12.5	9.2	B
	Subtotal	2,818	2,290	81.3%	30.4	3.1	C
WB	Left Turn	31	29	92.9%	118.1	25.3	F
	Through	2,106	1,911	90.7%	117.1	34.0	F
	Right Turn	150	100	66.4%	143.2	61.3	F
	Subtotal	2,287	2,039	89.2%	118.2	34.8	F
Total		5,885	5,084	86.4%	66.9	13.5	E

Intersection 73 **Roseville Pkwy/Alexandra Dr** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	2,061	2,109	102.3%	16.5	2.7	B
	Right Turn	423	423	100.0%	13.6	1.4	B
	Subtotal	2,484	2,532	101.9%	16.0	2.3	B
SB	Left Turn	126	109	86.7%	33.1	5.1	C
	Through	1,836	1,542	84.0%	6.4	1.4	A
	Right Turn						
	Subtotal	1,962	1,651	84.2%	8.2	1.5	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	114	116	102.1%	31.0	6.4	C
	Through						
	Right Turn	76	71	93.7%	17.3	3.7	B
	Subtotal	190	188	98.7%	25.7	3.5	C
Total		4,636	4,371	94.3%	13.5	1.8	B

Intersection 74 **Roseville Pkwy/Rocky Ridge Dr** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	144	127	88.1%	85.7	10.2	F
	Through	2,040	2,000	98.0%	11.9	1.9	B
	Right Turn						
	Subtotal	2,184	2,127	97.4%	16.3	1.9	B
SB	Left Turn						
	Through	1,664	1,399	84.1%	15.5	1.7	B
	Right Turn	286	252	88.3%	8.7	1.6	A
	Subtotal	1,950	1,652	84.7%	14.5	1.6	B
EB	Left Turn	444	488	109.8%	51.7	5.7	D
	Through						
	Right Turn	460	471	102.4%	42.4	11.0	D
	Subtotal	904	959	106.1%	47.2	5.8	D
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		5,038	4,737	94.0%	21.9	2.3	C

Intersection 75 **Roseville Pkwy/Lead Hill Blvd** **Signal**

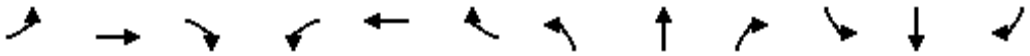
Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	191	177	92.8%	69.8	4.7	E
	Through	1,894	1,808	95.5%	13.1	1.5	B
	Right Turn	6	8	133.3%	3.5	3.3	A
	Subtotal	2,091	1,993	95.3%	18.1	1.0	B
SB	Left Turn	16	10	62.5%	75.5	12.5	E
	Through	2,007	1,809	90.1%	15.2	1.9	B
	Right Turn	101	86	84.8%	7.4	1.8	A
	Subtotal	2,124	1,905	89.7%	15.2	1.9	B
EB	Left Turn	285	296	104.0%	77.8	8.7	E
	Through	30	29	97.3%	84.8	24.2	F
	Right Turn	217	238	109.7%	29.5	6.4	C
	Subtotal	532	564	105.9%	58.0	7.5	E
WB	Left Turn	4	5	120.0%	63.8	48.4	E
	Through	39	40	101.5%	66.3	4.0	E
	Right Turn	5	7	136.0%	30.1	24.5	C
	Subtotal	48	51	106.7%	64.4	5.8	E
Total		4,795	4,513	94.1%	22.4	1.3	C

Intersection 76 **Roseville Pkwy/Olympus Dr** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	20	16	78.0%	67.0	28.2	E
	Through	1,765	1,596	90.4%	36.7	2.6	D
	Right Turn	271	232	85.5%	9.5	0.5	A
	Subtotal	2,056	1,843	89.6%	33.6	2.2	C
SB	Left Turn	396	322	81.3%	113.9	6.6	F
	Through	1,805	1,592	88.2%	55.3	6.5	E
	Right Turn	52	51	97.7%	46.3	7.1	D
	Subtotal	2,253	1,964	87.2%	64.8	6.1	E
EB	Left Turn	82	74	90.7%	230.8	68.0	F
	Through	245	210	85.6%	177.6	73.4	F
	Right Turn	130	116	88.9%	171.1	73.7	F
	Subtotal	457	400	87.4%	186.2	70.6	F
WB	Left Turn	66	65	98.2%	82.7	27.7	F
	Through	187	179	95.6%	43.9	5.7	D
	Right Turn	244	246	101.0%	1.8	0.3	A
	Subtotal	497	490	98.6%	28.5	6.2	C
Total		5,263	4,697	89.2%	59.0	7.2	E

Intersection 77 **Roseville Pkwy/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	246	252	102.6%	81.2	13.6	F
	Through	570	578	101.4%	52.2	4.1	D
	Right Turn	55	48	87.3%	19.1	6.0	B
	Subtotal	871	878	100.8%	58.8	4.8	E
SB	Left Turn	737	587	79.7%	87.9	18.7	F
	Through	1,205	1,055	87.5%	45.7	5.0	D
	Right Turn	154	153	99.2%	12.4	2.5	B
	Subtotal	2,096	1,795	85.6%	56.5	7.3	E
EB	Left Turn	225	162	72.0%	186.5	66.7	F
	Through	1,868	1,713	91.7%	25.7	2.7	C
	Right Turn	313	267	85.2%	14.6	2.1	B
	Subtotal	2,406	2,142	89.0%	36.4	6.1	D
WB	Left Turn	123	116	94.0%	142.2	59.5	F
	Through	1,726	1,627	94.3%	101.3	23.4	F
	Right Turn	1,167	1,014	86.9%	157.5	36.1	F
	Subtotal	3,016	2,757	91.4%	123.8	27.0	F
Total		8,389	7,572	90.3%	75.5	10.6	E



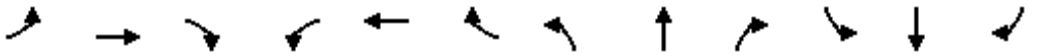
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	5	14	58	5	145	111	800	20	98	1533	22
Future Volume (veh/h)	19	5	14	58	5	145	111	800	20	98	1533	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	5	14	58	5	145	111	800	20	98	1533	22
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	24	100	197	17	190	159	1828	46	154	1841	26
Arrive On Green	0.06	0.06	0.06	0.12	0.12	0.12	0.09	0.52	0.52	0.09	0.51	0.51
Sat Flow, veh/h	1424	375	1585	1646	142	1585	1781	3543	89	1781	3587	51
Grp Volume(v), veh/h	24	0	14	63	0	145	111	401	419	98	759	796
Grp Sat Flow(s),veh/h/ln	1799	0	1585	1788	0	1585	1781	1777	1854	1781	1777	1861
Q Serve(g_s), s	1.0	0.0	0.7	2.7	0.0	7.3	5.0	11.7	11.7	4.4	30.0	30.1
Cycle Q Clear(g_c), s	1.0	0.0	0.7	2.7	0.0	7.3	5.0	11.7	11.7	4.4	30.0	30.1
Prop In Lane	0.79		1.00	0.92		1.00	1.00		0.05	1.00		0.03
Lane Grp Cap(c), veh/h	114	0	100	214	0	190	159	917	957	154	912	956
V/C Ratio(X)	0.21	0.00	0.14	0.29	0.00	0.76	0.70	0.44	0.44	0.64	0.83	0.83
Avail Cap(c_a), veh/h	435	0	383	433	0	383	431	917	957	431	1010	1058
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	0.0	36.6	33.2	0.0	35.2	36.6	12.5	12.5	36.5	17.1	17.1
Incr Delay (d2), s/veh	0.3	0.0	0.2	0.3	0.0	2.4	2.1	0.6	0.5	1.6	6.2	6.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.3	1.2	0.0	2.8	2.2	4.2	4.4	1.9	12.0	12.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.1	0.0	36.8	33.5	0.0	37.6	38.7	13.1	13.0	38.1	23.3	23.1
LnGrp LOS	D	A	D	C	A	D	D	B	B	D	C	C
Approach Vol, veh/h		38			208			931			1653	
Approach Delay, s/veh		37.0			36.4			16.1			24.1	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	9.2	11.4	48.2	13.9	11.2	48.4
Change Period (Y+Rc), s	4.0	4.0	5.7	4.0	4.0	5.7
Max Green Setting (Gmax), s	20.0	20.0	47.0	20.0	20.0	41.0
Max Q Clear Time (g_c+I1), s	3.0	7.0	32.1	9.3	6.4	13.7
Green Ext Time (p_c), s	0.0	0.1	10.4	0.4	0.1	6.7

Intersection Summary	
HCM 6th Ctrl Delay	22.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	477	761	228	621	142	698	616	113	739	826	57
Future Volume (veh/h)	32	477	761	228	621	142	698	616	113	739	826	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2001	1924	1924	2001	1924	1924	2001	1924	1924	1954	1879	1879
Adj Flow Rate, veh/h	32	477	696	228	621	61	698	616	20	739	826	18
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	91	700	650	223	954	423	771	599	265	697	1176	522
Arrive On Green	0.05	0.19	0.19	0.12	0.26	0.26	0.21	0.16	0.16	0.37	0.33	0.33
Sat Flow, veh/h	1906	3656	1618	1906	3656	1621	3698	3656	1616	1861	3571	1585
Grp Volume(v), veh/h	32	477	696	228	621	61	698	616	20	739	826	18
Grp Sat Flow(s),veh/h/ln	1906	1828	1618	1906	1828	1621	1849	1828	1616	1861	1785	1585
Q Serve(g_s), s	2.1	15.6	24.6	15.0	19.4	3.7	23.6	21.0	1.3	48.0	25.9	1.0
Cycle Q Clear(g_c), s	2.1	15.6	24.6	15.0	19.4	3.7	23.6	21.0	1.3	48.0	25.9	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	91	700	650	223	954	423	771	599	265	697	1176	522
V/C Ratio(X)	0.35	0.68	1.07	1.02	0.65	0.14	0.91	1.03	0.08	1.06	0.70	0.03
Avail Cap(c_a), veh/h	134	1189	866	223	1348	598	836	599	265	697	1176	522
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.2	48.2	38.5	56.6	42.2	36.4	49.5	53.6	45.4	40.1	37.5	29.2
Incr Delay (d2), s/veh	0.9	2.6	52.3	66.4	1.3	0.3	12.1	44.4	0.2	51.4	2.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	7.1	28.5	11.1	8.6	1.5	11.8	13.0	0.5	30.5	11.2	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.0	50.8	90.8	123.0	43.5	36.7	61.7	98.1	45.6	91.6	39.7	29.2
LnGrp LOS	E	D	F	F	D	D	E	F	D	F	D	C
Approach Vol, veh/h		1205			910			1334			1583	
Approach Delay, s/veh		74.1			63.0			78.2			63.8	
Approach LOS		E			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	30.3	30.7	48.3	10.1	39.2	52.0	27.0
Change Period (Y+Rc), s	4.0	* 5.7	4.0	* 6	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	15.0	* 42	29.0	* 40	9.0	47.3	48.0	21.0
Max Q Clear Time (g_c+I1), s	17.0	17.6	25.6	27.9	4.1	21.4	50.0	23.0
Green Ext Time (p_c), s	0.0	4.5	1.1	9.0	0.0	11.7	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	70.0
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



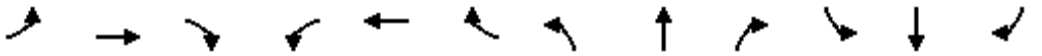
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1512	107	114	1161	87	90
Future Volume (veh/h)	1512	107	114	1161	87	90
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1512	107	114	1161	87	90
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1966	138	190	2639	227	202
Arrive On Green	0.58	0.58	0.11	0.74	0.13	0.13
Sat Flow, veh/h	3461	237	1781	3647	1781	1585
Grp Volume(v), veh/h	794	825	114	1161	87	90
Grp Sat Flow(s),veh/h/ln	1777	1828	1781	1777	1781	1585
Q Serve(g_s), s	25.8	26.3	4.7	9.6	3.4	4.0
Cycle Q Clear(g_c), s	25.8	26.3	4.7	9.6	3.4	4.0
Prop In Lane		0.13	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1037	1067	190	2639	227	202
V/C Ratio(X)	0.77	0.77	0.60	0.44	0.38	0.45
Avail Cap(c_a), veh/h	1503	1546	464	2639	464	413
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.0	12.1	32.7	3.8	30.8	31.0
Incr Delay (d2), s/veh	2.0	2.1	1.1	0.2	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	8.4	1.9	1.6	1.5	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.0	14.2	33.9	3.9	31.2	31.6
LnGrp LOS	B	B	C	A	C	C
Approach Vol, veh/h	1619			1275	177	
Approach Delay, s/veh	14.1			6.6	31.4	
Approach LOS	B			A	C	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		13.8	12.2	50.9		63.1
Change Period (Y+Rc), s		4.0	4.0	6.0		6.0
Max Green Setting (Gmax), s		20.0	20.0	65.0		51.0
Max Q Clear Time (g_c+I1), s		6.0	6.7	28.3		11.6
Green Ext Time (p_c), s		0.3	0.1	16.5		10.8

Intersection Summary	
HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	438	925	54	313	76	778	1196	59	168	1899	81
Future Volume (veh/h)	133	438	925	54	313	76	778	1196	59	168	1899	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	133	438	0	54	313	0	778	1196	0	168	1899	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	184	563		185	565		737	2505		541	2273	
Arrive On Green	0.05	0.16	0.00	0.05	0.16	0.00	0.21	0.49	0.00	0.16	0.45	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	133	438	0	54	313	0	778	1196	0	168	1899	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	5.7	17.7	0.0	2.3	12.2	0.0	32.0	23.4	0.0	6.5	49.3	0.0
Cycle Q Clear(g_c), s	5.7	17.7	0.0	2.3	12.2	0.0	32.0	23.4	0.0	6.5	49.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	184	563		185	565		737	2505		541	2273	
V/C Ratio(X)	0.72	0.78		0.29	0.55		1.06	0.48		0.31	0.84	
Avail Cap(c_a), veh/h	230	829		230	839		737	2505		541	2273	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	69.9	60.6	0.0	68.2	58.2	0.0	59.0	25.4	0.0	56.1	36.8	0.0
Incr Delay (d2), s/veh	5.5	4.3	0.0	0.3	1.5	0.0	48.7	0.7	0.0	0.1	3.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	8.2	0.0	1.0	5.5	0.0	18.5	9.1	0.0	2.8	19.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.4	64.9	0.0	68.6	59.6	0.0	107.7	26.1	0.0	56.2	39.8	0.0
LnGrp LOS	E	E		E	E		F	C		E	D	
Approach Vol, veh/h		571	A		367	A		1974	A		2067	A
Approach Delay, s/veh		67.4			60.9			58.2			41.1	
Approach LOS		E			E			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.2	79.3	12.1	29.5	36.0	72.5	12.0	29.6
Change Period (Y+Rc), s	5.7	* 5.7	4.0	5.7	4.0	5.7	4.0	* 5.7
Max Green Setting (Gmax), s	12.0	* 74	10.0	35.0	32.0	53.6	10.0	* 35
Max Q Clear Time (g_c+I1), s	8.5	25.4	4.3	19.7	34.0	51.3	7.7	14.2
Green Ext Time (p_c), s	0.1	11.1	0.0	2.8	0.0	2.1	0.1	2.2

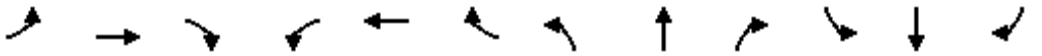
Intersection Summary	
HCM 6th Ctrl Delay	52.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

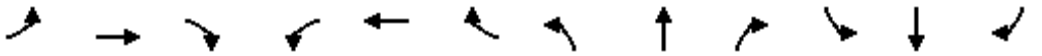
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	884	0	0	1358	404	0	0	0	330	0	121
Future Volume (veh/h)	96	884	0	0	1358	404	0	0	0	330	0	121
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841				1841	0	1841
Adj Flow Rate, veh/h	96	884	0	0	1358	404				330	0	121
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	4	4	0	0	4	4				4	0	4
Cap, veh/h	125	2194	0	0	1745	774				394	0	351
Arrive On Green	0.07	0.63	0.00	0.00	0.50	0.50				0.22	0.00	0.22
Sat Flow, veh/h	1753	3589	0	0	3589	1552				1753	0	1560
Grp Volume(v), veh/h	96	884	0	0	1358	404				330	0	121
Grp Sat Flow(s),veh/h/ln	1753	1749	0	0	1749	1552				1753	0	1560
Q Serve(g_s), s	3.7	8.8	0.0	0.0	22.2	12.3				12.5	0.0	4.5
Cycle Q Clear(g_c), s	3.7	8.8	0.0	0.0	22.2	12.3				12.5	0.0	4.5
Prop In Lane	1.00		0.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	125	2194	0	0	1745	774				394	0	351
V/C Ratio(X)	0.77	0.40	0.00	0.00	0.78	0.52				0.84	0.00	0.35
Avail Cap(c_a), veh/h	503	2194	0	0	2660	1181				981	0	873
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	31.8	6.5	0.0	0.0	14.3	11.8				25.8	0.0	22.7
Incr Delay (d2), s/veh	3.8	0.1	0.0	0.0	0.8	0.5				1.8	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	2.2	0.0	0.0	7.0	3.5				5.2	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.6	6.6	0.0	0.0	15.1	12.4				27.6	0.0	22.9
LnGrp LOS	D	A	A	A	B	B				C	A	C
Approach Vol, veh/h		980			1762						451	
Approach Delay, s/veh		9.4			14.5						26.4	
Approach LOS		A			B						C	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		49.4		20.3	9.0	40.5						
Change Period (Y+Rc), s		5.7		4.6	4.0	5.7						
Max Green Setting (Gmax), s		35.0		39.0	20.0	53.0						
Max Q Clear Time (g_c+I1), s		10.8		14.5	5.7	24.2						
Green Ext Time (p_c), s		4.2		1.1	0.1	10.6						

Intersection Summary												
HCM 6th Ctrl Delay			14.6									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	1163	17	12	1770	423	17	3	26	103	7	173
Future Volume (veh/h)	70	1163	17	12	1770	423	17	3	26	103	7	173
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1885	1826	1826	1885	1885	1885	1791	1791	1732
Adj Flow Rate, veh/h	70	1163	17	12	1770	423	17	3	26	103	7	173
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	5	5	5	1	5	5	1	1	1	1	1	5
Cap, veh/h	90	2345	34	15	2174	962	51	5	42	180	12	161
Arrive On Green	0.05	0.67	0.67	0.01	0.63	0.63	0.03	0.03	0.03	0.11	0.11	0.11
Sat Flow, veh/h	1739	3500	51	1795	3469	1535	1795	168	1455	1602	109	1428
Grp Volume(v), veh/h	70	576	604	12	1770	423	17	0	29	110	0	173
Grp Sat Flow(s),veh/h/ln	1739	1735	1817	1795	1735	1535	1795	0	1623	1711	0	1428
Q Serve(g_s), s	4.0	16.7	16.7	0.7	39.4	14.4	0.9	0.0	1.8	6.2	0.0	11.4
Cycle Q Clear(g_c), s	4.0	16.7	16.7	0.7	39.4	14.4	0.9	0.0	1.8	6.2	0.0	11.4
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.90	0.94		1.00
Lane Grp Cap(c), veh/h	90	1162	1217	15	2174	962	51	0	47	192	0	161
V/C Ratio(X)	0.78	0.50	0.50	0.79	0.81	0.44	0.33	0.00	0.62	0.57	0.00	1.08
Avail Cap(c_a), veh/h	343	1162	1217	354	2293	1014	354	0	320	192	0	161
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.5	8.3	8.3	50.2	14.4	9.8	48.3	0.0	48.7	42.7	0.0	45.0
Incr Delay (d2), s/veh	5.3	0.3	0.3	27.3	2.3	0.3	1.4	0.0	5.0	2.6	0.0	93.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	5.1	5.3	0.4	13.3	4.1	0.4	0.0	0.8	2.8	0.0	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.8	8.6	8.6	77.5	16.7	10.1	49.7	0.0	53.7	45.3	0.0	138.1
LnGrp LOS	D	A	A	E	B	B	D	A	D	D	A	F
Approach Vol, veh/h		1250			2205			46			283	
Approach Delay, s/veh		11.1			15.8			52.2			102.0	
Approach LOS		B			B			D			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.9	73.6		6.9	9.3	69.2		16.0				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.6				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	67.0		11.4				
Max Q Clear Time (g_c+I1), s	2.7	18.7		3.8	6.0	41.4		13.4				
Green Ext Time (p_c), s	0.0	14.1		0.0	0.1	22.1		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		21.1
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	938	450	522	1973	376	483
Future Volume (veh/h)	938	450	522	1973	376	483
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	938	381	522	1973	376	477
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1028	817	632	2424	407	924
Arrive On Green	0.29	0.29	0.35	0.68	0.23	0.23
Sat Flow, veh/h	3647	1571	1781	3647	1781	1585
Grp Volume(v), veh/h	938	381	522	1973	376	477
Grp Sat Flow(s),veh/h/ln	1777	1571	1781	1777	1781	1585
Q Serve(g_s), s	38.2	23.2	40.1	59.5	31.0	0.0
Cycle Q Clear(g_c), s	38.2	23.2	40.1	59.5	31.0	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1028	817	632	2424	407	924
V/C Ratio(X)	0.91	0.47	0.83	0.81	0.92	0.52
Avail Cap(c_a), veh/h	1097	847	632	2424	451	964
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.87	0.87	0.75	0.75
Uniform Delay (d), s/veh	51.5	23.0	44.2	17.1	56.6	18.6
Incr Delay (d2), s/veh	11.0	0.4	7.3	2.7	18.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.1	13.2	18.4	22.2	16.0	19.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	62.5	23.4	51.5	19.8	74.8	18.8
LnGrp LOS	E	C	D	B	E	B
Approach Vol, veh/h	1319			2495	853	
Approach Delay, s/veh	51.2			26.4	43.5	
Approach LOS	D			C	D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	58.9	49.1		38.3		108.0
Change Period (Y+Rc), s	5.7	* 5.7		4.0		5.7
Max Green Setting (Gmax), s	52.0	* 46		38.0		102.3
Max Q Clear Time (g_c+I1), s	42.1	40.2		33.0		61.5
Green Ext Time (p_c), s	0.9	3.2		1.3		15.8

Intersection Summary	
HCM 6th Ctrl Delay	36.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection 85 **I-80 WB Ramps/Atlantic St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	1,050	1,010	96.2%	8.2	17.4	A
	Subtotal	1,050	1,010	96.2%	8.2	17.4	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	1,016	934	91.9%	43.6	29.6	D
	Right Turn	405	319	78.8%	110.3	60.6	F
	Subtotal	1,421	1,253	88.2%	60.8	37.6	E
WB	Left Turn	412	350	84.9%	42.1	9.2	D
	Through	1,664	1,451	87.2%	4.0	0.3	A
	Right Turn						
	Subtotal	2,076	1,800	86.7%	11.4	1.8	B
Total		4,547	4,063	89.4%	24.8	10.0	C

Intersection 86 **Taylor Rd-I-80 EB Ramps/Eureka Rd** **Signal**

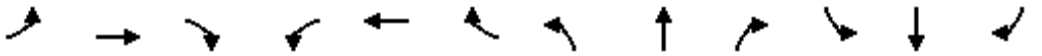
Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	204	200	98.2%	135.2	46.5	F
	Through	687	639	93.0%	118.7	30.9	F
	Right Turn	519	477	91.9%	37.0	22.8	D
	Subtotal	1,410	1,316	93.4%	92.6	28.3	F
SB	Left Turn	526	348	66.2%	328.1	53.3	F
	Through	482	449	93.2%	60.1	17.4	E
	Right Turn	81	70	85.9%	50.5	15.0	D
	Subtotal	1,089	867	79.6%	167.1	28.3	F
EB	Left Turn	346	212	61.2%	301.0	54.0	F
	Through	1,466	1,385	94.5%	28.1	5.7	C
	Right Turn	254	212	83.3%	8.6	5.1	A
	Subtotal	2,066	1,808	87.5%	57.8	10.7	E
WB	Left Turn						
	Through	3,357	2,639	78.6%	92.2	11.6	F
	Right Turn	387	288	74.4%	70.4	11.2	E
	Subtotal	3,744	2,927	78.2%	90.0	11.5	F
Total		8,309	6,919	83.3%	91.5	9.6	F

Intersection 87 **N Sunrise Ave/Eureka Rd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	622	537	86.4%	215.8	32.7	F
	Through	459	465	101.3%	92.1	22.9	F
	Right Turn	180	194	107.8%	36.3	18.8	D
	Subtotal	1,261	1,196	94.8%	138.4	24.7	F
SB	Left Turn	189	183	96.9%	80.7	11.6	F
	Through	505	499	98.9%	75.1	11.8	E
	Right Turn	622	556	89.5%	91.9	25.7	F
	Subtotal	1,316	1,239	94.1%	83.6	17.3	F
EB	Left Turn	422	380	90.1%	59.5	8.6	E
	Through	1,715	1,541	89.8%	19.2	1.8	B
	Right Turn	374	333	89.1%	4.8	0.5	A
	Subtotal	2,511	2,254	89.8%	24.0	1.9	C
WB	Left Turn	130	127	97.5%	117.3	15.8	F
	Through	2,500	2,084	83.3%	97.4	13.1	F
	Right Turn	140	103	73.7%	57.4	12.2	E
	Subtotal	2,770	2,314	83.5%	96.7	12.9	F
Total		7,858	7,003	89.1%	78.0	6.0	E

Intersection 88 **Rocky Ridge Dr/Eureka Rd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	452	439	97.1%	106.4	25.1	F
	Through	467	451	96.5%	54.0	11.3	D
	Right Turn	29	40	137.9%	16.7	11.7	B
	Subtotal	948	930	98.1%	77.4	18.8	E
SB	Left Turn	99	105	106.3%	80.3	22.1	F
	Through	361	356	98.5%	110.5	46.9	F
	Right Turn	169	160	94.9%	13.8	19.2	B
	Subtotal	629	621	98.8%	81.0	36.9	F
EB	Left Turn	118	111	94.2%	83.1	16.1	F
	Through	1,633	1,486	91.0%	37.8	2.1	D
	Right Turn	340	319	93.8%	4.1	0.7	A
	Subtotal	2,091	1,916	91.6%	34.9	2.4	C
WB	Left Turn	67	64	95.5%	117.6	17.8	F
	Through	1,962	1,934	98.6%	53.9	8.0	D
	Right Turn	80	82	102.5%	19.1	6.6	B
	Subtotal	2,109	2,080	98.6%	54.5	8.0	D
Total		5,777	5,546	96.0%	54.6	5.5	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	382	181	61	256	160	302	1739	70	104	1596	93
Future Volume (veh/h)	128	382	181	61	256	160	302	1739	70	104	1596	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	128	382	0	61	256	0	302	1739	0	104	1596	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	150	485		78	342		324	2349		126	1837	
Arrive On Green	0.08	0.14	0.00	0.04	0.10	0.00	0.18	0.46	0.00	0.07	0.36	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	128	382	0	61	256	0	302	1739	0	104	1596	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	10.6	15.6	0.0	5.1	10.5	0.0	25.0	41.8	0.0	8.6	43.7	0.0
Cycle Q Clear(g_c), s	10.6	15.6	0.0	5.1	10.5	0.0	25.0	41.8	0.0	8.6	43.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	150	485		78	342		324	2349		126	1837	
V/C Ratio(X)	0.86	0.79		0.78	0.75		0.93	0.74		0.83	0.87	
Avail Cap(c_a), veh/h	166	829		131	758		368	2349		190	1838	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	67.8	62.6	0.0	71.0	66.0	0.0	60.4	33.2	0.0	68.8	44.7	0.0
Incr Delay (d2), s/veh	28.5	5.7	0.0	6.3	6.5	0.0	27.0	2.1	0.0	10.2	4.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	7.3	0.0	2.4	5.0	0.0	13.5	17.2	0.0	4.2	18.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	96.3	68.3	0.0	77.4	72.6	0.0	87.4	35.3	0.0	79.0	49.7	0.0
LnGrp LOS	F	E		E	E		F	D		E	D	
Approach Vol, veh/h		510	A		317	A		2041	A		1700	A
Approach Delay, s/veh		75.4			73.5			43.0			51.5	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	25.8	31.3	59.7	16.6	19.7	16.3	74.7
Change Period (Y+Rc), s	4.0	5.3	4.0	5.7	4.0	5.3	5.7	* 5.7
Max Green Setting (Gmax), s	11.0	35.0	31.0	54.0	14.0	32.0	16.0	* 69
Max Q Clear Time (g_c+I1), s	7.1	17.6	27.0	45.7	12.6	12.5	10.6	43.8
Green Ext Time (p_c), s	0.0	2.9	0.3	6.3	0.0	1.9	0.1	15.8

Intersection Summary	
HCM 6th Ctrl Delay	51.9
HCM 6th LOS	D

Notes

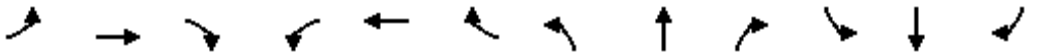
User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection 90 **Eureka Rd/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	522	520	99.7%	89.9	19.4	F
	Through	1,114	1,142	102.5%	83.2	24.2	F
	Right Turn	62	62	100.6%	73.2	30.0	E
	Subtotal	1,698	1,725	101.6%	85.1	20.8	F
SB	Left Turn	902	799	88.6%	147.2	22.2	F
	Through	889	882	99.2%	90.2	16.4	F
	Right Turn	206	228	110.7%	89.2	17.7	F
	Subtotal	1,997	1,909	95.6%	114.0	19.4	F
EB	Left Turn	191	178	93.0%	71.0	7.4	E
	Through	1,437	1,358	94.5%	47.9	4.8	D
	Right Turn	418	406	97.0%	32.7	5.3	C
	Subtotal	2,046	1,942	94.9%	46.9	4.4	D
WB	Left Turn	94	93	98.7%	90.3	12.6	F
	Through	1,531	1,454	94.9%	53.3	13.9	D
	Right Turn	776	737	94.9%	20.5	11.7	C
	Subtotal	2,401	2,283	95.1%	44.3	13.2	D
Total		8,142	7,859	96.5%	70.9	5.7	E



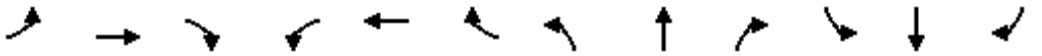
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	1272	12	7	1447	14	40	4	10	9	1	39
Future Volume (veh/h)	77	1272	12	7	1447	14	40	4	10	9	1	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	1272	12	7	1447	14	40	4	10	9	1	39
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	153	2115	20	26	1856	18	146	39	97	125	14	123
Arrive On Green	0.09	0.59	0.59	0.01	0.51	0.51	0.08	0.08	0.08	0.08	0.08	0.08
Sat Flow, veh/h	1781	3607	34	1781	3606	35	1781	474	1184	1611	179	1585
Grp Volume(v), veh/h	77	626	658	7	713	748	40	0	14	10	0	39
Grp Sat Flow(s),veh/h/ln	1781	1777	1864	1781	1777	1864	1781	0	1657	1790	0	1585
Q Serve(g_s), s	3.0	16.6	16.6	0.3	24.0	24.0	1.6	0.0	0.6	0.4	0.0	1.7
Cycle Q Clear(g_c), s	3.0	16.6	16.6	0.3	24.0	24.0	1.6	0.0	0.6	0.4	0.0	1.7
Prop In Lane	1.00		0.02	1.00		0.02	1.00		0.71	0.90		1.00
Lane Grp Cap(c), veh/h	153	1042	1093	26	915	960	146	0	135	138	0	123
V/C Ratio(X)	0.50	0.60	0.60	0.27	0.78	0.78	0.27	0.00	0.10	0.07	0.00	0.32
Avail Cap(c_a), veh/h	483	1085	1138	483	1085	1138	483	0	450	486	0	430
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.2	9.7	9.7	35.9	14.5	14.5	31.8	0.0	31.3	31.6	0.0	32.2
Incr Delay (d2), s/veh	0.9	1.2	1.2	2.1	3.8	3.6	0.4	0.0	0.1	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	5.7	6.0	0.1	9.4	9.8	0.7	0.0	0.2	0.2	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.1	11.0	10.9	38.0	18.3	18.1	32.2	0.0	31.5	31.6	0.0	32.7
LnGrp LOS	C	B	B	D	B	B	C	A	C	C	A	C
Approach Vol, veh/h		1361			1468			54			49	
Approach Delay, s/veh		12.2			18.3			32.0			32.5	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	48.9		10.0	10.3	43.6		9.7				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	2.3	18.6		3.6	5.0	26.0		3.7				
Green Ext Time (p_c), s	0.0	12.5		0.1	0.1	12.0		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		16.0	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



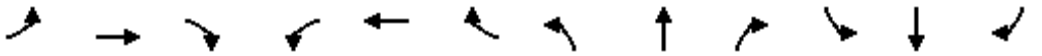
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	1203	69	52	960	12	33	1	27	6	3	7
Future Volume (veh/h)	41	1203	69	52	960	12	33	1	27	6	3	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	41	1203	69	52	960	12	33	1	27	6	3	7
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	102	1780	102	119	1886	841	87	3	71	42	21	55
Arrive On Green	0.06	0.52	0.52	0.07	0.53	0.53	0.09	0.09	0.09	0.04	0.04	0.04
Sat Flow, veh/h	1781	3416	196	1781	3554	1585	914	28	748	1207	603	1585
Grp Volume(v), veh/h	41	625	647	52	960	12	61	0	0	9	0	7
Grp Sat Flow(s),veh/h/ln	1781	1777	1835	1781	1777	1585	1690	0	0	1810	0	1585
Q Serve(g_s), s	1.4	15.9	16.0	1.7	10.7	0.2	2.1	0.0	0.0	0.3	0.0	0.3
Cycle Q Clear(g_c), s	1.4	15.9	16.0	1.7	10.7	0.2	2.1	0.0	0.0	0.3	0.0	0.3
Prop In Lane	1.00		0.11	1.00		1.00	0.54		0.44	0.67		1.00
Lane Grp Cap(c), veh/h	102	926	956	119	1886	841	160	0	0	63	0	55
V/C Ratio(X)	0.40	0.68	0.68	0.44	0.51	0.01	0.38	0.00	0.00	0.14	0.00	0.13
Avail Cap(c_a), veh/h	581	1014	1047	581	2028	905	551	0	0	590	0	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.9	10.9	10.9	27.5	9.3	6.8	26.1	0.0	0.0	28.7	0.0	28.7
Incr Delay (d2), s/veh	0.9	3.9	3.8	0.9	1.0	0.0	0.6	0.0	0.0	0.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	5.6	5.8	0.7	3.3	0.1	0.8	0.0	0.0	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.8	14.8	14.7	28.4	10.2	6.8	26.6	0.0	0.0	29.1	0.0	29.1
LnGrp LOS	C	B	B	C	B	A	C	A	A	C	A	C
Approach Vol, veh/h		1313			1024			61			16	
Approach Delay, s/veh		15.2			11.1			26.6			29.1	
Approach LOS		B			B			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.8	8.1	37.3		6.1	7.5	37.8				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.0	4.0	5.3				
Max Green Setting (Gmax), s		20.0	20.0	35.0		20.0	20.0	35.0				
Max Q Clear Time (g_c+I1), s		4.1	3.7	18.0		2.3	3.4	12.7				
Green Ext Time (p_c), s		0.1	0.1	14.0		0.0	0.0	14.4				

Intersection Summary												
HCM 6th Ctrl Delay			13.8									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	700	469	45	560	255	134	1309	43	324	1617	297
Future Volume (veh/h)	124	700	469	45	560	255	134	1309	43	324	1617	297
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	124	700	0	45	560	0	134	1309	0	324	1617	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	146	797		80	667		157	1700		347	2189	
Arrive On Green	0.08	0.22	0.00	0.05	0.19	0.00	0.09	0.33	0.00	0.19	0.43	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	124	700	0	45	560	0	134	1309	0	324	1617	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	10.3	28.5	0.0	3.7	22.8	0.0	11.1	34.5	0.0	26.8	39.7	0.0
Cycle Q Clear(g_c), s	10.3	28.5	0.0	3.7	22.8	0.0	11.1	34.5	0.0	26.8	39.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	146	797		80	667		157	1700		347	2189	
V/C Ratio(X)	0.85	0.88		0.56	0.84		0.86	0.77		0.93	0.74	
Avail Cap(c_a), veh/h	190	907		95	718		238	1700		428	2189	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	67.9	56.2	0.0	70.2	58.8	0.0	67.5	44.9	0.0	59.4	35.8	0.0
Incr Delay (d2), s/veh	19.5	9.8	0.0	2.3	9.1	0.0	11.5	2.5	0.0	22.8	2.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	13.6	0.0	1.7	10.9	0.0	5.4	14.3	0.0	13.9	16.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.4	66.0	0.0	72.4	67.9	0.0	78.9	47.3	0.0	82.3	38.1	0.0
LnGrp LOS	F	E		E	E		E	D		F	D	
Approach Vol, veh/h		824	A		605	A		1443	A		1941	A
Approach Delay, s/veh		69.2			68.2			50.3			45.5	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.2	55.7	10.8	39.4	18.9	70.0	16.3	33.8
Change Period (Y+Rc), s	4.0	5.7	4.0	5.7	5.7	* 5.7	4.0	5.7
Max Green Setting (Gmax), s	36.0	48.3	8.0	38.3	20.0	* 64	16.0	30.3
Max Q Clear Time (g_c+I1), s	28.8	36.5	5.7	30.5	13.1	41.7	12.3	24.8
Green Ext Time (p_c), s	0.4	7.3	0.0	3.1	0.1	13.9	0.1	1.9

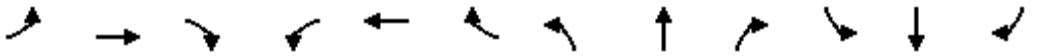
Intersection Summary	
HCM 6th Ctrl Delay	53.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

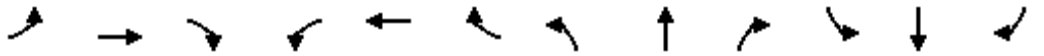
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	490	5	0	914	468	5	5	5	490	5	17
Future Volume (veh/h)	5	490	5	0	914	468	5	5	5	490	5	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	490	5	0	914	468	5	5	5	490	5	17
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	7	2153	22	0	1017	1274	8	8	8	459	5	412
Arrive On Green	0.00	0.60	0.60	0.00	0.72	0.72	0.01	0.01	0.01	0.26	0.26	0.26
Sat Flow, veh/h	1781	3604	37	0	1870	1585	579	579	579	1764	18	1585
Grp Volume(v), veh/h	5	241	254	0	914	468	15	0	0	495	0	17
Grp Sat Flow(s),veh/h/ln	1781	1777	1864	0	1870	1585	1737	0	0	1782	0	1585
Q Serve(g_s), s	0.3	6.3	6.3	0.0	38.7	5.8	0.9	0.0	0.0	26.0	0.0	0.8
Cycle Q Clear(g_c), s	0.3	6.3	6.3	0.0	38.7	5.8	0.9	0.0	0.0	26.0	0.0	0.8
Prop In Lane	1.00		0.02	0.00		1.00	0.33		0.33	0.99		1.00
Lane Grp Cap(c), veh/h	7	1061	1113	0	1017	1274	24	0	0	463	0	412
V/C Ratio(X)	0.72	0.23	0.23	0.00	0.90	0.37	0.63	0.00	0.00	1.07	0.00	0.04
Avail Cap(c_a), veh/h	445	1061	1113	0	1017	1274	208	0	0	463	0	412
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.87	0.87	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	49.8	9.4	9.4	0.0	11.7	1.5	49.1	0.0	0.0	37.0	0.0	27.7
Incr Delay (d2), s/veh	40.8	0.5	0.5	0.0	9.6	0.2	9.9	0.0	0.0	61.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.4	2.5	0.0	11.6	3.3	0.4	0.0	0.0	18.9	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.5	9.9	9.9	0.0	21.3	1.7	59.0	0.0	0.0	98.2	0.0	27.7
LnGrp LOS	F	A	A	A	C	A	E	A	A	F	A	C
Approach Vol, veh/h		500			1382			15			512	
Approach Delay, s/veh		10.7			14.6			59.0			95.9	
Approach LOS		B			B			E			F	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		64.6		30.0	5.4	59.2		5.4				
Change Period (Y+Rc), s		4.9		4.0	5.0	4.9		4.0				
Max Green Setting (Gmax), s		49.1		26.0	25.0	19.1		12.0				
Max Q Clear Time (g_c+I1), s		8.3		28.0	2.3	40.7		2.9				
Green Ext Time (p_c), s		2.3		0.0	0.0	0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			31.4									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	960	20	12	1330	0	28	0	16	91	7	24
Future Volume (veh/h)	0	960	20	12	1330	0	28	0	16	91	7	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	960	0	12	1330	0	28	0	16	91	7	24
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	0	2	2	2	2	2	2
Cap, veh/h	0	2020		40	2242	0	61	0	35	138	29	98
Arrive On Green	0.00	1.00	0.00	0.05	1.00	0.00	0.06	0.00	0.06	0.08	0.08	0.08
Sat Flow, veh/h	0	3647	1585	1781	3647	0	1085	0	620	1781	371	1271
Grp Volume(v), veh/h	0	960	0	12	1330	0	44	0	0	91	0	31
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1781	1777	0	1705	0	0	1781	0	1642
Q Serve(g_s), s	0.0	0.0	0.0	0.7	0.0	0.0	2.5	0.0	0.0	5.0	0.0	1.8
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.7	0.0	0.0	2.5	0.0	0.0	5.0	0.0	1.8
Prop In Lane	0.00		1.00	1.00		0.00	0.64		0.36	1.00		0.77
Lane Grp Cap(c), veh/h	0	2020		40	2242	0	96	0	0	138	0	127
V/C Ratio(X)	0.00	0.48		0.30	0.59	0.00	0.46	0.00	0.00	0.66	0.00	0.24
Avail Cap(c_a), veh/h	0	2020		214	2242	0	205	0	0	214	0	197
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.98	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	47.0	0.0	0.0	45.7	0.0	0.0	44.9	0.0	43.4
Incr Delay (d2), s/veh	0.0	0.2	0.0	1.5	1.2	0.0	1.3	0.0	0.0	2.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	0.3	0.4	0.0	1.1	0.0	0.0	2.3	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.2	0.0	48.5	1.2	0.0	47.0	0.0	0.0	46.9	0.0	43.8
LnGrp LOS	A	A		D	A	A	D	A	A	D	A	D
Approach Vol, veh/h		960	A		1342			44			122	
Approach Delay, s/veh		0.2			1.6			47.0			46.1	
Approach LOS		A			A			D			D	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	6.3	61.7		11.7		68.0		9.6				
Change Period (Y+Rc), s	4.0	4.9		4.0		4.9		4.0				
Max Green Setting (Gmax), s	12.0	47.1		12.0		63.1		12.0				
Max Q Clear Time (g_c+I1), s	2.7	2.0		7.0		2.0		4.5				
Green Ext Time (p_c), s	0.0	13.0		0.1		22.7		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	4.0	
HCM 6th LOS	A	

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1017	60	431	1308	58	215
Future Volume (veh/h)	1017	60	431	1308	58	215
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1017	60	431	1308	58	215
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1300	77	463	2420	277	247
Arrive On Green	0.38	0.38	0.26	0.68	0.16	0.16
Sat Flow, veh/h	3503	201	1781	3647	1781	1585
Grp Volume(v), veh/h	530	547	431	1308	58	215
Grp Sat Flow(s),veh/h/ln	1777	1834	1781	1777	1781	1585
Q Serve(g_s), s	26.3	26.3	23.6	18.6	2.8	13.2
Cycle Q Clear(g_c), s	26.3	26.3	23.6	18.6	2.8	13.2
Prop In Lane		0.11	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	677	699	463	2420	277	247
V/C Ratio(X)	0.78	0.78	0.93	0.54	0.21	0.87
Avail Cap(c_a), veh/h	677	699	517	2420	410	365
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.3	27.3	36.1	8.1	36.8	41.2
Incr Delay (d2), s/veh	6.0	5.8	21.5	0.9	0.1	10.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.5	11.9	12.6	6.1	1.3	5.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.3	33.1	57.7	8.9	37.0	51.5
LnGrp LOS	C	C	E	A	D	D
Approach Vol, veh/h	1077			1739	273	
Approach Delay, s/veh	33.2			21.0	48.4	
Approach LOS	C			C	D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	30.0	43.0		19.6		73.0
Change Period (Y+Rc), s	4.0	4.9		4.0		4.9
Max Green Setting (Gmax), s	29.0	35.1		23.0		68.1
Max Q Clear Time (g_c+I1), s	25.6	28.3		15.2		20.6
Green Ext Time (p_c), s	0.4	4.5		0.3		24.3

Intersection Summary			
HCM 6th Ctrl Delay		27.7	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 97 **Folsom Rd/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	2	2	80.0%	19.0	38.3	B
	Through	2	2	120.0%	20.9	34.5	C
	Right Turn	8	8	100.0%	21.9	18.8	C
	Subtotal	12	12	100.0%	28.2	22.5	C
SB	Left Turn	471	396	84.2%	141.3	69.7	F
	Through	4	3	80.0%	46.1	62.6	D
	Right Turn	112	102	91.1%	125.9	71.5	F
	Subtotal	587	502	85.5%	138.1	70.0	F
EB	Left Turn	68	66	97.1%	92.5	19.1	F
	Through	1,121	1,145	102.2%	24.8	5.7	C
	Right Turn	4	6	160.0%	19.2	20.4	B
	Subtotal	1,193	1,218	102.1%	28.5	5.8	C
WB	Left Turn	10	10	100.0%	119.9	44.7	F
	Through	1,617	1,307	80.8%	17.1	2.9	B
	Right Turn	102	78	76.9%	12.4	3.5	B
	Subtotal	1,729	1,395	80.7%	17.6	3.4	B
Total		3,521	3,126	88.8%	39.9	9.5	D

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 98 **Harding Blvd/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	53	53	99.6%	68.9	18.0	E
	Through	41	36	86.8%	67.4	14.8	E
	Right Turn	82	77	94.1%	34.5	7.7	C
	Subtotal	176	166	94.1%	53.3	7.8	D
SB	Left Turn	828	710	85.8%	71.7	6.4	E
	Through	14	12	88.6%	65.8	34.1	E
	Right Turn	444	355	80.0%	48.5	5.7	D
	Subtotal	1,286	1,078	83.8%	64.1	6.2	E
EB	Left Turn	321	276	86.1%	100.6	12.3	F
	Through	1,375	1,296	94.2%	42.2	8.2	D
	Right Turn	18	16	86.7%	41.4	23.0	D
	Subtotal	1,714	1,588	92.6%	52.4	9.1	D
WB	Left Turn	74	56	75.1%	81.8	8.9	F
	Through	1,359	1,081	79.5%	24.1	4.3	C
	Right Turn	452	352	78.0%	9.3	2.0	A
	Subtotal	1,885	1,489	79.0%	22.7	4.1	C
Total		5,061	4,320	85.4%	45.2	3.4	D

Intersection 99 **I-80 WB Ramps-Sunrise Ave Connector/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	521	480	92.2%	65.6	23.6	E
	Through	704	745	105.8%	78.8	24.4	E
	Right Turn	331	310	93.5%	63.4	23.5	E
	Subtotal	1,556	1,535	98.6%	71.6	24.2	E
EB	Left Turn						
	Through	1,305	1,178	90.3%	30.2	2.4	C
	Right Turn	341	302	88.4%	23.2	2.8	C
	Subtotal	1,646	1,480	89.9%	28.8	1.9	C
WB	Left Turn						
	Through	1,554	1,174	75.5%	84.1	13.4	F
	Right Turn	1,444	1,147	79.4%	52.4	7.5	D
	Subtotal	2,998	2,321	77.4%	68.4	9.0	E
Total		6,200	5,335	86.1%	57.9	6.5	E

Intersection 100 **I-80 EB Ramps/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	969	979	101.1%	5.0	1.3	A
	Subtotal	969	979	101.1%	5.0	1.3	A
SB	Left Turn						
	Through						
	Right Turn	260	247	94.9%	34.0	9.0	C
	Subtotal	260	247	94.9%	34.0	9.0	C
EB	Left Turn	312	284	90.9%	30.9	7.5	C
	Through	1,514	1,373	90.7%	2.9	0.9	A
	Right Turn						
	Subtotal	1,826	1,656	90.7%	7.8	2.3	A
WB	Left Turn						
	Through	2,738	2,266	82.7%	46.4	13.0	D
	Right Turn	421	362	85.9%	5.1	0.9	A
	Subtotal	3,159	2,627	83.2%	40.8	11.5	D
Total		6,214	5,510	88.7%	24.1	5.3	C

Intersection 101 **N Sunrise Ave/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	481	338	70.2%	224.3	73.0	F
	Through	367	358	97.7%	53.8	10.9	D
	Right Turn	191	179	93.8%	21.4	6.1	C
	Subtotal	1,039	875	84.2%	112.2	30.9	F
SB	Left Turn	144	133	92.2%	54.6	11.1	D
	Through	639	629	98.4%	46.8	6.2	D
	Right Turn	671	660	98.3%	31.6	6.8	C
	Subtotal	1,454	1,421	97.7%	40.3	3.9	D
EB	Left Turn	463	427	92.2%	80.4	13.6	F
	Through	1,669	1,578	94.5%	35.7	2.4	D
	Right Turn	351	337	96.0%	10.9	1.8	B
	Subtotal	2,483	2,341	94.3%	40.4	3.6	D
WB	Left Turn	215	194	90.2%	73.8	14.3	E
	Through	2,007	1,710	85.2%	79.2	31.2	E
	Right Turn	73	69	94.2%	51.8	17.6	D
	Subtotal	2,295	1,972	85.9%	77.8	28.6	E
Total		7,271	6,610	90.9%	60.5	9.2	E

Intersection 102 **Santa Clara Dr/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	57	62	109.5%	72.4	16.2	E
	Through	56	51	91.4%	77.3	18.8	E
	Right Turn	56	48	86.4%	15.4	5.7	B
	Subtotal	169	162	95.9%	57.3	13.0	E
SB	Left Turn	177	179	101.0%	47.5	5.5	D
	Through	58	66	114.5%	50.5	6.3	D
	Right Turn	178	185	104.0%	26.6	6.6	C
	Subtotal	413	430	104.2%	39.2	4.2	D
EB	Left Turn	149	136	91.5%	74.2	5.7	E
	Through	1,729	1,653	95.6%	19.4	2.0	B
	Right Turn	73	68	92.6%	23.2	7.3	C
	Subtotal	1,951	1,857	95.2%	23.6	1.9	C
WB	Left Turn	79	82	103.8%	68.2	9.3	E
	Through	1,902	1,806	94.9%	27.5	4.6	C
	Right Turn	82	82	99.5%	8.8	4.3	A
	Subtotal	2,063	1,969	95.5%	28.4	4.4	C
Total		4,596	4,418	96.1%	28.5	2.5	C

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 103 **Sierra Gardens Dr/Douglas Blvd** **Signal**

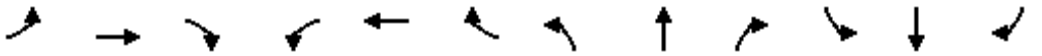
Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	141	142	100.7%	58.6	8.3	E
	Through	56	60	107.1%	68.5	14.9	E
	Right Turn	40	38	96.0%	57.8	17.4	E
	Subtotal	237	240	101.4%	61.3	9.4	E
SB	Left Turn	176	163	92.7%	53.5	6.9	D
	Through	85	83	97.4%	54.9	10.6	D
	Right Turn	40	43	108.0%	46.8	9.2	D
	Subtotal	301	289	96.1%	52.6	6.9	D
EB	Left Turn	52	51	98.5%	81.3	13.9	F
	Through	1,728	1,656	95.8%	20.7	3.0	C
	Right Turn	149	142	95.0%	7.2	2.0	A
	Subtotal	1,929	1,848	95.8%	21.4	2.4	C
WB	Left Turn	60	52	86.7%	51.2	10.4	D
	Through	1,886	1,844	97.8%	15.7	2.6	B
	Right Turn	190	182	95.8%	9.0	1.1	A
	Subtotal	2,136	2,078	97.3%	16.0	2.4	B
Total		4,603	4,456	96.8%	23.1	1.1	C

Intersection 104 **Target Dwy-TJ Maxx Dwy/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	102	106	103.5%	68.3	10.4	E
	Through	19	19	98.9%	58.8	14.5	E
	Right Turn	87	92	105.3%	28.4	8.5	C
	Subtotal	208	216	103.8%	50.7	7.5	D
SB	Left Turn	103	91	88.2%	86.4	21.3	F
	Through	11	13	120.0%	87.3	28.6	F
	Right Turn	79	80	101.3%	52.8	20.1	D
	Subtotal	193	184	95.3%	72.2	17.3	E
EB	Left Turn	176	166	94.3%	72.2	6.3	E
	Through	1,663	1,597	96.0%	22.3	4.6	C
	Right Turn	60	51	84.7%	22.1	5.4	C
	Subtotal	1,899	1,814	95.5%	26.8	4.5	C
WB	Left Turn	107	97	90.5%	52.9	17.1	D
	Through	2,023	1,963	97.0%	24.5	2.7	C
	Right Turn	53	52	98.1%	25.2	10.6	C
	Subtotal	2,183	2,112	96.7%	25.8	3.0	C
Total		4,483	4,326	96.5%	29.5	3.4	C

Intersection 105 **Rocky Ridge Dr/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	308	302	98.1%	106.4	31.3	F
	Through	749	736	98.3%	48.3	3.7	D
	Right Turn	179	189	105.5%	26.8	3.1	C
	Subtotal	1,236	1,227	99.3%	59.5	7.0	E
SB	Left Turn	329	298	90.7%	166.3	37.5	F
	Through	953	876	91.9%	146.2	39.0	F
	Right Turn	266	244	91.7%	121.1	39.2	F
	Subtotal	1,548	1,418	91.6%	146.3	37.8	F
EB	Left Turn	307	294	95.8%	109.6	24.0	F
	Through	1,458	1,392	95.4%	37.5	4.4	D
	Right Turn	141	138	97.9%	10.1	1.9	B
	Subtotal	1,906	1,824	95.7%	47.3	6.7	D
WB	Left Turn	382	357	93.5%	81.4	7.9	F
	Through	1,731	1,683	97.2%	55.6	9.1	E
	Right Turn	246	232	94.1%	22.0	13.7	C
	Subtotal	2,359	2,272	96.3%	56.3	9.1	E
Total		7,049	6,741	95.6%	73.3	7.8	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	308	1788	412	373	2207	191	479	1162	269	281	1453	185
Future Volume (veh/h)	308	1788	412	373	2207	191	479	1162	269	281	1453	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	308	1788	255	373	2207	0	479	1162	0	281	1453	93
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	276	1770	545	369	1974		438	1560		326	1396	428
Arrive On Green	0.08	0.35	0.35	0.11	0.39	0.00	0.13	0.31	0.00	0.09	0.27	0.27
Sat Flow, veh/h	3456	5106	1571	3456	5106	1585	3456	5106	1585	3456	5106	1568
Grp Volume(v), veh/h	308	1788	255	373	2207	0	479	1162	0	281	1453	93
Grp Sat Flow(s),veh/h/ln	1728	1702	1571	1728	1702	1585	1728	1702	1585	1728	1702	1568
Q Serve(g_s), s	12.0	52.0	13.4	16.0	58.0	0.0	19.0	30.7	0.0	12.0	41.0	6.9
Cycle Q Clear(g_c), s	12.0	52.0	13.4	16.0	58.0	0.0	19.0	30.7	0.0	12.0	41.0	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	276	1770	545	369	1974		438	1560		326	1396	428
V/C Ratio(X)	1.11	1.01	0.47	1.01	1.12		1.09	0.74		0.86	1.04	0.22
Avail Cap(c_a), veh/h	276	1770	545	369	1974		438	1560		369	1396	428
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.0	49.0	18.9	67.0	46.0	0.0	65.5	46.8	0.0	66.9	54.5	42.1
Incr Delay (d2), s/veh	88.3	23.9	2.9	49.9	60.6	0.0	71.0	2.1	0.0	15.4	35.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	25.3	5.0	9.5	34.7	0.0	12.4	12.8	0.0	5.9	21.4	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	157.3	72.9	21.8	116.9	106.6	0.0	136.5	48.9	0.0	82.4	90.0	42.5
LnGrp LOS	F	F	C	F	F		F	D		F	F	D
Approach Vol, veh/h		2351			2580	A		1641	A		1827	
Approach Delay, s/veh		78.4			108.1			74.5			86.4	
Approach LOS		E			F			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	58.0	23.0	47.0	16.0	64.0	18.2	51.8
Change Period (Y+Rc), s	6.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	16.0	52.0	19.0	41.0	12.0	58.0	16.0	44.0
Max Q Clear Time (g_c+I1), s	18.0	54.0	21.0	43.0	14.0	60.0	14.0	32.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.1	9.3

Intersection Summary	
HCM 6th Ctrl Delay	88.5
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 107 **Foothills Blvd-Roseville Rd/Cirby Way** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	599	567	94.6%	195.6	73.7	F
	Right Turn	512	402	78.6%	259.9	34.9	F
	Subtotal	1,111	969	87.2%	222.5	53.5	F
SB	Left Turn	1,875	1,622	86.5%	171.7	21.8	F
	Through	784	683	87.1%	143.7	22.7	F
	Right Turn						
	Subtotal	2,659	2,305	86.7%	163.4	22.3	F
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	825	647	78.4%	143.2	35.0	F
	Through						
	Right Turn	1,566	1,328	84.8%	20.8	5.4	C
	Subtotal	2,391	1,976	82.6%	61.5	16.9	E
Total		6,161	5,250	85.2%	135.6	14.1	F

Intersection 108 **Vernon St/Cirby Way** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	76	45	58.9%	268.0	157.9	F
	Through	65	62	94.8%	80.2	45.0	F
	Right Turn	112	101	90.4%	42.5	26.6	E
	Subtotal	253	208	82.1%	97.4	51.3	F
SB	Left Turn	77	70	90.9%	187.6	109.4	F
	Through	151	138	91.4%	122.1	70.4	F
	Right Turn	706	636	90.1%	71.6	30.9	F
	Subtotal	934	844	90.4%	88.8	42.9	F
EB	Left Turn	412	356	86.5%	86.9	9.6	F
	Through	1,843	1,556	84.4%	27.5	2.6	D
	Right Turn	33	30	92.1%	24.9	10.7	C
	Subtotal	2,288	1,942	84.9%	38.4	3.2	E
WB	Left Turn	93	72	77.0%	237.2	83.0	F
	Through	1,590	1,342	84.4%	130.6	38.2	F
	Right Turn	58	52	90.3%	99.8	36.6	F
	Subtotal	1,741	1,466	84.2%	135.0	36.4	F
Total		5,216	4,460	85.5%	81.7	13.9	F

Intersection 109 **Northridge Dr/Cirby Way** **Signal**

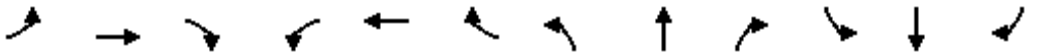
Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	31	28	91.6%	70.3	22.6	E
	Through	2	2	100.0%	23.1	40.3	C
	Right Turn	5	5	96.0%	23.0	31.1	C
	Subtotal	38	35	92.6%	62.8	15.5	E
SB	Left Turn	27	31	115.6%	65.4	24.3	E
	Through	1	2	160.0%	15.3	28.2	B
	Right Turn	13	15	113.8%	28.6	24.7	C
	Subtotal	41	48	116.1%	56.0	24.5	E
EB	Left Turn	25	20	80.0%	70.2	18.4	E
	Through	1,884	1,568	83.2%	19.6	12.5	B
	Right Turn	44	31	70.9%	20.0	14.6	B
	Subtotal	1,953	1,619	82.9%	20.2	12.7	C
WB	Left Turn	31	30	98.1%	77.7	32.3	E
	Through	1,865	1,686	90.4%	26.0	14.7	C
	Right Turn	45	41	90.7%	25.3	13.5	C
	Subtotal	1,941	1,757	90.5%	26.9	14.6	C
Total		3,973	3,458	87.0%	24.3	7.7	C

Intersection 110 **Melody Ln/Cirby Way** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	282	260	92.3%	81.4	51.5	F
	Subtotal	282	260	92.3%	81.4	51.5	F
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	1,893	1,550	81.9%	44.8	22.8	D
	Right Turn	23	18	76.5%	34.6	20.7	C
	Subtotal	1,916	1,567	81.8%	44.7	22.8	D
WB	Left Turn	303	283	93.5%	36.9	25.0	D
	Through	2,010	1,848	91.9%	8.4	4.4	A
	Right Turn						
	Subtotal	2,313	2,131	92.1%	12.0	6.7	B
Total		4,511	3,959	87.8%	29.3	14.6	C

Intersection 111 **Riverside Ave/Cirby Way** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1,036	982	94.7%	76.1	28.6	E
	Through	554	548	98.8%	46.0	10.7	D
	Right Turn	184	180	97.8%	22.8	11.6	C
	Subtotal	1,774	1,709	96.3%	61.1	21.5	E
SB	Left Turn	315	281	89.3%	156.6	55.7	F
	Through	1,062	909	85.6%	164.9	68.4	F
	Right Turn	192	175	91.3%	139.6	61.5	F
	Subtotal	1,569	1,365	87.0%	159.9	64.8	F
EB	Left Turn	97	65	66.8%	194.6	223.4	F
	Through	897	720	80.2%	72.6	24.1	E
	Right Turn	1,181	974	82.5%	41.1	15.8	D
	Subtotal	2,175	1,759	80.9%	56.2	18.4	E
WB	Left Turn	573	506	88.2%	145.3	40.5	F
	Through	1,085	991	91.4%	62.6	26.7	E
	Right Turn	173	168	96.9%	37.9	25.8	D
	Subtotal	1,831	1,664	90.9%	85.0	25.5	F
Total		7,349	6,498	88.4%	85.7	23.0	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	1368	242	321	1599	6	43	3	436	7	5	10
Future Volume (veh/h)	23	1368	242	321	1599	6	43	3	436	7	5	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2106	2106	2106	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	1368	242	321	1599	6	43	3	436	7	5	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	31	1565	273	340	2306	9	290	20	577	17	12	25
Arrive On Green	0.03	0.92	0.92	0.38	1.00	1.00	0.17	0.17	0.17	0.02	0.02	0.02
Sat Flow, veh/h	2006	3405	595	1781	3631	14	1670	117	1585	1060	757	1585
Grp Volume(v), veh/h	23	796	814	321	782	823	46	0	436	12	0	10
Grp Sat Flow(s),veh/h/ln	2006	2001	1999	1781	1777	1868	1787	0	1585	1817	0	1585
Q Serve(g_s), s	1.7	23.7	26.5	26.1	0.0	0.0	3.3	0.0	26.0	1.0	0.0	0.9
Cycle Q Clear(g_c), s	1.7	23.7	26.5	26.1	0.0	0.0	3.3	0.0	26.0	1.0	0.0	0.9
Prop In Lane	1.00		0.30	1.00		0.01	0.93		1.00	0.58		1.00
Lane Grp Cap(c), veh/h	31	920	919	340	1129	1186	310	0	577	29	0	25
V/C Ratio(X)	0.75	0.87	0.89	0.94	0.69	0.69	0.15	0.00	0.76	0.41	0.00	0.39
Avail Cap(c_a), veh/h	107	940	939	356	1129	1186	310	0	577	70	0	61
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	0.65	0.65	0.65	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	72.4	4.2	4.3	45.6	0.0	0.0	52.6	0.0	41.8	73.1	0.0	73.1
Incr Delay (d2), s/veh	10.6	7.3	8.7	24.3	2.3	2.2	0.1	0.0	5.1	3.4	0.0	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	4.3	4.7	11.9	0.7	0.7	1.5	0.0	15.1	0.5	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.0	11.5	13.0	69.9	2.3	2.2	52.7	0.0	46.9	76.5	0.0	76.7
LnGrp LOS	F	B	B	E	A	A	D	A	D	E	A	E
Approach Vol, veh/h		1633			1926			482			22	
Approach Delay, s/veh		13.3			13.5			47.4			76.6	
Approach LOS		B			B			D			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	32.6	74.6		30.0	6.3	101.0		6.4				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	30.0	70.5		26.0	8.0	92.5		5.8				
Max Q Clear Time (g_c+I1), s	28.1	28.5		28.0	3.7	2.0		3.0				
Green Ext Time (p_c), s	0.5	40.5		0.0	0.0	83.7		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		17.8	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

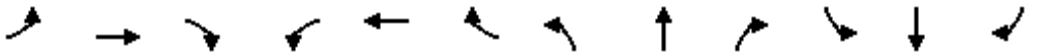
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1501	310	192	1613	0	313	0	141	0	0	0
Future Volume (veh/h)	0	1501	310	192	1613	0	313	0	141	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	0	1870	0	1870	0
Adj Flow Rate, veh/h	0	1501	298	192	1613	0	313	0	82	0	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	0	2	0	2	0	2	0
Cap, veh/h	0	1411	273	154	2092	0	273	0	0	0	1	0
Arrive On Green	0.00	0.48	0.48	0.09	0.59	0.00	0.15	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	3062	575	1781	3647	0	1781	313		0	-74814	0
Grp Volume(v), veh/h	0	884	915	192	1613	0	313	163.3		0	0	0
Grp Sat Flow(s),veh/h/ln	0	1777	1767	1781	1777	0	1781	F		0	1870	0
Q Serve(g_s), s	0.0	71.3	71.3	13.0	51.3	0.0	23.0			0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	71.3	71.3	13.0	51.3	0.0	23.0			0.0	0.0	0.0
Prop In Lane	0.00		0.33	1.00		0.00	1.00			0.00		0.00
Lane Grp Cap(c), veh/h	0	845	840	154	2092	0	273			0	1	0
V/C Ratio(X)	0.00	1.05	1.09	1.24	0.77	0.00	1.15			0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	845	840	154	2092	0	273			0	312	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00
Upstream Filter(I)	0.00	0.52	0.52	1.00	1.00	0.00	1.00			0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	39.3	39.4	68.5	23.2	0.0	63.5			0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	35.5	51.1	152.5	2.8	0.0	99.8			0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	38.1	41.6	12.4	21.2	0.0	18.0			0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	74.9	90.5	221.0	26.1	0.0	163.3			0.0	0.0	0.0
LnGrp LOS	A	F	F	F	C	A	F			A	A	A
Approach Vol, veh/h		1799			1805						0	
Approach Delay, s/veh		82.8			46.8						0.0	
Approach LOS		F			D							

Timer - Assigned Phs	1	2				6	7	8				
Phs Duration (G+Y+Rc), s	17.0	77.0				94.0	27.0	0.0				
Change Period (Y+Rc), s	4.0	5.7				5.7	4.0	4.0				
Max Green Setting (Gmax), s	13.0	71.3				88.3	23.0	25.0				
Max Q Clear Time (g_c+I1), s	15.0	73.3				53.3	25.0	0.0				
Green Ext Time (p_c), s	0.0	0.0				15.9	0.0	0.0				

Intersection Summary			
HCM 6th Ctrl Delay		72.6	
HCM 6th LOS		E	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	465	924	327	281	1153	72	363	1015	47	201	1192	382
Future Volume (veh/h)	465	924	327	281	1153	72	363	1015	47	201	1192	382
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	465	924	0	281	1153	68	363	1015	16	201	1192	218
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	403	1097		396	1093	64	317	1199	525	230	1161	508
Arrive On Green	0.12	0.31	0.00	0.04	0.11	0.11	0.03	0.11	0.11	0.07	0.33	0.33
Sat Flow, veh/h	3456	3554	1585	3456	3406	201	3456	3554	1556	3456	3554	1555
Grp Volume(v), veh/h	465	924	0	281	601	620	363	1015	16	201	1192	218
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1830	1728	1777	1556	1728	1777	1555
Q Serve(g_s), s	14.0	29.1	0.0	9.6	38.5	38.5	11.0	33.6	1.1	6.9	39.2	13.2
Cycle Q Clear(g_c), s	14.0	29.1	0.0	9.6	38.5	38.5	11.0	33.6	1.1	6.9	39.2	13.2
Prop In Lane	1.00		1.00	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	403	1097		396	570	587	317	1199	525	230	1161	508
V/C Ratio(X)	1.15	0.84		0.71	1.05	1.06	1.15	0.85	0.03	0.87	1.03	0.43
Avail Cap(c_a), veh/h	403	1188		396	570	587	317	1199	525	230	1161	508
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.0	38.7	0.0	55.8	53.6	53.6	58.2	50.3	35.8	55.5	40.4	31.6
Incr Delay (d2), s/veh	93.7	5.5	0.0	5.0	52.9	52.8	96.1	7.5	0.1	27.6	33.5	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.2	13.1	0.0	4.7	26.7	27.4	9.3	17.2	0.4	3.8	21.8	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	146.7	44.2	0.0	60.7	106.5	106.4	154.3	57.7	35.9	83.1	73.9	32.5
LnGrp LOS	F	D		E	F	F	F	E	D	F	F	C
Approach Vol, veh/h		1389	A		1502			1394			1611	
Approach Delay, s/veh		78.5			97.9			82.6			69.4	
Approach LOS		E			F			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.1	42.7	15.0	44.5	18.0	43.8	13.3	46.2
Change Period (Y+Rc), s	5.3	* 5.7	4.0	5.3	4.0	5.3	5.3	* 5.7
Max Green Setting (Gmax), s	12.0	* 40	11.0	37.9	14.0	38.5	8.0	* 41
Max Q Clear Time (g_c+I1), s	11.6	31.1	13.0	41.2	16.0	40.5	8.9	35.6
Green Ext Time (p_c), s	0.0	5.9	0.0	0.0	0.0	0.0	0.0	3.7

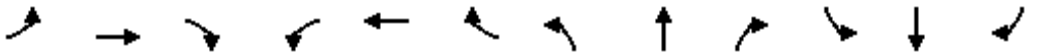
Intersection Summary	
HCM 6th Ctrl Delay	81.9
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



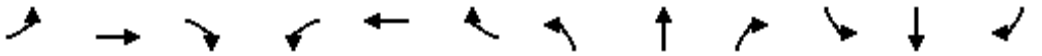
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	1094	9	176	1301	24	20	25	52	144	221	229
Future Volume (veh/h)	43	1094	9	176	1301	24	20	25	52	144	221	229
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	1094	0	176	1301	23	20	25	2	144	221	148
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	55	1483	0	199	1779	31	28	35	52	156	239	341
Arrive On Green	0.03	0.42	0.00	0.11	0.50	0.50	0.03	0.03	0.03	0.22	0.22	0.22
Sat Flow, veh/h	1781	3647	0	1781	3572	63	813	1017	1516	724	1111	1585
Grp Volume(v), veh/h	43	1094	0	176	647	677	45	0	2	365	0	148
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1777	1859	1830	0	1516	1834	0	1585
Q Serve(g_s), s	3.6	38.9	0.0	14.6	43.1	43.2	3.7	0.0	0.2	29.3	0.0	12.1
Cycle Q Clear(g_c), s	3.6	38.9	0.0	14.6	43.1	43.2	3.7	0.0	0.2	29.3	0.0	12.1
Prop In Lane	1.00		0.00	1.00		0.03	0.44		1.00	0.39		1.00
Lane Grp Cap(c), veh/h	55	1483	0	199	885	926	63	0	52	394	0	341
V/C Ratio(X)	0.78	0.74	0.00	0.88	0.73	0.73	0.71	0.00	0.04	0.93	0.00	0.43
Avail Cap(c_a), veh/h	107	1483	0	273	885	926	98	0	81	501	0	433
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	72.1	36.8	0.0	65.7	29.7	29.7	71.7	0.0	70.0	57.7	0.0	51.0
Incr Delay (d2), s/veh	8.3	2.3	0.0	17.8	5.3	5.1	5.4	0.0	0.1	18.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	17.0	0.0	7.6	19.2	20.0	1.8	0.0	0.1	15.7	0.0	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.4	39.1	0.0	83.4	35.0	34.8	77.1	0.0	70.1	76.0	0.0	51.3
LnGrp LOS	F	D	A	F	D	C	E	A	E	E	A	D
Approach Vol, veh/h		1137			1500			47			513	
Approach Delay, s/veh		40.7			40.6			76.8			68.9	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.8	67.9		36.3	8.7	80.0		9.2				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	23.0	60.7		41.0	9.0	74.7		8.0				
Max Q Clear Time (g_c+I1), s	16.6	40.9		31.3	5.6	45.2		5.7				
Green Ext Time (p_c), s	0.2	9.8		1.0	0.0	14.9		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			45.7									
HCM 6th LOS			D									

Notes

User approved pedestrian interval to be less than phase max green.



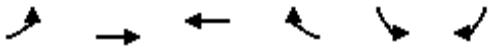
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	1121	5	7	1617	16	5	5	5	29	5	24
Future Volume (veh/h)	34	1121	5	7	1617	16	5	5	5	29	5	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	1121	5	7	1617	16	5	5	5	29	5	24
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	43	3049	14	9	2961	29	47	17	12	102	8	52
Arrive On Green	0.02	0.84	0.84	0.01	0.82	0.82	0.03	0.03	0.03	0.03	0.03	0.03
Sat Flow, veh/h	1781	3628	16	1781	3605	36	227	517	372	1411	243	1585
Grp Volume(v), veh/h	34	549	577	7	796	837	15	0	0	34	0	24
Grp Sat Flow(s),veh/h/ln	1781	1777	1867	1781	1777	1864	1115	0	0	1654	0	1585
Q Serve(g_s), s	2.3	8.6	8.6	0.5	17.4	17.5	0.0	0.0	0.0	0.0	0.0	1.8
Cycle Q Clear(g_c), s	2.3	8.6	8.6	0.5	17.4	17.5	2.3	0.0	0.0	2.2	0.0	1.8
Prop In Lane	1.00		0.01	1.00		0.02	0.33		0.33	0.85		1.00
Lane Grp Cap(c), veh/h	43	1493	1569	9	1459	1531	76	0	0	110	0	52
V/C Ratio(X)	0.78	0.37	0.37	0.76	0.55	0.55	0.20	0.00	0.00	0.31	0.00	0.46
Avail Cap(c_a), veh/h	312	1493	1569	312	1459	1531	351	0	0	378	0	343
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.2	2.2	2.2	59.6	3.5	3.5	56.7	0.0	0.0	57.2	0.0	57.0
Incr Delay (d2), s/veh	10.9	0.7	0.7	36.2	0.5	0.5	0.9	0.0	0.0	1.2	0.0	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.9	2.0	0.3	4.0	4.2	0.5	0.0	0.0	1.1	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.1	2.9	2.9	95.8	3.9	3.9	57.6	0.0	0.0	58.4	0.0	61.7
LnGrp LOS	E	A	A	F	A	A	E	A	A	E	A	E
Approach Vol, veh/h		1160			1640			15			58	
Approach Delay, s/veh		4.8			4.3			57.6			59.8	
Approach LOS		A			A			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.6	106.2		9.2	6.9	103.9		9.2				
Change Period (Y+Rc), s	4.0	5.3		* 5.3	4.0	5.3		5.3				
Max Green Setting (Gmax), s	21.0	59.7		* 26	21.0	59.7		24.7				
Max Q Clear Time (g_c+I1), s	2.5	10.6		4.2	4.3	19.5		4.3				
Green Ext Time (p_c), s	0.0	20.9		0.1	0.0	30.4		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		5.9
HCM 6th LOS		A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



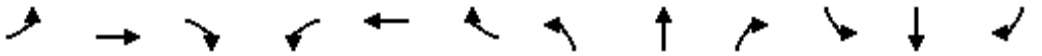
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	649	381	931	237	1130	576
Future Volume (veh/h)	649	381	931	237	1130	576
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	649	381	931	222	1130	565
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	838	440	951	226	1152	901
Arrive On Green	0.24	0.24	0.33	0.33	0.33	0.33
Sat Flow, veh/h	3563	1870	2941	678	3456	1585
Grp Volume(v), veh/h	649	381	581	572	1130	565
Grp Sat Flow(s),veh/h/ln	1781	1870	1777	1748	1728	1585
Q Serve(g_s), s	25.5	29.3	48.5	48.6	48.6	35.8
Cycle Q Clear(g_c), s	25.5	29.3	48.5	48.6	48.6	35.8
Prop In Lane	1.00			0.39	1.00	1.00
Lane Grp Cap(c), veh/h	838	440	593	584	1152	901
V/C Ratio(X)	0.77	0.87	0.98	0.98	0.98	0.63
Avail Cap(c_a), veh/h	838	440	593	584	1152	901
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.6	55.1	49.4	49.5	49.5	21.7
Incr Delay (d2), s/veh	6.9	19.8	31.4	32.2	21.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.1	16.1	26.2	26.0	24.0	21.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	60.5	74.9	80.8	81.6	71.4	22.7
LnGrp LOS	E	E	F	F	E	C
Approach Vol, veh/h		1030	1153		1695	
Approach Delay, s/veh		65.8	81.2		55.2	
Approach LOS		E	F		E	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		40.6		54.0		55.4
Change Period (Y+Rc), s		5.3		4.0		5.3
Max Green Setting (Gmax), s		35.3		50.0		50.1
Max Q Clear Time (g_c+I1), s		31.3		50.6		50.6
Green Ext Time (p_c), s		2.4		0.0		0.0

Intersection Summary	
HCM 6th Ctrl Delay	65.7
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	1034	335	38	719	12	51	17	9	67	40	317
Future Volume (veh/h)	78	1034	335	38	719	12	51	17	9	67	40	317
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	1034	335	38	719	12	51	17	9	67	40	317
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	1049	889	89	1928	32	209	65	26	277	149	354
Arrive On Green	0.07	0.56	0.56	0.05	0.54	0.54	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1781	1870	1585	1781	3577	60	603	293	119	912	669	1585
Grp Volume(v), veh/h	78	1034	335	38	357	374	77	0	0	107	0	317
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1860	1015	0	0	1581	0	1585
Q Serve(g_s), s	3.4	43.5	9.4	1.7	9.3	9.3	2.9	0.0	0.0	0.0	0.0	15.6
Cycle Q Clear(g_c), s	3.4	43.5	9.4	1.7	9.3	9.3	7.1	0.0	0.0	4.2	0.0	15.6
Prop In Lane	1.00		1.00	1.00		0.03	0.66		0.12	0.63		1.00
Lane Grp Cap(c), veh/h	128	1049	889	89	958	1002	301	0	0	426	0	354
V/C Ratio(X)	0.61	0.99	0.38	0.43	0.37	0.37	0.26	0.00	0.00	0.25	0.00	0.90
Avail Cap(c_a), veh/h	444	1049	889	444	997	1043	332	0	0	466	0	395
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.1	17.3	9.8	37.0	10.7	10.7	27.2	0.0	0.0	25.8	0.0	30.2
Incr Delay (d2), s/veh	1.7	24.2	0.4	1.2	0.4	0.4	0.2	0.0	0.0	0.1	0.0	19.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	22.0	2.8	0.7	3.2	3.3	1.3	0.0	0.0	1.7	0.0	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.9	41.5	10.2	38.2	11.1	11.0	27.4	0.0	0.0	25.9	0.0	49.8
LnGrp LOS	D	D	B	D	B	B	C	A	A	C	A	D
Approach Vol, veh/h		1447			769			77			424	
Approach Delay, s/veh		34.1			12.4			27.4			43.8	
Approach LOS		C			B			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	50.3		21.9	9.8	48.5		21.9				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	3.7	45.5		17.6	5.4	11.3		9.1				
Green Ext Time (p_c), s	0.0	0.0		0.3	0.1	5.6		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		29.3	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.



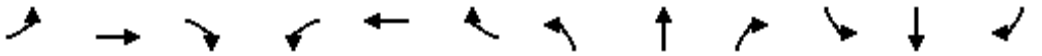
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	450	383	312	371	479	514
Future Volume (veh/h)	450	383	312	371	479	514
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	450	383	312	371	479	514
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	515	927	483	867	527	1125
Arrive On Green	0.29	0.29	0.26	0.26	0.30	0.60
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	450	383	312	371	479	514
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	20.4	11.2	12.6	11.7	22.0	12.8
Cycle Q Clear(g_c), s	20.4	11.2	12.6	11.7	22.0	12.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	515	927	483	867	527	1125
V/C Ratio(X)	0.87	0.41	0.65	0.43	0.91	0.46
Avail Cap(c_a), veh/h	840	1216	1102	1392	945	1125
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	9.6	28.0	11.4	28.8	9.3
Incr Delay (d2), s/veh	3.3	0.1	2.9	0.7	2.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	3.5	5.9	7.2	9.4	4.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.0	9.7	31.0	12.0	31.7	9.8
LnGrp LOS	C	A	C	B	C	A
Approach Vol, veh/h	833		683			993
Approach Delay, s/veh	21.8		20.7			20.3
Approach LOS	C		C			C

Timer - Assigned Phs	2			5	6	8
Phs Duration (G+Y+Rc), s	56.3			29.1	27.2	28.5
Change Period (Y+Rc), s	5.3			4.0	* 5.3	4.0
Max Green Setting (Gmax), s	50.0			45.0	* 50	40.0
Max Q Clear Time (g_c+I1), s	14.8			24.0	14.6	22.4
Green Ext Time (p_c), s	4.3			1.1	7.3	2.1

Intersection Summary	
HCM 6th Ctrl Delay	20.9
HCM 6th LOS	C

Notes

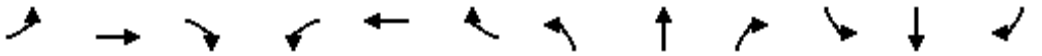
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	8	33	136	26	82	98	866	153	106	822	54
Future Volume (veh/h)	25	8	33	136	26	82	98	866	153	106	822	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	25	8	33	136	26	82	98	866	153	106	822	54
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	43	68	58	180	212	180	125	1535	477	135	1566	486
Arrive On Green	0.02	0.04	0.04	0.10	0.11	0.11	0.07	0.30	0.30	0.08	0.31	0.31
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	25	8	33	136	26	82	98	866	153	106	822	54
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	0.6	0.2	0.8	3.1	0.5	2.0	2.2	5.9	3.1	2.4	5.5	1.0
Cycle Q Clear(g_c), s	0.6	0.2	0.8	3.1	0.5	2.0	2.2	5.9	3.1	2.4	5.5	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	43	68	58	180	212	180	125	1535	477	135	1566	486
V/C Ratio(X)	0.58	0.12	0.57	0.75	0.12	0.46	0.79	0.56	0.32	0.78	0.52	0.11
Avail Cap(c_a), veh/h	346	1453	1232	649	1771	1501	303	2356	731	303	2356	731
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.9	19.2	19.5	18.0	16.4	17.1	18.8	12.1	11.1	18.7	11.8	10.2
Incr Delay (d2), s/veh	11.8	0.8	8.6	6.3	0.3	1.8	10.4	0.3	0.4	9.4	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.1	0.4	1.4	0.2	0.7	1.1	1.6	0.9	1.1	1.5	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.7	20.0	28.2	24.3	16.7	18.9	29.2	12.5	11.5	28.1	12.1	10.3
LnGrp LOS	C	B	C	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		66			244			1117			982	
Approach Delay, s/veh		28.5			21.6			13.8			13.7	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	17.4	9.2	6.5	7.9	17.6	6.0	9.7
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	19.0	15.0	32.0	7.0	19.0	8.0	39.0
Max Q Clear Time (g_c+I1), s	4.4	7.9	5.1	2.8	4.2	7.5	2.6	4.0
Green Ext Time (p_c), s	0.0	4.5	0.2	0.1	0.0	4.1	0.0	0.4

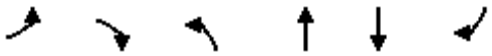
Intersection Summary	
HCM 6th Ctrl Delay	15.0
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	3	45	5	6	66	124	1170	5	51	975	56
Future Volume (veh/h)	23	3	45	5	6	66	124	1170	5	51	975	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	3	45	5	6	66	124	1170	5	51	975	56
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	40	134	113	10	102	86	162	2029	630	76	1784	554
Arrive On Green	0.02	0.07	0.07	0.01	0.05	0.05	0.09	0.40	0.40	0.04	0.35	0.35
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	23	3	45	5	6	66	124	1170	5	51	975	56
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	0.5	0.1	1.1	0.1	0.1	1.7	2.8	7.4	0.1	1.2	6.4	1.0
Cycle Q Clear(g_c), s	0.5	0.1	1.1	0.1	0.1	1.7	2.8	7.4	0.1	1.2	6.4	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	40	134	113	10	102	86	162	2029	630	76	1784	554
V/C Ratio(X)	0.58	0.02	0.40	0.52	0.06	0.77	0.77	0.58	0.01	0.67	0.55	0.10
Avail Cap(c_a), veh/h	473	1445	1225	473	1445	1225	473	3206	995	473	3206	995
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	17.9	18.4	20.5	18.6	19.3	18.4	9.8	7.5	19.5	10.8	9.1
Incr Delay (d2), s/veh	12.4	0.1	2.2	37.3	0.2	13.1	7.4	0.3	0.0	9.6	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.4	0.1	0.1	0.9	1.2	1.7	0.0	0.6	1.6	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.4	17.9	20.6	57.9	18.8	32.4	25.8	10.0	7.5	29.1	11.1	9.2
LnGrp LOS	C	B	C	E	B	C	C	B	A	C	B	A
Approach Vol, veh/h		71			77			1299			1082	
Approach Delay, s/veh		24.3			33.0			11.5			11.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	21.5	5.2	8.0	8.8	19.5	5.9	7.3
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	11.0	26.0	11.0	32.0	11.0	26.0	11.0	32.0
Max Q Clear Time (g_c+I1), s	3.2	9.4	2.1	3.1	4.8	8.4	2.5	3.7
Green Ext Time (p_c), s	0.0	7.0	0.0	0.1	0.1	6.1	0.0	0.2

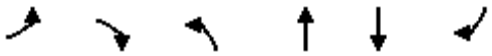
Intersection Summary	
HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	77	51	112	1248	1468	170
Future Volume (veh/h)	77	51	112	1248	1468	170
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	51	112	1248	1468	170
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	148	131	143	3469	2453	760
Arrive On Green	0.08	0.08	0.08	0.68	0.48	0.48
Sat Flow, veh/h	1781	1585	1781	5274	5274	1582
Grp Volume(v), veh/h	77	51	112	1248	1468	170
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1702	1702	1582
Q Serve(g_s), s	1.4	1.0	2.1	3.5	7.1	2.1
Cycle Q Clear(g_c), s	1.4	1.0	2.1	3.5	7.1	2.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	148	131	143	3469	2453	760
V/C Ratio(X)	0.52	0.39	0.78	0.36	0.60	0.22
Avail Cap(c_a), veh/h	1059	942	423	4855	3034	940
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.8	14.6	15.2	2.3	6.4	5.1
Incr Delay (d2), s/veh	2.8	1.9	9.1	0.1	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.0	1.0	0.0	0.9	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.6	16.5	24.3	2.4	6.6	5.2
LnGrp LOS	B	B	C	A	A	A
Approach Vol, veh/h	128			1360	1638	
Approach Delay, s/veh	17.2			4.2	6.5	
Approach LOS	B			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		26.9		6.8	6.7	20.2
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		32.0		20.0	8.0	20.0
Max Q Clear Time (g_c+I1), s		5.5		3.4	4.1	9.1
Green Ext Time (p_c), s		9.3		0.3	0.1	7.1

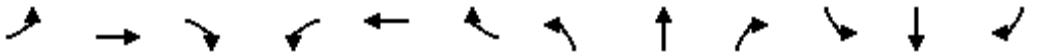
Intersection Summary	
HCM 6th Ctrl Delay	5.9
HCM 6th LOS	A



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	17	23	47	1343	1568	50
Future Volume (veh/h)	17	23	47	1343	1568	50
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	17	23	47	1343	1568	50
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	67	59	76	3653	2804	869
Arrive On Green	0.04	0.04	0.04	0.72	0.55	0.55
Sat Flow, veh/h	1781	1585	1781	5274	5274	1582
Grp Volume(v), veh/h	17	23	47	1343	1568	50
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1702	1702	1582
Q Serve(g_s), s	0.3	0.5	0.8	3.3	6.5	0.5
Cycle Q Clear(g_c), s	0.3	0.5	0.8	3.3	6.5	0.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	67	59	76	3653	2804	869
V/C Ratio(X)	0.26	0.39	0.62	0.37	0.56	0.06
Avail Cap(c_a), veh/h	1101	980	440	5051	3788	1174
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.1	15.2	15.2	1.8	4.7	3.4
Incr Delay (d2), s/veh	2.0	4.1	8.0	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.5	0.4	0.0	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.1	19.3	23.2	1.8	4.9	3.4
LnGrp LOS	B	B	C	A	A	A
Approach Vol, veh/h	40			1390	1618	
Approach Delay, s/veh	18.4			2.6	4.9	
Approach LOS	B			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		27.1		5.2	5.4	21.8
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		32.0		20.0	8.0	24.0
Max Q Clear Time (g_c+I1), s		5.3		2.5	2.8	8.5
Green Ext Time (p_c), s		10.3		0.1	0.0	9.3

Intersection Summary	
HCM 6th Ctrl Delay	4.0
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	5	39	5	5	9	90	1303	5	28	1623	89
Future Volume (veh/h)	28	5	39	5	5	9	90	1303	5	28	1623	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	28	5	39	5	5	9	90	1303	5	28	1623	89
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	43	8	60	13	13	23	115	2717	842	47	2521	781
Arrive On Green	0.07	0.07	0.07	0.03	0.03	0.03	0.06	0.53	0.53	0.03	0.49	0.49
Sat Flow, veh/h	649	116	903	447	447	804	1781	5106	1582	1781	5106	1582
Grp Volume(v), veh/h	72	0	0	19	0	0	90	1303	5	28	1623	89
Grp Sat Flow(s),veh/h/ln	1668	0	0	1697	0	0	1781	1702	1582	1781	1702	1582
Q Serve(g_s), s	1.9	0.0	0.0	0.5	0.0	0.0	2.3	7.4	0.1	0.7	10.9	1.4
Cycle Q Clear(g_c), s	1.9	0.0	0.0	0.5	0.0	0.0	2.3	7.4	0.1	0.7	10.9	1.4
Prop In Lane	0.39		0.54	0.26		0.47	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	111	0	0	50	0	0	115	2717	842	47	2521	781
V/C Ratio(X)	0.65	0.00	0.00	0.38	0.00	0.00	0.78	0.48	0.01	0.60	0.64	0.11
Avail Cap(c_a), veh/h	1370	0	0	1394	0	0	308	3201	992	308	3201	992
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.1	0.0	0.0	22.0	0.0	0.0	21.3	6.8	5.1	22.3	8.7	6.3
Incr Delay (d2), s/veh	6.1	0.0	0.0	4.8	0.0	0.0	11.0	0.1	0.0	11.8	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	0.3	0.0	0.0	1.2	1.5	0.0	0.4	2.4	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.2	0.0	0.0	26.9	0.0	0.0	32.3	6.9	5.1	34.1	9.0	6.3
LnGrp LOS	C	A	A	C	A	A	C	A	A	C	A	A
Approach Vol, veh/h		72			19			1398			1740	
Approach Delay, s/veh		27.2			26.9			8.6			9.3	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	28.6		7.1	7.0	26.8		5.4				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	8.0	29.0		38.0	8.0	29.0		38.0				
Max Q Clear Time (g_c+I1), s	2.7	9.4		3.9	4.3	12.9		2.5				
Green Ext Time (p_c), s	0.0	8.6		0.4	0.1	9.9		0.1				

Intersection Summary	
HCM 6th Ctrl Delay	9.5
HCM 6th LOS	A



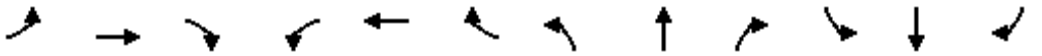
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	980	146	113	1224	192	71
Future Volume (veh/h)	980	146	113	1224	192	71
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	980	146	113	1224	192	71
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1980	883	184	2553	250	222
Arrive On Green	0.56	0.56	0.10	0.72	0.14	0.14
Sat Flow, veh/h	3647	1585	1781	3647	1781	1585
Grp Volume(v), veh/h	980	146	113	1224	192	71
Grp Sat Flow(s),veh/h/ln	1777	1585	1781	1777	1781	1585
Q Serve(g_s), s	11.6	3.1	4.2	10.2	7.1	2.8
Cycle Q Clear(g_c), s	11.6	3.1	4.2	10.2	7.1	2.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1980	883	184	2553	250	222
V/C Ratio(X)	0.50	0.17	0.62	0.48	0.77	0.32
Avail Cap(c_a), veh/h	2331	1040	649	2553	649	578
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.3	7.4	29.5	4.1	28.4	26.6
Incr Delay (d2), s/veh	0.3	0.1	1.3	0.2	1.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	0.9	1.8	2.4	3.1	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.6	7.6	30.7	4.4	30.3	26.9
LnGrp LOS	A	A	C	A	C	C
Approach Vol, veh/h	1126			1337	263	
Approach Delay, s/veh	9.4			6.6	29.4	
Approach LOS	A			A	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	11.1	43.9				55.0	13.6
Change Period (Y+Rc), s	4.0	5.7				5.7	4.0
Max Green Setting (Gmax), s	25.0	45.0				45.0	25.0
Max Q Clear Time (g_c+I1), s	6.2	13.6				12.2	9.1
Green Ext Time (p_c), s	0.2	24.6				28.5	0.6

Intersection Summary			
HCM 6th Ctrl Delay		9.9	
HCM 6th LOS		A	

Notes

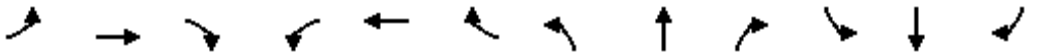
User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	18	41	22	12	45	52	943	54	94	1109	223
Future Volume (veh/h)	130	18	41	22	12	45	52	943	54	94	1109	223
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	130	18	41	22	12	45	52	943	54	94	1109	223
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	169	224	190	38	87	74	78	1567	486	119	1687	524
Arrive On Green	0.09	0.12	0.12	0.02	0.05	0.05	0.04	0.31	0.31	0.07	0.33	0.33
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	130	18	41	22	12	45	52	943	54	94	1109	223
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	2.9	0.4	1.0	0.5	0.3	1.1	1.2	6.5	1.0	2.1	7.7	4.5
Cycle Q Clear(g_c), s	2.9	0.4	1.0	0.5	0.3	1.1	1.2	6.5	1.0	2.1	7.7	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	169	224	190	38	87	74	78	1567	486	119	1687	524
V/C Ratio(X)	0.77	0.08	0.22	0.57	0.14	0.61	0.67	0.60	0.11	0.79	0.66	0.43
Avail Cap(c_a), veh/h	389	1451	1230	302	1315	1115	302	2228	692	302	1981	615
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.2	16.1	16.4	20.0	18.9	19.3	19.4	12.2	10.3	19.0	11.8	10.8
Incr Delay (d2), s/veh	7.2	0.2	0.6	12.7	0.7	7.9	9.6	0.4	0.1	10.9	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.1	0.3	0.3	0.1	0.5	0.6	1.7	0.3	1.1	2.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	16.3	17.0	32.6	19.6	27.2	29.0	12.5	10.4	29.8	12.4	11.3
LnGrp LOS	C	B	B	C	B	C	C	B	B	C	B	B
Approach Vol, veh/h		189			79			1049			1426	
Approach Delay, s/veh		22.7			27.6			13.2			13.4	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	17.7	5.9	9.9	6.8	18.6	8.9	6.9
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	18.0	7.0	32.0	7.0	16.0	9.0	29.0
Max Q Clear Time (g_c+I1), s	4.1	8.5	2.5	3.0	3.2	9.7	4.9	3.1
Green Ext Time (p_c), s	0.0	4.2	0.0	0.2	0.0	3.8	0.1	0.2

Intersection Summary	
HCM 6th Ctrl Delay	14.4
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	38	42	148	69	3	114	1020	273	1	1091	80
Future Volume (veh/h)	26	38	42	148	69	3	114	1020	273	1	1091	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	38	42	148	69	3	114	1020	273	1	1091	80
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	44	107	91	197	268	227	147	2233	693	4	1818	564
Arrive On Green	0.02	0.06	0.06	0.11	0.14	0.14	0.08	0.44	0.44	0.00	0.36	0.36
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	26	38	42	148	69	3	114	1020	273	1	1091	80
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	0.6	0.8	1.1	3.5	1.4	0.1	2.7	6.1	5.1	0.0	7.6	1.5
Cycle Q Clear(g_c), s	0.6	0.8	1.1	3.5	1.4	0.1	2.7	6.1	5.1	0.0	7.6	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	44	107	91	197	268	227	147	2233	693	4	1818	564
V/C Ratio(X)	0.59	0.36	0.46	0.75	0.26	0.01	0.78	0.46	0.39	0.24	0.60	0.14
Avail Cap(c_a), veh/h	454	1429	1211	742	1732	1468	330	2233	693	330	2010	624
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.8	19.6	19.7	18.6	16.5	15.9	19.4	8.5	8.3	21.5	11.4	9.4
Incr Delay (d2), s/veh	11.8	2.0	3.7	5.6	0.5	0.0	8.5	0.4	1.0	27.9	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.4	0.4	1.5	0.6	0.0	1.3	1.4	1.4	0.0	2.1	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.7	21.6	23.4	24.2	17.0	15.9	27.9	8.9	9.3	49.4	12.3	9.7
LnGrp LOS	C	C	C	C	B	B	C	A	A	D	B	A
Approach Vol, veh/h		106			220			1407			1172	
Approach Delay, s/veh		25.0			21.8			10.5			12.2	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.0	23.9	8.8	6.5	7.6	20.4	5.1	10.2
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	17.0	18.0	33.0	8.0	17.0	11.0	40.0
Max Q Clear Time (g_c+I1), s	2.0	8.1	5.5	3.1	4.7	9.6	2.6	3.4
Green Ext Time (p_c), s	0.0	7.1	0.3	0.3	0.1	5.8	0.0	0.3

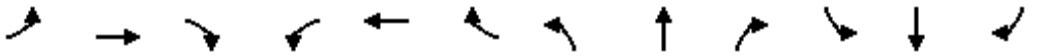
Intersection Summary	
HCM 6th Ctrl Delay	12.6
HCM 6th LOS	B



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	39	2	1410	79	5	1290
Future Volume (veh/h)	39	2	1410	79	5	1290
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	2	1410	79	5	1290
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	68	61	2463	764	10	3297
Arrive On Green	0.04	0.04	0.48	0.48	0.01	0.65
Sat Flow, veh/h	1781	1585	5274	1585	1781	5274
Grp Volume(v), veh/h	39	2	1410	79	5	1290
Grp Sat Flow(s),veh/h/ln	1781	1585	1702	1585	1781	1702
Q Serve(g_s), s	0.7	0.0	6.2	0.9	0.1	3.8
Cycle Q Clear(g_c), s	0.7	0.0	6.2	0.9	0.1	3.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	68	61	2463	764	10	3297
V/C Ratio(X)	0.57	0.03	0.57	0.10	0.52	0.39
Avail Cap(c_a), veh/h	1632	1453	3227	1002	619	5809
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.0	14.7	5.9	4.5	15.7	2.7
Incr Delay (d2), s/veh	7.4	0.2	0.2	0.1	36.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.7	0.1	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.3	14.9	6.1	4.5	52.4	2.7
LnGrp LOS	C	B	A	A	D	A
Approach Vol, veh/h	41		1489			1295
Approach Delay, s/veh	22.0		6.0			2.9
Approach LOS	C		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.2	20.3			25.4	6.2
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	11.0	20.0			36.0	29.0
Max Q Clear Time (g_c+I1), s	2.1	8.2			5.8	2.7
Green Ext Time (p_c), s	0.0	7.0			10.2	0.1

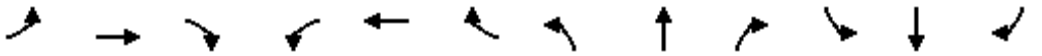
Intersection Summary	
HCM 6th Ctrl Delay	4.8
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	199	29	21	57	16	5	46	1423	151	14	1326	122
Future Volume (veh/h)	199	29	21	57	16	5	46	1423	151	14	1326	122
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	199	29	21	57	16	5	46	1423	151	14	1326	122
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	222	188	81	39	33	70	1863	578	25	1736	539
Arrive On Green	0.14	0.12	0.12	0.05	0.02	0.02	0.04	0.36	0.36	0.01	0.34	0.34
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	199	29	21	57	16	5	46	1423	151	14	1326	122
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	4.7	0.6	0.5	1.4	0.4	0.1	1.1	10.7	2.9	0.3	10.1	2.4
Cycle Q Clear(g_c), s	4.7	0.6	0.5	1.4	0.4	0.1	1.1	10.7	2.9	0.3	10.1	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	256	222	188	81	39	33	70	1863	578	25	1736	539
V/C Ratio(X)	0.78	0.13	0.11	0.70	0.42	0.15	0.66	0.76	0.26	0.55	0.76	0.23
Avail Cap(c_a), veh/h	448	1367	1158	651	1581	1339	448	1866	579	448	1866	579
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.1	17.3	17.2	20.6	21.2	21.1	20.7	12.2	9.8	21.4	12.9	10.3
Incr Delay (d2), s/veh	5.1	0.3	0.3	10.4	7.0	2.1	10.1	1.9	0.2	17.2	1.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.2	0.2	0.7	0.2	0.1	0.6	3.1	0.8	0.2	3.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.2	17.5	17.5	31.0	28.2	23.2	30.9	14.2	10.0	38.6	14.7	10.5
LnGrp LOS	C	B	B	C	C	C	C	B	B	D	B	B
Approach Vol, veh/h		249			78			1620			1462	
Approach Delay, s/veh		22.0			29.9			14.3			14.6	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.6	21.0	7.0	10.2	6.7	19.9	11.3	5.9
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	11.0	16.0	16.0	32.0	11.0	16.0	11.0	37.0
Max Q Clear Time (g_c+I1), s	2.3	12.7	3.4	2.6	3.1	12.1	6.7	2.4
Green Ext Time (p_c), s	0.0	2.5	0.1	0.1	0.0	2.7	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	15.3
HCM 6th LOS	B



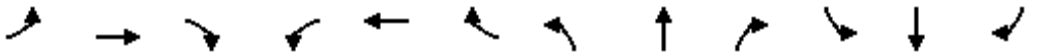
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	32	5	39	75	44	6	881	81	113	1623	75
Future Volume (veh/h)	29	32	5	39	75	44	6	881	81	113	1623	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	32	5	39	75	44	6	881	81	113	1623	75
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	162	170	144	187	196	166	22	1592	710	175	1896	846
Arrive On Green	0.09	0.09	0.09	0.10	0.10	0.10	0.01	0.45	0.45	0.10	0.53	0.53
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	29	32	5	39	75	44	6	881	81	113	1623	75
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.1	1.2	0.2	1.5	2.7	1.9	0.2	13.3	2.2	4.5	28.7	1.7
Cycle Q Clear(g_c), s	1.1	1.2	0.2	1.5	2.7	1.9	0.2	13.3	2.2	4.5	28.7	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	162	170	144	187	196	166	22	1592	710	175	1896	846
V/C Ratio(X)	0.18	0.19	0.03	0.21	0.38	0.26	0.27	0.55	0.11	0.65	0.86	0.09
Avail Cap(c_a), veh/h	487	511	433	487	511	433	487	1941	866	487	1941	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.8	30.8	30.4	30.0	30.6	30.2	35.8	14.8	11.8	31.8	14.7	8.4
Incr Delay (d2), s/veh	0.2	0.2	0.0	0.2	0.5	0.3	2.4	0.6	0.1	1.5	4.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.5	0.1	0.6	1.2	0.7	0.1	5.0	0.7	1.9	11.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.0	31.0	30.4	30.2	31.0	30.5	38.2	15.4	11.9	33.3	18.9	8.4
LnGrp LOS	C	C	C	C	C	C	D	B	B	C	B	A
Approach Vol, veh/h		66			158			968			1811	
Approach Delay, s/veh		30.9			30.7			15.2			19.4	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.2	38.8		10.6	4.9	45.1		12.6				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.9				
Max Green Setting (Gmax), s	20.0	40.0		20.0	20.0	40.0		20.0				
Max Q Clear Time (g_c+I1), s	6.5	15.3		3.2	2.2	30.7		4.7				
Green Ext Time (p_c), s	0.1	11.6		0.1	0.0	8.4		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		18.9	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



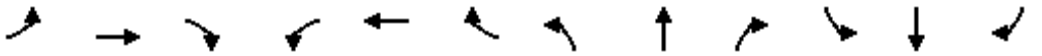
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	5	78	112	11	43	108	1009	116	3	1539	136
Future Volume (veh/h)	39	5	78	112	11	43	108	1009	116	3	1539	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	39	5	78	112	11	43	108	1009	116	3	1539	136
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	93	143	121	139	212	180	136	1829	816	6	1611	718
Arrive On Green	0.06	0.08	0.08	0.09	0.13	0.13	0.08	0.57	0.57	0.00	0.50	0.50
Sat Flow, veh/h	1603	1683	1427	1603	1683	1427	1603	3198	1427	1603	3198	1427
Grp Volume(v), veh/h	39	5	78	112	11	43	108	1009	116	3	1539	136
Grp Sat Flow(s),veh/h/ln	1603	1683	1427	1603	1683	1427	1603	1599	1427	1603	1599	1427
Q Serve(g_s), s	1.9	0.2	4.2	5.4	0.5	2.2	5.2	15.6	3.0	0.1	36.4	4.1
Cycle Q Clear(g_c), s	1.9	0.2	4.2	5.4	0.5	2.2	5.2	15.6	3.0	0.1	36.4	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	93	143	121	139	212	180	136	1829	816	6	1611	718
V/C Ratio(X)	0.42	0.04	0.64	0.81	0.05	0.24	0.79	0.55	0.14	0.46	0.96	0.19
Avail Cap(c_a), veh/h	405	829	703	223	829	703	506	1829	816	223	1616	721
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	33.3	35.1	35.5	30.4	31.2	35.5	10.6	7.9	39.3	18.8	10.8
Incr Delay (d2), s/veh	1.1	0.0	2.1	10.5	0.0	0.3	3.9	0.6	0.1	44.1	13.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.1	1.5	2.5	0.2	0.7	2.1	4.9	0.9	0.1	14.9	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.1	33.3	37.2	46.0	30.5	31.4	39.5	11.2	8.0	83.4	32.3	11.0
LnGrp LOS	D	C	D	D	C	C	D	B	A	F	C	B
Approach Vol, veh/h		122			166			1233			1678	
Approach Delay, s/veh		37.0			41.2			13.3			30.7	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.3	51.3	11.9	10.7	10.7	45.9	8.6	14.0
Change Period (Y+Rc), s	5.0	6.0	5.0	4.0	4.0	6.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	40.0	11.0	39.0	25.0	40.0	20.0	39.0
Max Q Clear Time (g_c+I1), s	2.1	17.6	7.4	6.2	7.2	38.4	3.9	4.2
Green Ext Time (p_c), s	0.0	10.5	0.1	0.2	0.2	1.4	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	24.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



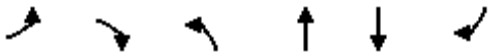
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	2	130	3	2	4	221	1345	47	13	1468	101
Future Volume (veh/h)	40	2	130	3	2	4	221	1345	47	13	1468	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	40	2	130	3	2	4	221	1345	47	13	1468	101
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	181	9	168	20	13	29	265	1970	879	160	1760	785
Arrive On Green	0.11	0.11	0.11	0.02	0.02	0.02	0.15	0.55	0.55	0.09	0.50	0.50
Sat Flow, veh/h	1700	85	1585	1090	726	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	42	0	130	5	0	4	221	1345	47	13	1468	101
Grp Sat Flow(s),veh/h/ln	1785	0	1585	1816	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.7	0.0	6.2	0.2	0.0	0.2	9.4	21.1	1.1	0.5	27.6	2.7
Cycle Q Clear(g_c), s	1.7	0.0	6.2	0.2	0.0	0.2	9.4	21.1	1.1	0.5	27.6	2.7
Prop In Lane	0.95		1.00	0.60		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	190	0	168	33	0	29	265	1970	879	160	1760	785
V/C Ratio(X)	0.22	0.00	0.77	0.15	0.00	0.14	0.83	0.68	0.05	0.08	0.83	0.13
Avail Cap(c_a), veh/h	459	0	407	467	0	407	458	1970	879	458	1827	815
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.8	0.0	33.9	37.6	0.0	37.6	32.2	12.4	8.0	32.5	16.9	10.6
Incr Delay (d2), s/veh	0.2	0.0	2.8	0.8	0.0	0.8	2.6	1.2	0.0	0.1	3.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.1	0.1	0.0	0.1	4.1	7.6	0.3	0.2	10.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.0	0.0	36.7	38.4	0.0	38.4	34.8	13.6	8.0	32.5	20.6	10.7
LnGrp LOS	C	A	D	D	A	D	C	B	A	C	C	B
Approach Vol, veh/h		172			9			1613			1582	
Approach Delay, s/veh		35.6			38.4			16.4			20.1	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	49.1		12.3	15.6	44.6		5.4				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	43.0		20.0	20.0	40.0		20.0				
Max Q Clear Time (g_c+I1), s	2.5	23.1		8.2	11.4	29.6		2.2				
Green Ext Time (p_c), s	0.0	14.6		0.3	0.2	8.9		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		19.2	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



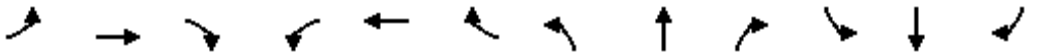
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	101	125	124	1402	1580	186
Future Volume (veh/h)	101	125	124	1402	1580	186
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	101	125	124	1402	1580	186
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	198	176	168	2626	2077	926
Arrive On Green	0.11	0.11	0.09	0.74	0.58	0.58
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	101	125	124	1402	1580	186
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	3.6	5.1	4.5	11.3	22.2	3.7
Cycle Q Clear(g_c), s	3.6	5.1	4.5	11.3	22.2	3.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	198	176	168	2626	2077	926
V/C Ratio(X)	0.51	0.71	0.74	0.53	0.76	0.20
Avail Cap(c_a), veh/h	614	547	614	2626	2291	1022
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.9	28.6	29.4	3.8	10.4	6.5
Incr Delay (d2), s/veh	0.8	2.0	2.4	0.4	1.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	4.5	2.0	2.4	7.4	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.7	30.6	31.8	4.1	12.1	6.7
LnGrp LOS	C	C	C	A	B	A
Approach Vol, veh/h	226			1526	1766	
Approach Delay, s/veh	29.7			6.4	11.5	
Approach LOS	C			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		55.3		11.4	10.3	45.0
Change Period (Y+Rc), s		6.0		4.0	4.0	6.0
Max Green Setting (Gmax), s		43.0		23.0	23.0	43.0
Max Q Clear Time (g_c+I1), s		13.3		7.1	6.5	24.2
Green Ext Time (p_c), s		17.0		0.5	0.2	14.8

Intersection Summary	
HCM 6th Ctrl Delay	10.5
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	43	85	63	55	45	111	1278	55	38	1551	143
Future Volume (veh/h)	111	43	85	63	55	45	111	1278	55	38	1551	143
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	111	43	85	63	55	45	111	1278	55	38	1551	143
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	169	177	150	145	152	129	157	1874	836	100	1760	785
Arrive On Green	0.09	0.09	0.09	0.08	0.08	0.08	0.09	0.53	0.53	0.06	0.50	0.50
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	111	43	85	63	55	45	111	1278	55	38	1551	143
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.1	1.8	4.3	2.8	2.3	2.3	5.1	22.3	1.4	1.7	32.8	4.2
Cycle Q Clear(g_c), s	5.1	1.8	4.3	2.8	2.3	2.3	5.1	22.3	1.4	1.7	32.8	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	169	177	150	145	152	129	157	1874	836	100	1760	785
V/C Ratio(X)	0.66	0.24	0.57	0.43	0.36	0.35	0.71	0.68	0.07	0.38	0.88	0.18
Avail Cap(c_a), veh/h	424	445	377	424	445	377	424	1874	836	424	1818	811
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.7	35.2	36.4	36.8	36.5	36.5	37.3	14.7	9.7	38.3	19.0	11.8
Incr Delay (d2), s/veh	1.6	0.3	1.2	0.8	0.5	0.6	2.2	1.3	0.1	0.9	5.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.8	1.7	1.2	1.1	0.9	2.1	7.3	0.4	0.7	12.1	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.3	35.5	37.6	37.5	37.1	37.1	39.5	15.9	9.8	39.2	24.7	12.0
LnGrp LOS	D	D	D	D	D	D	D	B	A	D	C	B
Approach Vol, veh/h		239			163			1444			1732	
Approach Delay, s/veh		37.6			37.2			17.5			23.9	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.7	50.3		12.9	11.4	47.6		12.1				
Change Period (Y+Rc), s	4.0	6.0		4.9	4.0	6.0		5.3				
Max Green Setting (Gmax), s	20.0	43.0		20.0	20.0	43.0		20.0				
Max Q Clear Time (g_c+I1), s	3.7	24.3		7.1	7.1	34.8		4.8				
Green Ext Time (p_c), s	0.0	11.1		0.4	0.1	6.8		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		22.9	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.



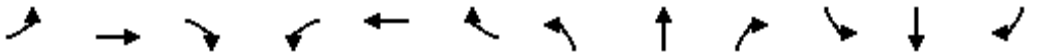
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	32	24	1648	63	6	2176
Future Volume (veh/h)	32	24	1648	63	6	2176
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1870	1870	1870	1870
Adj Flow Rate, veh/h	32	24	1648	63	6	2176
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	44	33	2942	913	11	3605
Arrive On Green	0.05	0.05	0.58	0.58	0.01	0.71
Sat Flow, veh/h	951	713	5274	1585	1781	5274
Grp Volume(v), veh/h	57	0	1648	63	6	2176
Grp Sat Flow(s),veh/h/ln	1694	0	1702	1585	1781	1702
Q Serve(g_s), s	1.3	0.0	8.2	0.7	0.1	8.8
Cycle Q Clear(g_c), s	1.3	0.0	8.2	0.7	0.1	8.8
Prop In Lane	0.56	0.42		1.00	1.00	
Lane Grp Cap(c), veh/h	79	0	2942	913	11	3605
V/C Ratio(X)	0.72	0.00	0.56	0.07	0.52	0.60
Avail Cap(c_a), veh/h	1214	0	2942	913	484	4543
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	0.0	5.4	3.8	20.0	3.0
Incr Delay (d2), s/veh	11.5	0.0	0.2	0.0	32.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.0	0.1	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.6	0.0	5.6	3.8	52.3	3.2
LnGrp LOS	C	A	A	A	D	A
Approach Vol, veh/h	57		1711			2182
Approach Delay, s/veh	30.6		5.5			3.3
Approach LOS	C		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.3	28.3			33.6	6.9
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	11.0	20.0			36.0	29.0
Max Q Clear Time (g_c+I1), s	2.1	10.2			10.8	3.3
Green Ext Time (p_c), s	0.0	6.9			17.7	0.1

Intersection Summary	
HCM 6th Ctrl Delay	4.7
HCM 6th LOS	A

Notes

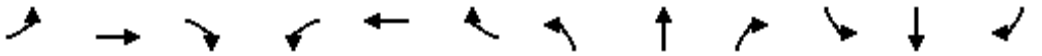
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	4	12	19	2	15	31	1600	48	39	2155	112
Future Volume (veh/h)	135	4	12	19	2	15	31	1600	48	39	2155	112
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	135	4	12	19	2	15	31	1600	48	39	2155	112
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	174	56	168	33	11	81	50	2485	770	60	2513	779
Arrive On Green	0.10	0.14	0.14	0.02	0.06	0.06	0.03	0.49	0.49	0.03	0.49	0.49
Sat Flow, veh/h	1781	411	1232	1781	189	1415	1781	5106	1582	1781	5106	1582
Grp Volume(v), veh/h	135	0	16	19	0	17	31	1600	48	39	2155	112
Grp Sat Flow(s),veh/h/ln	1781	0	1642	1781	0	1603	1781	1702	1582	1781	1702	1582
Q Serve(g_s), s	3.6	0.0	0.4	0.5	0.0	0.5	0.8	11.5	0.8	1.1	18.3	1.9
Cycle Q Clear(g_c), s	3.6	0.0	0.4	0.5	0.0	0.5	0.8	11.5	0.8	1.1	18.3	1.9
Prop In Lane	1.00		0.75	1.00		0.88	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	174	0	224	33	0	92	50	2485	770	60	2513	779
V/C Ratio(X)	0.78	0.00	0.07	0.57	0.00	0.18	0.62	0.64	0.06	0.65	0.86	0.14
Avail Cap(c_a), veh/h	289	0	1033	289	0	1008	289	2485	770	289	2513	779
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	18.6	24.0	0.0	22.1	23.7	9.5	6.7	23.5	11.0	6.8
Incr Delay (d2), s/veh	7.2	0.0	0.1	14.7	0.0	1.0	11.9	1.3	0.2	11.4	4.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.1	0.3	0.0	0.2	0.5	3.0	0.2	0.6	5.2	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.9	0.0	18.7	38.7	0.0	23.1	35.6	10.8	6.9	34.9	15.0	7.2
LnGrp LOS	C	A	B	D	A	C	D	B	A	C	B	A
Approach Vol, veh/h		151			36			1679			2306	
Approach Delay, s/veh		27.9			31.3			11.1			15.0	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	28.0	4.9	10.7	5.4	28.3	8.8	6.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	24.0	8.0	31.0	8.0	24.0	8.0	31.0
Max Q Clear Time (g_c+I1), s	3.1	13.5	2.5	2.4	2.8	20.3	5.6	2.5
Green Ext Time (p_c), s	0.0	7.1	0.0	0.0	0.0	3.4	0.1	0.0

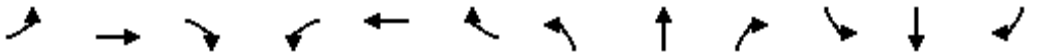
Intersection Summary	
HCM 6th Ctrl Delay	14.0
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	4	68	54	5	18	146	484	121	54	974	205
Future Volume (veh/h)	49	4	68	54	5	18	146	484	121	54	974	205
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	4	68	54	5	18	146	484	121	54	974	205
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	122	10	117	89	8	86	190	1425	636	77	1199	535
Arrive On Green	0.07	0.07	0.07	0.05	0.05	0.05	0.11	0.40	0.40	0.04	0.34	0.34
Sat Flow, veh/h	1653	135	1585	1637	152	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	53	0	68	59	0	18	146	484	121	54	974	205
Grp Sat Flow(s),veh/h/ln	1788	0	1585	1789	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.3	0.0	1.9	1.5	0.0	0.5	3.7	4.4	2.3	1.4	11.7	4.6
Cycle Q Clear(g_c), s	1.3	0.0	1.9	1.5	0.0	0.5	3.7	4.4	2.3	1.4	11.7	4.6
Prop In Lane	0.92		1.00	0.92		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	132	0	117	97	0	86	190	1425	636	77	1199	535
V/C Ratio(X)	0.40	0.00	0.58	0.61	0.00	0.21	0.77	0.34	0.19	0.70	0.81	0.38
Avail Cap(c_a), veh/h	995	0	882	995	0	882	419	1425	636	419	1293	577
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.7	0.0	20.9	21.6	0.0	21.1	20.3	9.7	9.1	22.1	14.1	11.8
Incr Delay (d2), s/veh	2.0	0.0	4.5	6.1	0.0	1.2	6.3	0.1	0.1	11.1	3.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.8	0.7	0.0	0.2	1.6	1.3	0.6	0.7	4.2	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.6	0.0	25.4	27.7	0.0	22.3	26.6	9.8	9.2	33.1	18.0	12.2
LnGrp LOS	C	A	C	C	A	C	C	A	A	C	B	B
Approach Vol, veh/h		121			77			751			1233	
Approach Delay, s/veh		24.2			26.4			13.0			17.7	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	23.7		8.5	10.0	20.8		7.5				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	11.0	17.0		26.0	11.0	17.0		26.0				
Max Q Clear Time (g_c+I1), s	3.4	6.4		3.9	5.7	13.7		3.5				
Green Ext Time (p_c), s	0.0	2.5		0.4	0.2	2.1		0.3				

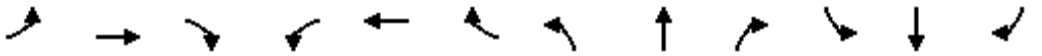
Intersection Summary												
HCM 6th Ctrl Delay			16.7									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	5	73	13	20	21	73	700	36	47	959	90
Future Volume (veh/h)	30	5	73	13	20	21	73	700	36	47	959	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	5	73	13	20	21	73	700	36	47	959	90
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	110	18	114	32	49	69	95	1420	634	70	1372	612
Arrive On Green	0.07	0.07	0.07	0.04	0.04	0.04	0.05	0.40	0.40	0.04	0.39	0.39
Sat Flow, veh/h	1537	256	1585	723	1112	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	35	0	73	33	0	21	73	700	36	47	959	90
Grp Sat Flow(s),veh/h/ln	1793	0	1585	1834	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.8	0.0	2.0	0.8	0.0	0.6	1.8	6.6	0.6	1.2	10.2	1.7
Cycle Q Clear(g_c), s	0.8	0.0	2.0	0.8	0.0	0.6	1.8	6.6	0.6	1.2	10.2	1.7
Prop In Lane	0.86		1.00	0.39		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	129	0	114	80	0	69	95	1420	634	70	1372	612
V/C Ratio(X)	0.27	0.00	0.64	0.41	0.00	0.30	0.77	0.49	0.06	0.67	0.70	0.15
Avail Cap(c_a), veh/h	1039	0	918	1062	0	918	357	1420	634	674	1899	847
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.7	0.0	20.3	20.9	0.0	20.8	21.0	10.1	8.3	21.3	11.6	9.0
Incr Delay (d2), s/veh	1.1	0.0	5.9	3.4	0.0	2.4	12.3	0.3	0.0	10.4	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.8	0.4	0.0	0.2	1.0	1.9	0.2	0.6	3.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.9	0.0	26.2	24.3	0.0	23.2	33.2	10.3	8.3	31.7	12.3	9.1
LnGrp LOS	C	A	C	C	A	C	C	B	A	C	B	A
Approach Vol, veh/h		108			54			809			1096	
Approach Delay, s/veh		24.5			23.9			12.3			12.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.8	22.9		8.2	7.4	22.3		7.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	17.0	16.0		26.0	9.0	24.0		26.0				
Max Q Clear Time (g_c+I1), s	3.2	8.6		4.0	3.8	12.2		2.8				
Green Ext Time (p_c), s	0.1	2.7		0.3	0.1	5.1		0.2				

Intersection Summary		
HCM 6th Ctrl Delay		13.5
HCM 6th LOS		B



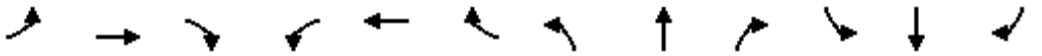
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	20	43	4	3	271	42	857	13	69	1477	97
Future Volume (veh/h)	26	20	43	4	3	271	42	857	13	69	1477	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	20	43	4	3	271	42	857	13	69	1477	97
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	91	70	140	339	356	302	89	1650	736	113	1696	757
Arrive On Green	0.09	0.09	0.09	0.19	0.19	0.19	0.05	0.46	0.46	0.06	0.48	0.48
Sat Flow, veh/h	1028	791	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	46	0	43	4	3	271	42	857	13	69	1477	97
Grp Sat Flow(s),veh/h/ln	1819	0	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.2	0.0	2.3	0.2	0.1	15.3	2.1	15.6	0.4	3.4	34.0	3.1
Cycle Q Clear(g_c), s	2.2	0.0	2.3	0.2	0.1	15.3	2.1	15.6	0.4	3.4	34.0	3.1
Prop In Lane	0.57		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	160	0	140	339	356	302	89	1650	736	113	1696	757
V/C Ratio(X)	0.29	0.00	0.31	0.01	0.01	0.90	0.47	0.52	0.02	0.61	0.87	0.13
Avail Cap(c_a), veh/h	398	0	347	390	410	347	390	1751	781	390	1751	781
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	0.0	39.0	30.0	30.0	36.1	42.2	17.3	13.2	41.7	21.3	13.3
Incr Delay (d2), s/veh	0.4	0.0	0.5	0.0	0.0	21.4	1.4	0.4	0.0	2.0	5.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.9	0.1	0.1	7.6	0.9	6.1	0.1	1.6	14.4	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	0.0	39.5	30.0	30.0	57.5	43.6	17.7	13.2	43.7	26.6	13.4
LnGrp LOS	D	A	D	C	C	E	D	B	B	D	C	B
Approach Vol, veh/h		89			278			912			1643	
Approach Delay, s/veh		39.4			56.8			18.8			26.5	
Approach LOS		D			E			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.8	48.1		12.1	8.6	49.3		21.4				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	5.4	17.6		4.3	4.1	36.0		17.3				
Green Ext Time (p_c), s	0.1	10.3		0.2	0.0	7.6		0.2				

Intersection Summary			
HCM 6th Ctrl Delay		27.4	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.



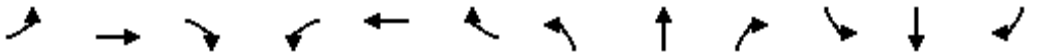
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	14	21	249	15	25	15	832	81	41	1503	24
Future Volume (veh/h)	16	14	21	249	15	25	15	832	81	41	1503	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	14	21	249	15	25	15	832	81	41	1503	24
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	66	58	107	292	307	260	44	1760	785	93	1857	828
Arrive On Green	0.07	0.07	0.07	0.16	0.16	0.16	0.02	0.50	0.50	0.05	0.52	0.52
Sat Flow, veh/h	972	850	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	30	0	21	249	15	25	15	832	81	41	1503	24
Grp Sat Flow(s),veh/h/ln	1822	0	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.3	0.0	1.0	10.9	0.5	1.1	0.7	12.4	2.2	1.8	28.1	0.6
Cycle Q Clear(g_c), s	1.3	0.0	1.0	10.9	0.5	1.1	0.7	12.4	2.2	1.8	28.1	0.6
Prop In Lane	0.53		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	123	0	107	292	307	260	44	1760	785	93	1857	828
V/C Ratio(X)	0.24	0.00	0.20	0.85	0.05	0.10	0.34	0.47	0.10	0.44	0.81	0.03
Avail Cap(c_a), veh/h	454	0	395	444	467	395	444	1995	890	444	1995	890
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.4	0.0	35.3	32.6	28.2	28.5	38.4	13.3	10.8	36.9	15.8	9.3
Incr Delay (d2), s/veh	0.4	0.0	0.3	6.2	0.0	0.1	1.7	0.3	0.1	1.2	2.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.4	5.1	0.2	0.4	0.3	4.6	0.7	0.8	10.8	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.8	0.0	35.6	38.8	28.3	28.5	40.1	13.7	10.9	38.1	18.5	9.3
LnGrp LOS	D	A	D	D	C	C	D	B	B	D	B	A
Approach Vol, veh/h		51			289			928			1568	
Approach Delay, s/veh		35.7			37.3			13.8			18.9	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.2	45.4		9.4	6.0	47.6		17.2				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	3.8	14.4		3.3	2.7	30.1		12.9				
Green Ext Time (p_c), s	0.0	10.9		0.1	0.0	11.8		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		19.4	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



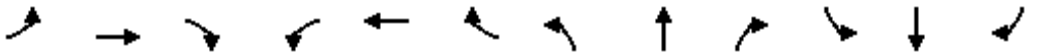
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	2	43	13	4	30	58	749	195	45	1579	144
Future Volume (veh/h)	125	2	43	13	4	30	58	749	195	45	1579	144
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	125	2	43	13	4	30	58	749	195	45	1579	144
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	191	3	173	89	27	102	96	1562	407	84	1822	165
Arrive On Green	0.11	0.11	0.11	0.06	0.06	0.06	0.05	0.56	0.56	0.05	0.55	0.55
Sat Flow, veh/h	1755	28	1585	1378	424	1585	1781	2790	726	1781	3296	298
Grp Volume(v), veh/h	127	0	43	17	0	30	58	477	467	45	845	878
Grp Sat Flow(s),veh/h/ln	1783	0	1585	1801	0	1585	1781	1777	1740	1781	1777	1817
Q Serve(g_s), s	5.5	0.0	2.0	0.7	0.0	1.5	2.6	13.0	13.0	2.0	32.7	33.8
Cycle Q Clear(g_c), s	5.5	0.0	2.0	0.7	0.0	1.5	2.6	13.0	13.0	2.0	32.7	33.8
Prop In Lane	0.98		1.00	0.76		1.00	1.00		0.42	1.00		0.16
Lane Grp Cap(c), veh/h	194	0	173	116	0	102	96	995	974	84	983	1005
V/C Ratio(X)	0.65	0.00	0.25	0.15	0.00	0.29	0.60	0.48	0.48	0.53	0.86	0.87
Avail Cap(c_a), veh/h	442	0	393	446	0	393	441	995	974	441	991	1013
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.5	0.0	32.9	35.6	0.0	36.0	37.3	10.7	10.7	37.6	15.4	15.6
Incr Delay (d2), s/veh	1.4	0.0	0.3	0.2	0.0	0.6	2.2	0.5	0.5	2.0	7.9	8.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.8	0.3	0.0	0.6	1.1	4.2	4.2	0.9	12.5	13.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.9	0.0	33.2	35.9	0.0	36.6	39.6	11.2	11.2	39.5	23.2	24.4
LnGrp LOS	D	A	C	D	A	D	D	B	B	D	C	C
Approach Vol, veh/h		170			47			1002			1768	
Approach Delay, s/veh		35.2			36.3			12.8			24.2	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.8	50.9		12.8	8.4	50.3		9.2				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	4.0	15.0		7.5	4.6	35.8		3.5				
Green Ext Time (p_c), s	0.0	16.5		0.3	0.1	8.9		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		21.2	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.



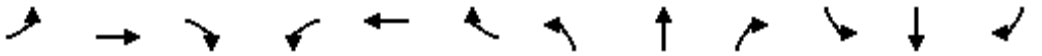
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	18	41	17	2	25	83	889	19	35	1426	71
Future Volume (veh/h)	61	18	41	17	2	25	83	889	19	35	1426	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	18	41	17	2	25	83	889	19	35	1426	71
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	146	43	167	43	5	63	145	1848	39	89	1681	83
Arrive On Green	0.11	0.11	0.11	0.07	0.07	0.07	0.08	0.52	0.52	0.05	0.49	0.49
Sat Flow, veh/h	1391	410	1585	644	76	947	1781	3557	76	1781	3445	171
Grp Volume(v), veh/h	79	0	41	44	0	0	83	444	464	35	734	763
Grp Sat Flow(s),veh/h/ln	1801	0	1585	1668	0	0	1781	1777	1857	1781	1777	1840
Q Serve(g_s), s	2.8	0.0	1.6	1.7	0.0	0.0	3.1	10.9	10.9	1.3	24.6	24.8
Cycle Q Clear(g_c), s	2.8	0.0	1.6	1.7	0.0	0.0	3.1	10.9	10.9	1.3	24.6	24.8
Prop In Lane	0.77		1.00	0.39		0.57	1.00		0.04	1.00		0.09
Lane Grp Cap(c), veh/h	189	0	167	111	0	0	145	923	965	89	867	898
V/C Ratio(X)	0.42	0.00	0.25	0.40	0.00	0.00	0.57	0.48	0.48	0.40	0.85	0.85
Avail Cap(c_a), veh/h	528	0	464	489	0	0	522	923	965	522	911	943
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.6	0.0	28.1	30.6	0.0	0.0	30.2	10.5	10.5	31.4	15.2	15.3
Incr Delay (d2), s/veh	1.5	0.0	0.8	2.3	0.0	0.0	1.3	0.6	0.6	1.1	7.5	7.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.6	0.7	0.0	0.0	1.3	3.8	4.0	0.6	10.3	10.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	0.0	28.8	32.9	0.0	0.0	31.5	11.1	11.1	32.5	22.7	22.8
LnGrp LOS	C	A	C	C	A	A	C	B	B	C	C	C
Approach Vol, veh/h		120			44			991			1532	
Approach Delay, s/veh		29.6			32.9			12.8			23.0	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	41.2		11.2	9.5	39.0		8.5				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	35.0		20.0	20.0	35.0		20.0				
Max Q Clear Time (g_c+I1), s	3.3	12.9		4.8	5.1	26.8		3.7				
Green Ext Time (p_c), s	0.0	8.7		0.4	0.1	6.5		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		19.7	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



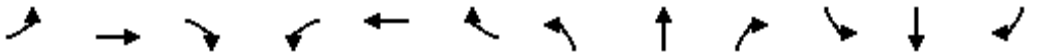
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	14	85	12	10	20	268	865	14	39	1366	34
Future Volume (veh/h)	76	14	85	12	10	20	268	865	14	39	1366	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	76	14	7	12	10	1	268	865	13	39	1366	33
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	133	24	139	40	33	63	315	2164	33	90	1692	41
Arrive On Green	0.09	0.09	0.09	0.04	0.04	0.04	0.18	0.60	0.60	0.05	0.48	0.48
Sat Flow, veh/h	1515	279	1585	993	828	1585	1781	3584	54	1781	3546	86
Grp Volume(v), veh/h	90	0	7	22	0	1	268	429	449	39	684	715
Grp Sat Flow(s),veh/h/ln	1795	0	1585	1821	0	1585	1781	1777	1861	1781	1777	1855
Q Serve(g_s), s	3.9	0.0	0.3	1.0	0.0	0.0	11.8	10.2	10.2	1.7	26.5	26.6
Cycle Q Clear(g_c), s	3.9	0.0	0.3	1.0	0.0	0.0	11.8	10.2	10.2	1.7	26.5	26.6
Prop In Lane	0.84		1.00	0.55		1.00	1.00		0.03	1.00		0.05
Lane Grp Cap(c), veh/h	157	0	139	73	0	63	315	1073	1123	90	848	885
V/C Ratio(X)	0.57	0.00	0.05	0.30	0.00	0.02	0.85	0.40	0.40	0.43	0.81	0.81
Avail Cap(c_a), veh/h	177	0	156	741	0	645	791	1716	1797	176	1102	1151
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.5	0.0	33.9	37.8	0.0	37.4	32.3	8.4	8.4	37.4	18.0	18.0
Incr Delay (d2), s/veh	3.5	0.0	0.1	2.3	0.0	0.1	2.5	0.3	0.3	1.2	3.9	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.1	0.5	0.0	0.0	5.2	3.5	3.7	0.8	10.8	11.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.0	0.0	34.0	40.1	0.0	37.5	34.8	8.7	8.7	38.6	21.9	21.8
LnGrp LOS	D	A	C	D	A	D	C	A	A	D	C	C
Approach Vol, veh/h		97			23			1146			1438	
Approach Delay, s/veh		38.6			40.0			14.8			22.3	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.4	44.4		7.2	8.1	54.6		11.1				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	36.0	50.3		33.0	8.0	78.3		8.0				
Max Q Clear Time (g_c+I1), s	13.8	28.6		3.0	3.7	12.2		5.9				
Green Ext Time (p_c), s	0.6	10.1		0.0	0.0	6.4		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		19.9	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	6	5	40	15	114	29	1013	20	124	1378	86
Future Volume (veh/h)	15	6	5	40	15	114	29	1013	20	124	1378	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	12	5	40	15	114	29	1013	20	124	1378	86
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	160	168	135	180	189	160	77	1583	31	163	1672	104
Arrive On Green	0.09	0.09	0.09	0.10	0.10	0.10	0.04	0.44	0.44	0.09	0.49	0.49
Sat Flow, veh/h	1781	1870	1502	1781	1870	1585	1781	3562	70	1781	3393	211
Grp Volume(v), veh/h	10	12	5	40	15	114	29	505	528	124	720	744
Grp Sat Flow(s),veh/h/ln	1781	1870	1502	1781	1870	1585	1781	1777	1856	1781	1777	1827
Q Serve(g_s), s	0.4	0.4	0.2	1.4	0.5	4.8	1.1	15.3	15.3	4.7	24.0	24.2
Cycle Q Clear(g_c), s	0.4	0.4	0.2	1.4	0.5	4.8	1.1	15.3	15.3	4.7	24.0	24.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		0.12
Lane Grp Cap(c), veh/h	160	168	135	180	189	160	77	790	825	163	875	900
V/C Ratio(X)	0.06	0.07	0.04	0.22	0.08	0.71	0.38	0.64	0.64	0.76	0.82	0.83
Avail Cap(c_a), veh/h	513	538	432	589	619	524	513	1048	1095	513	1048	1078
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	29.0	28.9	28.7	28.3	30.3	32.3	15.0	15.0	30.8	15.0	15.1
Incr Delay (d2), s/veh	0.1	0.1	0.1	0.5	0.1	4.3	1.1	1.2	1.1	2.7	5.0	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.2	0.1	0.6	0.2	2.0	0.5	5.3	5.5	2.0	8.6	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.1	29.1	29.0	29.2	28.5	34.6	33.5	16.2	16.1	33.6	20.0	20.1
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	B	C
Approach Vol, veh/h		27			169			1062			1588	
Approach Delay, s/veh		29.1			32.8			16.6			21.1	
Approach LOS		C			C			B			C	

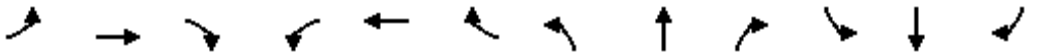
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.4	36.6		12.3	7.0	39.9		10.2				
Change Period (Y+Rc), s	4.0	5.7		5.3	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	41.0		23.0	20.0	41.0		20.0				
Max Q Clear Time (g_c+I1), s	6.7	17.3		6.8	3.1	26.2		2.4				
Green Ext Time (p_c), s	0.2	6.4		0.5	0.0	8.0		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		20.2
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.

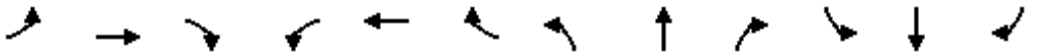
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	0	36	13	0	20	34	925	37	23	1375	5
Future Volume (vph)	63	0	36	13	0	20	34	925	37	23	1375	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0	4.0	5.7		4.0	5.7	5.7
Lane Util. Factor	1.00		1.00	1.00		1.00	1.00	0.95		1.00	0.95	1.00
Frt	1.00		0.85	1.00		0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95		1.00	0.95		1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770		1583	1770		1583	1770	3519		1770	3539	1583
Flt Permitted	0.95		1.00	0.95		1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770		1583	1770		1583	1770	3519		1770	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	63	0	36	13	0	20	34	925	37	23	1375	5
RTOR Reduction (vph)	0	0	33	0	0	19	0	1	0	0	0	2
Lane Group Flow (vph)	63	0	3	13	0	1	34	961	0	23	1375	3
Turn Type	Prot		Perm	Prot		Perm	Prot	NA		Prot	NA	Perm
Protected Phases	8			7			5	2		1	6	
Permitted Phases			8			7						6
Actuated Green, G (s)	7.4		7.4	4.2		4.2	4.2	50.9		3.9	50.6	50.6
Effective Green, g (s)	7.4		7.4	4.2		4.2	4.2	50.9		3.9	50.6	50.6
Actuated g/C Ratio	0.08		0.08	0.04		0.04	0.04	0.52		0.04	0.52	0.52
Clearance Time (s)	4.0		4.0	4.0		4.0	4.0	5.7		4.0	5.7	5.7
Vehicle Extension (s)	2.0		2.0	2.0		2.0	2.0	4.5		2.0	4.5	4.5
Lane Grp Cap (vph)	133		119	75		67	75	1824		70	1823	815
v/s Ratio Prot	c0.04			c0.01			c0.02	0.27		0.01	c0.39	
v/s Ratio Perm			0.00			0.00						0.00
v/c Ratio	0.47		0.02	0.17		0.01	0.45	0.53		0.33	0.75	0.00
Uniform Delay, d1	43.5		42.1	45.3		45.0	45.9	15.7		45.9	18.9	11.6
Progression Factor	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.0		0.0	0.4		0.0	1.6	0.4		1.0	2.1	0.0
Delay (s)	44.5		42.1	45.7		45.0	47.5	16.1		46.9	20.9	11.6
Level of Service	D		D	D		D	D	B		D	C	B
Approach Delay (s)		43.6			45.3			17.2			21.3	
Approach LOS		D			D			B			C	

Intersection Summary			
HCM 2000 Control Delay	20.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	98.2	Sum of lost time (s)	21.7
Intersection Capacity Utilization	59.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	291	51	252	236	6	223	72	1492	72	60	1114	92
Future Volume (veh/h)	291	51	252	236	6	223	72	1492	72	60	1114	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	327	0	0	236	6	0	72	1492	0	60	1114	92
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	446	0		283	7		295	2107		282	1444	644
Arrive On Green	0.13	0.00	0.00	0.16	0.16	0.00	0.08	0.41	0.00	0.07	0.41	0.41
Sat Flow, veh/h	3563	0	1585	1739	44	1585	1781	5106	1585	1781	3554	1585
Grp Volume(v), veh/h	327	0	0	242	0	0	72	1492	0	60	1114	92
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1783	0	1585	1781	1702	1585	1781	1777	1585
Q Serve(g_s), s	7.1	0.0	0.0	10.5	0.0	0.0	1.7	19.3	0.0	1.4	21.6	2.9
Cycle Q Clear(g_c), s	7.1	0.0	0.0	10.5	0.0	0.0	1.7	19.3	0.0	1.4	21.6	2.9
Prop In Lane	1.00		1.00	0.98		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	446	0		290	0		295	2107		282	1444	644
V/C Ratio(X)	0.73	0.00		0.83	0.00		0.24	0.71		0.21	0.77	0.14
Avail Cap(c_a), veh/h	893	0		447	0		711	2561		597	1782	795
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.6	0.0	0.0	32.3	0.0	0.0	14.4	19.4	0.0	13.8	20.5	14.9
Incr Delay (d2), s/veh	1.8	0.0	0.0	7.9	0.0	0.0	0.2	1.0	0.0	0.4	2.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.0	5.1	0.0	0.0	0.6	6.5	0.0	0.5	7.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.4	0.0	0.0	40.2	0.0	0.0	14.6	20.4	0.0	14.2	22.7	15.1
LnGrp LOS	D	A		D	A		B	C		B	C	B
Approach Vol, veh/h		327	A		242	A		1564	A		1266	
Approach Delay, s/veh		35.4			40.2			20.2			21.7	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	38.9		14.0	10.4	38.4		17.0				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	40.0		20.0	25.0	40.0		20.0				
Max Q Clear Time (g_c+I1), s	3.4	21.3		9.1	3.7	23.6		12.5				
Green Ext Time (p_c), s	0.1	11.6		0.9	0.1	8.7		0.6				

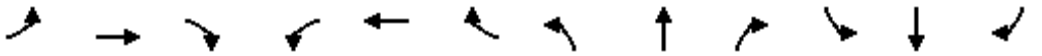
Intersection Summary			
HCM 6th Ctrl Delay		23.6	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



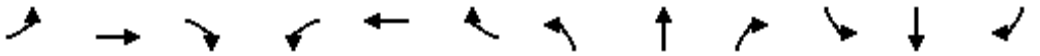
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	139	6	124	149	6	297	9	650	37	128	1918	4
Future Volume (veh/h)	139	6	124	149	6	297	9	650	37	128	1918	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	139	6	27	149	6	28	9	650	21	128	1918	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	176	29	132	180	29	135	120	2035	907	534	2168	967
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.01	0.57	0.57	0.06	0.61	0.61
Sat Flow, veh/h	1781	296	1334	1781	287	1341	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	139	0	33	149	0	34	9	650	21	128	1918	2
Grp Sat Flow(s),veh/h/ln	1781	0	1630	1781	0	1629	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	8.0	0.0	1.9	8.6	0.0	2.0	0.2	10.0	0.6	2.9	47.9	0.1
Cycle Q Clear(g_c), s	8.0	0.0	1.9	8.6	0.0	2.0	0.2	10.0	0.6	2.9	47.9	0.1
Prop In Lane	1.00		0.82	1.00		0.82	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	176	0	161	180	0	164	120	2035	907	534	2168	967
V/C Ratio(X)	0.79	0.00	0.20	0.83	0.00	0.21	0.07	0.32	0.02	0.24	0.88	0.00
Avail Cap(c_a), veh/h	579	0	530	187	0	171	292	2512	1121	570	2377	1060
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.1	0.0	43.4	46.2	0.0	43.2	18.8	11.7	9.7	7.8	17.3	8.0
Incr Delay (d2), s/veh	3.0	0.0	0.2	23.4	0.0	0.2	0.3	0.1	0.0	0.1	4.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.0	0.8	4.9	0.0	0.8	0.1	3.4	0.2	0.9	16.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.1	0.0	43.6	69.5	0.0	43.4	19.1	11.8	9.7	7.9	21.6	8.0
LnGrp LOS	D	A	D	E	A	D	B	B	A	A	C	A
Approach Vol, veh/h		172			183			680			2048	
Approach Delay, s/veh		48.1			64.7			11.9			20.7	
Approach LOS		D			E			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	65.9		14.3	5.9	69.9		14.6				
Change Period (Y+Rc), s	4.0	6.0		4.0	5.0	6.0		4.0				
Max Green Setting (Gmax), s	8.0	74.0		34.0	11.0	70.0		11.0				
Max Q Clear Time (g_c+I1), s	4.9	12.0		10.0	2.2	49.9		10.6				
Green Ext Time (p_c), s	0.0	4.7		0.4	0.0	14.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		22.9	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.



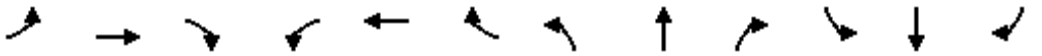
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	7	148	10	5	62	9	567	10	216	1857	11
Future Volume (veh/h)	53	7	148	10	5	62	9	567	10	216	1857	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	7	77	10	5	5	9	567	4	216	1857	11
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	71	9	104	49	25	64	152	1779	793	594	2080	12
Arrive On Green	0.11	0.11	0.11	0.04	0.04	0.04	0.02	0.50	0.50	0.09	0.57	0.57
Sat Flow, veh/h	646	85	938	1207	603	1585	1781	3554	1585	1781	3622	21
Grp Volume(v), veh/h	137	0	0	15	0	5	9	567	4	216	910	958
Grp Sat Flow(s),veh/h/ln	1669	0	0	1810	0	1585	1781	1777	1585	1781	1777	1867
Q Serve(g_s), s	6.1	0.0	0.0	0.6	0.0	0.2	0.2	7.3	0.1	4.1	34.5	34.7
Cycle Q Clear(g_c), s	6.1	0.0	0.0	0.6	0.0	0.2	0.2	7.3	0.1	4.1	34.5	34.7
Prop In Lane	0.39		0.56	0.67		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	184	0	0	74	0	64	152	1779	793	594	1020	1072
V/C Ratio(X)	0.74	0.00	0.00	0.20	0.00	0.08	0.06	0.32	0.01	0.36	0.89	0.89
Avail Cap(c_a), veh/h	432	0	0	469	0	410	585	2070	923	895	1035	1087
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	0.0	0.0	35.9	0.0	35.7	14.7	11.5	9.7	7.3	14.4	14.4
Incr Delay (d2), s/veh	2.2	0.0	0.0	0.5	0.0	0.2	0.1	0.2	0.0	0.1	10.3	10.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	0.0	0.3	0.0	0.1	0.1	2.3	0.0	1.1	12.5	13.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.5	0.0	0.0	36.4	0.0	35.9	14.8	11.7	9.7	7.5	24.7	24.4
LnGrp LOS	D	A	A	D	A	D	B	B	A	A	C	C
Approach Vol, veh/h		137			20			580			2084	
Approach Delay, s/veh		35.5			36.2			11.7			22.8	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.9	44.7		12.5	7.2	50.4		7.1				
Change Period (Y+Rc), s	6.0	6.0		4.0	6.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	6.1	9.3		8.1	2.2	36.7		2.6				
Green Ext Time (p_c), s	0.2	6.8		0.3	0.0	7.7		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		21.2	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	5	46	85	5	14	18	587	109	4	1899	56
Future Volume (veh/h)	33	5	46	85	5	14	18	587	109	4	1899	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	5	46	89	0	14	18	587	109	4	1899	56
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	24	162	390	0	174	195	1886	841	440	2609	77
Arrive On Green	0.10	0.10	0.10	0.11	0.00	0.11	0.03	0.53	0.53	0.01	0.51	0.51
Sat Flow, veh/h	1557	236	1585	3563	0	1585	1781	3554	1585	1781	5097	150
Grp Volume(v), veh/h	38	0	46	89	0	14	18	587	109	4	1267	688
Grp Sat Flow(s),veh/h/ln	1793	0	1585	1781	0	1585	1781	1777	1585	1781	1702	1843
Q Serve(g_s), s	1.4	0.0	1.9	1.6	0.0	0.6	0.3	6.6	2.5	0.1	20.7	20.8
Cycle Q Clear(g_c), s	1.4	0.0	1.9	1.6	0.0	0.6	0.3	6.6	2.5	0.1	20.7	20.8
Prop In Lane	0.87		1.00	1.00		1.00	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	183	0	162	390	0	174	195	1886	841	440	1742	944
V/C Ratio(X)	0.21	0.00	0.28	0.23	0.00	0.08	0.09	0.31	0.13	0.01	0.73	0.73
Avail Cap(c_a), veh/h	501	0	443	995	0	443	648	2233	996	926	2139	1158
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	0.0	29.7	29.1	0.0	28.6	11.0	9.4	8.5	8.5	13.6	13.6
Incr Delay (d2), s/veh	0.2	0.0	0.4	0.1	0.0	0.1	0.1	0.1	0.1	0.0	1.2	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.7	0.7	0.0	0.2	0.1	1.9	0.6	0.0	6.0	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.7	0.0	30.1	29.2	0.0	28.7	11.1	9.6	8.6	8.5	14.8	15.8
LnGrp LOS	C	A	C	C	A	C	B	A	A	A	B	B
Approach Vol, veh/h		84			103			714			1959	
Approach Delay, s/veh		29.9			29.2			9.5			15.1	
Approach LOS		C			C			A			B	

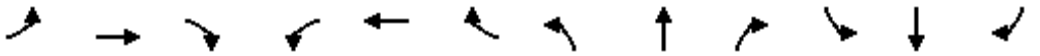
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.5	44.0		11.3	5.8	42.6		11.8				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	2.1	8.6		3.9	2.3	22.8		3.6				
Green Ext Time (p_c), s	0.0	4.7		0.0	0.0	13.9		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	14.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	12	113	65	8	26	106	1370	31	60	2254	48
Future Volume (veh/h)	109	12	113	65	8	26	106	1370	31	60	2254	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	109	12	113	65	8	26	106	1370	31	60	2254	48
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	16	140	89	11	88	131	3350	76	78	3200	68
Arrive On Green	0.09	0.09	0.09	0.06	0.06	0.06	0.07	0.65	0.65	0.04	0.62	0.62
Sat Flow, veh/h	1612	177	1533	1594	196	1585	1781	5136	116	1781	5144	109
Grp Volume(v), veh/h	121	0	113	73	0	26	106	908	493	60	1490	812
Grp Sat Flow(s),veh/h/ln	1790	0	1533	1791	0	1585	1781	1702	1848	1781	1702	1850
Q Serve(g_s), s	7.9	0.0	8.7	4.8	0.0	1.9	7.0	15.2	15.2	4.0	35.3	35.5
Cycle Q Clear(g_c), s	7.9	0.0	8.7	4.8	0.0	1.9	7.0	15.2	15.2	4.0	35.3	35.5
Prop In Lane	0.90		1.00	0.89		1.00	1.00		0.06	1.00		0.06
Lane Grp Cap(c), veh/h	163	0	140	99	0	88	131	2220	1205	78	2117	1151
V/C Ratio(X)	0.74	0.00	0.81	0.73	0.00	0.30	0.81	0.41	0.41	0.77	0.70	0.71
Avail Cap(c_a), veh/h	239	0	204	225	0	199	238	2220	1205	238	2117	1151
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.1	0.0	53.5	55.8	0.0	54.4	54.7	9.9	9.9	56.8	15.2	15.3
Incr Delay (d2), s/veh	2.9	0.0	8.7	3.9	0.0	0.7	4.4	0.6	1.0	6.0	1.6	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.0	3.7	2.3	0.0	0.8	3.2	4.9	5.5	1.9	11.9	13.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.0	0.0	62.2	59.7	0.0	55.1	59.1	10.5	10.9	62.8	16.8	18.2
LnGrp LOS	E	A	E	E	A	E	E	B	B	E	B	B
Approach Vol, veh/h		234			99			1507			2362	
Approach Delay, s/veh		59.0			58.5			14.0			18.5	
Approach LOS		E			E			B			B	

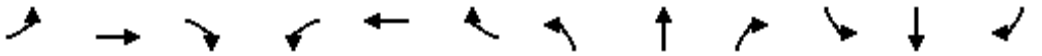
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.2	84.3		11.6	12.8	80.6		14.9				
Change Period (Y+Rc), s	4.0	6.0		4.9	4.0	* 6		4.0				
Max Green Setting (Gmax), s	16.0	54.0		15.1	16.0	* 54		16.0				
Max Q Clear Time (g_c+I1), s	6.0	17.2		6.8	9.0	37.5		10.7				
Green Ext Time (p_c), s	0.0	17.5		0.1	0.1	15.7		0.3				

Intersection Summary												
HCM 6th Ctrl Delay			20.1									
HCM 6th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	187	326	104	367	867	215	204	1249	192	199	2010	169
Future Volume (veh/h)	187	326	104	367	867	215	204	1249	192	199	2010	169
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	187	326	17	367	867	99	204	1249	0	199	2010	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	233	485	212	344	1340	411	207	2399		246	2455	
Arrive On Green	0.07	0.14	0.14	0.19	0.26	0.26	0.06	0.47	0.00	0.07	0.48	0.00
Sat Flow, veh/h	3456	3554	1550	1781	5106	1567	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	187	326	17	367	867	99	204	1249	0	199	2010	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1550	1781	1702	1567	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	8.0	13.1	1.4	29.0	22.6	7.5	8.8	25.8	0.0	8.5	50.6	0.0
Cycle Q Clear(g_c), s	8.0	13.1	1.4	29.0	22.6	7.5	8.8	25.8	0.0	8.5	50.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	233	485	212	344	1340	411	207	2399		246	2455	
V/C Ratio(X)	0.80	0.67	0.08	1.07	0.65	0.24	0.98	0.52		0.81	0.82	
Avail Cap(c_a), veh/h	299	853	372	344	1770	543	207	2399		323	2455	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	69.0	61.6	56.5	60.5	49.2	43.6	70.4	27.9	0.0	68.7	33.3	0.0
Incr Delay (d2), s/veh	8.8	2.0	0.2	67.0	0.7	0.4	57.6	0.3	0.0	8.4	3.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	5.9	0.6	19.1	9.5	2.9	5.5	10.2	0.0	4.0	20.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.8	63.6	56.7	127.5	49.8	43.9	128.0	28.2	0.0	77.1	36.5	0.0
LnGrp LOS	E	E	E	F	D	D	F	C		E	D	
Approach Vol, veh/h		530			1333			1453	A		2209	A
Approach Delay, s/veh		68.4			70.8			42.2			40.2	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	77.8	14.1	45.1	14.7	76.2	33.0	26.2
Change Period (Y+Rc), s	4.0	5.7	4.0	5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	9.0	56.6	13.0	52.0	14.0	51.6	29.0	36.0
Max Q Clear Time (g_c+I1), s	10.8	52.6	10.0	24.6	10.5	27.8	31.0	15.1
Green Ext Time (p_c), s	0.0	3.7	0.1	6.1	0.1	11.0	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	50.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	5	26	27	1	18	42	1642	12	21	2435	13
Future Volume (veh/h)	26	5	26	27	1	18	42	1642	12	21	2435	13
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	26	5	26	27	1	18	42	1642	12	21	2435	13
Adj No. of Lanes	0	1	0	0	1	0	1	3	0	1	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	69	15	41	83	10	35	68	3135	23	48	3142	17
Arrive On Green	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.60	0.60	0.03	0.60	0.60
Sat Flow, veh/h	620	269	746	818	191	648	1774	5208	38	1774	5220	28
Grp Volume(v), veh/h	57	0	0	46	0	0	42	1069	585	21	1581	867
Grp Sat Flow(s),veh/h/ln	1635	0	0	1656	0	0	1774	1695	1856	1774	1695	1858
Q Serve(g_s), s	1.1	0.0	0.0	0.0	0.0	0.0	3.5	27.5	27.5	1.7	52.2	52.3
Cycle Q Clear(g_c), s	4.9	0.0	0.0	3.7	0.0	0.0	3.5	27.5	27.5	1.7	52.2	52.3
Prop In Lane	0.46		0.46	0.59		0.39	1.00		0.02	1.00		0.01
Lane Grp Cap(c), veh/h	124	0	0	128	0	0	68	2041	1117	48	2041	1118
V/C Ratio(X)	0.46	0.00	0.00	0.36	0.00	0.00	0.61	0.52	0.52	0.43	0.77	0.78
Avail Cap(c_a), veh/h	424	0	0	418	0	0	106	2041	1117	95	2041	1118
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.3	0.0	0.0	68.8	0.0	0.0	71.0	17.4	17.4	71.8	22.3	22.3
Incr Delay (d2), s/veh	2.6	0.0	0.0	1.7	0.0	0.0	3.3	1.0	1.8	2.3	2.0	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.0	1.9	0.0	0.0	1.8	13.0	14.5	0.9	24.9	27.9
LnGrp Delay(d),s/veh	71.9	0.0	0.0	70.5	0.0	0.0	74.3	18.3	19.1	74.1	24.3	25.9
LnGrp LOS	E			E			E	B	B	E	C	C
Approach Vol, veh/h		57			46			1696			2469	
Approach Delay, s/veh		71.9			70.5			20.0			25.3	
Approach LOS		E			E			B			C	

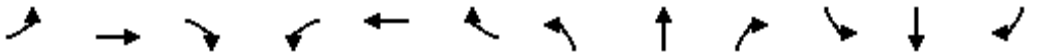
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.8	96.0		12.2	9.8	96.0		12.2
Change Period (Y+Rc), s	4.0	5.7		4.0	5.7	* 5.7		4.0
Max Green Setting (Gmax), s	9.0	89.3		38.0	8.0	* 90		38.0
Max Q Clear Time (g_c+I1), s	5.5	54.3		6.9	3.7	29.5		5.7
Green Ext Time (p_c), s	0.0	24.1		0.2	0.0	15.9		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	24.3
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	100	170	255	272	145	261	1847	90	71	2376	39
Future Volume (veh/h)	118	100	170	255	272	145	261	1847	90	71	2376	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	118	100	33	255	272	0	261	1847	0	71	2376	38
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	140	391	172	276	396		305	3300		112	3056	49
Arrive On Green	0.08	0.11	0.11	0.08	0.11	0.00	0.09	0.65	0.00	0.03	0.59	0.59
Sat Flow, veh/h	1781	3554	1563	3456	3554	1585	3456	5106	1585	3456	5177	83
Grp Volume(v), veh/h	118	100	33	255	272	0	261	1847	0	71	1561	853
Grp Sat Flow(s),veh/h/ln	1781	1777	1563	1728	1777	1585	1728	1702	1585	1728	1702	1855
Q Serve(g_s), s	9.8	3.9	2.9	11.0	11.0	0.0	11.2	30.1	0.0	3.0	52.0	52.4
Cycle Q Clear(g_c), s	9.8	3.9	2.9	11.0	11.0	0.0	11.2	30.1	0.0	3.0	52.0	52.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	140	391	172	276	396		305	3300		112	2009	1095
V/C Ratio(X)	0.84	0.26	0.19	0.92	0.69		0.86	0.56		0.64	0.78	0.78
Avail Cap(c_a), veh/h	190	931	410	276	836		323	3300		299	2009	1095
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.2	61.1	60.7	68.5	64.1	0.0	67.4	14.7	0.0	71.7	23.2	23.3
Incr Delay (d2), s/veh	16.8	0.5	0.7	33.7	2.8	0.0	17.9	0.7	0.0	2.2	3.0	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	1.8	1.2	6.2	5.2	0.0	5.6	11.2	0.0	1.4	20.7	23.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.0	61.6	61.4	102.3	66.9	0.0	85.3	15.4	0.0	73.9	26.3	28.8
LnGrp LOS	F	E	E	F	E		F	B		E	C	C
Approach Vol, veh/h		251			527	A		2108	A		2485	
Approach Delay, s/veh		72.6			84.0			24.0			28.5	
Approach LOS		E			F			C			C	

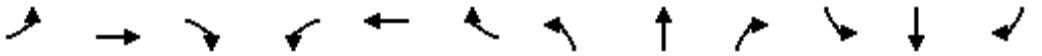
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.8	22.4	8.8	102.9	16.0	22.2	17.2	94.5
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	16.0	35.3	13.0	66.0	12.0	39.3	14.0	65.0
Max Q Clear Time (g_c+I1), s	11.8	13.0	5.0	32.1	13.0	5.9	13.2	54.4
Green Ext Time (p_c), s	0.1	1.6	0.1	15.3	0.0	0.8	0.1	8.7

Intersection Summary	
HCM 6th Ctrl Delay	34.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	144	139	364	29	827	94	974	201	339	995	11
Future Volume (veh/h)	106	144	139	364	29	827	94	974	201	339	995	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	106	144	21	364	0	282	94	974	78	339	995	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	371	201	170	493	0	438	179	1409	629	437	1502	670
Arrive On Green	0.11	0.11	0.11	0.14	0.00	0.14	0.10	0.40	0.40	0.13	0.42	0.42
Sat Flow, veh/h	3456	1870	1585	3563	0	3170	1781	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	106	144	21	364	0	282	94	974	78	339	995	5
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1781	0	1585	1781	1777	1585	1728	1777	1585
Q Serve(g_s), s	2.2	5.8	0.9	7.6	0.0	6.5	3.9	17.7	2.4	7.4	17.5	0.1
Cycle Q Clear(g_c), s	2.2	5.8	0.9	7.6	0.0	6.5	3.9	17.7	2.4	7.4	17.5	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	371	201	170	493	0	438	179	1409	629	437	1502	670
V/C Ratio(X)	0.29	0.72	0.12	0.74	0.00	0.64	0.53	0.69	0.12	0.78	0.66	0.01
Avail Cap(c_a), veh/h	888	481	407	916	0	815	458	2147	958	888	2695	1202
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.0	33.6	31.4	32.2	0.0	31.7	33.2	19.5	14.9	32.9	18.0	13.0
Incr Delay (d2), s/veh	0.2	1.8	0.1	0.8	0.0	0.6	0.9	0.8	0.1	1.1	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.7	0.4	3.2	0.0	2.5	1.7	7.0	0.9	2.9	6.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	35.4	31.5	33.0	0.0	32.3	34.1	20.4	15.0	34.0	18.7	13.0
LnGrp LOS	C	D	C	C	A	C	C	C	B	C	B	B
Approach Vol, veh/h		271			646			1146			1339	
Approach Delay, s/veh		33.8			32.7			21.1			22.6	
Approach LOS		C			C			C			C	

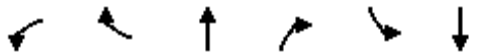
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.8	36.9		12.3	11.8	38.9		14.8				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	47.0		20.0	20.0	59.0		20.0				
Max Q Clear Time (g_c+I1), s	9.4	19.7		7.8	5.9	19.5		9.6				
Green Ext Time (p_c), s	0.5	11.1		0.6	0.1	10.9		1.1				

Intersection Summary			
HCM 6th Ctrl Delay		24.9	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



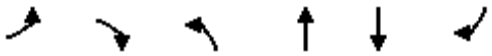
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	150	52	633	83	88	920
Future Volume (veh/h)	150	52	633	83	88	920
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	150	52	633	83	88	920
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	322	287	1311	585	168	2007
Arrive On Green	0.18	0.18	0.37	0.37	0.09	0.56
Sat Flow, veh/h	1781	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	150	52	633	83	88	920
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1781	1777
Q Serve(g_s), s	3.0	1.1	5.4	1.4	1.9	6.0
Cycle Q Clear(g_c), s	3.0	1.1	5.4	1.4	1.9	6.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	322	287	1311	585	168	2007
V/C Ratio(X)	0.47	0.18	0.48	0.14	0.52	0.46
Avail Cap(c_a), veh/h	1132	1008	3163	1411	906	3163
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.4	13.6	9.5	8.3	17.0	5.0
Incr Delay (d2), s/veh	1.0	0.3	0.5	0.2	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.3	1.6	0.4	0.7	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.4	13.9	10.1	8.5	17.9	5.3
LnGrp LOS	B	B	B	A	B	A
Approach Vol, veh/h	202		716			1008
Approach Delay, s/veh	15.1		9.9			6.4
Approach LOS	B		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.7	20.5			28.2	11.1
Change Period (Y+Rc), s	4.0	6.0			6.0	4.0
Max Green Setting (Gmax), s	20.0	35.0			35.0	25.0
Max Q Clear Time (g_c+I1), s	3.9	7.4			8.0	5.0
Green Ext Time (p_c), s	0.1	7.1			9.7	0.7

Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Notes

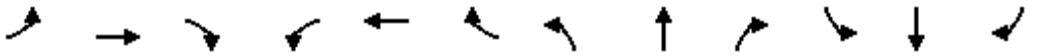
User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	86	653	403	531	1046	99
Future Volume (veh/h)	86	653	403	531	1046	99
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	86	276	403	531	1046	35
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	360	321	448	2377	1254	559
Arrive On Green	0.20	0.20	0.25	0.67	0.35	0.35
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	86	276	403	531	1046	35
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	3.1	13.0	17.0	4.5	20.9	1.1
Cycle Q Clear(g_c), s	3.1	13.0	17.0	4.5	20.9	1.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	360	321	448	2377	1254	559
V/C Ratio(X)	0.24	0.86	0.90	0.22	0.83	0.06
Avail Cap(c_a), veh/h	482	429	528	2703	1420	634
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.9	29.9	28.1	5.0	23.0	16.6
Incr Delay (d2), s/veh	0.3	12.7	16.6	0.0	4.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	11.8	9.0	1.3	8.9	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.3	42.6	44.6	5.0	27.0	16.7
LnGrp LOS	C	D	D	A	C	B
Approach Vol, veh/h	362			934	1081	
Approach Delay, s/veh	38.7			22.1	26.7	
Approach LOS	D			C	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		56.9		20.7	24.5	32.4
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		59.0		21.0	23.0	31.0
Max Q Clear Time (g_c+I1), s		6.5		15.0	19.0	22.9
Green Ext Time (p_c), s		4.1		0.6	0.5	4.4

Intersection Summary		
HCM 6th Ctrl Delay		26.7
HCM 6th LOS		C



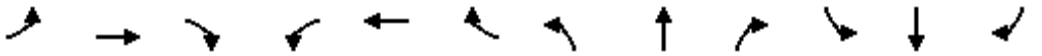
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	4	14	190	6	227	11	926	86	186	1755	26
Future Volume (veh/h)	8	4	14	190	6	227	11	926	86	186	1755	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	4	2	190	6	74	11	926	82	186	1755	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	52	23	6	257	7	306	31	1671	148	209	2176	31
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.02	0.51	0.51	0.12	0.61	0.61
Sat Flow, veh/h	73	117	32	1077	34	1573	1781	3301	292	1781	3587	51
Grp Volume(v), veh/h	14	0	0	196	0	74	11	498	510	186	868	912
Grp Sat Flow(s),veh/h/ln	221	0	0	1111	0	1573	1781	1777	1816	1781	1777	1861
Q Serve(g_s), s	0.2	0.0	0.0	0.0	0.0	6.0	0.9	28.9	28.9	15.4	56.3	56.7
Cycle Q Clear(g_c), s	26.9	0.0	0.0	26.6	0.0	6.0	0.9	28.9	28.9	15.4	56.3	56.7
Prop In Lane	0.57		0.14	0.97		1.00	1.00		0.16	1.00		0.03
Lane Grp Cap(c), veh/h	81	0	0	263	0	306	31	900	919	209	1078	1129
V/C Ratio(X)	0.17	0.00	0.00	0.74	0.00	0.24	0.36	0.55	0.55	0.89	0.81	0.81
Avail Cap(c_a), veh/h	158	0	0	338	0	388	95	900	919	309	1078	1129
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.2	0.0	0.0	59.4	0.0	51.1	72.9	25.4	25.4	65.2	22.7	22.8
Incr Delay (d2), s/veh	0.4	0.0	0.0	4.4	0.0	0.2	2.6	1.0	1.0	14.3	6.4	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	7.7	0.0	2.4	0.4	11.9	12.1	7.7	23.3	24.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.5	0.0	0.0	63.8	0.0	51.2	75.5	26.4	26.4	79.5	29.1	29.0
LnGrp LOS	D	A	A	E	A	D	E	C	C	E	C	C
Approach Vol, veh/h		14			270			1019			1966	
Approach Delay, s/veh		51.5			60.3			26.9			33.8	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.6	81.9		33.2	6.6	97.0		33.2				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	26.0	73.0		37.0	8.0	91.0		37.0				
Max Q Clear Time (g_c+I1), s	17.4	30.9		28.9	2.9	58.7		28.6				
Green Ext Time (p_c), s	0.2	25.0		0.0	0.0	30.7		0.5				

Intersection Summary		
HCM 6th Ctrl Delay		33.9
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	0	32	39	3	23	63	887	16	12	1839	65
Future Volume (veh/h)	72	0	32	39	3	23	63	887	16	12	1839	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	72	0	3	39	3	2	63	887	10	12	1839	63
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	0	119	108	8	102	110	948	421	660	2096	71
Arrive On Green	0.08	0.00	0.08	0.07	0.07	0.07	0.06	0.27	0.27	0.37	0.60	0.60
Sat Flow, veh/h	1781	0	1585	1660	128	1564	1781	3554	1579	1781	3506	119
Grp Volume(v), veh/h	72	0	3	42	0	2	63	887	10	12	927	975
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1787	0	1564	1781	1777	1579	1781	1777	1849
Q Serve(g_s), s	3.5	0.0	0.2	2.0	0.0	0.1	3.1	22.0	0.4	0.4	39.5	40.4
Cycle Q Clear(g_c), s	3.5	0.0	0.2	2.0	0.0	0.1	3.1	22.0	0.4	0.4	39.5	40.4
Prop In Lane	1.00		1.00	0.93		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	134	0	119	117	0	102	110	948	421	660	1062	1105
V/C Ratio(X)	0.54	0.00	0.03	0.36	0.00	0.02	0.57	0.94	0.02	0.02	0.87	0.88
Avail Cap(c_a), veh/h	317	0	282	318	0	278	317	948	421	660	1062	1105
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	0.0	38.6	40.3	0.0	39.4	41.1	32.2	24.4	17.9	15.2	15.4
Incr Delay (d2), s/veh	1.2	0.0	0.0	0.7	0.0	0.0	1.8	17.3	0.1	0.0	8.6	9.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.1	0.9	0.0	0.0	1.3	10.7	0.2	0.1	14.2	15.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.3	0.0	38.6	41.0	0.0	39.4	42.8	49.6	24.5	17.9	23.8	24.4
LnGrp LOS	D	A	D	D	A	D	D	D	C	B	C	C
Approach Vol, veh/h		75			44			960			1914	
Approach Delay, s/veh		41.2			40.9			48.9			24.1	
Approach LOS		D			D			D			C	

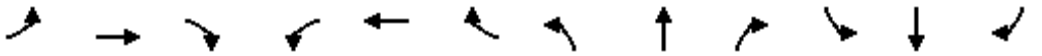
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	39.4	30.0		10.8	9.6	59.8		9.9				
Change Period (Y+Rc), s	6.0	* 6		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	16.0	* 24		16.0	16.0	24.0		16.0				
Max Q Clear Time (g_c+I1), s	2.4	24.0		5.5	5.1	42.4		4.0				
Green Ext Time (p_c), s	0.0	0.0		0.1	0.1	0.0		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		32.7
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	352	0	455	5	5	5	748	737	0	7	1247	612
Future Volume (veh/h)	352	0	455	5	5	5	748	737	0	7	1247	612
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	352	0	0	5	5	0	748	737	0	7	1247	612
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	441	0		39	41	0	818	2280	0	22	1483	661
Arrive On Green	0.12	0.00	0.00	0.02	0.02	0.00	0.24	0.64	0.00	0.01	0.42	0.42
Sat Flow, veh/h	3563	0	1585	1781	1870	0	3456	3647	0	1781	3554	1585
Grp Volume(v), veh/h	352	0	0	5	5	0	748	737	0	7	1247	612
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	1870	0	1728	1777	0	1781	1777	1585
Q Serve(g_s), s	8.6	0.0	0.0	0.2	0.2	0.0	19.0	8.4	0.0	0.4	28.3	33.0
Cycle Q Clear(g_c), s	8.6	0.0	0.0	0.2	0.2	0.0	19.0	8.4	0.0	0.4	28.3	33.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	441	0		39	41	0	818	2280	0	22	1483	661
V/C Ratio(X)	0.80	0.00		0.13	0.12	0.00	0.91	0.32	0.00	0.31	0.84	0.93
Avail Cap(c_a), veh/h	633	0		238	249	0	845	2280	0	238	1483	661
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	0.0	0.0	43.2	43.1	0.0	33.5	7.3	0.0	44.1	23.5	24.9
Incr Delay (d2), s/veh	2.9	0.0	0.0	0.5	0.5	0.0	13.7	0.4	0.0	3.0	4.7	19.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	0.0	0.1	0.1	0.0	9.3	2.9	0.0	0.2	11.1	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.2	0.0	0.0	43.7	43.6	0.0	47.2	7.7	0.0	47.0	28.2	44.1
LnGrp LOS	D	A		D	D	A	D	A	A	D	C	D
Approach Vol, veh/h		352	A		10			1485			1866	
Approach Delay, s/veh		41.2			43.7			27.6			33.5	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	63.7		15.1	25.3	43.6		6.0				
Change Period (Y+Rc), s	4.0	* 6		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	12.0	* 32		16.0	22.0	22.0		12.0				
Max Q Clear Time (g_c+I1), s	2.4	10.4		10.6	21.0	35.0		2.2				
Green Ext Time (p_c), s	0.0	5.2		0.5	0.3	0.0		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	31.9
HCM 6th LOS	C

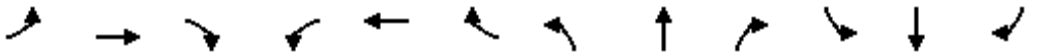
Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

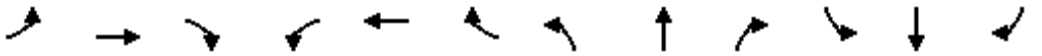
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	19	34	5	36	418	49	1127	5	187	1060	102
Future Volume (veh/h)	64	19	34	5	36	418	49	1127	5	187	1060	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	19	3	5	36	49	49	1127	2	187	1060	97
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	87	14	12	87	84	67	1475	658	235	1677	153
Arrive On Green	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.42	0.42	0.13	0.51	0.51
Sat Flow, veh/h	1781	1577	249	227	1632	1585	1781	3554	1585	1781	3292	301
Grp Volume(v), veh/h	64	0	22	41	0	49	49	1127	2	187	572	585
Grp Sat Flow(s),veh/h/ln	1781	0	1826	1859	0	1585	1781	1777	1585	1781	1777	1816
Q Serve(g_s), s	2.0	0.0	0.7	1.2	0.0	1.8	1.6	15.7	0.0	5.9	13.5	13.5
Cycle Q Clear(g_c), s	2.0	0.0	0.7	1.2	0.0	1.8	1.6	15.7	0.0	5.9	13.5	13.5
Prop In Lane	1.00		0.14	0.12		1.00	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	98	0	100	99	0	84	67	1475	658	235	905	925
V/C Ratio(X)	0.65	0.00	0.22	0.42	0.00	0.58	0.73	0.76	0.00	0.80	0.63	0.63
Avail Cap(c_a), veh/h	676	0	693	705	0	601	338	1839	820	338	919	940
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.9	0.0	26.2	26.6	0.0	26.8	27.6	14.5	9.9	24.4	10.3	10.3
Incr Delay (d2), s/veh	7.2	0.0	1.1	2.8	0.0	6.3	14.1	1.5	0.0	8.2	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.3	0.6	0.0	0.8	0.9	5.7	0.0	2.9	4.6	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	0.0	27.3	29.4	0.0	33.1	41.7	16.1	9.9	32.6	11.7	11.6
LnGrp LOS	C	A	C	C	A	C	D	B	A	C	B	B
Approach Vol, veh/h		86			90			1178			1344	
Approach Delay, s/veh		32.3			31.4			17.1			14.6	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.7	29.1		8.2	7.2	34.5		8.1				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	11.0	30.0		22.0	11.0	30.0		22.0				
Max Q Clear Time (g_c+I1), s	7.9	17.7		4.0	3.6	15.5		3.8				
Green Ext Time (p_c), s	0.1	6.3		0.2	0.0	6.8		0.3				

Intersection Summary												
HCM 6th Ctrl Delay			16.8									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	5	55	25	5	24	41	1611	32	71	1444	61
Future Volume (veh/h)	112	5	55	25	5	24	41	1611	32	71	1444	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	0	55	25	5	24	41	1611	32	71	1444	61
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	354	0	157	125	20	95	94	1902	848	125	1964	876
Arrive On Green	0.10	0.00	0.10	0.07	0.07	0.07	0.05	0.54	0.54	0.07	0.55	0.55
Sat Flow, veh/h	3563	0	1585	1781	281	1347	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	116	0	55	25	0	29	41	1611	32	71	1444	61
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1628	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.4	0.0	2.5	1.0	0.0	1.3	1.8	30.3	0.8	3.0	24.1	1.4
Cycle Q Clear(g_c), s	2.4	0.0	2.5	1.0	0.0	1.3	1.8	30.3	0.8	3.0	24.1	1.4
Prop In Lane	1.00		1.00	1.00		0.83	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	354	0	157	125	0	115	94	1902	848	125	1964	876
V/C Ratio(X)	0.33	0.00	0.35	0.20	0.00	0.25	0.44	0.85	0.04	0.57	0.74	0.07
Avail Cap(c_a), veh/h	905	0	403	453	0	414	453	2032	906	453	2032	906
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.0	0.0	33.1	34.5	0.0	34.6	36.1	15.5	8.7	35.4	13.3	8.2
Incr Delay (d2), s/veh	0.2	0.0	0.5	0.3	0.0	0.4	1.2	3.5	0.0	1.5	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	1.0	0.5	0.0	0.5	0.8	11.6	0.2	1.3	8.8	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.2	0.0	33.6	34.8	0.0	35.0	37.3	19.0	8.7	36.9	14.7	8.2
LnGrp LOS	C	A	C	C	A	D	D	B	A	D	B	A
Approach Vol, veh/h		171			54			1684			1576	
Approach Delay, s/veh		33.3			34.9			19.3			15.4	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.5	47.8		11.8	8.1	49.2		9.5				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	5.0	32.3		4.5	3.8	26.1		3.3				
Green Ext Time (p_c), s	0.1	9.8		0.2	0.0	12.3		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		18.5	
HCM 6th LOS		B	

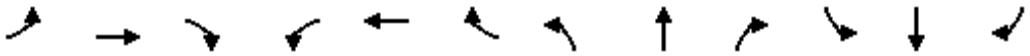
Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	1	8	8	1	5	10
Future Volume (veh/h)	1	8	8	1	5	10
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	8	8	1	5	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	31	27	76	64	15	674
Arrive On Green	0.02	0.02	0.04	0.04	0.01	0.36
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	1	8	8	1	5	10
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	0.0	0.1	0.1	0.0	0.0	0.1
Cycle Q Clear(g_c), s	0.0	0.1	0.1	0.0	0.0	0.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	31	27	76	64	15	674
V/C Ratio(X)	0.03	0.29	0.11	0.02	0.34	0.01
Avail Cap(c_a), veh/h	2330	2073	2562	2172	777	3960
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.8	7.8	7.4	7.4	7.9	3.3
Incr Delay (d2), s/veh	0.4	5.9	0.6	0.1	13.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	0.0	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.2	13.7	8.0	7.5	21.0	3.3
LnGrp LOS	A	B	A	A	C	A
Approach Vol, veh/h	9		9			15
Approach Delay, s/veh	13.0		8.0			9.2
Approach LOS	B		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.1	5.7			10.8	5.3
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	7.0	22.0			34.0	21.0
Max Q Clear Time (g_c+I1), s	2.0	2.1			2.1	2.1
Green Ext Time (p_c), s	0.0	0.0			0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	9.9
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	1422	73	96	1576	44	168	35	24	5	35	9
Future Volume (veh/h)	67	1422	73	96	1576	44	168	35	24	5	35	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	1422	73	96	1576	44	193	0	24	5	35	9
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	86	1802	804	126	1882	839	320	0	142	7	48	12
Arrive On Green	0.05	0.51	0.51	0.07	0.53	0.53	0.09	0.00	0.09	0.04	0.04	0.04
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3563	0	1585	184	1287	331
Grp Volume(v), veh/h	67	1422	73	96	1576	44	193	0	24	49	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1585	1802	0	0
Q Serve(g_s), s	2.2	19.7	1.4	3.2	22.5	0.8	3.1	0.0	0.8	1.6	0.0	0.0
Cycle Q Clear(g_c), s	2.2	19.7	1.4	3.2	22.5	0.8	3.1	0.0	0.8	1.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.10		0.18
Lane Grp Cap(c), veh/h	86	1802	804	126	1882	839	320	0	142	67	0	0
V/C Ratio(X)	0.78	0.79	0.09	0.76	0.84	0.05	0.60	0.00	0.17	0.73	0.00	0.00
Avail Cap(c_a), veh/h	446	1802	804	594	2075	926	892	0	397	451	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	28.2	12.1	7.6	27.4	11.9	6.8	26.3	0.0	25.2	28.6	0.0	0.0
Incr Delay (d2), s/veh	5.7	2.6	0.1	3.6	3.1	0.0	0.7	0.0	0.2	5.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	6.2	0.4	1.3	6.8	0.2	1.3	0.0	0.3	0.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.9	14.7	7.7	31.0	15.0	6.9	26.9	0.0	25.4	34.1	0.0	0.0
LnGrp LOS	C	B	A	C	B	A	C	A	C	C	A	A
Approach Vol, veh/h		1562			1716			217			49	
Approach Delay, s/veh		15.2			15.7			26.8			34.1	
Approach LOS		B			B			C			C	

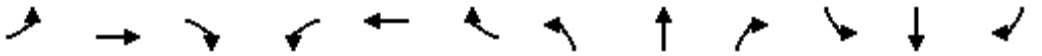
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.4	8.2	36.1		6.2	6.9	37.4				
Change Period (Y+Rc), s		4.0	4.0	5.7		4.0	4.0	5.7				
Max Green Setting (Gmax), s		15.0	20.0	30.0		15.0	15.0	35.0				
Max Q Clear Time (g_c+I1), s		5.1	5.2	21.7		3.6	4.2	24.5				
Green Ext Time (p_c), s		0.4	0.1	5.7		0.0	0.1	7.3				

Intersection Summary		
HCM 6th Ctrl Delay		16.4
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	863	164	117	1025	35	139	35	68	26	37	73
Future Volume (veh/h)	75	863	164	117	1025	35	139	35	68	26	37	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	75	863	164	117	1025	35	87	108	68	26	37	73
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	97	1604	716	153	1716	766	168	177	150	134	141	120
Arrive On Green	0.05	0.45	0.45	0.09	0.48	0.48	0.09	0.09	0.09	0.08	0.08	0.08
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	75	863	164	117	1025	35	87	108	68	26	37	73
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	2.5	10.8	3.9	3.9	12.8	0.7	2.8	3.4	2.5	0.8	1.1	2.7
Cycle Q Clear(g_c), s	2.5	10.8	3.9	3.9	12.8	0.7	2.8	3.4	2.5	0.8	1.1	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	97	1604	716	153	1716	766	168	177	150	134	141	120
V/C Ratio(X)	0.78	0.54	0.23	0.76	0.60	0.05	0.52	0.61	0.45	0.19	0.26	0.61
Avail Cap(c_a), veh/h	437	1743	778	583	2034	907	583	612	518	437	459	389
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.5	12.2	10.3	27.3	11.5	8.4	26.4	26.6	26.2	26.5	26.7	27.4
Incr Delay (d2), s/veh	4.9	0.4	0.3	3.0	0.5	0.0	0.9	1.3	0.8	0.7	1.0	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.4	1.1	1.6	3.9	0.2	1.1	1.4	0.9	0.4	0.5	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	12.6	10.5	30.3	12.0	8.4	27.3	27.9	27.0	27.2	27.6	32.3
LnGrp LOS	C	B	B	C	B	A	C	C	C	C	C	C
Approach Vol, veh/h		1102			1177			263			136	
Approach Delay, s/veh		13.7			13.7			27.5			30.1	
Approach LOS		B			B			C			C	

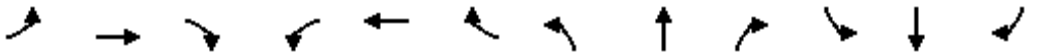
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.8	9.3	32.9		9.2	7.3	34.8				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.6	4.0	5.3				
Max Green Setting (Gmax), s		20.0	20.0	30.0		15.0	15.0	35.0				
Max Q Clear Time (g_c+I1), s		5.4	5.9	12.8		4.7	4.5	14.8				
Green Ext Time (p_c), s		0.5	0.2	12.0		0.4	0.1	14.7				

Intersection Summary	
HCM 6th Ctrl Delay	15.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	877	70	48	854	6	183	41	13	4	35	76
Future Volume (veh/h)	83	877	70	48	854	6	183	41	13	4	35	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	83	877	70	48	854	6	118	131	13	4	35	76
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	107	1648	735	59	1553	692	223	209	21	14	118	112
Arrive On Green	0.06	0.46	0.46	0.03	0.44	0.44	0.12	0.12	0.12	0.07	0.07	0.07
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1674	166	191	1670	1585
Grp Volume(v), veh/h	83	877	70	48	854	6	118	0	144	39	0	76
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1840	1861	0	1585
Q Serve(g_s), s	2.6	9.9	1.4	1.5	10.0	0.1	3.5	0.0	4.2	1.1	0.0	2.6
Cycle Q Clear(g_c), s	2.6	9.9	1.4	1.5	10.0	0.1	3.5	0.0	4.2	1.1	0.0	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.09	0.10		1.00
Lane Grp Cap(c), veh/h	107	1648	735	59	1553	692	223	0	230	132	0	112
V/C Ratio(X)	0.77	0.53	0.10	0.81	0.55	0.01	0.53	0.00	0.63	0.30	0.00	0.68
Avail Cap(c_a), veh/h	474	1892	844	474	1892	844	790	0	817	495	0	422
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.1	10.8	8.5	27.1	11.8	9.0	23.1	0.0	23.4	24.8	0.0	25.5
Incr Delay (d2), s/veh	4.4	0.4	0.1	9.3	0.5	0.0	2.0	0.0	2.8	0.5	0.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.9	0.4	0.8	3.4	0.0	1.5	0.0	1.9	0.5	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.5	11.2	8.6	36.4	12.2	9.0	25.1	0.0	26.2	25.3	0.0	28.2
LnGrp LOS	C	B	A	D	B	A	C	A	C	C	A	C
Approach Vol, veh/h		1030			908			262			115	
Approach Delay, s/veh		12.6			13.5			25.7			27.2	
Approach LOS		B			B			C			C	

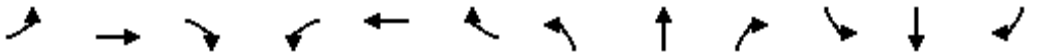
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		11.0	5.9	31.4		8.0	7.4	29.9				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.0	4.0	5.3				
Max Green Setting (Gmax), s		25.0	15.0	30.0		15.0	15.0	30.0				
Max Q Clear Time (g_c+I1), s		6.2	3.5	11.9		4.6	4.6	12.0				
Green Ext Time (p_c), s		1.0	0.0	12.2		0.2	0.1	12.6				

Intersection Summary	
HCM 6th Ctrl Delay	15.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	557	345	46	389	49	389	58	37	49	58	47
Future Volume (veh/h)	32	557	345	46	389	49	389	58	37	49	58	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	32	557	345	46	389	49	430	0	37	49	58	47
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	193	1036	754	53	674	301	655	0	291	72	85	136
Arrive On Green	0.12	0.32	0.32	0.03	0.21	0.21	0.20	0.00	0.20	0.10	0.10	0.10
Sat Flow, veh/h	1603	3198	1427	1603	3198	1427	3206	0	1427	754	892	1427
Grp Volume(v), veh/h	32	557	345	46	389	49	430	0	37	107	0	47
Grp Sat Flow(s),veh/h/ln	1603	1599	1427	1603	1599	1427	1603	0	1427	1646	0	1427
Q Serve(g_s), s	0.9	7.2	7.6	1.4	5.5	1.4	6.2	0.0	1.1	3.2	0.0	1.6
Cycle Q Clear(g_c), s	0.9	7.2	7.6	1.4	5.5	1.4	6.2	0.0	1.1	3.2	0.0	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.46		1.00
Lane Grp Cap(c), veh/h	193	1036	754	53	674	301	655	0	291	157	0	136
V/C Ratio(X)	0.17	0.54	0.46	0.87	0.58	0.16	0.66	0.00	0.13	0.68	0.00	0.34
Avail Cap(c_a), veh/h	636	1905	1141	636	1905	850	1591	0	708	653	0	566
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.9	13.9	7.4	24.3	17.9	16.3	18.4	0.0	16.4	22.0	0.0	21.3
Incr Delay (d2), s/veh	0.1	0.7	0.7	15.0	1.2	0.4	1.1	0.0	0.2	1.9	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.2	2.9	0.7	1.8	0.4	2.2	0.0	0.3	1.2	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.0	14.6	8.1	39.3	19.1	16.7	19.5	0.0	16.6	24.0	0.0	21.9
LnGrp LOS	C	B	A	D	B	B	B	A	B	C	A	C
Approach Vol, veh/h		934			484			467			154	
Approach Delay, s/veh		12.4			20.8			19.3			23.3	
Approach LOS		B			C			B			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		14.3	5.7	21.6		8.8	11.4	15.9				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.0	5.3	* 5.3				
Max Green Setting (Gmax), s		25.0	20.0	30.0		20.0	20.0	* 30				
Max Q Clear Time (g_c+I1), s		8.2	3.4	9.6		5.2	2.9	7.5				
Green Ext Time (p_c), s		2.1	0.0	6.7		0.3	0.0	3.1				

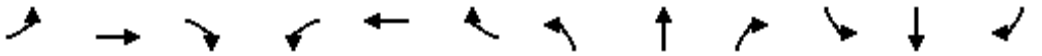
Intersection Summary		
HCM 6th Ctrl Delay		16.8
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	27	77	14	9	5	67	1564	11	13	921	189
Future Volume (veh/h)	265	27	77	14	9	5	67	1564	11	13	921	189
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1864	1864	1864	1870	1870	1870	1776	1776	1776	2027	2027	2027
Adj Flow Rate, veh/h	265	27	77	14	9	5	67	1564	11	13	921	189
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	311	77	218	128	47	26	101	2495	773	37	2623	812
Arrive On Green	0.17	0.18	0.18	0.04	0.04	0.04	0.06	0.51	0.51	0.02	0.47	0.47
Sat Flow, veh/h	1776	426	1215	3456	1128	627	1692	4849	1502	1931	5535	1714
Grp Volume(v), veh/h	265	0	104	14	0	14	67	1564	11	13	921	189
Grp Sat Flow(s),veh/h/ln	1776	0	1641	1728	0	1754	1692	1616	1502	1931	1845	1714
Q Serve(g_s), s	11.0	0.0	4.2	0.3	0.0	0.6	3.0	17.6	0.3	0.5	8.0	1.9
Cycle Q Clear(g_c), s	11.0	0.0	4.2	0.3	0.0	0.6	3.0	17.6	0.3	0.5	8.0	1.9
Prop In Lane	1.00		0.74	1.00		0.36	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	311	0	295	128	0	73	101	2495	773	37	2623	812
V/C Ratio(X)	0.85	0.00	0.35	0.11	0.00	0.19	0.66	0.63	0.01	0.36	0.35	0.23
Avail Cap(c_a), veh/h	467	0	431	908	0	461	445	2549	790	507	2909	901
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.4	0.0	27.3	35.4	0.0	35.2	35.0	13.2	9.0	36.9	12.6	1.8
Incr Delay (d2), s/veh	6.3	0.0	0.6	0.1	0.0	0.5	2.8	0.8	0.0	2.2	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.0	1.6	0.1	0.0	0.3	1.2	5.0	0.1	0.2	2.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.8	0.0	27.9	35.6	0.0	35.7	37.8	14.0	9.0	39.0	12.8	2.2
LnGrp LOS	D	A	C	D	A	D	D	B	A	D	B	A
Approach Vol, veh/h		369			28			1642			1123	
Approach Delay, s/veh		34.3			35.6			14.9			11.3	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.4	44.9	6.8	19.0	8.5	41.8	18.6	7.2
Change Period (Y+Rc), s	4.0	5.7	4.0	5.3	4.0	5.7	5.3	* 4
Max Green Setting (Gmax), s	20.0	40.0	20.0	20.0	20.0	40.0	20.0	* 20
Max Q Clear Time (g_c+I1), s	2.5	19.6	2.3	6.2	5.0	10.0	13.0	2.6
Green Ext Time (p_c), s	0.0	19.6	0.0	0.5	0.1	22.8	0.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	16.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 169 **Stanford Ranch Rd/Fairway Dr** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	187	145	77.6%	103.1	6.4	F
	Through	1,664	1,270	76.3%	7.7	0.8	A
	Right Turn	234	182	77.8%	5.9	0.4	A
	Subtotal	2,085	1,597	76.6%	16.2	1.3	B
SB	Left Turn	56	46	81.4%	77.7	15.7	E
	Through	996	951	95.5%	33.5	14.8	C
	Right Turn	67	72	108.1%	7.8	3.7	A
	Subtotal	1,119	1,069	95.5%	33.6	13.7	C
EB	Left Turn	86	88	101.9%	68.9	8.2	E
	Through	384	407	106.0%	53.6	6.6	D
	Right Turn	299	316	105.8%	32.4	13.5	C
	Subtotal	769	811	105.5%	47.0	6.6	D
WB	Left Turn	188	178	94.7%	66.1	5.7	E
	Through	191	202	106.0%	43.9	8.0	D
	Right Turn	19	21	109.5%	38.0	21.3	D
	Subtotal	398	401	100.8%	53.8	5.9	D
Total		4,371	3,878	88.7%	31.2	4.8	C

Intersection 170 **Stanford Ranch Rd/Five Star Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	836	557	66.7%	82.8	5.6	F
	Through	1,929	1,392	72.2%	35.6	1.6	D
	Right Turn	435	332	76.2%	13.0	1.4	B
	Subtotal	3,200	2,281	71.3%	43.9	2.7	D
SB	Left Turn	61	62	101.6%	85.4	15.9	F
	Through	1,416	1,448	102.2%	72.3	15.3	E
	Right Turn	124	124	100.0%	32.3	9.9	C
	Subtotal	1,601	1,634	102.0%	69.8	14.5	E
EB	Left Turn	164	156	95.4%	86.6	13.4	F
	Through	129	137	106.0%	95.9	15.5	F
	Right Turn	363	354	97.4%	42.2	5.3	D
	Subtotal	656	647	98.6%	64.5	7.5	E
WB	Left Turn	385	413	107.2%	53.4	3.5	D
	Through	108	115	106.7%	53.0	8.3	D
	Right Turn	82	86	105.4%	30.4	5.0	C
	Subtotal	575	614	106.9%	50.0	3.1	D
Total		6,032	5,176	85.8%	55.4	5.3	E

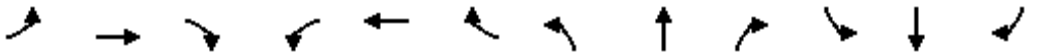
SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 171 **Stanford Ranch Rd/SR 65 NB Ramps** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	804	682	84.8%	43.7	15.2	D
	Through	1,616	1,296	80.2%	110.0	31.0	F
	Right Turn						
	Subtotal	2,420	1,978	81.7%	87.4	26.1	F
SB	Left Turn						
	Through	1,969	2,002	101.7%	35.0	11.2	C
	Right Turn	324	297	91.6%	22.7	5.5	C
	Subtotal	2,293	2,299	100.3%	33.4	10.6	C
EB	Left Turn						
	Through						
	Right Turn	444	430	96.8%	3.0	1.4	A
	Subtotal	444	430	96.8%	3.0	1.4	A
WB	Left Turn						
	Through						
	Right Turn	1,764	1,281	72.6%	300.8	54.2	F
	Subtotal	1,764	1,281	72.6%	300.8	54.2	F
Total		6,921	5,988	86.5%	106.2	10.4	F

Intersection 172 **Galleria Blvd/SR 65 SB Ramps** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	2,222	1,974	88.8%	40.1	12.5	D
	Right Turn	830	730	87.9%	43.7	5.3	D
	Subtotal	3,052	2,703	88.6%	41.2	10.0	D
SB	Left Turn	1,017	975	95.9%	52.0	15.9	D
	Through	1,396	1,375	98.5%	27.5	3.3	C
	Right Turn						
	Subtotal	2,413	2,350	97.4%	37.6	7.3	D
EB	Left Turn						
	Through						
	Right Turn	1,148	1,126	98.1%	9.1	1.3	A
	Subtotal	1,148	1,126	98.1%	9.1	1.3	A
WB	Left Turn						
	Through						
	Right Turn	198	193	97.4%	2.2	0.1	A
	Subtotal	198	193	97.4%	2.2	0.1	A
Total		6,811	6,372	93.6%	33.0	5.2	C



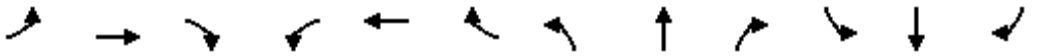
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	68	5	5	8	5	102	123	5	5	322	5
Future Volume (veh/h)	5	68	5	5	8	5	102	123	5	5	322	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	68	5	5	8	5	102	123	5	5	322	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	6	88	6	7	11	7	128	1252	51	7	536	8
Arrive On Green	0.05	0.05	0.05	0.01	0.01	0.01	0.07	0.36	0.36	0.00	0.29	0.29
Sat Flow, veh/h	118	1607	118	488	781	488	1781	3481	141	1781	1837	29
Grp Volume(v), veh/h	78	0	0	18	0	0	102	62	66	5	0	327
Grp Sat Flow(s),veh/h/ln	1843	0	0	1758	0	0	1781	1777	1845	1781	0	1865
Q Serve(g_s), s	1.2	0.0	0.0	0.3	0.0	0.0	1.6	0.7	0.7	0.1	0.0	4.2
Cycle Q Clear(g_c), s	1.2	0.0	0.0	0.3	0.0	0.0	1.6	0.7	0.7	0.1	0.0	4.2
Prop In Lane	0.06		0.06	0.28		0.28	1.00		0.08	1.00		0.02
Lane Grp Cap(c), veh/h	100	0	0	25	0	0	128	639	664	7	0	544
V/C Ratio(X)	0.78	0.00	0.00	0.73	0.00	0.00	0.79	0.10	0.10	0.69	0.00	0.60
Avail Cap(c_a), veh/h	1308	0	0	499	0	0	1264	2522	2619	506	0	2317
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.2	0.0	0.0	13.8	0.0	0.0	12.9	6.0	6.0	14.0	0.0	8.6
Incr Delay (d2), s/veh	4.8	0.0	0.0	14.3	0.0	0.0	4.2	0.1	0.1	34.9	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.2	0.0	0.0	0.6	0.1	0.2	0.1	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.9	0.0	0.0	28.2	0.0	0.0	17.0	6.1	6.1	48.9	0.0	9.6
LnGrp LOS	B	A	A	C	A	A	B	A	A	D	A	A
Approach Vol, veh/h		78			18			230			332	
Approach Delay, s/veh		17.9			28.2			10.9			10.2	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.1	14.1		4.4	6.0	12.2		5.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	8.0	40.0		8.0	20.0	35.0		20.0				
Max Q Clear Time (g_c+I1), s	2.1	2.7		2.3	3.6	6.2		3.2				
Green Ext Time (p_c), s	0.0	0.7		0.0	0.1	2.0		0.2				

Intersection Summary			
HCM 6th Ctrl Delay		11.9	
HCM 6th LOS		B	

Intersection 174 **Galleria Blvd/Antelope Creek Dr** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	120	93	77.3%	48.6	10.4	D
	Through	2,063	1,746	84.6%	28.2	19.5	C
	Right Turn	203	172	84.5%	10.7	4.6	B
	Subtotal	2,386	2,010	84.2%	27.6	17.5	C
SB	Left Turn	240	243	101.2%	69.8	22.1	E
	Through	1,996	2,071	103.8%	32.4	14.2	C
	Right Turn	208	209	100.4%	4.6	2.0	A
	Subtotal	2,444	2,523	103.2%	33.7	13.4	C
EB	Left Turn	526	542	103.0%	62.6	10.3	E
	Through	52	45	86.2%	58.1	12.1	E
	Right Turn	122	120	98.0%	2.6	1.2	A
	Subtotal	700	706	100.9%	52.3	8.7	D
WB	Left Turn	216	185	85.7%	72.4	8.2	E
	Through	66	53	80.0%	64.8	9.6	E
	Right Turn	309	312	101.0%	2.6	0.3	A
	Subtotal	591	550	93.1%	32.0	3.7	C
Total		6,121	5,789	94.6%	33.6	6.8	C



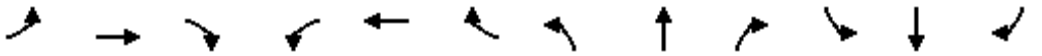
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	5	222	62	12	6	175	1769	9	52	1518	72
Future Volume (veh/h)	91	5	222	62	12	6	175	1769	9	52	1518	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	91	5	222	62	12	6	175	1769	9	52	1518	72
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	264	14	247	106	21	112	205	2051	10	86	1774	791
Arrive On Green	0.16	0.16	0.16	0.07	0.07	0.07	0.11	0.57	0.57	0.05	0.50	0.50
Sat Flow, veh/h	1693	93	1585	1504	291	1585	1781	3625	18	1781	3554	1585
Grp Volume(v), veh/h	96	0	222	74	0	6	175	866	912	52	1518	72
Grp Sat Flow(s),veh/h/ln	1786	0	1585	1795	0	1585	1781	1777	1867	1781	1777	1585
Q Serve(g_s), s	5.7	0.0	16.3	4.7	0.0	0.4	11.4	49.0	49.1	3.4	44.2	2.8
Cycle Q Clear(g_c), s	5.7	0.0	16.3	4.7	0.0	0.4	11.4	49.0	49.1	3.4	44.2	2.8
Prop In Lane	0.95		1.00	0.84		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	278	0	247	127	0	112	205	1005	1056	86	1774	791
V/C Ratio(X)	0.35	0.00	0.90	0.58	0.00	0.05	0.85	0.86	0.86	0.60	0.86	0.09
Avail Cap(c_a), veh/h	302	0	268	182	0	161	346	1125	1182	301	1774	791
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.6	0.0	49.1	53.4	0.0	51.4	51.4	21.8	21.8	55.2	25.9	15.6
Incr Delay (d2), s/veh	0.3	0.0	27.7	1.6	0.0	0.1	4.4	6.9	6.7	2.5	4.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	8.3	2.2	0.0	0.2	5.3	21.2	22.3	1.6	19.1	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.9	0.0	76.8	55.0	0.0	51.4	55.9	28.7	28.5	57.8	30.4	15.6
LnGrp LOS	D	A	E	D	A	D	E	C	C	E	C	B
Approach Vol, veh/h		318			80			1953			1642	
Approach Delay, s/veh		67.2			54.7			31.0			30.7	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.7	73.0		23.3	17.6	65.1		12.4				
Change Period (Y+Rc), s	4.0	6.0		4.9	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	75.0		20.0	23.0	59.0		12.0				
Max Q Clear Time (g_c+I1), s	5.4	51.1		18.3	13.4	46.2		6.7				
Green Ext Time (p_c), s	0.1	15.9		0.2	0.2	9.1		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		34.2	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.

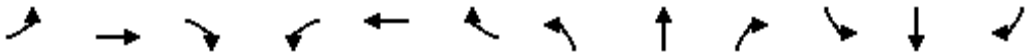


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	469	12	491	15	13	18	353	1466	9	4	1305	493
Future Volume (veh/h)	469	12	491	15	13	18	353	1466	9	4	1305	493
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	478	0	491	15	13	18	353	1466	9	4	1305	493
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	833	0	565	52	45	85	425	2004	12	17	1564	697
Arrive On Green	0.23	0.00	0.23	0.05	0.05	0.05	0.12	0.55	0.55	0.01	0.44	0.44
Sat Flow, veh/h	3563	0	1585	976	846	1585	3456	3621	22	1781	3554	1585
Grp Volume(v), veh/h	478	0	491	28	0	18	353	719	756	4	1305	493
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1822	0	1585	1728	1777	1866	1781	1777	1585
Q Serve(g_s), s	13.7	0.0	27.0	1.7	0.0	1.3	11.5	35.1	35.1	0.3	37.5	29.2
Cycle Q Clear(g_c), s	13.7	0.0	27.0	1.7	0.0	1.3	11.5	35.1	35.1	0.3	37.5	29.2
Prop In Lane	1.00		1.00	0.54		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	833	0	565	97	0	85	425	983	1033	17	1564	697
V/C Ratio(X)	0.57	0.00	0.87	0.29	0.00	0.21	0.83	0.73	0.73	0.24	0.83	0.71
Avail Cap(c_a), veh/h	833	0	565	316	0	275	688	983	1033	309	1631	728
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.1	0.0	34.6	52.5	0.0	52.3	49.5	19.3	19.3	56.8	28.6	26.3
Incr Delay (d2), s/veh	1.0	0.0	13.6	0.6	0.0	0.5	2.1	3.5	3.3	2.7	4.4	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	0.0	14.9	0.8	0.0	0.5	5.0	14.2	14.9	0.1	16.0	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.1	0.0	48.2	53.1	0.0	52.8	51.6	22.8	22.7	59.5	33.0	30.3
LnGrp LOS	D	A	D	D	A	D	D	C	C	E	C	C
Approach Vol, veh/h		969			46			1828			1802	
Approach Delay, s/veh		44.2			53.0			28.3			32.3	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	69.2		31.0	18.2	56.1		10.2				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	20.0	63.2		27.0	23.0	53.0		20.0				
Max Q Clear Time (g_c+I1), s	2.3	37.1		29.0	13.5	39.5		3.7				
Green Ext Time (p_c), s	0.0	16.6		0.0	0.7	11.3		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		33.4	
HCM 6th LOS		C	

Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	909	0	1222	0	553	445	1000	792	0
Future Volume (veh/h)	0	0	0	909	0	1222	0	553	445	1000	792	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	0	1870	1870	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	0	0	0	1139	0	493	0	553	135	1000	792	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	2	0	2	2	2	0	2	2	2	2	0
Cap, veh/h	0	2	0	1302	0	579	0	734	327	1075	1965	0
Arrive On Green	0.00	0.00	0.00	0.37	0.00	0.37	0.00	0.21	0.21	0.31	0.55	0.00
Sat Flow, veh/h	0	-74814	0	3563	0	1585	0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	0	0	0	1139	0	493	0	553	135	1000	792	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	0	1585	0	1777	1585	1728	1777	0
Q Serve(g_s), s	0.0	0.0	0.0	33.9	0.0	32.6	0.0	16.6	8.4	31.9	14.6	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	33.9	0.0	32.6	0.0	16.6	8.4	31.9	14.6	0.0
Prop In Lane	0.00		0.00	1.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	2	0	1302	0	579	0	734	327	1075	1965	0
V/C Ratio(X)	0.00	0.00	0.00	0.88	0.00	0.85	0.00	0.75	0.41	0.93	0.40	0.00
Avail Cap(c_a), veh/h	0	428	0	1786	0	795	0	1066	475	1155	2366	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	33.7	0.0	33.2	0.0	42.4	39.1	38.0	14.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	3.1	0.0	5.0	0.0	2.9	1.4	12.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	14.9	0.0	26.2	0.0	7.6	3.4	15.1	5.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	36.7	0.0	38.2	0.0	45.3	40.5	50.1	14.8	0.0
LnGrp LOS	A	A	A	D	A	D	A	D	D	D	B	A
Approach Vol, veh/h		0			1632			688			1792	
Approach Delay, s/veh		0.0			37.2			44.3			34.5	
Approach LOS					D			D			C	

Timer - Assigned Phs	2	4	6	7	8
Phs Duration (G+Y+Rc), s	0.0	68.1	45.5	39.4	28.8
Change Period (Y+Rc), s	4.0	5.3	4.0	4.0	* 5.3
Max Green Setting (Gmax), s	26.0	75.7	57.0	38.0	* 34
Max Q Clear Time (g_c+I1), s	0.0	16.6	35.9	33.9	18.6
Green Ext Time (p_c), s	0.0	6.7	5.6	1.5	4.9

Intersection Summary	
HCM 6th Ctrl Delay	37.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 178 **Harding Blvd/Estates Dr** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	64	49	76.3%	51.0	7.1	D
	Through	624	560	89.8%	6.5	1.1	A
	Right Turn						
	Subtotal	688	609	88.5%	10.0	1.2	B
SB	Left Turn	47	39	82.6%	103.5	38.8	F
	Through	1,259	1,050	83.4%	104.8	40.9	F
	Right Turn	217	168	77.2%	136.2	57.2	F
	Subtotal	1,523	1,256	82.5%	109.0	42.7	F
EB	Left Turn	303	301	99.4%	42.7	3.5	D
	Through	10	10	100.0%	31.2	23.6	C
	Right Turn	28	26	92.9%	46.9	12.5	D
	Subtotal	341	337	98.9%	42.8	4.1	D
WB	Left Turn	21	21	99.0%	56.4	26.8	E
	Through	8	8	105.0%	37.2	21.4	D
	Right Turn	49	50	102.9%	18.7	8.9	B
	Subtotal	78	80	102.1%	31.9	11.3	C
Total		2,630	2,282	86.8%	70.0	23.4	E

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 179 **Harding Blvd/Roseville Square** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	139	106	76.3%	40.7	4.2	D
	Through	525	438	83.4%	12.0	1.5	B
	Right Turn	43	36	82.8%	11.5	3.9	B
	Subtotal	707	580	82.0%	17.2	2.2	B
SB	Left Turn	37	37	99.5%	71.7	10.4	E
	Through	1,114	908	81.5%	67.0	15.1	E
	Right Turn	36	31	86.7%	69.4	20.4	E
	Subtotal	1,187	976	82.2%	67.2	14.9	E
EB	Left Turn	154	153	99.5%	38.2	5.2	D
	Through	18	22	120.0%	36.1	14.8	D
	Right Turn	105	109	103.6%	26.6	7.2	C
	Subtotal	277	284	102.4%	34.0	4.5	C
WB	Left Turn	152	144	94.5%	113.7	52.7	F
	Through	8	7	90.0%	92.1	70.6	F
	Right Turn	38	41	108.4%	6.0	2.6	A
	Subtotal	198	192	97.0%	89.1	39.2	F
Total		2,369	2,031	85.7%	50.4	8.9	D



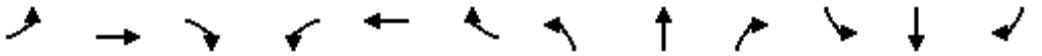
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	216	238	856	58	405	939
Future Volume (veh/h)	216	238	856	58	405	939
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	216	238	856	58	405	939
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	623	286	1978	614	445	3525
Arrive On Green	0.18	0.18	0.39	0.39	0.25	0.69
Sat Flow, veh/h	3456	1585	5274	1585	1781	5274
Grp Volume(v), veh/h	216	238	856	58	405	939
Grp Sat Flow(s),veh/h/ln	1728	1585	1702	1585	1781	1702
Q Serve(g_s), s	4.1	10.9	9.2	1.7	16.6	5.2
Cycle Q Clear(g_c), s	4.1	10.9	9.2	1.7	16.6	5.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	623	286	1978	614	445	3525
V/C Ratio(X)	0.35	0.83	0.43	0.09	0.91	0.27
Avail Cap(c_a), veh/h	922	423	2724	846	475	3525
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.9	29.6	16.9	14.6	27.3	4.4
Incr Delay (d2), s/veh	0.1	5.7	0.3	0.1	20.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	4.3	3.1	0.6	8.7	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.0	35.4	17.2	14.7	47.4	4.5
LnGrp LOS	C	D	B	B	D	A
Approach Vol, veh/h	454		914			1344
Approach Delay, s/veh	31.4		17.0			17.4
Approach LOS	C		B			B

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	22.7	34.7			57.5	17.5
Change Period (Y+Rc), s	4.0	5.7			5.7	4.0
Max Green Setting (Gmax), s	20.0	40.0			40.0	20.0
Max Q Clear Time (g_c+I1), s	18.6	11.2			7.2	12.9
Green Ext Time (p_c), s	0.2	17.8			20.7	0.7

Intersection Summary	
HCM 6th Ctrl Delay	19.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	739	59	138	726	150	196	22	169	237	8	135
Future Volume (veh/h)	89	739	59	138	726	150	196	22	169	237	8	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	89	739	59	138	726	150	196	22	169	243	0	135
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	201	1402	111	231	1573	488	262	29	258	508	0	226
Arrive On Green	0.11	0.29	0.29	0.13	0.31	0.31	0.16	0.16	0.16	0.14	0.00	0.14
Sat Flow, veh/h	1781	4823	383	1781	5106	1585	1609	181	1585	3563	0	1585
Grp Volume(v), veh/h	89	520	278	138	726	150	218	0	169	243	0	135
Grp Sat Flow(s),veh/h/ln	1781	1702	1801	1781	1702	1585	1790	0	1585	1781	0	1585
Q Serve(g_s), s	2.9	8.1	8.1	4.6	7.2	4.6	7.3	0.0	6.3	4.0	0.0	5.0
Cycle Q Clear(g_c), s	2.9	8.1	8.1	4.6	7.2	4.6	7.3	0.0	6.3	4.0	0.0	5.0
Prop In Lane	1.00		0.21	1.00		1.00	0.90		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	201	990	524	231	1573	488	291	0	258	508	0	226
V/C Ratio(X)	0.44	0.53	0.53	0.60	0.46	0.31	0.75	0.00	0.66	0.48	0.00	0.60
Avail Cap(c_a), veh/h	565	2428	1285	1129	3642	1131	851	0	754	1129	0	502
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.1	18.7	18.8	25.9	17.6	16.7	25.2	0.0	24.8	24.9	0.0	25.4
Incr Delay (d2), s/veh	0.6	0.9	1.7	0.9	0.4	0.7	1.5	0.0	1.1	0.3	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.9	3.2	1.8	2.5	1.6	3.1	0.0	2.3	1.6	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.7	19.6	20.5	26.8	18.0	17.4	26.7	0.0	25.8	25.2	0.0	26.3
LnGrp LOS	C	B	C	C	B	B	C	A	C	C	A	C
Approach Vol, veh/h		887			1014			387			378	
Approach Delay, s/veh		20.6			19.1			26.3			25.6	
Approach LOS		C			B			C			C	

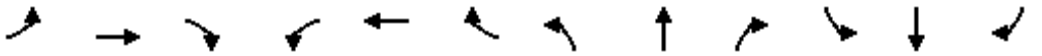
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.2	23.6		14.3	11.1	24.7		13.0				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	40.0	45.0		30.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	6.6	10.1		9.3	4.9	9.2		7.0				
Green Ext Time (p_c), s	0.3	8.2		0.9	0.1	9.6		0.9				

Intersection Summary			
HCM 6th Ctrl Delay		21.6	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	797	438	245	1111	162	584	567	65	160	643	280
Future Volume (veh/h)	203	797	438	245	1111	162	584	567	65	160	643	280
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	2145	2145	2145
Adj Flow Rate, veh/h	203	797	187	245	1111	79	584	567	22	160	643	123
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	164	965	430	247	1129	504	507	1789	555	191	649	289
Arrive On Green	0.09	0.27	0.27	0.14	0.32	0.32	0.28	0.35	0.35	0.09	0.16	0.16
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	5106	1585	2043	4076	1818
Grp Volume(v), veh/h	203	797	187	245	1111	79	584	567	22	160	643	123
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1702	1585	2043	2038	1818
Q Serve(g_s), s	12.0	27.4	12.7	17.9	40.3	4.7	37.0	10.5	1.2	10.0	20.5	7.9
Cycle Q Clear(g_c), s	12.0	27.4	12.7	17.9	40.3	4.7	37.0	10.5	1.2	10.0	20.5	7.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	965	430	247	1129	504	507	1789	555	191	649	289
V/C Ratio(X)	1.23	0.83	0.43	0.99	0.98	0.16	1.15	0.32	0.04	0.84	0.99	0.42
Avail Cap(c_a), veh/h	164	976	435	247	1129	504	507	1789	555	299	649	289
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.0	44.5	39.1	55.9	44.0	31.8	46.5	30.9	27.8	58.0	54.6	49.3
Incr Delay (d2), s/veh	147.0	6.2	1.1	55.3	22.9	0.2	89.0	0.2	0.0	6.6	32.9	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.1	12.9	5.0	11.8	21.2	1.8	28.5	4.3	0.5	5.4	13.3	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	206.0	50.7	40.2	111.2	67.0	32.0	135.5	31.0	27.9	64.5	87.5	50.8
LnGrp LOS	F	D	D	F	E	C	F	C	C	E	F	D
Approach Vol, veh/h		1187			1435			1173			926	
Approach Delay, s/veh		75.6			72.6			83.0			78.6	
Approach LOS		E			E			F			E	

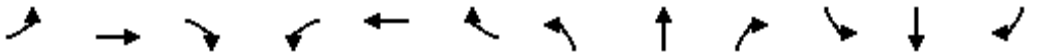
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	41.0	41.0	26.0	16.0	47.0	16.1	50.9
Change Period (Y+Rc), s	4.0	* 5.7	4.0	5.3	4.0	5.7	4.0	5.3
Max Green Setting (Gmax), s	18.0	* 36	37.0	20.7	12.0	41.3	19.0	38.7
Max Q Clear Time (g_c+I1), s	19.9	29.4	39.0	22.5	14.0	42.3	12.0	12.5
Green Ext Time (p_c), s	0.0	4.7	0.0	0.0	0.0	0.0	0.2	8.4

Intersection Summary	
HCM 6th Ctrl Delay	77.1
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	8	28	158	13	343	19	681	38	214	1099	31
Future Volume (veh/h)	46	8	28	158	13	343	19	681	38	214	1099	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1988	1988	1988	1870	1945	1870	2145	2231	2145
Adj Flow Rate, veh/h	46	8	28	158	13	343	19	681	38	214	1099	31
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	126	22	131	404	33	387	61	1233	69	266	2696	805
Arrive On Green	0.08	0.08	0.08	0.23	0.23	0.23	0.03	0.35	0.35	0.13	0.44	0.44
Sat Flow, veh/h	1528	266	1585	1756	144	1683	1781	3556	198	2043	6091	1818
Grp Volume(v), veh/h	54	0	28	171	0	343	19	354	365	214	1099	31
Grp Sat Flow(s),veh/h/ln	1794	0	1585	1900	0	1683	1781	1848	1907	2043	2030	1818
Q Serve(g_s), s	2.3	0.0	1.4	6.3	0.0	16.2	0.9	12.7	12.7	8.4	10.1	0.8
Cycle Q Clear(g_c), s	2.3	0.0	1.4	6.3	0.0	16.2	0.9	12.7	12.7	8.4	10.1	0.8
Prop In Lane	0.85		1.00	0.92		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	148	0	131	437	0	387	61	641	661	266	2696	805
V/C Ratio(X)	0.37	0.00	0.21	0.39	0.00	0.89	0.31	0.55	0.55	0.80	0.41	0.04
Avail Cap(c_a), veh/h	437	0	386	532	0	471	434	1013	1045	771	3338	996
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	0.0	35.2	26.8	0.0	30.6	38.7	21.7	21.7	34.7	15.6	13.0
Incr Delay (d2), s/veh	0.6	0.0	0.3	0.2	0.0	14.2	1.1	1.7	1.6	2.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.5	2.7	0.0	7.7	0.4	5.3	5.5	4.1	4.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.2	0.0	35.5	27.0	0.0	44.8	39.8	23.3	23.3	36.9	15.8	13.0
LnGrp LOS	D	A	D	C	A	D	D	C	C	D	B	B
Approach Vol, veh/h		82			514			738			1344	
Approach Delay, s/veh		36.0			38.8			23.7			19.1	
Approach LOS		D			D			C			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.8	6.8	41.7		22.9	14.7	33.8				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.0	4.0	5.3				
Max Green Setting (Gmax), s		20.0	20.0	45.0		23.0	31.0	45.0				
Max Q Clear Time (g_c+I1), s		4.3	2.9	12.1		18.2	10.4	14.7				
Green Ext Time (p_c), s		0.2	0.0	22.5		0.6	0.4	13.8				

Intersection Summary												
HCM 6th Ctrl Delay			24.7									
HCM 6th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.



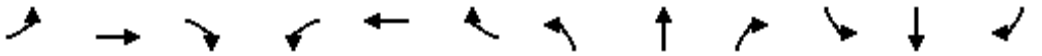
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	32	101	765	16	250	851
Future Volume (veh/h)	32	101	765	16	250	851
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	32	101	765	16	250	851
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	241	214	1261	26	334	2282
Arrive On Green	0.14	0.14	0.35	0.35	0.19	0.64
Sat Flow, veh/h	1781	1585	3653	74	1781	3647
Grp Volume(v), veh/h	32	101	382	399	250	851
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1857	1781	1777
Q Serve(g_s), s	0.6	2.4	7.1	7.1	5.3	4.5
Cycle Q Clear(g_c), s	0.6	2.4	7.1	7.1	5.3	4.5
Prop In Lane	1.00	1.00		0.04	1.00	
Lane Grp Cap(c), veh/h	241	214	630	658	334	2282
V/C Ratio(X)	0.13	0.47	0.61	0.61	0.75	0.37
Avail Cap(c_a), veh/h	891	793	1823	1905	891	3646
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.2	16.0	10.6	10.6	15.3	3.4
Incr Delay (d2), s/veh	0.1	0.6	1.3	1.2	1.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.1	2.1	2.2	1.8	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.3	16.6	11.9	11.9	16.6	3.5
LnGrp LOS	B	B	B	B	B	A
Approach Vol, veh/h	133		781			1101
Approach Delay, s/veh	16.3		11.9			6.4
Approach LOS	B		B			A

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				30.6		9.4	11.5	19.1
Change Period (Y+Rc), s				4.9		4.0	4.0	4.9
Max Green Setting (Gmax), s				41.0		20.0	20.0	41.0
Max Q Clear Time (g_c+I1), s				6.5		4.4	7.3	9.1
Green Ext Time (p_c), s				4.1		0.3	0.4	5.1

Intersection Summary	
HCM 6th Ctrl Delay	9.2
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



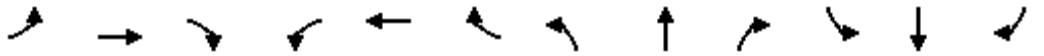
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	6	8	14	5	21	3	1724	28	29	1744	15
Future Volume (veh/h)	67	6	8	14	5	21	3	1724	28	29	1744	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	6	8	14	5	21	3	1724	28	29	1744	15
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	11	119	73	26	88	10	2310	37	71	2414	1077
Arrive On Green	0.08	0.08	0.08	0.06	0.06	0.06	0.01	0.65	0.65	0.04	0.68	0.68
Sat Flow, veh/h	1641	147	1585	1329	475	1585	1781	3579	58	1781	3554	1585
Grp Volume(v), veh/h	73	0	8	19	0	21	3	854	898	29	1744	15
Grp Sat Flow(s),veh/h/ln	1788	0	1585	1804	0	1585	1781	1777	1860	1781	1777	1585
Q Serve(g_s), s	3.7	0.0	0.4	0.9	0.0	1.2	0.2	30.8	31.0	1.5	28.9	0.3
Cycle Q Clear(g_c), s	3.7	0.0	0.4	0.9	0.0	1.2	0.2	30.8	31.0	1.5	28.9	0.3
Prop In Lane	0.92		1.00	0.74		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	134	0	119	100	0	88	10	1147	1200	71	2414	1077
V/C Ratio(X)	0.54	0.00	0.07	0.19	0.00	0.24	0.30	0.75	0.75	0.41	0.72	0.01
Avail Cap(c_a), veh/h	382	0	338	385	0	338	380	1309	1370	380	2694	1202
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.8	0.0	40.3	42.2	0.0	42.4	46.4	11.3	11.4	43.9	9.5	4.9
Incr Delay (d2), s/veh	1.3	0.0	0.1	0.3	0.0	0.5	6.1	3.2	3.1	1.4	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.2	0.4	0.0	0.5	0.1	10.7	11.3	0.7	9.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.0	0.0	40.4	42.6	0.0	42.9	52.5	14.6	14.5	45.3	10.7	4.9
LnGrp LOS	D	A	D	D	A	D	D	B	B	D	B	A
Approach Vol, veh/h		81			40			1755			1788	
Approach Delay, s/veh		42.8			42.7			14.6			11.2	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.7	65.7		11.0	4.5	68.9		9.2				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	20.0	69.0		20.0	20.0	71.0		20.0				
Max Q Clear Time (g_c+I1), s	3.5	33.0		5.7	2.2	30.9		3.2				
Green Ext Time (p_c), s	0.0	27.5		0.2	0.0	28.4		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		13.9	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



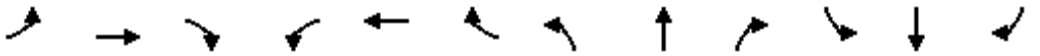
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	41	22	51	16	92	26	1632	45	91	1716	33
Future Volume (veh/h)	64	41	22	51	16	92	26	1632	45	91	1716	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	41	22	51	16	92	26	1632	45	91	1716	33
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	150	97	52	182	24	138	54	2054	56	117	2198	42
Arrive On Green	0.08	0.08	0.08	0.10	0.10	0.10	0.03	0.58	0.58	0.07	0.62	0.62
Sat Flow, veh/h	1781	1145	615	1781	234	1346	1781	3532	97	1781	3566	68
Grp Volume(v), veh/h	64	0	63	51	0	108	26	819	858	91	853	896
Grp Sat Flow(s),veh/h/ln	1781	0	1760	1781	0	1580	1781	1777	1852	1781	1777	1857
Q Serve(g_s), s	3.5	0.0	3.5	2.8	0.0	6.8	1.5	37.2	37.5	5.2	36.8	37.1
Cycle Q Clear(g_c), s	3.5	0.0	3.5	2.8	0.0	6.8	1.5	37.2	37.5	5.2	36.8	37.1
Prop In Lane	1.00		0.35	1.00		0.85	1.00		0.05	1.00		0.04
Lane Grp Cap(c), veh/h	150	0	148	182	0	161	54	1033	1077	117	1095	1145
V/C Ratio(X)	0.43	0.00	0.42	0.28	0.00	0.67	0.48	0.79	0.80	0.78	0.78	0.78
Avail Cap(c_a), veh/h	343	0	339	343	0	304	343	1214	1265	343	1214	1269
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.2	0.0	45.2	43.1	0.0	45.0	49.6	16.9	17.0	47.8	14.7	14.8
Incr Delay (d2), s/veh	1.6	0.0	1.6	0.7	0.0	4.1	2.4	4.1	4.0	4.2	3.3	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	1.6	1.3	0.0	2.9	0.7	14.2	14.9	2.4	13.4	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.8	0.0	46.8	43.8	0.0	49.0	52.0	20.9	21.0	52.1	18.0	18.0
LnGrp LOS	D	A	D	D	A	D	D	C	C	D	B	B
Approach Vol, veh/h		127			159			1703			1840	
Approach Delay, s/veh		46.8			47.4			21.4			19.7	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.2	69.4		14.6	10.8	65.8		12.8				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	20.0	71.0		20.0	20.0	71.0		20.0				
Max Q Clear Time (g_c+I1), s	3.5	39.1		8.8	7.2	39.5		5.5				
Green Ext Time (p_c), s	0.0	16.6		0.4	0.1	20.9		0.3				

Intersection Summary		
HCM 6th Ctrl Delay		22.5
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	25	44	106	66	5	6	1290	12	34	1501	162
Future Volume (veh/h)	55	25	44	106	66	5	6	1290	12	34	1501	162
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1945	1870	1870	1945	1870	1870	1841	1841	1870	1841	1841
Adj Flow Rate, veh/h	55	25	44	106	66	5	6	1290	12	34	1501	162
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	4	4	2	4	4
Cap, veh/h	76	35	92	125	78	170	8	2238	21	43	2163	233
Arrive On Green	0.06	0.06	0.06	0.11	0.11	0.11	0.00	0.44	0.44	0.02	0.47	0.47
Sat Flow, veh/h	1293	588	1569	1163	724	1576	1781	5134	48	1781	4604	497
Grp Volume(v), veh/h	80	0	44	172	0	5	6	842	460	34	1092	571
Grp Sat Flow(s),veh/h/ln	1881	0	1569	1887	0	1576	1781	1675	1832	1781	1675	1750
Q Serve(g_s), s	5.0	0.0	3.3	10.7	0.0	0.3	0.4	22.7	22.7	2.3	30.8	30.8
Cycle Q Clear(g_c), s	5.0	0.0	3.3	10.7	0.0	0.3	0.4	22.7	22.7	2.3	30.8	30.8
Prop In Lane	0.69		1.00	0.62		1.00	1.00		0.03	1.00		0.28
Lane Grp Cap(c), veh/h	111	0	92	203	0	170	8	1460	798	43	1574	822
V/C Ratio(X)	0.72	0.00	0.48	0.85	0.00	0.03	0.74	0.58	0.58	0.78	0.69	0.69
Avail Cap(c_a), veh/h	251	0	209	252	0	210	238	1460	798	267	1574	822
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	0.0	54.7	52.6	0.0	47.9	59.7	25.5	25.5	58.2	25.0	25.0
Incr Delay (d2), s/veh	3.3	0.0	1.4	16.4	0.0	0.0	35.3	1.5	2.7	10.9	1.4	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	1.3	6.0	0.0	0.1	0.3	9.0	10.1	1.1	11.9	12.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.8	0.0	56.1	68.9	0.0	47.9	95.0	27.0	28.2	69.2	26.5	27.8
LnGrp LOS	E	A	E	E	A	D	F	C	C	E	C	C
Approach Vol, veh/h		124			177			1308			1697	
Approach Delay, s/veh		57.9			68.4			27.7			27.8	
Approach LOS		E			E			C			C	

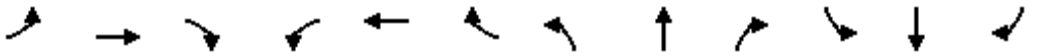
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.9	4.5	62.1		11.1	8.6	58.0				
Change Period (Y+Rc), s		4.0	4.0	5.7		4.0	5.7	* 5.7				
Max Green Setting (Gmax), s		16.0	16.0	54.3		16.0	18.0	* 52				
Max Q Clear Time (g_c+I1), s		12.7	2.4	32.8		7.0	4.3	24.7				
Green Ext Time (p_c), s		0.1	0.0	19.4		0.2	0.0	20.9				

Intersection Summary												
HCM 6th Ctrl Delay			31.1									
HCM 6th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.

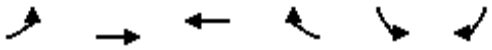
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	5	20	395	5	2	109	1308	13	16	1556	95
Future Volume (vph)	21	5	20	395	5	2	109	1308	13	16	1556	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		2.0	4.0		4.0	4.0	4.0	5.7		4.0	5.7	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.91		1.00	0.91	
Frpb, ped/bikes		1.00	0.88		1.00	0.98	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected		0.96	1.00		0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1786	1400		1775	1554	1770	5076		1770	5031	
Flt Permitted		1.00	1.00		0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1858	1400		1775	1554	1770	5076		1770	5031	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	21	5	20	395	5	2	109	1308	13	16	1556	95
RTOR Reduction (vph)	0	0	20	0	0	2	0	1	0	0	6	0
Lane Group Flow (vph)	0	26	0	0	400	0	109	1320	0	16	1645	0
Confl. Peds. (#/hr)	4		4	4		4	4		4	4		4
Confl. Bikes (#/hr)			2			2			2			2
Turn Type	Prot	NA	custom	Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	5	2		6	6		3	8		7	4	
Permitted Phases			5			6						
Actuated Green, G (s)		4.8	1.8		29.4	29.4	10.8	63.4		2.7	55.3	
Effective Green, g (s)		4.8	1.8		29.4	29.4	10.8	63.4		2.7	55.3	
Actuated g/C Ratio		0.04	0.02		0.24	0.24	0.09	0.53		0.02	0.46	
Clearance Time (s)		2.0	4.0		4.0	4.0	4.0	5.7		4.0	5.7	
Vehicle Extension (s)		2.0	2.0		2.0	2.0	2.0	4.3		2.0	4.3	
Lane Grp Cap (vph)		73	21		434	380	159	2681		39	2318	
v/s Ratio Prot		0.01			c0.23		c0.06	0.26		0.01	c0.33	
v/s Ratio Perm		c0.01	0.00			0.00						
v/c Ratio		0.36	0.01		0.92	0.00	0.69	0.49		0.41	0.71	
Uniform Delay, d1		56.1	58.2		44.2	34.2	53.0	18.0		57.9	25.9	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.09	1.00	
Incremental Delay, d2		1.1	0.1		24.6	0.0	9.4	0.2		2.3	1.7	
Delay (s)		57.2	58.3		68.8	34.2	62.3	18.3		65.3	27.5	
Level of Service		E	E		E	C	E	B		E	C	
Approach Delay (s)		57.7			68.6			21.6			27.9	
Approach LOS		E			E			C			C	

Intersection Summary			
HCM 2000 Control Delay	30.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.7
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



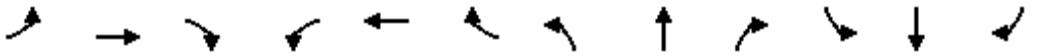
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	71	478	388	78	385	97
Future Volume (veh/h)	71	478	388	78	385	97
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	71	478	388	78	385	97
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	220	1747	949	423	486	433
Arrive On Green	0.12	0.49	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1781	3647	3647	1585	1781	1585
Grp Volume(v), veh/h	71	478	388	78	385	97
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1781	1585
Q Serve(g_s), s	1.4	3.1	3.6	1.5	7.9	1.9
Cycle Q Clear(g_c), s	1.4	3.1	3.6	1.5	7.9	1.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	220	1747	949	423	486	433
V/C Ratio(X)	0.32	0.27	0.41	0.18	0.79	0.22
Avail Cap(c_a), veh/h	901	3596	3596	1604	901	802
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.8	5.9	11.9	11.2	13.3	11.1
Incr Delay (d2), s/veh	0.3	0.2	0.6	0.5	1.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.8	1.2	0.5	2.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.1	6.1	12.5	11.6	14.4	11.2
LnGrp LOS	B	A	B	B	B	B
Approach Vol, veh/h		549	466		482	
Approach Delay, s/veh		7.4	12.4		13.8	
Approach LOS		A	B		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			24.7		14.8	8.9	15.9
Change Period (Y+Rc), s			5.3		4.0	4.0	5.3
Max Green Setting (Gmax), s			40.0		20.0	20.0	40.0
Max Q Clear Time (g_c+I1), s			5.1		9.9	3.4	5.6
Green Ext Time (p_c), s			5.3		0.9	0.1	5.0

Intersection Summary	
HCM 6th Ctrl Delay	11.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	425	630	152	540	106	556	653	123	18	571	150
Future Volume (veh/h)	94	425	630	152	540	106	556	653	123	18	571	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	94	425	0	152	540	0	556	653	0	18	571	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	121	553		186	683		600	1836		42	724	
Arrive On Green	0.07	0.16	0.00	0.10	0.19	0.00	0.34	0.52	0.00	0.02	0.20	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	94	425	0	152	540	0	556	653	0	18	571	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.0	10.9	0.0	8.0	13.8	0.0	28.7	10.4	0.0	1.0	14.5	0.0
Cycle Q Clear(g_c), s	5.0	10.9	0.0	8.0	13.8	0.0	28.7	10.4	0.0	1.0	14.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	121	553		186	683		600	1836		42	724	
V/C Ratio(X)	0.78	0.77		0.82	0.79		0.93	0.36		0.42	0.79	
Avail Cap(c_a), veh/h	392	793		355	734		1232	2879		243	905	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	43.7	38.6	0.0	41.8	36.7	0.0	30.5	13.7	0.0	45.9	36.0	0.0
Incr Delay (d2), s/veh	4.0	4.0	0.0	3.3	6.6	0.0	2.8	0.2	0.0	2.5	5.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	5.0	0.0	3.6	6.5	0.0	12.3	4.0	0.0	0.4	6.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.7	42.7	0.0	45.1	43.3	0.0	33.3	13.9	0.0	48.4	41.2	0.0
LnGrp LOS	D	D		D	D		C	B		D	D	
Approach Vol, veh/h		519	A		692	A		1209	A		589	A
Approach Delay, s/veh		43.6			43.7			22.8			41.5	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	20.6	36.1	24.7	10.5	24.0	6.3	54.6
Change Period (Y+Rc), s	4.0	5.7	4.0	5.3	4.0	* 5.7	4.0	5.3
Max Green Setting (Gmax), s	19.0	21.3	66.0	24.3	21.0	* 20	13.0	77.3
Max Q Clear Time (g_c+I1), s	10.0	12.9	30.7	16.5	7.0	15.8	3.0	12.4
Green Ext Time (p_c), s	0.2	1.9	1.4	2.9	0.1	1.6	0.0	7.7

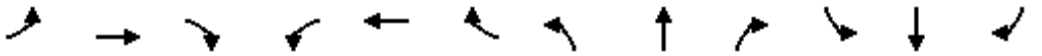
Intersection Summary	
HCM 6th Ctrl Delay	34.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	25	141	166	33	151	36	901	40	37	1431	24
Future Volume (veh/h)	15	25	141	166	33	151	36	901	40	37	1431	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	15	25	30	166	33	0	36	901	37	37	1431	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	158	234	294	286	39		250	2068	85	45	1625	
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.00	0.14	0.59	0.59	0.03	0.46	0.00
Sat Flow, veh/h	499	1263	1585	1066	212	1585	1781	3479	143	1781	3647	0
Grp Volume(v), veh/h	40	0	30	199	0	0	36	460	478	37	1431	0
Grp Sat Flow(s),veh/h/ln	1762	0	1585	1278	0	1585	1781	1777	1845	1781	1777	0
Q Serve(g_s), s	0.0	0.0	1.2	10.2	0.0	0.0	1.3	10.6	10.6	1.6	27.4	0.0
Cycle Q Clear(g_c), s	1.3	0.0	1.2	11.6	0.0	0.0	1.3	10.6	10.6	1.6	27.4	0.0
Prop In Lane	0.37		1.00	0.83		1.00	1.00		0.08	1.00		0.00
Lane Grp Cap(c), veh/h	392	0	294	325	0		250	1056	1097	45	1625	
V/C Ratio(X)	0.10	0.00	0.10	0.61	0.00		0.14	0.44	0.44	0.81	0.88	
Avail Cap(c_a), veh/h	595	0	488	498	0		250	1056	1097	190	1625	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	25.4	0.0	25.4	30.2	0.0	0.0	28.3	8.3	8.3	36.4	18.5	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.1	1.4	0.0	0.0	0.1	0.4	0.4	12.2	7.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.4	3.5	0.0	0.0	0.5	3.1	3.3	0.8	10.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	0.0	25.5	31.6	0.0	0.0	28.4	8.7	8.7	48.5	25.7	0.0
LnGrp LOS	C	A	C	C	A		C	A	A	D	C	
Approach Vol, veh/h		70			199	A		974			1468	A
Approach Delay, s/veh		25.5			31.6			9.4			26.3	
Approach LOS		C			C			A			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		18.8	16.2	40.0		18.8	5.9	50.3				
Change Period (Y+Rc), s		4.9	5.7	* 5.7		4.9	4.0	5.7				
Max Green Setting (Gmax), s		23.1	3.0	* 34		23.1	8.0	29.3				
Max Q Clear Time (g_c+I1), s		13.6	3.3	29.4		3.3	3.6	12.6				
Green Ext Time (p_c), s		0.4	0.0	3.5		0.1	0.0	5.0				

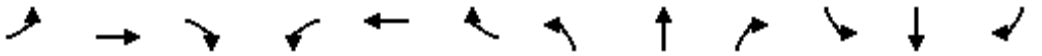
Intersection Summary		
HCM 6th Ctrl Delay		20.6
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	4	4	36	3	43	6	797	19	49	1610	15
Future Volume (veh/h)	11	4	4	36	3	43	6	797	19	49	1610	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	4	4	36	3	43	6	797	19	49	1610	15
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	85	21	11	146	6	74	8	2717	65	63	2874	27
Arrive On Green	0.05	0.05	0.05	0.05	0.05	0.05	0.00	0.77	0.77	0.04	0.80	0.80
Sat Flow, veh/h	467	460	247	1481	123	1585	1781	3547	85	1781	3608	34
Grp Volume(v), veh/h	19	0	0	39	0	43	6	399	417	49	792	833
Grp Sat Flow(s),veh/h/ln	1175	0	0	1604	0	1585	1781	1777	1855	1781	1777	1864
Q Serve(g_s), s	0.1	0.0	0.0	0.0	0.0	2.4	0.3	6.1	6.1	2.5	14.7	14.8
Cycle Q Clear(g_c), s	2.0	0.0	0.0	1.9	0.0	2.4	0.3	6.1	6.1	2.5	14.7	14.8
Prop In Lane	0.58		0.21	0.92		1.00	1.00		0.05	1.00		0.02
Lane Grp Cap(c), veh/h	118	0	0	151	0	74	8	1361	1421	63	1416	1485
V/C Ratio(X)	0.16	0.00	0.00	0.26	0.00	0.58	0.73	0.29	0.29	0.78	0.56	0.56
Avail Cap(c_a), veh/h	479	0	0	499	0	458	396	1361	1421	396	1416	1485
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.4	0.0	0.0	41.8	0.0	42.1	44.7	3.2	3.2	43.1	3.4	3.4
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.3	0.0	2.7	33.4	0.2	0.2	7.5	1.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.9	0.0	1.0	0.2	1.4	1.4	1.2	3.1	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.7	0.0	0.0	42.2	0.0	44.8	78.1	3.4	3.3	50.5	5.0	4.9
LnGrp LOS	D	A	A	D	A	D	E	A	A	D	A	A
Approach Vol, veh/h		19			82			822			1674	
Approach Delay, s/veh		41.7			43.5			3.9			6.3	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.4	77.4		8.2	7.2	74.6		8.2				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	30.3		26.0	20.0	30.3		26.0				
Max Q Clear Time (g_c+I1), s	2.3	16.8		4.0	4.5	8.1		4.4				
Green Ext Time (p_c), s	0.0	9.6		0.0	0.0	5.8		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		6.9	
HCM 6th LOS		A	

Notes

User approved pedestrian interval to be less than phase max green.



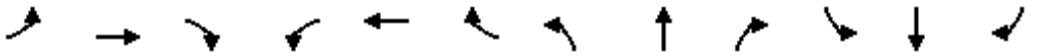
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	44	74	810	71	128	1612
Future Volume (veh/h)	44	74	810	71	128	1612
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	74	810	71	128	1612
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	118	105	2287	200	159	2934
Arrive On Green	0.07	0.07	0.69	0.69	0.18	1.00
Sat Flow, veh/h	1781	1585	3399	290	1781	3647
Grp Volume(v), veh/h	44	74	435	446	128	1612
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1818	1781	1777
Q Serve(g_s), s	2.1	4.1	9.0	9.0	6.2	0.0
Cycle Q Clear(g_c), s	2.1	4.1	9.0	9.0	6.2	0.0
Prop In Lane	1.00	1.00		0.16	1.00	
Lane Grp Cap(c), veh/h	118	105	1230	1258	159	2934
V/C Ratio(X)	0.37	0.70	0.35	0.35	0.80	0.55
Avail Cap(c_a), veh/h	396	352	1230	1258	396	2934
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.76	0.76
Uniform Delay (d), s/veh	40.2	41.1	5.7	5.7	36.2	0.0
Incr Delay (d2), s/veh	0.7	3.2	0.2	0.2	2.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	3.7	2.9	2.9	2.6	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	40.9	44.3	5.9	5.9	39.0	0.6
LnGrp LOS	D	D	A	A	D	A
Approach Vol, veh/h	118		881			1740
Approach Delay, s/veh	43.0		5.9			3.4
Approach LOS	D		A			A

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		80.0		10.0	12.0	68.0
Change Period (Y+Rc), s		5.7		4.0	4.0	5.7
Max Green Setting (Gmax), s		60.3		20.0	20.0	36.3
Max Q Clear Time (g_c+I1), s		2.0		6.1	8.2	11.0
Green Ext Time (p_c), s		18.2		0.2	0.2	5.3

Intersection Summary	
HCM 6th Ctrl Delay	5.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

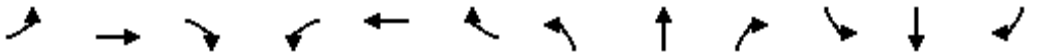


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	421	5	316	5	1	5	248	1382	5	5	1468	322
Future Volume (veh/h)	421	5	316	5	1	5	248	1382	5	5	1468	322
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1870	1856	1870	1870	1870	1664	1708	1723	2067	2007	2052
Adj Flow Rate, veh/h	425	0	58	5	1	0	248	1382	3	5	1468	232
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	2	3	2	2	2	6	3	2	2	6	3
Cap, veh/h	530	0	231	21	4	0	278	2068	930	20	1800	821
Arrive On Green	0.15	0.00	0.15	0.01	0.01	0.00	0.18	0.64	0.64	0.01	0.47	0.47
Sat Flow, veh/h	3534	0	1542	1496	299	0	1585	3246	1460	1968	3813	1739
Grp Volume(v), veh/h	425	0	58	6	0	0	248	1382	3	5	1468	232
Grp Sat Flow(s),veh/h/ln	1767	0	1542	1796	0	0	1585	1623	1460	1968	1906	1739
Q Serve(g_s), s	12.4	0.0	3.5	0.4	0.0	0.0	16.3	28.6	0.1	0.3	35.2	8.6
Cycle Q Clear(g_c), s	12.4	0.0	3.5	0.4	0.0	0.0	16.3	28.6	0.1	0.3	35.2	8.6
Prop In Lane	1.00		1.00	0.83		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	530	0	231	25	0	0	278	2068	930	20	1800	821
V/C Ratio(X)	0.80	0.00	0.25	0.24	0.00	0.00	0.89	0.67	0.00	0.25	0.82	0.28
Avail Cap(c_a), veh/h	664	0	290	338	0	0	462	2068	930	370	1828	833
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.7	0.0	39.9	51.9	0.0	0.0	42.9	12.2	7.0	52.2	24.1	17.1
Incr Delay (d2), s/veh	6.5	0.0	0.8	1.9	0.0	0.0	6.9	1.0	0.0	2.3	3.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	0.0	1.4	0.2	0.0	0.0	6.5	8.4	0.0	0.1	14.6	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.2	0.0	40.8	53.8	0.0	0.0	49.8	13.2	7.0	54.5	27.3	17.4
LnGrp LOS	D	A	D	D	A	A	D	B	A	D	C	B
Approach Vol, veh/h		483			6			1633			1705	
Approach Delay, s/veh		49.1			53.8			18.7			26.0	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	74.2		21.6	22.7	56.6		5.5				
Change Period (Y+Rc), s	4.0	6.4		5.7	4.0	6.4		4.0				
Max Green Setting (Gmax), s	20.0	51.0		20.0	31.0	51.0		20.0				
Max Q Clear Time (g_c+I1), s	2.3	30.6		14.4	18.3	37.2		2.4				
Green Ext Time (p_c), s	0.0	18.0		1.6	0.4	13.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		25.9	
HCM 6th LOS		C	

Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



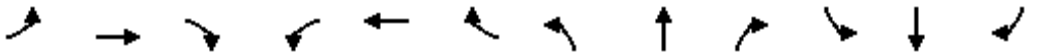
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	5	57	5	5	5	114	1592	5	5	1658	57
Future Volume (veh/h)	27	5	57	5	5	5	114	1592	5	5	1658	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	27	5	57	5	5	5	114	1592	5	5	1658	57
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	24	134	26	26	45	147	2303	1027	14	2038	909
Arrive On Green	0.08	0.08	0.08	0.03	0.03	0.03	0.08	0.65	0.65	0.01	0.57	0.57
Sat Flow, veh/h	1514	280	1585	912	912	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	32	0	57	10	0	5	114	1592	5	5	1658	57
Grp Sat Flow(s),veh/h/ln	1795	0	1585	1825	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.4	0.0	2.8	0.4	0.0	0.3	5.2	23.5	0.1	0.2	30.6	1.3
Cycle Q Clear(g_c), s	1.4	0.0	2.8	0.4	0.0	0.3	5.2	23.5	0.1	0.2	30.6	1.3
Prop In Lane	0.84		1.00	0.50		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	152	0	134	52	0	45	147	2303	1027	14	2038	909
V/C Ratio(X)	0.21	0.00	0.42	0.19	0.00	0.11	0.78	0.69	0.00	0.36	0.81	0.06
Avail Cap(c_a), veh/h	437	0	386	444	0	386	434	2812	1254	434	2293	1023
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.0	0.0	35.7	39.0	0.0	38.9	36.9	9.2	5.1	40.5	14.0	7.8
Incr Delay (d2), s/veh	0.3	0.0	0.8	0.7	0.0	0.4	3.3	0.7	0.0	5.6	2.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.1	0.2	0.0	0.1	2.3	7.7	0.0	0.1	11.3	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.3	0.0	36.5	39.7	0.0	39.3	40.2	10.0	5.1	46.1	16.4	7.8
LnGrp LOS	D	A	D	D	A	D	D	A	A	D	B	A
Approach Vol, veh/h		89			15			1711			1720	
Approach Delay, s/veh		36.1			39.5			12.0			16.2	
Approach LOS		D			D			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		11.5	10.8	53.5		6.3	4.6	59.6				
Change Period (Y+Rc), s		4.6	4.0	6.4		4.0	4.0	6.4				
Max Green Setting (Gmax), s		20.0	20.0	53.0		20.0	20.0	65.0				
Max Q Clear Time (g_c+I1), s		4.8	7.2	32.6		2.4	2.2	25.5				
Green Ext Time (p_c), s		0.2	0.2	14.4		0.0	0.0	20.6				

Intersection Summary	
HCM 6th Ctrl Delay	14.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	306	4	582	7	7	1	257	1393	19	5	1519	202
Future Volume (veh/h)	306	4	582	7	7	1	257	1393	19	5	1519	202
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	309	0	265	5	10	0	257	1393	11	5	1519	132
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	804	0	358	61	127	0	289	1908	851	16	1958	608
Arrive On Green	0.23	0.00	0.23	0.03	0.03	0.00	0.16	0.54	0.54	0.01	0.38	0.38
Sat Flow, veh/h	3563	0	1585	1781	3741	0	1781	3554	1585	1781	5106	1585
Grp Volume(v), veh/h	309	0	265	5	10	0	257	1393	11	5	1519	132
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	1870	0	1781	1777	1585	1781	1702	1585
Q Serve(g_s), s	7.4	0.0	15.7	0.3	0.3	0.0	14.3	30.2	0.3	0.3	26.4	5.7
Cycle Q Clear(g_c), s	7.4	0.0	15.7	0.3	0.3	0.0	14.3	30.2	0.3	0.3	26.4	5.7
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	804	0	358	61	127	0	289	1908	851	16	1958	608
V/C Ratio(X)	0.38	0.00	0.74	0.08	0.08	0.00	0.89	0.73	0.01	0.31	0.78	0.22
Avail Cap(c_a), veh/h	1829	0	814	176	369	0	334	1908	851	141	1982	615
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	0.0	36.5	47.4	47.4	0.0	41.5	17.9	10.9	49.9	27.4	21.0
Incr Delay (d2), s/veh	0.6	0.0	6.0	0.2	0.1	0.0	20.4	1.9	0.0	4.0	2.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	6.7	0.1	0.1	0.0	7.6	11.1	0.1	0.1	10.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.9	0.0	42.5	47.6	47.5	0.0	61.9	19.8	11.0	53.8	29.5	21.3
LnGrp LOS	C	A	D	D	D	A	E	B	B	D	C	C
Approach Vol, veh/h		574			15			1661			1656	
Approach Delay, s/veh		37.9			47.5			26.2			29.0	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.9	60.8		28.1	20.4	45.2		7.4				
Change Period (Y+Rc), s	4.0	* 6.4		5.3	4.0	6.4		4.0				
Max Green Setting (Gmax), s	8.0	* 51		52.0	19.0	39.3		10.0				
Max Q Clear Time (g_c+I1), s	2.3	32.2		17.7	16.3	28.4		2.3				
Green Ext Time (p_c), s	0.0	17.9		5.1	0.1	10.4		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		29.2
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

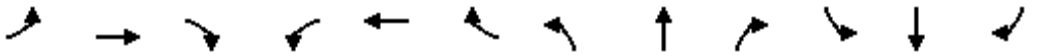
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	198	10	198	140	12	82	117	1620	40	78	1984	71
Future Volume (veh/h)	198	10	198	140	12	82	117	1620	40	78	1984	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	205	0	29	140	12	9	117	1620	22	78	1984	41
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	264	0	117	162	14	156	131	2087	648	515	3248	1008
Arrive On Green	0.07	0.00	0.07	0.10	0.10	0.10	0.07	0.41	0.41	0.29	0.64	0.64
Sat Flow, veh/h	3563	0	1585	1647	141	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	205	0	29	152	0	9	117	1620	22	78	1984	41
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1788	0	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	8.5	0.0	2.6	12.6	0.0	0.8	9.8	41.2	1.2	4.9	34.7	1.4
Cycle Q Clear(g_c), s	8.5	0.0	2.6	12.6	0.0	0.8	9.8	41.2	1.2	4.9	34.7	1.4
Prop In Lane	1.00		1.00	0.92		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	264	0	117	176	0	156	131	2087	648	515	3248	1008
V/C Ratio(X)	0.78	0.00	0.25	0.86	0.00	0.06	0.90	0.78	0.03	0.15	0.61	0.04
Avail Cap(c_a), veh/h	808	0	359	298	0	264	131	2087	648	515	3248	1008
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.2	0.0	65.5	66.6	0.0	61.3	68.9	38.4	26.6	39.6	16.2	10.2
Incr Delay (d2), s/veh	1.9	0.0	0.4	5.8	0.0	0.1	47.5	2.9	0.1	0.0	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.0	1.1	6.1	0.0	0.3	6.1	17.1	0.5	2.1	12.6	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.1	0.0	65.9	72.4	0.0	61.3	116.4	41.3	26.7	39.7	16.8	10.2
LnGrp LOS	E	A	E	E	A	E	F	D	C	D	B	B
Approach Vol, veh/h		234			161			1759			2103	
Approach Delay, s/veh		69.6			71.8			46.1			17.5	
Approach LOS		E			E			D			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	49.1	67.0		15.1	15.0	101.1		18.8				
Change Period (Y+Rc), s	5.7	* 5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	12.0	* 61		34.0	11.0	62.3		25.0				
Max Q Clear Time (g_c+I1), s	6.9	43.2		10.5	11.8	36.7		14.6				
Green Ext Time (p_c), s	0.0	13.9		0.6	0.0	21.4		0.2				

Intersection Summary		
HCM 6th Ctrl Delay		34.3
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



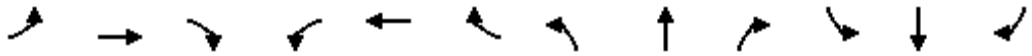
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	430	117	254	53	88	56	298	1482	55	26	2212	540
Future Volume (veh/h)	430	117	254	53	88	56	298	1482	55	26	2212	540
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	430	117	147	53	88	5	298	1482	26	26	2212	384
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	455	489	415	95	112	95	276	2669	829	55	2419	751
Arrive On Green	0.26	0.26	0.26	0.05	0.06	0.06	0.08	0.52	0.52	0.03	0.47	0.47
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	3456	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	430	117	147	53	88	5	298	1482	26	26	2212	384
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1728	1702	1585	1781	1702	1585
Q Serve(g_s), s	35.6	7.4	11.3	4.4	7.0	0.4	12.0	29.3	1.2	2.2	60.3	25.2
Cycle Q Clear(g_c), s	35.6	7.4	11.3	4.4	7.0	0.4	12.0	29.3	1.2	2.2	60.3	25.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	455	489	415	95	112	95	276	2669	829	55	2419	751
V/C Ratio(X)	0.95	0.24	0.35	0.56	0.79	0.05	1.08	0.56	0.03	0.47	0.91	0.51
Avail Cap(c_a), veh/h	499	611	518	107	200	169	276	2669	829	95	2419	751
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	43.6	45.1	69.3	69.6	66.5	69.0	24.1	17.4	71.5	36.7	27.4
Incr Delay (d2), s/veh	26.1	0.5	1.0	5.0	17.3	0.4	76.4	0.8	0.1	6.2	6.8	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.8	3.4	4.5	2.1	3.8	0.2	8.1	11.4	0.4	1.1	25.1	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.0	44.1	46.0	74.3	86.8	66.9	145.4	24.9	17.4	77.7	43.4	29.9
LnGrp LOS	F	D	D	E	F	E	F	C	B	E	D	C
Approach Vol, veh/h		694			146			1806			2622	
Approach Delay, s/veh		67.4			81.6			44.7			41.8	
Approach LOS		E			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	84.4	12.0	44.9	16.0	77.0	42.3	14.7
Change Period (Y+Rc), s	4.0	6.0	4.0	5.7	4.0	6.0	4.0	5.7
Max Green Setting (Gmax), s	8.0	64.3	9.0	49.0	12.0	60.3	42.0	16.0
Max Q Clear Time (g_c+I1), s	4.2	31.3	6.4	13.3	14.0	62.3	37.6	9.0
Green Ext Time (p_c), s	0.0	17.1	0.0	2.1	0.0	0.0	0.7	0.2

Intersection Summary	
HCM 6th Ctrl Delay	47.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.



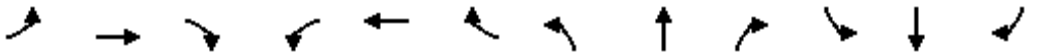
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	836	24	8	397	13	2	5	2	11	5	10
Future Volume (veh/h)	8	836	24	8	397	13	2	5	2	11	5	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	836	24	8	397	13	2	5	2	11	5	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	34	1871	54	34	1862	61	7	19	7	36	16	33
Arrive On Green	0.02	0.53	0.53	0.02	0.53	0.53	0.02	0.02	0.02	0.05	0.05	0.05
Sat Flow, veh/h	1781	3528	101	1781	3512	115	395	989	395	726	330	660
Grp Volume(v), veh/h	8	421	439	8	201	209	9	0	0	26	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1852	1781	1777	1850	1779	0	0	1715	0	0
Q Serve(g_s), s	0.2	6.6	6.6	0.2	2.7	2.7	0.2	0.0	0.0	0.7	0.0	0.0
Cycle Q Clear(g_c), s	0.2	6.6	6.6	0.2	2.7	2.7	0.2	0.0	0.0	0.7	0.0	0.0
Prop In Lane	1.00		0.05	1.00		0.06	0.22		0.22	0.42		0.38
Lane Grp Cap(c), veh/h	34	942	982	34	942	981	34	0	0	85	0	0
V/C Ratio(X)	0.24	0.45	0.45	0.24	0.21	0.21	0.27	0.00	0.00	0.31	0.00	0.00
Avail Cap(c_a), veh/h	788	1179	1229	788	1179	1227	905	0	0	759	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	21.9	6.5	6.5	21.9	5.6	5.6	21.9	0.0	0.0	20.8	0.0	0.0
Incr Delay (d2), s/veh	1.3	0.7	0.7	1.3	0.3	0.2	1.6	0.0	0.0	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.5	1.5	0.1	0.6	0.6	0.1	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.2	7.3	7.3	23.2	5.9	5.9	23.4	0.0	0.0	21.5	0.0	0.0
LnGrp LOS	C	A	A	C	A	A	C	A	A	C	A	A
Approach Vol, veh/h		868			418			9			26	
Approach Delay, s/veh		7.4			6.2			23.4			21.5	
Approach LOS		A			A			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		4.9	4.9	29.3		6.2	4.9	29.3				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.0	4.0	5.3				
Max Green Setting (Gmax), s		23.0	20.0	30.0		20.0	20.0	30.0				
Max Q Clear Time (g_c+I1), s		2.2	2.2	8.6		2.7	2.2	4.7				
Green Ext Time (p_c), s		0.0	0.0	15.4		0.0	0.0	8.6				

Intersection Summary		
HCM 6th Ctrl Delay		7.4
HCM 6th LOS		A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	531	424	15	26	403	27	6	12	14	21	0	119
Future Volume (veh/h)	531	424	15	26	403	27	6	12	14	21	0	119
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	531	424	15	26	403	27	6	12	14	21	0	119
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	588	1647	735	73	620	276	20	40	47	216	0	192
Arrive On Green	0.33	0.46	0.46	0.04	0.17	0.17	0.06	0.06	0.06	0.12	0.00	0.12
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	322	645	752	1781	0	1585
Grp Volume(v), veh/h	531	424	15	26	403	27	32	0	0	21	0	119
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1719	0	0	1781	0	1585
Q Serve(g_s), s	16.9	4.3	0.3	0.8	6.3	0.9	1.1	0.0	0.0	0.6	0.0	4.2
Cycle Q Clear(g_c), s	16.9	4.3	0.3	0.8	6.3	0.9	1.1	0.0	0.0	0.6	0.0	4.2
Prop In Lane	1.00		1.00	1.00		1.00	0.19		0.44	1.00		1.00
Lane Grp Cap(c), veh/h	588	1647	735	73	620	276	107	0	0	216	0	192
V/C Ratio(X)	0.90	0.26	0.02	0.36	0.65	0.10	0.30	0.00	0.00	0.10	0.00	0.62
Avail Cap(c_a), veh/h	748	1790	798	598	1790	798	577	0	0	598	0	532
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.0	9.7	8.7	27.8	22.9	20.7	26.7	0.0	0.0	23.3	0.0	24.9
Incr Delay (d2), s/veh	10.7	0.1	0.0	1.1	1.4	0.2	0.6	0.0	0.0	0.1	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	1.3	0.1	0.3	2.4	0.3	0.4	0.0	0.0	0.3	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.7	9.8	8.7	28.9	24.2	20.8	27.3	0.0	0.0	23.4	0.0	26.1
LnGrp LOS	C	A	A	C	C	C	C	A	A	C	A	C
Approach Vol, veh/h		970			456			32			140	
Approach Delay, s/veh		20.7			24.3			27.3			25.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		7.7	6.4	33.3		12.1	23.7	16.1				
Change Period (Y+Rc), s		4.0	4.0	5.7		4.9	4.0	5.7				
Max Green Setting (Gmax), s		20.0	20.0	30.0		20.0	25.0	30.0				
Max Q Clear Time (g_c+I1), s		3.1	2.8	6.3		6.2	18.9	8.3				
Green Ext Time (p_c), s		0.0	0.0	2.2		0.3	0.7	2.1				

Intersection Summary	
HCM 6th Ctrl Delay	22.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	482	38	123	420	44	397
Future Volume (veh/h)	482	38	123	420	44	397
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	482	38	123	420	44	397
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1033	461	189	1731	522	465
Arrive On Green	0.29	0.29	0.11	0.49	0.29	0.29
Sat Flow, veh/h	3647	1585	1781	3647	1781	1585
Grp Volume(v), veh/h	482	38	123	420	44	397
Grp Sat Flow(s),veh/h/ln	1777	1585	1781	1777	1781	1585
Q Serve(g_s), s	4.9	0.8	2.9	3.0	0.8	10.4
Cycle Q Clear(g_c), s	4.9	0.8	2.9	3.0	0.8	10.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1033	461	189	1731	522	465
V/C Ratio(X)	0.47	0.08	0.65	0.24	0.08	0.85
Avail Cap(c_a), veh/h	3222	1437	807	3222	807	718
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.8	11.4	18.9	6.6	11.3	14.7
Incr Delay (d2), s/veh	0.5	0.1	3.8	0.1	0.0	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.2	1.3	0.8	0.3	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.4	11.5	22.7	6.7	11.3	18.5
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	520			543	441	
Approach Delay, s/veh	13.3			10.3	17.8	
Approach LOS	B			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		27.2		16.9	8.7	18.5
Change Period (Y+Rc), s		5.7		4.0	4.0	5.7
Max Green Setting (Gmax), s		40.0		20.0	20.0	40.0
Max Q Clear Time (g_c+I1), s		5.0		12.4	4.9	6.9
Green Ext Time (p_c), s		4.9		0.6	0.2	5.9

Intersection Summary	
HCM 6th Ctrl Delay	13.5
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	1172	492	256	608	98	344
Future Volume (veh/h)	1172	492	256	608	98	344
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1172	191	256	145	98	344
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1428	655	367	311	127	700
Arrive On Green	0.41	0.41	0.20	0.20	0.07	0.37
Sat Flow, veh/h	3456	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	1172	191	256	145	98	344
Grp Sat Flow(s),veh/h/ln	1728	1585	1870	1585	1781	1870
Q Serve(g_s), s	14.2	3.8	6.0	3.8	2.5	6.6
Cycle Q Clear(g_c), s	14.2	3.8	6.0	3.8	2.5	6.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	1428	655	367	311	127	700
V/C Ratio(X)	0.82	0.29	0.70	0.47	0.77	0.49
Avail Cap(c_a), veh/h	1691	776	637	540	417	1273
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.2	9.2	17.6	16.7	21.4	11.3
Incr Delay (d2), s/veh	2.9	0.2	2.4	1.1	9.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	1.0	2.5	1.3	1.3	2.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.1	9.4	20.0	17.8	30.9	11.8
LnGrp LOS	B	A	B	B	C	B
Approach Vol, veh/h	1363		401			442
Approach Delay, s/veh	14.3		19.2			16.1
Approach LOS	B		B			B

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.4	14.2			22.6	24.4
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	11.0	16.0			32.0	23.0
Max Q Clear Time (g_c+I1), s	4.5	8.0			8.6	16.2
Green Ext Time (p_c), s	0.1	1.2			2.1	3.3

Intersection Summary	
HCM 6th Ctrl Delay	15.6
HCM 6th LOS	B

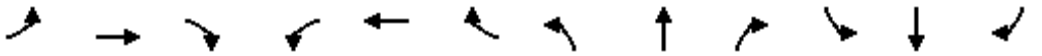
SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 203 **Riverside Ave/I-80 WB Ramps** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	1,488	1,420	95.4%	35.7	37.5	D
	Right Turn	407	379	93.1%	13.5	14.2	B
	Subtotal	1,895	1,799	94.9%	31.4	33.3	C
SB	Left Turn						
	Through	1,297	1,120	86.4%	18.8	4.4	B
	Right Turn	1,519	1,196	78.7%	27.3	28.0	C
	Subtotal	2,816	2,316	82.2%	23.1	14.8	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	490	476	97.1%	23.6	6.6	C
	Through						
	Right Turn	211	226	107.3%	27.0	15.1	C
	Subtotal	701	702	100.2%	24.7	8.6	C
Total		5,412	4,817	89.0%	26.4	13.4	C

Intersection 204 **Riverside Ave/I-80 EB Ramps-Orlando Ave** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	1,391	1,390	100.0%	76.6	32.9	E
	Right Turn	81	85	105.2%	74.9	42.3	E
	Subtotal	1,472	1,476	100.2%	76.6	33.4	E
SB	Left Turn	112	92	82.5%	136.2	64.3	F
	Through	1,285	1,162	90.4%	28.9	8.0	C
	Right Turn						
	Subtotal	1,397	1,254	89.8%	37.1	12.5	D
EB	Left Turn						
	Through	405	386	95.2%	51.0	4.8	D
	Right Turn	209	220	105.3%	28.5	5.4	C
	Subtotal	614	606	98.6%	42.9	3.7	D
WB	Left Turn	313	258	82.3%	64.2	10.6	E
	Through						
	Right Turn	407	350	86.0%	140.5	26.1	F
	Subtotal	720	608	84.4%	108.6	19.6	F
Total		4,203	3,943	93.8%	63.6	16.5	E



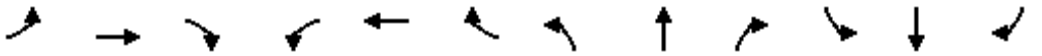
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	338	8	15	635	383	1	7	6	175	13	57
Future Volume (veh/h)	55	338	8	15	635	383	1	7	6	175	13	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	338	8	15	635	383	1	7	6	175	13	57
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	111	1670	745	40	1527	681	7	46	44	241	18	230
Arrive On Green	0.06	0.47	0.47	0.02	0.43	0.43	0.03	0.03	0.03	0.14	0.14	0.14
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	232	1626	1585	1664	124	1585
Grp Volume(v), veh/h	55	338	8	15	635	383	8	0	6	188	0	57
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1859	0	1585	1787	0	1585
Q Serve(g_s), s	1.6	3.0	0.1	0.4	6.7	9.8	0.2	0.0	0.2	5.4	0.0	1.7
Cycle Q Clear(g_c), s	1.6	3.0	0.1	0.4	6.7	9.8	0.2	0.0	0.2	5.4	0.0	1.7
Prop In Lane	1.00		1.00	1.00		1.00	0.12		1.00	0.93		1.00
Lane Grp Cap(c), veh/h	111	1670	745	40	1527	681	52	0	44	259	0	230
V/C Ratio(X)	0.49	0.20	0.01	0.38	0.42	0.56	0.15	0.00	0.13	0.73	0.00	0.25
Avail Cap(c_a), veh/h	662	2643	1179	662	2643	1179	691	0	589	897	0	796
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.4	8.4	7.6	25.9	10.6	11.5	25.5	0.0	25.5	22.0	0.0	20.4
Incr Delay (d2), s/veh	1.3	0.1	0.0	2.2	0.2	0.9	0.5	0.0	0.5	1.5	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.8	0.0	0.2	2.0	2.7	0.1	0.0	0.1	2.1	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.6	8.4	7.6	28.1	10.9	12.4	26.0	0.0	26.0	23.4	0.0	20.6
LnGrp LOS	C	A	A	C	B	B	C	A	C	C	A	C
Approach Vol, veh/h		401			1033			14			245	
Approach Delay, s/veh		10.8			11.7			26.0			22.8	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	31.3		11.8	7.4	29.1		5.5				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	40.0		27.0	20.0	40.0		20.0				
Max Q Clear Time (g_c+I1), s	2.4	5.0		7.4	3.6	11.8		2.2				
Green Ext Time (p_c), s	0.0	5.2		0.5	0.1	11.3		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		13.2	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



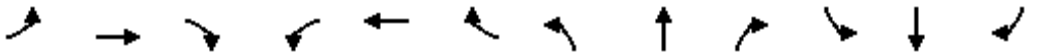
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	480	20	111	1052	99	12	10	50	60	10	26
Future Volume (veh/h)	39	480	20	111	1052	99	12	10	50	60	10	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	480	20	111	1052	99	12	10	50	60	10	26
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	100	1355	604	177	1509	673	147	154	130	168	176	149
Arrive On Green	0.06	0.38	0.38	0.10	0.42	0.42	0.08	0.08	0.08	0.09	0.09	0.09
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	39	480	20	111	1052	99	12	10	50	60	10	26
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	1.2	5.7	0.5	3.5	14.3	2.3	0.4	0.3	1.8	1.9	0.3	0.9
Cycle Q Clear(g_c), s	1.2	5.7	0.5	3.5	14.3	2.3	0.4	0.3	1.8	1.9	0.3	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	100	1355	604	177	1509	673	147	154	130	168	176	149
V/C Ratio(X)	0.39	0.35	0.03	0.63	0.70	0.15	0.08	0.07	0.38	0.36	0.06	0.17
Avail Cap(c_a), veh/h	605	2413	1076	605	2413	1076	605	635	538	605	635	538
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.8	13.0	11.4	25.5	13.8	10.4	25.0	24.9	25.6	25.0	24.3	24.6
Incr Delay (d2), s/veh	2.5	0.2	0.0	3.6	0.6	0.1	0.2	0.2	1.8	1.3	0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.0	0.2	1.6	5.0	0.7	0.2	0.1	0.7	0.8	0.1	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	13.2	11.4	29.1	14.4	10.5	25.2	25.1	27.5	26.3	24.4	25.1
LnGrp LOS	C	B	B	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		539			1262			72			96	
Approach Delay, s/veh		14.3			15.4			26.8			25.8	
Approach LOS		B			B			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.1	7.3	31.0		10.4	9.9	28.5				
Change Period (Y+Rc), s		5.3	4.0	6.0		4.9	4.0	6.0				
Max Green Setting (Gmax), s		20.0	20.0	40.0		20.0	20.0	40.0				
Max Q Clear Time (g_c+I1), s		3.8	3.2	16.3		3.9	5.5	7.7				
Green Ext Time (p_c), s		0.1	0.1	8.8		0.2	0.2	3.6				

Intersection Summary		
HCM 6th Ctrl Delay		16.0
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	356	259	37	67	667	162	43	459	51	142	627	657
Future Volume (veh/h)	356	259	37	67	667	162	43	459	51	142	627	657
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	356	259	0	67	667	0	43	459	0	142	627	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	476	1171		254	943		197	765		328	901	
Arrive On Green	0.14	0.33	0.00	0.07	0.27	0.00	0.06	0.22	0.00	0.10	0.25	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	356	259	0	67	667	0	43	459	0	142	627	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	6.8	3.6	0.0	1.3	11.7	0.0	0.8	8.0	0.0	2.7	11.0	0.0
Cycle Q Clear(g_c), s	6.8	3.6	0.0	1.3	11.7	0.0	0.8	8.0	0.0	2.7	11.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	476	1171		254	943		197	765		328	901	
V/C Ratio(X)	0.75	0.22		0.26	0.71		0.22	0.60		0.43	0.70	
Avail Cap(c_a), veh/h	1005	1550		1005	1550		1256	1550		1005	1550	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.5	16.7	0.0	30.1	22.8	0.0	31.0	24.3	0.0	29.4	23.3	0.0
Incr Delay (d2), s/veh	0.9	0.1	0.0	0.2	1.7	0.0	0.2	1.1	0.0	0.3	1.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	1.3	0.0	0.5	4.4	0.0	0.3	3.1	0.0	1.0	4.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.4	16.8	0.0	30.3	24.5	0.0	31.2	25.4	0.0	29.7	24.9	0.0
LnGrp LOS	C	B		C	C		C	C		C	C	
Approach Vol, veh/h		615	A		734	A		502	A		769	A
Approach Delay, s/veh		24.1			25.1			25.9			25.8	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	28.4	7.9	23.4	13.5	23.9	10.5	20.8
Change Period (Y+Rc), s	4.0	5.7	4.0	* 6	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	20.0	30.0	25.0	* 30	20.0	30.0	20.0	30.0
Max Q Clear Time (g_c+I1), s	3.3	5.6	2.8	13.0	8.8	13.7	4.7	10.0
Green Ext Time (p_c), s	0.1	1.5	0.1	4.4	0.7	4.6	0.3	2.9

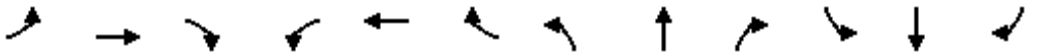
Intersection Summary	
HCM 6th Ctrl Delay	25.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



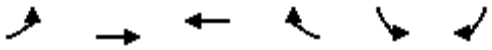
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	364	40	147	886	59	18	119	68	56	104	82
Future Volume (veh/h)	34	364	40	147	886	59	18	119	68	56	104	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	364	40	147	886	59	18	119	68	56	104	82
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	995	109	193	1255	84	47	161	92	133	187	147
Arrive On Green	0.04	0.31	0.31	0.11	0.37	0.37	0.03	0.14	0.14	0.07	0.19	0.19
Sat Flow, veh/h	1781	3231	353	1781	3381	225	1781	1117	638	1781	969	764
Grp Volume(v), veh/h	34	199	205	147	466	479	18	0	187	56	0	186
Grp Sat Flow(s),veh/h/ln	1781	1777	1807	1781	1777	1830	1781	0	1755	1781	0	1733
Q Serve(g_s), s	1.0	4.5	4.6	4.2	11.6	11.6	0.5	0.0	5.3	1.6	0.0	5.1
Cycle Q Clear(g_c), s	1.0	4.5	4.6	4.2	11.6	11.6	0.5	0.0	5.3	1.6	0.0	5.1
Prop In Lane	1.00		0.20	1.00		0.12	1.00		0.36	1.00		0.44
Lane Grp Cap(c), veh/h	80	547	556	193	660	679	47	0	254	133	0	334
V/C Ratio(X)	0.43	0.36	0.37	0.76	0.71	0.71	0.38	0.00	0.74	0.42	0.00	0.56
Avail Cap(c_a), veh/h	787	1194	1214	684	1194	1230	684	0	843	855	0	1032
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.2	14.0	14.1	22.6	13.9	13.9	24.9	0.0	21.3	23.0	0.0	19.0
Incr Delay (d2), s/veh	1.3	0.5	0.5	2.4	1.9	1.8	1.9	0.0	4.8	0.8	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.6	1.6	1.7	4.0	4.1	0.2	0.0	2.3	0.6	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.6	14.6	14.6	24.9	15.8	15.8	26.8	0.0	26.1	23.8	0.0	20.7
LnGrp LOS	C	B	B	C	B	B	C	A	C	C	A	C
Approach Vol, veh/h		438			1092			205			242	
Approach Delay, s/veh		15.4			17.0			26.2			21.4	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	12.8	9.6	21.7	5.4	15.3	6.3	25.0
Change Period (Y+Rc), s	4.0	5.3	4.0	5.7	4.0	5.3	4.0	5.7
Max Green Setting (Gmax), s	25.0	25.0	20.0	35.0	20.0	31.0	23.0	35.0
Max Q Clear Time (g_c+I1), s	3.6	7.3	6.2	6.6	2.5	7.1	3.0	13.6
Green Ext Time (p_c), s	0.1	0.8	0.2	2.2	0.0	0.8	0.0	5.7

Intersection Summary	
HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



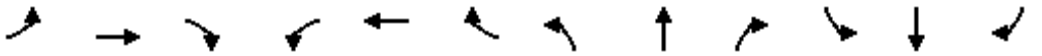
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	20	496	1157	49	86	14
Future Volume (veh/h)	20	496	1157	49	86	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	496	1157	49	86	14
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	62	2335	1803	76	212	189
Arrive On Green	0.03	0.66	0.52	0.52	0.12	0.12
Sat Flow, veh/h	1781	3647	3567	147	1781	1585
Grp Volume(v), veh/h	20	496	592	614	86	14
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1844	1781	1585
Q Serve(g_s), s	0.4	2.2	9.3	9.3	1.7	0.3
Cycle Q Clear(g_c), s	0.4	2.2	9.3	9.3	1.7	0.3
Prop In Lane	1.00			0.08	1.00	1.00
Lane Grp Cap(c), veh/h	62	2335	922	957	212	189
V/C Ratio(X)	0.32	0.21	0.64	0.64	0.41	0.07
Avail Cap(c_a), veh/h	918	4119	2060	2137	964	857
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.3	2.7	6.7	6.7	15.8	15.2
Incr Delay (d2), s/veh	1.1	0.1	1.0	1.0	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.1	1.7	1.7	0.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.4	2.7	7.7	7.7	16.3	15.3
LnGrp LOS	B	A	A	A	B	B
Approach Vol, veh/h		516	1206		100	
Approach Delay, s/veh		3.4	7.7		16.2	
Approach LOS		A	A		B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		31.2		7.6	5.4	25.8
Change Period (Y+Rc), s		5.7		3.0	4.0	5.7
Max Green Setting (Gmax), s		45.0		21.0	20.0	45.0
Max Q Clear Time (g_c+I1), s		4.2		3.7	2.4	11.3
Green Ext Time (p_c), s		3.2		0.2	0.0	8.8

Intersection Summary	
HCM 6th Ctrl Delay	6.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



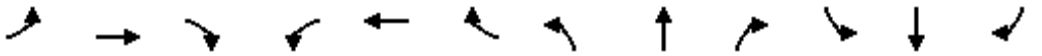
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	537	57	113	1158	5	78	5	59	5	5	5
Future Volume (veh/h)	5	537	57	113	1158	5	78	5	59	5	5	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	537	57	113	1158	5	78	5	59	5	5	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	17	1139	121	201	1650	7	236	15	223	17	17	17
Arrive On Green	0.01	0.35	0.35	0.11	0.45	0.45	0.14	0.14	0.14	0.03	0.03	0.03
Sat Flow, veh/h	1781	3242	343	1781	3629	16	1679	108	1585	579	579	579
Grp Volume(v), veh/h	5	294	300	113	567	596	83	0	59	15	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1809	1781	1777	1868	1786	0	1585	1737	0	0
Q Serve(g_s), s	0.1	6.2	6.3	2.9	12.4	12.4	2.0	0.0	1.6	0.4	0.0	0.0
Cycle Q Clear(g_c), s	0.1	6.2	6.3	2.9	12.4	12.4	2.0	0.0	1.6	0.4	0.0	0.0
Prop In Lane	1.00		0.19	1.00		0.01	0.94		1.00	0.33		0.33
Lane Grp Cap(c), veh/h	17	624	636	201	808	849	251	0	223	52	0	0
V/C Ratio(X)	0.30	0.47	0.47	0.56	0.70	0.70	0.33	0.00	0.26	0.29	0.00	0.00
Avail Cap(c_a), veh/h	735	1502	1529	735	1502	1579	847	0	752	716	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.9	12.2	12.2	20.4	10.6	10.6	18.8	0.0	18.6	23.0	0.0	0.0
Incr Delay (d2), s/veh	3.6	0.7	0.7	0.9	1.4	1.4	0.3	0.0	0.2	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.0	2.1	1.1	3.7	3.8	0.8	0.0	0.6	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.5	13.0	13.0	21.3	12.0	12.0	19.1	0.0	18.8	24.1	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	B	A	B	C	A	A
Approach Vol, veh/h		599			1276			142			15	
Approach Delay, s/veh		13.1			12.8			19.0			24.1	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.5	22.7		5.5	4.5	27.8		10.8				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	41.0		20.0	20.0	41.0		23.0				
Max Q Clear Time (g_c+I1), s	4.9	8.3		2.4	2.1	14.4		4.0				
Green Ext Time (p_c), s	0.2	3.5		0.0	0.0	7.7		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		13.4	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



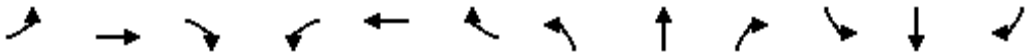
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	579	30	135	1277	9	41	19	95	15	8	24
Future Volume (veh/h)	24	579	30	135	1277	9	41	19	95	15	8	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	579	30	135	1277	9	41	19	95	15	8	24
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	61	1516	78	194	1864	13	181	59	230	169	62	230
Arrive On Green	0.03	0.44	0.44	0.11	0.52	0.52	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1781	3437	178	1781	3617	25	316	406	1585	249	429	1585
Grp Volume(v), veh/h	24	299	310	135	627	659	60	0	95	23	0	24
Grp Sat Flow(s),veh/h/ln	1781	1777	1838	1781	1777	1866	721	0	1585	677	0	1585
Q Serve(g_s), s	0.6	5.1	5.1	3.3	11.9	11.9	0.6	0.0	2.4	0.1	0.0	0.6
Cycle Q Clear(g_c), s	0.6	5.1	5.1	3.3	11.9	11.9	5.1	0.0	2.4	4.9	0.0	0.6
Prop In Lane	1.00		0.10	1.00		0.01	0.68		1.00	0.65		1.00
Lane Grp Cap(c), veh/h	61	784	811	194	915	961	240	0	230	231	0	230
V/C Ratio(X)	0.39	0.38	0.38	0.70	0.69	0.69	0.25	0.00	0.41	0.10	0.00	0.10
Avail Cap(c_a), veh/h	793	1780	1841	793	1780	1869	690	0	706	662	0	706
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.2	8.4	8.4	19.3	8.2	8.2	18.0	0.0	17.5	16.8	0.0	16.7
Incr Delay (d2), s/veh	1.5	0.4	0.4	1.7	1.2	1.2	0.2	0.0	0.4	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.3	1.3	1.2	2.5	2.7	0.5	0.0	0.8	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.7	8.8	8.8	21.0	9.4	9.3	18.2	0.0	17.9	16.8	0.0	16.7
LnGrp LOS	C	A	A	C	A	A	B	A	B	B	A	B
Approach Vol, veh/h		633			1421			155			47	
Approach Delay, s/veh		9.4			10.5			18.0			16.8	
Approach LOS		A			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.9	25.5		10.7	5.6	28.9		10.7				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	5.3	7.1		6.9	2.6	13.9		7.1				
Green Ext Time (p_c), s	0.2	3.5		0.1	0.0	9.3		0.3				

Intersection Summary		
HCM 6th Ctrl Delay		10.8
HCM 6th LOS		B

Notes

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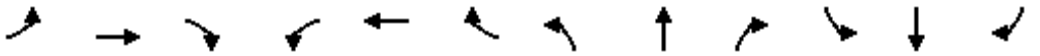
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	335	5	6	1246	86	6	5	13	153	5	210
Future Volume (veh/h)	77	335	5	6	1246	86	6	5	13	153	5	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	335	5	6	1246	86	6	5	13	153	5	210
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	170	1970	29	25	1580	109	15	13	33	295	6	257
Arrive On Green	0.10	0.55	0.55	0.01	0.47	0.47	0.04	0.04	0.04	0.17	0.17	0.17
Sat Flow, veh/h	1781	3584	53	1781	3373	232	421	351	913	1781	37	1554
Grp Volume(v), veh/h	77	166	174	6	655	677	24	0	0	153	0	215
Grp Sat Flow(s),veh/h/ln	1781	1777	1861	1781	1777	1829	1685	0	0	1781	0	1591
Q Serve(g_s), s	3.1	3.5	3.5	0.3	23.5	23.6	1.1	0.0	0.0	5.9	0.0	9.9
Cycle Q Clear(g_c), s	3.1	3.5	3.5	0.3	23.5	23.6	1.1	0.0	0.0	5.9	0.0	9.9
Prop In Lane	1.00		0.03	1.00		0.13	0.25		0.54	1.00		0.98
Lane Grp Cap(c), veh/h	170	977	1023	25	832	856	62	0	0	295	0	263
V/C Ratio(X)	0.45	0.17	0.17	0.24	0.79	0.79	0.39	0.00	0.00	0.52	0.00	0.82
Avail Cap(c_a), veh/h	471	1293	1354	471	1293	1331	446	0	0	471	0	421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.3	8.5	8.5	36.9	16.9	17.0	35.6	0.0	0.0	28.8	0.0	30.4
Incr Delay (d2), s/veh	0.7	0.1	0.1	4.8	2.3	2.3	1.5	0.0	0.0	0.5	0.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.1	1.1	0.1	8.3	8.5	0.5	0.0	0.0	2.5	0.0	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	8.6	8.6	41.7	19.3	19.3	37.1	0.0	0.0	29.3	0.0	33.4
LnGrp LOS	C	A	A	D	B	B	D	A	A	C	A	C
Approach Vol, veh/h		417			1338			24			368	
Approach Delay, s/veh		13.1			19.4			37.1			31.7	
Approach LOS		B			B			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	47.2		16.5	11.2	41.1		6.8				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	55.0		20.0	20.0	55.0		20.0				
Max Q Clear Time (g_c+I1), s	2.3	5.5		11.9	5.1	25.6		3.1				
Green Ext Time (p_c), s	0.0	1.8		0.6	0.1	9.8		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		20.5	
HCM 6th LOS		C	

Notes

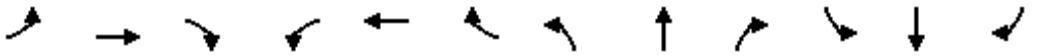
User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	6	32	147	4	7	21	1220	138	15	1291	16
Future Volume (veh/h)	26	6	32	147	4	7	21	1220	138	15	1291	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	6	32	147	4	7	21	1220	138	15	1291	16
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	44	64	54	189	216	183	37	1889	586	27	1861	578
Arrive On Green	0.02	0.03	0.03	0.11	0.12	0.12	0.02	0.37	0.37	0.02	0.36	0.36
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	26	6	32	147	4	7	21	1220	138	15	1291	16
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	0.6	0.1	0.8	3.4	0.1	0.2	0.5	8.3	2.5	0.4	9.1	0.3
Cycle Q Clear(g_c), s	0.6	0.1	0.8	3.4	0.1	0.2	0.5	8.3	2.5	0.4	9.1	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	44	64	54	189	216	183	37	1889	586	27	1861	578
V/C Ratio(X)	0.59	0.09	0.59	0.78	0.02	0.04	0.57	0.65	0.24	0.55	0.69	0.03
Avail Cap(c_a), veh/h	296	1420	1204	296	1509	1279	296	2181	677	296	2181	677
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	19.7	20.1	18.4	16.5	16.6	20.4	11.0	9.2	20.6	11.4	8.6
Incr Delay (d2), s/veh	11.7	0.6	9.9	6.8	0.0	0.1	13.1	0.5	0.2	16.2	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.1	0.4	1.6	0.0	0.1	0.3	2.1	0.7	0.2	2.4	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.0	20.4	30.0	25.1	16.6	16.7	33.5	11.5	9.4	36.8	12.2	8.6
LnGrp LOS	C	C	C	C	B	B	C	B	A	D	B	A
Approach Vol, veh/h		64			158			1379			1322	
Approach Delay, s/veh		29.9			24.5			11.6			12.4	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.6	20.6	9.5	6.4	5.9	20.4	6.0	9.9
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	18.0	7.0	32.0	7.0	18.0	7.0	34.0
Max Q Clear Time (g_c+I1), s	2.4	10.3	5.4	2.8	2.5	11.1	2.6	2.2
Green Ext Time (p_c), s	0.0	4.6	0.1	0.1	0.0	4.3	0.0	0.0

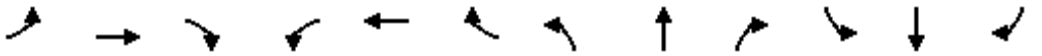
Intersection Summary	
HCM 6th Ctrl Delay	13.1
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	14	26	142	31	17	66	1352	242	31	1419	20
Future Volume (veh/h)	9	14	26	142	31	17	66	1352	242	31	1419	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	14	26	142	31	17	66	1352	242	31	1419	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	17	64	55	190	246	209	87	2109	655	50	2004	622
Arrive On Green	0.01	0.03	0.03	0.11	0.13	0.13	0.05	0.41	0.41	0.03	0.39	0.39
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	9	14	26	142	31	17	66	1352	242	31	1419	20
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	0.2	0.3	0.8	3.7	0.7	0.5	1.8	10.1	5.1	0.8	11.2	0.4
Cycle Q Clear(g_c), s	0.2	0.3	0.8	3.7	0.7	0.5	1.8	10.1	5.1	0.8	11.2	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	17	64	55	190	246	209	87	2109	655	50	2004	622
V/C Ratio(X)	0.54	0.22	0.48	0.75	0.13	0.08	0.76	0.64	0.37	0.62	0.71	0.03
Avail Cap(c_a), veh/h	260	1250	1059	818	1953	1655	260	2346	728	260	2346	728
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	22.5	22.7	20.8	18.4	18.2	22.5	11.2	9.7	23.0	12.2	8.9
Incr Delay (d2), s/veh	24.0	1.7	6.3	5.8	0.2	0.2	12.6	0.5	0.3	11.7	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.2	0.4	1.7	0.3	0.2	0.9	2.7	1.4	0.5	3.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.6	24.2	29.0	26.6	18.6	18.4	35.1	11.7	10.1	34.7	13.1	9.0
LnGrp LOS	D	C	C	C	B	B	D	B	B	C	B	A
Approach Vol, veh/h		49			190			1660			1470	
Approach Delay, s/veh		31.0			24.5			12.4			13.5	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	24.8	10.1	6.7	7.3	23.8	5.5	11.3
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	22.0	22.0	32.0	7.0	22.0	7.0	50.0
Max Q Clear Time (g_c+I1), s	2.8	12.1	5.7	2.8	3.8	13.2	2.2	2.7
Green Ext Time (p_c), s	0.0	6.3	0.3	0.1	0.0	5.6	0.0	0.2

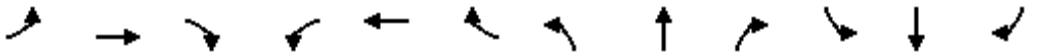
Intersection Summary	
HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	7	39	41	12	106	100	1566	103	46	1465	54
Future Volume (veh/h)	23	7	39	41	12	106	100	1566	103	46	1465	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	7	39	41	12	106	100	1566	103	46	1465	54
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	39	146	123	62	170	144	128	2191	680	68	2018	626
Arrive On Green	0.02	0.08	0.08	0.04	0.09	0.09	0.07	0.43	0.43	0.04	0.40	0.40
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	23	7	39	41	12	106	100	1566	103	46	1465	54
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	0.6	0.2	1.1	1.1	0.3	3.1	2.7	12.2	1.9	1.2	11.8	1.0
Cycle Q Clear(g_c), s	0.6	0.2	1.1	1.1	0.3	3.1	2.7	12.2	1.9	1.2	11.8	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	39	146	123	62	170	144	128	2191	680	68	2018	626
V/C Ratio(X)	0.59	0.05	0.32	0.66	0.07	0.74	0.78	0.71	0.15	0.68	0.73	0.09
Avail Cap(c_a), veh/h	258	1238	1049	332	1316	1115	258	2293	712	258	2293	712
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.4	20.6	21.1	23.0	20.1	21.4	22.1	11.4	8.4	23.0	12.4	9.2
Incr Delay (d2), s/veh	13.2	0.1	1.5	11.1	0.2	7.1	9.8	1.0	0.1	11.2	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.1	0.4	0.6	0.1	1.3	1.3	3.3	0.5	0.7	3.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.6	20.8	22.5	34.2	20.3	28.5	31.8	12.4	8.5	34.1	13.4	9.2
LnGrp LOS	D	C	C	C	C	C	C	B	A	C	B	A
Approach Vol, veh/h		69			159			1769			1565	
Approach Delay, s/veh		27.0			29.3			13.3			13.9	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	26.0	6.7	8.8	8.5	24.4	6.1	9.4
Change Period (Y+Rc), s	5.0	5.3	5.0	5.0	5.0	5.3	5.0	5.0
Max Green Setting (Gmax), s	7.0	21.7	9.0	32.0	7.0	21.7	7.0	34.0
Max Q Clear Time (g_c+I1), s	3.2	14.2	3.1	3.1	4.7	13.8	2.6	5.1
Green Ext Time (p_c), s	0.0	5.4	0.0	0.1	0.0	5.3	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	75	40	35	172	1	65	95	27	1	46	48
Future Volume (veh/h)	85	75	40	35	172	1	65	95	27	1	46	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	75	40	35	172	1	65	95	27	1	46	48
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	120	384	324	60	319	2	99	244	69	6	100	104
Arrive On Green	0.07	0.21	0.21	0.03	0.17	0.17	0.06	0.17	0.17	0.00	0.12	0.12
Sat Flow, veh/h	1781	1870	1577	1781	1858	11	1781	1399	397	1781	835	871
Grp Volume(v), veh/h	85	75	40	35	0	173	65	0	122	1	0	94
Grp Sat Flow(s),veh/h/ln	1781	1870	1577	1781	0	1868	1781	0	1796	1781	0	1706
Q Serve(g_s), s	1.4	1.0	0.6	0.6	0.0	2.6	1.1	0.0	1.8	0.0	0.0	1.6
Cycle Q Clear(g_c), s	1.4	1.0	0.6	0.6	0.0	2.6	1.1	0.0	1.8	0.0	0.0	1.6
Prop In Lane	1.00		1.00	1.00		0.01	1.00		0.22	1.00		0.51
Lane Grp Cap(c), veh/h	120	384	324	60	0	321	99	0	313	6	0	205
V/C Ratio(X)	0.71	0.20	0.12	0.58	0.00	0.54	0.66	0.00	0.39	0.17	0.00	0.46
Avail Cap(c_a), veh/h	725	1613	1360	435	0	1307	493	0	1783	435	0	1638
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.0	10.1	10.0	14.6	0.0	11.6	14.2	0.0	11.2	15.3	0.0	12.6
Incr Delay (d2), s/veh	7.5	0.2	0.2	8.7	0.0	1.4	7.2	0.0	0.8	13.5	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.3	0.2	0.3	0.0	0.9	0.5	0.0	0.6	0.0	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.6	10.4	10.1	23.4	0.0	13.0	21.5	0.0	12.0	28.8	0.0	14.2
LnGrp LOS	C	B	B	C	A	B	C	A	B	C	A	B
Approach Vol, veh/h		200			208			187			95	
Approach Delay, s/veh		15.1			14.8			15.3			14.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.5	9.9	5.5	10.8	6.2	8.2	6.6	9.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	30.5	7.5	26.5	8.5	29.5	12.5	21.5
Max Q Clear Time (g_c+I1), s	2.0	3.8	2.6	3.0	3.1	3.6	3.4	4.6
Green Ext Time (p_c), s	0.0	0.6	0.0	0.4	0.0	0.5	0.1	0.8

Intersection Summary	
HCM 6th Ctrl Delay	14.9
HCM 6th LOS	B



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	212	323	584	60	409	710
Future Volume (veh/h)	212	323	584	60	409	710
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	212	323	584	60	409	710
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	368	327	636	539	463	1242
Arrive On Green	0.21	0.21	0.34	0.34	0.26	0.66
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	212	323	584	60	409	710
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	8.3	15.7	23.2	2.0	17.1	15.9
Cycle Q Clear(g_c), s	8.3	15.7	23.2	2.0	17.1	15.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	368	327	636	539	463	1242
V/C Ratio(X)	0.58	0.99	0.92	0.11	0.88	0.57
Avail Cap(c_a), veh/h	368	327	676	573	713	1546
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.7	30.6	24.5	17.5	27.5	7.0
Incr Delay (d2), s/veh	2.2	45.9	17.2	0.1	8.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	9.9	12.6	0.7	8.0	5.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	29.9	76.5	41.7	17.6	35.9	7.5
LnGrp LOS	C	E	D	B	D	A
Approach Vol, veh/h	535		644			1119
Approach Delay, s/veh	58.0		39.5			17.9
Approach LOS	E		D			B

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	25.1	31.3			56.4	21.0
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	31.0	28.0			64.0	16.0
Max Q Clear Time (g_c+I1), s	19.1	25.2			17.9	17.7
Green Ext Time (p_c), s	1.1	1.1			6.1	0.0

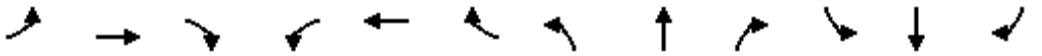
Intersection Summary	
HCM 6th Ctrl Delay	33.3
HCM 6th LOS	C



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	161	252	174	39	311	546
Future Volume (veh/h)	161	252	174	39	311	546
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	161	252	174	39	311	546
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	368	328	415	351	712	1069
Arrive On Green	0.21	0.21	0.22	0.22	0.22	0.57
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	161	252	174	39	311	546
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	3.6	6.8	3.6	0.9	4.9	8.0
Cycle Q Clear(g_c), s	3.6	6.8	3.6	0.9	4.9	8.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	368	328	415	351	712	1069
V/C Ratio(X)	0.44	0.77	0.42	0.11	0.44	0.51
Avail Cap(c_a), veh/h	908	808	1658	1405	1115	2114
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.6	16.9	15.1	14.0	7.8	5.8
Incr Delay (d2), s/veh	0.3	1.5	1.3	0.3	0.2	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.2	1.5	0.3	1.4	2.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.9	18.3	16.4	14.3	7.9	6.6
LnGrp LOS	B	B	B	B	A	A
Approach Vol, veh/h	413		213			857
Approach Delay, s/veh	17.4		16.0			7.1
Approach LOS	B		B			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	15.8	16.0			31.8	13.3
Change Period (Y+Rc), s	6.0	6.0			6.0	4.0
Max Green Setting (Gmax), s	20.0	40.0			51.0	23.0
Max Q Clear Time (g_c+I1), s	6.9	5.6			10.0	8.8
Green Ext Time (p_c), s	0.4	2.2			7.9	0.6

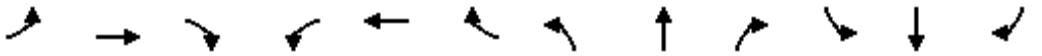
Intersection Summary	
HCM 6th Ctrl Delay	11.2
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	549	5	5	656	5	5	5	5	5	5	5
Future Volume (veh/h)	5	549	5	5	656	5	5	5	5	5	5	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	549	5	5	656	5	5	5	5	5	5	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	10	1313	584	10	1313	584	10	36	36	10	36	36
Arrive On Green	0.01	0.37	0.37	0.01	0.37	0.37	0.01	0.04	0.04	0.01	0.04	0.04
Sat Flow, veh/h	1781	3554	1581	1781	3554	1581	1781	856	856	1781	856	856
Grp Volume(v), veh/h	5	549	5	5	656	5	5	0	10	5	0	10
Grp Sat Flow(s),veh/h/ln	1781	1777	1581	1781	1777	1581	1781	0	1712	1781	0	1712
Q Serve(g_s), s	0.1	3.2	0.1	0.1	4.0	0.1	0.1	0.0	0.2	0.1	0.0	0.2
Cycle Q Clear(g_c), s	0.1	3.2	0.1	0.1	4.0	0.1	0.1	0.0	0.2	0.1	0.0	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.50	1.00		0.50
Lane Grp Cap(c), veh/h	10	1313	584	10	1313	584	10	0	72	10	0	72
V/C Ratio(X)	0.52	0.42	0.01	0.52	0.50	0.01	0.52	0.00	0.14	0.52	0.00	0.14
Avail Cap(c_a), veh/h	514	3334	1483	514	3334	1483	450	0	1977	514	0	2039
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.7	6.5	5.5	13.7	6.8	5.5	13.7	0.0	12.8	13.7	0.0	12.8
Incr Delay (d2), s/veh	36.5	0.2	0.0	36.5	0.3	0.0	36.5	0.0	0.9	36.5	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.5	0.0	0.1	0.7	0.0	0.1	0.0	0.1	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.2	6.7	5.5	50.2	7.1	5.5	50.2	0.0	13.6	50.2	0.0	13.6
LnGrp LOS	D	A	A	D	A	A	D	A	B	D	A	B
Approach Vol, veh/h		559			666			15			15	
Approach Delay, s/veh		7.1			7.4			25.8			25.8	
Approach LOS		A			A			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.2	5.2	4.2	14.2	4.2	5.2	4.2	14.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	32.0	8.0	26.0	7.0	33.0	8.0	26.0
Max Q Clear Time (g_c+I1), s	2.1	2.2	2.1	5.2	2.1	2.2	2.1	6.0
Green Ext Time (p_c), s	0.0	0.0	0.0	3.4	0.0	0.0	0.0	4.1

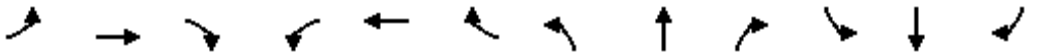
Intersection Summary	
HCM 6th Ctrl Delay	7.7
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	1	4	216	7	97	8	373	121	62	581	1
Future Volume (veh/h)	3	1	4	216	7	97	8	373	121	62	581	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	1	4	216	7	97	8	373	121	62	581	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	11	142	120	386	344	292	30	974	302	179	1194	371
Arrive On Green	0.00	0.08	0.08	0.11	0.18	0.18	0.01	0.19	0.19	0.05	0.23	0.23
Sat Flow, veh/h	3456	1870	1585	3456	1870	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	3	1	4	216	7	97	8	373	121	62	581	1
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1728	1870	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	0.0	0.0	0.1	2.1	0.1	1.9	0.1	2.2	2.3	0.6	3.5	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.1	2.1	0.1	1.9	0.1	2.2	2.3	0.6	3.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	11	142	120	386	344	292	30	974	302	179	1194	371
V/C Ratio(X)	0.26	0.01	0.03	0.56	0.02	0.33	0.27	0.38	0.40	0.35	0.49	0.00
Avail Cap(c_a), veh/h	1084	853	723	1084	853	723	1084	2475	768	1084	2475	768
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.4	15.0	15.0	14.8	11.7	12.4	17.3	12.4	12.4	16.1	11.6	10.3
Incr Delay (d2), s/veh	11.9	0.0	0.1	1.3	0.0	0.7	4.8	0.2	0.9	1.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.7	0.0	0.6	0.0	0.6	0.7	0.2	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	15.0	15.1	16.0	11.7	13.1	22.1	12.6	13.3	17.2	11.9	10.3
LnGrp LOS	C	B	B	B	B	B	C	B	B	B	B	B
Approach Vol, veh/h		8			320			502			644	
Approach Delay, s/veh		20.4			15.1			12.9			12.4	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	11.7	8.9	7.7	5.3	13.2	5.1	11.5
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	11.0	17.0	11.0	16.0	11.0	17.0	11.0	16.0
Max Q Clear Time (g_c+I1), s	2.6	4.3	4.1	2.1	2.1	5.5	2.0	3.9
Green Ext Time (p_c), s	0.1	2.1	0.4	0.0	0.0	2.8	0.0	0.2

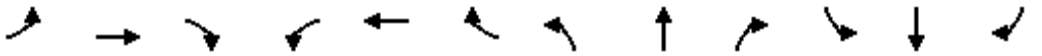
Intersection Summary	
HCM 6th Ctrl Delay	13.2
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	79	21	37	176	63	10	6	8	31	10	144
Future Volume (veh/h)	105	79	21	37	176	63	10	6	8	31	10	144
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	79	21	37	176	63	10	6	8	31	10	144
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	628	280	62	484	216	43	45	38	281	295	250
Arrive On Green	0.08	0.18	0.18	0.03	0.14	0.14	0.02	0.02	0.02	0.16	0.16	0.16
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	105	79	21	37	176	63	10	6	8	31	10	144
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	1.9	0.6	0.4	0.7	1.5	1.2	0.2	0.1	0.2	0.5	0.1	2.8
Cycle Q Clear(g_c), s	1.9	0.6	0.4	0.7	1.5	1.2	0.2	0.1	0.2	0.5	0.1	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	134	628	280	62	484	216	43	45	38	281	295	250
V/C Ratio(X)	0.78	0.13	0.07	0.60	0.36	0.29	0.23	0.13	0.21	0.11	0.03	0.58
Avail Cap(c_a), veh/h	594	2587	1154	594	2587	1154	1297	1362	1154	865	908	769
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.0	11.4	11.3	15.7	12.9	12.8	15.8	15.8	15.8	11.9	11.8	12.9
Incr Delay (d2), s/veh	9.4	0.1	0.1	8.8	0.5	0.7	2.8	1.3	2.7	0.2	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.2	0.1	0.4	0.5	0.4	0.1	0.1	0.1	0.2	0.1	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.4	11.5	11.4	24.5	13.4	13.5	18.6	17.1	18.5	12.1	11.8	15.0
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		205			276			24			185	
Approach Delay, s/veh		18.1			14.9			18.2			14.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		5.8	6.1	10.8		10.2	7.5	9.5				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		24.0	11.0	24.0		16.0	11.0	24.0				
Max Q Clear Time (g_c+I1), s		2.2	2.7	2.6		4.8	3.9	3.5				
Green Ext Time (p_c), s		0.0	0.0	0.4		0.4	0.1	1.2				

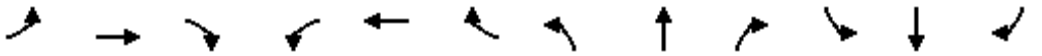
Intersection Summary												
HCM 6th Ctrl Delay			15.8									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	5	5	19	5	52	5	1111	8	101	1310	5
Future Volume (veh/h)	5	5	5	19	5	52	5	1111	8	101	1310	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	5	5	19	5	52	5	1111	8	101	1310	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	10	104	88	34	129	110	10	1739	540	130	2084	647
Arrive On Green	0.01	0.06	0.06	0.02	0.07	0.07	0.01	0.34	0.34	0.07	0.41	0.41
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	5	5	5	19	5	52	5	1111	8	101	1310	5
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	0.1	0.1	0.1	0.4	0.1	1.2	0.1	7.2	0.1	2.2	8.0	0.1
Cycle Q Clear(g_c), s	0.1	0.1	0.1	0.4	0.1	1.2	0.1	7.2	0.1	2.2	8.0	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	10	104	88	34	129	110	10	1739	540	130	2084	647
V/C Ratio(X)	0.52	0.05	0.06	0.56	0.04	0.47	0.52	0.64	0.01	0.78	0.63	0.01
Avail Cap(c_a), veh/h	501	766	649	501	766	649	501	2221	690	501	2221	690
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.4	17.5	17.5	19.0	17.0	17.5	19.4	10.9	8.5	17.8	9.2	6.9
Incr Delay (d2), s/veh	37.2	0.2	0.3	13.6	0.1	3.2	37.2	0.4	0.0	9.5	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.3	0.0	0.5	0.1	1.8	0.0	1.0	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.6	17.7	17.8	32.6	17.1	20.7	56.6	11.3	8.5	27.3	9.7	6.9
LnGrp LOS	E	B	B	C	B	C	E	B	A	C	A	A
Approach Vol, veh/h		15			76			1124			1416	
Approach Delay, s/veh		30.7			23.4			11.4			11.0	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	18.3	5.7	7.2	5.2	21.0	5.2	7.7
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	11.0	17.0	11.0	16.0	11.0	17.0	11.0	16.0
Max Q Clear Time (g_c+I1), s	4.2	9.2	2.4	2.1	2.1	10.0	2.1	3.2
Green Ext Time (p_c), s	0.1	4.1	0.0	0.0	0.0	4.4	0.0	0.1

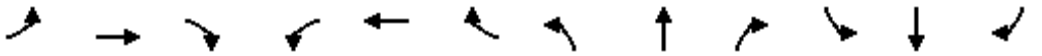
Intersection Summary	
HCM 6th Ctrl Delay	11.6
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	76	5	149	110	0	5	0	90	0	0	0
Future Volume (veh/h)	0	76	5	149	110	0	5	0	90	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	76	5	149	110	0	5	0	90	0	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	8	446	199	196	1648	735	10	150	127	8	9	7
Arrive On Green	0.00	0.13	0.13	0.11	0.46	0.00	0.01	0.00	0.08	0.00	0.00	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	0	76	5	149	110	0	5	0	90	0	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.0	0.4	0.1	1.8	0.4	0.0	0.1	0.0	1.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.4	0.1	1.8	0.4	0.0	0.1	0.0	1.2	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	8	446	199	196	1648	735	10	150	127	8	9	7
V/C Ratio(X)	0.00	0.17	0.03	0.76	0.07	0.00	0.51	0.00	0.71	0.00	0.00	0.00
Avail Cap(c_a), veh/h	894	3566	1591	1219	4215	1880	894	1877	1591	894	1877	1591
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	8.6	8.4	9.5	3.3	0.0	10.9	0.0	9.8	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.1	5.9	0.0	0.0	36.1	0.0	7.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	0.7	0.0	0.0	0.1	0.0	0.5	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	8.7	8.5	15.4	3.3	0.0	47.0	0.0	16.9	0.0	0.0	0.0
LnGrp LOS	A	A	A	B	A	A	D	A	B	A	A	A
Approach Vol, veh/h		81			259			95			0	
Approach Delay, s/veh		8.7			10.3			18.5			0.0	
Approach LOS		A			B			B				

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	0.0	6.8	7.4	7.7	5.1	1.6	0.0	15.2
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	11.0	22.0	15.0	22.0	11.0	22.0	11.0	26.0
Max Q Clear Time (g_c+I1), s	0.0	3.2	3.8	2.4	2.1	0.0	0.0	2.4
Green Ext Time (p_c), s	0.0	0.2	0.3	0.3	0.0	0.0	0.0	0.6

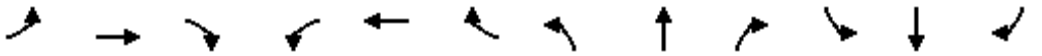
Intersection Summary	
HCM 6th Ctrl Delay	11.8
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1	83	165	12	5	190	579	127	5	735	5
Future Volume (veh/h)	5	1	83	165	12	5	190	579	127	5	735	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	1	83	165	12	5	190	579	127	5	735	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	19	136	115	297	287	243	333	1762	547	19	1297	403
Arrive On Green	0.01	0.07	0.07	0.09	0.15	0.15	0.10	0.35	0.35	0.01	0.25	0.25
Sat Flow, veh/h	3456	1870	1585	3456	1870	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	5	1	83	165	12	5	190	579	127	5	735	5
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1728	1870	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	0.1	0.0	2.1	1.9	0.2	0.1	2.1	3.4	2.3	0.1	5.1	0.1
Cycle Q Clear(g_c), s	0.1	0.0	2.1	1.9	0.2	0.1	2.1	3.4	2.3	0.1	5.1	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	19	136	115	297	287	243	333	1762	547	19	1297	403
V/C Ratio(X)	0.27	0.01	0.72	0.55	0.04	0.02	0.57	0.33	0.23	0.27	0.57	0.01
Avail Cap(c_a), veh/h	933	734	622	933	734	622	933	2130	661	933	2130	661
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.2	17.5	18.5	17.9	14.7	14.7	17.6	9.9	9.5	20.2	13.2	11.4
Incr Delay (d2), s/veh	7.5	0.0	8.2	1.6	0.1	0.0	1.5	0.1	0.2	7.5	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.9	0.7	0.1	0.0	0.7	0.8	0.7	0.0	1.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.6	17.6	26.7	19.5	14.8	14.7	19.1	10.0	9.7	27.6	13.6	11.4
LnGrp LOS	C	B	C	B	B	B	B	A	A	C	B	B
Approach Vol, veh/h		89			182			896			745	
Approach Delay, s/veh		26.6			19.0			11.9			13.7	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.2	19.1	8.5	8.0	8.9	15.4	5.2	11.2
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	11.0	17.0	11.0	16.0	11.0	17.0	11.0	16.0
Max Q Clear Time (g_c+I1), s	2.1	5.4	3.9	4.1	4.1	7.1	2.1	2.2
Green Ext Time (p_c), s	0.0	3.1	0.3	0.1	0.3	3.2	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	14.0
HCM 6th LOS	B



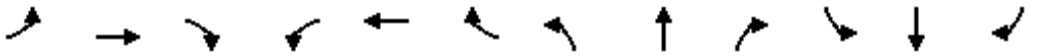
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	748	55	27	518	26	40	10	26	111	10	154
Future Volume (veh/h)	57	748	55	27	518	26	40	10	26	111	10	154
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	748	55	27	518	26	40	10	26	111	10	154
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	131	1401	625	76	1252	63	90	22	58	259	14	218
Arrive On Green	0.07	0.39	0.39	0.04	0.36	0.36	0.10	0.10	0.10	0.15	0.15	0.15
Sat Flow, veh/h	1781	3554	1585	1781	3444	173	905	226	588	1781	98	1502
Grp Volume(v), veh/h	57	748	55	27	267	277	76	0	0	111	0	164
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1839	1719	0	0	1781	0	1600
Q Serve(g_s), s	1.7	9.0	1.2	0.8	6.3	6.3	2.3	0.0	0.0	3.2	0.0	5.4
Cycle Q Clear(g_c), s	1.7	9.0	1.2	0.8	6.3	6.3	2.3	0.0	0.0	3.2	0.0	5.4
Prop In Lane	1.00		1.00	1.00		0.09	0.53		0.34	1.00		0.94
Lane Grp Cap(c), veh/h	131	1401	625	76	646	669	171	0	0	259	0	232
V/C Ratio(X)	0.43	0.53	0.09	0.35	0.41	0.41	0.44	0.00	0.00	0.43	0.00	0.71
Avail Cap(c_a), veh/h	801	2875	1282	640	1437	1488	618	0	0	640	0	575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.7	12.9	10.6	25.9	13.3	13.3	23.6	0.0	0.0	21.7	0.0	22.6
Incr Delay (d2), s/veh	0.8	0.6	0.1	1.0	0.8	0.8	1.8	0.0	0.0	0.4	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.2	0.4	0.3	2.3	2.4	1.0	0.0	0.0	1.3	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	13.5	10.7	26.9	14.0	14.0	25.4	0.0	0.0	22.1	0.0	24.1
LnGrp LOS	C	B	B	C	B	B	C	A	A	C	A	C
Approach Vol, veh/h		860			571			76			275	
Approach Delay, s/veh		14.1			14.6			25.4			23.3	
Approach LOS		B			B			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.5	6.4	27.6		12.1	8.1	25.9				
Change Period (Y+Rc), s		4.0	4.0	5.7		4.0	4.0	5.7				
Max Green Setting (Gmax), s		20.0	20.0	45.0		20.0	25.0	45.0				
Max Q Clear Time (g_c+I1), s		4.3	2.8	11.0		7.4	3.7	8.3				
Green Ext Time (p_c), s		0.3	0.0	11.0		0.6	0.1	6.7				

Intersection Summary												
HCM 6th Ctrl Delay			16.2									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.



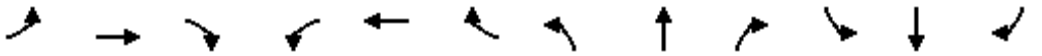
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1	19	19	5	28	10	88	44	72	139	13
Future Volume (veh/h)	19	1	19	19	5	28	10	88	44	72	139	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	1	19	19	5	28	10	88	44	72	139	13
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	35	141	119	35	141	119	19	292	246	114	392	330
Arrive On Green	0.02	0.08	0.08	0.02	0.08	0.08	0.01	0.16	0.16	0.06	0.21	0.21
Sat Flow, veh/h	1781	1870	1576	1781	1870	1576	1781	1870	1576	1781	1870	1577
Grp Volume(v), veh/h	19	1	19	19	5	28	10	88	44	72	139	13
Grp Sat Flow(s),veh/h/ln	1781	1870	1576	1781	1870	1576	1781	1870	1576	1781	1870	1577
Q Serve(g_s), s	0.2	0.0	0.3	0.2	0.1	0.4	0.1	1.0	0.6	0.9	1.5	0.2
Cycle Q Clear(g_c), s	0.2	0.0	0.3	0.2	0.1	0.4	0.1	1.0	0.6	0.9	1.5	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	35	141	119	35	141	119	19	292	246	114	392	330
V/C Ratio(X)	0.54	0.01	0.16	0.54	0.04	0.24	0.52	0.30	0.18	0.63	0.35	0.04
Avail Cap(c_a), veh/h	610	1761	1483	610	1761	1483	610	1841	1551	610	1841	1552
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.3	10.0	10.1	11.3	10.0	10.2	11.5	8.7	8.6	10.7	7.9	7.4
Incr Delay (d2), s/veh	12.1	0.0	0.6	12.1	0.1	1.0	20.2	0.6	0.3	5.7	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.1	0.2	0.0	0.1	0.1	0.3	0.1	0.4	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.4	10.0	10.7	23.4	10.1	11.2	31.7	9.3	8.9	16.4	8.4	7.4
LnGrp LOS	C	B	B	C	B	B	C	A	A	B	A	A
Approach Vol, veh/h		39			52			142			224	
Approach Delay, s/veh		16.9			15.5			10.8			10.9	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	7.7	4.5	5.8	4.3	8.9	4.5	5.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	23.0	8.0	22.0	8.0	23.0	8.0	22.0
Max Q Clear Time (g_c+I1), s	2.9	3.0	2.2	2.3	2.1	3.5	2.2	2.4
Green Ext Time (p_c), s	0.1	0.5	0.0	0.0	0.0	0.7	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	11.9
HCM 6th LOS	B

Intersection 228 **Cirby Hills Dr-Kaiser Dwy/Cirby Way** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	180	168	93.6%	75.3	47.1	E
	Through						
	Right Turn	346	359	103.8%	26.1	5.8	C
	Subtotal	526	528	100.3%	41.1	15.2	D
SB	Left Turn	23	22	93.9%	72.3	20.9	E
	Through						
	Right Turn	73	71	97.5%	40.1	26.0	D
	Subtotal	96	93	96.7%	46.9	21.5	D
EB	Left Turn	55	48	88.0%	91.5	11.2	F
	Through	1,264	1,073	84.9%	12.8	6.7	B
	Right Turn	77	64	82.6%	7.2	1.3	A
	Subtotal	1,396	1,185	84.9%	15.8	6.2	B
WB	Left Turn	48	41	85.8%	102.4	31.4	F
	Through	1,578	1,519	96.3%	56.6	44.8	E
	Right Turn	26	28	106.2%	47.7	46.5	D
	Subtotal	1,652	1,588	96.1%	57.7	44.2	E
Total		3,670	3,394	92.5%	39.8	22.5	D



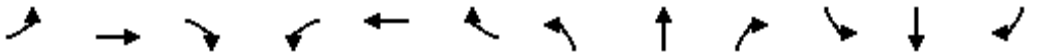
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	62	77	470	53	22	45	496	245	25	1015	7
Future Volume (veh/h)	57	62	77	470	53	22	45	496	245	25	1015	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	62	77	470	53	22	45	496	245	25	1015	7
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	79	86	144	508	57	500	83	648	549	66	1217	8
Arrive On Green	0.09	0.09	0.09	0.32	0.32	0.32	0.05	0.35	0.35	0.04	0.34	0.34
Sat Flow, veh/h	875	952	1585	1609	181	1585	1781	1870	1585	1781	3618	25
Grp Volume(v), veh/h	119	0	77	523	0	22	45	496	245	25	499	523
Grp Sat Flow(s),veh/h/ln	1827	0	1585	1790	0	1585	1781	1870	1585	1781	1777	1866
Q Serve(g_s), s	5.2	0.0	3.8	23.2	0.0	0.8	2.0	19.4	9.8	1.1	21.3	21.3
Cycle Q Clear(g_c), s	5.2	0.0	3.8	23.2	0.0	0.8	2.0	19.4	9.8	1.1	21.3	21.3
Prop In Lane	0.48		1.00	0.90		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	166	0	144	565	0	500	83	648	549	66	598	628
V/C Ratio(X)	0.72	0.00	0.54	0.93	0.00	0.04	0.54	0.77	0.45	0.38	0.83	0.83
Avail Cap(c_a), veh/h	444	0	385	653	0	578	433	1160	983	433	972	1021
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	0.0	35.7	27.2	0.0	19.5	38.3	23.9	20.8	38.7	25.2	25.2
Incr Delay (d2), s/veh	2.2	0.0	1.2	16.8	0.0	0.0	2.0	1.8	0.5	1.3	3.3	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	1.5	12.0	0.0	0.3	0.9	8.5	3.6	0.5	9.0	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.5	0.0	36.9	44.0	0.0	19.5	40.3	25.8	21.3	40.0	28.4	28.3
LnGrp LOS	D	A	D	D	A	B	D	C	C	D	C	C
Approach Vol, veh/h		196			545			786			1047	
Approach Delay, s/veh		37.9			43.0			25.2			28.6	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	33.8		30.0	7.9	33.0		11.5				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	* 5.3		4.0				
Max Green Setting (Gmax), s	20.0	51.0		30.0	20.0	* 45		20.0				
Max Q Clear Time (g_c+I1), s	3.1	21.4		25.2	4.0	23.3		7.2				
Green Ext Time (p_c), s	0.0	3.3		0.7	0.0	4.4		0.3				

Intersection Summary		
HCM 6th Ctrl Delay		31.3
HCM 6th LOS		C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	217	211	5	507	525	9	0	267	358	0	545	432
Future Volume (veh/h)	217	211	5	507	525	9	0	267	358	0	545	432
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	217	211	4	507	525	8	0	267	234	0	545	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	0	2	2
Cap, veh/h	262	269	5	542	559	9	0	749	635	0	749	
Arrive On Green	0.15	0.15	0.15	0.30	0.30	0.30	0.00	0.40	0.40	0.00	0.40	0.00
Sat Flow, veh/h	1781	1829	35	1781	1837	28	0	1870	1585	0	1870	1585
Grp Volume(v), veh/h	217	0	215	507	0	533	0	267	234	0	545	0
Grp Sat Flow(s),veh/h/ln	1781	0	1864	1781	0	1865	0	1870	1585	0	1870	1585
Q Serve(g_s), s	11.8	0.0	11.1	27.7	0.0	27.8	0.0	10.0	10.4	0.0	24.6	0.0
Cycle Q Clear(g_c), s	11.8	0.0	11.1	27.7	0.0	27.8	0.0	10.0	10.4	0.0	24.6	0.0
Prop In Lane	1.00		0.02	1.00		0.02	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	262	0	274	542	0	567	0	749	635	0	749	
V/C Ratio(X)	0.83	0.00	0.78	0.94	0.00	0.94	0.00	0.36	0.37	0.00	0.73	
Avail Cap(c_a), veh/h	392	0	410	554	0	580	0	749	635	0	749	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	41.4	0.0	41.1	33.8	0.0	33.9	0.0	21.0	21.1	0.0	25.3	0.0
Incr Delay (d2), s/veh	7.5	0.0	4.6	23.1	0.0	23.1	0.0	1.3	1.6	0.0	3.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	0.0	5.4	14.9	0.0	15.7	0.0	4.6	4.1	0.0	11.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.9	0.0	45.7	57.0	0.0	57.0	0.0	22.3	22.7	0.0	29.3	0.0
LnGrp LOS	D	A	D	E	A	E	A	C	C	A	C	
Approach Vol, veh/h		432			1040			501			545	A
Approach Delay, s/veh		47.3			57.0			22.5			29.3	
Approach LOS		D			E			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		44.7		20.0		44.7		35.3				
Change Period (Y+Rc), s		* 4.6		5.3		4.6		4.9				
Max Green Setting (Gmax), s		* 33		22.0		32.1		31.1				
Max Q Clear Time (g_c+I1), s		12.4		13.8		26.6		29.8				
Green Ext Time (p_c), s		4.3		0.9		1.8		0.6				

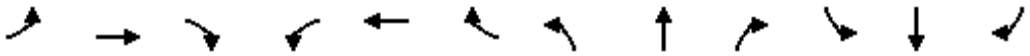
Intersection Summary		
HCM 6th Ctrl Delay		42.5
HCM 6th LOS		D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.



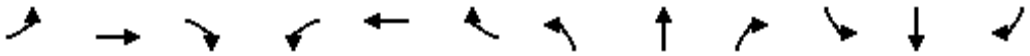
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	600	116	90	594	36	283	38	66	10	49	21
Future Volume (veh/h)	19	600	116	90	594	36	283	38	66	10	49	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	600	116	90	594	36	283	38	66	10	49	21
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	74	1075	935	143	781	45	247	18	423	68	202	72
Arrive On Green	0.59	0.59	0.59	0.59	0.59	0.59	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	21	1822	1585	128	1323	76	503	68	1585	0	756	269
Grp Volume(v), veh/h	619	0	116	720	0	0	321	0	66	80	0	0
Grp Sat Flow(s),veh/h/ln	1843	0	1585	1527	0	0	571	0	1585	1026	0	0
Q Serve(g_s), s	0.0	0.0	1.9	10.2	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0
Cycle Q Clear(g_c), s	12.2	0.0	1.9	22.4	0.0	0.0	16.0	0.0	1.9	16.0	0.0	0.0
Prop In Lane	0.03		1.00	0.12		0.05	0.88		1.00	0.12		0.26
Lane Grp Cap(c), veh/h	1149	0	935	969	0	0	265	0	423	341	0	0
V/C Ratio(X)	0.54	0.00	0.12	0.74	0.00	0.00	1.21	0.00	0.16	0.23	0.00	0.00
Avail Cap(c_a), veh/h	1149	0	935	969	0	0	265	0	423	341	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.97	0.00	0.97	1.00	0.00	0.00
Uniform Delay (d), s/veh	7.5	0.0	5.4	9.2	0.0	0.0	25.4	0.0	16.8	17.3	0.0	0.0
Incr Delay (d2), s/veh	1.8	0.0	0.3	5.2	0.0	0.0	123.7	0.0	0.1	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.0	0.6	6.0	0.0	0.0	12.7	0.0	0.6	0.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.4	0.0	5.7	14.4	0.0	0.0	149.1	0.0	16.9	17.4	0.0	0.0
LnGrp LOS	A	A	A	B	A	A	F	A	B	B	A	A
Approach Vol, veh/h		735			720			387			80	
Approach Delay, s/veh		8.8			14.4			126.6			17.4	
Approach LOS		A			B			F			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	40.0	20.0	40.0	20.0
Change Period (Y+Rc), s	4.6	4.0	4.6	4.0
Max Green Setting (Gmax), s	35.4	16.0	35.4	16.0
Max Q Clear Time (g_c+I1), s	14.2	18.0	24.4	18.0
Green Ext Time (p_c), s	2.8	0.0	2.6	0.0

Intersection Summary	
HCM 6th Ctrl Delay	35.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	437	16	19	858	63	25	36	46	117	96	74
Future Volume (veh/h)	47	437	16	19	858	63	25	36	46	117	96	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	437	16	19	858	63	25	36	46	117	96	74
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	122	1013	35	70	1091	79	186	233	339	202	129	85
Arrive On Green	0.64	0.64	0.64	0.64	0.64	0.64	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	87	1576	55	14	1697	123	474	1089	1585	548	601	399
Grp Volume(v), veh/h	500	0	0	940	0	0	61	0	46	287	0	0
Grp Sat Flow(s),veh/h/ln	1718	0	0	1834	0	0	1563	0	1585	1549	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	9.1	0.0	0.0
Cycle Q Clear(g_c), s	7.9	0.0	0.0	22.2	0.0	0.0	1.6	0.0	1.4	10.7	0.0	0.0
Prop In Lane	0.09		0.03	0.02		0.07	0.41		1.00	0.41		0.26
Lane Grp Cap(c), veh/h	1170	0	0	1240	0	0	419	0	339	416	0	0
V/C Ratio(X)	0.43	0.00	0.00	0.76	0.00	0.00	0.15	0.00	0.14	0.69	0.00	0.00
Avail Cap(c_a), veh/h	1170	0	0	1240	0	0	500	0	423	497	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.2	0.0	0.0	7.8	0.0	0.0	19.2	0.0	19.1	22.7	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	0.0	4.4	0.0	0.0	0.1	0.0	0.1	2.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	0.0	7.4	0.0	0.0	0.7	0.0	0.5	3.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.4	0.0	0.0	12.2	0.0	0.0	19.2	0.0	19.2	24.8	0.0	0.0
LnGrp LOS	A	A	A	B	A	A	B	A	B	C	A	A
Approach Vol, veh/h		500			940			107			287	
Approach Delay, s/veh		6.4			12.2			19.2			24.8	
Approach LOS		A			B			B			C	

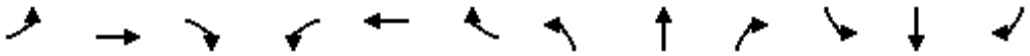
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		43.2		16.8		43.2		16.8				
Change Period (Y+Rc), s		4.6		4.0		* 4.6		4.0				
Max Green Setting (Gmax), s		35.4		16.0		* 36		16.0				
Max Q Clear Time (g_c+I1), s		9.9		3.6		24.2		12.7				
Green Ext Time (p_c), s		2.0		0.2		2.4		0.2				

Intersection Summary		
HCM 6th Ctrl Delay		13.0
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



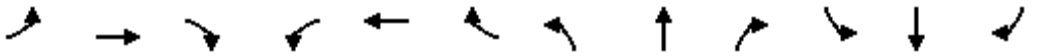
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	572	42	541	753	7	25	27	322	100	172	60
Future Volume (veh/h)	90	572	42	541	753	7	25	27	322	100	172	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	90	572	39	541	753	7	25	27	267	100	172	51
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	115	585	40	534	1061	10	162	156	828	143	196	54
Arrive On Green	0.06	0.34	0.34	0.30	0.57	0.57	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1781	1731	118	1781	1850	17	461	700	1585	409	881	242
Grp Volume(v), veh/h	90	0	611	541	0	760	52	0	267	323	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1849	1781	0	1867	1161	0	1585	1531	0	0
Q Serve(g_s), s	4.5	0.0	29.4	27.0	0.0	26.4	0.0	0.0	8.7	16.3	0.0	0.0
Cycle Q Clear(g_c), s	4.5	0.0	29.4	27.0	0.0	26.4	2.0	0.0	8.7	18.7	0.0	0.0
Prop In Lane	1.00		0.06	1.00		0.01	0.48		1.00	0.31		0.16
Lane Grp Cap(c), veh/h	115	0	625	534	0	1070	317	0	828	393	0	0
V/C Ratio(X)	0.78	0.00	0.98	1.01	0.00	0.71	0.16	0.00	0.32	0.82	0.00	0.00
Avail Cap(c_a), veh/h	139	0	625	534	0	1070	317	0	828	393	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.70	0.00	0.70	1.00	0.00	0.00
Uniform Delay (d), s/veh	41.5	0.0	29.5	31.5	0.0	13.8	28.0	0.0	12.4	34.3	0.0	0.0
Incr Delay (d2), s/veh	17.1	0.0	30.4	42.1	0.0	4.0	0.1	0.0	0.1	12.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	17.7	17.4	0.0	11.2	0.9	0.0	2.8	8.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.6	0.0	59.9	73.6	0.0	17.8	28.1	0.0	12.4	46.7	0.0	0.0
LnGrp LOS	E	A	E	F	A	B	C	A	B	D	A	A
Approach Vol, veh/h		701			1301			319			323	
Approach Delay, s/veh		59.7			41.0			15.0			46.7	
Approach LOS		E			D			B			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	31.0	35.0		24.0	9.8	56.2		24.0				
Change Period (Y+Rc), s	4.0	4.6		4.0	4.0	4.6		4.0				
Max Green Setting (Gmax), s	27.0	30.4		20.0	7.0	50.4		20.0				
Max Q Clear Time (g_c+I1), s	29.0	31.4		10.7	6.5	28.4		20.7				
Green Ext Time (p_c), s	0.0	0.0		0.6	0.0	3.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		43.5	
HCM 6th LOS		D	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	88	282	191	107	53	592	1034	0	56	1203	14
Future Volume (veh/h)	71	88	282	191	107	53	592	1034	0	56	1203	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	71	88	48	191	107	12	592	1034	0	56	1203	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	89	110	172	217	122	296	478	1274	568	0	1419	
Arrive On Green	0.11	0.11	0.11	0.19	0.19	0.19	0.14	0.36	0.00	0.17	0.40	0.00
Sat Flow, veh/h	817	1013	1585	1162	651	1585	3456	3554	1585	0	3554	1585
Grp Volume(v), veh/h	159	0	48	298	0	12	592	1034	0	0	1203	0
Grp Sat Flow(s),veh/h/ln	1830	0	1585	1812	0	1585	1728	1777	1585	0	1777	1585
Q Serve(g_s), s	8.6	0.0	2.8	16.2	0.0	0.6	14.0	26.6	0.0	0.0	31.1	0.0
Cycle Q Clear(g_c), s	8.6	0.0	2.8	16.2	0.0	0.6	14.0	26.6	0.0	0.0	31.1	0.0
Prop In Lane	0.45		1.00	0.64		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	198	0	172	339	0	296	478	1274	568	0	1419	
V/C Ratio(X)	0.80	0.00	0.28	0.88	0.00	0.04	1.24	0.81	0.00	0.00	0.85	
Avail Cap(c_a), veh/h	235	0	204	770	0	674	478	1830	816	0	1689	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	44.1	0.0	41.5	40.0	0.0	33.7	43.6	29.4	0.0	0.0	27.6	0.0
Incr Delay (d2), s/veh	13.0	0.0	0.3	3.0	0.0	0.0	124.1	2.3	0.0	0.0	4.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	1.1	7.5	0.0	0.2	14.0	11.1	0.0	0.0	13.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.0	0.0	41.8	43.0	0.0	33.7	167.7	31.7	0.0	0.0	31.6	0.0
LnGrp LOS	E	A	D	D	A	C	F	C	A	A	C	
Approach Vol, veh/h		207			310			1626			1203	A
Approach Delay, s/veh		53.5			42.6			81.2			31.6	
Approach LOS		D			D			F			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	22.1	41.2		15.0	18.0	45.3		22.9				
Change Period (Y+Rc), s	4.9	* 4.9		4.0	4.0	4.9		4.0				
Max Green Setting (Gmax), s	10.0	* 52		13.0	14.0	48.1		43.0				
Max Q Clear Time (g_c+I1), s	0.0	28.6		10.6	16.0	33.1		18.2				
Green Ext Time (p_c), s	0.0	7.6		0.1	0.0	7.3		0.7				

Intersection Summary		
HCM 6th Ctrl Delay		58.1
HCM 6th LOS		E

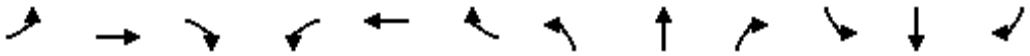
Notes

User approved pedestrian interval to be less than phase max green.

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.



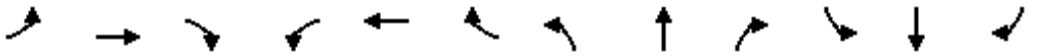
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	724	0	0	738	388	0	0	0	192	0	56
Future Volume (veh/h)	52	724	0	0	738	388	0	0	0	192	0	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	724	0	0	738	388	0	0	0	124	95	56
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	146	2509	0	0	1019	1078	0	0	0	242	150	88
Arrive On Green	0.08	0.71	0.00	0.00	0.54	0.54	0.00	0.00	0.00	0.14	0.14	0.14
Sat Flow, veh/h	1781	3647	0	0	1870	1585		0		1781	1103	650
Grp Volume(v), veh/h	52	724	0	0	738	388		0.0		124	0	151
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1870	1585				1781	0	1753
Q Serve(g_s), s	1.4	3.8	0.0	0.0	15.0	5.2				3.3	0.0	4.1
Cycle Q Clear(g_c), s	1.4	3.8	0.0	0.0	15.0	5.2				3.3	0.0	4.1
Prop In Lane	1.00		0.00	0.00		1.00				1.00		0.37
Lane Grp Cap(c), veh/h	146	2509	0	0	1019	1078				242	0	238
V/C Ratio(X)	0.36	0.29	0.00	0.00	0.72	0.36				0.51	0.00	0.63
Avail Cap(c_a), veh/h	705	3307	0	0	1741	1690				811	0	798
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	21.9	2.7	0.0	0.0	8.6	3.4				20.3	0.0	20.6
Incr Delay (d2), s/veh	0.5	0.1	0.0	0.0	1.3	0.3				0.6	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.6	0.0	0.0	4.4	1.8				1.2	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	2.8	0.0	0.0	10.0	3.7				20.9	0.0	21.7
LnGrp LOS	C	A	A	A	A	A				C	A	C
Approach Vol, veh/h		776			1126						275	
Approach Delay, s/veh		4.1			7.8						21.3	
Approach LOS		A			A						C	

Timer - Assigned Phs				4		6	7	8				
Phs Duration (G+Y+Rc), s				39.7		10.9	8.1	31.5				
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s				47.0		23.0	20.0	47.0				
Max Q Clear Time (g_c+I1), s				5.8		6.1	3.4	17.0				
Green Ext Time (p_c), s				8.0		0.6	0.0	10.5				

Intersection Summary												
HCM 6th Ctrl Delay			8.2									
HCM 6th LOS			A									

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	364	0	643	0	0	0	608	53	0	0	54	692
Future Volume (veh/h)	364	0	643	0	0	0	608	53	0	0	54	692
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h	364	0	643	0	0	0	646	0	0	0	54	692
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	0	2	2	2	2	2	2	0	0	2	2
Cap, veh/h	0	0	0	0	6	0	937	492	0	0	923	782
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.49	0.49
Sat Flow, veh/h		0		0	1870	0	3563	1870	0	0	1870	1585
Grp Volume(v), veh/h		0.0		0	0	0	646	0	0	0	54	692
Grp Sat Flow(s),veh/h/ln				0	1870	0	1781	1870	0	0	1870	1585
Q Serve(g_s), s				0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.5	12.9
Cycle Q Clear(g_c), s				0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.5	12.9
Prop In Lane				0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				0	6	0	937	492	0	0	923	782
V/C Ratio(X)				0.00	0.00	0.00	0.69	0.00	0.00	0.00	0.06	0.88
Avail Cap(c_a), veh/h				0	1309	0	4446	2334	0	0	1423	1206
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				0.0	0.0	0.0	10.9	0.0	0.0	0.0	4.3	7.5
Incr Delay (d2), s/veh				0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	3.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.1	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	0.0	11.2	0.0	0.0	0.0	4.4	11.1
LnGrp LOS				A	A	A	B	A	A	A	A	B
Approach Vol, veh/h					0			646			746	
Approach Delay, s/veh					0.0			11.2			10.6	
Approach LOS								B			B	

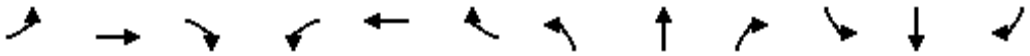
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		12.6				20.2		0.0				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		41.0				25.0		23.0				
Max Q Clear Time (g_c+I1), s		7.4				14.9		0.0				
Green Ext Time (p_c), s		1.3				1.3		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	10.9	
HCM 6th LOS	B	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



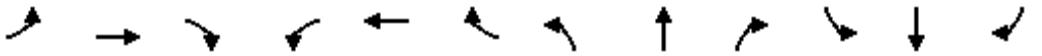
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	735	18	223	621	363	24	141	176	36	205	70
Future Volume (veh/h)	37	735	18	223	621	363	24	141	176	36	205	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	735	18	223	621	363	24	141	176	36	205	70
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	1020	455	264	791	463	37	219	219	41	236	80
Arrive On Green	0.07	0.29	0.29	0.15	0.37	0.37	0.14	0.14	0.14	0.20	0.20	0.20
Sat Flow, veh/h	1781	3554	1585	1781	2158	1262	270	1587	1585	207	1178	402
Grp Volume(v), veh/h	37	735	18	223	511	473	165	0	176	311	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1643	1857	0	1585	1788	0	0
Q Serve(g_s), s	1.7	15.6	0.7	10.2	21.5	21.5	7.1	0.0	9.0	14.1	0.0	0.0
Cycle Q Clear(g_c), s	1.7	15.6	0.7	10.2	21.5	21.5	7.1	0.0	9.0	14.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.77	0.15		1.00	0.12		0.23
Lane Grp Cap(c), veh/h	123	1020	455	264	651	602	257	0	219	357	0	0
V/C Ratio(X)	0.30	0.72	0.04	0.84	0.78	0.78	0.64	0.00	0.80	0.87	0.00	0.00
Avail Cap(c_a), veh/h	424	1694	755	424	847	783	442	0	378	703	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.2	26.9	21.6	34.8	23.6	23.6	34.2	0.0	35.1	32.5	0.0	0.0
Incr Delay (d2), s/veh	0.5	1.7	0.1	4.4	4.8	5.2	1.0	0.0	2.6	2.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	6.6	0.3	4.6	9.4	8.7	3.2	0.0	3.6	6.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	28.6	21.6	39.2	28.4	28.8	35.2	0.0	37.7	35.1	0.0	0.0
LnGrp LOS	D	C	C	D	C	C	D	A	D	D	A	A
Approach Vol, veh/h		790			1207			341			311	
Approach Delay, s/veh		28.8			30.6			36.5			35.1	
Approach LOS		C			C			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.9	16.5	29.8		20.8	9.8	36.5				
Change Period (Y+Rc), s		5.3	4.0	5.7		4.0	4.0	5.7				
Max Green Setting (Gmax), s		20.0	20.0	40.0		33.0	20.0	40.0				
Max Q Clear Time (g_c+I1), s		11.0	12.2	17.6		16.1	3.7	23.5				
Green Ext Time (p_c), s		0.6	0.3	6.5		0.6	0.0	7.3				

Intersection Summary	
HCM 6th Ctrl Delay	31.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	634	12	133	1088	46	10	4	20	53	4	1
Future Volume (veh/h)	2	634	12	133	1088	46	10	4	20	53	4	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	634	12	133	1088	46	10	4	20	53	4	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	9	1374	26	290	1929	860	136	52	120	322	19	200
Arrive On Green	0.00	0.39	0.39	0.16	0.54	0.54	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1781	3568	67	1781	3554	1585	257	409	950	1319	149	1585
Grp Volume(v), veh/h	2	316	330	133	1088	46	34	0	0	57	0	1
Grp Sat Flow(s),veh/h/ln	1781	1777	1858	1781	1777	1585	1616	0	0	1468	0	1585
Q Serve(g_s), s	0.1	5.9	6.0	3.0	9.0	0.6	0.0	0.0	0.0	0.6	0.0	0.0
Cycle Q Clear(g_c), s	0.1	5.9	6.0	3.0	9.0	0.6	0.8	0.0	0.0	1.4	0.0	0.0
Prop In Lane	1.00		0.04	1.00		1.00	0.29		0.59	0.93		1.00
Lane Grp Cap(c), veh/h	9	684	716	290	1929	860	308	0	0	341	0	200
V/C Ratio(X)	0.23	0.46	0.46	0.46	0.56	0.05	0.11	0.00	0.00	0.17	0.00	0.00
Avail Cap(c_a), veh/h	796	1798	1880	915	4071	1816	807	0	0	796	0	711
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.2	10.3	10.3	17.0	6.7	4.8	17.4	0.0	0.0	17.7	0.0	17.1
Incr Delay (d2), s/veh	4.8	0.8	0.8	0.4	0.4	0.0	0.1	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.0	2.1	1.1	2.3	0.1	0.3	0.0	0.0	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.0	11.1	11.1	17.4	7.2	4.9	17.5	0.0	0.0	17.8	0.0	17.1
LnGrp LOS	C	B	B	B	A	A	B	A	A	B	A	B
Approach Vol, veh/h		648			1267			34			58	
Approach Delay, s/veh		11.2			8.2			17.5			17.7	
Approach LOS		B			A			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.6	11.3	22.9		10.6	4.2	30.0				
Change Period (Y+Rc), s		* 4.9	4.0	5.7		4.9	4.0	5.7				
Max Green Setting (Gmax), s		* 20	23.0	45.3		20.1	20.0	51.3				
Max Q Clear Time (g_c+I1), s		2.8	5.0	8.0		3.4	2.1	11.0				
Green Ext Time (p_c), s		0.1	0.2	5.6		0.1	0.0	13.3				

Intersection Summary	
HCM 6th Ctrl Delay	9.6
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1268	67	5	462	50	5
Future Volume (veh/h)	1268	67	5	462	50	5
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1268	31	5	462	50	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2448	758	10	3133	229	204
Arrive On Green	0.48	0.48	0.01	0.61	0.13	0.13
Sat Flow, veh/h	5274	1582	1781	5274	1781	1585
Grp Volume(v), veh/h	1268	31	5	462	50	1
Grp Sat Flow(s),veh/h/ln	1702	1582	1781	1702	1781	1585
Q Serve(g_s), s	5.3	0.3	0.1	1.2	0.8	0.0
Cycle Q Clear(g_c), s	5.3	0.3	0.1	1.2	0.8	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2448	758	10	3133	229	204
V/C Ratio(X)	0.52	0.04	0.52	0.15	0.22	0.00
Avail Cap(c_a), veh/h	3782	1171	459	5097	1205	1072
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.6	4.3	15.4	2.5	12.1	11.8
Incr Delay (d2), s/veh	0.2	0.0	36.7	0.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.1	0.0	0.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.8	4.3	52.1	2.6	12.6	11.8
LnGrp LOS	A	A	D	A	B	B
Approach Vol, veh/h	1299			467	51	
Approach Delay, s/veh	5.7			3.1	12.6	
Approach LOS	A			A	B	

Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	8.0	4.2	18.9	23.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	21.0	8.0	23.0	31.0
Max Q Clear Time (g_c+I1), s	2.8	2.1	7.3	3.2
Green Ext Time (p_c), s	0.1	0.0	7.5	2.9

Intersection Summary	
HCM 6th Ctrl Delay	5.3
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	1178	30	84	306	43	37	108	138	292	105	118
Future Volume (veh/h)	60	1178	30	84	306	43	37	108	138	292	105	118
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	1178	30	84	306	43	37	108	138	292	105	118
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	77	1728	536	108	1818	564	52	235	199	346	544	461
Arrive On Green	0.04	0.34	0.34	0.06	0.36	0.36	0.03	0.13	0.13	0.19	0.29	0.29
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	60	1178	30	84	306	43	37	108	138	292	105	118
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	2.4	14.1	0.9	3.3	2.9	1.3	1.5	3.8	5.9	11.2	3.0	4.1
Cycle Q Clear(g_c), s	2.4	14.1	0.9	3.3	2.9	1.3	1.5	3.8	5.9	11.2	3.0	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	77	1728	536	108	1818	564	52	235	199	346	544	461
V/C Ratio(X)	0.78	0.68	0.06	0.78	0.17	0.08	0.71	0.46	0.69	0.84	0.19	0.26
Avail Cap(c_a), veh/h	200	2367	735	175	2296	713	225	841	713	576	1209	1024
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.7	20.2	15.9	33.0	15.7	15.2	34.3	28.9	29.8	27.6	19.0	19.3
Incr Delay (d2), s/veh	15.8	0.5	0.0	11.3	0.0	0.1	16.5	1.4	4.3	5.9	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	5.3	0.3	1.7	1.1	0.4	0.9	1.7	2.4	5.1	1.3	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.6	20.7	15.9	44.2	15.7	15.2	50.7	30.3	34.1	33.6	19.1	19.6
LnGrp LOS	D	C	B	D	B	B	D	C	C	C	B	B
Approach Vol, veh/h		1268			433			283			515	
Approach Delay, s/veh		22.0			21.2			34.8			27.4	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.8	14.0	9.3	29.1	7.1	25.7	8.1	30.3
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	23.0	32.0	7.0	33.0	9.0	46.0	8.0	32.0
Max Q Clear Time (g_c+I1), s	13.2	7.9	5.3	16.1	3.5	6.1	4.4	4.9
Green Ext Time (p_c), s	0.6	1.0	0.0	8.0	0.0	1.0	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	24.4
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	227	1270	103	354	382	157	37	1104	503	294	912	115
Future Volume (veh/h)	227	1270	103	354	382	157	37	1104	503	294	912	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	227	1270	30	354	382	24	37	1104	320	294	912	43
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	920	1474	455	403	636	195	412	1244	552	342	1121	497
Arrive On Green	0.27	0.29	0.29	0.12	0.12	0.12	0.12	0.35	0.35	0.10	0.32	0.32
Sat Flow, veh/h	3456	5106	1577	3456	5106	1566	3456	3554	1578	3456	3554	1578
Grp Volume(v), veh/h	227	1270	30	354	382	24	37	1104	320	294	912	43
Grp Sat Flow(s),veh/h/ln	1728	1702	1577	1728	1702	1566	1728	1777	1578	1728	1777	1578
Q Serve(g_s), s	7.2	32.9	1.4	14.1	9.9	1.5	1.3	40.9	23.1	11.7	33.0	2.7
Cycle Q Clear(g_c), s	7.2	32.9	1.4	14.1	9.9	1.5	1.3	40.9	23.1	11.7	33.0	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	920	1474	455	403	636	195	412	1244	552	342	1121	497
V/C Ratio(X)	0.25	0.86	0.07	0.88	0.60	0.12	0.09	0.89	0.58	0.86	0.81	0.09
Avail Cap(c_a), veh/h	920	1608	496	445	1695	520	412	1297	576	371	1475	655
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.3	47.1	18.1	60.8	57.9	35.3	54.8	42.8	37.0	62.0	44.1	33.7
Incr Delay (d2), s/veh	0.1	4.9	0.1	15.7	1.3	0.4	0.0	8.1	2.2	16.0	3.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	14.0	0.7	6.9	4.2	0.8	0.6	18.4	8.9	5.7	14.4	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.3	52.0	18.1	76.5	59.2	35.7	54.8	51.0	39.2	78.1	47.8	33.8
LnGrp LOS	D	D	B	E	E	D	D	D	D	E	D	C
Approach Vol, veh/h		1527			760			1461			1249	
Approach Delay, s/veh		49.6			66.5			48.5			54.5	
Approach LOS		D			E			D			D	

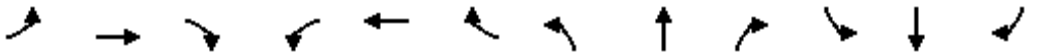
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.8	54.9	20.3	46.7	22.7	50.1	43.6	23.4
Change Period (Y+Rc), s	4.0	6.0	4.0	6.4	6.0	* 6	6.4	* 6
Max Green Setting (Gmax), s	15.0	51.0	18.0	44.0	8.0	* 58	16.0	* 46
Max Q Clear Time (g_c+I1), s	13.7	42.9	16.1	34.9	3.3	35.0	9.2	11.9
Green Ext Time (p_c), s	0.1	6.0	0.2	5.0	0.0	8.6	0.3	2.8

Intersection Summary	
HCM 6th Ctrl Delay	53.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

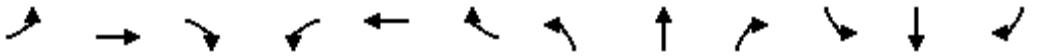


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	2577	68	82	1018	156	34	28	114	480	39	53
Future Volume (veh/h)	77	2577	68	82	1018	156	34	28	114	480	39	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	2577	34	82	1018	78	34	28	9	552	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	96	2873	892	101	2886	896	135	142	120	623	327	0
Arrive On Green	0.05	0.56	0.56	0.11	1.00	1.00	0.08	0.08	0.08	0.17	0.00	0.00
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1870	1585	3563	1870	0
Grp Volume(v), veh/h	77	2577	34	82	1018	78	34	28	9	552	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1870	1585	1781	1870	0
Q Serve(g_s), s	6.4	66.8	1.4	6.7	0.0	0.0	2.7	2.1	0.8	22.7	0.0	0.0
Cycle Q Clear(g_c), s	6.4	66.8	1.4	6.7	0.0	0.0	2.7	2.1	0.8	22.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	96	2873	892	101	2886	896	135	142	120	623	327	0
V/C Ratio(X)	0.80	0.90	0.04	0.81	0.35	0.09	0.25	0.20	0.07	0.89	0.00	0.00
Avail Cap(c_a), veh/h	143	2873	892	143	2886	896	143	150	127	1045	549	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.90	0.90	0.90	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	70.2	29.0	14.7	65.7	0.0	0.0	65.3	65.0	64.4	60.4	0.0	0.0
Incr Delay (d2), s/veh	10.4	4.9	0.1	13.3	0.2	0.1	0.4	0.3	0.1	2.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	26.8	0.5	3.3	0.1	0.0	1.2	1.0	0.3	10.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.6	33.9	14.7	79.0	0.2	0.1	65.7	65.3	64.5	63.2	0.0	0.0
LnGrp LOS	F	C	B	E	A	A	E	E	E	E	A	A
Approach Vol, veh/h		2688			1178			71			552	
Approach Delay, s/veh		35.0			5.7			65.4			63.2	
Approach LOS		C			A			E			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.0	12.5	90.4		31.1	12.1	90.8				
Change Period (Y+Rc), s		4.6	4.0	6.0		4.9	4.0	6.0				
Max Green Setting (Gmax), s		12.0	12.0	62.5		44.0	12.0	62.5				
Max Q Clear Time (g_c+I1), s		4.7	8.7	68.8		24.7	8.4	2.0				
Green Ext Time (p_c), s		0.1	0.0	0.0		1.6	0.0	18.3				

Intersection Summary	
HCM 6th Ctrl Delay	31.3
HCM 6th LOS	C

Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



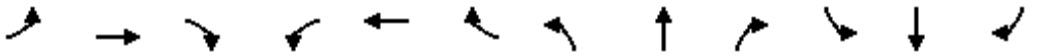
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	2645	403	250	995	494	179	588	460	316	265	82
Future Volume (veh/h)	123	2645	403	250	995	494	179	588	460	316	265	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	123	2645	183	250	995	350	179	588	365	316	265	21
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	229	2914	718	276	2383	740	253	813	362	359	921	411
Arrive On Green	0.13	0.91	0.91	0.03	0.15	0.15	0.07	0.23	0.23	0.10	0.26	0.26
Sat Flow, veh/h	3456	6434	1585	3456	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	123	2645	183	250	995	350	179	588	365	316	265	21
Grp Sat Flow(s),veh/h/ln	1728	1609	1585	1728	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	5.0	32.6	2.1	10.8	26.4	30.2	7.6	22.9	34.3	13.5	9.0	1.5
Cycle Q Clear(g_c), s	5.0	32.6	2.1	10.8	26.4	30.2	7.6	22.9	34.3	13.5	9.0	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	229	2914	718	276	2383	740	253	813	362	359	921	411
V/C Ratio(X)	0.54	0.91	0.25	0.90	0.42	0.47	0.71	0.72	1.01	0.88	0.29	0.05
Avail Cap(c_a), veh/h	230	2917	719	276	2383	740	276	813	362	369	921	411
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.16	0.16	0.16	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.9	5.4	4.0	72.4	45.0	46.6	67.9	53.5	57.8	66.3	44.5	41.7
Incr Delay (d2), s/veh	0.2	0.9	0.1	28.8	0.5	2.1	5.8	3.4	49.1	19.9	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	2.5	0.6	6.1	12.2	13.3	3.5	10.5	18.4	6.9	4.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.1	6.3	4.0	101.3	45.5	48.7	73.7	56.9	106.9	86.2	44.7	41.8
LnGrp LOS	E	A	A	F	D	D	E	E	F	F	D	D
Approach Vol, veh/h		2951			1595			1132			602	
Approach Delay, s/veh		8.5			55.0			75.7			66.4	
Approach LOS		A			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.6	40.0	16.0	73.9	15.0	44.6	13.9	76.0
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	16.0	34.3	12.0	68.0	12.0	38.3	10.0	70.0
Max Q Clear Time (g_c+I1), s	15.5	36.3	12.8	34.6	9.6	11.0	7.0	32.2
Green Ext Time (p_c), s	0.0	0.0	0.0	32.2	0.1	1.7	0.1	19.9

Intersection Summary	
HCM 6th Ctrl Delay	38.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	3409	10	22	1715	69	18	13	120	15	6	6
Future Volume (veh/h)	2	3409	10	22	1715	69	18	13	120	15	6	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	3409	10	22	1715	69	18	13	120	15	6	6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	7	4110	1012	97	4266	1051	315	165	140	96	46	46
Arrive On Green	0.00	0.64	0.64	0.03	0.66	0.66	0.09	0.09	0.09	0.05	0.05	0.05
Sat Flow, veh/h	1781	6434	1585	3456	6434	1585	3563	1870	1585	1781	858	858
Grp Volume(v), veh/h	2	3409	10	22	1715	69	18	13	120	15	0	12
Grp Sat Flow(s),veh/h/ln	1781	1609	1585	1728	1609	1585	1781	1870	1585	1781	0	1716
Q Serve(g_s), s	0.2	61.1	0.3	0.9	18.4	2.3	0.7	1.0	11.2	1.2	0.0	1.0
Cycle Q Clear(g_c), s	0.2	61.1	0.3	0.9	18.4	2.3	0.7	1.0	11.2	1.2	0.0	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.50
Lane Grp Cap(c), veh/h	7	4110	1012	97	4266	1051	315	165	140	96	0	93
V/C Ratio(X)	0.30	0.83	0.01	0.23	0.40	0.07	0.06	0.08	0.86	0.16	0.00	0.13
Avail Cap(c_a), veh/h	95	4118	1014	184	4266	1051	380	200	169	143	0	137
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.27	0.27	0.27	0.89	0.89	0.89	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	74.5	20.8	9.8	71.3	11.6	8.9	62.7	62.8	67.4	67.7	0.0	67.6
Incr Delay (d2), s/veh	2.5	0.5	0.0	0.4	0.3	0.1	0.0	0.1	25.7	0.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	21.0	0.1	0.4	6.2	0.8	0.3	0.5	5.5	0.6	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.0	21.3	9.9	71.7	11.9	9.0	62.7	62.9	93.2	68.0	0.0	67.8
LnGrp LOS	E	C	A	E	B	A	E	E	F	E	A	E
Approach Vol, veh/h		3421			1806			151			27	
Approach Delay, s/veh		21.3			12.5			86.9			67.9	
Approach LOS		C			B			F			E	

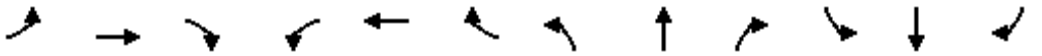
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		17.2	8.2	101.8		12.1	4.6	105.5				
Change Period (Y+Rc), s		4.0	4.0	6.0		4.0	4.0	6.0				
Max Green Setting (Gmax), s		16.0	8.0	96.0		12.0	8.0	96.0				
Max Q Clear Time (g_c+I1), s		13.2	2.9	63.1		3.2	2.2	20.4				
Green Ext Time (p_c), s		0.1	0.0	32.8		0.0	0.0	42.8				

Intersection Summary												
HCM 6th Ctrl Delay			20.4									
HCM 6th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



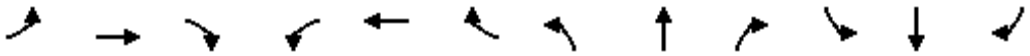
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	3524	5	5	1764	75	5	5	5	248	5	37
Future Volume (veh/h)	15	3524	5	5	1764	75	5	5	5	248	5	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	15	3524	3	5	1764	43	5	5	0	248	7	6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	673	4032	993	233	2443	602	16	17	14	179	188	160
Arrive On Green	0.38	0.63	0.63	0.26	0.76	0.76	0.01	0.01	0.00	0.10	0.10	0.10
Sat Flow, veh/h	1781	6434	1585	1781	6434	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	15	3524	3	5	1764	43	5	5	0	248	7	6
Grp Sat Flow(s),veh/h/ln	1781	1609	1585	1781	1609	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.8	67.8	0.1	0.3	21.9	1.0	0.4	0.4	0.0	15.1	0.5	0.5
Cycle Q Clear(g_c), s	0.8	67.8	0.1	0.3	21.9	1.0	0.4	0.4	0.0	15.1	0.5	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	673	4032	993	233	2443	602	16	17	14	179	188	160
V/C Ratio(X)	0.02	0.87	0.00	0.02	0.72	0.07	0.31	0.29	0.00	1.38	0.04	0.04
Avail Cap(c_a), veh/h	673	4032	993	233	3989	983	83	87	74	179	188	160
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	0.64	0.94	0.94	0.94	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.3	23.1	10.5	48.2	13.8	11.3	73.9	73.8	0.0	67.4	60.9	60.9
Incr Delay (d2), s/veh	0.0	1.9	0.0	0.0	0.8	0.1	10.4	9.3	0.0	203.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	23.9	0.0	0.1	4.4	0.4	0.2	0.2	0.0	17.1	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	25.0	10.5	48.2	14.6	11.4	84.2	83.1	0.0	270.6	60.9	60.9
LnGrp LOS	C	C	B	D	B	B	F	F	A	F	E	E
Approach Vol, veh/h		3542			1812			10			261	
Approach Delay, s/veh		25.0			14.6			83.7			260.1	
Approach LOS		C			B			F			F	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	6.4	23.6	100.0	20.0	60.7	63.0
Change Period (Y+Rc), s	5.0	4.0	6.0	4.9	4.0	6.0
Max Green Setting (Gmax), s	7.0	14.0	94.0	15.1	15.0	93.0
Max Q Clear Time (g_c+I1), s	2.4	2.3	69.8	17.1	2.8	23.9
Green Ext Time (p_c), s	0.0	0.0	24.0	0.0	0.0	33.1

Intersection Summary	
HCM 6th Ctrl Delay	32.7
HCM 6th LOS	C

Notes

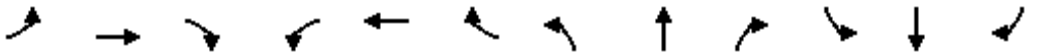
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	3595	12	15	1916	15	10	10	10	10	10	10
Future Volume (veh/h)	12	3595	12	15	1916	15	10	10	10	10	10	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	3595	12	15	1916	15	10	10	10	10	10	10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	47	4786	1179	55	4817	1187	85	89	125	28	28	28
Arrive On Green	0.05	1.00	1.00	0.06	1.00	1.00	0.05	0.05	0.05	0.05	0.05	0.05
Sat Flow, veh/h	1781	6434	1585	1781	6434	1585	1781	1870	1585	579	579	579
Grp Volume(v), veh/h	12	3595	12	15	1916	15	10	10	10	30	0	0
Grp Sat Flow(s),veh/h/ln	1781	1609	1585	1781	1609	1585	1781	1870	1585	1737	0	0
Q Serve(g_s), s	1.0	0.0	0.0	1.2	0.0	0.0	0.8	0.8	0.9	2.5	0.0	0.0
Cycle Q Clear(g_c), s	1.0	0.0	0.0	1.2	0.0	0.0	0.8	0.8	0.9	2.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.33		0.33
Lane Grp Cap(c), veh/h	47	4786	1179	55	4817	1187	85	89	125	83	0	0
V/C Ratio(X)	0.26	0.75	0.01	0.27	0.40	0.01	0.12	0.11	0.08	0.36	0.00	0.00
Avail Cap(c_a), veh/h	119	4786	1179	119	4817	1187	119	125	155	116	0	0
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.43	0.43	0.43	0.81	0.81	0.81	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	69.7	0.0	0.0	68.7	0.0	0.0	68.4	68.4	64.1	69.2	0.0	0.0
Incr Delay (d2), s/veh	1.2	0.5	0.0	2.1	0.2	0.0	0.6	0.6	0.3	2.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.2	0.0	0.6	0.1	0.0	0.4	0.4	0.4	1.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.9	0.5	0.0	70.9	0.2	0.0	69.0	69.0	64.4	71.9	0.0	0.0
LnGrp LOS	E	A	A	E	A	A	E	E	E	E	A	A
Approach Vol, veh/h		3619			1946			30			30	
Approach Delay, s/veh		0.7			0.7			67.4			71.9	
Approach LOS		A			A			E			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		11.6	9.1	117.6		11.6	8.4	118.3				
Change Period (Y+Rc), s		4.5	4.5	6.0		4.5	4.5	6.0				
Max Green Setting (Gmax), s		10.0	10.0	100.5		10.0	10.0	100.5				
Max Q Clear Time (g_c+I1), s		4.5	3.2	2.0		2.9	3.0	2.0				
Green Ext Time (p_c), s		0.0	0.0	89.8		0.0	0.0	26.3				

Intersection Summary	
HCM 6th Ctrl Delay	1.5
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	229	2795	591	516	1547	868	336	584	350	702	578	63
Future Volume (veh/h)	229	2795	591	516	1547	868	336	584	350	702	578	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	229	2795	457	516	1547	537	336	584	0	702	578	13
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	230	2475	610	392	2689	663	706	623		714	863	268
Arrive On Green	0.09	0.51	0.51	0.11	0.42	0.42	0.20	0.18	0.00	0.21	0.17	0.17
Sat Flow, veh/h	3456	6434	1585	3456	6434	1585	3456	3554	1585	3456	5106	1585
Grp Volume(v), veh/h	229	2795	457	516	1547	537	336	584	0	702	578	13
Grp Sat Flow(s),veh/h/ln	1728	1609	1585	1728	1609	1585	1728	1777	1585	1728	1702	1585
Q Serve(g_s), s	9.9	57.7	19.2	17.0	27.6	24.7	12.9	24.3	0.0	30.3	15.9	1.0
Cycle Q Clear(g_c), s	9.9	57.7	19.2	17.0	27.6	24.7	12.9	24.3	0.0	30.3	15.9	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	230	2475	610	392	2689	663	706	623		714	863	268
V/C Ratio(X)	0.99	1.13	0.75	1.32	0.58	0.81	0.48	0.94		0.98	0.67	0.05
Avail Cap(c_a), veh/h	230	2475	610	392	2689	663	706	623		714	1566	486
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.65	0.65	0.65	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.3	36.6	9.7	66.5	33.4	11.8	52.6	61.0	0.0	59.2	58.4	52.2
Incr Delay (d2), s/veh	46.1	62.1	4.5	159.9	0.9	10.4	0.2	22.3	0.0	29.2	3.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	30.4	5.8	16.1	10.7	9.9	5.4	12.5	0.0	15.7	6.9	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	114.4	98.7	14.2	226.4	34.3	22.1	52.8	83.4	0.0	88.5	61.6	52.5
LnGrp LOS	F	F	B	F	C	C	D	F		F	E	D
Approach Vol, veh/h		3481			2600			920	A		1293	
Approach Delay, s/veh		88.6			69.9			72.2			76.1	
Approach LOS		F			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	35.0	32.3	21.0	63.7	36.6	30.7	16.0	68.7
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	6.0	* 5.3	6.0	* 6
Max Green Setting (Gmax), s	31.0	26.3	17.0	55.7	12.0	* 46	10.0	* 63
Max Q Clear Time (g_c+I1), s	32.3	26.3	19.0	59.7	14.9	17.9	11.9	29.6
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	7.4	0.0	27.5

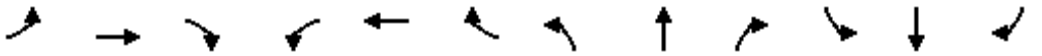
Intersection Summary	
HCM 6th Ctrl Delay	79.0
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

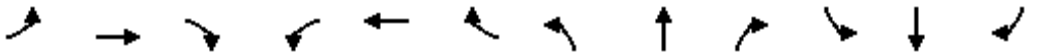
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	3285	350	75	1447	0	0	0	60	0	0	1710
Future Volume (vph)	0	3285	350	75	1447	0	0	0	60	0	0	1710
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	6.0	6.0	4.0				4.0			4.0
Lane Util. Factor		0.91	1.00	1.00	0.86				1.00			1.00
Frt		1.00	0.85	1.00	1.00				0.86			0.86
Flt Protected		1.00	1.00	0.95	1.00				1.00			1.00
Satd. Flow (prot)		5085	1583	1770	6408				1611			1611
Flt Permitted		1.00	1.00	0.95	1.00				1.00			1.00
Satd. Flow (perm)		5085	1583	1770	6408				1611			1611
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	3285	350	75	1447	0	0	0	60	0	0	1710
RTOR Reduction (vph)	0	0	99	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	3285	251	75	1447	0	0	0	60	0	0	1710
Turn Type		NA	Perm	Prot	NA				Free			Free
Protected Phases		4		3	Free							
Permitted Phases			4						Free			Free
Actuated Green, G (s)		53.7	53.7	9.3	75.0				75.0			75.0
Effective Green, g (s)		53.7	53.7	9.3	75.0				75.0			75.0
Actuated g/C Ratio		0.72	0.72	0.12	1.00				1.00			1.00
Clearance Time (s)		6.0	6.0	6.0								
Vehicle Extension (s)		5.5	5.5	5.5								
Lane Grp Cap (vph)		3640	1133	219	6408				1611			1611
v/s Ratio Prot		0.65		0.04	0.23							
v/s Ratio Perm			0.16						0.04			c1.06
v/c Ratio		0.90	0.22	0.34	0.23				0.04			1.06
Uniform Delay, d1		8.5	3.6	30.1	0.0				0.0			37.5
Progression Factor		1.00	1.00	0.98	1.00				1.00			1.00
Incremental Delay, d2		4.2	0.5	2.2	0.1				0.0			40.8
Delay (s)		12.7	4.0	31.6	0.1				0.0			78.3
Level of Service		B	A	C	A				A			E
Approach Delay (s)		11.9			1.6			0.0			78.3	
Approach LOS		B			A			A			E	

Intersection Summary			
HCM 2000 Control Delay	25.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.26		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	68.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	3016	329	663	891	388	189	0	622	112	766	442
Future Volume (veh/h)	0	3016	329	663	891	388	189	0	622	112	766	442
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	3016	237	663	891	0	189	0	622	112	766	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	2	2	2	2	0	2	2	2	2
Cap, veh/h	0	2402	592	507	2791		0	0	0	273	545	
Arrive On Green	0.00	0.12	0.12	0.15	0.55	0.00	0.00	0.00	0.00	0.15	0.15	0.00
Sat Flow, veh/h	0	6696	1585	3456	5106	1585		0		1781	3554	1585
Grp Volume(v), veh/h	0	3016	237	663	891	0		0.0		112	766	0
Grp Sat Flow(s),veh/h/ln	0	1609	1585	1728	1702	1585				1781	1777	1585
Q Serve(g_s), s	0.0	56.0	20.7	22.0	14.4	0.0				8.5	23.0	0.0
Cycle Q Clear(g_c), s	0.0	56.0	20.7	22.0	14.4	0.0				8.5	23.0	0.0
Prop In Lane	0.00		1.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2402	592	507	2791					273	545	
V/C Ratio(X)	0.00	1.26	0.40	1.31	0.32					0.41	1.41	
Avail Cap(c_a), veh/h	0	2402	592	507	2791					273	545	
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.41	0.41	1.00	1.00	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	65.8	50.3	64.0	18.7	0.0				57.4	63.5	0.0
Incr Delay (d2), s/veh	0.0	116.5	0.4	152.4	0.3	0.0				1.9	193.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	43.6	8.9	20.2	5.6	0.0				3.9	24.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	182.3	50.7	216.4	19.0	0.0				59.3	256.9	0.0
LnGrp LOS	A	F	D	F	B					E	F	
Approach Vol, veh/h		3253			1554	A					878	A
Approach Delay, s/veh		172.7			103.2						231.7	
Approach LOS		F			F						F	

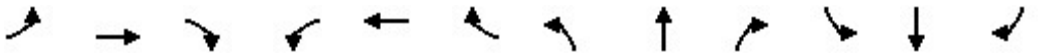
Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		26.0	62.0		29.0		88.0					
Change Period (Y+Rc), s		4.0	6.0		6.0		6.0					
Max Green Setting (Gmax), s		22.0	56.0		23.0		82.0					
Max Q Clear Time (g_c+I1), s		24.0	58.0		25.0		16.4					
Green Ext Time (p_c), s		0.0	0.0		0.0		12.5					

Intersection Summary	
HCM 6th Ctrl Delay	162.8
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	502	1747	175	561	910	164	180	993	740	185	441	132
Future Volume (veh/h)	502	1747	175	561	910	164	180	993	740	185	441	132
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	502	1747	0	561	910	0	180	993	0	185	441	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	611	2024		632	1763		224	1133		229	1436	
Arrive On Green	0.18	0.40	0.00	0.13	0.35	0.00	0.06	0.22	0.00	0.07	0.22	0.00
Sat Flow, veh/h	3456	5106	1585	5023	5106	1585	3456	5106	1585	3456	6434	1585
Grp Volume(v), veh/h	502	1747	0	561	910	0	180	993	0	185	441	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1674	1702	1585	1728	1702	1585	1728	1609	1585
Q Serve(g_s), s	21.0	47.1	0.0	16.5	21.3	0.0	7.7	28.2	0.0	7.9	8.6	0.0
Cycle Q Clear(g_c), s	21.0	47.1	0.0	16.5	21.3	0.0	7.7	28.2	0.0	7.9	8.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	611	2024		632	1763		224	1133		229	1436	
V/C Ratio(X)	0.82	0.86		0.89	0.52		0.80	0.88		0.81	0.31	
Avail Cap(c_a), veh/h	703	2087		703	1763		253	1191		253	1501	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	59.5	41.5	0.0	64.5	39.1	0.0	69.2	56.4	0.0	69.1	48.6	0.0
Incr Delay (d2), s/veh	6.0	4.2	0.0	11.5	1.1	0.0	13.2	7.7	0.0	14.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	19.9	0.0	7.6	8.9	0.0	3.8	12.7	0.0	3.9	3.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.5	45.7	0.0	76.1	40.2	0.0	82.4	64.0	0.0	83.3	48.8	0.0
LnGrp LOS	E	D		E	D		F	E		F	D	
Approach Vol, veh/h		2249	A		1471	A		1173	A		626	A
Approach Delay, s/veh		50.1			53.9			66.9			59.0	
Approach LOS		D			D			E			E	

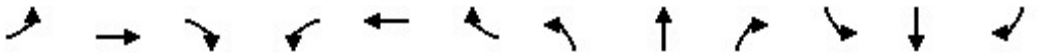
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	39.3	24.9	65.2	13.7	39.5	32.2	57.8
Change Period (Y+Rc), s	4.0	6.0	6.0	5.7	4.0	6.0	5.7	6.0
Max Green Setting (Gmax), s	11.0	35.0	21.0	61.3	11.0	35.0	30.5	51.8
Max Q Clear Time (g_c+I1), s	9.9	30.2	18.5	49.1	9.7	10.6	23.0	23.3
Green Ext Time (p_c), s	0.0	3.1	0.4	10.4	0.0	3.9	0.7	9.4

Intersection Summary	
HCM 6th Ctrl Delay	55.7
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	228	2190	295	159	995	67	317	846	294	68	654	304
Future Volume (veh/h)	228	2190	295	159	995	67	317	846	294	68	654	304
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	228	2190	208	159	995	0	317	846	0	68	654	106
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	277	2179	676	314	2301		362	1073		108	755	337
Arrive On Green	0.08	0.43	0.43	0.09	0.45	0.00	0.10	0.30	0.00	0.03	0.21	0.21
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	228	2190	208	159	995	0	317	846	0	68	654	106
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	9.7	64.0	13.0	6.6	19.9	0.0	13.6	32.7	0.0	2.9	26.6	6.9
Cycle Q Clear(g_c), s	9.7	64.0	13.0	6.6	19.9	0.0	13.6	32.7	0.0	2.9	26.6	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	277	2179	676	314	2301		362	1073		108	755	337
V/C Ratio(X)	0.82	1.01	0.31	0.51	0.43		0.88	0.79		0.63	0.87	0.31
Avail Cap(c_a), veh/h	415	2179	676	314	2301		392	1073		276	867	387
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.9	43.0	28.4	65.0	28.1	0.0	66.2	48.0	0.0	71.8	57.0	32.7
Incr Delay (d2), s/veh	4.9	20.5	1.2	0.5	0.2	0.0	17.5	4.3	0.0	2.3	9.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	29.9	5.1	2.9	8.0	0.0	6.8	14.8	0.0	1.3	12.7	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.8	63.5	29.6	65.5	28.3	0.0	83.7	52.3	0.0	74.1	66.0	33.5
LnGrp LOS	E	F	C	E	C		F	D		E	E	C
Approach Vol, veh/h		2626			1154	A		1163	A		828	
Approach Delay, s/veh		61.7			33.4			60.8			62.5	
Approach LOS		E			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	51.7	19.6	70.0	22.1	38.3	16.0	73.6
Change Period (Y+Rc), s	4.0	6.4	6.0	6.0	6.4	* 6.4	4.0	6.0
Max Green Setting (Gmax), s	12.0	41.6	10.0	64.0	17.0	* 37	18.0	58.0
Max Q Clear Time (g_c+I1), s	4.9	34.7	8.6	66.0	15.6	28.6	11.7	21.9
Green Ext Time (p_c), s	0.1	3.3	0.0	0.0	0.1	3.2	0.3	8.5

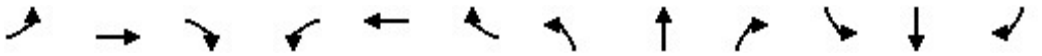
Intersection Summary	
HCM 6th Ctrl Delay	56.0
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	2416	24	40	1114	125	55	76	38	163	28	28
Future Volume (veh/h)	14	2416	24	40	1114	125	55	76	38	163	28	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	2416	0	40	1114	0	55	76	0	163	28	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	17	2427		433	3678		71	99		166	200	
Arrive On Green	0.02	0.95	0.00	0.49	1.00	0.00	0.04	0.05	0.00	0.09	0.11	0.00
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1870	1585	1781	1870	0
Grp Volume(v), veh/h	14	2416	0	40	1114	0	55	76	0	163	28	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1870	1585	1781	1870	0
Q Serve(g_s), s	1.2	65.2	0.0	1.8	0.0	0.0	4.6	6.0	0.0	13.7	2.0	0.0
Cycle Q Clear(g_c), s	1.2	65.2	0.0	1.8	0.0	0.0	4.6	6.0	0.0	13.7	2.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	17	2427		433	3678		71	99		166	200	
V/C Ratio(X)	0.84	1.00		0.09	0.30		0.78	0.77		0.98	0.14	
Avail Cap(c_a), veh/h	143	2427		433	3678		143	436		166	450	
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	73.5	3.6	0.0	29.6	0.0	0.0	71.4	70.1	0.0	67.9	60.8	0.0
Incr Delay (d2), s/veh	31.5	17.2	0.0	0.0	0.1	0.0	6.8	8.8	0.0	63.6	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.3	0.0	0.8	0.0	0.0	2.2	3.1	0.0	9.2	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	105.0	20.8	0.0	29.7	0.1	0.0	78.2	79.0	0.0	131.5	61.1	0.0
LnGrp LOS	F	C		C	A		E	E		F	E	
Approach Vol, veh/h		2430	A		1154	A		131	A		191	A
Approach Delay, s/veh		21.3			1.1			78.6			121.1	
Approach LOS		C			A			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	12.8	42.2	77.0	9.9	20.9	5.4	113.7
Change Period (Y+Rc), s	4.0	* 4.9	5.7	* 5.7	4.0	4.9	4.0	5.7
Max Green Setting (Gmax), s	14.0	* 35	12.0	* 71	12.0	36.1	12.0	71.3
Max Q Clear Time (g_c+I1), s	15.7	8.0	3.8	67.2	6.6	4.0	3.2	2.0
Green Ext Time (p_c), s	0.0	0.3	0.0	4.0	0.0	0.1	0.0	17.7

Intersection Summary	
HCM 6th Ctrl Delay	22.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	1344	1060	889	830	256	590	1049	497	216	1408	24
Future Volume (veh/h)	26	1344	1060	889	830	256	590	1049	497	216	1408	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	1344	0	889	830	0	590	1049	0	216	1408	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	138	1328		852	2359		569	1461		262	1362	
Arrive On Green	0.08	0.52	0.00	0.25	0.46	0.00	0.04	0.09	0.00	0.08	0.27	0.00
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	5023	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	26	1344	0	889	830	0	590	1049	0	216	1408	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1674	1702	1585	1728	1702	1585
Q Serve(g_s), s	1.1	39.0	0.0	37.0	15.7	0.0	17.0	29.9	0.0	9.2	40.0	0.0
Cycle Q Clear(g_c), s	1.1	39.0	0.0	37.0	15.7	0.0	17.0	29.9	0.0	9.2	40.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	138	1328		852	2359		569	1461		262	1362	
V/C Ratio(X)	0.19	1.01		1.04	0.35		1.04	0.72		0.82	1.03	
Avail Cap(c_a), veh/h	184	1328		852	2359		569	1461		283	1362	
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	66.7	36.0	0.0	56.5	25.9	0.0	72.2	62.0	0.0	68.3	55.0	0.0
Incr Delay (d2), s/veh	0.2	27.8	0.0	42.6	0.4	0.0	47.4	2.0	0.0	18.4	33.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	15.3	0.0	20.8	6.3	0.0	10.2	14.0	0.0	4.7	20.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.0	63.8	0.0	99.1	26.3	0.0	119.6	64.0	0.0	86.7	88.6	0.0
LnGrp LOS	E	F		F	C		F	E		F	F	
Approach Vol, veh/h		1370	A		1719	A		1639	A		1624	A
Approach Delay, s/veh		63.9			64.0			84.0			88.4	
Approach LOS		E			E			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.1	50.6	42.0	45.0	20.0	47.7	12.0	75.0
Change Period (Y+Rc), s	5.7	7.7	5.0	6.0	3.0	* 7.7	6.0	* 5.7
Max Green Setting (Gmax), s	12.3	37.3	37.0	39.0	17.0	* 40	8.0	* 69
Max Q Clear Time (g_c+I1), s	11.2	31.9	39.0	41.0	19.0	42.0	3.1	17.7
Green Ext Time (p_c), s	0.1	3.7	0.0	0.0	0.0	0.0	0.0	11.1

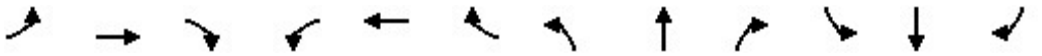
Intersection Summary	
HCM 6th Ctrl Delay	75.4
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	257	4	144	44	2	49	215	1875	22	347	1812	202
Future Volume (veh/h)	257	4	144	44	2	49	215	1875	22	347	1812	202
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	257	4	15	44	2	5	215	1875	22	347	1812	147
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	276	150	127	83	45	38	260	2157	25	1461	3510	1090
Arrive On Green	0.08	0.08	0.08	0.02	0.02	0.02	0.08	0.33	0.33	0.42	0.69	0.69
Sat Flow, veh/h	3456	1870	1585	3456	1870	1585	3456	6604	77	3456	5106	1585
Grp Volume(v), veh/h	257	4	15	44	2	5	215	1370	527	347	1812	147
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1728	1870	1585	1728	1609	1856	1728	1702	1585
Q Serve(g_s), s	11.1	0.3	1.3	1.9	0.2	0.5	9.2	40.0	40.0	9.7	25.8	4.8
Cycle Q Clear(g_c), s	11.1	0.3	1.3	1.9	0.2	0.5	9.2	40.0	40.0	9.7	25.8	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	276	150	127	83	45	38	260	1576	606	1461	3510	1090
V/C Ratio(X)	0.93	0.03	0.12	0.53	0.04	0.13	0.83	0.87	0.87	0.24	0.52	0.13
Avail Cap(c_a), veh/h	276	150	127	1152	623	528	276	1576	606	1461	3510	1090
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.6	63.6	64.1	72.4	71.5	71.7	68.4	47.5	47.5	27.8	11.4	8.1
Incr Delay (d2), s/veh	35.9	0.1	0.4	5.2	0.4	1.5	17.7	6.8	15.6	0.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	0.1	0.6	0.9	0.1	0.2	4.6	16.6	20.6	4.0	8.9	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	104.5	63.7	64.5	77.5	71.9	73.2	86.1	54.3	63.1	27.9	11.5	8.1
LnGrp LOS	F	E	E	E	E	E	F	D	E	C	B	A
Approach Vol, veh/h		276			51			2112			2306	
Approach Delay, s/veh		101.7			76.9			59.7			13.7	
Approach LOS		F			E			E			B	

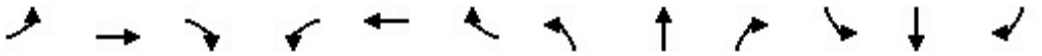
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	70.4	55.0		16.0	15.3	110.1		8.6				
Change Period (Y+Rc), s	7.0	6.0		4.0	4.0	* 7		5.0				
Max Green Setting (Gmax), s	17.0	49.0		12.0	12.0	* 57		50.0				
Max Q Clear Time (g_c+I1), s	11.7	42.0		13.1	11.2	27.8		3.9				
Green Ext Time (p_c), s	0.7	6.8		0.0	0.1	27.5		0.2				

Intersection Summary		
HCM 6th Ctrl Delay		40.0
HCM 6th LOS		D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1364	409	0	1884	386	0	0	0	152	0	577
Future Volume (veh/h)	0	1364	409	0	1884	386	0	0	0	152	0	577
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	2067	2067	0	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	0	1364	272	0	1884	0				101	0	567
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	0	2	2				2	2	2
Cap, veh/h	0	3913	1215	0	3541					285	0	760
Arrive On Green	0.00	0.69	0.69	0.00	1.00	0.00				0.16	0.00	0.16
Sat Flow, veh/h	0	5828	1751	0	5274	1585				1781	0	4755
Grp Volume(v), veh/h	0	1364	272	0	1884	0				101	0	567
Grp Sat Flow(s),veh/h/ln	0	1881	1751	0	1702	1585				1781	0	1585
Q Serve(g_s), s	0.0	7.3	4.2	0.0	0.0	0.0				3.8	0.0	8.5
Cycle Q Clear(g_c), s	0.0	7.3	4.2	0.0	0.0	0.0				3.8	0.0	8.5
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3913	1215	0	3541					285	0	760
V/C Ratio(X)	0.00	0.35	0.22	0.00	0.53					0.35	0.00	0.75
Avail Cap(c_a), veh/h	0	3913	1215	0	3541					420	0	1122
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.81	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	4.6	4.2	0.0	0.0	0.0				28.1	0.0	30.1
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.0	0.2	0.0				0.3	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.8	1.0	0.0	0.1	0.0				1.6	0.0	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	4.9	4.6	0.0	0.2	0.0				28.3	0.0	30.7
LnGrp LOS	A	A	A	A	A					C	A	C
Approach Vol, veh/h		1636			1884	A					668	
Approach Delay, s/veh		4.8			0.2						30.3	
Approach LOS		A			A						C	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		57.7		17.3		57.7						
Change Period (Y+Rc), s		5.7		5.3		5.7						
Max Green Setting (Gmax), s		46.3		17.7		46.3						
Max Q Clear Time (g_c+I1), s		9.3		10.5		2.0						
Green Ext Time (p_c), s		17.0		1.5		21.1						

Intersection Summary	
HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



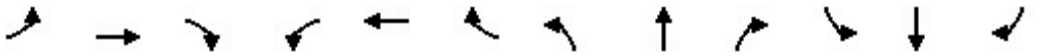
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1145	371	245	1447	823	1085
Future Volume (veh/h)	1145	371	245	1447	823	1085
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	2067	2067	1870	1870	1870	1870
Adj Flow Rate, veh/h	1145	0	245	1447	823	467
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1914		282	2812	1105	614
Arrive On Green	0.68	0.00	0.32	1.00	0.22	0.22
Sat Flow, veh/h	5828	1751	1781	5274	5023	2790
Grp Volume(v), veh/h	1145	0	245	1447	823	467
Grp Sat Flow(s),veh/h/ln	1881	1751	1781	1702	1674	1395
Q Serve(g_s), s	8.2	0.0	9.7	0.0	11.5	11.8
Cycle Q Clear(g_c), s	8.2	0.0	9.7	0.0	11.5	11.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1914		282	2812	1105	614
V/C Ratio(X)	0.60		0.87	0.51	0.74	0.76
Avail Cap(c_a), veh/h	1914		380	2812	1386	770
HCM Platoon Ratio	2.00	2.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.92	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.3	0.0	24.9	0.0	27.3	27.4
Incr Delay (d2), s/veh	0.5	0.0	12.3	0.7	1.2	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	4.1	0.2	4.5	4.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.8	0.0	37.2	0.7	28.5	29.9
LnGrp LOS	A		D	A	C	C
Approach Vol, veh/h	1145	A		1692	1290	
Approach Delay, s/veh	9.8			6.0	29.0	
Approach LOS	A			A	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	15.9	31.1				47.0	23.8
Change Period (Y+Rc), s	4.0	5.7				5.7	7.3
Max Green Setting (Gmax), s	16.0	21.3				41.3	20.7
Max Q Clear Time (g_c+I1), s	11.7	10.2				2.0	13.8
Green Ext Time (p_c), s	0.2	5.4				15.7	2.7

Intersection Summary	
HCM 6th Ctrl Delay	14.2
HCM 6th LOS	B

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



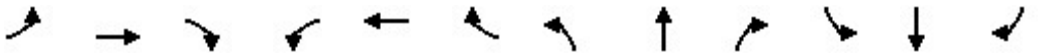
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	322	380	451	250	37	1035	717	411	89	789	118
Future Volume (veh/h)	122	322	380	451	250	37	1035	717	411	89	789	118
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	2067	2067	2067	1870	1870	1870
Adj Flow Rate, veh/h	122	322	84	451	250	9	1035	717	221	89	789	48
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	166	453	202	276	566	253	619	2338	726	157	1464	454
Arrive On Green	0.05	0.13	0.13	0.08	0.16	0.16	0.16	0.41	0.41	0.05	0.29	0.29
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3818	5642	1751	3456	5106	1585
Grp Volume(v), veh/h	122	322	84	451	250	9	1035	717	221	89	789	48
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1909	1881	1751	1728	1702	1585
Q Serve(g_s), s	5.2	13.0	3.6	12.0	9.5	0.7	24.3	12.8	12.7	3.8	19.6	1.8
Cycle Q Clear(g_c), s	5.2	13.0	3.6	12.0	9.5	0.7	24.3	12.8	12.7	3.8	19.6	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	166	453	202	276	566	253	619	2338	726	157	1464	454
V/C Ratio(X)	0.73	0.71	0.42	1.63	0.44	0.04	1.67	0.31	0.30	0.57	0.54	0.11
Avail Cap(c_a), veh/h	230	1185	528	276	1232	549	619	2338	726	184	1464	454
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.4	62.8	14.7	69.0	57.0	53.3	62.9	29.5	29.4	70.1	45.1	12.0
Incr Delay (d2), s/veh	3.9	3.3	2.2	300.0	0.9	0.1	310.0	0.1	0.4	1.2	1.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	6.1	3.0	16.8	4.4	0.3	38.2	5.7	5.5	1.7	8.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.3	66.0	16.9	369.0	57.9	53.4	372.9	29.6	29.8	71.3	46.6	12.5
LnGrp LOS	E	E	B	F	E	D	F	C	C	E	D	B
Approach Vol, veh/h		528			710			1973			926	
Approach Delay, s/veh		60.1			255.5			209.7			47.2	
Approach LOS		E			F			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	67.9	16.0	24.4	30.0	48.7	11.2	29.2
Change Period (Y+Rc), s	4.0	5.7	4.0	5.3	5.7	5.7	4.0	5.3
Max Green Setting (Gmax), s	8.0	61.0	12.0	50.0	24.3	43.0	10.0	52.0
Max Q Clear Time (g_c+I1), s	5.8	14.8	14.0	15.0	26.3	21.6	7.2	11.5
Green Ext Time (p_c), s	0.0	11.2	0.0	4.1	0.0	8.2	0.0	2.8

Intersection Summary	
HCM 6th Ctrl Delay	162.1
HCM 6th LOS	F

Notes

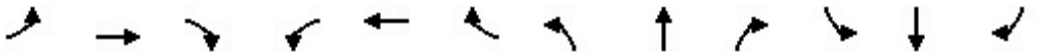
User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	142	22	125	56	96	8	907	110	109	1334	9
Future Volume (veh/h)	37	142	22	125	56	96	8	907	110	109	1334	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	142	22	125	56	96	8	907	110	109	1334	9
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	56	277	124	161	487	217	15	1964	610	140	2322	721
Arrive On Green	0.03	0.08	0.08	0.09	0.14	0.14	0.01	0.38	0.38	0.08	0.45	0.45
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	37	142	22	125	56	96	8	907	110	109	1334	9
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	1.1	2.1	0.7	3.8	0.8	3.1	0.2	7.3	2.5	3.3	10.6	0.2
Cycle Q Clear(g_c), s	1.1	2.1	0.7	3.8	0.8	3.1	0.2	7.3	2.5	3.3	10.6	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	56	277	124	161	487	217	15	1964	610	140	2322	721
V/C Ratio(X)	0.66	0.51	0.18	0.78	0.12	0.44	0.54	0.46	0.18	0.78	0.57	0.01
Avail Cap(c_a), veh/h	226	2065	921	323	2323	1036	226	2568	797	226	2660	826
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.4	24.4	23.7	24.5	20.8	21.8	27.2	12.7	11.2	24.9	11.1	8.2
Incr Delay (d2), s/veh	4.9	0.5	0.3	3.0	0.0	0.5	10.7	0.5	0.4	3.5	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.8	0.3	1.6	0.3	1.1	0.1	2.2	0.8	1.4	3.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.3	24.9	24.0	27.6	20.9	22.4	37.9	13.1	11.6	28.4	11.7	8.3
LnGrp LOS	C	C	C	C	C	C	D	B	B	C	B	A
Approach Vol, veh/h		201			277			1025			1452	
Approach Delay, s/veh		26.0			24.4			13.2			12.9	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	26.5	10.0	9.3	5.5	30.3	6.7	12.5
Change Period (Y+Rc), s	5.0	5.3	5.0	5.0	5.0	5.3	5.0	5.0
Max Green Setting (Gmax), s	7.0	27.7	10.0	32.0	7.0	28.7	7.0	36.0
Max Q Clear Time (g_c+I1), s	5.3	9.3	5.8	4.1	2.2	12.6	3.1	5.1
Green Ext Time (p_c), s	0.0	10.9	0.1	0.6	0.0	12.4	0.0	0.4

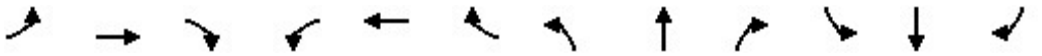
Intersection Summary	
HCM 6th Ctrl Delay	15.0
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	396	5	3	271	5	5	5	4	5	5	1
Future Volume (veh/h)	2	396	5	3	271	5	5	5	4	5	5	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	396	5	3	271	5	5	5	4	5	5	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	6	819	365	6	823	367	10	237	201	10	237	201
Arrive On Green	0.00	0.23	0.23	0.00	0.23	0.23	0.01	0.13	0.13	0.01	0.13	0.13
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	2	396	5	3	271	5	5	5	4	5	5	1
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.0	3.0	0.1	0.1	2.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Cycle Q Clear(g_c), s	0.0	3.0	0.1	0.1	2.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	6	819	365	6	823	367	10	237	201	10	237	201
V/C Ratio(X)	0.35	0.48	0.01	0.51	0.33	0.01	0.52	0.02	0.02	0.52	0.02	0.00
Avail Cap(c_a), veh/h	395	2929	1306	395	2929	1306	395	1838	1558	395	1719	1457
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.7	10.5	9.4	15.7	10.1	9.3	15.6	12.1	12.1	15.6	12.1	12.0
Incr Delay (d2), s/veh	33.8	0.4	0.0	55.6	0.2	0.0	36.7	0.0	0.0	36.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.9	0.0	0.1	0.6	0.0	0.1	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.5	11.0	9.4	71.2	10.3	9.4	52.3	12.1	12.1	52.3	12.1	12.0
LnGrp LOS	D	B	A	E	B	A	D	B	B	D	B	B
Approach Vol, veh/h		403			279			14			11	
Approach Delay, s/veh		11.1			11.0			26.5			30.4	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.2	9.0	5.1	12.3	5.2	9.0	5.1	12.3
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	31.0	7.0	26.0	7.0	29.0	7.0	26.0
Max Q Clear Time (g_c+I1), s	2.1	2.1	2.1	5.0	2.1	2.1	2.0	4.0
Green Ext Time (p_c), s	0.0	0.0	0.0	2.4	0.0	0.0	0.0	1.6

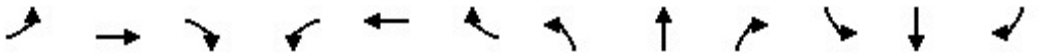
Intersection Summary	
HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	468	52	18	187	4	51	27	33	21	133	22
Future Volume (veh/h)	38	468	52	18	187	4	51	27	33	21	133	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	468	52	18	187	4	51	27	33	21	133	22
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	43	866	386	33	846	377	81	320	271	38	275	233
Arrive On Green	0.02	0.24	0.24	0.02	0.24	0.24	0.05	0.17	0.17	0.02	0.15	0.15
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	38	468	52	18	187	4	51	27	33	21	133	22
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.7	3.8	0.8	0.3	1.4	0.1	0.9	0.4	0.6	0.4	2.2	0.4
Cycle Q Clear(g_c), s	0.7	3.8	0.8	0.3	1.4	0.1	0.9	0.4	0.6	0.4	2.2	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	43	866	386	33	846	377	81	320	271	38	275	233
V/C Ratio(X)	0.88	0.54	0.13	0.55	0.22	0.01	0.63	0.08	0.12	0.56	0.48	0.09
Avail Cap(c_a), veh/h	405	1777	793	405	1777	793	405	1502	1273	405	1502	1273
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.0	10.9	9.8	16.1	10.1	9.6	15.5	11.5	11.6	16.0	12.9	12.2
Incr Delay (d2), s/veh	38.6	0.5	0.2	13.5	0.1	0.0	7.9	0.1	0.2	12.1	1.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.1	0.2	0.2	0.4	0.0	0.5	0.1	0.2	0.3	0.8	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.6	11.4	9.9	29.5	10.2	9.6	23.4	11.6	11.8	28.1	14.2	12.3
LnGrp LOS	D	B	A	C	B	A	C	B	B	C	B	B
Approach Vol, veh/h		558			209			111			176	
Approach Delay, s/veh		14.2			11.9			17.1			15.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.2	10.1	5.1	12.5	6.0	9.3	5.3	12.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	26.5	7.5	16.5	7.5	26.5	7.5	16.5
Max Q Clear Time (g_c+I1), s	2.4	2.6	2.3	5.8	2.9	4.2	2.7	3.4
Green Ext Time (p_c), s	0.0	0.2	0.0	2.3	0.0	0.7	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	14.3
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	523	203	20	31	58	133	54	1868	19	165	1682	267
Future Volume (veh/h)	523	203	20	31	58	133	54	1868	19	165	1682	267
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	363	427	5	31	58	13	54	1868	18	165	1682	121
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	380	399	338	59	111	147	118	2017	19	180	2152	668
Arrive On Green	0.21	0.21	0.21	0.09	0.09	0.09	0.07	0.39	0.39	0.10	0.42	0.42
Sat Flow, veh/h	1781	1870	1585	640	1198	1585	1781	5215	50	1781	5106	1585
Grp Volume(v), veh/h	363	427	5	89	0	13	54	1219	667	165	1682	121
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1838	0	1585	1781	1702	1861	1781	1702	1585
Q Serve(g_s), s	18.0	19.0	0.2	4.1	0.0	0.7	2.6	30.5	30.5	8.2	25.3	4.3
Cycle Q Clear(g_c), s	18.0	19.0	0.2	4.1	0.0	0.7	2.6	30.5	30.5	8.2	25.3	4.3
Prop In Lane	1.00		1.00	0.35		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	380	399	338	171	0	147	118	1317	720	180	2152	668
V/C Ratio(X)	0.96	1.07	0.01	0.52	0.00	0.09	0.46	0.93	0.93	0.92	0.78	0.18
Avail Cap(c_a), veh/h	380	399	338	186	0	160	160	1321	722	180	2152	668
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.7	35.1	27.7	38.6	0.0	37.0	40.1	26.1	26.1	39.7	22.2	16.2
Incr Delay (d2), s/veh	34.6	65.4	0.0	0.9	0.0	0.1	1.0	11.4	18.2	43.5	2.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.2	15.6	0.1	1.9	0.0	0.3	1.2	13.8	16.4	5.7	10.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.3	100.5	27.7	39.5	0.0	37.1	41.1	37.6	44.4	83.3	24.3	16.4
LnGrp LOS	E	F	C	D	A	D	D	D	D	F	C	B
Approach Vol, veh/h		795			102			1940			1968	
Approach Delay, s/veh		85.8			39.2			40.0			28.8	
Approach LOS		F			D			D			C	

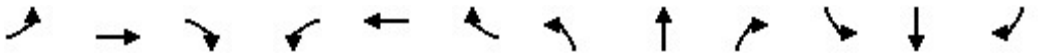
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	40.9		23.0	9.9	44.0		12.3				
Change Period (Y+Rc), s	4.0	6.4		4.0	4.0	6.4		4.0				
Max Green Setting (Gmax), s	9.0	34.6		19.0	8.0	35.6		9.0				
Max Q Clear Time (g_c+I1), s	10.2	32.5		21.0	4.6	27.3		6.1				
Green Ext Time (p_c), s	0.0	2.0		0.0	0.0	7.3		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		43.0	
HCM 6th LOS		D	

Notes

User approved pedestrian interval to be less than phase max green.

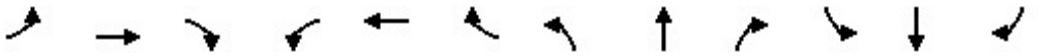
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	461	1248	11	289	1483	179	37	536	548	275	695	632
Future Volume (veh/h)	461	1248	11	289	1483	179	37	536	548	275	695	632
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	461	1248	4	289	1483	85	37	536	393	275	695	443
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	373	1742	541	353	1713	532	88	1490	463	237	1711	531
Arrive On Green	0.11	0.34	0.34	0.10	0.34	0.34	0.03	0.29	0.29	0.07	0.34	0.34
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	461	1248	4	289	1483	85	37	536	393	275	695	443
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	11.0	21.7	0.2	8.4	27.7	3.8	1.1	8.5	23.8	7.0	10.7	26.3
Cycle Q Clear(g_c), s	11.0	21.7	0.2	8.4	27.7	3.8	1.1	8.5	23.8	7.0	10.7	26.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	373	1742	541	353	1713	532	88	1490	463	237	1711	531
V/C Ratio(X)	1.24	0.72	0.01	0.82	0.87	0.16	0.42	0.36	0.85	1.16	0.41	0.83
Avail Cap(c_a), veh/h	373	1803	560	373	1803	560	237	1953	606	237	1953	606
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.5	29.3	22.2	44.8	31.7	23.8	48.9	28.6	34.0	47.5	26.1	31.3
Incr Delay (d2), s/veh	127.5	1.3	0.0	12.8	4.6	0.1	3.2	0.1	8.7	108.2	0.2	8.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	8.5	0.1	4.1	11.4	1.4	0.5	3.3	9.7	6.5	4.1	10.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	173.0	30.6	22.2	57.7	36.3	23.9	52.1	28.7	42.7	155.6	26.2	40.1
LnGrp LOS	F	C	C	E	D	C	D	C	D	F	C	D
Approach Vol, veh/h		1713			1857			966			1413	
Approach Delay, s/veh		68.9			39.1			35.3			55.8	
Approach LOS		E			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	34.8	15.4	39.8	7.6	39.2	16.0	39.2
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	39.0	11.0	36.0	7.0	39.0	11.0	36.0
Max Q Clear Time (g_c+I1), s	9.0	25.8	10.4	23.7	3.1	28.3	13.0	29.7
Green Ext Time (p_c), s	0.0	4.0	0.1	6.3	0.0	4.4	0.0	4.5

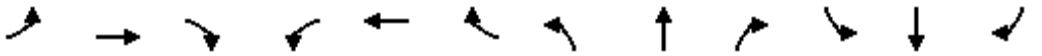
Intersection Summary	
HCM 6th Ctrl Delay	51.0
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	1923	163	7	1916	98	212	63	12	161	120	105
Future Volume (veh/h)	12	1923	163	7	1916	98	212	63	12	161	120	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	1923	163	7	1916	98	212	63	12	161	120	105
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	22	2102	653	13	2078	645	261	275	233	205	216	183
Arrive On Green	0.01	0.41	0.41	0.01	0.41	0.41	0.15	0.15	0.15	0.12	0.12	0.12
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	12	1923	163	7	1916	98	212	63	12	161	120	105
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.4	20.1	3.8	0.2	20.1	2.2	6.5	1.7	0.4	5.0	3.4	3.5
Cycle Q Clear(g_c), s	0.4	20.1	3.8	0.2	20.1	2.2	6.5	1.7	0.4	5.0	3.4	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	22	2102	653	13	2078	645	261	275	233	205	216	183
V/C Ratio(X)	0.55	0.91	0.25	0.53	0.92	0.15	0.81	0.23	0.05	0.78	0.56	0.57
Avail Cap(c_a), veh/h	158	2102	653	158	2080	646	316	1126	955	316	1126	955
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.7	15.7	10.9	27.9	15.9	10.6	23.3	21.3	20.7	24.3	23.6	23.7
Incr Delay (d2), s/veh	20.3	7.0	0.4	29.7	7.7	0.2	12.5	0.4	0.1	6.9	2.2	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	7.2	1.1	0.2	7.3	0.6	3.4	0.7	0.1	2.3	1.5	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.0	22.7	11.3	57.6	23.5	10.8	35.8	21.7	20.8	31.2	25.8	26.5
LnGrp LOS	D	C	B	E	C	B	D	C	C	C	C	C
Approach Vol, veh/h		2098			2021			287			386	
Approach Delay, s/veh		21.9			23.0			32.1			28.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	12.3	4.4	29.2	12.3	10.5	4.7	29.0
Change Period (Y+Rc), s	4.0	4.0	4.0	6.0	4.0	4.0	4.0	6.0
Max Green Setting (Gmax), s	10.0	34.0	5.0	23.0	10.0	34.0	5.0	23.0
Max Q Clear Time (g_c+I1), s	7.0	3.7	2.2	22.1	8.5	5.5	2.4	22.1
Green Ext Time (p_c), s	0.1	0.3	0.0	0.9	0.1	1.0	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	23.5
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	546	1377	105	276	1037	311	237	1109	251	459	744	1006
Future Volume (veh/h)	546	1377	105	276	1037	311	237	1109	251	459	744	1006
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1870	1870	1841	1841	1870	1870	1870	1841	1870	1841
Adj Flow Rate, veh/h	546	1377	38	276	1037	157	237	1109	112	459	744	978
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	2	2	4	4	2	2	2	4	2	4
Cap, veh/h	609	1680	530	299	1214	377	291	1498	465	428	1709	802
Arrive On Green	0.18	0.33	0.33	0.09	0.24	0.24	0.08	0.29	0.29	0.13	0.33	0.33
Sat Flow, veh/h	3401	5025	1585	3456	5025	1560	3456	5106	1585	3401	5106	1560
Grp Volume(v), veh/h	546	1377	38	276	1037	157	237	1109	112	459	744	978
Grp Sat Flow(s),veh/h/ln	1700	1675	1585	1728	1675	1560	1728	1702	1585	1700	1702	1560
Q Serve(g_s), s	20.0	32.0	2.1	10.1	25.1	10.8	8.6	25.0	6.8	16.0	14.4	42.6
Cycle Q Clear(g_c), s	20.0	32.0	2.1	10.1	25.1	10.8	8.6	25.0	6.8	16.0	14.4	42.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	609	1680	530	299	1214	377	291	1498	465	428	1709	802
V/C Ratio(X)	0.90	0.82	0.07	0.92	0.85	0.42	0.81	0.74	0.24	1.07	0.44	1.22
Avail Cap(c_a), veh/h	748	1698	535	299	1214	377	353	1589	493	428	1709	802
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.1	38.9	28.9	57.7	46.1	40.7	57.3	40.6	34.2	55.6	33.0	30.9
Incr Delay (d2), s/veh	10.5	3.6	0.1	32.4	6.6	1.4	9.6	2.0	0.4	64.6	0.3	110.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	12.9	0.8	5.7	10.9	4.2	4.1	10.7	2.6	10.4	5.7	47.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.5	42.5	29.0	90.1	52.7	42.1	66.8	42.6	34.6	120.2	33.3	141.1
LnGrp LOS	E	D	C	F	D	D	E	D	C	F	C	F
Approach Vol, veh/h		1961			1470			1458			2181	
Approach Delay, s/veh		47.5			58.6			45.9			99.9	
Approach LOS		D			E			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	43.7	15.0	48.5	14.7	49.0	26.8	36.7
Change Period (Y+Rc), s	4.0	6.4	4.0	6.0	4.0	6.4	4.0	6.0
Max Green Setting (Gmax), s	16.0	39.6	11.0	43.0	13.0	42.6	28.0	26.0
Max Q Clear Time (g_c+I1), s	18.0	27.0	12.1	34.0	10.6	44.6	22.0	27.1
Green Ext Time (p_c), s	0.0	7.3	0.0	8.6	0.2	0.0	0.8	0.0

Intersection Summary	
HCM 6th Ctrl Delay	65.7
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	452	946	55	294	84	439	1427	60	66	1090	128
Future Volume (veh/h)	179	452	946	55	294	84	439	1427	60	66	1090	128
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	179	452	769	55	294	36	439	1427	19	66	1090	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	228	1548	691	71	1455	649	444	1709	531	84	1293	
Arrive On Green	0.07	0.44	0.44	0.04	0.41	0.41	0.13	0.33	0.33	0.05	0.25	0.00
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	179	452	769	55	294	36	439	1427	19	66	1090	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1702	1585	1781	1702	1585
Q Serve(g_s), s	7.1	11.5	61.0	4.3	7.5	1.9	17.8	36.1	1.1	5.1	28.4	0.0
Cycle Q Clear(g_c), s	7.1	11.5	61.0	4.3	7.5	1.9	17.8	36.1	1.1	5.1	28.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	228	1548	691	71	1455	649	444	1709	531	84	1293	
V/C Ratio(X)	0.78	0.29	1.11	0.78	0.20	0.06	0.99	0.83	0.04	0.79	0.84	
Avail Cap(c_a), veh/h	296	1548	691	102	1472	657	444	1709	531	102	1293	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	64.4	25.5	39.5	66.6	26.6	25.0	60.9	43.0	31.4	66.0	49.6	0.0
Incr Delay (d2), s/veh	7.3	0.2	69.8	12.3	0.1	0.1	39.4	5.0	0.1	22.7	5.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	4.7	35.7	2.2	3.1	0.7	10.0	15.3	0.4	2.8	12.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.7	25.7	109.3	78.9	26.8	25.1	100.3	48.0	31.5	88.7	55.1	0.0
LnGrp LOS	E	C	F	E	C	C	F	D	C	F	E	
Approach Vol, veh/h		1400			385			1885			1156	A
Approach Delay, s/veh		77.5			34.1			60.0			57.0	
Approach LOS		E			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	52.9	9.6	67.0	22.0	41.4	13.2	63.3
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	* 6
Max Green Setting (Gmax), s	8.0	43.0	8.0	61.0	18.0	33.0	12.0	* 58
Max Q Clear Time (g_c+I1), s	7.1	38.1	6.3	63.0	19.8	30.4	9.1	9.5
Green Ext Time (p_c), s	0.0	3.2	0.0	0.0	0.0	1.7	0.1	3.2

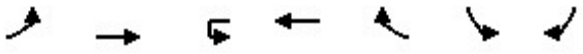
Intersection Summary	
HCM 6th Ctrl Delay	62.3
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	816	2541	0	1822	51	87	314
Future Volume (veh/h)	816	2541	0	1822	51	87	314
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	816	2541		1822	0	87	0
Peak Hour Factor	1.00	1.00		1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	677	4453		2343		109	
Arrive On Green	0.38	0.87		0.92	0.00	0.06	0.00
Sat Flow, veh/h	1781	5274		5274	1585	1781	1585
Grp Volume(v), veh/h	816	2541		1822	0	87	0
Grp Sat Flow(s),veh/h/ln	1781	1702		1702	1585	1781	1585
Q Serve(g_s), s	57.0	19.0		15.4	0.0	7.2	0.0
Cycle Q Clear(g_c), s	57.0	19.0		15.4	0.0	7.2	0.0
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	677	4453		2343		109	
V/C Ratio(X)	1.21	0.57		0.78		0.80	
Avail Cap(c_a), veh/h	677	4453		2343		380	
HCM Platoon Ratio	1.00	1.00		2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		0.91	0.00	1.00	0.00
Uniform Delay (d), s/veh	46.5	2.4		4.0	0.0	69.5	0.0
Incr Delay (d2), s/veh	106.1	0.5		2.4	0.0	12.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	44.3	3.2		2.4	0.0	3.7	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	152.6	3.0		6.4	0.0	82.0	0.0
LnGrp LOS	F	A		A		F	
Approach Vol, veh/h		3357		1822	A	87	A
Approach Delay, s/veh		39.3		6.4		82.0	
Approach LOS		D		A		F	

Timer - Assigned Phs		2		4	5	6	
Phs Duration (G+Y+Rc), s		135.8		14.2	62.0	73.8	
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0	
Max Green Setting (Gmax), s		96.0		32.0	57.0	46.0	
Max Q Clear Time (g_c+I1), s		21.0		9.2	59.0	17.4	
Green Ext Time (p_c), s		44.5		0.2	0.0	15.7	

Intersection Summary	
HCM 6th Ctrl Delay	28.6
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	2559	69	102	1768	105	148
Future Volume (veh/h)	2559	69	102	1768	105	148
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2559	0	102	1768	105	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3129		123	3619	128	
Arrive On Green	0.81	0.00	0.07	0.71	0.07	0.00
Sat Flow, veh/h	5274	1585	1781	5274	1781	1585
Grp Volume(v), veh/h	2559	0	102	1768	105	0
Grp Sat Flow(s),veh/h/ln	1702	1585	1781	1702	1781	1585
Q Serve(g_s), s	41.7	0.0	8.5	23.1	8.7	0.0
Cycle Q Clear(g_c), s	41.7	0.0	8.5	23.1	8.7	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	3129		123	3619	128	
V/C Ratio(X)	0.82		0.83	0.49	0.82	
Avail Cap(c_a), veh/h	3129		178	3619	404	
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	9.2	0.0	68.9	9.7	68.7	0.0
Incr Delay (d2), s/veh	1.9	0.0	12.8	0.5	4.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	0.0	4.3	7.9	4.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.2	0.0	81.7	10.2	73.5	0.0
LnGrp LOS	B		F	B	E	
Approach Vol, veh/h	2559	A		1870	105	A
Approach Delay, s/veh	11.2			14.1	73.5	
Approach LOS	B			B	E	

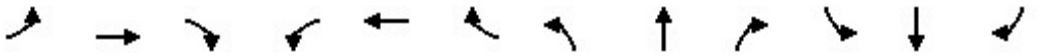
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		14.8	14.4	97.6		112.0
Change Period (Y+Rc), s		4.0	4.0	5.7		5.7
Max Green Setting (Gmax), s		34.0	15.0	87.3		106.3
Max Q Clear Time (g_c+I1), s		10.7	10.5	43.7		25.1
Green Ext Time (p_c), s		0.2	0.1	36.3		30.1

Intersection Summary	
HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	255	2447	5	11	1647	1046	2	2	23	489	2	221
Future Volume (veh/h)	255	2447	5	11	1647	1046	2	2	23	489	2	221
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	255	2447	5	11	1647	0	2	2	23	490	0	221
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	279	3393	1053	13	3316		35	3	29	901	0	267
Arrive On Green	0.16	0.66	0.66	0.01	0.52	0.00	0.02	0.02	0.02	0.17	0.00	0.17
Sat Flow, veh/h	1781	5106	1585	1781	6434	1585	1781	128	1476	5344	0	1585
Grp Volume(v), veh/h	255	2447	5	11	1647	0	2	0	25	490	0	221
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1609	1585	1781	0	1605	1781	0	1585
Q Serve(g_s), s	21.1	46.3	0.2	0.9	25.0	0.0	0.2	0.0	2.3	12.6	0.0	20.2
Cycle Q Clear(g_c), s	21.1	46.3	0.2	0.9	25.0	0.0	0.2	0.0	2.3	12.6	0.0	20.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.92	1.00		1.00
Lane Grp Cap(c), veh/h	279	3393	1053	13	3316		35	0	31	901	0	267
V/C Ratio(X)	0.91	0.72	0.00	0.84	0.50		0.06	0.00	0.80	0.54	0.00	0.83
Avail Cap(c_a), veh/h	380	3393	1053	95	3316		95	0	86	1318	0	391
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.84	0.84	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	62.3	16.2	8.5	74.4	23.7	0.0	72.2	0.0	73.2	57.1	0.0	60.2
Incr Delay (d2), s/veh	18.4	1.4	0.0	33.2	0.2	0.0	0.3	0.0	15.6	0.6	0.0	9.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.8	16.8	0.1	0.5	9.2	0.0	0.1	0.0	1.1	5.8	0.0	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.7	17.6	8.5	107.6	23.8	0.0	72.4	0.0	88.8	57.6	0.0	69.8
LnGrp LOS	F	B	A	F	C		E	A	F	E	A	E
Approach Vol, veh/h		2707			1658	A		27			711	
Approach Delay, s/veh		23.5			24.4			87.6			61.4	
Approach LOS		C			C			F			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		6.9	5.1	105.4		32.6	27.5	83.0				
Change Period (Y+Rc), s		4.0	4.0	5.7		7.3	4.0	5.7				
Max Green Setting (Gmax), s		8.0	8.0	76.0		37.0	32.0	52.0				
Max Q Clear Time (g_c+I1), s		4.3	2.9	48.3		22.2	23.1	27.0				
Green Ext Time (p_c), s		0.0	0.0	27.5		3.1	0.3	23.5				

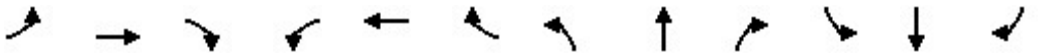
Intersection Summary												
HCM 6th Ctrl Delay			29.4									
HCM 6th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	2	49	9	6	56	40	2587	43	40	2890	29
Future Volume (veh/h)	61	2	49	9	6	56	40	2587	43	40	2890	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	0	49	8	8	56	40	2587	43	40	2890	29
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	157	0	70	84	89	75	52	4948	1219	75	3889	1207
Arrive On Green	0.04	0.00	0.04	0.05	0.05	0.05	0.03	0.77	0.77	0.02	0.76	0.76
Sat Flow, veh/h	3563	0	1585	1781	1870	1585	1781	6434	1585	3456	5106	1585
Grp Volume(v), veh/h	62	0	49	8	8	56	40	2587	43	40	2890	29
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	1870	1585	1781	1609	1585	1728	1702	1585
Q Serve(g_s), s	2.5	0.0	4.6	0.6	0.6	5.2	3.3	23.3	1.0	1.7	46.6	0.7
Cycle Q Clear(g_c), s	2.5	0.0	4.6	0.6	0.6	5.2	3.3	23.3	1.0	1.7	46.6	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	157	0	70	84	89	75	52	4948	1219	75	3889	1207
V/C Ratio(X)	0.39	0.00	0.70	0.09	0.09	0.75	0.77	0.52	0.04	0.54	0.74	0.02
Avail Cap(c_a), veh/h	285	0	127	451	474	402	143	4948	1219	276	3889	1207
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.77	0.77	0.77	0.66	0.66	0.66
Uniform Delay (d), s/veh	69.7	0.0	70.7	68.4	68.4	70.6	72.3	6.7	4.1	72.6	9.8	4.3
Incr Delay (d2), s/veh	0.6	0.0	4.7	0.4	0.4	12.5	6.9	0.1	0.0	1.5	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	1.9	0.3	0.3	2.4	1.6	6.6	0.3	0.8	14.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.3	0.0	75.4	68.8	68.8	83.0	79.3	6.8	4.1	74.1	10.7	4.4
LnGrp LOS	E	A	E	E	E	F	E	A	A	E	B	A
Approach Vol, veh/h		111			72			2670			2959	
Approach Delay, s/veh		72.6			79.9			7.9			11.5	
Approach LOS		E			E			A			B	

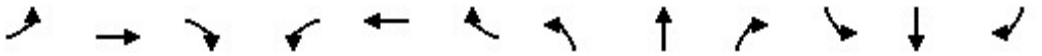
Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	11.1	8.4	119.9	10.6	7.2	121.0
Change Period (Y+Rc), s	4.0	4.0	5.7	4.0	4.0	5.7
Max Green Setting (Gmax), s	38.0	12.0	70.3	12.0	12.0	70.3
Max Q Clear Time (g_c+I1), s	7.2	5.3	48.6	6.6	3.7	25.3
Green Ext Time (p_c), s	0.2	0.0	20.6	0.1	0.0	37.9

Intersection Summary	
HCM 6th Ctrl Delay	11.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	2643	293	185	2463	33	201	36	142	14	7	6
Future Volume (veh/h)	12	2643	293	185	2463	33	201	36	142	14	7	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	2643	212	185	2463	0	227	0	11	10	12	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1365	2715	669	1270	2538		273	0	121	29	30	
Arrive On Green	0.40	0.42	0.42	0.73	0.79	0.00	0.08	0.00	0.08	0.02	0.02	0.00
Sat Flow, veh/h	3456	6434	1585	3456	6434	1585	3563	0	1585	1781	1870	1585
Grp Volume(v), veh/h	12	2643	212	185	2463	0	227	0	11	10	12	0
Grp Sat Flow(s),veh/h/ln	1728	1609	1585	1728	1609	1585	1781	0	1585	1781	1870	1585
Q Serve(g_s), s	0.3	60.4	13.4	2.4	51.7	0.0	9.4	0.0	1.0	0.8	1.0	0.0
Cycle Q Clear(g_c), s	0.3	60.4	13.4	2.4	51.7	0.0	9.4	0.0	1.0	0.8	1.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1365	2715	669	1270	2538		273	0	121	29	30	
V/C Ratio(X)	0.01	0.97	0.32	0.15	0.97		0.83	0.00	0.09	0.35	0.40	
Avail Cap(c_a), veh/h	1365	2715	669	1270	2544		285	0	127	534	561	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.57	0.57	0.57	0.70	0.70	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.5	42.5	28.9	12.9	15.0	0.0	68.3	0.0	64.4	73.0	73.1	0.0
Incr Delay (d2), s/veh	0.0	8.2	0.7	0.0	9.2	0.0	17.5	0.0	0.2	7.2	8.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	24.6	5.2	0.9	7.0	0.0	5.0	0.0	0.4	0.4	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.5	50.7	29.6	12.9	24.3	0.0	85.9	0.0	64.6	80.2	81.5	0.0
LnGrp LOS	C	D	C	B	C		F	A	E	F	F	
Approach Vol, veh/h		2867			2648	A		238			22	A
Approach Delay, s/veh		49.1			23.5			84.9			80.9	
Approach LOS		D			C			F			F	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.5	59.1	69.0		6.4	63.3	64.9				
Change Period (Y+Rc), s		4.0	4.0	5.7		4.0	4.0	5.7				
Max Green Setting (Gmax), s		12.0	12.0	63.3		45.0	16.0	59.3				
Max Q Clear Time (g_c+I1), s		11.4	4.4	62.4		3.0	2.3	53.7				
Green Ext Time (p_c), s		0.1	0.2	0.9		0.1	0.0	5.4				

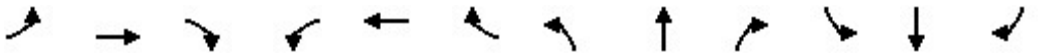
Intersection Summary												
HCM 6th Ctrl Delay			38.9									
HCM 6th LOS			D									

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	236	1799	764	88	1782	643	539	399	70	681	536	360
Future Volume (veh/h)	236	1799	764	88	1782	643	539	399	70	681	536	360
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	236	1799	0	88	1782	0	539	399	0	681	536	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	300	1908		129	2175		583	574		990	786	
Arrive On Green	0.12	0.75	0.00	0.07	0.68	0.00	0.17	0.11	0.00	0.20	0.15	0.00
Sat Flow, veh/h	5023	5106	1585	3456	6434	1585	3456	5106	1585	5023	5106	1585
Grp Volume(v), veh/h	236	1799	0	88	1782	0	539	399	0	681	536	0
Grp Sat Flow(s),veh/h/ln	1674	1702	1585	1728	1609	1585	1728	1702	1585	1674	1702	1585
Q Serve(g_s), s	6.8	45.2	0.0	3.7	30.2	0.0	23.0	11.3	0.0	18.9	14.9	0.0
Cycle Q Clear(g_c), s	6.8	45.2	0.0	3.7	30.2	0.0	23.0	11.3	0.0	18.9	14.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	300	1908		129	2175		583	574		990	786	
V/C Ratio(X)	0.79	0.94		0.68	0.82		0.92	0.69		0.69	0.68	
Avail Cap(c_a), veh/h	375	1913		184	2175		622	1328		990	1321	
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	65.1	17.6	0.0	68.5	21.0	0.0	61.4	64.1	0.0	55.9	60.0	0.0
Incr Delay (d2), s/veh	4.6	7.6	0.0	2.4	3.6	0.0	18.4	2.2	0.0	2.0	2.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	8.3	0.0	1.6	6.9	0.0	11.4	4.9	0.0	8.1	6.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.7	25.2	0.0	70.9	24.6	0.0	79.8	66.3	0.0	58.0	62.3	0.0
LnGrp LOS	E	C		E	C		E	E		E	E	
Approach Vol, veh/h		2035	A		1870	A		938	A		1217	A
Approach Delay, s/veh		30.4			26.8			74.1			59.9	
Approach LOS		C			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.9	22.9	9.6	62.1	29.3	30.4	15.0	56.7
Change Period (Y+Rc), s	7.3	6.0	4.0	* 6	4.0	* 7.3	6.0	6.0
Max Green Setting (Gmax), s	23.8	39.0	8.0	* 56	27.0	* 39	11.2	50.7
Max Q Clear Time (g_c+I1), s	20.9	13.3	5.7	47.2	25.0	16.9	8.8	32.2
Green Ext Time (p_c), s	0.9	3.6	0.0	8.0	0.3	6.2	0.1	14.3

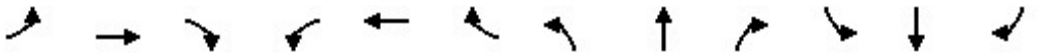
Intersection Summary	
HCM 6th Ctrl Delay	41.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	2478	9	16	2298	347	13	8	4	104	0	52
Future Volume (veh/h)	89	2478	9	16	2298	347	13	8	4	104	0	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	89	2478	9	16	2298	347	10	11	4	104	0	52
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	109	3353	826	29	2977	733	38	40	34	178	0	79
Arrive On Green	0.06	0.52	0.52	0.02	0.46	0.46	0.02	0.02	0.02	0.05	0.00	0.05
Sat Flow, veh/h	1781	6434	1585	1781	6434	1585	1781	1870	1585	3563	0	1585
Grp Volume(v), veh/h	89	2478	9	16	2298	347	10	11	4	104	0	52
Grp Sat Flow(s),veh/h/ln	1781	1609	1585	1781	1609	1585	1781	1870	1585	1781	0	1585
Q Serve(g_s), s	7.4	45.0	0.4	1.3	44.8	22.6	0.8	0.9	0.4	4.3	0.0	4.8
Cycle Q Clear(g_c), s	7.4	45.0	0.4	1.3	44.8	22.6	0.8	0.9	0.4	4.3	0.0	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	109	3353	826	29	2977	733	38	40	34	178	0	79
V/C Ratio(X)	0.81	0.74	0.01	0.55	0.77	0.47	0.26	0.27	0.12	0.58	0.00	0.65
Avail Cap(c_a), veh/h	166	3353	826	95	2977	733	95	100	85	950	0	423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	69.6	28.0	17.3	73.2	33.7	27.7	72.2	72.2	72.0	69.7	0.0	70.0
Incr Delay (d2), s/veh	9.4	1.0	0.0	6.0	2.0	2.2	1.3	1.3	0.6	3.7	0.0	10.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	16.7	0.2	0.7	17.2	8.8	0.4	0.4	0.2	2.1	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.0	28.9	17.3	79.3	35.7	29.9	73.5	73.6	72.5	73.4	0.0	80.8
LnGrp LOS	E	C	B	E	D	C	E	E	E	E	A	F
Approach Vol, veh/h		2576			2661			25			156	
Approach Delay, s/veh		30.6			35.2			73.4			75.9	
Approach LOS		C			D			E			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		7.2	6.4	84.2		12.1	15.2	75.4				
Change Period (Y+Rc), s		4.0	4.0	6.0		4.6	6.0	* 6				
Max Green Setting (Gmax), s		8.0	8.0	75.4		40.0	14.0	* 69				
Max Q Clear Time (g_c+I1), s		2.9	3.3	47.0		6.8	9.4	46.8				
Green Ext Time (p_c), s		0.0	0.0	25.6		0.7	0.0	20.7				

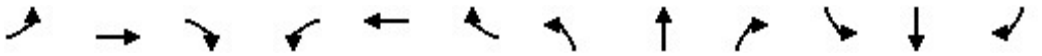
Intersection Summary												
HCM 6th Ctrl Delay			34.4									
HCM 6th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	2329	133	282	1949	259	494	271	304	745	312	168
Future Volume (veh/h)	124	2329	133	282	1949	259	494	271	304	745	312	168
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1988	1988	1988	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	124	2329	74	282	1949	187	494	271	175	745	312	65
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	171	1918	595	960	3054	948	276	386	172	392	505	225
Arrive On Green	0.05	0.35	0.35	0.28	0.60	0.60	0.08	0.11	0.11	0.11	0.14	0.14
Sat Flow, veh/h	3673	5427	1685	3456	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	124	2329	74	282	1949	187	494	271	175	745	312	65
Grp Sat Flow(s),veh/h/ln	1837	1809	1685	1728	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	5.0	53.0	3.4	9.6	37.2	8.1	12.0	11.0	9.8	17.0	12.4	5.5
Cycle Q Clear(g_c), s	5.0	53.0	3.4	9.6	37.2	8.1	12.0	11.0	9.8	17.0	12.4	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	171	1918	595	960	3054	948	276	386	172	392	505	225
V/C Ratio(X)	0.73	1.21	0.12	0.29	0.64	0.20	1.79	0.70	1.02	1.90	0.62	0.29
Avail Cap(c_a), veh/h	196	1918	595	960	3054	948	276	1239	553	392	1350	602
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.65	0.65	0.65	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.6	48.5	19.6	42.6	19.6	13.7	69.0	64.5	23.9	66.5	60.5	57.6
Incr Delay (d2), s/veh	9.9	101.6	0.4	0.1	0.4	0.1	368.3	3.1	40.7	415.5	1.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	41.1	1.9	4.1	14.0	2.8	19.4	5.1	5.6	30.0	5.6	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.4	150.1	20.0	42.7	20.0	13.9	437.3	67.6	64.6	482.0	62.0	58.4
LnGrp LOS	F	F	C	D	B	B	F	E	F	F	E	E
Approach Vol, veh/h		2527			2418			940			1122	
Approach Delay, s/veh		142.9			22.2			261.3			340.6	
Approach LOS		F			C			F			F	

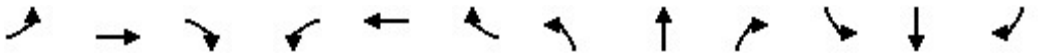
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	22.3	47.7	59.0	16.0	27.3	11.0	95.7
Change Period (Y+Rc), s	4.0	* 6	6.0	* 6	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	17.0	* 52	8.0	* 53	12.0	57.0	8.0	53.0
Max Q Clear Time (g_c+I1), s	19.0	13.0	11.6	55.0	14.0	14.4	7.0	39.2
Green Ext Time (p_c), s	0.0	3.3	0.0	0.0	0.0	2.6	0.0	12.7

Intersection Summary	
HCM 6th Ctrl Delay	148.8
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	392	2438	548	231	2020	53	280	222	175	26	59	190
Future Volume (veh/h)	392	2438	548	231	2020	53	280	222	175	26	59	190
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	392	2438	0	231	2020	28	280	222	0	26	59	12
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	439	3184		253	2910	903	559	262		33	81	121
Arrive On Green	0.04	0.21	0.00	0.15	1.00	1.00	0.11	0.14	0.00	0.02	0.04	0.04
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	5023	1870	1585	1781	1870	2790
Grp Volume(v), veh/h	392	2438	0	231	2020	28	280	222	0	26	59	12
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1674	1870	1585	1781	1870	1395
Q Serve(g_s), s	16.9	67.5	0.0	9.9	0.0	0.0	7.9	17.4	0.0	2.2	4.7	0.5
Cycle Q Clear(g_c), s	16.9	67.5	0.0	9.9	0.0	0.0	7.9	17.4	0.0	2.2	4.7	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	439	3184		253	2910	903	559	262		33	81	121
V/C Ratio(X)	0.89	0.77		0.91	0.69	0.03	0.50	0.85		0.79	0.73	0.10
Avail Cap(c_a), veh/h	461	3184		253	2910	903	559	461		95	362	539
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.8	49.2	0.0	63.5	0.0	0.0	62.7	62.9	0.0	73.3	70.9	45.0
Incr Delay (d2), s/veh	2.2	0.2	0.0	33.3	0.8	0.0	0.3	11.3	0.0	14.4	4.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	30.8	0.0	5.1	0.2	0.0	3.4	9.1	0.0	1.1	2.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.0	49.4	0.0	96.9	0.8	0.0	63.0	74.2	0.0	87.7	75.6	45.1
LnGrp LOS	E	D		F	A	A	E	E		F	E	D
Approach Vol, veh/h		2830	A		2279			502	A		97	
Approach Delay, s/veh		52.7			10.5			68.0			75.1	
Approach LOS		D			B			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	28.7	15.0	99.5	24.4	11.1	23.0	91.5
Change Period (Y+Rc), s	4.0	* 7.7	4.0	6.0	7.7	4.6	4.0	6.0
Max Green Setting (Gmax), s	8.0	* 37	11.0	74.3	13.4	29.0	20.0	65.3
Max Q Clear Time (g_c+I1), s	4.2	19.4	11.9	69.5	9.9	6.7	18.9	2.0
Green Ext Time (p_c), s	0.0	1.6	0.0	4.6	0.2	0.2	0.1	40.0

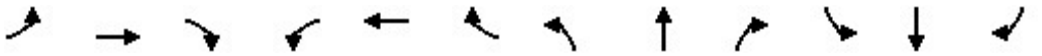
Intersection Summary	
HCM 6th Ctrl Delay	37.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	477	2086	4	26	1628	116	1	0	0	100	0	675
Future Volume (veh/h)	477	2086	4	26	1628	116	1	0	0	100	0	675
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	477	2086	4	26	1628	70	1	0	0	100	0	48
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	521	2549	5	47	1770	549	3	4	3	166	0	148
Arrive On Green	0.30	0.97	0.97	0.03	0.35	0.35	0.00	0.00	0.00	0.05	0.00	0.05
Sat Flow, veh/h	3456	5263	10	1781	5106	1585	1781	1870	1585	3563	0	3170
Grp Volume(v), veh/h	477	1349	741	26	1628	70	1	0	0	100	0	48
Grp Sat Flow(s),veh/h/ln	1728	1702	1869	1781	1702	1585	1781	1870	1585	1781	0	1585
Q Serve(g_s), s	20.0	8.9	8.9	2.2	45.9	4.5	0.1	0.0	0.0	4.1	0.0	2.2
Cycle Q Clear(g_c), s	20.0	8.9	8.9	2.2	45.9	4.5	0.1	0.0	0.0	4.1	0.0	2.2
Prop In Lane	1.00		0.01	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	521	1649	905	47	1770	549	3	4	3	166	0	148
V/C Ratio(X)	0.91	0.82	0.82	0.55	0.92	0.13	0.29	0.00	0.00	0.60	0.00	0.33
Avail Cap(c_a), veh/h	714	1702	934	95	1770	549	249	262	222	665	0	592
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.4	1.3	1.3	72.1	47.0	33.5	74.8	0.0	0.0	70.1	0.0	69.2
Incr Delay (d2), s/veh	11.2	3.4	6.0	3.7	9.3	0.5	16.9	0.0	0.0	1.3	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	1.5	2.3	1.0	20.3	1.8	0.1	0.0	0.0	1.9	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.6	4.7	7.3	75.8	56.3	34.0	91.7	0.0	0.0	71.5	0.0	69.7
LnGrp LOS	E	A	A	E	E	C	F	A	A	E	A	E
Approach Vol, veh/h		2567			1724			1			148	
Approach Delay, s/veh		16.2			55.7			91.7			70.9	
Approach LOS		B			E			F			E	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	4.3	8.0	78.7	11.0	28.6	58.0
Change Period (Y+Rc), s	4.0	4.0	6.0	4.0	6.0	* 6
Max Green Setting (Gmax), s	21.0	8.0	75.0	28.0	31.0	* 52
Max Q Clear Time (g_c+I1), s	2.1	4.2	10.9	6.1	22.0	47.9
Green Ext Time (p_c), s	0.0	0.0	40.2	0.2	0.7	3.6

Intersection Summary	
HCM 6th Ctrl Delay	33.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	335	176	1461	104	151	2035
Future Volume (veh/h)	335	176	1461	104	151	2035
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	335	176	1461	104	151	2035
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	365	325	3071	953	174	3705
Arrive On Green	0.20	0.20	1.00	1.00	0.10	0.73
Sat Flow, veh/h	1781	1585	5274	1585	1781	5274
Grp Volume(v), veh/h	335	176	1461	104	151	2035
Grp Sat Flow(s),veh/h/ln	1781	1585	1702	1585	1781	1702
Q Serve(g_s), s	27.6	14.9	0.0	0.0	12.5	27.3
Cycle Q Clear(g_c), s	27.6	14.9	0.0	0.0	12.5	27.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	365	325	3071	953	174	3705
V/C Ratio(X)	0.92	0.54	0.48	0.11	0.87	0.55
Avail Cap(c_a), veh/h	558	497	3071	953	273	3705
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.95	0.95	1.00	1.00
Uniform Delay (d), s/veh	58.4	53.3	0.0	0.0	66.7	9.4
Incr Delay (d2), s/veh	13.3	1.0	0.5	0.2	10.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.8	13.3	0.1	0.1	6.1	9.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	71.6	54.4	0.5	0.2	77.2	10.0
LnGrp LOS	E	D	A	A	E	A
Approach Vol, veh/h	511		1565			2186
Approach Delay, s/veh	65.7		0.5			14.6
Approach LOS	E		A			B

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			115.3		34.7	18.6	96.6
Change Period (Y+Rc), s			6.4		4.0	4.0	6.4
Max Green Setting (Gmax), s			92.6		47.0	23.0	65.6
Max Q Clear Time (g_c+I1), s			29.3		29.6	14.5	2.0
Green Ext Time (p_c), s			35.5		1.1	0.1	19.4

Intersection Summary	
HCM 6th Ctrl Delay	15.6
HCM 6th LOS	B



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	158	80	284	1407	2042	328
Future Volume (veh/h)	158	80	284	1407	2042	328
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	158	80	284	1407	2042	328
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	227	104	301	3312	2312	718
Arrive On Green	0.07	0.07	0.34	1.00	0.91	0.91
Sat Flow, veh/h	3456	1585	1781	5274	5274	1585
Grp Volume(v), veh/h	158	80	284	1407	2042	328
Grp Sat Flow(s),veh/h/ln	1728	1585	1781	1702	1702	1585
Q Serve(g_s), s	6.7	7.4	23.2	0.0	28.3	5.0
Cycle Q Clear(g_c), s	6.7	7.4	23.2	0.0	28.3	5.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	227	104	301	3312	2312	718
V/C Ratio(X)	0.69	0.77	0.94	0.42	0.88	0.46
Avail Cap(c_a), veh/h	991	454	344	3312	2312	718
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.82	0.82	0.76	0.76
Uniform Delay (d), s/veh	68.6	68.9	48.9	0.0	5.2	4.1
Incr Delay (d2), s/veh	1.4	4.4	26.7	0.3	4.1	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	3.1	10.8	0.1	3.3	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	70.0	73.3	75.6	0.3	9.4	5.7
LnGrp LOS	E	E	E	A	A	A
Approach Vol, veh/h	238			1691	2370	
Approach Delay, s/veh	71.1			13.0	8.9	
Approach LOS	E			B	A	

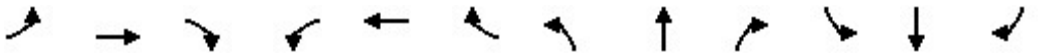
Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	13.9	29.4	73.9	103.3
Change Period (Y+Rc), s	4.0	4.0	6.0	* 6
Max Green Setting (Gmax), s	43.0	29.0	64.0	* 97
Max Q Clear Time (g_c+I1), s	9.4	25.2	30.3	2.0
Green Ext Time (p_c), s	0.4	0.2	27.6	28.1

Intersection Summary	
HCM 6th Ctrl Delay	13.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	15	214	3	31	5	156	1649	3	10	1906	206
Future Volume (veh/h)	37	15	214	3	31	5	156	1649	3	10	1906	206
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	30	63	3	31	1	156	1649	2	10	1906	151
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	33	103	88	6	72	2	178	2570	798	16	2106	654
Arrive On Green	0.02	0.06	0.06	0.00	0.04	0.04	0.10	0.50	0.50	0.01	0.41	0.41
Sat Flow, veh/h	1781	1870	1585	1781	1802	58	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	26	30	63	3	0	32	156	1649	2	10	1906	151
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1860	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	2.2	2.3	5.9	0.3	0.0	2.5	13.0	35.5	0.1	0.8	52.5	9.3
Cycle Q Clear(g_c), s	2.2	2.3	5.9	0.3	0.0	2.5	13.0	35.5	0.1	0.8	52.5	9.3
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	33	103	88	6	0	74	178	2570	798	16	2106	654
V/C Ratio(X)	0.79	0.29	0.72	0.54	0.00	0.43	0.88	0.64	0.00	0.62	0.90	0.23
Avail Cap(c_a), veh/h	95	545	462	95	0	558	202	2570	798	95	2128	660
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.72	0.72	0.72
Uniform Delay (d), s/veh	73.3	68.0	69.7	74.7	0.0	70.3	66.6	27.3	18.5	74.1	41.3	28.6
Incr Delay (d2), s/veh	14.4	2.4	16.1	26.7	0.0	2.9	27.9	1.2	0.0	9.8	4.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.2	2.7	0.2	0.0	1.3	7.2	14.2	0.0	0.4	22.1	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.7	70.5	85.8	101.3	0.0	73.3	94.5	28.6	18.5	83.9	45.9	28.8
LnGrp LOS	F	E	F	F	A	E	F	C	B	F	D	C
Approach Vol, veh/h		119			35			1807			2067	
Approach Delay, s/veh		82.4			75.7			34.3			44.8	
Approach LOS		F			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.5	13.6	19.0	67.4	6.8	11.3	5.4	81.0
Change Period (Y+Rc), s	4.0	5.3	4.0	5.5	4.0	* 5.3	4.0	5.5
Max Green Setting (Gmax), s	8.0	43.7	17.0	62.5	8.0	* 45	8.0	71.5
Max Q Clear Time (g_c+I1), s	2.3	7.9	15.0	54.5	4.2	4.5	2.8	37.5
Green Ext Time (p_c), s	0.0	0.6	0.0	7.4	0.0	0.1	0.0	22.7

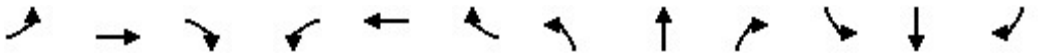
Intersection Summary	
HCM 6th Ctrl Delay	41.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	37	15	169	379	345	35	1528	134	132	1778	51
Future Volume (veh/h)	6	37	15	169	379	345	35	1528	134	132	1778	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	37	15	169	379	0	35	1528	0	132	1778	51
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	11	58	24	191	524		45	3234		154	3544	102
Arrive On Green	0.01	0.05	0.05	0.11	0.15	0.00	0.03	0.63	0.00	0.09	0.69	0.69
Sat Flow, veh/h	1781	1265	513	1781	3554	1585	1781	5106	1585	1781	5102	146
Grp Volume(v), veh/h	6	0	52	169	379	0	35	1528	0	132	1186	643
Grp Sat Flow(s),veh/h/ln	1781	0	1778	1781	1777	1585	1781	1702	1585	1781	1702	1844
Q Serve(g_s), s	0.5	0.0	4.3	14.0	15.3	0.0	2.9	23.5	0.0	11.0	24.5	24.5
Cycle Q Clear(g_c), s	0.5	0.0	4.3	14.0	15.3	0.0	2.9	23.5	0.0	11.0	24.5	24.5
Prop In Lane	1.00		0.29	1.00		1.00	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	11	0	82	191	524		45	3234		154	2365	1281
V/C Ratio(X)	0.57	0.00	0.64	0.88	0.72		0.78	0.47		0.86	0.50	0.50
Avail Cap(c_a), veh/h	95	0	427	249	1151		95	3234		214	2365	1281
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	74.4	0.0	70.3	66.0	61.0	0.0	72.7	14.4	0.0	67.6	10.7	10.7
Incr Delay (d2), s/veh	16.8	0.0	21.5	20.7	3.8	0.0	10.2	0.2	0.0	16.5	0.8	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	2.5	7.5	7.2	0.0	1.5	8.6	0.0	5.6	8.6	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.2	0.0	91.8	86.7	64.8	0.0	82.9	14.6	0.0	84.1	11.5	12.1
LnGrp LOS	F	A	F	F	E		F	B		F	B	B
Approach Vol, veh/h		58			548	A		1563	A		1961	
Approach Delay, s/veh		91.7			71.6			16.1			16.6	
Approach LOS		F			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.1	12.2	7.8	109.9	4.9	27.4	17.0	100.7
Change Period (Y+Rc), s	4.0	* 5.3	4.0	5.7	4.0	5.3	4.0	5.7
Max Green Setting (Gmax), s	21.0	* 36	8.0	66.4	8.0	48.6	18.0	56.4
Max Q Clear Time (g_c+I1), s	16.0	6.3	4.9	26.5	2.5	17.3	13.0	25.5
Green Ext Time (p_c), s	0.1	0.5	0.0	26.4	0.0	4.9	0.1	18.8

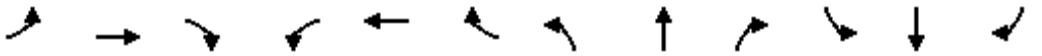
Intersection Summary	
HCM 6th Ctrl Delay	24.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	224	1638	105	48	1655	645	245	926	54	1254	573	160
Future Volume (veh/h)	224	1638	105	48	1655	645	245	926	54	1254	573	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	224	1638	36	48	1655	0	245	926	13	1254	573	76
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	1917	595	81	1730		293	1149	357	1172	1966	610
Arrive On Green	0.06	0.38	0.38	0.02	0.34	0.00	0.08	0.23	0.23	0.08	0.13	0.13
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1585	5023	5106	1585
Grp Volume(v), veh/h	224	1638	36	48	1655	0	245	926	13	1254	573	76
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1585	1674	1702	1585
Q Serve(g_s), s	9.0	44.3	2.2	2.1	47.6	0.0	10.5	25.7	0.9	35.0	15.3	6.4
Cycle Q Clear(g_c), s	9.0	44.3	2.2	2.1	47.6	0.0	10.5	25.7	0.9	35.0	15.3	6.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	207	1917	595	81	1730		293	1149	357	1172	1966	610
V/C Ratio(X)	1.08	0.85	0.06	0.59	0.96		0.84	0.81	0.04	1.07	0.29	0.12
Avail Cap(c_a), veh/h	207	1917	595	184	1730		438	1328	412	1172	1966	610
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.5	43.1	29.9	72.5	48.5	0.0	67.6	55.0	35.7	69.2	46.9	43.0
Incr Delay (d2), s/veh	85.5	5.1	0.2	2.5	12.9	0.0	5.6	3.8	0.1	47.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	19.5	0.9	0.9	22.2	0.0	4.8	11.2	0.4	20.9	7.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	156.0	48.2	30.1	75.1	61.4	0.0	73.2	58.8	35.7	116.4	47.1	43.2
LnGrp LOS	F	D	C	E	E		E	E	D	F	D	D
Approach Vol, veh/h		1898			1703	A		1184			1903	
Approach Delay, s/veh		60.6			61.8			61.5			92.6	
Approach LOS		E			E			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	62.3	16.7	63.5	13.0	56.8	40.7	39.5
Change Period (Y+Rc), s	4.0	6.0	4.0	5.7	4.0	6.0	5.7	* 5.7
Max Green Setting (Gmax), s	8.0	48.3	19.0	55.0	9.0	47.3	35.0	* 39
Max Q Clear Time (g_c+I1), s	4.1	46.3	12.5	17.3	11.0	49.6	37.0	27.7
Green Ext Time (p_c), s	0.0	1.9	0.2	6.8	0.0	0.0	0.0	6.0

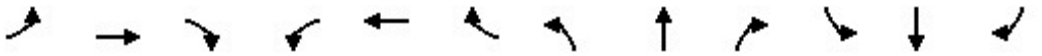
Intersection Summary	
HCM 6th Ctrl Delay	70.2
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	379	627	91	585	587	707	598	194	108	456	28
Future Volume (veh/h)	28	379	627	91	585	587	707	598	194	108	456	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2001	1924	1924	2001	1924	1924	2001	1924	1924	1954	1879	1879
Adj Flow Rate, veh/h	28	379	578	91	585	335	707	598	70	108	456	6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	98	847	746	180	1005	446	839	1241	551	184	754	334
Arrive On Green	0.05	0.23	0.23	0.09	0.27	0.27	0.23	0.34	0.34	0.10	0.21	0.21
Sat Flow, veh/h	1906	3656	1620	1906	3656	1622	3698	3656	1624	1861	3571	1581
Grp Volume(v), veh/h	28	379	578	91	585	335	707	598	70	108	456	6
Grp Sat Flow(s),veh/h/ln	1906	1828	1620	1906	1828	1622	1849	1828	1624	1861	1785	1581
Q Serve(g_s), s	1.2	7.4	19.4	3.8	11.6	15.8	15.3	10.8	2.5	4.6	9.7	0.3
Cycle Q Clear(g_c), s	1.2	7.4	19.4	3.8	11.6	15.8	15.3	10.8	2.5	4.6	9.7	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	98	847	746	180	1005	446	839	1241	551	184	754	334
V/C Ratio(X)	0.29	0.45	0.78	0.50	0.58	0.75	0.84	0.48	0.13	0.59	0.60	0.02
Avail Cap(c_a), veh/h	205	1735	1139	205	1717	762	1017	1661	737	200	1037	459
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.2	27.5	19.1	36.0	26.2	27.7	30.9	21.8	19.1	36.1	29.8	26.1
Incr Delay (d2), s/veh	0.6	0.8	4.0	0.8	0.9	4.4	4.7	0.4	0.2	2.1	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.1	8.7	1.7	4.7	6.0	6.7	4.2	0.9	2.1	3.9	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.8	28.4	23.0	36.8	27.1	32.1	35.7	22.3	19.2	38.2	31.2	26.2
LnGrp LOS	D	C	C	D	C	C	D	C	B	D	C	C
Approach Vol, veh/h		985			1011			1375			570	
Approach Delay, s/veh		25.5			29.6			29.0			32.4	
Approach LOS		C			C			C			C	

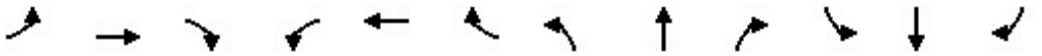
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	25.1	23.0	23.7	8.3	28.7	12.3	34.4
Change Period (Y+Rc), s	4.0	* 5.7	4.0	* 6	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	9.0	* 40	23.0	* 24	9.0	39.3	9.0	38.0
Max Q Clear Time (g_c+I1), s	5.8	9.4	17.3	11.7	3.2	13.6	6.6	12.8
Green Ext Time (p_c), s	0.1	3.5	1.7	5.6	0.0	8.6	0.1	10.3

Intersection Summary	
HCM 6th Ctrl Delay	28.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

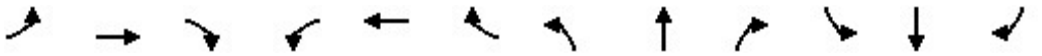
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	166	761	0	0	667	276	0	0	0	554	0	152
Future Volume (veh/h)	166	761	0	0	667	276	0	0	0	554	0	152
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841				1841	0	1841
Adj Flow Rate, veh/h	166	761	0	0	667	276				554	0	152
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	4	4	0	0	4	4				4	0	4
Cap, veh/h	212	1648	0	0	996	440				630	0	561
Arrive On Green	0.12	0.47	0.00	0.00	0.28	0.28				0.36	0.00	0.36
Sat Flow, veh/h	1753	3589	0	0	3589	1546				1753	0	1560
Grp Volume(v), veh/h	166	761	0	0	667	276				554	0	152
Grp Sat Flow(s),veh/h/ln	1753	1749	0	0	1749	1546				1753	0	1560
Q Serve(g_s), s	5.6	9.0	0.0	0.0	10.3	9.5				18.0	0.0	4.2
Cycle Q Clear(g_c), s	5.6	9.0	0.0	0.0	10.3	9.5				18.0	0.0	4.2
Prop In Lane	1.00		0.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	212	1648	0	0	996	440				630	0	561
V/C Ratio(X)	0.78	0.46	0.00	0.00	0.67	0.63				0.88	0.00	0.27
Avail Cap(c_a), veh/h	575	2009	0	0	3042	1345				1122	0	998
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	26.0	10.9	0.0	0.0	19.3	19.0				18.3	0.0	13.8
Incr Delay (d2), s/veh	2.4	0.2	0.0	0.0	0.8	1.5				1.6	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	2.7	0.0	0.0	3.6	3.0				6.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.4	11.1	0.0	0.0	20.0	20.4				19.9	0.0	13.9
LnGrp LOS	C	B	A	A	C	C				B	A	B
Approach Vol, veh/h		927			943						706	
Approach Delay, s/veh		14.2			20.2						18.6	
Approach LOS		B			C						B	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		34.4		26.5	11.4	23.1						
Change Period (Y+Rc), s		5.7		4.6	4.0	5.7						
Max Green Setting (Gmax), s		35.0		39.0	20.0	53.0						
Max Q Clear Time (g_c+I1), s		11.0		20.0	7.6	12.3						
Green Ext Time (p_c), s		3.5		1.9	0.2	4.6						

Intersection Summary												
HCM 6th Ctrl Delay			17.6									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	1181	13	12	892	220	28	12	25	154	8	58
Future Volume (veh/h)	108	1181	13	12	892	220	28	12	25	154	8	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1885	1885	1826	1826	1885	1885	1885	1732	1791	1732
Adj Flow Rate, veh/h	108	1181	13	12	892	220	28	12	25	154	8	58
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	5	5	1	1	5	5	1	1	1	5	1	5
Cap, veh/h	140	1878	21	16	1606	708	78	24	49	207	11	183
Arrive On Green	0.08	0.53	0.53	0.01	0.46	0.46	0.04	0.04	0.04	0.13	0.13	0.13
Sat Flow, veh/h	1739	3515	39	1795	3469	1531	1795	545	1136	1625	84	1433
Grp Volume(v), veh/h	108	583	611	12	892	220	28	0	37	162	0	58
Grp Sat Flow(s),veh/h/ln	1739	1735	1819	1795	1735	1531	1795	0	1681	1710	0	1433
Q Serve(g_s), s	3.8	14.6	14.6	0.4	11.5	5.6	0.9	0.0	1.3	5.7	0.0	2.3
Cycle Q Clear(g_c), s	3.8	14.6	14.6	0.4	11.5	5.6	0.9	0.0	1.3	5.7	0.0	2.3
Prop In Lane	1.00		0.02	1.00		1.00	1.00		0.68	0.95		1.00
Lane Grp Cap(c), veh/h	140	927	972	16	1606	708	78	0	73	218	0	183
V/C Ratio(X)	0.77	0.63	0.63	0.74	0.56	0.31	0.36	0.00	0.51	0.74	0.00	0.32
Avail Cap(c_a), veh/h	561	1259	1320	579	3750	1654	579	0	542	331	0	277
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.9	10.1	10.1	30.6	12.0	10.4	28.8	0.0	29.0	26.1	0.0	24.6
Incr Delay (d2), s/veh	3.4	0.7	0.7	21.4	0.3	0.2	1.0	0.0	2.0	1.9	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	4.1	4.3	0.3	3.5	1.5	0.4	0.0	0.6	2.3	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.3	10.8	10.8	52.0	12.3	10.7	29.8	0.0	31.0	27.9	0.0	25.0
LnGrp LOS	C	B	B	D	B	B	C	A	C	C	A	C
Approach Vol, veh/h		1302			1124			65			220	
Approach Delay, s/veh		12.5			12.4			30.5			27.2	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.6	38.8		6.7	9.0	34.4		11.9				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	67.0		12.0				
Max Q Clear Time (g_c+I1), s	2.4	16.6		3.3	5.8	13.5		7.7				
Green Ext Time (p_c), s	0.0	14.9		0.1	0.1	15.2		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		14.1	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1033	337	329	942	275	397
Future Volume (veh/h)	1033	337	329	942	275	397
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1033	232	329	942	275	384
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1155	787	592	2471	310	802
Arrive On Green	0.33	0.33	0.33	0.70	0.17	0.17
Sat Flow, veh/h	3647	1573	1781	3647	1781	1585
Grp Volume(v), veh/h	1033	232	329	942	275	384
Grp Sat Flow(s),veh/h/ln	1777	1573	1781	1777	1781	1585
Q Serve(g_s), s	41.5	13.0	22.7	16.5	22.6	0.0
Cycle Q Clear(g_c), s	41.5	13.0	22.7	16.5	22.6	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1155	787	592	2471	310	802
V/C Ratio(X)	0.89	0.29	0.56	0.38	0.89	0.48
Avail Cap(c_a), veh/h	1381	887	592	2471	428	907
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.95	0.95	0.86	0.86
Uniform Delay (d), s/veh	48.2	22.1	41.0	9.5	60.5	24.1
Incr Delay (d2), s/veh	6.9	0.2	0.7	0.4	11.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.9	6.7	9.9	5.9	11.2	16.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	55.1	22.3	41.7	9.9	71.7	24.3
LnGrp LOS	E	C	D	A	E	C
Approach Vol, veh/h	1265			1271	659	
Approach Delay, s/veh	49.1			18.1	44.1	
Approach LOS	D			B	D	

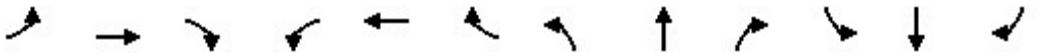
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	55.5	54.5		30.1		110.0
Change Period (Y+Rc), s	5.7	* 5.7		4.0		5.7
Max Green Setting (Gmax), s	42.0	* 58		36.0		104.3
Max Q Clear Time (g_c+I1), s	24.7	43.5		24.6		18.5
Green Ext Time (p_c), s	0.6	5.3		1.5		4.8

Intersection Summary	
HCM 6th Ctrl Delay	35.7
HCM 6th LOS	D

Notes

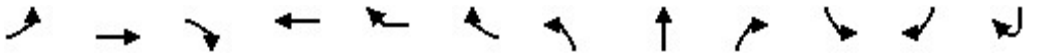
User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1122	308	459	507	0	0	0	1416	0	0	764
Future Volume (vph)	0	1122	308	459	507	0	0	0	1416	0	0	764
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.7	5.7	4.0	4.0				4.0			4.0
Lane Util. Factor		0.91	1.00	0.97	0.95				1.00			1.00
Frpb, ped/bikes		1.00	0.98	1.00	1.00				1.00			1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00				1.00			1.00
Frt		1.00	0.85	1.00	1.00				0.86			0.86
Flt Protected		1.00	1.00	0.95	1.00				1.00			1.00
Satd. Flow (prot)		5085	1555	3433	3539				1611			1611
Flt Permitted		1.00	1.00	0.95	1.00				1.00			1.00
Satd. Flow (perm)		5085	1555	3433	3539				1611			1611
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1122	308	459	507	0	0	0	1416	0	0	764
RTOR Reduction (vph)	0	0	62	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1122	246	459	507	0	0	0	1416	0	0	764
Confl. Peds. (#/hr)			5									
Turn Type		NA	Perm	Prot	NA				Free			Free
Protected Phases		2		1	Free							
Permitted Phases			2						Free			Free
Actuated Green, G (s)		50.8	50.8	14.5	75.0				75.0			75.0
Effective Green, g (s)		50.8	50.8	14.5	75.0				75.0			75.0
Actuated g/C Ratio		0.68	0.68	0.19	1.00				1.00			1.00
Clearance Time (s)		5.7	5.7	4.0								
Vehicle Extension (s)		3.4	3.4	2.0								
Lane Grp Cap (vph)		3444	1053	663	3539				1611			1611
v/s Ratio Prot		0.22		0.13	0.14							
v/s Ratio Perm			0.16						c0.88			0.47
v/c Ratio		0.33	0.23	0.69	0.14				0.88			0.47
Uniform Delay, d1		5.0	4.6	28.2	0.0				0.0			0.0
Progression Factor		0.61	0.45	0.99	1.00				1.00			1.00
Incremental Delay, d2		0.2	0.4	2.0	0.1				7.2			1.0
Delay (s)		3.2	2.5	29.9	0.1				7.2			1.0
Level of Service		A	A	C	A				A			A
Approach Delay (s)		3.1			14.2			7.2			1.0	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	6.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	9.7
Intersection Capacity Utilization	42.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

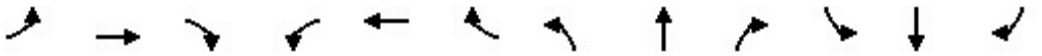


Movement	EBL	EBT	EBR	WBT	WBR	WBR2	NBL2	NBT	NBR	SBL	SBR	SBR2
Lane Configurations												
Traffic Volume (vph)	238	1947	353	588	1756	99	146	633	1020	284	232	96
Future Volume (vph)	238	1947	353	588	1756	99	146	633	1020	284	232	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.7	4.0	5.7	5.7	5.7	4.0	5.3	4.0	4.0	5.7	
Lane Util. Factor	0.97	0.95	1.00	0.86	0.86	1.00	1.00	0.95	1.00	0.97	0.88	
Frpb, ped/bikes	1.00	1.00	0.98	0.99	0.98	1.00	1.00	1.00	0.99	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	0.91	0.85	0.85	1.00	1.00	0.85	1.00	0.85	
Flt Protected	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3539	1548	4327	1337	1583	1770	3539	1562	3433	2787	
Flt Permitted	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3539	1548	4327	1337	1583	1770	3539	1562	3433	2787	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	238	1947	353	588	1756	99	146	633	1020	284	232	96
RTOR Reduction (vph)	0	0	0	0	0	53	0	0	0	0	44	0
Lane Group Flow (vph)	238	1947	353	1466	878	46	146	633	1020	284	284	0
Confl. Peds. (#/hr)			5		5				5		5	
Turn Type	Prot	NA	Free	NA	Perm	Perm	Prot	NA	Free	Prot	pt+ov	
Protected Phases	5	2		6			3	8		7	4 5	
Permitted Phases			Free		6	6			Free			
Actuated Green, G (s)	17.6	90.8	150.0	69.2	69.2	69.2	26.0	34.2	150.0	10.0	35.4	
Effective Green, g (s)	17.6	90.8	150.0	69.2	69.2	69.2	26.0	34.2	150.0	10.0	35.4	
Actuated g/C Ratio	0.12	0.61	1.00	0.46	0.46	0.46	0.17	0.23	1.00	0.07	0.24	
Clearance Time (s)	4.0	5.7		5.7	5.7	5.7	4.0	5.3		4.0		
Vehicle Extension (s)	2.0	3.5		5.6	5.6	5.6	2.0	2.8		3.5		
Lane Grp Cap (vph)	402	2142	1548	1996	616	730	306	806	1562	228	657	
v/s Ratio Prot	0.07	c0.55		0.34			0.08	c0.18		c0.08	0.10	
v/s Ratio Perm			0.23		c0.66	0.03			c0.65			
v/c Ratio	0.59	0.91	0.23	1.28dr	1.43	0.06	0.48	0.79	0.65	1.25	0.43	
Uniform Delay, d1	62.8	26.0	0.0	32.9	40.4	22.4	55.9	54.4	0.0	70.0	48.7	
Progression Factor	1.10	0.72	1.00	0.50	0.60	0.33	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.1	5.3	0.3	1.6	199.2	0.1	0.4	5.0	2.1	141.7	0.2	
Delay (s)	70.3	24.1	0.3	17.9	223.5	7.4	56.3	59.4	2.1	211.7	48.9	
Level of Service	E	C	A	B	F	A	E	E	A	F	D	
Approach Delay (s)		25.1		91.3				26.7				
Approach LOS		C		F				C				

Intersection Summary			
HCM 2000 Control Delay	55.6	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	19.4
Intersection Capacity Utilization	113.1%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	389	2426	436	78	1996	83	208	255	82	125	280	239
Future Volume (veh/h)	389	2426	436	78	1996	83	208	255	82	125	280	239
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	389	2426	0	78	1996	0	208	255	0	125	280	32
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	426	2218		199	2299		335	573		229	513	157
Arrive On Green	0.25	0.87	0.00	0.06	0.36	0.00	0.07	0.11	0.00	0.07	0.10	0.10
Sat Flow, veh/h	3456	5106	1585	3456	6434	1585	5023	5106	1585	3456	5106	1561
Grp Volume(v), veh/h	389	2426	0	78	1996	0	208	255	0	125	280	32
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1609	1585	1674	1702	1585	1728	1702	1561
Q Serve(g_s), s	16.4	65.1	0.0	3.3	43.4	0.0	6.0	7.0	0.0	5.3	7.8	2.8
Cycle Q Clear(g_c), s	16.4	65.1	0.0	3.3	43.4	0.0	6.0	7.0	0.0	5.3	7.8	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	426	2218		199	2299		335	573		229	513	157
V/C Ratio(X)	0.91	1.09		0.39	0.87		0.62	0.45		0.55	0.55	0.20
Avail Cap(c_a), veh/h	438	2218		207	2299		335	1648		230	1566	479
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.40	0.40	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.7	9.9	0.0	68.1	44.9	0.0	68.2	62.2	0.0	67.8	64.2	62.0
Incr Delay (d2), s/veh	11.0	45.8	0.0	0.5	4.8	0.0	2.6	0.7	0.0	1.5	1.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	13.3	0.0	1.4	17.7	0.0	2.7	3.0	0.0	2.4	3.4	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.7	55.6	0.0	68.6	49.7	0.0	70.8	63.0	0.0	69.3	65.3	62.7
LnGrp LOS	E	F		E	D		E	E		E	E	E
Approach Vol, veh/h		2815	A		2074	A		463	A		437	
Approach Delay, s/veh		57.2			50.4			66.5			66.3	
Approach LOS		E			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	22.8	12.7	70.8	16.0	20.8	24.2	59.3
Change Period (Y+Rc), s	4.0	* 6	4.0	5.7	6.0	5.7	5.7	* 5.7
Max Green Setting (Gmax), s	10.0	* 48	9.0	63.6	10.0	46.0	19.0	* 54
Max Q Clear Time (g_c+I1), s	7.3	9.0	5.3	67.1	8.0	9.8	18.4	45.4
Green Ext Time (p_c), s	0.1	1.7	0.0	0.0	0.1	1.8	0.1	6.5

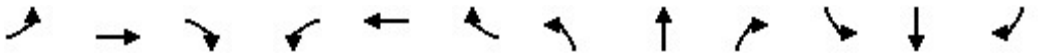
Intersection Summary	
HCM 6th Ctrl Delay	56.2
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	1968	314	34	1657	21	164	280	9	59	250	83
Future Volume (veh/h)	113	1968	314	34	1657	21	164	280	9	59	250	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	113	1968	0	34	1657	0	164	280	0	59	250	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	135	2767		221	3073		187	536		75	313	
Arrive On Green	0.08	0.54	0.00	0.12	0.60	0.00	0.11	0.15	0.00	0.04	0.09	0.00
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	113	1968	0	34	1657	0	164	280	0	59	250	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	9.4	43.1	0.0	2.6	28.7	0.0	13.6	10.9	0.0	4.9	10.4	0.0
Cycle Q Clear(g_c), s	9.4	43.1	0.0	2.6	28.7	0.0	13.6	10.9	0.0	4.9	10.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	135	2767		221	3073		187	536		75	313	
V/C Ratio(X)	0.84	0.71		0.15	0.54		0.88	0.52		0.78	0.80	
Avail Cap(c_a), veh/h	214	2767		221	3073		273	775		119	457	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	68.4	25.6	0.0	58.6	17.6	0.0	66.2	58.7	0.0	71.1	67.1	0.0
Incr Delay (d2), s/veh	8.2	1.6	0.0	0.1	0.3	0.0	14.4	1.6	0.0	6.5	8.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	17.0	0.0	1.2	10.8	0.0	6.8	5.0	0.0	2.4	5.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.6	27.2	0.0	58.7	17.9	0.0	80.5	60.3	0.0	77.6	75.6	0.0
LnGrp LOS	E	C		E	B		F	E		E	E	
Approach Vol, veh/h		2081	A		1691	A		444	A		309	A
Approach Delay, s/veh		29.9			18.7			67.8			76.0	
Approach LOS		C			B			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	28.3	24.3	87.0	19.8	18.9	15.4	96.0
Change Period (Y+Rc), s	4.0	* 5.7	5.7	* 5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	10.0	* 33	7.0	* 81	23.0	19.3	18.0	70.3
Max Q Clear Time (g_c+I1), s	6.9	12.9	4.6	45.1	15.6	12.4	11.4	30.7
Green Ext Time (p_c), s	0.0	2.1	0.0	22.9	0.2	0.8	0.1	19.3

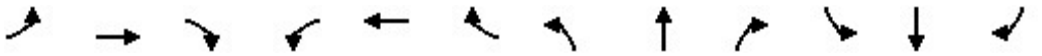
Intersection Summary	
HCM 6th Ctrl Delay	32.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	169	211	53	229	62	124	1684	53	188	1747	52
Future Volume (veh/h)	79	169	211	53	229	62	124	1684	53	188	1747	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	79	169	0	53	229	0	124	1684	0	188	1747	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	372		68	311		146	2111		211	2355	
Arrive On Green	0.06	0.10	0.00	0.04	0.09	0.00	0.08	0.41	0.00	0.12	0.46	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	79	169	0	53	229	0	124	1684	0	188	1747	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	6.6	6.7	0.0	4.4	9.4	0.0	10.3	43.3	0.0	15.6	42.0	0.0
Cycle Q Clear(g_c), s	6.6	6.7	0.0	4.4	9.4	0.0	10.3	43.3	0.0	15.6	42.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	98	372		68	311		146	2111		211	2355	
V/C Ratio(X)	0.80	0.45		0.78	0.74		0.85	0.80		0.89	0.74	
Avail Cap(c_a), veh/h	143	806		119	758		214	2111		297	2355	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	70.0	63.1	0.0	71.5	66.7	0.0	67.9	38.5	0.0	65.1	33.1	0.0
Incr Delay (d2), s/veh	11.8	1.8	0.0	7.0	6.7	0.0	13.1	3.3	0.0	16.7	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	3.1	0.0	2.1	4.5	0.0	5.2	18.2	0.0	8.0	17.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.9	64.9	0.0	78.5	73.4	0.0	81.0	41.8	0.0	81.8	34.5	0.0
LnGrp LOS	F	E		E	E		F	D		F	C	
Approach Vol, veh/h		248	A		282	A		1808	A		1935	A
Approach Delay, s/veh		70.3			74.4			44.5			39.1	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	21.0	16.3	74.9	12.3	18.4	23.5	67.7
Change Period (Y+Rc), s	4.0	5.3	4.0	5.7	4.0	5.3	5.7	* 5.7
Max Green Setting (Gmax), s	10.0	34.0	18.0	69.0	12.0	32.0	25.0	* 62
Max Q Clear Time (g_c+I1), s	6.4	8.7	12.3	44.0	8.6	11.4	17.6	45.3
Green Ext Time (p_c), s	0.0	1.3	0.1	15.8	0.0	1.7	0.2	11.5

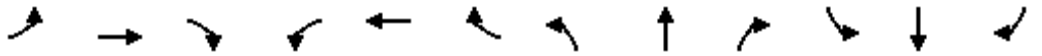
Intersection Summary	
HCM 6th Ctrl Delay	45.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	306	1520	371	60	1300	652	367	1031	28	727	881	167
Future Volume (veh/h)	306	1520	371	60	1300	652	367	1031	28	727	881	167
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	306	1520	251	60	1300	0	367	1031	26	727	881	148
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	346	2013	625	97	1576		490	1257	32	800	1109	185
Arrive On Green	0.20	0.79	0.79	0.03	0.31	0.00	0.14	0.25	0.25	0.16	0.25	0.25
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5122	129	5023	4405	737
Grp Volume(v), veh/h	306	1520	251	60	1300	0	367	685	372	727	680	349
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1847	1674	1702	1738
Q Serve(g_s), s	12.9	23.3	4.2	2.6	35.4	0.0	15.3	28.5	28.5	21.3	28.0	28.2
Cycle Q Clear(g_c), s	12.9	23.3	4.2	2.6	35.4	0.0	15.3	28.5	28.5	21.3	28.0	28.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07	1.00		0.42
Lane Grp Cap(c), veh/h	346	2013	625	97	1576		490	835	453	800	857	437
V/C Ratio(X)	0.88	0.76	0.40	0.62	0.82		0.75	0.82	0.82	0.91	0.79	0.80
Avail Cap(c_a), veh/h	392	2013	625	138	1576		530	930	505	871	999	510
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.1	12.1	3.4	72.1	48.1	0.0	61.8	53.5	53.5	62.0	52.5	52.6
Incr Delay (d2), s/veh	17.6	1.8	0.6	2.4	5.1	0.0	4.6	6.0	10.5	12.0	4.5	8.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	4.6	2.1	1.2	15.4	0.0	7.0	12.7	14.4	9.9	12.4	13.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.7	13.9	3.9	74.5	53.1	0.0	66.4	59.4	64.0	74.0	57.0	61.3
LnGrp LOS	E	B	A	E	D		E	E	E	E	E	E
Approach Vol, veh/h		2077			1360	A		1424			1756	
Approach Delay, s/veh		21.9			54.1			62.4			64.9	
Approach LOS		C			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	65.1	27.0	43.5	21.0	52.3	27.9	42.5
Change Period (Y+Rc), s	4.0	6.0	5.7	* 5.7	6.0	* 6	4.0	5.7
Max Green Setting (Gmax), s	6.0	57.3	23.0	* 44	17.0	* 46	26.0	41.0
Max Q Clear Time (g_c+I1), s	4.6	25.3	17.3	30.2	14.9	37.4	23.3	30.5
Green Ext Time (p_c), s	0.0	19.2	0.4	7.5	0.1	6.1	0.6	6.3

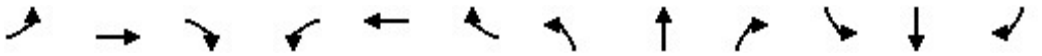
Intersection Summary	
HCM 6th Ctrl Delay	48.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



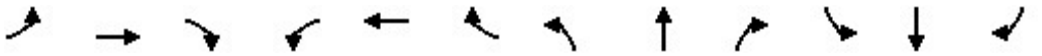
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	548	41	37	1187	130	52	4	26	46	37	16
Future Volume (veh/h)	109	548	41	37	1187	130	52	4	26	46	37	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	109	548	41	37	1187	130	52	4	26	46	37	16
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	167	1512	113	94	1457	650	118	9	59	118	95	185
Arrive On Green	0.09	0.45	0.45	0.05	0.41	0.41	0.11	0.11	0.11	0.12	0.12	0.12
Sat Flow, veh/h	1781	3352	250	1781	3554	1585	1089	84	545	1009	811	1585
Grp Volume(v), veh/h	109	290	299	37	1187	130	82	0	0	83	0	16
Grp Sat Flow(s),veh/h/ln	1781	1777	1825	1781	1777	1585	1718	0	0	1820	0	1585
Q Serve(g_s), s	3.8	6.8	6.9	1.3	18.9	3.4	2.8	0.0	0.0	2.7	0.0	0.6
Cycle Q Clear(g_c), s	3.8	6.8	6.9	1.3	18.9	3.4	2.8	0.0	0.0	2.7	0.0	0.6
Prop In Lane	1.00		0.14	1.00		1.00	0.63		0.32	0.55		1.00
Lane Grp Cap(c), veh/h	167	801	823	94	1457	650	186	0	0	212	0	185
V/C Ratio(X)	0.65	0.36	0.36	0.39	0.81	0.20	0.44	0.00	0.00	0.39	0.00	0.09
Avail Cap(c_a), veh/h	587	1023	1051	307	1488	664	296	0	0	600	0	522
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.9	11.5	11.5	29.2	16.7	12.1	26.6	0.0	0.0	26.1	0.0	25.1
Incr Delay (d2), s/veh	1.6	1.3	1.2	1.0	5.1	0.7	0.6	0.0	0.0	0.4	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.5	2.6	0.5	7.4	1.1	1.2	0.0	0.0	1.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.5	12.7	12.7	30.2	21.8	12.8	27.2	0.0	0.0	26.5	0.0	25.2
LnGrp LOS	C	B	B	C	C	B	C	A	A	C	A	C
Approach Vol, veh/h		698			1354			82			99	
Approach Delay, s/veh		15.4			21.2			27.2			26.3	
Approach LOS		B			C			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.9	7.4	34.0		11.4	10.0	31.4				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.0	4.0	5.3				
Max Green Setting (Gmax), s		11.0	11.0	36.7		21.0	21.0	26.7				
Max Q Clear Time (g_c+I1), s		4.8	3.3	8.9		4.7	5.8	20.9				
Green Ext Time (p_c), s		0.1	0.0	9.5		0.2	0.2	5.3				

Intersection Summary	
HCM 6th Ctrl Delay	19.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	430	56	49	714	315	452	1468	99	231	983	139
Future Volume (veh/h)	128	430	56	49	714	315	452	1468	99	231	983	139
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	128	430	0	49	714	0	452	1468	0	231	983	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	151	950		160	815		509	1804		278	1406	
Arrive On Green	0.08	0.27	0.00	0.05	0.23	0.00	0.15	0.35	0.00	0.08	0.28	0.00
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	128	430	0	49	714	0	452	1468	0	231	983	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	10.6	15.1	0.0	2.1	29.1	0.0	19.2	39.1	0.0	9.9	25.9	0.0
Cycle Q Clear(g_c), s	10.6	15.1	0.0	2.1	29.1	0.0	19.2	39.1	0.0	9.9	25.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	151	950		160	815		509	1804		278	1406	
V/C Ratio(X)	0.85	0.45		0.31	0.88		0.89	0.81		0.83	0.70	
Avail Cap(c_a), veh/h	226	1192		184	931		714	1916		369	1406	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	67.7	45.8	0.0	69.2	55.8	0.0	62.8	44.0	0.0	67.9	48.8	0.0
Incr Delay (d2), s/veh	11.8	0.6	0.0	0.4	9.5	0.0	7.9	3.0	0.0	8.9	2.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	6.7	0.0	0.9	13.8	0.0	8.8	16.2	0.0	4.6	11.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.5	46.4	0.0	69.6	65.2	0.0	70.7	47.0	0.0	76.8	51.7	0.0
LnGrp LOS	E	D		E	E		E	D		E	D	
Approach Vol, veh/h		558	A		763	A		1920	A		1214	A
Approach Delay, s/veh		54.0			65.5			52.6			56.5	
Approach LOS		D			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.1	58.7	11.0	45.8	27.8	47.0	16.7	40.1
Change Period (Y+Rc), s	4.0	5.7	4.0	5.7	5.7	* 5.7	4.0	5.7
Max Green Setting (Gmax), s	16.0	56.3	8.0	50.3	31.0	* 41	19.0	39.3
Max Q Clear Time (g_c+I1), s	11.9	41.1	4.1	17.1	21.2	27.9	12.6	31.1
Green Ext Time (p_c), s	0.2	9.7	0.0	3.5	0.8	6.1	0.1	3.3

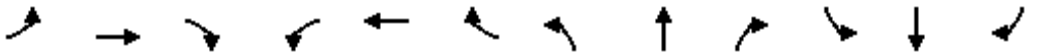
Intersection Summary	
HCM 6th Ctrl Delay	56.0
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	1214	4	23	1043	82	3	3	8	281	4	36
Future Volume (veh/h)	52	1214	4	23	1043	82	3	3	8	281	4	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	1214	4	23	1043	78	3	3	0	284	0	5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	2459	8	59	2200	164	10	10	0	372	0	165
Arrive On Green	0.05	0.68	0.68	0.03	0.66	0.66	0.01	0.01	0.00	0.10	0.00	0.10
Sat Flow, veh/h	1781	3633	12	1781	3352	251	912	912	0	3563	0	1585
Grp Volume(v), veh/h	52	594	624	23	553	568	6	0	0	284	0	5
Grp Sat Flow(s),veh/h/ln	1781	1777	1868	1781	1777	1825	1825	0	0	1781	0	1585
Q Serve(g_s), s	2.8	16.2	16.2	1.3	15.5	15.5	0.3	0.0	0.0	7.8	0.0	0.3
Cycle Q Clear(g_c), s	2.8	16.2	16.2	1.3	15.5	15.5	0.3	0.0	0.0	7.8	0.0	0.3
Prop In Lane	1.00		0.01	1.00		0.14	0.50		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	95	1203	1264	59	1166	1198	20	0	0	372	0	165
V/C Ratio(X)	0.55	0.49	0.49	0.39	0.47	0.47	0.31	0.00	0.00	0.76	0.00	0.03
Avail Cap(c_a), veh/h	214	1203	1264	214	1166	1198	219	0	0	691	0	307
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	46.1	7.8	7.8	47.4	8.6	8.6	49.1	0.0	0.0	43.6	0.0	40.2
Incr Delay (d2), s/veh	1.8	1.5	1.4	1.6	0.3	0.3	3.2	0.0	0.0	2.5	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	5.6	5.9	0.6	5.4	5.5	0.2	0.0	0.0	3.5	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.9	9.3	9.2	48.9	8.9	8.9	52.3	0.0	0.0	46.0	0.0	40.3
LnGrp LOS	D	A	A	D	A	A	D	A	A	D	A	D
Approach Vol, veh/h		1270			1144			6			289	
Approach Delay, s/veh		10.8			9.7			52.3			45.9	
Approach LOS		B			A			D			D	

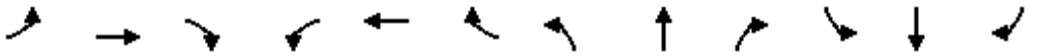
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	72.6		15.0	9.3	70.5		5.1				
Change Period (Y+Rc), s	4.0	4.9		4.6	4.0	4.9		4.0				
Max Green Setting (Gmax), s	12.0	39.1		19.4	12.0	39.1		12.0				
Max Q Clear Time (g_c+I1), s	3.3	18.2		9.8	4.8	17.5		2.3				
Green Ext Time (p_c), s	0.0	16.9		0.7	0.1	16.7		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		14.2	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	264	1315	13	53	1123	528	27	15	48	517	9	171
Future Volume (veh/h)	264	1315	13	53	1123	528	27	15	48	517	9	171
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	264	1315	12	53	1123	365	27	15	2	523	0	41
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	285	1945	18	68	1642	1005	50	53	45	611	0	272
Arrive On Green	0.11	0.39	0.39	0.04	0.46	0.46	0.03	0.03	0.03	0.17	0.00	0.17
Sat Flow, veh/h	1781	3331	30	1781	3554	1585	1781	1870	1585	3563	0	1585
Grp Volume(v), veh/h	264	591	736	53	1123	365	27	15	2	523	0	41
Grp Sat Flow(s),veh/h/ln	1781	1496	1865	1781	1777	1585	1781	1870	1585	1781	0	1585
Q Serve(g_s), s	14.7	32.7	32.7	2.9	24.8	11.0	1.5	0.8	0.1	14.3	0.0	2.2
Cycle Q Clear(g_c), s	14.7	32.7	32.7	2.9	24.8	11.0	1.5	0.8	0.1	14.3	0.0	2.2
Prop In Lane	1.00		0.02	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	285	874	1089	68	1642	1005	50	53	45	611	0	272
V/C Ratio(X)	0.93	0.68	0.68	0.78	0.68	0.36	0.54	0.28	0.04	0.86	0.00	0.15
Avail Cap(c_a), veh/h	285	874	1089	143	1642	1005	143	150	127	823	0	366
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.1	22.6	22.6	47.7	21.1	8.7	47.9	47.6	47.3	40.2	0.0	35.2
Incr Delay (d2), s/veh	33.9	4.2	3.4	7.0	1.3	0.3	3.3	1.1	0.2	5.9	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	12.7	15.6	1.4	9.6	5.5	0.7	0.4	0.1	6.7	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.0	26.8	26.0	54.6	22.4	9.0	51.2	48.7	47.4	46.1	0.0	35.4
LnGrp LOS	E	C	C	D	C	A	D	D	D	D	A	D
Approach Vol, veh/h		1591			1541			44			564	
Approach Delay, s/veh		34.9			20.3			50.2			45.3	
Approach LOS		C			C			D			D	

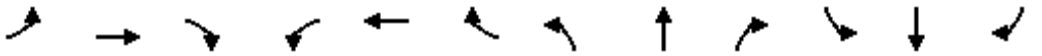
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.8	63.3		22.1	20.0	51.1		6.8				
Change Period (Y+Rc), s	4.0	4.9		4.9	4.0	4.9		4.0				
Max Green Setting (Gmax), s	8.0	43.1		23.1	16.0	35.1		8.0				
Max Q Clear Time (g_c+I1), s	4.9	34.7		16.3	16.7	26.8		3.5				
Green Ext Time (p_c), s	0.0	5.3		0.9	0.0	5.6		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		30.6	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1353	281	0	1441	816	0	0	0	396	698	263
Future Volume (veh/h)	0	1353	281	0	1441	816	0	0	0	396	698	263
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	0	1353	0	0	1530	0				396	698	254
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2	0	2	2				2	2	2
Cap, veh/h	0	1738		0	1829					729	765	648
Arrive On Green	0.00	0.65	0.00	0.00	0.16	0.00				0.41	0.41	0.41
Sat Flow, veh/h	0	3647	1585	0	3741	1585				1781	1870	1585
Grp Volume(v), veh/h	0	1353	0	0	1530	0				396	698	254
Grp Sat Flow(s),veh/h/ln	0	1777	1585	0	1870	1585				1781	1870	1585
Q Serve(g_s), s	0.0	27.0	0.0	0.0	39.7	0.0				16.9	35.2	11.3
Cycle Q Clear(g_c), s	0.0	27.0	0.0	0.0	39.7	0.0				16.9	35.2	11.3
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1738		0	1829					729	765	648
V/C Ratio(X)	0.00	0.78		0.00	0.84					0.54	0.91	0.39
Avail Cap(c_a), veh/h	0	1738		0	1829					1152	1210	1026
HCM Platoon Ratio	1.00	1.33	1.33	1.00	0.33	0.33				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	0.71	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	13.6	0.0	0.0	38.1	0.0				22.5	27.9	20.8
Incr Delay (d2), s/veh	0.0	3.5	0.0	0.0	2.6	0.0				0.2	4.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.5	0.0	0.0	20.4	0.0				6.9	16.1	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	17.2	0.0	0.0	40.7	0.0				22.7	32.7	20.9
LnGrp LOS	A	B		A	D					C	C	C
Approach Vol, veh/h		1353	A		1530	A					1348	
Approach Delay, s/veh		17.2			40.7						27.5	
Approach LOS		B			D						C	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		53.8		46.2		53.8						
Change Period (Y+Rc), s		4.9		5.3		4.9						
Max Green Setting (Gmax), s		25.1		64.7		25.1						
Max Q Clear Time (g_c+I1), s		29.0		37.2		41.7						
Green Ext Time (p_c), s		0.0		3.7		0.0						

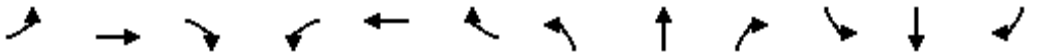
Intersection Summary		
HCM 6th Ctrl Delay		29.0
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

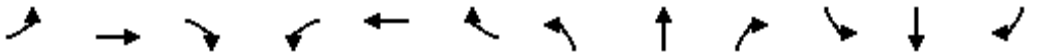
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	256	1493	0	0	1609	276	0	0	1345	0	0	648
Future Volume (vph)	256	1493	0	0	1609	276	0	0	1345	0	0	648
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			5.3	5.3			4.0			4.0
Lane Util. Factor	1.00	0.91			0.91	1.00			1.00			0.88
Frt	1.00	1.00			1.00	0.85			0.86			0.85
Flt Protected	0.95	1.00			1.00	1.00			1.00			1.00
Satd. Flow (prot)	1770	5085			5085	1583			1611			2787
Flt Permitted	0.95	1.00			1.00	1.00			1.00			1.00
Satd. Flow (perm)	1770	5085			5085	1583			1611			2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	256	1493	0	0	1609	276	0	0	1345	0	0	648
RTOR Reduction (vph)	0	0	0	0	0	132	0	0	0	0	0	35
Lane Group Flow (vph)	256	1493	0	0	1609	144	0	0	1345	0	0	613
Turn Type	Prot	NA			NA	Perm			Free			Over
Protected Phases	5	Free			6							5
Permitted Phases						6			Free			
Actuated Green, G (s)	14.6	50.0			26.1	26.1			50.0			14.6
Effective Green, g (s)	14.6	50.0			26.1	26.1			50.0			14.6
Actuated g/C Ratio	0.29	1.00			0.52	0.52			1.00			0.29
Clearance Time (s)	4.0				5.3	5.3						4.0
Vehicle Extension (s)	2.0				3.4	3.4						2.0
Lane Grp Cap (vph)	516	5085			2654	826			1611			813
v/s Ratio Prot	0.14	0.29			0.32							0.22
v/s Ratio Perm						0.09			c0.83			
v/c Ratio	0.50	0.29			0.61	0.17			0.83			0.75
Uniform Delay, d1	14.7	0.0			8.4	6.3			0.0			16.1
Progression Factor	0.76	1.00			1.00	1.00			1.00			1.00
Incremental Delay, d2	0.0	0.0			1.0	0.5			5.3			3.5
Delay (s)	11.1	0.0			9.4	6.7			5.3			19.6
Level of Service	B	A			A	A			A			B
Approach Delay (s)		1.6			9.0			5.3			19.6	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	7.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	9.3
Intersection Capacity Utilization	61.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	359	2156	323	186	1331	87	283	441	141	94	329	271
Future Volume (veh/h)	359	2156	323	186	1331	87	283	441	141	94	329	271
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	359	2156	268	186	1331	82	283	441	41	94	329	211
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	409	2328	870	508	3079	189	327	622	275	288	867	454
Arrive On Green	0.12	0.46	0.46	0.15	0.49	0.49	0.09	0.18	0.18	0.08	0.17	0.17
Sat Flow, veh/h	3456	5106	1580	3456	6242	384	3456	3554	1571	3456	5106	1571
Grp Volume(v), veh/h	359	2156	268	186	1028	385	283	441	41	94	329	211
Grp Sat Flow(s),veh/h/ln	1728	1702	1580	1728	1609	1800	1728	1777	1571	1728	1702	1571
Q Serve(g_s), s	15.3	59.6	6.3	7.3	20.6	20.7	12.1	17.5	3.3	3.8	8.6	16.6
Cycle Q Clear(g_c), s	15.3	59.6	6.3	7.3	20.6	20.7	12.1	17.5	3.3	3.8	8.6	16.6
Prop In Lane	1.00		1.00	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	409	2328	870	508	2381	888	327	622	275	288	867	454
V/C Ratio(X)	0.88	0.93	0.31	0.37	0.43	0.43	0.87	0.71	0.15	0.33	0.38	0.46
Avail Cap(c_a), veh/h	553	2328	870	508	2381	888	346	1099	486	288	1328	596
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.1	38.4	6.8	57.7	24.5	24.5	67.0	58.3	52.4	64.8	55.2	43.9
Incr Delay (d2), s/veh	8.0	6.6	0.8	0.1	0.2	0.4	18.3	2.6	0.4	0.2	0.6	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	25.7	2.6	3.2	8.0	9.0	6.2	8.1	1.3	1.7	3.7	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.1	45.0	7.6	57.8	24.6	24.9	85.3	60.8	52.8	65.0	55.9	45.6
LnGrp LOS	E	D	A	E	C	C	F	E	D	E	E	D
Approach Vol, veh/h		2783			1599			765			634	
Approach Delay, s/veh		45.0			28.6			69.5			53.8	
Approach LOS		D			C			E			D	

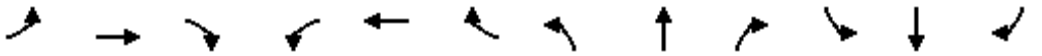
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.4	73.7	18.2	30.8	21.7	79.3	17.8	31.2
Change Period (Y+Rc), s	5.3	* 5.3	4.0	5.3	4.0	5.3	5.3	* 4.9
Max Green Setting (Gmax), s	9.0	* 68	15.0	39.0	24.0	53.4	8.0	* 46
Max Q Clear Time (g_c+I1), s	9.3	61.6	14.1	18.6	17.3	22.7	5.8	19.5
Green Ext Time (p_c), s	0.0	6.4	0.1	5.4	0.4	16.2	0.0	5.1

Intersection Summary	
HCM 6th Ctrl Delay	44.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	2208	81	35	1489	62	62	21	24	62	16	53
Future Volume (veh/h)	102	2208	81	35	1489	62	62	21	24	62	16	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	102	2208	80	35	1489	42	62	21	1	39	48	4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	122	3808	137	45	3623	1121	83	87	74	107	113	93
Arrive On Green	0.14	1.00	1.00	0.03	0.71	0.71	0.05	0.05	0.05	0.06	0.06	0.06
Sat Flow, veh/h	1781	5058	183	1781	5106	1579	1781	1870	1585	1781	1870	1546
Grp Volume(v), veh/h	102	1483	805	35	1489	42	62	21	1	39	48	4
Grp Sat Flow(s),veh/h/ln	1781	1702	1837	1781	1702	1579	1781	1870	1585	1781	1870	1546
Q Serve(g_s), s	8.4	0.0	0.0	2.9	17.9	1.2	5.2	1.6	0.1	3.2	3.7	0.4
Cycle Q Clear(g_c), s	8.4	0.0	0.0	2.9	17.9	1.2	5.2	1.6	0.1	3.2	3.7	0.4
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	122	2563	1383	45	3623	1121	83	87	74	107	113	93
V/C Ratio(X)	0.84	0.58	0.58	0.78	0.41	0.04	0.75	0.24	0.01	0.36	0.43	0.04
Avail Cap(c_a), veh/h	190	2563	1383	95	3623	1121	107	112	95	451	474	392
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.63	0.63	0.63	0.86	0.86	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.9	0.0	0.0	72.7	8.9	6.5	70.7	69.0	68.2	67.7	68.0	66.4
Incr Delay (d2), s/veh	6.5	0.6	1.1	8.9	0.1	0.0	16.7	1.1	0.1	0.8	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	0.2	0.4	1.5	6.3	0.4	2.8	0.8	0.0	1.5	1.8	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.4	0.6	1.1	81.6	9.1	6.5	87.4	70.0	68.3	68.5	68.9	66.5
LnGrp LOS	E	A	A	F	A	A	F	E	E	E	E	E
Approach Vol, veh/h		2390			1566			84			91	
Approach Delay, s/veh		3.8			10.6			82.8			68.6	
Approach LOS		A			B			F			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.8	118.2		13.0	14.3	111.7		11.0				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	8.0	77.7		38.0	16.0	69.7		9.0				
Max Q Clear Time (g_c+I1), s	4.9	2.0		5.7	10.4	19.9		7.2				
Green Ext Time (p_c), s	0.0	54.1		0.2	0.0	29.8		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	9.4	
HCM 6th LOS	A	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	2108	158	57	1422	92	156	62	47	52	46	8
Future Volume (veh/h)	28	2108	158	57	1422	92	156	62	47	52	46	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	28	2108	123	57	1422	59	126	105	33	51	47	4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	358	3233	988	73	2373	721	161	123	39	207	197	17
Arrive On Green	0.40	1.00	1.00	0.04	0.46	0.46	0.09	0.09	0.09	0.12	0.12	0.12
Sat Flow, veh/h	1781	5106	1560	1781	5106	1551	1781	1364	429	1781	1691	144
Grp Volume(v), veh/h	28	2108	123	57	1422	59	126	0	138	51	0	51
Grp Sat Flow(s),veh/h/ln	1781	1702	1560	1781	1702	1551	1781	0	1793	1781	0	1835
Q Serve(g_s), s	1.5	0.0	0.0	4.8	31.0	3.2	10.4	0.0	11.4	3.9	0.0	3.8
Cycle Q Clear(g_c), s	1.5	0.0	0.0	4.8	31.0	3.2	10.4	0.0	11.4	3.9	0.0	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		0.08
Lane Grp Cap(c), veh/h	358	3233	988	73	2373	721	161	0	162	207	0	214
V/C Ratio(X)	0.08	0.65	0.12	0.78	0.60	0.08	0.78	0.00	0.85	0.25	0.00	0.24
Avail Cap(c_a), veh/h	358	3233	988	95	2373	721	178	0	179	468	0	482
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.77	0.92	0.92	0.92	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.3	0.0	0.0	71.3	29.8	22.3	66.8	0.0	67.3	60.3	0.0	60.2
Incr Delay (d2), s/veh	0.0	0.8	0.2	18.2	1.0	0.2	17.5	0.0	27.9	0.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.2	0.1	2.5	12.8	1.2	5.5	0.0	6.5	1.8	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.3	0.8	0.2	89.5	30.8	22.5	84.4	0.0	95.2	60.5	0.0	60.4
LnGrp LOS	D	A	A	F	C	C	F	A	F	E	A	E
Approach Vol, veh/h		2259			1538			264			102	
Approach Delay, s/veh		1.2			32.7			90.0			60.5	
Approach LOS		A			C			F			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.1	100.3		22.1	35.4	75.0		17.5				
Change Period (Y+Rc), s	4.0	5.3		4.6	5.3	* 5.3		4.0				
Max Green Setting (Gmax), s	8.0	69.7		39.4	8.0	* 70		15.0				
Max Q Clear Time (g_c+I1), s	6.8	2.0		5.9	3.5	33.0		13.4				
Green Ext Time (p_c), s	0.0	55.3		0.2	0.0	23.5		0.2				

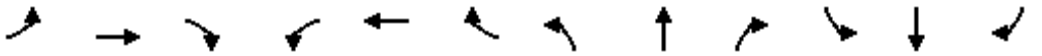
Intersection Summary			
HCM 6th Ctrl Delay		19.9	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	2096	40	25	1524	23	13	5	14	16	0	34
Future Volume (veh/h)	71	2096	40	25	1524	23	13	5	14	16	0	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.95	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	71	2096	39	25	1524	22	13	5	1	16	0	3
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	89	2721	51	556	4127	60	15	46	9	19	0	50
Arrive On Green	0.10	1.00	1.00	0.31	0.80	0.80	0.01	0.03	0.03	0.01	0.00	0.03
Sat Flow, veh/h	1781	5161	96	1781	5186	75	1781	1499	300	1781	0	1513
Grp Volume(v), veh/h	71	1382	753	25	1000	546	13	0	6	16	0	3
Grp Sat Flow(s),veh/h/ln	1781	1702	1853	1781	1702	1857	1781	0	1798	1781	0	1513
Q Serve(g_s), s	5.9	0.0	0.0	1.5	12.7	12.7	1.1	0.0	0.5	1.3	0.0	0.3
Cycle Q Clear(g_c), s	5.9	0.0	0.0	1.5	12.7	12.7	1.1	0.0	0.5	1.3	0.0	0.3
Prop In Lane	1.00		0.05	1.00		0.04	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	89	1795	977	556	2709	1478	15	0	55	19	0	50
V/C Ratio(X)	0.80	0.77	0.77	0.04	0.37	0.37	0.85	0.00	0.11	0.83	0.00	0.06
Avail Cap(c_a), veh/h	143	1795	977	556	2709	1478	95	0	456	95	0	383
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	0.79	0.79	0.79	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	66.8	0.0	0.0	36.0	4.4	4.4	74.3	0.0	70.7	74.0	0.0	70.3
Incr Delay (d2), s/veh	4.1	2.2	3.9	0.0	0.2	0.4	69.3	0.0	0.8	55.9	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.5	1.1	0.6	3.9	4.3	0.8	0.0	0.2	0.9	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.0	2.2	3.9	36.0	4.6	4.8	143.5	0.0	71.5	129.9	0.0	70.8
LnGrp LOS	E	A	A	D	A	A	F	A	E	F	A	E
Approach Vol, veh/h		2206			1571			19			19	
Approach Delay, s/veh		5.0			5.2			120.8			120.6	
Approach LOS		A			A			F			F	

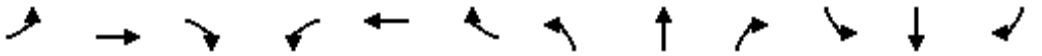
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	51.7	84.0	5.3	9.0	11.5	124.3	5.6	8.6
Change Period (Y+Rc), s	4.9	* 4.9	4.0	4.0	4.0	4.9	4.0	4.0
Max Green Setting (Gmax), s	8.0	* 79	8.0	38.0	12.0	75.1	8.0	38.0
Max Q Clear Time (g_c+I1), s	3.5	2.0	3.1	2.3	7.9	14.7	3.3	2.5
Green Ext Time (p_c), s	0.0	66.7	0.0	0.0	0.0	40.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	6.2
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	325	1708	93	163	1291	212	213	847	324	165	422	68
Future Volume (veh/h)	325	1708	93	163	1291	212	213	847	324	165	422	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	325	1708	0	163	1291	0	213	847	207	165	422	15
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	376	2090		542	2379		259	1077	332	210	1062	327
Arrive On Green	0.04	0.14	0.00	0.31	0.93	0.00	0.07	0.21	0.21	0.06	0.21	0.21
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1574	3456	5106	1574
Grp Volume(v), veh/h	325	1708	0	163	1291	0	213	847	207	165	422	15
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1574	1728	1702	1574
Q Serve(g_s), s	14.0	48.8	0.0	5.4	5.2	0.0	9.1	23.5	17.9	7.1	10.7	1.1
Cycle Q Clear(g_c), s	14.0	48.8	0.0	5.4	5.2	0.0	9.1	23.5	17.9	7.1	10.7	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	376	2090		542	2379		259	1077	332	210	1062	327
V/C Ratio(X)	0.86	0.82		0.30	0.54		0.82	0.79	0.62	0.78	0.40	0.05
Avail Cap(c_a), veh/h	484	2090		542	2379		346	1484	457	276	1396	430
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.2	59.4	0.0	45.2	2.9	0.0	68.4	56.0	53.8	69.5	51.3	47.5
Incr Delay (d2), s/veh	8.8	3.1	0.0	0.1	0.3	0.0	8.5	1.8	1.6	7.5	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	23.0	0.0	2.2	1.1	0.0	4.3	10.2	7.2	3.3	4.6	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.0	62.5	0.0	45.3	3.2	0.0	76.9	57.8	55.4	76.9	51.5	47.5
LnGrp LOS	E	E		D	A		E	E	E	E	D	D
Approach Vol, veh/h		2033	A		1454	A		1267			602	
Approach Delay, s/veh		65.3			8.0			60.6			58.4	
Approach LOS		E			A			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.5	66.7	16.2	37.5	20.3	75.9	15.4	38.3
Change Period (Y+Rc), s	6.0	* 5.3	5.0	6.3	4.0	6.0	6.3	* 6.7
Max Green Setting (Gmax), s	12.0	* 61	15.0	41.0	21.0	51.7	12.0	* 44
Max Q Clear Time (g_c+I1), s	7.4	50.8	11.1	12.7	16.0	7.2	9.1	25.5
Green Ext Time (p_c), s	0.1	9.4	0.1	2.9	0.3	16.7	0.1	5.4

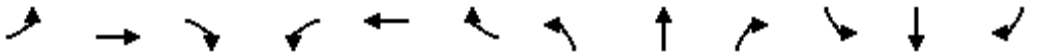
Intersection Summary	
HCM 6th Ctrl Delay	47.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	264	2135	198	286	1889	137	379	1232	230	257	1015	219
Future Volume (veh/h)	264	2135	198	286	1889	137	379	1232	230	257	1015	219
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	264	2135	78	286	1889	0	379	1232	0	257	1015	90
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	299	2008	619	317	2103		369	1435		301	1335	410
Arrive On Green	0.09	0.39	0.39	0.09	0.41	0.00	0.11	0.28	0.00	0.09	0.26	0.26
Sat Flow, veh/h	3456	5106	1573	3456	5106	1585	3456	5106	1585	3456	5106	1567
Grp Volume(v), veh/h	264	2135	78	286	1889	0	379	1232	0	257	1015	90
Grp Sat Flow(s),veh/h/ln	1728	1702	1573	1728	1702	1585	1728	1702	1585	1728	1702	1567
Q Serve(g_s), s	11.3	59.0	3.4	12.3	51.8	0.0	16.0	34.3	0.0	11.0	27.5	6.8
Cycle Q Clear(g_c), s	11.3	59.0	3.4	12.3	51.8	0.0	16.0	34.3	0.0	11.0	27.5	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	299	2008	619	317	2103		369	1435		301	1335	410
V/C Ratio(X)	0.88	1.06	0.13	0.90	0.90		1.03	0.86		0.85	0.76	0.22
Avail Cap(c_a), veh/h	299	2008	619	317	2103		369	1464		323	1396	428
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.7	45.5	14.8	67.4	41.2	0.0	67.0	51.1	0.0	67.5	51.0	43.4
Incr Delay (d2), s/veh	24.1	39.3	0.4	26.6	5.7	0.0	54.3	5.4	0.0	17.3	2.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	31.3	1.8	6.5	22.0	0.0	9.6	14.8	0.0	5.4	11.6	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.8	84.8	15.2	94.0	46.9	0.0	121.3	56.5	0.0	84.8	53.7	43.8
LnGrp LOS	F	F	B	F	D		F	E		F	D	D
Approach Vol, veh/h		2477			2175	A		1611	A		1362	
Approach Delay, s/veh		83.3			53.1			71.8			58.9	
Approach LOS		F			D			E			E	

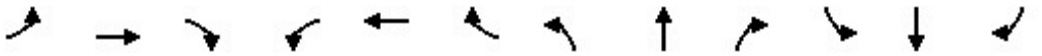
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.8	65.0	20.0	45.2	17.0	67.8	17.1	48.2
Change Period (Y+Rc), s	6.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	12.0	59.0	16.0	41.0	13.0	60.0	14.0	43.0
Max Q Clear Time (g_c+I1), s	14.3	61.0	18.0	29.5	13.3	53.8	13.0	36.3
Green Ext Time (p_c), s	0.0	0.0	0.0	9.1	0.0	6.0	0.1	5.9

Intersection Summary	
HCM 6th Ctrl Delay	67.9
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

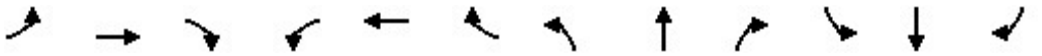
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	24	111	178	8	97	27	746	76	64	947	13
Future Volume (veh/h)	50	24	111	178	8	97	27	746	76	64	947	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	50	24	111	178	8	97	27	746	76	64	947	13
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	74	186	158	234	355	301	45	1400	435	87	1520	472
Arrive On Green	0.04	0.10	0.10	0.13	0.19	0.19	0.03	0.27	0.27	0.05	0.30	0.30
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	50	24	111	178	8	97	27	746	76	64	947	13
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	1.2	0.5	3.0	4.3	0.2	2.4	0.7	5.6	1.6	1.6	7.2	0.3
Cycle Q Clear(g_c), s	1.2	0.5	3.0	4.3	0.2	2.4	0.7	5.6	1.6	1.6	7.2	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	74	186	158	234	355	301	45	1400	435	87	1520	472
V/C Ratio(X)	0.68	0.13	0.70	0.76	0.02	0.32	0.60	0.53	0.17	0.73	0.62	0.03
Avail Cap(c_a), veh/h	317	1333	1130	595	1625	1377	278	2161	671	278	2161	671
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	18.4	19.6	18.8	14.8	15.7	21.6	13.8	12.4	21.1	13.6	11.2
Incr Delay (d2), s/veh	10.4	0.3	5.6	5.0	0.0	0.6	11.8	0.3	0.2	11.2	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.2	1.2	1.9	0.1	0.8	0.4	1.6	0.5	0.8	2.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.6	18.7	25.1	23.8	14.8	16.3	33.5	14.2	12.6	32.3	14.0	11.2
LnGrp LOS	C	B	C	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		185			283			849			1024	
Approach Delay, s/veh		26.1			21.0			14.6			15.1	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	17.3	10.9	9.5	6.1	18.4	6.9	13.5
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	19.0	15.0	32.0	7.0	19.0	8.0	39.0
Max Q Clear Time (g_c+I1), s	3.6	7.6	6.3	5.0	2.7	9.2	3.2	4.4
Green Ext Time (p_c), s	0.0	3.8	0.3	0.5	0.0	4.2	0.0	0.3

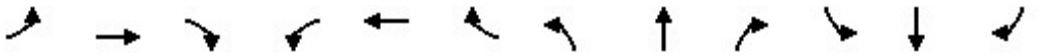
Intersection Summary	
HCM 6th Ctrl Delay	16.5
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	3	130	0	1	28	31	841	0	42	1279	14
Future Volume (veh/h)	51	3	130	0	1	28	31	841	0	42	1279	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	3	130	0	1	28	31	841	0	42	1279	14
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	355	301	4	51	43	52	2116	657	66	2157	670
Arrive On Green	0.04	0.19	0.19	0.00	0.03	0.03	0.03	0.41	0.00	0.04	0.42	0.42
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	51	3	130	0	1	28	31	841	0	42	1279	14
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	1.2	0.1	3.0	0.0	0.0	0.7	0.7	4.8	0.0	1.0	8.1	0.2
Cycle Q Clear(g_c), s	1.2	0.1	3.0	0.0	0.0	0.7	0.7	4.8	0.0	1.0	8.1	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	76	355	301	4	51	43	52	2116	657	66	2157	670
V/C Ratio(X)	0.67	0.01	0.43	0.00	0.02	0.65	0.60	0.40	0.00	0.64	0.59	0.02
Avail Cap(c_a), veh/h	469	1432	1213	469	1432	1213	469	3176	986	469	3176	986
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.7	13.7	14.9	0.0	19.8	20.1	20.1	8.6	0.0	19.9	9.3	7.0
Incr Delay (d2), s/veh	9.7	0.0	1.0	0.0	0.2	14.9	10.8	0.1	0.0	9.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.0	0.0	0.0	0.4	0.4	1.1	0.0	0.5	1.9	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.4	13.8	15.9	0.0	19.9	35.1	30.8	8.7	0.0	29.7	9.6	7.0
LnGrp LOS	C	B	B	A	B	D	C	A	A	C	A	A
Approach Vol, veh/h		184			29			872			1335	
Approach Delay, s/veh		19.6			34.5			9.5			10.2	
Approach LOS		B			C			A			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	22.3	0.0	12.9	6.2	22.7	6.8	6.1
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	11.0	26.0	11.0	32.0	11.0	26.0	11.0	32.0
Max Q Clear Time (g_c+I1), s	3.0	6.8	0.0	5.0	2.7	10.1	3.2	2.7
Green Ext Time (p_c), s	0.0	5.2	0.0	0.4	0.0	7.6	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	10.9
HCM 6th LOS	B



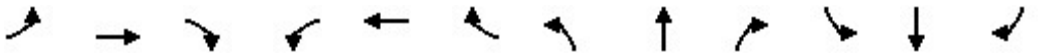
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	6	256	77	4	16	192	1461	81	25	814	28
Future Volume (veh/h)	86	6	256	77	4	16	192	1461	81	25	814	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	86	6	256	77	4	16	192	1461	81	25	814	28
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	120	340	288	96	332	281	223	1615	720	41	1285	573
Arrive On Green	0.07	0.20	0.20	0.06	0.20	0.20	0.14	0.50	0.50	0.03	0.40	0.40
Sat Flow, veh/h	1603	1683	1427	1603	1683	1427	1603	3198	1427	1603	3198	1427
Grp Volume(v), veh/h	86	6	256	77	4	16	192	1461	81	25	814	28
Grp Sat Flow(s),veh/h/ln	1603	1683	1427	1603	1683	1427	1603	1599	1427	1603	1599	1427
Q Serve(g_s), s	5.0	0.3	16.8	4.6	0.2	0.9	11.2	40.0	2.9	1.5	19.6	1.2
Cycle Q Clear(g_c), s	5.0	0.3	16.8	4.6	0.2	0.9	11.2	40.0	2.9	1.5	19.6	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	120	340	288	96	332	281	223	1615	720	41	1285	573
V/C Ratio(X)	0.72	0.02	0.89	0.81	0.01	0.06	0.86	0.90	0.11	0.62	0.63	0.05
Avail Cap(c_a), veh/h	134	684	579	117	666	565	301	1666	743	117	1332	594
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.4	30.7	37.3	44.6	31.0	31.3	40.4	21.7	12.5	46.3	23.1	17.5
Incr Delay (d2), s/veh	11.9	0.0	3.7	27.7	0.0	0.0	13.9	7.7	0.1	14.2	1.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.1	6.0	2.5	0.1	0.3	5.2	15.6	0.9	0.7	7.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.3	30.7	41.0	72.3	31.0	31.3	54.3	29.3	12.6	60.5	24.3	17.6
LnGrp LOS	E	C	D	E	C	C	D	C	B	E	C	B
Approach Vol, veh/h		348			97			1734			867	
Approach Delay, s/veh		44.3			63.8			31.3			25.2	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	54.5	10.7	23.4	17.3	44.6	11.2	22.9
Change Period (Y+Rc), s	5.0	6.0	5.0	4.0	4.0	6.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	50.0	7.0	39.0	18.0	40.0	8.0	38.0
Max Q Clear Time (g_c+I1), s	3.5	42.0	6.6	18.8	13.2	21.6	7.0	2.9
Green Ext Time (p_c), s	0.0	6.5	0.0	0.7	0.2	7.1	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	32.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



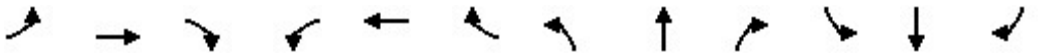
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	2	260	42	6	11	92	1446	21	11	1128	23
Future Volume (veh/h)	102	2	260	42	6	11	92	1446	21	11	1128	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	102	2	260	42	6	11	92	1446	21	11	1128	23
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	325	6	295	108	15	109	139	1658	740	139	1658	740
Arrive On Green	0.19	0.19	0.19	0.07	0.07	0.07	0.08	0.47	0.47	0.08	0.47	0.47
Sat Flow, veh/h	1749	34	1585	1568	224	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	104	0	260	48	0	11	92	1446	21	11	1128	23
Grp Sat Flow(s),veh/h/ln	1783	0	1585	1792	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.5	0.0	14.3	2.3	0.0	0.6	4.5	32.8	0.6	0.5	22.2	0.7
Cycle Q Clear(g_c), s	4.5	0.0	14.3	2.3	0.0	0.6	4.5	32.8	0.6	0.5	22.2	0.7
Prop In Lane	0.98		1.00	0.87		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	331	0	295	123	0	109	139	1658	740	139	1658	740
V/C Ratio(X)	0.31	0.00	0.88	0.39	0.00	0.10	0.66	0.87	0.03	0.08	0.68	0.03
Avail Cap(c_a), veh/h	398	0	354	400	0	354	397	1704	760	397	1658	740
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	0.0	35.6	40.0	0.0	39.2	40.2	21.5	12.9	38.3	18.7	12.9
Incr Delay (d2), s/veh	0.2	0.0	17.7	0.7	0.0	0.1	2.0	5.5	0.0	0.1	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	6.8	1.0	0.0	0.2	2.0	14.0	0.2	0.2	8.9	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.8	0.0	53.2	40.7	0.0	39.3	42.2	27.0	13.0	38.4	20.1	13.0
LnGrp LOS	C	A	D	D	A	D	D	C	B	D	C	B
Approach Vol, veh/h		364			59			1559			1162	
Approach Delay, s/veh		47.1			40.4			27.7			20.1	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	47.8		20.7	11.0	47.8		10.2				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	43.0		20.0	20.0	40.0		20.0				
Max Q Clear Time (g_c+I1), s	2.5	34.8		16.3	6.5	24.2		4.3				
Green Ext Time (p_c), s	0.0	7.0		0.3	0.1	10.5		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		27.4	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	194	274	129	219	36	177	1669	46	102	1997	30
Future Volume (veh/h)	171	194	274	129	219	36	177	1669	46	102	1997	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	171	194	180	129	219	0	177	1669	0	102	1997	29
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	196	536	237	176	325		225	2528		148	2452	36
Arrive On Green	0.11	0.15	0.15	0.05	0.09	0.00	0.06	0.50	0.00	0.04	0.47	0.47
Sat Flow, veh/h	1781	3554	1569	3456	3554	1585	3456	5106	1585	3456	5185	75
Grp Volume(v), veh/h	171	194	180	129	219	0	177	1669	0	102	1310	716
Grp Sat Flow(s),veh/h/ln	1781	1777	1569	1728	1777	1585	1728	1702	1585	1728	1702	1857
Q Serve(g_s), s	13.2	6.9	15.4	5.2	8.4	0.0	7.1	34.3	0.0	4.1	46.2	46.3
Cycle Q Clear(g_c), s	13.2	6.9	15.4	5.2	8.4	0.0	7.1	34.3	0.0	4.1	46.2	46.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	196	536	237	176	325		225	2528		148	1610	878
V/C Ratio(X)	0.87	0.36	0.76	0.73	0.67		0.79	0.66		0.69	0.81	0.82
Avail Cap(c_a), veh/h	293	916	405	197	536		247	2528		197	1610	878
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.3	53.4	57.0	65.5	61.6	0.0	64.5	26.5	0.0	66.1	31.6	31.6
Incr Delay (d2), s/veh	12.1	0.5	6.6	9.4	3.2	0.0	12.6	0.7	0.0	2.9	4.6	8.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	3.1	6.5	2.5	3.9	0.0	3.5	13.6	0.0	1.8	19.3	22.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.5	53.9	63.6	74.9	64.8	0.0	77.1	27.2	0.0	69.0	36.3	39.9
LnGrp LOS	E	D	E	E	E		E	C		E	D	D
Approach Vol, veh/h		545			348	A		1846	A		2128	
Approach Delay, s/veh		63.3			68.5			32.0			39.1	
Approach LOS		E			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.4	18.5	10.0	75.3	11.1	26.8	13.1	72.2
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	23.0	21.1	8.0	68.2	8.0	36.1	10.0	66.2
Max Q Clear Time (g_c+I1), s	15.2	10.4	6.1	36.3	7.2	17.4	9.1	48.3
Green Ext Time (p_c), s	0.2	0.9	0.0	12.9	0.0	2.2	0.0	11.3

Intersection Summary	
HCM 6th Ctrl Delay	41.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

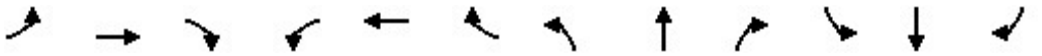
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	361	604	884	646	56
Future Volume (veh/h)	22	361	604	884	646	56
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	361	604	884	646	56
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	392	349	646	2282	750	334
Arrive On Green	0.22	0.22	0.36	0.64	0.21	0.21
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	22	361	604	884	646	56
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	0.7	16.0	23.8	8.6	12.7	2.1
Cycle Q Clear(g_c), s	0.7	16.0	23.8	8.6	12.7	2.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	392	349	646	2282	750	334
V/C Ratio(X)	0.06	1.03	0.94	0.39	0.86	0.17
Avail Cap(c_a), veh/h	392	349	686	2396	783	349
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.4	28.3	22.3	6.2	27.6	23.4
Incr Delay (d2), s/veh	0.1	57.3	19.6	0.1	9.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	18.1	12.6	2.6	6.1	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.4	85.6	42.0	6.3	37.1	23.7
LnGrp LOS	C	F	D	A	D	C
Approach Vol, veh/h	383			1488	702	
Approach Delay, s/veh	82.0			20.8	36.0	
Approach LOS	F			C	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		51.7		21.0	31.3	20.3
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		49.0		16.0	28.0	16.0
Max Q Clear Time (g_c+I1), s		10.6		18.0	25.8	14.7
Green Ext Time (p_c), s		7.6		0.0	0.6	0.6

Intersection Summary	
HCM 6th Ctrl Delay	34.0
HCM 6th LOS	C



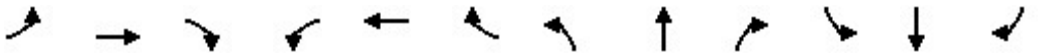
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	11	26	55	0	176	5	1410	51	201	895	14
Future Volume (veh/h)	18	11	26	55	0	176	5	1410	51	201	895	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	11	26	55	0	176	5	1410	51	201	895	14
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	88	59	95	252	0	204	16	2168	78	231	2653	41
Arrive On Green	0.13	0.13	0.13	0.13	0.00	0.13	0.01	0.62	0.62	0.13	0.74	0.74
Sat Flow, veh/h	359	453	727	1461	0	1567	1781	3498	126	1781	3581	56
Grp Volume(v), veh/h	55	0	0	55	0	176	5	715	746	201	444	465
Grp Sat Flow(s),veh/h/ln	1539	0	0	1461	0	1567	1781	1777	1847	1781	1777	1860
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	12.8	0.3	29.9	30.1	12.9	10.1	10.1
Cycle Q Clear(g_c), s	3.3	0.0	0.0	3.2	0.0	12.8	0.3	29.9	30.1	12.9	10.1	10.1
Prop In Lane	0.33		0.47	1.00		1.00	1.00		0.07	1.00		0.03
Lane Grp Cap(c), veh/h	241	0	0	252	0	204	16	1102	1145	231	1316	1378
V/C Ratio(X)	0.23	0.00	0.00	0.22	0.00	0.86	0.31	0.65	0.65	0.87	0.34	0.34
Avail Cap(c_a), veh/h	428	0	0	426	0	403	305	1233	1281	381	1324	1386
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.6	0.0	0.0	45.6	0.0	49.7	57.5	14.1	14.1	49.8	5.2	5.2
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	4.1	4.1	1.3	1.3	6.1	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.0	1.5	0.0	5.3	0.2	10.6	11.1	5.9	2.8	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.8	0.0	0.0	45.7	0.0	53.9	61.6	15.4	15.4	55.9	5.5	5.4
LnGrp LOS	D	A	A	D	A	D	E	B	B	E	A	A
Approach Vol, veh/h		55			231			1466			1110	
Approach Delay, s/veh		45.8			51.9			15.6			14.6	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.2	78.4		19.2	5.0	92.5		19.2				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	25.0	81.0		30.0	20.0	87.0		30.0				
Max Q Clear Time (g_c+I1), s	14.9	32.1		5.3	2.3	12.1		14.8				
Green Ext Time (p_c), s	0.3	40.3		0.1	0.0	28.6		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		18.7	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	131	138	169	235	14	135	1165	79	44	1454	50
Future Volume (veh/h)	26	131	138	169	235	14	135	1165	79	44	1454	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	131	138	169	235	14	135	1165	79	44	1454	50
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	32	388	173	229	275	16	191	3284	1020	79	3119	968
Arrive On Green	0.02	0.11	0.11	0.07	0.16	0.16	0.11	1.00	1.00	0.02	0.61	0.61
Sat Flow, veh/h	1781	3554	1585	3456	1748	104	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	26	131	138	169	0	249	135	1165	79	44	1454	50
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	0	1852	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	1.7	4.1	10.2	5.8	0.0	15.7	4.5	0.0	0.0	1.5	18.6	1.5
Cycle Q Clear(g_c), s	1.7	4.1	10.2	5.8	0.0	15.7	4.5	0.0	0.0	1.5	18.6	1.5
Prop In Lane	1.00		1.00	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	32	388	173	229	0	292	191	3284	1020	79	3119	968
V/C Ratio(X)	0.80	0.34	0.80	0.74	0.00	0.85	0.71	0.35	0.08	0.56	0.47	0.05
Avail Cap(c_a), veh/h	312	583	260	605	0	304	605	3284	1020	605	3119	968
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.7	49.4	52.1	55.0	0.0	49.2	52.4	0.0	0.0	58.0	12.7	9.4
Incr Delay (d2), s/veh	15.5	0.7	11.9	1.7	0.0	20.4	1.8	0.3	0.1	2.3	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.9	4.6	2.6	0.0	8.9	1.9	0.1	0.0	0.7	6.6	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.2	50.1	64.0	56.7	0.0	69.6	54.3	0.3	0.1	60.3	13.0	9.4
LnGrp LOS	E	D	E	E	A	E	D	A	A	E	B	A
Approach Vol, veh/h		295			418			1379			1548	
Approach Delay, s/veh		58.8			64.4			5.6			14.2	
Approach LOS		E			E			A			B	

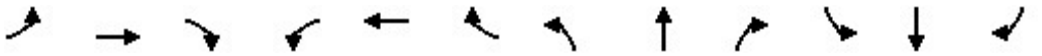
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	82.9	12.0	18.4	10.6	79.0	6.2	24.2
Change Period (Y+Rc), s	4.0	* 5.7	4.0	5.3	4.0	5.7	4.0	5.3
Max Green Setting (Gmax), s	21.0	* 40	21.0	19.7	21.0	39.3	21.0	19.7
Max Q Clear Time (g_c+I1), s	3.5	2.0	7.8	12.2	6.5	20.6	3.7	17.7
Green Ext Time (p_c), s	0.0	19.4	0.2	0.9	0.2	14.9	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	20.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	62	169	219	53	40	277	1371	314	71	1694	58
Future Volume (veh/h)	58	62	169	219	53	40	277	1371	314	71	1694	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	112	116	219	53	40	277	1371	314	71	1694	58
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	173	147	294	82	62	342	2298	713	731	2873	892
Arrive On Green	0.09	0.09	0.09	0.08	0.08	0.08	0.20	0.90	0.90	0.21	0.56	0.56
Sat Flow, veh/h	1781	1870	1585	3563	989	747	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	58	112	116	219	0	93	277	1371	314	71	1694	58
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1736	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	3.7	6.9	8.6	7.2	0.0	6.2	9.2	7.0	3.9	2.0	26.1	2.0
Cycle Q Clear(g_c), s	3.7	6.9	8.6	7.2	0.0	6.2	9.2	7.0	3.9	2.0	26.1	2.0
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	165	173	147	294	0	143	342	2298	713	731	2873	892
V/C Ratio(X)	0.35	0.65	0.79	0.74	0.00	0.65	0.81	0.60	0.44	0.10	0.59	0.07
Avail Cap(c_a), veh/h	233	245	207	466	0	227	634	2298	713	731	2873	892
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.1	52.6	53.3	53.8	0.0	53.4	47.1	3.6	3.5	38.1	17.2	11.9
Incr Delay (d2), s/veh	1.3	4.0	12.6	3.7	0.0	4.9	4.6	1.2	2.0	0.0	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	3.5	3.9	3.4	0.0	2.9	3.8	1.6	1.3	0.8	9.6	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.3	56.6	65.9	57.6	0.0	58.2	51.7	4.8	5.5	38.1	17.6	12.0
LnGrp LOS	D	E	E	E	A	E	D	A	A	D	B	B
Approach Vol, veh/h		286			312			1962			1823	
Approach Delay, s/veh		59.5			57.8			11.5			18.2	
Approach LOS		E			E			B			B	

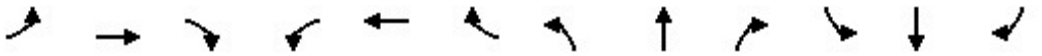
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	29.4	59.0		15.2	16.9	71.5		16.4				
Change Period (Y+Rc), s	4.0	5.0		5.3	5.0	4.0		5.3				
Max Green Setting (Gmax), s	15.0	54.0		15.7	22.0	47.0		15.7				
Max Q Clear Time (g_c+I1), s	4.0	9.0		9.2	11.2	28.1		10.6				
Green Ext Time (p_c), s	0.1	29.1		0.7	0.7	15.6		0.5				

Intersection Summary			
HCM 6th Ctrl Delay		20.7	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.

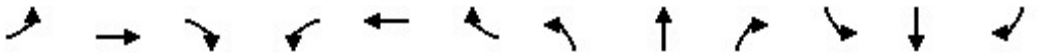
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	361	0	0	1362	512	717	0	0	1901	218
Future Volume (vph)	0	0	361	0	0	1362	512	717	0	0	1901	218
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			5.3	3.0	5.9			5.3	5.3
Lane Util. Factor			1.00			0.88	0.97	0.91			0.91	1.00
Frt			0.86			0.85	1.00	1.00			1.00	0.85
Flt Protected			1.00			1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)			1611			2787	3433	5085			5085	1583
Flt Permitted			1.00			1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)			1611			2787	3433	5085			5085	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	361	0	0	1362	512	717	0	0	1901	218
RTOR Reduction (vph)	0	0	0	0	0	106	0	0	0	0	0	128
Lane Group Flow (vph)	0	0	361	0	0	1256	512	717	0	0	1901	90
Turn Type			Free			Prot	Prot	NA			NA	Perm
Protected Phases						1	5	2			6	
Permitted Phases			Free									6
Actuated Green, G (s)			60.0			24.7	27.0	24.1			24.7	24.7
Effective Green, g (s)			60.0			24.7	27.0	24.1			24.7	24.7
Actuated g/C Ratio			1.00			0.41	0.45	0.40			0.41	0.41
Clearance Time (s)						5.3	3.0	5.9			5.3	5.3
Vehicle Extension (s)						4.3	2.0	4.9			4.3	4.3
Lane Grp Cap (vph)			1611			1147	1544	2042			2093	651
v/s Ratio Prot						c0.45	c0.15	0.14			0.37	
v/s Ratio Perm			0.22									0.06
v/c Ratio			0.22			1.10	0.33	0.35			0.91	0.14
Uniform Delay, d1			0.0			17.6	10.7	12.5			16.6	11.0
Progression Factor			1.00			1.00	0.43	0.47			1.14	3.02
Incremental Delay, d2			0.3			56.5	0.0	0.4			5.9	0.3
Delay (s)			0.3			74.1	4.6	6.4			24.8	33.6
Level of Service			A			E	A	A			C	C
Approach Delay (s)		0.3			74.1			5.6			25.7	
Approach LOS		A			E			A			C	

Intersection Summary			
HCM 2000 Control Delay	32.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	11.2
Intersection Capacity Utilization	70.8%	ICU Level of Service	C
Analysis Period (min)	15		

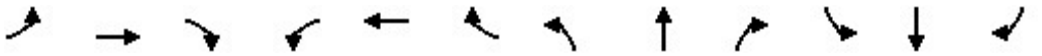
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	795	0	0	156	0	1073	227	1117	1145	0
Future Volume (vph)	0	0	795	0	0	156	0	1073	227	1117	1145	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			5.3			4.0		5.3	5.3	5.3	5.3	
Lane Util. Factor			0.88			1.00		0.91	1.00	0.97	0.91	
Frt			0.85			0.86		1.00	0.85	1.00	1.00	
Flt Protected			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2787			1611		5085	1583	3433	5085	
Flt Permitted			1.00			1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2787			1611		5085	1583	3433	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	795	0	0	156	0	1073	227	1117	1145	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	25	0	0	0
Lane Group Flow (vph)	0	0	795	0	0	156	0	1073	202	1117	1145	0
Turn Type			Prot			Free		NA	Perm	Prot	NA	
Protected Phases			5					2		1	6	
Permitted Phases						Free			2			
Actuated Green, G (s)			22.5			60.0		24.7	24.7	24.7	26.9	
Effective Green, g (s)			22.5			60.0		24.7	24.7	24.7	26.9	
Actuated g/C Ratio			0.38			1.00		0.41	0.41	0.41	0.45	
Clearance Time (s)			5.3					5.3	5.3	5.3	5.3	
Vehicle Extension (s)			4.3					4.9	4.9	2.0	4.9	
Lane Grp Cap (vph)			1045			1611		2093	651	1413	2279	
v/s Ratio Prot			c0.29					0.21		c0.33	0.23	
v/s Ratio Perm						c0.10			0.13			
v/c Ratio			0.76			0.10		0.51	0.31	0.79	0.50	
Uniform Delay, d1			16.4			0.0		13.2	11.9	15.4	11.8	
Progression Factor			1.00			1.00		1.06	1.03	0.40	0.43	
Incremental Delay, d2			3.6			0.1		0.9	1.2	1.2	0.6	
Delay (s)			20.0			0.1		14.9	13.5	7.4	5.7	
Level of Service			C			A		B	B	A	A	
Approach Delay (s)		20.0			0.1			14.6			6.5	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	11.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.6
Intersection Capacity Utilization	61.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	6	5	39	11	123	9	1136	46	116	1510	125
Future Volume (veh/h)	29	6	5	39	11	123	9	1136	46	116	1510	125
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	29	6	0	39	11	0	9	1136	0	116	1510	125
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	5	5	5	5	5	5
Cap, veh/h	92	32		110	38		22	3785		173	4008	1240
Arrive On Green	0.02	0.02	0.00	0.02	0.02	0.00	0.01	0.76	0.00	0.10	1.00	1.00
Sat Flow, veh/h	5344	1870	1585	5344	1870	1585	3374	4985	1547	3374	4985	1542
Grp Volume(v), veh/h	29	6	0	39	11	0	9	1136	0	116	1510	125
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1687	1662	1547	1687	1662	1542
Q Serve(g_s), s	0.6	0.4	0.0	0.9	0.7	0.0	0.3	8.5	0.0	4.0	0.0	0.0
Cycle Q Clear(g_c), s	0.6	0.4	0.0	0.9	0.7	0.0	0.3	8.5	0.0	4.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	92	32		110	38		22	3785		173	4008	1240
V/C Ratio(X)	0.32	0.19		0.35	0.29		0.41	0.30		0.67	0.38	0.10
Avail Cap(c_a), veh/h	713	249		672	235		450	3785		450	4008	1240
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.3	58.1	0.0	58.0	57.9	0.0	59.4	4.5	0.0	52.9	0.0	0.0
Incr Delay (d2), s/veh	1.9	2.7	0.0	2.7	5.5	0.0	4.5	0.2	0.0	1.7	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.2	0.0	0.4	0.4	0.0	0.1	2.4	0.0	1.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.2	60.9	0.0	60.6	63.4	0.0	63.9	4.7	0.0	54.6	0.1	0.1
LnGrp LOS	E	E		E	E		E	A		D	A	A
Approach Vol, veh/h		35	A		50	A		1145	A		1751	
Approach Delay, s/veh		60.3			61.2			5.2			3.7	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.1	96.4		7.4	4.8	101.8		6.1				
Change Period (Y+Rc), s	4.0	5.3		4.9	4.0	5.3		4.0				
Max Green Setting (Gmax), s	16.0	54.7		15.1	16.0	54.7		16.0				
Max Q Clear Time (g_c+I1), s	6.0	10.5		2.9	2.3	2.0		2.6				
Green Ext Time (p_c), s	0.3	34.1		0.2	0.0	47.8		0.1				

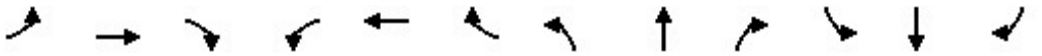
Intersection Summary	
HCM 6th Ctrl Delay	5.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



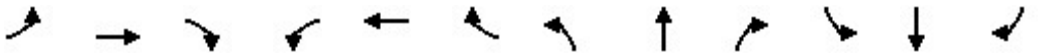
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	0	184	18	5	4	196	924	4	10	1161	60
Future Volume (veh/h)	88	0	184	18	5	4	196	924	4	10	1161	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	0	184	18	5	4	196	924	4	10	1161	60
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	253	0	225	71	20	80	238	2030	9	31	1574	702
Arrive On Green	0.14	0.00	0.14	0.05	0.05	0.05	0.13	0.56	0.56	0.02	0.44	0.44
Sat Flow, veh/h	1781	0	1585	1409	391	1585	1781	3629	16	1781	3554	1585
Grp Volume(v), veh/h	88	0	184	23	0	4	196	452	476	10	1161	60
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1800	0	1585	1781	1777	1868	1781	1777	1585
Q Serve(g_s), s	3.7	0.0	9.2	1.0	0.0	0.2	8.8	12.3	12.3	0.5	22.2	1.8
Cycle Q Clear(g_c), s	3.7	0.0	9.2	1.0	0.0	0.2	8.8	12.3	12.3	0.5	22.2	1.8
Prop In Lane	1.00		1.00	0.78		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	253	0	225	91	0	80	238	994	1045	31	1574	702
V/C Ratio(X)	0.35	0.00	0.82	0.25	0.00	0.05	0.82	0.46	0.46	0.32	0.74	0.09
Avail Cap(c_a), veh/h	435	0	387	263	0	232	500	1626	1709	435	2558	1141
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.7	0.0	34.1	37.4	0.0	37.1	34.6	10.7	10.7	39.8	18.9	13.2
Incr Delay (d2), s/veh	0.3	0.0	2.8	0.5	0.0	0.1	2.7	0.5	0.5	2.2	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	3.6	0.4	0.0	0.1	3.9	4.5	4.7	0.2	8.7	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.0	0.0	36.9	38.0	0.0	37.1	37.3	11.2	11.1	42.0	19.9	13.3
LnGrp LOS	C	A	D	D	A	D	D	B	B	D	B	B
Approach Vol, veh/h		272			27			1124			1231	
Approach Delay, s/veh		35.3			37.9			15.7			19.8	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	51.9		16.6	15.0	42.3		8.1				
Change Period (Y+Rc), s	4.0	6.0		4.9	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	75.0		20.0	23.0	59.0		12.0				
Max Q Clear Time (g_c+I1), s	2.5	14.3		11.2	10.8	24.2		3.0				
Green Ext Time (p_c), s	0.0	8.0		0.4	0.3	12.2		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			19.8									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	187	12	467	13	16	12	358	925	7	3	1062	298
Future Volume (veh/h)	187	12	467	13	16	12	358	925	7	3	1062	298
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	196	0	467	13	16	12	358	925	7	3	1062	298
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	902	0	601	43	53	84	436	1897	14	13	1442	643
Arrive On Green	0.25	0.00	0.25	0.05	0.05	0.05	0.13	0.52	0.52	0.01	0.41	0.41
Sat Flow, veh/h	3563	0	1585	820	1009	1585	3456	3615	27	1781	3554	1585
Grp Volume(v), veh/h	196	0	467	29	0	12	358	455	477	3	1062	298
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1829	0	1585	1728	1777	1865	1781	1777	1585
Q Serve(g_s), s	4.6	0.0	27.0	1.6	0.0	0.8	10.8	17.4	17.4	0.2	27.0	14.7
Cycle Q Clear(g_c), s	4.6	0.0	27.0	1.6	0.0	0.8	10.8	17.4	17.4	0.2	27.0	14.7
Prop In Lane	1.00		1.00	0.45		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	902	0	601	96	0	84	436	932	979	13	1442	643
V/C Ratio(X)	0.22	0.00	0.78	0.30	0.00	0.14	0.82	0.49	0.49	0.23	0.74	0.46
Avail Cap(c_a), veh/h	902	0	601	343	0	297	745	1053	1105	334	1766	788
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.5	0.0	29.1	48.6	0.0	48.2	45.4	16.2	16.2	52.7	26.9	23.2
Incr Delay (d2), s/veh	0.1	0.0	6.4	0.6	0.0	0.3	1.5	0.9	0.8	3.4	2.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	11.5	0.8	0.0	0.3	4.6	6.8	7.1	0.1	11.2	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.6	0.0	35.5	49.3	0.0	48.5	46.9	17.1	17.0	56.1	28.9	24.4
LnGrp LOS	C	A	D	D	A	D	D	B	B	E	C	C
Approach Vol, veh/h		663			41			1290			1363	
Approach Delay, s/veh		34.3			49.0			25.3			28.0	
Approach LOS		C			D			C			C	

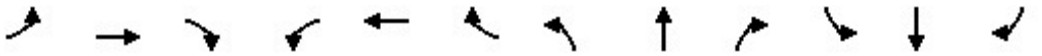
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	61.3		31.0	17.5	48.6		9.6				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	20.0	63.2		27.0	23.0	53.0		20.0				
Max Q Clear Time (g_c+I1), s	2.2	19.4		29.0	12.8	29.0		3.6				
Green Ext Time (p_c), s	0.0	11.1		0.0	0.7	14.3		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		28.5	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	151	0	602	0	600	514	924	522	0
Future Volume (veh/h)	0	0	0	151	0	602	0	600	514	924	522	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	0	1870	1870	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	0	0	0	177	0	56	0	600	144	924	522	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	2	0	2	2	2	0	2	2	2	2	0
Cap, veh/h	0	4	0	335	0	149	0	1088	485	1169	2570	0
Arrive On Green	0.00	0.00	0.00	0.09	0.00	0.09	0.00	0.31	0.31	0.34	0.72	0.00
Sat Flow, veh/h	0	-74814	0	3563	0	1585	0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	0	0	0	177	0	56	0	600	144	924	522	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	0	1585	0	1777	1585	1728	1777	0
Q Serve(g_s), s	0.0	0.0	0.0	2.4	0.0	1.7	0.0	7.2	3.5	12.3	2.4	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.4	0.0	1.7	0.0	7.2	3.5	12.3	2.4	0.0
Prop In Lane	0.00		0.00	1.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	4	0	335	0	149	0	1088	485	1169	2570	0
V/C Ratio(X)	0.00	0.00	0.00	0.53	0.00	0.38	0.00	0.55	0.30	0.79	0.20	0.00
Avail Cap(c_a), veh/h	0	1103	0	1680	0	748	0	2312	1031	2445	5077	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	22.0	0.0	21.6	0.0	14.7	13.5	15.2	2.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.5	0.0	0.6	0.0	0.8	0.6	0.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.9	0.0	1.5	0.0	2.6	1.2	4.2	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	22.4	0.0	22.2	0.0	15.5	14.0	15.7	2.3	0.0
LnGrp LOS	A	A	A	C	A	C	A	B	B	B	A	A
Approach Vol, veh/h		0			233			744			1446	
Approach Delay, s/veh		0.0			22.4			15.2			10.9	
Approach LOS					C			B			B	

Timer - Assigned Phs	2	4	6	7	8
Phs Duration (G+Y+Rc), s	0.0	42.1	8.8	21.2	20.9
Change Period (Y+Rc), s	4.0	5.3	4.0	4.0	* 5.3
Max Green Setting (Gmax), s	30.0	72.7	24.0	36.0	* 33
Max Q Clear Time (g_c+I1), s	0.0	4.4	4.4	14.3	9.2
Green Ext Time (p_c), s	0.0	4.0	0.6	2.9	6.4

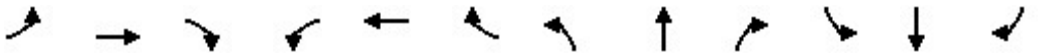
Intersection Summary	
HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



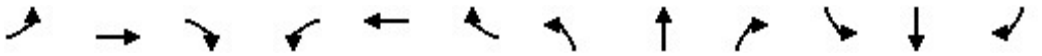
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	440	7	34	26	18	39	24	684	0	56	445	69
Future Volume (veh/h)	440	7	34	26	18	39	24	684	0	56	445	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	477	0	0	26	18	39	24	684	0	56	445	69
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	673	353	0	62	43	91	31	1212	0	69	1118	172
Arrive On Green	0.19	0.00	0.00	0.06	0.06	0.06	0.02	0.34	0.00	0.04	0.36	0.36
Sat Flow, veh/h	3563	1870	0	1073	743	1585	1781	3647	0	1781	3086	476
Grp Volume(v), veh/h	477	0	0	44	0	39	24	684	0	56	255	259
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1817	0	1585	1781	1777	0	1781	1777	1785
Q Serve(g_s), s	5.7	0.0	0.0	1.1	0.0	1.1	0.6	7.1	0.0	1.4	4.8	4.9
Cycle Q Clear(g_c), s	5.7	0.0	0.0	1.1	0.0	1.1	0.6	7.1	0.0	1.4	4.8	4.9
Prop In Lane	1.00		0.00	0.59		1.00	1.00		0.00	1.00		0.27
Lane Grp Cap(c), veh/h	673	353	0	104	0	91	31	1212	0	69	644	647
V/C Ratio(X)	0.71	0.00	0.00	0.42	0.00	0.43	0.78	0.56	0.00	0.82	0.40	0.40
Avail Cap(c_a), veh/h	2051	1077	0	724	0	632	631	2833	0	631	1416	1423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.2	0.0	0.0	20.6	0.0	20.6	22.1	12.1	0.0	21.6	10.7	10.7
Incr Delay (d2), s/veh	0.5	0.0	0.0	1.0	0.0	1.2	14.5	0.5	0.0	8.5	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.0	0.4	0.0	0.4	0.4	2.4	0.0	0.7	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.7	0.0	0.0	21.6	0.0	21.8	36.6	12.7	0.0	30.0	11.2	11.2
LnGrp LOS	B	A	A	C	A	C	D	B	A	C	B	B
Approach Vol, veh/h		477			83			708			570	
Approach Delay, s/veh		17.7			21.7			13.5			13.1	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.7	20.3		12.5	4.8	21.3		6.6				
Change Period (Y+Rc), s	4.0	4.9		4.0	4.0	4.9		4.0				
Max Green Setting (Gmax), s	16.0	36.0		26.0	16.0	36.0		18.0				
Max Q Clear Time (g_c+I1), s	3.4	9.1		7.7	2.6	6.9		3.1				
Green Ext Time (p_c), s	0.0	6.3		0.9	0.0	4.2		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		14.8
HCM 6th LOS		B

Notes

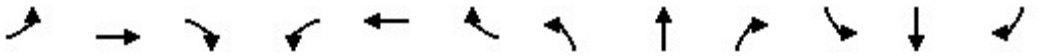
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	8	29	68	3	9	58	678	11	17	477	23
Future Volume (veh/h)	67	8	29	68	3	9	58	678	11	17	477	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	8	29	68	3	9	58	678	11	17	477	23
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	116	14	115	106	5	98	70	1328	22	23	1191	57
Arrive On Green	0.07	0.07	0.07	0.06	0.06	0.06	0.04	0.37	0.37	0.01	0.35	0.35
Sat Flow, veh/h	1599	191	1585	1709	75	1585	1781	3579	58	1781	3451	166
Grp Volume(v), veh/h	75	0	29	71	0	9	58	337	352	17	245	255
Grp Sat Flow(s),veh/h/ln	1790	0	1585	1785	0	1585	1781	1777	1860	1781	1777	1840
Q Serve(g_s), s	1.4	0.0	0.6	1.4	0.0	0.2	1.1	5.2	5.2	0.3	3.7	3.7
Cycle Q Clear(g_c), s	1.4	0.0	0.6	1.4	0.0	0.2	1.1	5.2	5.2	0.3	3.7	3.7
Prop In Lane	0.89		1.00	0.96		1.00	1.00		0.03	1.00		0.09
Lane Grp Cap(c), veh/h	130	0	115	110	0	98	70	659	690	23	613	635
V/C Ratio(X)	0.58	0.00	0.25	0.64	0.00	0.09	0.83	0.51	0.51	0.73	0.40	0.40
Avail Cap(c_a), veh/h	1326	0	1174	916	0	813	812	1823	1908	812	1823	1888
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.8	0.0	15.4	16.1	0.0	15.5	16.7	8.6	8.6	17.3	8.7	8.7
Incr Delay (d2), s/veh	1.5	0.0	0.4	2.3	0.0	0.1	9.2	0.8	0.7	15.0	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.2	0.5	0.0	0.1	0.6	1.5	1.6	0.2	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.3	0.0	15.8	18.4	0.0	15.7	26.0	9.3	9.3	32.3	9.3	9.2
LnGrp LOS	B	A	B	B	A	B	C	A	A	C	A	A
Approach Vol, veh/h		104			80			747			517	
Approach Delay, s/veh		16.8			18.1			10.6			10.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.5	17.9		6.5	5.4	17.0		6.2				
Change Period (Y+Rc), s	4.0	4.9		4.0	4.0	4.9		4.0				
Max Green Setting (Gmax), s	16.0	36.0		26.0	16.0	36.0		18.0				
Max Q Clear Time (g_c+I1), s	2.3	7.2		3.4	3.1	5.7		3.4				
Green Ext Time (p_c), s	0.0	5.9		0.3	0.0	4.1		0.2				

Intersection Summary			
HCM 6th Ctrl Delay		11.3	
HCM 6th LOS		B	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	212	837	284	78	376	140	242	330	138	99	389	78
Future Volume (veh/h)	212	837	284	78	376	140	242	330	138	99	389	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	2145	2145	2145
Adj Flow Rate, veh/h	212	837	284	78	376	140	242	330	138	99	389	78
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	257	1247	556	131	997	445	291	1277	396	163	975	303
Arrive On Green	0.14	0.35	0.35	0.07	0.28	0.28	0.16	0.25	0.25	0.08	0.17	0.17
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	5106	1585	2043	5857	1818
Grp Volume(v), veh/h	212	837	284	78	376	140	242	330	138	99	389	78
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1702	1585	2043	1952	1818
Q Serve(g_s), s	8.9	15.5	11.0	3.3	6.6	5.4	10.2	4.0	5.5	3.6	4.6	2.9
Cycle Q Clear(g_c), s	8.9	15.5	11.0	3.3	6.6	5.4	10.2	4.0	5.5	3.6	4.6	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	257	1247	556	131	997	445	291	1277	396	163	975	303
V/C Ratio(X)	0.83	0.67	0.51	0.60	0.38	0.31	0.83	0.26	0.35	0.61	0.40	0.26
Avail Cap(c_a), veh/h	461	1424	635	691	1792	799	1083	2575	799	660	2651	823
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	21.3	19.8	34.7	22.4	22.0	31.3	23.3	23.8	34.4	28.8	28.1
Incr Delay (d2), s/veh	2.6	1.3	1.2	1.6	0.3	0.5	2.4	0.2	0.8	1.4	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	6.3	3.8	1.4	2.7	1.9	4.3	1.5	2.0	1.8	2.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.7	22.6	21.0	36.3	22.7	22.5	33.7	23.4	24.7	35.8	29.2	28.8
LnGrp LOS	C	C	C	D	C	C	C	C	C	D	C	C
Approach Vol, veh/h		1333			594			710			566	
Approach Delay, s/veh		24.2			24.4			27.2			30.3	
Approach LOS		C			C			C			C	

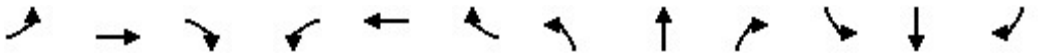
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	32.8	16.6	18.2	15.1	27.4	10.2	24.6
Change Period (Y+Rc), s	4.0	* 5.7	4.0	5.3	4.0	5.7	4.0	5.3
Max Green Setting (Gmax), s	30.0	* 31	47.0	35.0	20.0	39.0	25.0	39.0
Max Q Clear Time (g_c+I1), s	5.3	17.5	12.2	6.6	10.9	8.6	5.6	7.5
Green Ext Time (p_c), s	0.1	9.7	0.5	6.3	0.3	6.4	0.2	6.0

Intersection Summary	
HCM 6th Ctrl Delay	26.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



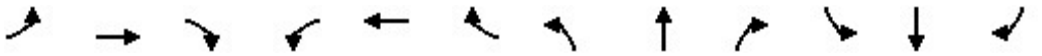
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	2	7	40	3	128	11	696	50	195	597	7
Future Volume (veh/h)	13	2	7	40	3	128	11	696	50	195	597	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1988	1988	1988	1870	1945	1826	2145	2231	2145
Adj Flow Rate, veh/h	13	2	7	40	3	128	11	696	50	195	597	7
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	5	2	2	2
Cap, veh/h	64	10	65	198	15	188	40	1505	108	262	3268	975
Arrive On Green	0.04	0.04	0.04	0.11	0.11	0.11	0.02	0.43	0.43	0.13	0.54	0.54
Sat Flow, veh/h	1554	239	1585	1767	133	1680	1781	3494	251	2043	6091	1818
Grp Volume(v), veh/h	15	0	7	43	0	128	11	368	378	195	597	7
Grp Sat Flow(s),veh/h/ln	1793	0	1585	1900	0	1680	1781	1848	1897	2043	2030	1818
Q Serve(g_s), s	0.5	0.0	0.3	1.2	0.0	4.4	0.4	8.5	8.5	5.5	3.0	0.1
Cycle Q Clear(g_c), s	0.5	0.0	0.3	1.2	0.0	4.4	0.4	8.5	8.5	5.5	3.0	0.1
Prop In Lane	0.87		1.00	0.93		1.00	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	73	0	65	213	0	188	40	796	817	262	3268	975
V/C Ratio(X)	0.20	0.00	0.11	0.20	0.00	0.68	0.28	0.46	0.46	0.75	0.18	0.01
Avail Cap(c_a), veh/h	597	0	528	728	0	644	593	1385	1422	1055	4564	1362
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.9	0.0	27.7	24.2	0.0	25.6	28.9	12.1	12.2	25.2	7.2	6.5
Incr Delay (d2), s/veh	0.5	0.0	0.3	0.2	0.0	1.6	1.4	0.9	0.9	1.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.1	0.5	0.0	1.7	0.2	3.0	3.1	2.5	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.4	0.0	28.0	24.4	0.0	27.2	30.3	13.1	13.1	26.8	7.2	6.5
LnGrp LOS	C	A	C	C	A	C	C	B	B	C	A	A
Approach Vol, veh/h		22			171			757			799	
Approach Delay, s/veh		28.2			26.5			13.3			12.0	
Approach LOS		C			C			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		6.5	5.3	37.5		10.7	11.7	31.2				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.0	4.0	5.3				
Max Green Setting (Gmax), s		20.0	20.0	45.0		23.0	31.0	45.0				
Max Q Clear Time (g_c+I1), s		2.5	2.4	5.0		6.4	7.5	10.5				
Green Ext Time (p_c), s		0.0	0.0	13.2		0.3	0.4	15.4				

Intersection Summary	
HCM 6th Ctrl Delay	14.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	500	355	54	222	12	630	520	80	10	414	73
Future Volume (veh/h)	68	500	355	54	222	12	630	520	80	10	414	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	500	0	54	222	0	630	520	0	10	414	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	103	652		93	631		681	1835		27	759	
Arrive On Green	0.06	0.18	0.00	0.05	0.18	0.00	0.38	0.52	0.00	0.01	0.15	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	5274	0
Grp Volume(v), veh/h	68	500	0	54	222	0	630	520	0	10	414	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1702	0
Q Serve(g_s), s	3.0	10.9	0.0	2.4	4.5	0.0	27.5	6.8	0.0	0.5	6.1	0.0
Cycle Q Clear(g_c), s	3.0	10.9	0.0	2.4	4.5	0.0	27.5	6.8	0.0	0.5	6.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	103	652		93	631		681	1835		27	759	
V/C Ratio(X)	0.66	0.77		0.58	0.35		0.92	0.28		0.38	0.55	
Avail Cap(c_a), veh/h	438	873		438	1091		1116	1835		438	2195	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.6	31.6	0.0	37.7	29.4	0.0	24.0	11.2	0.0	39.7	32.1	0.0
Incr Delay (d2), s/veh	2.7	3.8	0.0	2.2	0.7	0.0	5.5	0.2	0.0	3.2	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	4.9	0.0	1.1	1.9	0.0	11.8	2.5	0.0	0.2	2.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.2	35.4	0.0	39.9	30.1	0.0	29.6	11.3	0.0	43.0	33.4	0.0
LnGrp LOS	D	D		D	C		C	B		D	C	
Approach Vol, veh/h		568	A		276	A		1150	A		424	A
Approach Delay, s/veh		36.0			32.0			21.3			33.6	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	20.6	35.1	17.4	8.7	20.2	5.2	47.3
Change Period (Y+Rc), s	4.0	5.7	4.0	5.3	4.0	* 5.7	4.0	5.3
Max Green Setting (Gmax), s	20.0	20.0	51.0	35.0	20.0	* 25	20.0	35.0
Max Q Clear Time (g_c+I1), s	4.4	12.9	29.5	8.1	5.0	6.5	2.5	8.8
Green Ext Time (p_c), s	0.1	2.1	1.6	4.0	0.1	1.7	0.0	5.1

Intersection Summary	
HCM 6th Ctrl Delay	28.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	14	117	25	4	23	105	1772	91	62	1306	35
Future Volume (veh/h)	127	14	117	25	4	23	105	1772	91	62	1306	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	137	0	117	25	4	23	105	1772	91	62	1306	35
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	323	0	144	91	15	94	127	2223	690	509	3377	1048
Arrive On Green	0.09	0.00	0.09	0.06	0.06	0.06	0.07	0.44	0.44	0.29	0.66	0.66
Sat Flow, veh/h	3563	0	1585	1546	247	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	137	0	117	29	0	23	105	1772	91	62	1306	35
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1793	0	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	5.5	0.0	10.9	2.3	0.0	2.1	8.7	45.0	5.2	3.9	17.5	1.1
Cycle Q Clear(g_c), s	5.5	0.0	10.9	2.3	0.0	2.1	8.7	45.0	5.2	3.9	17.5	1.1
Prop In Lane	1.00		1.00	0.86		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	323	0	144	106	0	94	127	2223	690	509	3377	1048
V/C Ratio(X)	0.42	0.00	0.82	0.27	0.00	0.25	0.83	0.80	0.13	0.12	0.39	0.03
Avail Cap(c_a), veh/h	1093	0	486	120	0	106	190	2223	690	509	3377	1048
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.5	0.0	67.0	67.5	0.0	67.4	68.8	36.6	25.4	39.6	11.6	8.8
Incr Delay (d2), s/veh	0.3	0.0	4.2	0.5	0.0	0.5	10.8	3.1	0.4	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	4.6	1.1	0.0	0.9	4.3	18.6	2.0	1.7	6.2	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.8	0.0	71.2	68.0	0.0	67.9	79.5	39.7	25.8	39.7	11.7	8.8
LnGrp LOS	E	A	E	E	A	E	E	D	C	D	B	A
Approach Vol, veh/h		254			52			1968			1403	
Approach Delay, s/veh		67.8			68.0			41.2			12.9	
Approach LOS		E			E			D			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	48.6	71.0		17.6	14.7	104.9		12.9				
Change Period (Y+Rc), s	5.7	* 5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	11.0	* 65		46.0	16.0	60.3		10.0				
Max Q Clear Time (g_c+I1), s	5.9	47.0		12.9	10.7	19.5		4.3				
Green Ext Time (p_c), s	0.0	15.2		0.7	0.1	19.5		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		32.6
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

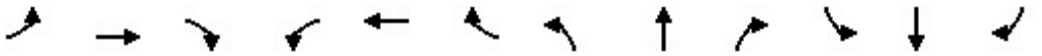
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	369	12	289	979	447	278
Future Volume (veh/h)	369	12	289	979	447	278
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	369	2	289	681	447	278
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	464	213	810	686	458	1400
Arrive On Green	0.13	0.13	0.43	0.43	0.26	0.75
Sat Flow, veh/h	3456	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	369	2	289	681	447	278
Grp Sat Flow(s),veh/h/ln	1728	1585	1870	1585	1781	1870
Q Serve(g_s), s	8.8	0.1	8.9	36.5	21.3	3.7
Cycle Q Clear(g_c), s	8.8	0.1	8.9	36.5	21.3	3.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	464	213	810	686	458	1400
V/C Ratio(X)	0.80	0.01	0.36	0.99	0.97	0.20
Avail Cap(c_a), veh/h	647	297	810	686	458	1400
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	32.1	16.3	24.1	31.5	3.2
Incr Delay (d2), s/veh	4.7	0.0	0.3	32.4	35.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	3.7	18.8	13.3	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	40.6	32.1	16.5	56.5	66.9	3.2
LnGrp LOS	D	C	B	E	E	A
Approach Vol, veh/h	371		970			725
Approach Delay, s/veh	40.5		44.6			42.5
Approach LOS	D		D			D

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	27.0	42.0			69.0	16.5
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	22.0	37.0			64.0	16.0
Max Q Clear Time (g_c+I1), s	23.3	38.5			5.7	10.8
Green Ext Time (p_c), s	0.0	0.0			1.8	0.6

Intersection Summary	
HCM 6th Ctrl Delay	43.1
HCM 6th LOS	D



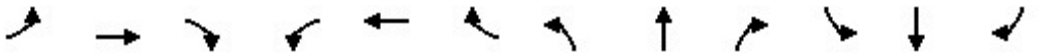
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	985	21	61	336	4	27	10	133	57	15	24
Future Volume (veh/h)	9	985	21	61	336	4	27	10	133	57	15	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	985	21	61	336	4	27	10	133	57	15	24
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	24	1330	28	112	1523	18	115	27	526	125	21	526
Arrive On Green	0.01	0.37	0.37	0.06	0.42	0.42	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1781	3558	76	1781	3597	43	31	82	1585	48	63	1585
Grp Volume(v), veh/h	9	492	514	61	166	174	37	0	133	72	0	24
Grp Sat Flow(s),veh/h/ln	1781	1777	1857	1781	1777	1863	113	0	1585	110	0	1585
Q Serve(g_s), s	0.3	14.2	14.2	2.0	3.5	3.5	0.5	0.0	3.6	0.9	0.0	0.6
Cycle Q Clear(g_c), s	0.3	14.2	14.2	2.0	3.5	3.5	19.6	0.0	3.6	19.6	0.0	0.6
Prop In Lane	1.00		0.04	1.00		0.02	0.73		1.00	0.79		1.00
Lane Grp Cap(c), veh/h	24	664	694	112	752	789	143	0	526	146	0	526
V/C Ratio(X)	0.37	0.74	0.74	0.54	0.22	0.22	0.26	0.00	0.25	0.49	0.00	0.05
Avail Cap(c_a), veh/h	602	1350	1411	602	1350	1415	151	0	535	154	0	535
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.0	16.0	16.0	26.9	10.9	10.9	17.3	0.0	14.4	25.0	0.0	13.4
Incr Delay (d2), s/veh	3.5	2.2	2.1	1.5	0.2	0.2	0.4	0.0	0.1	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.9	5.1	0.8	1.1	1.1	0.3	0.0	1.2	1.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.5	18.2	18.1	28.4	11.1	11.0	17.7	0.0	14.5	26.0	0.0	13.4
LnGrp LOS	C	B	B	C	B	B	B	A	B	C	A	B
Approach Vol, veh/h		1015			401			170			96	
Approach Delay, s/veh		18.3			13.7			15.2			22.8	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.8	28.1		23.8	4.8	31.0		23.8				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	4.0	16.2		21.6	2.3	5.5		21.6				
Green Ext Time (p_c), s	0.1	6.4		0.0	0.0	1.8		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		17.2	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	132	101	27	66	5	39	44	35	5	104	90
Future Volume (veh/h)	53	132	101	27	66	5	39	44	35	5	104	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	132	101	27	66	5	39	44	35	5	104	90
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	84	301	254	48	241	18	66	215	171	10	177	153
Arrive On Green	0.05	0.16	0.16	0.03	0.14	0.14	0.04	0.22	0.22	0.01	0.19	0.19
Sat Flow, veh/h	1781	1870	1575	1781	1716	130	1781	963	766	1781	923	799
Grp Volume(v), veh/h	53	132	101	27	0	71	39	0	79	5	0	194
Grp Sat Flow(s),veh/h/ln	1781	1870	1575	1781	0	1846	1781	0	1728	1781	0	1722
Q Serve(g_s), s	0.9	2.0	1.8	0.5	0.0	1.1	0.7	0.0	1.1	0.1	0.0	3.2
Cycle Q Clear(g_c), s	0.9	2.0	1.8	0.5	0.0	1.1	0.7	0.0	1.1	0.1	0.0	3.2
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.44	1.00		0.46
Lane Grp Cap(c), veh/h	84	301	254	48	0	259	66	0	386	10	0	330
V/C Ratio(X)	0.63	0.44	0.40	0.57	0.00	0.27	0.59	0.00	0.20	0.52	0.00	0.59
Avail Cap(c_a), veh/h	722	1607	1353	433	0	1287	491	0	1709	433	0	1647
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.4	11.7	11.6	14.8	0.0	11.8	14.6	0.0	9.8	15.3	0.0	11.4
Incr Delay (d2), s/veh	7.5	1.0	1.0	10.1	0.0	0.6	8.3	0.0	0.3	36.7	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.7	0.5	0.3	0.0	0.4	0.4	0.0	0.3	0.1	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.9	12.7	12.6	24.9	0.0	12.4	22.9	0.0	10.0	52.0	0.0	13.0
LnGrp LOS	C	B	B	C	A	B	C	A	B	D	A	B
Approach Vol, veh/h		286			98			118			199	
Approach Delay, s/veh		14.4			15.9			14.3			14.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.7	11.4	5.3	9.5	5.6	10.4	6.0	8.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	30.5	7.5	26.5	8.5	29.5	12.5	21.5
Max Q Clear Time (g_c+I1), s	2.1	3.1	2.5	4.0	2.7	5.2	2.9	3.1
Green Ext Time (p_c), s	0.0	0.4	0.0	1.0	0.0	1.1	0.1	0.2

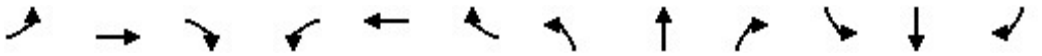
Intersection Summary	
HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	38	486	600	34	240	447
Future Volume (veh/h)	38	486	600	34	240	447
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	145	600	13	240	447
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	224	199	724	614	298	1237
Arrive On Green	0.13	0.13	0.39	0.39	0.17	0.66
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	38	145	600	13	240	447
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	0.9	4.1	13.6	0.2	6.1	5.0
Cycle Q Clear(g_c), s	0.9	4.1	13.6	0.2	6.1	5.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	224	199	724	614	298	1237
V/C Ratio(X)	0.17	0.73	0.83	0.02	0.80	0.36
Avail Cap(c_a), veh/h	607	540	956	810	380	1554
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.3	19.7	13.0	8.9	18.8	3.5
Incr Delay (d2), s/veh	0.4	5.0	4.7	0.0	9.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.6	5.4	0.1	3.0	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.7	24.8	17.7	8.9	28.3	3.7
LnGrp LOS	B	C	B	A	C	A
Approach Vol, veh/h	183		613			687
Approach Delay, s/veh	23.5		17.5			12.3
Approach LOS	C		B			B

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	12.9	23.2			36.0	10.9
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	10.0	24.0			39.0	16.0
Max Q Clear Time (g_c+I1), s	8.1	15.6			7.0	6.1
Green Ext Time (p_c), s	0.1	2.6			3.1	0.4

Intersection Summary	
HCM 6th Ctrl Delay	15.8
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	888	13	120	460	181	56	122	204	54	277	101
Future Volume (veh/h)	113	888	13	120	460	181	56	122	204	54	277	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	113	888	4	120	460	151	56	122	32	54	277	92
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	183	1096	489	185	815	265	69	151	190	60	305	101
Arrive On Green	0.10	0.31	0.31	0.10	0.31	0.31	0.12	0.12	0.12	0.26	0.26	0.26
Sat Flow, veh/h	1781	3554	1585	1781	2635	858	579	1262	1585	228	1171	389
Grp Volume(v), veh/h	113	888	4	120	309	302	178	0	32	423	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1716	1841	0	1585	1789	0	0
Q Serve(g_s), s	5.6	21.1	0.2	5.9	13.3	13.5	8.6	0.0	1.7	21.0	0.0	0.0
Cycle Q Clear(g_c), s	5.6	21.1	0.2	5.9	13.3	13.5	8.6	0.0	1.7	21.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.50	0.31		1.00	0.13		0.22
Lane Grp Cap(c), veh/h	183	1096	489	185	550	531	221	0	190	466	0	0
V/C Ratio(X)	0.62	0.81	0.01	0.65	0.56	0.57	0.81	0.00	0.17	0.91	0.00	0.00
Avail Cap(c_a), veh/h	233	1306	582	194	614	593	622	0	536	747	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	39.4	29.3	22.0	39.5	26.5	26.6	39.3	0.0	36.3	32.8	0.0	0.0
Incr Delay (d2), s/veh	1.3	4.0	0.0	5.2	1.6	1.7	2.6	0.0	0.2	6.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	9.3	0.1	2.8	5.7	5.6	4.0	0.0	0.6	9.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.7	33.3	22.0	44.6	28.1	28.2	42.0	0.0	36.4	39.4	0.0	0.0
LnGrp LOS	D	C	C	D	C	C	D	A	D	D	A	A
Approach Vol, veh/h		1005			731			210			423	
Approach Delay, s/veh		34.1			30.9			41.1			39.4	
Approach LOS		C			C			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.3	13.5	34.0		27.9	13.4	34.1				
Change Period (Y+Rc), s		5.3	4.0	5.7		4.0	4.0	5.7				
Max Green Setting (Gmax), s		31.0	10.0	33.7		38.3	12.0	31.7				
Max Q Clear Time (g_c+I1), s		10.6	7.9	23.1		23.0	7.6	15.5				
Green Ext Time (p_c), s		0.4	0.0	5.1		0.9	0.1	4.2				

Intersection Summary		
HCM 6th Ctrl Delay		34.6
HCM 6th LOS		C

Notes

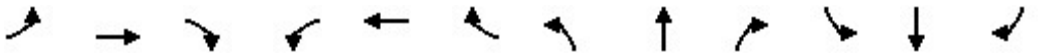
User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	718	9	5	1457	12	5
Future Volume (veh/h)	718	9	5	1457	12	5
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	718	4	5	1457	12	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2326	721	10	3042	240	214
Arrive On Green	0.46	0.46	0.01	0.60	0.13	0.13
Sat Flow, veh/h	5274	1582	1781	5274	1781	1585
Grp Volume(v), veh/h	718	4	5	1457	12	1
Grp Sat Flow(s),veh/h/ln	1702	1582	1781	1702	1781	1585
Q Serve(g_s), s	2.6	0.0	0.1	4.8	0.2	0.0
Cycle Q Clear(g_c), s	2.6	0.0	0.1	4.8	0.2	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2326	721	10	3042	240	214
V/C Ratio(X)	0.31	0.01	0.52	0.48	0.05	0.00
Avail Cap(c_a), veh/h	3956	1225	480	5332	1260	1121
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.1	4.4	14.7	3.4	11.2	11.1
Incr Delay (d2), s/veh	0.1	0.0	36.6	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.1	0.0	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.2	4.4	51.3	3.5	11.3	11.1
LnGrp LOS	A	A	D	A	B	B
Approach Vol, veh/h	722			1462	13	
Approach Delay, s/veh	5.2			3.7	11.3	
Approach LOS	A			A	B	

Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	8.0	4.2	17.5	21.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	21.0	8.0	23.0	31.0
Max Q Clear Time (g_c+I1), s	2.2	2.1	4.6	6.8
Green Ext Time (p_c), s	0.0	0.0	4.3	10.9

Intersection Summary	
HCM 6th Ctrl Delay	4.2
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	527	48	126	1342	294	38	61	70	98	86	78
Future Volume (veh/h)	143	527	48	126	1342	294	38	61	70	98	86	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	143	527	48	126	1342	294	38	61	70	98	86	78
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	182	2155	669	161	2095	650	56	157	133	130	235	199
Arrive On Green	0.10	0.42	0.42	0.09	0.41	0.41	0.03	0.08	0.08	0.07	0.13	0.13
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	143	527	48	126	1342	294	38	61	70	98	86	78
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	4.7	4.0	1.1	4.2	12.7	8.1	1.3	1.9	2.6	3.3	2.5	2.7
Cycle Q Clear(g_c), s	4.7	4.0	1.1	4.2	12.7	8.1	1.3	1.9	2.6	3.3	2.5	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	182	2155	669	161	2095	650	56	157	133	130	235	199
V/C Ratio(X)	0.79	0.24	0.07	0.78	0.64	0.45	0.68	0.39	0.53	0.75	0.37	0.39
Avail Cap(c_a), veh/h	236	2787	865	206	2702	839	265	990	839	678	1423	1206
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.5	11.3	10.4	26.9	14.3	12.9	29.0	26.2	26.5	27.5	24.2	24.3
Incr Delay (d2), s/veh	12.4	0.1	0.0	13.8	0.3	0.5	13.8	1.6	3.2	8.5	1.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	1.3	0.3	2.3	4.3	2.6	0.7	0.9	1.0	1.6	1.1	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.9	11.3	10.5	40.7	14.6	13.4	42.8	27.8	29.7	36.0	25.2	25.6
LnGrp LOS	D	B	B	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		718			1762			169			262	
Approach Delay, s/veh		16.8			16.3			32.0			29.3	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	10.1	10.5	30.5	6.9	12.6	11.2	29.8
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	23.0	32.0	7.0	33.0	9.0	46.0	8.0	32.0
Max Q Clear Time (g_c+I1), s	5.3	4.6	6.2	6.0	3.3	4.7	6.7	14.7
Green Ext Time (p_c), s	0.2	0.5	0.0	4.0	0.0	0.7	0.0	10.1

Intersection Summary	
HCM 6th Ctrl Delay	18.5
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	609	26	619	1457	425	109	954	469	122	1190	210
Future Volume (veh/h)	124	609	26	619	1457	425	109	954	469	122	1190	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	124	609	8	619	1457	301	109	954	227	122	1190	112
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	177	1446	446	486	1826	564	201	1278	568	228	1253	556
Arrive On Green	0.05	0.28	0.28	0.14	0.36	0.36	0.06	0.36	0.36	0.07	0.35	0.35
Sat Flow, veh/h	3456	5106	1577	3456	5106	1578	3456	3554	1578	3456	3554	1578
Grp Volume(v), veh/h	124	609	8	619	1457	301	109	954	227	122	1190	112
Grp Sat Flow(s),veh/h/ln	1728	1702	1577	1728	1702	1578	1728	1777	1578	1728	1777	1578
Q Serve(g_s), s	4.8	13.1	0.4	19.0	34.7	16.0	4.1	31.8	14.5	4.6	44.1	6.7
Cycle Q Clear(g_c), s	4.8	13.1	0.4	19.0	34.7	16.0	4.1	31.8	14.5	4.6	44.1	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	177	1446	446	486	1826	564	201	1278	568	228	1253	556
V/C Ratio(X)	0.70	0.42	0.02	1.27	0.80	0.53	0.54	0.75	0.40	0.54	0.95	0.20
Avail Cap(c_a), veh/h	230	1684	520	486	2077	642	204	1278	568	230	1262	560
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.1	39.4	21.8	58.1	39.0	21.1	61.9	37.9	32.4	61.1	42.6	30.5
Incr Delay (d2), s/veh	3.5	0.3	0.0	138.9	2.3	1.2	1.5	2.9	0.9	1.2	15.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	5.3	0.2	17.4	14.1	5.7	1.8	13.6	5.5	2.0	20.8	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.6	39.7	21.9	197.0	41.3	22.3	63.4	40.8	33.3	62.4	57.8	30.9
LnGrp LOS	E	D	C	F	D	C	E	D	C	E	E	C
Approach Vol, veh/h		741			2377			1290			1424	
Approach Delay, s/veh		44.0			79.4			41.4			56.1	
Approach LOS		D			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.9	54.6	23.0	44.7	13.9	53.7	13.3	54.3
Change Period (Y+Rc), s	4.0	6.0	4.0	6.4	6.0	* 6	6.4	* 6
Max Green Setting (Gmax), s	9.0	47.0	19.0	44.6	8.0	* 48	9.0	* 55
Max Q Clear Time (g_c+I1), s	6.6	33.8	21.0	15.1	6.1	46.1	6.8	36.7
Green Ext Time (p_c), s	0.0	7.6	0.0	3.8	0.0	1.5	0.0	11.7

Intersection Summary	
HCM 6th Ctrl Delay	60.8
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection 10 **Diamond Creek Blvd-Prarie Woods Wy/Blue Oaks Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	23	26	111.3%	62.0	21.3	E
	Through	11	11	98.2%	50.9	29.2	D
	Right Turn	46	47	101.7%	16.2	7.3	B
	Subtotal	80	83	104.0%	35.6	9.7	D
SB	Left Turn	368	341	92.7%	115.0	45.1	F
	Through	33	30	89.7%	119.2	40.7	F
	Right Turn	112	108	96.8%	111.8	46.9	F
	Subtotal	513	479	93.4%	115.1	44.6	F
EB	Left Turn	72	64	89.4%	60.4	7.5	E
	Through	1,658	1,640	98.9%	16.0	1.9	B
	Right Turn	38	42	111.6%	5.2	1.1	A
	Subtotal	1,768	1,746	98.8%	17.3	1.4	B
WB	Left Turn	39	26	66.7%	75.9	14.9	E
	Through	3,056	2,447	80.1%	22.9	4.7	C
	Right Turn	351	291	82.8%	13.2	1.1	B
	Subtotal	3,446	2,764	80.2%	22.4	4.1	C
Total		5,807	5,073	87.4%	29.6	5.4	C

Intersection 11 **Woodcreek Oaks Blvd/Blue Oaks Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	510	397	77.9%	230.9	41.8	F
	Through	432	419	96.9%	68.9	8.0	E
	Right Turn	295	300	101.8%	26.7	2.8	C
	Subtotal	1,237	1,116	90.3%	115.6	16.1	F
SB	Left Turn	383	274	71.5%	336.2	40.6	F
	Through	744	521	70.1%	406.6	47.1	F
	Right Turn	46	35	76.5%	313.2	56.7	F
	Subtotal	1,173	830	70.8%	379.4	46.5	F
EB	Left Turn	185	180	97.3%	98.4	40.3	F
	Through	1,731	1,711	98.9%	38.2	5.9	D
	Right Turn	156	139	89.0%	18.1	4.2	B
	Subtotal	2,072	2,030	98.0%	42.3	5.8	D
WB	Left Turn	687	575	83.7%	93.2	16.4	F
	Through	2,890	2,331	80.7%	54.2	13.0	D
	Right Turn	330	267	81.0%	38.3	11.3	D
	Subtotal	3,907	3,174	81.2%	60.1	11.8	E
Total		8,389	7,150	85.2%	100.6	5.2	F

Intersection 12 **Walgreens Dwy-Roseville Pkwy/Blue Oaks Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	10	9	88.0%	51.9	37.5	D
	Through	12	12	96.7%	71.5	33.0	E
	Right Turn	21	24	112.4%	16.8	7.7	B
	Subtotal	43	44	102.3%	40.5	17.7	D
SB	Left Turn	57	49	85.6%	52.0	10.7	D
	Through	19	12	65.3%	48.5	32.3	D
	Right Turn	11	10	90.9%	37.1	36.0	D
	Subtotal	87	71	81.8%	49.5	11.8	D
EB	Left Turn	6	4	66.7%	34.0	29.6	C
	Through	2,112	2,027	96.0%	19.3	6.2	B
	Right Turn	288	268	92.9%	8.2	2.6	A
	Subtotal	2,406	2,299	95.5%	18.0	5.7	B
WB	Left Turn	165	136	82.2%	66.2	7.9	E
	Through	3,885	3,212	82.7%	19.2	5.2	B
	Right Turn	44	40	90.9%	3.7	1.5	A
	Subtotal	4,094	3,388	82.8%	20.9	5.0	C
Total		6,630	5,802	87.5%	20.3	4.3	C

Intersection 13 **New Meadow Dr/Blue Oaks Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	80.0%	47.6	47.4	D
	Through	5	4	80.0%	36.7	47.6	D
	Right Turn	5	6	120.0%	10.6	17.2	B
	Subtotal	15	14	93.3%	38.0	26.0	D
SB	Left Turn	136	139	102.4%	61.1	14.5	E
	Through	5	7	136.0%	38.0	32.6	D
	Right Turn	33	26	78.8%	17.3	21.8	B
	Subtotal	174	172	98.9%	54.4	11.3	D
EB	Left Turn	44	42	95.5%	63.6	12.5	E
	Through	2,141	2,044	95.5%	10.2	1.5	B
	Right Turn	5	3	56.0%	3.8	4.4	A
	Subtotal	2,190	2,089	95.4%	11.3	1.4	B
WB	Left Turn	5	5	96.0%	72.9	49.1	E
	Through	4,056	3,402	83.9%	19.2	1.9	B
	Right Turn	253	194	76.8%	9.9	1.3	A
	Subtotal	4,314	3,601	83.5%	18.8	1.8	B
Total		6,693	5,876	87.8%	17.2	1.1	B

Intersection 14 **Collector C/Blue Oaks Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	12	12	96.7%	80.4	37.7	F
	Through	10	9	88.0%	59.1	45.7	E
	Right Turn	10	12	116.0%	18.0	14.8	B
	Subtotal	32	32	100.0%	53.5	19.2	D
SB	Left Turn	10	10	104.0%	51.6	26.3	D
	Through	10	11	112.0%	63.3	35.5	E
	Right Turn	12	9	76.7%	29.1	25.4	C
	Subtotal	32	31	96.3%	53.8	18.8	D
EB	Left Turn	14	14	97.1%	74.5	21.5	E
	Through	2,297	2,207	96.1%	9.3	2.6	A
	Right Turn	14	12	88.6%	4.9	2.5	A
	Subtotal	2,325	2,233	96.0%	9.7	2.6	A
WB	Left Turn	10	8	76.0%	59.1	40.0	E
	Through	4,203	3,472	82.6%	13.0	0.7	B
	Right Turn	10	10	104.0%	7.1	2.8	A
	Subtotal	4,223	3,490	82.6%	13.1	0.8	B
Total		6,612	5,785	87.5%	12.2	1.2	B

Intersection 15 **Foothills Blvd/Blue Oaks Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	718	508	70.8%	277.7	44.1	F
	Through	861	605	70.3%	311.3	38.6	F
	Right Turn	554	524	94.6%	23.5	14.1	C
	Subtotal	2,133	1,638	76.8%	209.2	33.5	F
SB	Left Turn	694	491	70.8%	322.9	42.8	F
	Through	772	777	100.6%	72.0	5.8	E
	Right Turn	272	264	97.1%	37.5	3.3	D
	Subtotal	1,738	1,532	88.1%	146.7	13.7	F
EB	Left Turn	120	128	106.3%	69.0	10.6	E
	Through	2,046	1,970	96.3%	57.8	15.7	E
	Right Turn	151	153	101.5%	31.8	16.3	C
	Subtotal	2,317	2,251	97.2%	56.8	15.0	E
WB	Left Turn	480	399	83.2%	157.8	36.2	F
	Through	3,233	2,722	84.2%	170.5	36.9	F
	Right Turn	521	436	83.6%	112.8	37.9	F
	Subtotal	4,234	3,556	84.0%	162.1	36.8	F
Total		10,422	8,977	86.1%	141.4	12.7	F

Intersection 16 **SR 65 NB Ramps-Fidelity Wy/Blue Oaks Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	243	164	67.5%	127.9	79.6	F
	Subtotal	243	164	67.5%	127.9	79.6	F
SB	Left Turn						
	Through						
	Right Turn	1,427	1,378	96.5%	51.1	35.4	D
	Subtotal	1,427	1,378	96.5%	51.1	35.4	D
EB	Left Turn						
	Through	3,139	2,703	86.1%	37.1	20.3	D
	Right Turn						
	Subtotal	3,139	2,703	86.1%	37.1	20.3	D
WB	Left Turn	64	58	91.3%	28.1	11.0	C
	Through	2,645	2,440	92.3%	12.4	3.1	B
	Right Turn						
	Subtotal	2,709	2,499	92.2%	12.8	3.3	B
Total		7,518	6,744	89.7%	32.6	11.8	C

Intersection 17 **SR 65 SB Ramps-Washington Blvd/Blue Oaks Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	644	566	87.9%	190.9	86.7	F
	Through						
	Right Turn	1,259	1,182	93.9%	132.8	40.3	F
	Subtotal	1,903	1,748	91.8%	152.4	45.6	F
SB	Left Turn	197	176	89.5%	187.3	57.5	F
	Through	523	454	86.7%	212.4	60.5	F
	Right Turn	547	492	89.9%	117.1	55.1	F
	Subtotal	1,267	1,122	88.5%	167.0	57.9	F
EB	Left Turn						
	Through	1,863	1,502	80.6%	95.4	11.0	F
	Right Turn	1,299	1,058	81.4%	100.9	11.1	F
	Subtotal	3,162	2,560	81.0%	97.7	10.9	F
WB	Left Turn	528	507	96.1%	121.7	47.2	F
	Through	1,518	1,477	97.3%	41.9	18.7	D
	Right Turn	255	257	100.9%	20.4	16.7	C
	Subtotal	2,301	2,241	97.4%	57.8	25.5	E
Total		8,633	7,670	88.8%	108.2	12.9	F

Intersection 31 **Foothills Blvd/Pleasant Grove Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	311	318	102.3%	163.1	36.1	F
	Through	408	427	104.6%	44.9	4.0	D
	Right Turn	703	692	98.4%	5.3	0.7	A
	Subtotal	1,422	1,437	101.0%	52.0	8.4	D
SB	Left Turn	237	238	100.4%	106.9	8.1	F
	Through	1,481	1,307	88.2%	100.5	10.1	F
	Right Turn	438	401	91.5%	15.6	5.4	B
	Subtotal	2,156	1,946	90.2%	83.8	8.0	F
EB	Left Turn	277	299	108.0%	153.7	47.7	F
	Through	1,439	1,496	104.0%	103.9	62.7	F
	Right Turn	201	215	106.9%	45.0	50.7	D
	Subtotal	1,917	2,010	104.9%	105.3	57.3	F
WB	Left Turn	818	508	62.2%	151.2	30.2	F
	Through	1,690	1,410	83.5%	32.2	4.0	C
	Right Turn	140	125	89.1%	12.1	2.5	B
	Subtotal	2,648	2,044	77.2%	60.6	10.2	E
Total		8,143	7,436	91.3%	77.1	17.2	E

Intersection 32 **Washington Blvd/Pleasant Grove Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	287	251	87.4%	175.2	66.9	F
	Through	513	510	99.5%	34.8	4.3	C
	Right Turn	319	323	101.2%	5.4	0.9	A
	Subtotal	1,119	1,084	96.9%	58.8	17.9	E
SB	Left Turn	165	138	83.6%	157.1	29.0	F
	Through	1,266	1,150	90.8%	115.1	35.4	F
	Right Turn	238	227	95.3%	84.8	33.6	F
	Subtotal	1,669	1,514	90.7%	114.5	34.2	F
EB	Left Turn	191	169	88.6%	245.8	51.1	F
	Through	1,816	1,628	89.7%	134.5	27.2	F
	Right Turn	260	235	90.3%	109.8	25.7	F
	Subtotal	2,267	2,032	89.7%	141.0	26.6	F
WB	Left Turn	443	288	65.0%	211.9	53.6	F
	Through	2,128	1,773	83.3%	113.4	33.6	F
	Right Turn	60	54	89.3%	61.7	29.5	E
	Subtotal	2,631	2,115	80.4%	125.7	32.1	F
Total		7,686	6,746	87.8%	116.7	14.8	F

Intersection 33 **Hallisy Dr/Pleasant Grove Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	372	357	95.9%	154.5	63.6	F
	Through	82	72	87.3%	133.2	58.9	F
	Right Turn	28	26	91.4%	129.4	61.0	F
	Subtotal	482	454	94.2%	149.7	62.2	F
SB	Left Turn	73	70	95.3%	63.1	6.4	E
	Through	25	28	112.0%	80.5	18.3	F
	Right Turn	15	23	154.7%	6.9	4.2	A
	Subtotal	113	121	106.9%	55.6	7.2	E
EB	Left Turn	14	13	91.4%	105.8	23.6	F
	Through	2,098	1,794	85.5%	22.1	4.0	C
	Right Turn	18	17	95.6%	11.5	1.6	B
	Subtotal	2,130	1,824	85.6%	22.6	4.0	C
WB	Left Turn	81	83	102.7%	76.4	23.0	E
	Through	2,276	2,124	93.3%	28.7	10.8	C
	Right Turn	106	107	100.8%	15.5	4.5	B
	Subtotal	2,463	2,314	94.0%	29.8	10.7	C
Total		5,188	4,712	90.8%	38.4	7.9	D

Intersection 35 **Pleasant Grove Blvd/Highland Pointe Dr** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	366	326	89.1%	79.8	15.9	E
	Through	1,994	1,717	86.1%	46.0	9.4	D
	Right Turn	12	10	83.3%	29.8	11.6	C
	Subtotal	2,372	2,053	86.5%	51.4	7.5	D
SB	Left Turn	181	161	88.8%	79.0	9.7	E
	Through	2,065	1,895	91.8%	55.2	12.4	E
	Right Turn	271	250	92.1%	15.0	4.6	B
	Subtotal	2,517	2,306	91.6%	52.5	11.1	D
EB	Left Turn	649	539	83.1%	193.5	64.2	F
	Through	4	4	110.0%	31.8	26.3	C
	Right Turn	358	340	95.1%	48.8	21.7	D
	Subtotal	1,011	884	87.4%	137.4	46.6	F
WB	Left Turn	140	135	96.3%	60.3	7.8	E
	Through	30	30	98.7%	58.2	17.1	E
	Right Turn	377	344	91.4%	26.9	8.4	C
	Subtotal	547	509	93.0%	37.2	4.7	D
Total		6,447	5,751	89.2%	63.9	7.9	E

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Alternative 1 Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 34 **Roseville Pkwy/Pleasant Grove Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1,107	960	86.7%	77.5	10.9	E
	Through	1,299	1,073	82.6%	100.7	25.1	F
	Right Turn	832	703	84.5%	4.5	1.2	A
	Subtotal	3,238	2,736	84.5%	68.1	10.4	E
SB	Left Turn	377	308	81.7%	176.9	69.4	F
	Through	996	868	87.1%	241.3	81.4	F
	Right Turn	28	26	92.9%	144.8	83.9	F
	Subtotal	1,401	1,202	85.8%	223.2	79.7	F
EB	Left Turn	35	35	99.4%	146.5	40.5	F
	Through	1,259	1,268	100.7%	154.8	34.7	F
	Right Turn	782	774	99.0%	62.3	32.1	E
	Subtotal	2,076	2,077	100.1%	120.2	34.7	F
WB	Left Turn	716	515	72.0%	211.8	16.2	F
	Through	1,524	1,427	93.6%	41.1	4.0	D
	Right Turn	282	283	100.3%	9.3	1.7	A
	Subtotal	2,522	2,225	88.2%	76.4	3.4	E
Total		9,237	8,240	89.2%	105.0	12.9	F

Intersection 36 **SR 65 SB Ramps/Pleasant Grove Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	126	121	96.2%	138.7	84.4	F
	Through						
	Right Turn	553	522	94.4%	155.4	86.6	F
	Subtotal	679	643	94.7%	152.2	86.4	F
EB	Left Turn						
	Through	1,995	1,584	79.4%	20.7	2.1	C
	Right Turn	1,025	877	85.6%	10.6	1.0	B
	Subtotal	3,020	2,462	81.5%	17.1	1.6	B
WB	Left Turn						
	Through	2,114	1,959	92.7%	13.1	2.2	B
	Right Turn	540	488	90.3%	9.3	1.3	A
	Subtotal	2,654	2,447	92.2%	12.3	2.0	B
Total		6,353	5,552	87.4%	30.1	9.6	C

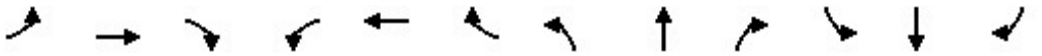
Intersection 37 **SR 65 NB Ramps/Pleasant Grove Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	836	892	106.7%	23.2	5.0	C
	Through						
	Right Turn	1,267	1,237	97.6%	54.6	19.4	D
	Subtotal	2,103	2,129	101.2%	41.4	13.0	D
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	1,540	1,213	78.8%	40.2	6.1	D
	Right Turn	581	484	83.4%	9.8	1.0	A
	Subtotal	2,121	1,697	80.0%	31.5	4.9	C
WB	Left Turn	222	190	85.6%	67.7	19.7	E
	Through	1,818	1,570	86.3%	20.3	2.5	C
	Right Turn						
	Subtotal	2,040	1,760	86.3%	25.6	2.6	C
Total		6,264	5,586	89.2%	33.5	5.6	C

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Alternative 1 Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 38 **Pleasant Grove Blvd/Fairway Dr** **Signal**

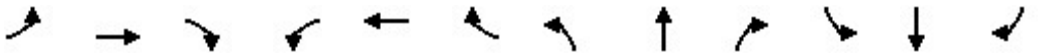
Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1,015	889	87.6%	57.3	6.0	E
	Through	1,165	1,082	92.8%	35.5	2.2	D
	Right Turn	517	455	88.0%	22.5	3.1	C
	Subtotal	2,697	2,425	89.9%	41.1	3.7	D
SB	Left Turn	102	109	107.1%	80.2	26.3	F
	Through	696	733	105.3%	70.2	7.2	E
	Right Turn	194	198	102.3%	30.8	6.5	C
	Subtotal	992	1,040	104.9%	64.1	9.2	E
EB	Left Turn	294	268	91.3%	66.3	5.0	E
	Through	568	562	99.0%	51.6	6.3	D
	Right Turn	687	545	79.4%	200.2	55.5	F
	Subtotal	1,549	1,376	88.8%	113.0	22.8	F
WB	Left Turn	630	464	73.6%	178.9	49.2	F
	Through	598	524	87.6%	77.6	29.6	E
	Right Turn	116	119	102.8%	52.7	30.0	D
	Subtotal	1,344	1,106	82.3%	117.3	37.1	F
Total		6,582	5,948	90.4%	75.9	10.6	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	64	18	167	135	69	32	1477	158	59	1205	40
Future Volume (veh/h)	14	64	18	167	135	69	32	1477	158	59	1205	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	64	18	167	135	69	32	1477	158	59	1205	40
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	24	166	74	211	539	240	48	2506	778	75	2583	802
Arrive On Green	0.01	0.05	0.05	0.12	0.15	0.15	0.03	0.49	0.49	0.04	0.51	0.51
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	14	64	18	167	135	69	32	1477	158	59	1205	40
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	0.5	1.2	0.7	6.1	2.3	2.6	1.2	13.9	3.8	2.2	10.3	0.9
Cycle Q Clear(g_c), s	0.5	1.2	0.7	6.1	2.3	2.6	1.2	13.9	3.8	2.2	10.3	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	24	166	74	211	539	240	48	2506	778	75	2583	802
V/C Ratio(X)	0.57	0.39	0.24	0.79	0.25	0.29	0.67	0.59	0.20	0.79	0.47	0.05
Avail Cap(c_a), veh/h	186	1692	755	928	3278	1462	186	2788	865	186	2788	865
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.0	31.1	30.9	28.8	25.1	25.3	32.4	12.3	9.7	31.9	10.7	8.4
Incr Delay (d2), s/veh	7.7	0.5	0.6	2.5	0.1	0.2	5.9	0.6	0.4	6.8	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.5	0.3	2.6	0.9	0.9	0.6	4.3	1.2	1.0	3.1	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.6	31.7	31.5	31.3	25.2	25.5	38.4	12.9	10.0	38.7	11.1	8.5
LnGrp LOS	D	C	C	C	C	C	D	B	B	D	B	A
Approach Vol, veh/h		96			371			1667			1304	
Approach Delay, s/veh		32.9			28.0			13.1			12.3	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	38.3	13.0	8.1	6.8	39.3	5.9	15.2
Change Period (Y+Rc), s	5.0	5.3	5.0	5.0	5.0	5.3	5.0	5.0
Max Green Setting (Gmax), s	7.0	36.7	35.0	32.0	7.0	36.7	7.0	62.0
Max Q Clear Time (g_c+I1), s	4.2	15.9	8.1	3.2	3.2	12.3	2.5	4.6
Green Ext Time (p_c), s	0.0	17.1	0.2	0.2	0.0	16.2	0.0	0.7

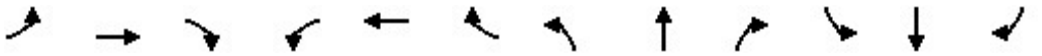
Intersection Summary	
HCM 6th Ctrl Delay	15.0
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	278	5	2	401	5	5	5	1	5	5	2
Future Volume (veh/h)	1	278	5	2	401	5	5	5	1	5	5	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	278	5	2	401	5	5	5	1	5	5	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	6	824	367	6	827	369	10	237	201	10	237	201
Arrive On Green	0.00	0.23	0.23	0.00	0.23	0.23	0.01	0.13	0.13	0.01	0.13	0.13
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	1	278	5	2	401	5	5	5	1	5	5	2
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.0	2.1	0.1	0.0	3.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0
Cycle Q Clear(g_c), s	0.0	2.1	0.1	0.0	3.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	6	824	367	6	827	369	10	237	201	10	237	201
V/C Ratio(X)	0.18	0.34	0.01	0.35	0.48	0.01	0.52	0.02	0.00	0.52	0.02	0.01
Avail Cap(c_a), veh/h	395	2928	1306	395	2928	1306	395	1838	1557	395	1719	1457
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.7	10.1	9.3	15.7	10.5	9.3	15.6	12.1	12.0	15.6	12.1	12.0
Incr Delay (d2), s/veh	14.3	0.2	0.0	33.9	0.4	0.0	36.7	0.0	0.0	36.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.6	0.0	0.1	0.9	0.0	0.1	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	10.3	9.4	49.6	10.9	9.3	52.3	12.1	12.0	52.3	12.1	12.1
LnGrp LOS	C	B	A	D	B	A	D	B	B	D	B	B
Approach Vol, veh/h		284			408			11			12	
Approach Delay, s/veh		10.4			11.1			30.4			28.9	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.2	9.0	5.1	12.3	5.2	9.0	5.0	12.3
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	31.0	7.0	26.0	7.0	29.0	7.0	26.0
Max Q Clear Time (g_c+I1), s	2.1	2.1	2.0	4.1	2.1	2.1	2.0	5.1
Green Ext Time (p_c), s	0.0	0.0	0.0	1.7	0.0	0.0	0.0	2.5

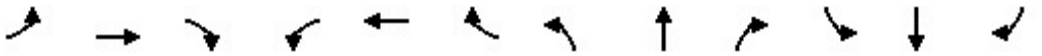
Intersection Summary	
HCM 6th Ctrl Delay	11.4
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	223	37	32	501	24	47	127	25	7	44	41
Future Volume (veh/h)	20	223	37	32	501	24	47	127	25	7	44	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	223	37	32	501	24	47	127	25	7	44	41
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	21	847	378	55	914	408	76	300	254	13	234	198
Arrive On Green	0.01	0.24	0.24	0.03	0.26	0.26	0.04	0.16	0.16	0.01	0.13	0.13
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	20	223	37	32	501	24	47	127	25	7	44	41
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.4	1.6	0.6	0.6	3.9	0.4	0.8	2.0	0.4	0.1	0.7	0.7
Cycle Q Clear(g_c), s	0.4	1.6	0.6	0.6	3.9	0.4	0.8	2.0	0.4	0.1	0.7	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	21	847	378	55	914	408	76	300	254	13	234	198
V/C Ratio(X)	0.93	0.26	0.10	0.58	0.55	0.06	0.62	0.42	0.10	0.52	0.19	0.21
Avail Cap(c_a), veh/h	418	1834	818	418	1834	818	418	1550	1313	418	1550	1313
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.8	9.9	9.5	15.3	10.3	9.0	15.1	12.1	11.5	15.8	12.5	12.6
Incr Delay (d2), s/veh	73.4	0.2	0.1	9.3	0.5	0.1	7.9	1.0	0.2	27.9	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.5	0.1	0.3	1.1	0.1	0.4	0.7	0.1	0.1	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	89.2	10.1	9.6	24.6	10.8	9.0	23.0	13.0	11.6	43.7	12.9	13.1
LnGrp LOS	F	B	A	C	B	A	C	B	B	D	B	B
Approach Vol, veh/h		280			557			199			92	
Approach Delay, s/veh		15.7			11.5			15.2			15.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.7	9.6	5.5	12.1	5.9	8.5	4.9	12.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	26.5	7.5	16.5	7.5	26.5	7.5	16.5
Max Q Clear Time (g_c+I1), s	2.1	4.0	2.6	3.6	2.8	2.7	2.4	5.9
Green Ext Time (p_c), s	0.0	0.7	0.0	1.1	0.0	0.3	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	13.5
HCM 6th LOS	B

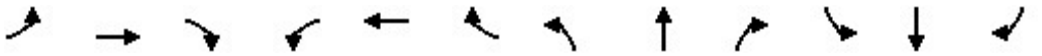


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	424	52	42	16	217	253	21	1753	47	180	2231	486
Future Volume (veh/h)	424	52	42	16	217	253	21	1753	47	180	2231	486
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	461	0	8	16	217	130	21	1753	17	180	2231	286
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	546	0	243	19	259	237	62	2135	663	186	2491	773
Arrive On Green	0.15	0.00	0.15	0.15	0.15	0.15	0.03	0.42	0.42	0.10	0.49	0.49
Sat Flow, veh/h	3563	0	1585	128	1736	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	461	0	8	233	0	130	21	1753	17	180	2231	286
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1864	0	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	13.3	0.0	0.5	12.8	0.0	8.0	1.2	32.0	0.7	10.6	41.9	11.9
Cycle Q Clear(g_c), s	13.3	0.0	0.5	12.8	0.0	8.0	1.2	32.0	0.7	10.6	41.9	11.9
Prop In Lane	1.00		1.00	0.07		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	546	0	243	278	0	237	62	2135	663	186	2491	773
V/C Ratio(X)	0.84	0.00	0.03	0.84	0.00	0.55	0.34	0.82	0.03	0.97	0.90	0.37
Avail Cap(c_a), veh/h	1387	0	617	513	0	436	135	2210	686	186	2491	773
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.4	0.0	37.9	43.6	0.0	41.5	49.6	27.2	18.0	47.0	24.5	16.9
Incr Delay (d2), s/veh	1.4	0.0	0.0	2.6	0.0	0.7	1.2	2.7	0.0	56.1	4.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	0.0	0.2	6.1	0.0	3.2	0.6	13.1	0.2	7.6	17.1	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.8	0.0	38.0	46.1	0.0	42.3	50.8	29.9	18.0	103.1	29.4	17.3
LnGrp LOS	D	A	D	D	A	D	D	C	B	F	C	B
Approach Vol, veh/h		469			363			1791			2697	
Approach Delay, s/veh		44.7			44.7			30.0			33.0	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	50.5		20.2	7.7	57.8		19.7				
Change Period (Y+Rc), s	4.0	6.4		4.0	4.0	6.4		4.0				
Max Green Setting (Gmax), s	11.0	45.6		41.0	8.0	48.6		29.0				
Max Q Clear Time (g_c+I1), s	12.6	34.0		15.3	3.2	43.9		14.8				
Green Ext Time (p_c), s	0.0	10.0		0.9	0.0	4.6		0.9				

Intersection Summary			
HCM 6th Ctrl Delay		33.8	
HCM 6th LOS		C	

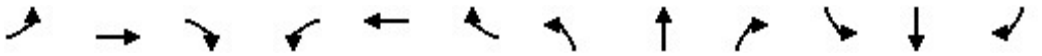
Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	662	1222	36	576	1411	279	24	767	299	203	694	613
Future Volume (veh/h)	662	1222	36	576	1411	279	24	767	299	203	694	613
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	662	1222	11	576	1411	182	24	767	78	203	694	308
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	704	1751	544	647	1667	517	67	1061	329	235	1309	406
Arrive On Green	0.20	0.34	0.34	0.19	0.33	0.33	0.02	0.21	0.21	0.07	0.26	0.26
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	662	1222	11	576	1411	182	24	767	78	203	694	308
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	19.4	21.3	0.5	16.8	26.5	9.0	0.7	14.4	4.2	6.0	12.1	18.5
Cycle Q Clear(g_c), s	19.4	21.3	0.5	16.8	26.5	9.0	0.7	14.4	4.2	6.0	12.1	18.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	704	1751	544	647	1667	517	67	1061	329	235	1309	406
V/C Ratio(X)	0.94	0.70	0.02	0.89	0.85	0.35	0.36	0.72	0.24	0.86	0.53	0.76
Avail Cap(c_a), veh/h	704	1784	554	704	1784	554	235	1784	554	235	1784	554
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.4	29.2	22.4	40.8	32.3	26.4	49.9	38.1	34.0	47.6	33.0	35.4
Incr Delay (d2), s/veh	20.6	1.2	0.0	12.8	3.8	0.4	3.2	0.9	0.4	26.8	0.3	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.9	8.4	0.2	8.0	10.8	3.3	0.3	5.8	1.6	3.4	4.8	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.0	30.4	22.4	53.6	36.1	26.8	53.1	39.0	34.4	74.4	33.3	39.4
LnGrp LOS	E	C	C	D	D	C	D	D	C	E	C	D
Approach Vol, veh/h		1895			2169			869			1205	
Approach Delay, s/veh		41.1			40.0			39.0			41.8	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	26.4	24.3	40.3	7.0	31.4	26.0	38.6
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	36.0	21.0	36.0	7.0	36.0	21.0	36.0
Max Q Clear Time (g_c+I1), s	8.0	16.4	18.8	23.3	2.7	20.5	21.4	28.5
Green Ext Time (p_c), s	0.0	5.0	0.5	6.3	0.0	4.9	0.0	5.1

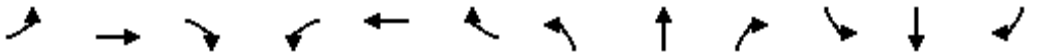
Intersection Summary	
HCM 6th Ctrl Delay	40.5
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	1526	216	18	2115	156	197	103	10	65	69	17
Future Volume (veh/h)	105	1526	216	18	2115	156	197	103	10	65	69	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	1526	216	18	2115	156	197	103	10	65	69	17
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	2332	724	31	2036	632	245	313	265	83	143	121
Arrive On Green	0.08	0.46	0.46	0.02	0.40	0.40	0.14	0.17	0.17	0.05	0.08	0.08
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	105	1526	216	18	2115	156	197	103	10	65	69	17
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	3.3	13.4	4.9	0.6	23.0	3.8	6.2	2.8	0.3	2.1	2.0	0.6
Cycle Q Clear(g_c), s	3.3	13.4	4.9	0.6	23.0	3.8	6.2	2.8	0.3	2.1	2.0	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	134	2332	724	31	2036	632	245	313	265	83	143	121
V/C Ratio(X)	0.78	0.65	0.30	0.58	1.04	0.25	0.80	0.33	0.04	0.79	0.48	0.14
Avail Cap(c_a), veh/h	154	2332	724	154	2036	632	309	1102	934	309	1102	934
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.2	12.1	9.9	28.1	17.3	11.6	24.1	21.2	20.1	27.2	25.5	24.9
Incr Delay (d2), s/veh	19.9	0.9	0.4	16.1	30.9	0.4	11.6	0.6	0.1	15.1	2.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	3.9	1.4	0.4	12.7	1.1	3.2	1.2	0.1	1.2	0.9	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.1	13.0	10.3	44.2	48.2	12.0	35.7	21.8	20.2	42.3	28.1	25.4
LnGrp LOS	D	B	B	D	F	B	D	C	C	D	C	C
Approach Vol, veh/h		1847			2289			310			151	
Approach Delay, s/veh		14.6			45.7			30.6			33.9	
Approach LOS		B			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	13.7	5.0	32.3	11.9	8.4	8.3	29.0
Change Period (Y+Rc), s	4.0	4.0	4.0	6.0	4.0	4.0	4.0	6.0
Max Green Setting (Gmax), s	10.0	34.0	5.0	23.0	10.0	34.0	5.0	23.0
Max Q Clear Time (g_c+I1), s	4.1	4.8	2.6	15.4	8.2	4.0	5.3	25.0
Green Ext Time (p_c), s	0.0	0.5	0.0	6.7	0.1	0.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	31.8
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	541	850	208	275	1401	291	160	795	542	355	1333	602
Future Volume (veh/h)	541	850	208	275	1401	291	160	795	542	355	1333	602
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1870	1870	1841	1841	1870	1870	1870	1841	1870	1841
Adj Flow Rate, veh/h	541	850	68	275	1401	151	160	795	353	355	1333	575
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	2	2	4	4	2	2	2	4	2	4
Cap, veh/h	510	1587	501	322	1302	404	183	1367	424	323	1784	779
Arrive On Green	0.15	0.32	0.32	0.09	0.26	0.26	0.10	0.27	0.27	0.18	0.35	0.35
Sat Flow, veh/h	3401	5025	1585	3456	5025	1560	1781	5106	1585	1753	5106	1560
Grp Volume(v), veh/h	541	850	68	275	1401	151	160	795	353	355	1333	575
Grp Sat Flow(s),veh/h/ln	1700	1675	1585	1728	1675	1560	1781	1702	1585	1753	1702	1560
Q Serve(g_s), s	22.0	20.4	4.5	11.5	38.0	11.6	13.0	19.8	30.8	27.0	33.7	42.9
Cycle Q Clear(g_c), s	22.0	20.4	4.5	11.5	38.0	11.6	13.0	19.8	30.8	27.0	33.7	42.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	510	1587	501	322	1302	404	183	1367	424	323	1784	779
V/C Ratio(X)	1.06	0.54	0.14	0.85	1.08	0.37	0.88	0.58	0.83	1.10	0.75	0.74
Avail Cap(c_a), veh/h	510	1587	501	377	1302	404	206	1483	460	323	1831	793
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.3	41.3	35.9	65.5	54.3	44.6	64.9	46.6	50.6	59.8	42.0	29.1
Incr Delay (d2), s/veh	56.8	0.6	0.2	13.5	48.1	1.1	27.4	0.7	12.5	79.7	1.9	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.2	8.2	1.8	5.6	21.4	4.6	7.3	8.6	13.4	18.7	13.8	16.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	119.2	41.9	36.1	79.1	102.5	45.7	92.3	47.3	63.1	139.5	43.9	33.1
LnGrp LOS	F	D	D	E	F	D	F	D	E	F	D	C
Approach Vol, veh/h		1459			1827			1308			2263	
Approach Delay, s/veh		70.3			94.2			57.1			56.2	
Approach LOS		E			F			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.0	45.7	17.7	52.3	19.0	57.6	26.0	44.0
Change Period (Y+Rc), s	4.0	6.4	4.0	6.0	4.0	6.4	4.0	6.0
Max Green Setting (Gmax), s	27.0	42.6	16.0	44.0	17.0	52.6	22.0	38.0
Max Q Clear Time (g_c+I1), s	29.0	32.8	13.5	22.4	15.0	44.9	24.0	40.0
Green Ext Time (p_c), s	0.0	5.7	0.2	15.5	0.1	6.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	69.5
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	239	396	453	62	548	103	720	1351	70	150	2053	222
Future Volume (veh/h)	239	396	453	62	548	103	720	1351	70	150	2053	222
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	239	396	194	62	548	23	720	1351	33	150	2053	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	230	761	339	79	681	304	645	2611	810	173	2153	
Arrive On Green	0.07	0.21	0.21	0.04	0.19	0.19	0.19	0.51	0.51	0.10	0.42	0.00
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	239	396	194	62	548	23	720	1351	33	150	2053	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1702	1585	1781	1702	1585
Q Serve(g_s), s	10.0	14.8	16.4	5.2	22.1	1.8	28.0	26.4	1.6	12.5	58.3	0.0
Cycle Q Clear(g_c), s	10.0	14.8	16.4	5.2	22.1	1.8	28.0	26.4	1.6	12.5	58.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	230	761	339	79	681	304	645	2611	810	173	2153	
V/C Ratio(X)	1.04	0.52	0.57	0.79	0.80	0.08	1.12	0.52	0.04	0.87	0.95	
Avail Cap(c_a), veh/h	230	1019	454	95	995	444	645	2611	810	249	2153	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	70.0	52.1	52.8	71.0	57.9	49.7	61.0	24.4	18.3	66.8	42.0	0.0
Incr Delay (d2), s/veh	69.4	0.9	2.6	24.3	5.3	0.2	71.8	0.7	0.1	14.7	10.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	6.6	6.7	2.9	10.2	0.7	18.3	10.3	0.6	6.2	25.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	139.4	53.1	55.4	95.3	63.2	50.0	132.8	25.1	18.4	81.4	52.6	0.0
LnGrp LOS	F	D	E	F	E	D	F	C	B	F	D	
Approach Vol, veh/h		829			633			2104			2203	A
Approach Delay, s/veh		78.5			65.9			61.8			54.6	
Approach LOS		E			E			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.6	82.7	10.6	38.1	32.0	69.3	14.0	34.7
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	* 6
Max Green Setting (Gmax), s	21.0	58.0	8.0	43.0	28.0	51.0	10.0	* 42
Max Q Clear Time (g_c+I1), s	14.5	28.4	7.2	18.4	30.0	60.3	12.0	24.1
Green Ext Time (p_c), s	0.1	9.0	0.0	4.6	0.0	0.0	0.0	4.6

Intersection Summary	
HCM 6th Ctrl Delay	61.9
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Alternative 1 Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 63 **Gibson Dr (W)/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	68	51	74.7%	87.1	25.1	F
	Through						
	Right Turn	883	857	97.1%	29.3	18.9	C
	Subtotal	951	908	95.5%	32.5	18.3	C
EB	Left Turn	375	301	80.3%	79.2	16.3	E
	Through	2,119	1,840	86.8%	34.7	19.4	C
	Right Turn						
	Subtotal	2,494	2,141	85.9%	40.9	19.3	D
WB	Left Turn						
	Through	2,355	2,046	86.9%	41.3	22.9	D
	Right Turn	96	87	90.8%	21.0	14.5	C
	Subtotal	2,451	2,133	87.0%	40.5	22.4	D
Total		5,896	5,182	87.9%	39.0	13.5	D

Intersection 64 **Chase Dr/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	61	47	76.7%	69.4	11.4	E
	Through						
	Right Turn	83	70	83.9%	2.0	0.2	A
	Subtotal	144	116	80.8%	27.9	8.5	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	2,075	1,768	85.2%	46.4	13.7	D
	Right Turn	112	89	79.6%	23.4	12.5	C
	Subtotal	2,187	1,857	84.9%	45.3	13.7	D
WB	Left Turn	521	484	93.0%	77.4	6.0	E
	Through	2,390	2,172	90.9%	15.7	1.3	B
	Right Turn						
	Subtotal	2,911	2,656	91.3%	27.0	2.1	C
Total		5,242	4,630	88.3%	34.4	6.6	C

Intersection 65 **Gibson Dr (E) /Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	2	2	80.0%	36.6	54.2	D
	Through	6	7	120.0%	68.8	41.0	E
	Right Turn	10	10	104.0%	17.7	12.9	B
	Subtotal	18	19	106.7%	51.5	20.2	D
SB	Left Turn	1,255	1,023	81.5%	206.5	61.1	F
	Through	5	2	40.0%	142.6	134.9	F
	Right Turn	391	340	86.9%	176.4	65.1	F
	Subtotal	1,651	1,364	82.6%	199.2	62.3	F
EB	Left Turn	315	188	59.6%	230.7	36.5	F
	Through	1,833	1,508	82.3%	57.6	7.9	E
	Right Turn	10	6	64.0%	50.6	24.2	D
	Subtotal	2,158	1,702	78.9%	77.1	11.3	E
WB	Left Turn	34	25	74.1%	93.7	15.5	F
	Through	2,518	2,396	95.1%	68.3	19.5	E
	Right Turn	705	630	89.3%	40.3	15.4	D
	Subtotal	3,257	3,050	93.7%	62.9	18.4	E
Total		7,084	6,136	86.6%	96.4	14.7	F

Intersection 66 **West Dr/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	70	53	76.0%	75.8	14.8	E
	Through	2,990	2,793	93.4%	30.3	6.6	C
	Right Turn	98	97	98.8%	7.0	1.1	A
	Subtotal	3,158	2,943	93.2%	30.3	6.3	C
SB	Left Turn	175	128	73.1%	99.1	15.9	F
	Through	2,870	2,239	78.0%	52.9	23.9	D
	Right Turn	53	43	80.8%	36.9	20.9	D
	Subtotal	3,098	2,410	77.8%	55.0	23.2	E
EB	Left Turn	60	68	114.0%	84.9	23.5	F
	Through	6	6	100.0%	71.7	76.4	E
	Right Turn	52	52	100.0%	37.9	8.8	D
	Subtotal	118	126	107.1%	66.5	19.8	E
WB	Left Turn	140	140	100.0%	58.0	9.1	E
	Through	5	4	88.0%	38.1	39.0	D
	Right Turn	207	207	99.9%	36.6	8.9	D
	Subtotal	352	351	99.8%	45.6	5.6	D
Total		6,726	5,831	86.7%	42.4	11.9	D

Intersection 67 **Reserve Dr/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	373	394	105.5%	64.9	15.6	E
	Through	43	43	99.5%	72.4	30.9	E
	Right Turn	395	388	98.2%	53.4	25.0	D
	Subtotal	811	824	101.7%	59.9	19.5	E
SB	Left Turn	154	168	108.8%	55.6	6.8	E
	Through	66	71	107.3%	66.1	9.0	E
	Right Turn	81	81	100.2%	1.0	0.4	A
	Subtotal	301	320	106.2%	44.2	3.5	D
EB	Left Turn	43	32	75.3%	95.1	25.9	F
	Through	2,669	2,125	79.6%	93.9	18.8	F
	Right Turn	350	268	76.5%	75.1	23.9	E
	Subtotal	3,062	2,425	79.2%	91.9	19.2	F
WB	Left Turn	328	279	85.0%	94.6	25.3	F
	Through	2,704	2,546	94.1%	32.2	8.0	C
	Right Turn	180	173	96.2%	16.6	6.3	B
	Subtotal	3,212	2,998	93.3%	37.0	8.6	D
Total		7,386	6,567	88.9%	60.5	9.8	E

Intersection 68 **Galleria Blvd/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	604	616	102.0%	84.7	17.7	F
	Through	914	953	104.3%	95.3	25.1	F
	Right Turn	77	67	87.3%	13.5	10.8	B
	Subtotal	1,595	1,636	102.6%	88.4	21.8	F
SB	Left Turn	837	709	84.7%	126.4	26.5	F
	Through	745	674	90.5%	44.3	4.9	D
	Right Turn	563	552	98.0%	11.7	2.8	B
	Subtotal	2,145	1,935	90.2%	65.1	11.9	E
EB	Left Turn	831	647	77.9%	146.4	24.7	F
	Through	1,569	1,336	85.1%	54.5	8.2	D
	Right Turn	818	708	86.6%	19.1	5.0	B
	Subtotal	3,218	2,691	83.6%	67.3	10.5	E
WB	Left Turn	248	200	80.6%	98.0	13.1	F
	Through	2,045	1,881	92.0%	51.7	5.2	D
	Right Turn	772	733	94.9%	7.2	1.2	A
	Subtotal	3,065	2,814	91.8%	43.4	4.0	D
Total		10,023	9,076	90.6%	63.2	5.9	E

Intersection 69 **Creekside Ridge Dr/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	38	42	111.6%	68.1	8.7	E
	Through	7	8	108.6%	59.3	51.7	E
	Right Turn	30	27	90.7%	6.0	2.1	A
	Subtotal	75	77	102.9%	47.3	10.2	D
SB	Left Turn	323	340	105.3%	58.8	3.7	E
	Through	1	0	40.0%	11.5	36.4	B
	Right Turn	156	156	100.0%	40.7	8.9	D
	Subtotal	480	496	103.4%	53.1	2.4	D
EB	Left Turn	76	63	83.2%	60.4	15.6	E
	Through	2,390	2,024	84.7%	16.0	3.6	B
	Right Turn	7	5	68.6%	5.9	1.3	A
	Subtotal	2,473	2,092	84.6%	17.2	3.4	B
WB	Left Turn	16	15	95.0%	116.2	11.0	F
	Through	2,731	2,454	89.9%	35.3	7.0	D
	Right Turn	351	295	84.0%	26.6	5.6	C
	Subtotal	3,098	2,764	89.2%	34.8	6.8	C
Total		6,126	5,429	88.6%	29.9	3.8	C

Intersection 70 **Taylor Rd/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	625	442	70.8%	217.6	49.3	F
	Through	731	610	83.5%	251.2	46.4	F
	Right Turn	241	194	80.3%	231.1	53.0	F
	Subtotal	1,597	1,246	78.0%	236.2	47.9	F
SB	Left Turn	558	493	88.4%	136.8	21.3	F
	Through	363	393	108.2%	95.5	21.1	F
	Right Turn	269	256	95.3%	48.1	18.7	D
	Subtotal	1,190	1,142	96.0%	103.1	20.9	F
EB	Left Turn	251	204	81.1%	122.8	15.8	F
	Through	2,232	1,893	84.8%	78.0	15.0	E
	Right Turn	260	226	87.1%	40.2	11.2	D
	Subtotal	2,743	2,323	84.7%	78.3	14.1	E
WB	Left Turn	229	197	86.1%	74.5	9.6	E
	Through	2,124	2,019	95.0%	60.5	7.6	E
	Right Turn	914	713	78.0%	92.3	4.7	F
	Subtotal	3,267	2,929	89.7%	69.2	6.3	E
Total		8,797	7,641	86.9%	104.0	7.5	F

Intersection 71 **N Sunrise Ave/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	576	574	99.7%	105.8	25.5	F
	Through	110	97	88.4%	48.1	8.6	D
	Right Turn	485	473	97.5%	9.2	6.8	A
	Subtotal	1,171	1,144	97.7%	61.0	16.6	E
SB	Left Turn	47	33	69.8%	214.1	58.9	F
	Through	315	256	81.1%	187.2	61.4	F
	Right Turn	320	284	88.6%	32.0	5.0	C
	Subtotal	682	572	83.9%	113.0	31.2	F
EB	Left Turn	135	104	77.3%	110.3	20.6	F
	Through	2,343	1,937	82.7%	75.5	16.9	E
	Right Turn	553	432	78.2%	31.8	10.4	C
	Subtotal	3,031	2,474	81.6%	69.4	16.1	E
WB	Left Turn	337	318	94.5%	150.6	33.0	F
	Through	2,371	2,130	89.8%	77.0	10.4	E
	Right Turn	28	16	57.1%	54.9	21.8	D
	Subtotal	2,736	2,464	90.1%	86.5	11.7	F
Total		7,620	6,655	87.3%	77.9	6.7	E

Intersection 72 **Secret Ravine Pkwy/Roseville Pkwy** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	4	3	80.0%	52.3	59.7	D
	Through						
	Right Turn						
	Subtotal	4	3	80.0%	52.3	59.7	D
SB	Left Turn	151	134	89.0%	71.9	8.0	E
	Through						
	Right Turn	628	606	96.5%	36.5	3.7	D
	Subtotal	779	740	95.0%	43.0	3.1	D
EB	Left Turn	817	602	73.7%	57.1	4.5	E
	Through	2,024	1,706	84.3%	17.9	1.3	B
	Right Turn	4	2	60.0%	17.7	16.1	B
	Subtotal	2,845	2,310	81.2%	28.1	1.8	C
WB	Left Turn	31	20	65.8%	106.5	29.7	F
	Through	2,104	1,869	88.8%	110.4	38.5	F
	Right Turn	149	106	71.1%	142.4	86.2	F
	Subtotal	2,284	1,995	87.4%	111.9	39.7	F
Total		5,912	5,049	85.4%	63.1	14.7	E

Intersection 73 **Roseville Pkwy/Alexandra Dr** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	2,058	2,106	102.3%	16.6	3.6	B
	Right Turn	421	441	104.8%	14.1	2.1	B
	Subtotal	2,479	2,547	102.8%	16.2	3.3	B
SB	Left Turn	128	97	75.6%	39.1	6.9	D
	Through	1,867	1,605	86.0%	7.2	1.4	A
	Right Turn						
	Subtotal	1,995	1,702	85.3%	8.9	1.5	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	115	126	109.6%	31.0	3.0	C
	Through						
	Right Turn	76	84	110.5%	13.8	2.6	B
	Subtotal	191	210	109.9%	24.4	2.7	C
Total		4,665	4,459	95.6%	13.8	2.2	B

Intersection 74 **Roseville Pkwy/Rocky Ridge Dr** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	150	131	87.5%	86.4	10.4	F
	Through	2,038	2,042	100.2%	10.7	1.3	B
	Right Turn						
	Subtotal	2,188	2,174	99.3%	15.3	1.1	B
SB	Left Turn						
	Through	1,705	1,456	85.4%	14.1	2.1	B
	Right Turn	277	255	92.1%	8.2	0.6	A
	Subtotal	1,982	1,711	86.3%	13.2	1.8	B
EB	Left Turn	441	438	99.2%	51.9	5.4	D
	Through						
	Right Turn	438	445	101.6%	36.3	5.4	D
	Subtotal	879	883	100.4%	44.2	2.9	D
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		5,049	4,767	94.4%	19.9	1.4	B

Intersection 75 **Roseville Pkwy/Lead Hill Blvd** **Signal**

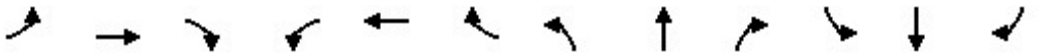
Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	191	164	86.1%	69.6	8.1	E
	Through	1,897	1,841	97.1%	12.5	1.3	B
	Right Turn	6	6	100.0%	2.6	3.1	A
	Subtotal	2,094	2,012	96.1%	17.1	1.3	B
SB	Left Turn	17	9	54.1%	95.5	22.3	F
	Through	2,026	1,814	89.5%	15.4	1.4	B
	Right Turn	100	93	93.2%	7.3	1.3	A
	Subtotal	2,143	1,916	89.4%	15.4	1.2	B
EB	Left Turn	286	302	105.5%	87.8	11.7	F
	Through	30	32	106.7%	88.1	23.5	F
	Right Turn	216	216	100.0%	25.7	6.4	C
	Subtotal	532	550	103.3%	63.4	7.3	E
WB	Left Turn	4	5	120.0%	39.0	36.5	D
	Through	39	43	109.7%	68.2	10.5	E
	Right Turn	5	6	128.0%	30.6	24.9	C
	Subtotal	48	54	112.5%	64.8	10.7	E
Total		4,817	4,531	94.1%	22.6	1.5	C

Intersection 76 **Roseville Pkwy/Olympus Dr** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	20	17	84.0%	54.7	23.1	D
	Through	1,765	1,643	93.1%	36.8	4.3	D
	Right Turn	266	252	94.6%	9.6	0.4	A
	Subtotal	2,051	1,911	93.2%	33.4	3.9	C
SB	Left Turn	400	333	83.3%	109.9	14.8	F
	Through	1,819	1,563	85.9%	52.7	12.9	D
	Right Turn	52	49	93.8%	45.4	8.3	D
	Subtotal	2,271	1,945	85.6%	62.3	12.7	E
EB	Left Turn	82	69	84.4%	246.1	57.0	F
	Through	240	202	84.2%	196.5	70.3	F
	Right Turn	130	118	90.8%	189.3	75.0	F
	Subtotal	452	389	86.1%	204.3	65.0	F
WB	Left Turn	65	56	85.5%	62.8	10.4	E
	Through	187	179	95.6%	49.1	5.6	D
	Right Turn	247	262	105.9%	1.9	0.2	A
	Subtotal	499	496	99.4%	25.9	3.5	C
Total		5,273	4,741	89.9%	58.3	7.6	E

Intersection 77 **Roseville Pkwy/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	241	240	99.6%	79.7	9.4	E
	Through	571	592	103.6%	50.3	4.4	D
	Right Turn	55	60	109.8%	20.4	6.3	C
	Subtotal	867	892	102.9%	56.2	2.3	E
SB	Left Turn	736	599	81.4%	91.7	20.9	F
	Through	1,219	1,068	87.6%	45.1	3.2	D
	Right Turn	154	137	89.1%	12.7	3.0	B
	Subtotal	2,109	1,804	85.6%	58.1	8.2	E
EB	Left Turn	222	157	70.6%	158.2	29.4	F
	Through	1,921	1,704	88.7%	25.0	3.3	C
	Right Turn	261	226	86.4%	12.9	1.5	B
	Subtotal	2,404	2,086	86.8%	33.7	3.6	C
WB	Left Turn	123	113	91.7%	106.0	28.9	F
	Through	1,705	1,610	94.5%	87.4	17.7	F
	Right Turn	1,164	1,058	90.9%	136.3	37.9	F
	Subtotal	2,992	2,781	92.9%	106.7	24.6	F
Total		8,372	7,563	90.3%	68.9	8.9	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	658	609	232	624	142	696	616	113	577	949	56
Future Volume (veh/h)	34	658	609	232	624	142	696	616	113	577	949	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2001	1924	1924	2001	1924	1924	2001	1924	1924	1954	1879	1879
Adj Flow Rate, veh/h	34	658	547	232	624	65	696	616	21	577	949	17
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	92	889	728	212	1120	497	757	633	280	607	1053	467
Arrive On Green	0.05	0.24	0.24	0.11	0.31	0.31	0.20	0.17	0.17	0.33	0.29	0.29
Sat Flow, veh/h	1906	3656	1621	1906	3656	1623	3698	3656	1617	1861	3571	1585
Grp Volume(v), veh/h	34	658	547	232	624	65	696	616	21	577	949	17
Grp Sat Flow(s),veh/h/ln	1906	1828	1621	1906	1828	1623	1849	1828	1617	1861	1785	1585
Q Serve(g_s), s	2.3	22.4	32.8	15.0	19.3	3.9	24.9	22.6	1.5	40.8	34.4	1.0
Cycle Q Clear(g_c), s	2.3	22.4	32.8	15.0	19.3	3.9	24.9	22.6	1.5	40.8	34.4	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	92	889	728	212	1120	497	757	633	280	607	1053	467
V/C Ratio(X)	0.37	0.74	0.75	1.09	0.56	0.13	0.92	0.97	0.07	0.95	0.90	0.04
Avail Cap(c_a), veh/h	127	1131	835	212	1282	569	795	633	280	663	1067	474
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.2	47.1	31.0	59.9	39.1	33.8	52.5	55.4	46.7	44.3	45.7	33.9
Incr Delay (d2), s/veh	0.9	3.2	4.6	89.3	0.7	0.2	14.8	29.0	0.2	21.8	10.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	10.2	14.9	12.3	8.5	1.5	12.7	12.6	0.6	21.6	16.2	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.1	50.3	35.6	149.2	39.9	34.0	67.3	84.4	46.9	66.1	56.5	34.0
LnGrp LOS	E	D	D	F	D	C	E	F	D	E	E	C
Approach Vol, veh/h		1239			921			1333			1543	
Approach Delay, s/veh		44.2			67.0			74.9			59.9	
Approach LOS		D			E			E			E	

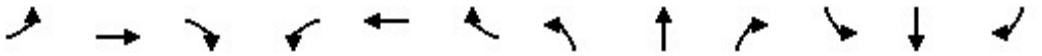
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	38.5	31.6	45.8	10.5	47.0	48.0	29.4
Change Period (Y+Rc), s	4.0	* 5.7	4.0	* 6	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	15.0	* 42	29.0	* 40	9.0	47.3	48.0	21.0
Max Q Clear Time (g_c+I1), s	17.0	24.4	26.9	36.4	4.3	21.3	42.8	24.6
Green Ext Time (p_c), s	0.0	8.0	0.8	3.3	0.0	11.8	1.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	61.3
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

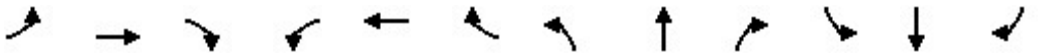
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	886	0	0	1360	414	0	0	0	332	0	124
Future Volume (veh/h)	96	886	0	0	1360	414	0	0	0	332	0	124
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841				1841	0	1841
Adj Flow Rate, veh/h	96	886	0	0	1360	414				332	0	124
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	4	4	0	0	4	4				4	0	4
Cap, veh/h	125	2194	0	0	1746	775				396	0	352
Arrive On Green	0.07	0.63	0.00	0.00	0.50	0.50				0.23	0.00	0.23
Sat Flow, veh/h	1753	3589	0	0	3589	1552				1753	0	1560
Grp Volume(v), veh/h	96	886	0	0	1360	414				332	0	124
Grp Sat Flow(s),veh/h/ln	1753	1749	0	0	1749	1552				1753	0	1560
Q Serve(g_s), s	3.8	8.9	0.0	0.0	22.4	12.8				12.7	0.0	4.7
Cycle Q Clear(g_c), s	3.8	8.9	0.0	0.0	22.4	12.8				12.7	0.0	4.7
Prop In Lane	1.00		0.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	125	2194	0	0	1746	775				396	0	352
V/C Ratio(X)	0.77	0.40	0.00	0.00	0.78	0.53				0.84	0.00	0.35
Avail Cap(c_a), veh/h	500	2194	0	0	2642	1173				975	0	867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	32.0	6.5	0.0	0.0	14.4	12.0				25.9	0.0	22.8
Incr Delay (d2), s/veh	3.8	0.1	0.0	0.0	0.9	0.6				1.8	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	2.2	0.0	0.0	7.1	3.6				5.3	0.0	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.8	6.6	0.0	0.0	15.3	12.6				27.8	0.0	23.1
LnGrp LOS	D	A	A	A	B	B				C	A	C
Approach Vol, veh/h		982			1774						456	
Approach Delay, s/veh		9.5			14.6						26.5	
Approach LOS		A			B						C	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		49.7		20.4	9.0	40.7						
Change Period (Y+Rc), s		5.7		4.6	4.0	5.7						
Max Green Setting (Gmax), s		35.0		39.0	20.0	53.0						
Max Q Clear Time (g_c+I1), s		10.9		14.7	5.8	24.4						
Green Ext Time (p_c), s		4.2		1.2	0.1	10.7						

Intersection Summary												
HCM 6th Ctrl Delay			14.7									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	1162	21	23	1774	425	17	4	31	103	10	179
Future Volume (veh/h)	72	1162	21	23	1774	425	17	4	31	103	10	179
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1885	1885	1826	1826	1885	1885	1885	1732	1791	1732
Adj Flow Rate, veh/h	72	1162	21	23	1774	425	17	4	31	103	10	179
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	5	5	1	1	5	5	1	1	1	5	1	5
Cap, veh/h	93	2307	42	28	2165	958	57	6	46	174	17	159
Arrive On Green	0.05	0.66	0.66	0.02	0.62	0.62	0.03	0.03	0.03	0.11	0.11	0.11
Sat Flow, veh/h	1739	3486	63	1795	3469	1535	1795	186	1440	1561	152	1428
Grp Volume(v), veh/h	72	578	605	23	1774	425	17	0	35	113	0	179
Grp Sat Flow(s),veh/h/ln	1739	1735	1814	1795	1735	1535	1795	0	1626	1713	0	1428
Q Serve(g_s), s	4.2	17.3	17.3	1.3	40.2	14.7	0.9	0.0	2.2	6.4	0.0	11.4
Cycle Q Clear(g_c), s	4.2	17.3	17.3	1.3	40.2	14.7	0.9	0.0	2.2	6.4	0.0	11.4
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.89	0.91		1.00
Lane Grp Cap(c), veh/h	93	1148	1201	28	2165	958	57	0	52	191	0	159
V/C Ratio(X)	0.78	0.50	0.50	0.82	0.82	0.44	0.30	0.00	0.67	0.59	0.00	1.12
Avail Cap(c_a), veh/h	340	1148	1201	352	2276	1007	352	0	318	191	0	159
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.8	8.8	8.8	50.1	14.8	10.0	48.3	0.0	48.9	43.2	0.0	45.4
Incr Delay (d2), s/veh	5.2	0.4	0.3	19.2	2.4	0.3	1.1	0.0	5.5	3.3	0.0	108.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	5.3	5.6	0.7	13.6	4.3	0.4	0.0	1.0	2.9	0.0	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.9	9.1	9.1	69.4	17.2	10.3	49.4	0.0	54.4	46.5	0.0	153.5
LnGrp LOS	D	A	A	E	B	B	D	A	D	D	A	F
Approach Vol, veh/h		1255			2222			52			292	
Approach Delay, s/veh		11.6			16.4			52.8			112.1	
Approach LOS		B			B			D			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	73.3		7.3	9.4	69.4		16.0				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.6				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	67.0		11.4				
Max Q Clear Time (g_c+I1), s	3.3	19.3		4.2	6.2	42.2		13.4				
Green Ext Time (p_c), s	0.0	13.9		0.1	0.1	21.5		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		22.6	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	929	454	547	2037	365	446
Future Volume (veh/h)	929	454	547	2037	365	446
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	929	391	547	2037	365	439
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1022	805	635	2424	397	918
Arrive On Green	0.29	0.29	0.36	0.68	0.22	0.22
Sat Flow, veh/h	3647	1571	1781	3647	1781	1585
Grp Volume(v), veh/h	929	391	547	2037	365	439
Grp Sat Flow(s),veh/h/ln	1777	1571	1781	1777	1781	1585
Q Serve(g_s), s	37.8	24.3	42.8	64.1	30.1	0.0
Cycle Q Clear(g_c), s	37.8	24.3	42.8	64.1	30.1	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1022	805	635	2424	397	918
V/C Ratio(X)	0.91	0.49	0.86	0.84	0.92	0.48
Avail Cap(c_a), veh/h	1097	838	635	2424	451	966
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.85	0.85	0.78	0.78
Uniform Delay (d), s/veh	51.5	23.9	44.8	17.8	57.0	18.4
Incr Delay (d2), s/veh	10.6	0.5	9.7	3.2	17.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.9	13.6	20.0	23.9	15.5	18.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	62.1	24.4	54.5	21.0	74.8	18.5
LnGrp LOS	E	C	D	C	E	B
Approach Vol, veh/h	1320			2584	804	
Approach Delay, s/veh	51.0			28.1	44.0	
Approach LOS	D			C	D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	59.2	48.8		37.4		108.0
Change Period (Y+Rc), s	5.7	* 5.7		4.0		5.7
Max Green Setting (Gmax), s	52.0	* 46		38.0		102.3
Max Q Clear Time (g_c+I1), s	44.8	39.8		32.1		66.1
Green Ext Time (p_c), s	0.8	3.3		1.3		16.1

Intersection Summary	
HCM 6th Ctrl Delay	37.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection 85 **I-80 WB Ramps/Atlantic St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	1,073	1,037	96.6%	4.6	5.9	A
	Subtotal	1,073	1,037	96.6%	4.6	5.9	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	991	958	96.7%	26.5	16.7	C
	Right Turn	384	329	85.6%	65.2	46.9	E
	Subtotal	1,375	1,287	93.6%	36.4	24.4	D
WB	Left Turn	412	355	86.1%	46.0	11.1	D
	Through	1,664	1,436	86.3%	4.1	0.3	A
	Right Turn						
	Subtotal	2,076	1,791	86.3%	12.5	2.4	B
Total		4,524	4,115	91.0%	17.8	9.1	B

Intersection 86 **Taylor Rd-I-80 EB Ramps/Eureka Rd** **Signal**

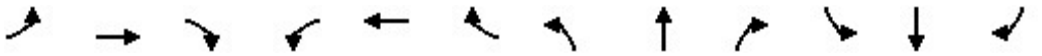
Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	204	196	95.9%	109.3	37.3	F
	Through	648	612	94.5%	88.4	33.7	F
	Right Turn	499	488	97.8%	20.1	21.1	C
	Subtotal	1,351	1,296	95.9%	66.1	29.2	E
SB	Left Turn	564	350	62.0%	331.7	44.0	F
	Through	482	470	97.5%	68.4	24.1	E
	Right Turn	81	85	104.7%	57.6	21.2	E
	Subtotal	1,127	904	80.2%	169.5	29.2	F
EB	Left Turn	332	212	64.0%	287.0	64.4	F
	Through	1,479	1,434	97.0%	28.3	5.7	C
	Right Turn	253	242	95.5%	7.9	2.1	A
	Subtotal	2,064	1,888	91.5%	55.1	11.4	E
WB	Left Turn						
	Through	3,354	2,624	78.2%	98.7	10.9	F
	Right Turn	364	258	71.0%	73.8	10.7	E
	Subtotal	3,718	2,883	77.5%	96.5	11.0	F
Total		8,260	6,971	84.4%	89.0	8.8	F

Intersection 87 **N Sunrise Ave/Eureka Rd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	597	516	86.4%	197.5	46.3	F
	Through	454	478	105.2%	81.7	18.5	F
	Right Turn	180	172	95.6%	27.0	19.4	C
	Subtotal	1,231	1,165	94.7%	124.7	30.2	F
SB	Left Turn	184	177	96.3%	92.5	26.9	F
	Through	515	488	94.8%	87.2	27.8	F
	Right Turn	637	555	87.1%	106.4	30.9	F
	Subtotal	1,336	1,220	91.3%	96.8	28.1	F
EB	Left Turn	397	340	85.7%	59.9	15.6	E
	Through	1,773	1,596	90.0%	19.5	1.7	B
	Right Turn	372	310	83.2%	4.9	0.6	A
	Subtotal	2,542	2,246	88.3%	23.6	2.8	C
WB	Left Turn	130	113	87.1%	120.7	16.8	F
	Through	2,484	2,063	83.0%	98.3	18.9	F
	Right Turn	140	115	82.3%	52.5	13.5	D
	Subtotal	2,754	2,291	83.2%	97.1	18.0	F
Total		7,863	6,922	88.0%	77.8	8.6	E

Intersection 88 **Rocky Ridge Dr/Eureka Rd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	441	431	97.7%	108.0	40.5	F
	Through	466	467	100.3%	57.2	17.1	E
	Right Turn	29	33	113.1%	20.8	19.8	C
	Subtotal	936	931	99.4%	79.6	28.2	E
SB	Left Turn	101	95	93.9%	90.1	39.8	F
	Through	365	353	96.8%	122.5	71.3	F
	Right Turn	166	158	94.9%	21.2	34.4	C
	Subtotal	632	606	95.8%	91.7	58.0	F
EB	Left Turn	118	116	98.0%	88.1	28.8	F
	Through	1,679	1,555	92.6%	37.7	2.2	D
	Right Turn	340	316	92.8%	4.1	0.5	A
	Subtotal	2,137	1,986	92.9%	35.5	3.7	D
WB	Left Turn	67	75	111.6%	113.4	17.8	F
	Through	1,935	1,895	97.9%	48.7	7.9	D
	Right Turn	80	78	97.0%	15.5	5.8	B
	Subtotal	2,082	2,048	98.3%	49.9	7.7	D
Total		5,787	5,570	96.3%	54.2	9.7	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	386	181	61	260	160	297	1754	70	104	1647	94
Future Volume (veh/h)	129	386	181	61	260	160	297	1754	70	104	1647	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	129	386	0	61	260	0	297	1754	0	104	1647	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	151	492		78	346		319	2349		126	1851	
Arrive On Green	0.08	0.14	0.00	0.04	0.10	0.00	0.18	0.46	0.00	0.07	0.36	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	129	386	0	61	260	0	297	1754	0	104	1647	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	10.7	15.7	0.0	5.1	10.7	0.0	24.6	42.4	0.0	8.6	45.5	0.0
Cycle Q Clear(g_c), s	10.7	15.7	0.0	5.1	10.7	0.0	24.6	42.4	0.0	8.6	45.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	151	492		78	346		319	2349		126	1851	
V/C Ratio(X)	0.86	0.78		0.78	0.75		0.93	0.75		0.83	0.89	
Avail Cap(c_a), veh/h	166	829		131	758		368	2349		190	1851	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	67.8	62.5	0.0	71.0	65.9	0.0	60.6	33.3	0.0	68.8	45.0	0.0
Incr Delay (d2), s/veh	28.9	5.6	0.0	6.3	6.5	0.0	26.3	2.2	0.0	10.2	6.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	7.4	0.0	2.4	5.1	0.0	13.3	17.4	0.0	4.2	19.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	96.7	68.0	0.0	77.4	72.4	0.0	86.9	35.5	0.0	79.0	51.0	0.0
LnGrp LOS	F	E		E	E		F	D		E	D	
Approach Vol, veh/h		515	A		321	A		2051	A		1751	A
Approach Delay, s/veh		75.2			73.4			43.0			52.7	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	26.1	30.9	60.1	16.7	19.9	16.3	74.7
Change Period (Y+Rc), s	4.0	5.3	4.0	5.7	4.0	5.3	5.7	* 5.7
Max Green Setting (Gmax), s	11.0	35.0	31.0	54.0	14.0	32.0	16.0	* 69
Max Q Clear Time (g_c+I1), s	7.1	17.7	26.6	47.5	12.7	12.7	10.6	44.4
Green Ext Time (p_c), s	0.0	2.9	0.3	5.2	0.0	1.9	0.1	15.7

Intersection Summary	
HCM 6th Ctrl Delay	52.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

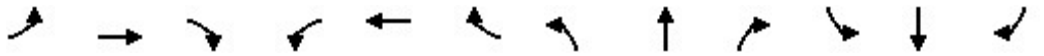
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Alternative 1 Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 90 **Eureka Rd/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	520	525	101.0%	83.8	17.0	F
	Through	1,116	1,094	98.0%	64.9	12.0	E
	Right Turn	61	56	91.1%	56.4	17.9	E
	Subtotal	1,697	1,674	98.7%	70.8	11.8	E
SB	Left Turn	950	804	84.6%	164.3	19.1	F
	Through	880	861	97.9%	103.7	17.8	F
	Right Turn	203	195	96.2%	100.2	18.2	F
	Subtotal	2,033	1,860	91.5%	129.5	18.2	F
EB	Left Turn	191	186	97.4%	80.5	22.6	F
	Through	1,387	1,283	92.5%	44.8	6.4	D
	Right Turn	418	398	95.3%	31.6	5.2	C
	Subtotal	1,996	1,867	93.5%	45.7	7.1	D
WB	Left Turn	94	88	94.0%	91.3	10.1	F
	Through	1,535	1,451	94.5%	56.2	14.5	E
	Right Turn	785	753	95.9%	22.5	12.9	C
	Subtotal	2,414	2,292	94.9%	46.6	13.6	D
Total		8,140	7,694	94.5%	71.8	5.7	E



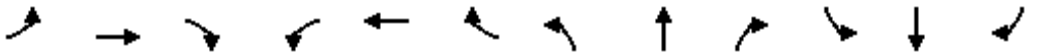
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	1224	69	52	967	12	33	1	27	6	3	7
Future Volume (veh/h)	41	1224	69	52	967	12	33	1	27	6	3	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	41	1224	69	52	967	12	33	1	27	6	3	7
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	102	1787	101	119	1892	844	87	3	71	42	21	55
Arrive On Green	0.06	0.52	0.52	0.07	0.53	0.53	0.09	0.09	0.09	0.03	0.03	0.03
Sat Flow, veh/h	1781	3420	193	1781	3554	1585	914	28	748	1207	603	1585
Grp Volume(v), veh/h	41	635	658	52	967	12	61	0	0	9	0	7
Grp Sat Flow(s),veh/h/ln	1781	1777	1836	1781	1777	1585	1690	0	0	1810	0	1585
Q Serve(g_s), s	1.4	16.4	16.4	1.7	10.8	0.2	2.1	0.0	0.0	0.3	0.0	0.3
Cycle Q Clear(g_c), s	1.4	16.4	16.4	1.7	10.8	0.2	2.1	0.0	0.0	0.3	0.0	0.3
Prop In Lane	1.00		0.10	1.00		1.00	0.54		0.44	0.67		1.00
Lane Grp Cap(c), veh/h	102	929	959	119	1892	844	160	0	0	63	0	55
V/C Ratio(X)	0.40	0.68	0.69	0.44	0.51	0.01	0.38	0.00	0.00	0.14	0.00	0.13
Avail Cap(c_a), veh/h	578	1009	1043	578	2019	900	549	0	0	587	0	514
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.0	10.9	10.9	27.6	9.3	6.8	26.2	0.0	0.0	28.8	0.0	28.8
Incr Delay (d2), s/veh	0.9	4.1	4.0	0.9	1.0	0.0	0.6	0.0	0.0	0.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	5.8	6.0	0.7	3.4	0.1	0.8	0.0	0.0	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.0	15.0	14.9	28.6	10.2	6.8	26.8	0.0	0.0	29.2	0.0	29.2
LnGrp LOS	C	B	B	C	B	A	C	A	A	C	A	C
Approach Vol, veh/h		1334			1031			61			16	
Approach Delay, s/veh		15.4			11.1			26.8			29.2	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	9.8	8.1	37.5	6.2	7.5	38.1
Change Period (Y+Rc), s	4.0	4.0	5.3	4.0	4.0	5.3
Max Green Setting (Gmax), s	20.0	20.0	35.0	20.0	20.0	35.0
Max Q Clear Time (g_c+I1), s	4.1	3.7	18.4	2.3	3.4	12.8
Green Ext Time (p_c), s	0.1	0.1	13.8	0.0	0.0	14.5

Intersection Summary	
HCM 6th Ctrl Delay	14.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	681	505	45	563	256	135	1307	42	331	1609	302
Future Volume (veh/h)	127	681	505	45	563	256	135	1307	42	331	1609	302
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	127	681	0	45	563	0	135	1307	0	331	1609	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	782		80	645		158	1684		354	2189	
Arrive On Green	0.08	0.22	0.00	0.05	0.18	0.00	0.09	0.33	0.00	0.20	0.43	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	127	681	0	45	563	0	135	1307	0	331	1609	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	10.6	27.7	0.0	3.7	23.1	0.0	11.2	34.6	0.0	27.4	39.4	0.0
Cycle Q Clear(g_c), s	10.6	27.7	0.0	3.7	23.1	0.0	11.2	34.6	0.0	27.4	39.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	782		80	645		158	1684		354	2189	
V/C Ratio(X)	0.85	0.87		0.56	0.87		0.86	0.78		0.94	0.74	
Avail Cap(c_a), veh/h	190	907		95	718		238	1684		428	2189	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	67.8	56.5	0.0	70.2	59.7	0.0	67.4	45.3	0.0	59.1	35.7	0.0
Incr Delay (d2), s/veh	20.7	9.2	0.0	2.3	11.6	0.0	11.9	2.6	0.0	23.7	2.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	13.2	0.0	1.7	11.3	0.0	5.5	14.4	0.0	14.3	16.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.5	65.7	0.0	72.4	71.4	0.0	79.3	47.9	0.0	82.8	38.0	0.0
LnGrp LOS	F	E		E	E		E	D		F	D	
Approach Vol, veh/h		808	A		608	A		1442	A		1940	A
Approach Delay, s/veh		69.3			71.4			50.8			45.6	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.8	55.2	10.8	38.7	19.0	70.0	16.6	32.9
Change Period (Y+Rc), s	4.0	5.7	4.0	5.7	5.7	* 5.7	4.0	5.7
Max Green Setting (Gmax), s	36.0	48.3	8.0	38.3	20.0	* 64	16.0	30.3
Max Q Clear Time (g_c+I1), s	29.4	36.6	5.7	29.7	13.2	41.4	12.6	25.1
Green Ext Time (p_c), s	0.4	7.2	0.0	3.3	0.1	14.0	0.1	1.8

Intersection Summary	
HCM 6th Ctrl Delay	54.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Alternative 1 Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 97 **Folsom Rd/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	2	1	60.0%	11.0	25.0	B
	Through	2	0	20.0%	28.5	90.2	C
	Right Turn	8	10	130.0%	38.3	48.9	D
	Subtotal	12	12	100.0%	43.1	49.2	D
SB	Left Turn	476	396	83.3%	124.9	63.4	F
	Through	4	3	70.0%	88.3	103.5	F
	Right Turn	113	93	82.1%	103.8	61.3	F
	Subtotal	593	492	83.0%	120.8	62.8	F
EB	Left Turn	68	64	94.7%	105.6	29.7	F
	Through	1,134	1,148	101.3%	30.0	6.0	C
	Right Turn	4	3	80.0%	14.6	20.3	B
	Subtotal	1,206	1,216	100.8%	34.0	7.5	C
WB	Left Turn	10	8	84.0%	134.0	125.3	F
	Through	1,613	1,338	83.0%	17.7	2.5	B
	Right Turn	102	68	67.1%	15.6	4.2	B
	Subtotal	1,725	1,415	82.0%	18.2	2.4	B
Total		3,536	3,135	88.7%	39.8	8.8	D

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Alternative 1 Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 98 **Harding Blvd/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	45	40	88.9%	70.2	10.6	E
	Through	36	36	101.1%	65.2	11.1	E
	Right Turn	64	66	102.5%	35.2	12.4	D
	Subtotal	145	142	97.9%	53.7	8.6	D
SB	Left Turn	825	717	86.9%	71.8	7.1	E
	Through	17	14	82.4%	78.3	23.7	E
	Right Turn	443	369	83.3%	48.1	4.6	D
	Subtotal	1,285	1,100	85.6%	64.0	6.1	E
EB	Left Turn	332	278	83.6%	109.6	12.1	F
	Through	1,384	1,259	91.0%	46.8	6.7	D
	Right Turn	17	15	89.4%	48.3	15.6	D
	Subtotal	1,733	1,552	89.5%	58.1	7.7	E
WB	Left Turn	78	57	73.3%	79.8	15.9	E
	Through	1,365	1,104	80.9%	24.3	2.0	C
	Right Turn	454	369	81.3%	9.3	1.3	A
	Subtotal	1,897	1,531	80.7%	22.9	1.6	C
Total		5,060	4,324	85.5%	46.9	3.8	D

Intersection 99 **I-80 WB Ramps-Sunrise Ave Connector/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	532	513	96.4%	63.5	16.3	E
	Through	694	737	106.2%	75.8	16.3	E
	Right Turn	341	304	89.3%	60.1	19.4	E
	Subtotal	1,567	1,554	99.2%	68.6	17.0	E
EB	Left Turn						
	Through	1,299	1,179	90.7%	29.9	3.8	C
	Right Turn	341	294	86.3%	22.1	4.4	C
	Subtotal	1,640	1,473	89.8%	28.3	3.8	C
WB	Left Turn						
	Through	1,556	1,224	78.6%	81.2	15.7	F
	Right Turn	1,431	1,145	80.0%	47.4	7.8	D
	Subtotal	2,987	2,369	79.3%	64.9	10.7	E
Total		6,194	5,396	87.1%	56.0	7.3	E

Intersection 100 **I-80 EB Ramps/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	967	961	99.4%	6.6	3.1	A
	Subtotal	967	961	99.4%	6.6	3.1	A
SB	Left Turn						
	Through						
	Right Turn	260	252	97.1%	31.0	7.1	C
	Subtotal	260	252	97.1%	31.0	7.1	C
EB	Left Turn	308	267	86.8%	25.5	3.8	C
	Through	1,523	1,435	94.2%	2.6	0.6	A
	Right Turn						
	Subtotal	1,831	1,702	93.0%	6.2	1.3	A
WB	Left Turn						
	Through	2,727	2,295	84.2%	37.0	10.2	D
	Right Turn	417	394	94.5%	4.7	0.6	A
	Subtotal	3,144	2,689	85.5%	32.2	8.6	C
Total		6,202	5,604	90.4%	19.8	4.4	B

Intersection 101 **N Sunrise Ave/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	482	364	75.4%	193.8	63.5	F
	Through	367	337	91.9%	47.6	6.4	D
	Right Turn	192	173	90.2%	23.4	4.8	C
	Subtotal	1,041	874	84.0%	102.6	24.6	F
SB	Left Turn	153	162	105.6%	54.7	11.4	D
	Through	624	628	100.6%	46.0	4.9	D
	Right Turn	651	643	98.8%	31.6	9.9	C
	Subtotal	1,428	1,432	100.3%	40.7	5.5	D
EB	Left Turn	456	447	98.1%	92.0	19.9	F
	Through	1,676	1,625	96.9%	41.1	5.0	D
	Right Turn	358	327	91.4%	12.1	2.9	B
	Subtotal	2,490	2,399	96.4%	46.7	5.7	D
WB	Left Turn	215	214	99.5%	69.7	8.6	E
	Through	2,011	1,756	87.3%	57.0	13.4	E
	Right Turn	73	68	93.7%	37.4	7.6	D
	Subtotal	2,299	2,038	88.6%	57.6	11.5	E
Total		7,258	6,744	92.9%	55.9	4.7	E

Intersection 102 **Santa Clara Dr/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	56	54	97.1%	66.3	12.0	E
	Through	56	62	111.4%	58.8	9.8	E
	Right Turn	55	52	95.3%	13.3	4.0	B
	Subtotal	167	169	101.3%	47.6	9.0	D
SB	Left Turn	177	173	97.6%	53.6	6.2	D
	Through	54	55	102.2%	54.6	11.0	D
	Right Turn	170	168	98.6%	19.8	5.1	B
	Subtotal	401	396	98.7%	39.6	3.9	D
EB	Left Turn	148	137	92.7%	72.0	7.9	E
	Through	1,730	1,693	97.8%	19.8	3.0	B
	Right Turn	73	65	88.8%	22.6	7.5	C
	Subtotal	1,951	1,895	97.1%	23.8	2.1	C
WB	Left Turn	76	76	100.0%	62.8	12.0	E
	Through	1,906	1,836	96.3%	22.5	2.8	C
	Right Turn	82	85	103.9%	8.1	2.0	A
	Subtotal	2,064	1,998	96.8%	23.4	3.0	C
Total		4,583	4,457	97.3%	26.0	1.7	C

Intersection 103 **Sierra Gardens Dr/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	141	147	104.1%	57.3	8.3	E
	Through	56	56	99.3%	66.3	17.4	E
	Right Turn	40	45	113.0%	62.9	18.3	E
	Subtotal	237	248	104.5%	61.0	11.0	E
SB	Left Turn	170	162	95.5%	52.7	6.7	D
	Through	79	75	95.2%	54.1	8.0	D
	Right Turn	40	40	101.0%	47.7	10.1	D
	Subtotal	289	278	96.2%	52.2	5.8	D
EB	Left Turn	52	52	99.2%	75.8	10.9	E
	Through	1,713	1,664	97.1%	20.8	3.7	C
	Right Turn	147	151	102.6%	7.8	1.6	A
	Subtotal	1,912	1,866	97.6%	21.3	3.2	C
WB	Left Turn	60	58	96.0%	53.1	6.4	D
	Through	1,887	1,814	96.1%	15.0	2.9	B
	Right Turn	190	170	89.7%	8.8	1.7	A
	Subtotal	2,137	2,042	95.5%	15.5	2.7	B
Total		4,575	4,433	96.9%	22.8	2.9	C

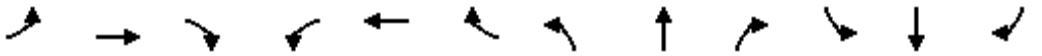
Intersection 104 **Target Dwy-TJ Maxx Dwy/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	102	100	98.4%	55.9	8.8	E
	Through	19	14	71.6%	46.7	22.0	D
	Right Turn	88	87	98.6%	18.1	5.7	B
	Subtotal	209	201	96.1%	39.0	4.7	D
SB	Left Turn	103	103	100.2%	131.6	51.9	F
	Through	11	10	90.9%	156.8	126.1	F
	Right Turn	80	77	96.5%	109.2	66.8	F
	Subtotal	194	190	98.1%	123.0	59.9	F
EB	Left Turn	174	170	97.9%	73.8	6.5	E
	Through	1,630	1,589	97.5%	22.7	2.9	C
	Right Turn	59	60	101.7%	21.4	6.2	C
	Subtotal	1,863	1,820	97.7%	27.4	2.9	C
WB	Left Turn	109	117	107.2%	54.6	9.6	D
	Through	2,035	1,924	94.5%	26.7	3.4	C
	Right Turn	62	58	93.5%	26.6	6.6	C
	Subtotal	2,206	2,099	95.1%	28.2	3.4	C
Total		4,472	4,310	96.4%	32.5	3.5	C

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Alternative 1 Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 105 **Rocky Ridge Dr/Douglas Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	308	304	98.7%	106.5	20.5	F
	Through	751	750	99.9%	50.4	8.6	D
	Right Turn	175	179	102.4%	25.9	7.9	C
	Subtotal	1,234	1,234	100.0%	60.8	9.3	E
SB	Left Turn	321	297	92.6%	178.6	31.5	F
	Through	961	880	91.5%	150.8	30.3	F
	Right Turn	255	239	93.6%	126.8	32.4	F
	Subtotal	1,537	1,416	92.1%	152.9	29.5	F
EB	Left Turn	305	291	95.3%	117.3	26.1	F
	Through	1,420	1,355	95.4%	36.6	6.4	D
	Right Turn	141	142	100.4%	9.8	2.6	A
	Subtotal	1,866	1,787	95.8%	48.0	8.5	D
WB	Left Turn	393	376	95.6%	90.2	13.1	F
	Through	1,793	1,703	95.0%	58.8	10.0	E
	Right Turn	172	158	91.9%	24.6	13.1	C
	Subtotal	2,358	2,237	94.9%	61.7	9.5	E
Total		6,995	6,673	95.4%	77.4	4.4	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	316	1830	414	375	2208	191	479	1164	267	281	1452	185
Future Volume (veh/h)	316	1830	414	375	2208	191	479	1164	267	281	1452	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	316	1830	257	375	2208	0	479	1164	0	281	1452	93
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	276	1770	545	369	1974		438	1560		326	1396	428
Arrive On Green	0.08	0.35	0.35	0.11	0.39	0.00	0.13	0.31	0.00	0.09	0.27	0.27
Sat Flow, veh/h	3456	5106	1571	3456	5106	1585	3456	5106	1585	3456	5106	1568
Grp Volume(v), veh/h	316	1830	257	375	2208	0	479	1164	0	281	1452	93
Grp Sat Flow(s),veh/h/ln	1728	1702	1571	1728	1702	1585	1728	1702	1585	1728	1702	1568
Q Serve(g_s), s	12.0	52.0	13.5	16.0	58.0	0.0	19.0	30.8	0.0	12.0	41.0	6.9
Cycle Q Clear(g_c), s	12.0	52.0	13.5	16.0	58.0	0.0	19.0	30.8	0.0	12.0	41.0	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	276	1770	545	369	1974		438	1560		326	1396	428
V/C Ratio(X)	1.14	1.03	0.47	1.02	1.12		1.09	0.75		0.86	1.04	0.22
Avail Cap(c_a), veh/h	276	1770	545	369	1974		438	1560		369	1396	428
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.0	49.0	19.0	67.0	46.0	0.0	65.5	46.8	0.0	66.9	54.5	42.1
Incr Delay (d2), s/veh	98.4	30.7	2.9	51.3	60.8	0.0	71.0	2.1	0.0	15.4	35.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	26.4	5.1	9.6	34.7	0.0	12.4	12.8	0.0	5.9	21.4	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	167.4	79.7	21.9	118.3	106.8	0.0	136.5	49.0	0.0	82.4	89.8	42.5
LnGrp LOS	F	F	C	F	F		F	D		F	F	D
Approach Vol, veh/h		2403			2583	A		1643	A		1826	
Approach Delay, s/veh		85.0			108.5			74.5			86.2	
Approach LOS		F			F			E			F	

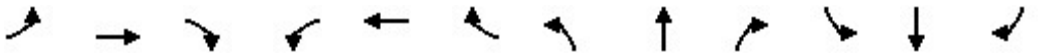
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	58.0	23.0	47.0	16.0	64.0	18.2	51.8
Change Period (Y+Rc), s	6.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	16.0	52.0	19.0	41.0	12.0	58.0	16.0	44.0
Max Q Clear Time (g_c+I1), s	18.0	54.0	21.0	43.0	14.0	60.0	14.0	32.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.1	9.2

Intersection Summary	
HCM 6th Ctrl Delay	90.4
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

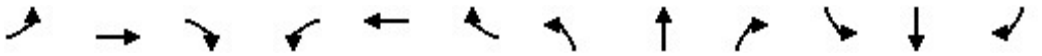
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	9	33	132	26	89	98	815	186	125	831	54
Future Volume (veh/h)	25	9	33	132	26	89	98	815	186	125	831	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	25	9	33	132	26	89	98	815	186	125	831	54
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	43	69	59	175	208	176	125	1482	460	161	1585	492
Arrive On Green	0.02	0.04	0.04	0.10	0.11	0.11	0.07	0.29	0.29	0.09	0.31	0.31
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	25	9	33	132	26	89	98	815	186	125	831	54
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	0.6	0.2	0.8	3.0	0.5	2.2	2.2	5.6	3.9	2.8	5.5	1.0
Cycle Q Clear(g_c), s	0.6	0.2	0.8	3.0	0.5	2.2	2.2	5.6	3.9	2.8	5.5	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	43	69	59	175	208	176	125	1482	460	161	1585	492
V/C Ratio(X)	0.58	0.13	0.56	0.76	0.13	0.51	0.79	0.55	0.40	0.78	0.52	0.11
Avail Cap(c_a), veh/h	345	1450	1228	647	1767	1497	302	2350	729	302	2350	729
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.9	19.2	19.6	18.1	16.5	17.3	18.9	12.4	11.8	18.4	11.7	10.2
Incr Delay (d2), s/veh	11.8	0.8	8.2	6.5	0.3	2.2	10.3	0.3	0.6	7.9	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.1	0.4	1.4	0.2	0.8	1.1	1.5	1.2	1.3	1.5	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.7	20.1	27.7	24.6	16.8	19.5	29.2	12.7	12.4	26.3	12.0	10.3
LnGrp LOS	C	C	C	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		67			247			1099			1010	
Approach Delay, s/veh		28.2			22.0			14.1			13.7	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	17.0	9.1	6.5	7.9	17.8	6.0	9.6
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	19.0	15.0	32.0	7.0	19.0	8.0	39.0
Max Q Clear Time (g_c+I1), s	4.8	7.6	5.0	2.8	4.2	7.5	2.6	4.2
Green Ext Time (p_c), s	0.1	4.4	0.2	0.1	0.0	4.1	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	15.1
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	3	45	0	5	68	124	1205	0	52	979	57
Future Volume (veh/h)	23	3	45	0	5	68	124	1205	0	52	979	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	3	45	0	5	68	124	1205	0	52	979	57
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	40	367	311	4	102	87	162	2058	639	77	1815	563
Arrive On Green	0.02	0.20	0.20	0.00	0.05	0.05	0.09	0.40	0.00	0.04	0.36	0.36
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	23	3	45	0	5	68	124	1205	0	52	979	57
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	0.5	0.1	1.0	0.0	0.1	1.8	2.9	7.7	0.0	1.2	6.4	1.0
Cycle Q Clear(g_c), s	0.5	0.1	1.0	0.0	0.1	1.8	2.9	7.7	0.0	1.2	6.4	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	40	367	311	4	102	87	162	2058	639	77	1815	563
V/C Ratio(X)	0.58	0.01	0.14	0.00	0.05	0.79	0.77	0.59	0.00	0.67	0.54	0.10
Avail Cap(c_a), veh/h	467	1426	1209	467	1426	1209	467	3164	982	467	3164	982
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	13.6	14.0	0.0	18.8	19.6	18.6	9.8	0.0	19.8	10.8	9.0
Incr Delay (d2), s/veh	12.4	0.0	0.2	0.0	0.2	14.3	7.4	0.3	0.0	9.8	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.3	0.0	0.0	0.9	1.3	1.8	0.0	0.6	1.6	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.7	13.6	14.2	0.0	19.0	33.9	26.0	10.1	0.0	29.5	11.0	9.1
LnGrp LOS	C	B	B	A	B	C	C	B	A	C	B	A
Approach Vol, veh/h		71			73			1329			1088	
Approach Delay, s/veh		20.2			32.9			11.5			11.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	21.9	0.0	13.2	8.8	19.9	5.9	7.3
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	11.0	26.0	11.0	32.0	11.0	26.0	11.0	32.0
Max Q Clear Time (g_c+I1), s	3.2	9.7	0.0	3.0	4.9	8.4	2.5	3.8
Green Ext Time (p_c), s	0.0	7.2	0.0	0.1	0.1	6.1	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

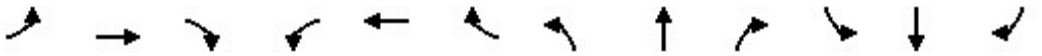
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	5	78	113	11	43	110	1014	117	2	1552	138
Future Volume (veh/h)	38	5	78	113	11	43	110	1014	117	2	1552	138
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	38	5	78	113	11	43	110	1014	117	2	1552	138
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	92	142	121	140	214	182	138	1835	818	4	1607	717
Arrive On Green	0.06	0.08	0.08	0.09	0.13	0.13	0.09	0.57	0.57	0.00	0.50	0.50
Sat Flow, veh/h	1603	1683	1427	1603	1683	1427	1603	3198	1427	1603	3198	1427
Grp Volume(v), veh/h	38	5	78	113	11	43	110	1014	117	2	1552	138
Grp Sat Flow(s),veh/h/ln	1603	1683	1427	1603	1683	1427	1603	1599	1427	1603	1599	1427
Q Serve(g_s), s	1.8	0.2	4.2	5.5	0.5	2.2	5.3	15.7	3.0	0.1	37.3	4.2
Cycle Q Clear(g_c), s	1.8	0.2	4.2	5.5	0.5	2.2	5.3	15.7	3.0	0.1	37.3	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	92	142	121	140	214	182	138	1835	818	4	1607	717
V/C Ratio(X)	0.41	0.04	0.65	0.81	0.05	0.24	0.79	0.55	0.14	0.46	0.97	0.19
Avail Cap(c_a), veh/h	403	826	700	222	826	700	504	1835	818	222	1610	718
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.2	33.4	35.2	35.6	30.5	31.2	35.6	10.6	7.9	39.6	19.1	10.9
Incr Delay (d2), s/veh	1.1	0.0	2.2	10.9	0.0	0.2	3.9	0.6	0.1	60.7	15.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.1	1.5	2.5	0.2	0.7	2.2	5.0	0.9	0.1	15.6	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	33.4	37.4	46.5	30.5	31.4	39.5	11.1	8.0	100.2	34.3	11.1
LnGrp LOS	D	C	D	D	C	C	D	B	A	F	C	B
Approach Vol, veh/h		121			167			1241			1692	
Approach Delay, s/veh		37.2			41.6			13.4			32.5	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.2	51.6	11.9	10.7	10.9	45.9	8.5	14.1
Change Period (Y+Rc), s	5.0	6.0	5.0	4.0	4.0	6.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	40.0	11.0	39.0	25.0	40.0	20.0	39.0
Max Q Clear Time (g_c+I1), s	2.1	17.7	7.5	6.2	7.3	39.3	3.8	4.2
Green Ext Time (p_c), s	0.0	10.6	0.1	0.2	0.2	0.7	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	25.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



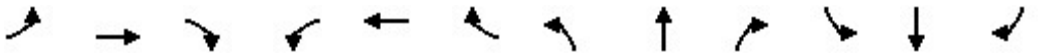
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	2	135	3	2	4	230	1350	47	13	1476	105
Future Volume (veh/h)	42	2	135	3	2	4	230	1350	47	13	1476	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	2	135	3	2	4	230	1350	47	13	1476	105
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	186	9	173	20	13	29	273	1975	881	158	1745	778
Arrive On Green	0.11	0.11	0.11	0.02	0.02	0.02	0.15	0.56	0.56	0.09	0.49	0.49
Sat Flow, veh/h	1704	81	1585	1090	726	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	44	0	135	5	0	4	230	1350	47	13	1476	105
Grp Sat Flow(s),veh/h/ln	1785	0	1585	1816	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.8	0.0	6.5	0.2	0.0	0.2	9.9	21.5	1.1	0.5	28.6	2.9
Cycle Q Clear(g_c), s	1.8	0.0	6.5	0.2	0.0	0.2	9.9	21.5	1.1	0.5	28.6	2.9
Prop In Lane	0.95		1.00	0.60		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	195	0	173	33	0	29	273	1975	881	158	1745	778
V/C Ratio(X)	0.23	0.00	0.78	0.15	0.00	0.14	0.84	0.68	0.05	0.08	0.85	0.13
Avail Cap(c_a), veh/h	452	0	401	460	0	401	451	1975	881	451	1800	803
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.1	0.0	34.2	38.2	0.0	38.2	32.5	12.6	8.0	33.0	17.5	11.0
Incr Delay (d2), s/veh	0.2	0.0	2.8	0.8	0.0	0.8	3.3	1.2	0.0	0.1	4.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	2.6	0.1	0.0	0.1	4.4	7.8	0.3	0.2	11.5	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.3	0.0	37.1	38.9	0.0	39.0	35.8	13.8	8.1	33.1	21.7	11.1
LnGrp LOS	C	A	D	D	A	D	D	B	A	C	C	B
Approach Vol, veh/h		179			9			1627			1594	
Approach Delay, s/veh		35.9			39.0			16.7			21.1	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	49.9		12.6	16.1	44.8		5.4				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	43.0		20.0	20.0	40.0		20.0				
Max Q Clear Time (g_c+I1), s	2.5	23.5		8.5	11.9	30.6		2.2				
Green Ext Time (p_c), s	0.0	14.4		0.3	0.2	8.2		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		19.8	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	99	172	254	269	146	262	1855	90	71	2372	39
Future Volume (veh/h)	113	99	172	254	269	146	262	1855	90	71	2372	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	113	99	35	254	269	0	262	1855	0	71	2372	38
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	135	378	166	276	393		306	3319		112	3074	49
Arrive On Green	0.08	0.11	0.11	0.08	0.11	0.00	0.09	0.65	0.00	0.03	0.59	0.59
Sat Flow, veh/h	1781	3554	1563	3456	3554	1585	3456	5106	1585	3456	5177	83
Grp Volume(v), veh/h	113	99	35	254	269	0	262	1855	0	71	1558	852
Grp Sat Flow(s),veh/h/ln	1781	1777	1563	1728	1777	1585	1728	1702	1585	1728	1702	1855
Q Serve(g_s), s	9.4	3.8	3.1	10.9	10.9	0.0	11.2	30.0	0.0	3.0	51.4	51.8
Cycle Q Clear(g_c), s	9.4	3.8	3.1	10.9	10.9	0.0	11.2	30.0	0.0	3.0	51.4	51.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	135	378	166	276	393		306	3319		112	2021	1102
V/C Ratio(X)	0.84	0.26	0.21	0.92	0.68		0.86	0.56		0.64	0.77	0.77
Avail Cap(c_a), veh/h	190	931	409	276	836		323	3319		299	2021	1102
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.4	61.6	61.3	68.5	64.2	0.0	67.4	14.4	0.0	71.7	22.8	22.9
Incr Delay (d2), s/veh	14.6	0.5	0.8	32.9	2.8	0.0	18.0	0.7	0.0	2.2	2.9	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	1.8	1.3	6.1	5.1	0.0	5.7	11.1	0.0	1.4	20.4	23.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.0	62.1	62.1	101.5	67.0	0.0	85.4	15.1	0.0	73.9	25.7	28.2
LnGrp LOS	F	E	E	F	E		F	B		E	C	C
Approach Vol, veh/h		247			523	A		2117	A		2481	
Approach Delay, s/veh		71.7			83.7			23.8			28.0	
Approach LOS		E			F			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.4	22.3	8.8	103.5	16.0	21.7	17.3	95.1
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	16.0	35.3	13.0	66.0	12.0	39.3	14.0	65.0
Max Q Clear Time (g_c+I1), s	11.4	12.9	5.0	32.0	12.9	5.8	13.2	53.8
Green Ext Time (p_c), s	0.1	1.6	0.1	15.4	0.0	0.8	0.1	9.1

Intersection Summary	
HCM 6th Ctrl Delay	33.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	86	650	403	530	1055	93
Future Volume (veh/h)	86	650	403	530	1055	93
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	86	273	403	530	1055	34
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	357	318	448	2383	1261	562
Arrive On Green	0.20	0.20	0.25	0.67	0.35	0.35
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	86	273	403	530	1055	34
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	3.1	12.9	17.0	4.5	21.1	1.1
Cycle Q Clear(g_c), s	3.1	12.9	17.0	4.5	21.1	1.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	357	318	448	2383	1261	562
V/C Ratio(X)	0.24	0.86	0.90	0.22	0.84	0.06
Avail Cap(c_a), veh/h	482	429	528	2703	1420	633
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.1	30.0	28.1	4.9	23.0	16.5
Incr Delay (d2), s/veh	0.3	12.4	16.6	0.0	4.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	11.7	9.0	1.3	9.0	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.4	42.4	44.7	5.0	27.1	16.5
LnGrp LOS	C	D	D	A	C	B
Approach Vol, veh/h	359			933	1089	
Approach Delay, s/veh	38.6			22.1	26.8	
Approach LOS	D			C	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		57.0		20.5	24.5	32.5
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		59.0		21.0	23.0	31.0
Max Q Clear Time (g_c+I1), s		6.5		14.9	19.0	23.1
Green Ext Time (p_c), s		4.1		0.6	0.5	4.4

Intersection Summary	
HCM 6th Ctrl Delay	26.7
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	4	14	190	6	228	11	926	86	186	1757	26
Future Volume (veh/h)	8	4	14	190	6	228	11	926	86	186	1757	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	4	2	190	6	74	11	926	82	186	1757	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	52	23	6	257	7	306	31	1671	148	209	2176	31
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.02	0.51	0.51	0.12	0.61	0.61
Sat Flow, veh/h	73	117	32	1077	34	1573	1781	3301	292	1781	3587	51
Grp Volume(v), veh/h	14	0	0	196	0	74	11	498	510	186	869	913
Grp Sat Flow(s),veh/h/ln	221	0	0	1111	0	1573	1781	1777	1816	1781	1777	1861
Q Serve(g_s), s	0.2	0.0	0.0	0.0	0.0	6.0	0.9	28.9	28.9	15.4	56.5	56.8
Cycle Q Clear(g_c), s	26.9	0.0	0.0	26.6	0.0	6.0	0.9	28.9	28.9	15.4	56.5	56.8
Prop In Lane	0.57		0.14	0.97		1.00	1.00		0.16	1.00		0.03
Lane Grp Cap(c), veh/h	81	0	0	263	0	306	31	900	919	209	1078	1129
V/C Ratio(X)	0.17	0.00	0.00	0.74	0.00	0.24	0.36	0.55	0.55	0.89	0.81	0.81
Avail Cap(c_a), veh/h	158	0	0	338	0	388	95	900	919	309	1078	1129
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.2	0.0	0.0	59.4	0.0	51.1	72.9	25.4	25.4	65.2	22.7	22.8
Incr Delay (d2), s/veh	0.4	0.0	0.0	4.4	0.0	0.2	2.6	1.0	1.0	14.3	6.5	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	7.7	0.0	2.4	0.4	11.9	12.1	7.7	23.4	24.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.5	0.0	0.0	63.8	0.0	51.2	75.5	26.4	26.4	79.5	29.2	29.1
LnGrp LOS	D	A	A	E	A	D	E	C	C	E	C	C
Approach Vol, veh/h		14			270			1019			1968	
Approach Delay, s/veh		51.5			60.3			26.9			33.9	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.6	81.9		33.2	6.6	97.0		33.2				
Change Period (Y+Rc), s	4.0	6.0		4.0	4.0	6.0		4.0				
Max Green Setting (Gmax), s	26.0	73.0		37.0	8.0	91.0		37.0				
Max Q Clear Time (g_c+I1), s	17.4	30.9		28.9	2.9	58.8		28.6				
Green Ext Time (p_c), s	0.2	25.0		0.0	0.0	30.6		0.5				

Intersection Summary			
HCM 6th Ctrl Delay		34.0	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.

Intersection 169 **Stanford Ranch Rd/Fairway Dr** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	184	133	72.4%	100.6	7.1	F
	Through	1,656	1,282	77.4%	7.4	0.9	A
	Right Turn	231	189	81.7%	5.7	0.8	A
	Subtotal	2,071	1,604	77.4%	15.0	1.8	B
SB	Left Turn	55	59	106.9%	67.2	8.4	E
	Through	1,007	940	93.3%	26.3	6.6	C
	Right Turn	67	65	96.7%	7.0	2.5	A
	Subtotal	1,129	1,064	94.2%	27.4	6.7	C
EB	Left Turn	87	95	109.0%	68.1	9.9	E
	Through	383	400	104.5%	53.6	5.0	D
	Right Turn	301	308	102.2%	29.2	12.3	C
	Subtotal	771	803	104.1%	46.0	6.3	D
WB	Left Turn	189	188	99.3%	63.9	7.3	E
	Through	194	198	101.9%	46.0	5.2	D
	Right Turn	20	16	82.0%	28.0	16.5	C
	Subtotal	403	402	99.7%	53.9	5.0	D
Total		4,374	3,872	88.5%	28.9	3.1	C

Intersection 170 **Stanford Ranch Rd/Five Star Blvd** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	829	550	66.4%	79.7	12.4	E
	Through	1,914	1,394	72.8%	35.7	2.8	D
	Right Turn	433	341	78.8%	12.9	2.7	B
	Subtotal	3,176	2,286	72.0%	43.0	5.3	D
SB	Left Turn	61	72	118.7%	78.5	19.0	E
	Through	1,427	1,452	101.7%	63.8	12.3	E
	Right Turn	124	126	101.9%	26.1	9.2	C
	Subtotal	1,612	1,650	102.4%	61.6	12.4	E
EB	Left Turn	164	151	92.0%	89.1	19.1	F
	Through	129	128	99.2%	95.2	19.6	F
	Right Turn	368	374	101.6%	41.7	7.0	D
	Subtotal	661	653	98.8%	63.4	11.9	E
WB	Left Turn	389	413	106.2%	55.4	3.5	E
	Through	108	114	105.2%	47.2	7.7	D
	Right Turn	83	93	111.8%	29.8	7.6	C
	Subtotal	580	620	106.8%	50.2	3.7	D
Total		6,029	5,208	86.4%	52.3	4.8	D

Intersection 171 **Stanford Ranch Rd/SR 65 NB Ramps** **Signal**

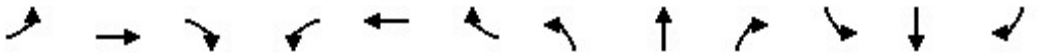
Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	792	662	83.6%	35.6	6.2	D
	Through	1,591	1,303	81.9%	102.3	29.3	F
	Right Turn						
	Subtotal	2,383	1,965	82.5%	80.0	19.7	E
SB	Left Turn						
	Through	1,974	1,996	101.1%	35.5	6.9	D
	Right Turn	324	339	104.7%	22.8	2.1	C
	Subtotal	2,298	2,336	101.6%	33.7	6.0	C
EB	Left Turn						
	Through						
	Right Turn	437	456	104.3%	3.3	1.4	A
	Subtotal	437	456	104.3%	3.3	1.4	A
WB	Left Turn						
	Through						
	Right Turn	1,765	1,280	72.5%	275.7	56.1	F
	Subtotal	1,765	1,280	72.5%	275.7	56.1	F
Total		6,883	6,037	87.7%	97.7	13.8	F

Intersection 172 **Galleria Blvd/SR 65 SB Ramps** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	2,184	1,887	86.4%	35.9	10.4	D
	Right Turn	812	677	83.4%	40.7	7.5	D
	Subtotal	2,996	2,564	85.6%	37.3	8.4	D
SB	Left Turn	1,015	964	95.0%	57.5	22.9	E
	Through	1,396	1,416	101.4%	29.0	2.9	C
	Right Turn						
	Subtotal	2,411	2,380	98.7%	40.7	10.8	D
EB	Left Turn						
	Through						
	Right Turn	1,118	1,103	98.6%	9.6	1.1	A
	Subtotal	1,118	1,103	98.6%	9.6	1.1	A
WB	Left Turn						
	Through						
	Right Turn	199	209	104.9%	2.3	0.1	A
	Subtotal	199	209	104.9%	2.3	0.1	A
Total		6,724	6,255	93.0%	32.6	6.4	C

Intersection 174 **Galleria Blvd/Antelope Creek Dr** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	127	104	82.2%	59.0	10.5	E
	Through	2,044	1,826	89.4%	34.7	23.7	C
	Right Turn	221	204	92.5%	12.2	5.0	B
	Subtotal	2,392	2,135	89.3%	33.6	20.9	C
SB	Left Turn	244	270	110.5%	67.7	11.3	E
	Through	1,958	2,004	102.4%	27.4	3.2	C
	Right Turn	212	221	104.2%	4.5	1.3	A
	Subtotal	2,414	2,495	103.3%	29.7	3.0	C
EB	Left Turn	523	514	98.2%	65.9	14.6	E
	Through	52	52	100.0%	56.2	9.1	E
	Right Turn	119	128	107.9%	2.8	2.1	A
	Subtotal	694	694	100.0%	53.6	11.3	D
WB	Left Turn	210	186	88.8%	69.7	5.8	E
	Through	66	60	90.3%	63.3	8.6	E
	Right Turn	309	302	97.9%	2.5	0.3	A
	Subtotal	585	548	93.7%	32.1	4.4	C
Total		6,085	5,872	96.5%	34.0	7.8	C



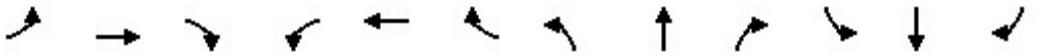
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	0	219	61	12	6	176	1778	9	52	1484	72
Future Volume (veh/h)	92	0	219	61	12	6	176	1778	9	52	1484	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	92	0	219	61	12	6	176	1778	9	52	1484	72
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	274	0	244	106	21	111	206	2058	10	86	1779	793
Arrive On Green	0.15	0.00	0.15	0.07	0.07	0.07	0.12	0.57	0.57	0.05	0.50	0.50
Sat Flow, veh/h	1781	0	1585	1500	295	1585	1781	3626	18	1781	3554	1585
Grp Volume(v), veh/h	92	0	219	73	0	6	176	871	916	52	1484	72
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1795	0	1585	1781	1777	1867	1781	1777	1585
Q Serve(g_s), s	5.5	0.0	16.1	4.7	0.0	0.4	11.5	49.2	49.3	3.4	42.4	2.8
Cycle Q Clear(g_c), s	5.5	0.0	16.1	4.7	0.0	0.4	11.5	49.2	49.3	3.4	42.4	2.8
Prop In Lane	1.00		1.00	0.84		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	274	0	244	126	0	111	206	1009	1060	86	1779	793
V/C Ratio(X)	0.34	0.00	0.90	0.58	0.00	0.05	0.86	0.86	0.86	0.60	0.83	0.09
Avail Cap(c_a), veh/h	301	0	268	182	0	161	346	1125	1182	301	1779	793
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.7	0.0	49.2	53.4	0.0	51.4	51.4	21.7	21.7	55.2	25.4	15.5
Incr Delay (d2), s/veh	0.3	0.0	27.1	1.6	0.0	0.1	4.7	7.0	6.8	2.5	3.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	8.2	2.2	0.0	0.2	5.4	21.4	22.4	1.6	18.2	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.0	0.0	76.3	54.9	0.0	51.5	56.1	28.7	28.5	57.8	29.1	15.5
LnGrp LOS	D	A	E	D	A	D	E	C	C	E	C	B
Approach Vol, veh/h		311			79			1963			1608	
Approach Delay, s/veh		67.0			54.7			31.1			29.4	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.7	73.3		23.1	17.7	65.3		12.3				
Change Period (Y+Rc), s	4.0	6.0		4.9	4.0	6.0		4.0				
Max Green Setting (Gmax), s	20.0	75.0		20.0	23.0	59.0		12.0				
Max Q Clear Time (g_c+I1), s	5.4	51.3		18.1	13.5	44.4		6.7				
Green Ext Time (p_c), s	0.1	15.9		0.2	0.2	9.9		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		33.7	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	481	12	508	15	13	18	349	1464	9	4	1311	449
Future Volume (veh/h)	481	12	508	15	13	18	349	1464	9	4	1311	449
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	490	0	508	15	13	18	349	1464	9	4	1311	449
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	835	0	564	52	45	85	421	2001	12	17	1565	698
Arrive On Green	0.23	0.00	0.23	0.05	0.05	0.05	0.12	0.55	0.55	0.01	0.44	0.44
Sat Flow, veh/h	3563	0	1585	976	846	1585	3456	3621	22	1781	3554	1585
Grp Volume(v), veh/h	490	0	508	28	0	18	349	718	755	4	1311	449
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1822	0	1585	1728	1777	1866	1781	1777	1585
Q Serve(g_s), s	14.1	0.0	27.0	1.7	0.0	1.3	11.4	35.0	35.0	0.3	37.7	25.5
Cycle Q Clear(g_c), s	14.1	0.0	27.0	1.7	0.0	1.3	11.4	35.0	35.0	0.3	37.7	25.5
Prop In Lane	1.00		1.00	0.54		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	835	0	564	97	0	85	421	982	1031	17	1565	698
V/C Ratio(X)	0.59	0.00	0.90	0.29	0.00	0.21	0.83	0.73	0.73	0.24	0.84	0.64
Avail Cap(c_a), veh/h	835	0	564	316	0	275	690	982	1031	309	1635	729
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.2	0.0	35.2	52.4	0.0	52.2	49.4	19.4	19.4	56.7	28.6	25.2
Incr Delay (d2), s/veh	1.1	0.0	17.5	0.6	0.0	0.5	1.9	3.5	3.4	2.7	4.5	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	0.0	16.1	0.8	0.0	0.5	4.9	14.2	14.9	0.1	16.1	9.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.2	0.0	52.6	53.0	0.0	52.7	51.3	22.9	22.7	59.4	33.1	27.9
LnGrp LOS	D	A	D	D	A	D	D	C	C	E	C	C
Approach Vol, veh/h		998			46			1822			1764	
Approach Delay, s/veh		46.5			52.9			28.2			31.8	
Approach LOS		D			D			C			C	

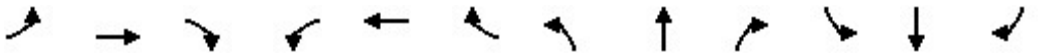
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	69.0		31.0	18.0	56.0		10.2				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.0				
Max Green Setting (Gmax), s	20.0	63.2		27.0	23.0	53.0		20.0				
Max Q Clear Time (g_c+I1), s	2.3	37.0		29.0	13.4	39.7		3.7				
Green Ext Time (p_c), s	0.0	16.6		0.0	0.7	11.0		0.1				

Intersection Summary												
HCM 6th Ctrl Delay			33.8									
HCM 6th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑		↰	↔	↱		↑↑	↱	↰↰	↑↑	
Traffic Volume (veh/h)	0	0	0	907	0	1222	0	552	443	988	810	0
Future Volume (veh/h)	0	0	0	907	0	1222	0	552	443	988	810	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	0	1870	1870	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	0	0	0	1137	0	493	0	552	135	988	810	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	2	0	2	2	2	0	2	2	2	2	0
Cap, veh/h	0	2	0	1302	0	579	0	736	328	1068	1961	0
Arrive On Green	0.00	0.00	0.00	0.37	0.00	0.37	0.00	0.21	0.21	0.31	0.55	0.00
Sat Flow, veh/h	0	-74814	0	3563	0	1585	0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	0	0	0	1137	0	493	0	552	135	988	810	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1781	0	1585	0	1777	1585	1728	1777	0
Q Serve(g_s), s	0.0	0.0	0.0	33.4	0.0	32.2	0.0	16.4	8.3	31.1	14.9	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	33.4	0.0	32.2	0.0	16.4	8.3	31.1	14.9	0.0
Prop In Lane	0.00		0.00	1.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	2	0	1302	0	579	0	736	328	1068	1961	0
V/C Ratio(X)	0.00	0.00	0.00	0.87	0.00	0.85	0.00	0.75	0.41	0.92	0.41	0.00
Avail Cap(c_a), veh/h	0	433	0	1807	0	804	0	1078	481	1168	2393	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	33.2	0.0	32.8	0.0	41.8	38.6	37.6	14.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.9	0.0	4.8	0.0	2.8	1.4	11.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	14.7	0.0	0.8	0.0	7.4	3.4	14.6	5.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	36.1	0.0	37.6	0.0	44.6	40.0	48.7	14.8	0.0
LnGrp LOS	A	A	A	D	A	D	A	D	D	D	B	A
Approach Vol, veh/h		0			1630			687			1798	
Approach Delay, s/veh		0.0			36.6			43.7			33.5	
Approach LOS					D			D			C	

Timer - Assigned Phs	2	4	6	7	8
Phs Duration (G+Y+Rc), s	0.0	67.3	45.1	38.7	28.6
Change Period (Y+Rc), s	4.0	5.3	4.0	4.0	* 5.3
Max Green Setting (Gmax), s	26.0	75.7	57.0	38.0	* 34
Max Q Clear Time (g_c+I1), s	0.0	16.9	35.4	33.1	18.4
Green Ext Time (p_c), s	0.0	6.9	5.6	1.6	4.9

Intersection Summary	
HCM 6th Ctrl Delay	36.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Alternative 1 Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 178 **Harding Blvd/Estates Dr** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	64	63	98.8%	51.3	7.4	D
	Through	629	552	87.8%	6.6	0.7	A
	Right Turn						
	Subtotal	693	615	88.8%	11.1	0.9	B
SB	Left Turn	55	47	85.1%	110.3	43.7	F
	Through	1,263	1,084	85.8%	97.7	40.4	F
	Right Turn	207	189	91.4%	123.2	48.4	F
	Subtotal	1,525	1,320	86.5%	101.7	41.1	F
EB	Left Turn	302	331	109.5%	45.6	15.2	D
	Through	11	8	76.4%	42.2	34.4	D
	Right Turn	28	26	92.9%	48.1	13.2	D
	Subtotal	341	365	107.1%	46.0	14.1	D
WB	Left Turn	21	21	101.0%	44.9	25.3	D
	Through	8	5	65.0%	52.8	32.3	D
	Right Turn	49	53	107.8%	18.8	9.6	B
	Subtotal	78	79	101.5%	30.4	13.8	C
Total		2,637	2,379	90.2%	66.8	21.1	E

SimTraffic Post-Processor **Roseville Housing Element**
Average Results from 10 Runs **Cumulative Alternative 1 Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 179 **Harding Blvd/Roseville Square** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	139	111	80.0%	36.9	5.2	D
	Through	529	447	84.5%	11.0	1.3	B
	Right Turn	53	44	83.0%	9.8	3.7	A
	Subtotal	721	602	83.5%	15.6	1.5	B
SB	Left Turn	37	35	95.1%	71.4	16.1	E
	Through	1,119	942	84.1%	59.6	11.0	E
	Right Turn	36	29	81.1%	68.3	17.4	E
	Subtotal	1,192	1,006	84.4%	60.2	10.9	E
EB	Left Turn	154	147	95.3%	40.2	5.5	D
	Through	18	18	102.2%	38.2	17.0	D
	Right Turn	105	98	93.3%	29.3	8.9	C
	Subtotal	277	263	95.0%	35.6	4.1	D
WB	Left Turn	147	134	90.9%	90.6	19.9	F
	Through	8	9	110.0%	82.0	38.6	F
	Right Turn	38	42	109.5%	5.0	1.4	A
	Subtotal	193	184	95.3%	71.3	16.5	E
Total		2,383	2,055	86.2%	44.9	5.5	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	202	788	432	245	1128	163	584	546	63	162	650	280
Future Volume (veh/h)	202	788	432	245	1128	163	584	546	63	162	650	280
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	2145	2145	2145
Adj Flow Rate, veh/h	202	788	182	245	1128	80	584	546	22	162	650	123
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	164	965	430	247	1129	504	507	1784	554	193	649	289
Arrive On Green	0.09	0.27	0.27	0.14	0.32	0.32	0.28	0.35	0.35	0.09	0.16	0.16
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	5106	1585	2043	4076	1818
Grp Volume(v), veh/h	202	788	182	245	1128	80	584	546	22	162	650	123
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1702	1585	2043	2038	1818
Q Serve(g_s), s	12.0	27.0	12.3	17.9	41.2	4.7	37.0	10.1	1.2	10.1	20.7	7.9
Cycle Q Clear(g_c), s	12.0	27.0	12.3	17.9	41.2	4.7	37.0	10.1	1.2	10.1	20.7	7.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	965	430	247	1129	504	507	1784	554	193	649	289
V/C Ratio(X)	1.23	0.82	0.42	0.99	1.00	0.16	1.15	0.31	0.04	0.84	1.00	0.42
Avail Cap(c_a), veh/h	164	976	435	247	1129	504	507	1784	554	299	649	289
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.0	44.3	39.0	55.9	44.3	31.9	46.5	30.8	27.9	57.9	54.7	49.3
Incr Delay (d2), s/veh	144.7	5.8	1.0	55.3	26.6	0.2	89.0	0.2	0.0	7.1	35.7	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.0	12.6	4.8	11.8	22.1	1.8	28.5	4.1	0.5	5.5	13.6	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	203.7	50.1	40.0	111.2	70.9	32.1	135.5	31.0	27.9	65.0	90.3	50.8
LnGrp LOS	F	D	D	F	E	C	F	C	C	E	F	D
Approach Vol, veh/h		1172			1453			1152			935	
Approach Delay, s/veh		75.0			75.6			83.9			80.7	
Approach LOS		E			E			F			F	

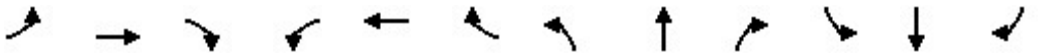
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	41.0	41.0	26.0	16.0	47.0	16.3	50.7
Change Period (Y+Rc), s	4.0	* 5.7	4.0	5.3	4.0	5.7	4.0	5.3
Max Green Setting (Gmax), s	18.0	* 36	37.0	20.7	12.0	41.3	19.0	38.7
Max Q Clear Time (g_c+I1), s	19.9	29.0	39.0	22.7	14.0	43.2	12.1	12.1
Green Ext Time (p_c), s	0.0	4.9	0.0	0.0	0.0	0.0	0.2	8.2

Intersection Summary	
HCM 6th Ctrl Delay	78.5
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



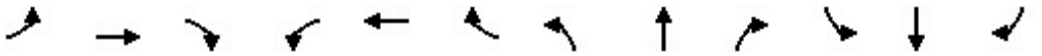
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	8	28	159	13	343	19	681	38	214	1076	31
Future Volume (veh/h)	46	8	28	159	13	343	19	681	38	214	1076	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1988	1988	1988	1870	1945	1826	2145	2231	2145
Adj Flow Rate, veh/h	46	8	28	159	13	343	19	681	38	214	1076	31
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	5	2	2	2
Cap, veh/h	126	22	131	404	33	387	61	1233	69	266	2696	805
Arrive On Green	0.08	0.08	0.08	0.23	0.23	0.23	0.03	0.35	0.35	0.13	0.44	0.44
Sat Flow, veh/h	1528	266	1585	1757	144	1683	1781	3556	198	2043	6091	1818
Grp Volume(v), veh/h	54	0	28	172	0	343	19	354	365	214	1076	31
Grp Sat Flow(s),veh/h/ln	1794	0	1585	1900	0	1683	1781	1848	1907	2043	2030	1818
Q Serve(g_s), s	2.3	0.0	1.4	6.3	0.0	16.2	0.9	12.7	12.7	8.4	9.8	0.8
Cycle Q Clear(g_c), s	2.3	0.0	1.4	6.3	0.0	16.2	0.9	12.7	12.7	8.4	9.8	0.8
Prop In Lane	0.85		1.00	0.92		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	148	0	131	437	0	387	61	641	661	266	2696	805
V/C Ratio(X)	0.37	0.00	0.21	0.39	0.00	0.89	0.31	0.55	0.55	0.80	0.40	0.04
Avail Cap(c_a), veh/h	437	0	386	532	0	471	434	1013	1045	771	3337	996
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	0.0	35.2	26.8	0.0	30.6	38.7	21.7	21.7	34.7	15.5	13.0
Incr Delay (d2), s/veh	0.6	0.0	0.3	0.2	0.0	14.2	1.1	1.7	1.6	2.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.5	2.8	0.0	7.7	0.4	5.3	5.5	4.1	4.1	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.2	0.0	35.5	27.0	0.0	44.8	39.8	23.3	23.3	36.9	15.7	13.0
LnGrp LOS	D	A	D	C	A	D	D	C	C	D	B	B
Approach Vol, veh/h		82			515			738			1321	
Approach Delay, s/veh		36.0			38.8			23.7			19.1	
Approach LOS		D			D			C			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.8	6.8	41.7		22.9	14.7	33.8				
Change Period (Y+Rc), s		4.0	4.0	5.3		4.0	4.0	5.3				
Max Green Setting (Gmax), s		20.0	20.0	45.0		23.0	31.0	45.0				
Max Q Clear Time (g_c+I1), s		4.3	2.9	11.8		18.2	10.4	14.7				
Green Ext Time (p_c), s		0.2	0.0	22.2		0.6	0.4	13.8				

Intersection Summary												
HCM 6th Ctrl Delay			24.7									
HCM 6th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	414	624	151	553	102	560	654	125	18	571	152
Future Volume (veh/h)	91	414	624	151	553	102	560	654	125	18	571	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	91	414	0	151	553	0	560	654	0	18	571	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	118	543		185	678		604	1846		43	725	
Arrive On Green	0.07	0.15	0.00	0.10	0.19	0.00	0.34	0.52	0.00	0.02	0.20	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	91	414	0	151	553	0	560	654	0	18	571	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.8	10.6	0.0	7.9	14.2	0.0	28.8	10.3	0.0	0.9	14.5	0.0
Cycle Q Clear(g_c), s	4.8	10.6	0.0	7.9	14.2	0.0	28.8	10.3	0.0	0.9	14.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	118	543		185	678		604	1846		43	725	
V/C Ratio(X)	0.77	0.76		0.81	0.82		0.93	0.35		0.42	0.79	
Avail Cap(c_a), veh/h	394	796		356	737		1237	2890		244	909	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	43.7	38.6	0.0	41.7	36.9	0.0	30.3	13.5	0.0	45.7	35.9	0.0
Incr Delay (d2), s/veh	4.0	3.8	0.0	3.3	7.7	0.0	2.8	0.2	0.0	2.5	5.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	4.9	0.0	3.6	6.8	0.0	12.4	4.0	0.0	0.4	6.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.7	42.4	0.0	45.0	44.6	0.0	33.0	13.7	0.0	48.2	41.0	0.0
LnGrp LOS	D	D		D	D		C	B		D	D	
Approach Vol, veh/h		505	A		704	A		1214	A		589	A
Approach Delay, s/veh		43.4			44.7			22.6			41.2	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	20.2	36.2	24.7	10.3	23.8	6.3	54.7
Change Period (Y+Rc), s	4.0	5.7	4.0	5.3	4.0	* 5.7	4.0	5.3
Max Green Setting (Gmax), s	19.0	21.3	66.0	24.3	21.0	* 20	13.0	77.3
Max Q Clear Time (g_c+I1), s	9.9	12.6	30.8	16.5	6.8	16.2	2.9	12.3
Green Ext Time (p_c), s	0.2	1.9	1.5	2.9	0.1	1.5	0.0	7.7

Intersection Summary	
HCM 6th Ctrl Delay	34.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	198	10	199	139	12	82	117	1620	41	77	1975	71
Future Volume (veh/h)	198	10	199	139	12	82	117	1620	41	77	1975	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	205	0	29	139	12	9	117	1620	23	77	1975	41
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	264	0	117	161	14	155	131	2087	648	516	3251	1009
Arrive On Green	0.07	0.00	0.07	0.10	0.10	0.10	0.07	0.41	0.41	0.29	0.64	0.64
Sat Flow, veh/h	3563	0	1585	1646	142	1585	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	205	0	29	151	0	9	117	1620	23	77	1975	41
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1788	0	1585	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	8.5	0.0	2.6	12.5	0.0	0.8	9.8	41.2	1.3	4.8	34.4	1.4
Cycle Q Clear(g_c), s	8.5	0.0	2.6	12.5	0.0	0.8	9.8	41.2	1.3	4.8	34.4	1.4
Prop In Lane	1.00		1.00	0.92		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	264	0	117	175	0	155	131	2087	648	516	3251	1009
V/C Ratio(X)	0.78	0.00	0.25	0.86	0.00	0.06	0.90	0.78	0.04	0.15	0.61	0.04
Avail Cap(c_a), veh/h	808	0	359	298	0	264	131	2087	648	516	3251	1009
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.2	0.0	65.5	66.6	0.0	61.4	68.9	38.4	26.6	39.5	16.2	10.2
Incr Delay (d2), s/veh	1.9	0.0	0.4	5.5	0.0	0.1	47.5	2.9	0.1	0.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.0	1.1	6.0	0.0	0.3	6.1	17.1	0.5	2.1	12.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.1	0.0	65.9	72.1	0.0	61.4	116.4	41.3	26.7	39.6	16.7	10.2
LnGrp LOS	E	A	E	E	A	E	F	D	C	D	B	B
Approach Vol, veh/h		234			160			1760			2093	
Approach Delay, s/veh		69.6			71.5			46.1			17.4	
Approach LOS		E			E			D			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	49.2	67.0		15.1	15.0	101.2		18.7				
Change Period (Y+Rc), s	5.7	* 5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	12.0	* 61		34.0	11.0	62.3		25.0				
Max Q Clear Time (g_c+I1), s	6.8	43.2		10.5	11.8	36.4		14.5				
Green Ext Time (p_c), s	0.0	13.9		0.6	0.0	21.6		0.2				

Intersection Summary		
HCM 6th Ctrl Delay		34.2
HCM 6th LOS		C

Notes

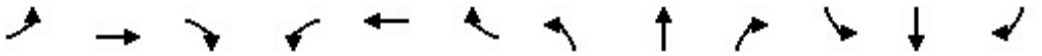
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	1194	491	271	615	145	360
Future Volume (veh/h)	1194	491	271	615	145	360
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1194	191	271	145	145	360
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1396	640	371	314	188	751
Arrive On Green	0.40	0.40	0.20	0.20	0.11	0.40
Sat Flow, veh/h	3456	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	1194	191	271	145	145	360
Grp Sat Flow(s),veh/h/ln	1728	1585	1870	1585	1781	1870
Q Serve(g_s), s	16.2	4.2	7.0	4.1	4.1	7.3
Cycle Q Clear(g_c), s	16.2	4.2	7.0	4.1	4.1	7.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	1396	640	371	314	188	751
V/C Ratio(X)	0.86	0.30	0.73	0.46	0.77	0.48
Avail Cap(c_a), veh/h	1549	710	583	494	382	1166
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.9	10.4	19.3	18.2	22.3	11.4
Incr Delay (d2), s/veh	4.6	0.3	2.8	1.1	6.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	1.2	3.0	1.5	1.9	2.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.5	10.6	22.1	19.2	28.8	11.9
LnGrp LOS	B	B	C	B	C	B
Approach Vol, veh/h	1385		416			505
Approach Delay, s/veh	17.4		21.1			16.7
Approach LOS	B		C			B

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.4	15.2			25.6	25.7
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	11.0	16.0			32.0	23.0
Max Q Clear Time (g_c+I1), s	6.1	9.0			9.3	18.2
Green Ext Time (p_c), s	0.1	1.2			2.2	2.6

Intersection Summary	
HCM 6th Ctrl Delay	17.9
HCM 6th LOS	B



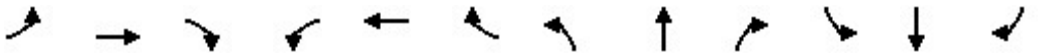
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	585	31	137	1281	9	41	19	97	15	8	24
Future Volume (veh/h)	24	585	31	137	1281	9	41	19	97	15	8	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	585	31	137	1281	9	41	19	97	15	8	24
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	61	1515	80	194	1866	13	180	59	231	168	62	231
Arrive On Green	0.03	0.44	0.44	0.11	0.52	0.52	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1781	3433	182	1781	3617	25	313	402	1585	246	425	1585
Grp Volume(v), veh/h	24	302	314	137	629	661	60	0	97	23	0	24
Grp Sat Flow(s),veh/h/ln	1781	1777	1838	1781	1777	1866	715	0	1585	670	0	1585
Q Serve(g_s), s	0.6	5.2	5.2	3.3	12.0	12.0	0.6	0.0	2.5	0.1	0.0	0.6
Cycle Q Clear(g_c), s	0.6	5.2	5.2	3.3	12.0	12.0	5.2	0.0	2.5	4.9	0.0	0.6
Prop In Lane	1.00		0.10	1.00		0.01	0.68		1.00	0.65		1.00
Lane Grp Cap(c), veh/h	61	784	811	194	916	962	239	0	231	230	0	231
V/C Ratio(X)	0.39	0.39	0.39	0.71	0.69	0.69	0.25	0.00	0.42	0.10	0.00	0.10
Avail Cap(c_a), veh/h	790	1773	1834	790	1773	1862	686	0	703	657	0	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.3	8.5	8.5	19.4	8.2	8.2	18.1	0.0	17.5	16.8	0.0	16.7
Incr Delay (d2), s/veh	1.5	0.4	0.4	1.8	1.2	1.2	0.2	0.0	0.4	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.3	1.3	1.2	2.6	2.7	0.6	0.0	0.9	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.8	8.9	8.9	21.2	9.4	9.4	18.3	0.0	18.0	16.9	0.0	16.8
LnGrp LOS	C	A	A	C	A	A	B	A	B	B	A	B
Approach Vol, veh/h		640			1427			157			47	
Approach Delay, s/veh		9.4			10.5			18.1			16.8	
Approach LOS		A			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.9	25.6		10.7	5.6	29.0		10.7				
Change Period (Y+Rc), s	4.0	5.7		4.0	4.0	5.7		4.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	5.3	7.2		6.9	2.6	14.0		7.2				
Green Ext Time (p_c), s	0.2	3.5		0.1	0.0	9.3		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		10.9	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	81	59	40	169	1	114	93	28	1	46	49
Future Volume (veh/h)	86	81	59	40	169	1	114	93	28	1	46	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	86	81	59	40	169	1	114	93	28	1	46	49
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	119	372	314	67	315	2	145	276	83	6	99	105
Arrive On Green	0.07	0.20	0.20	0.04	0.17	0.17	0.08	0.20	0.20	0.00	0.12	0.12
Sat Flow, veh/h	1781	1870	1577	1781	1857	11	1781	1378	415	1781	825	879
Grp Volume(v), veh/h	86	81	59	40	0	170	114	0	121	1	0	95
Grp Sat Flow(s),veh/h/ln	1781	1870	1577	1781	0	1868	1781	0	1793	1781	0	1704
Q Serve(g_s), s	1.5	1.2	1.0	0.7	0.0	2.7	2.0	0.0	1.9	0.0	0.0	1.7
Cycle Q Clear(g_c), s	1.5	1.2	1.0	0.7	0.0	2.7	2.0	0.0	1.9	0.0	0.0	1.7
Prop In Lane	1.00		1.00	1.00		0.01	1.00		0.23	1.00		0.52
Lane Grp Cap(c), veh/h	119	372	314	67	0	317	145	0	359	6	0	203
V/C Ratio(X)	0.72	0.22	0.19	0.60	0.00	0.54	0.78	0.00	0.34	0.18	0.00	0.47
Avail Cap(c_a), veh/h	696	1549	1306	418	0	1256	473	0	1709	418	0	1571
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.6	10.7	10.7	15.2	0.0	12.1	14.4	0.0	11.0	15.9	0.0	13.1
Incr Delay (d2), s/veh	8.0	0.3	0.3	8.4	0.0	1.4	8.9	0.0	0.6	14.7	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.4	0.3	0.4	0.0	0.9	1.0	0.0	0.6	0.0	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.6	11.0	11.0	23.5	0.0	13.6	23.3	0.0	11.5	30.6	0.0	14.8
LnGrp LOS	C	B	B	C	A	B	C	A	B	C	A	B
Approach Vol, veh/h		226			210			235			96	
Approach Delay, s/veh		15.4			15.5			17.2			15.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.5	10.9	5.7	10.9	7.1	8.3	6.6	9.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	30.5	7.5	26.5	8.5	29.5	12.5	21.5
Max Q Clear Time (g_c+I1), s	2.0	3.9	2.7	3.2	4.0	3.7	3.5	4.7
Green Ext Time (p_c), s	0.0	0.6	0.0	0.5	0.1	0.5	0.1	0.7

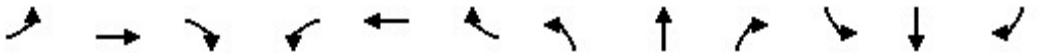
Intersection Summary	
HCM 6th Ctrl Delay	15.9
HCM 6th LOS	B



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	213	318	588	57	409	711
Future Volume (veh/h)	213	318	588	57	409	711
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	213	318	588	57	409	711
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	367	327	638	541	463	1244
Arrive On Green	0.21	0.21	0.34	0.34	0.26	0.67
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	213	318	588	57	409	711
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	8.4	15.5	23.5	1.9	17.1	15.9
Cycle Q Clear(g_c), s	8.4	15.5	23.5	1.9	17.1	15.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	367	327	638	541	463	1244
V/C Ratio(X)	0.58	0.97	0.92	0.11	0.88	0.57
Avail Cap(c_a), veh/h	367	327	674	571	711	1541
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.8	30.6	24.6	17.5	27.6	7.0
Incr Delay (d2), s/veh	2.3	42.6	17.7	0.1	8.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	9.5	12.9	0.7	8.0	5.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.1	73.2	42.3	17.6	36.1	7.4
LnGrp LOS	C	E	D	B	D	A
Approach Vol, veh/h	531		645			1120
Approach Delay, s/veh	55.9		40.1			17.9
Approach LOS	E		D			B

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	25.2	31.5			56.7	21.0
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	31.0	28.0			64.0	16.0
Max Q Clear Time (g_c+I1), s	19.1	25.5			17.9	17.5
Green Ext Time (p_c), s	1.0	1.0			6.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	32.9
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	737	18	224	628	363	24	142	177	36	205	70
Future Volume (veh/h)	37	737	18	224	628	363	24	142	177	36	205	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	737	18	224	628	363	24	142	177	36	205	70
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	122	1022	456	265	797	461	37	220	220	41	235	80
Arrive On Green	0.07	0.29	0.29	0.15	0.37	0.37	0.14	0.14	0.14	0.20	0.20	0.20
Sat Flow, veh/h	1781	3554	1585	1781	2168	1253	268	1588	1585	207	1178	402
Grp Volume(v), veh/h	37	737	18	224	515	476	166	0	177	311	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1645	1857	0	1585	1788	0	0
Q Serve(g_s), s	1.7	15.7	0.7	10.3	21.8	21.8	7.1	0.0	9.1	14.2	0.0	0.0
Cycle Q Clear(g_c), s	1.7	15.7	0.7	10.3	21.8	21.8	7.1	0.0	9.1	14.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.76	0.14		1.00	0.12		0.23
Lane Grp Cap(c), veh/h	122	1022	456	265	653	605	258	0	220	357	0	0
V/C Ratio(X)	0.30	0.72	0.04	0.84	0.79	0.79	0.64	0.00	0.80	0.87	0.00	0.00
Avail Cap(c_a), veh/h	422	1684	751	422	842	779	440	0	376	699	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.4	27.0	21.7	35.0	23.8	23.8	34.4	0.0	35.2	32.7	0.0	0.0
Incr Delay (d2), s/veh	0.5	1.7	0.1	4.7	5.0	5.3	1.0	0.0	2.6	2.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	6.7	0.3	4.7	9.5	8.9	3.2	0.0	3.6	6.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.9	28.7	21.7	39.7	28.7	29.1	35.4	0.0	37.9	35.3	0.0	0.0
LnGrp LOS	D	C	C	D	C	C	D	A	D	D	A	A
Approach Vol, veh/h		792			1215			343			311	
Approach Delay, s/veh		29.0			30.9			36.7			35.3	
Approach LOS		C			C			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		17.0	16.6	30.0		20.9	9.8	36.7				
Change Period (Y+Rc), s		5.3	4.0	5.7		4.0	4.0	5.7				
Max Green Setting (Gmax), s		20.0	20.0	40.0		33.0	20.0	40.0				
Max Q Clear Time (g_c+I1), s		11.1	12.3	17.7		16.2	3.7	23.8				
Green Ext Time (p_c), s		0.6	0.3	6.5		0.6	0.0	7.3				

Intersection Summary												
HCM 6th Ctrl Delay			31.6									
HCM 6th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.

Addendum Attachment 3

GOALS, POLICIES, AND PROGRAMS

GOALS AND POLICIES
Goal H1.1 Provide decent, safe, **inclusive** ~~adequate~~, and affordable housing in sufficient quantities for all economic segments of the community.
Goal H1.2 Ensure that all segments of the Roseville community actively work together to provide affordable housing.
Goal H1.3 Preserve **affordability**, maintain, and improve Roseville's supply of affordable housing stock.
Goal H1.4 Increase the opportunity for low- and middle-income households to become homeowners, thereby freeing up rental housing for other low-income households.
Goal H1.5 Reduce the overall incidence of homelessness among Roseville individuals and families through regional coordinated and comprehensive housing and supportive services.
Goal H2.1 Work with the development and business communities to provide affordable rental and homeownership opportunities for extremely low-, very low-, low-, and middle-income households.
Goal H2.2 Strive to ensure the affordability of Roseville's housing supply over time.
Goal H2.3 Maximize efforts to meet affordable housing needs by requiring 10% of new housing units be affordable to extremely low-, very low-, low-, and middle-income households.
Goal H2.4 Integrate the community in terms of income levels to avoid **overconcentration of** lower-income ~~pocket areas~~ **households**.
Goal H2.5 Encourage the production of rental and owner-occupied high-density, multi-family housing units.
Policy H2.1 The City shall pursue programs that can provide a range of purchase and rental units affordable to all income categories.
Policy H2.2 Efforts to develop affordable units will be focused on multi-family rental units, with an emphasis on units affordable to the lowest income categories.
Policy H2.3 Multi-family rental units provide the most cost efficient way to provide affordable housing opportunities to extremely low-, very low-, and low-income households.
Policy H2.4 The 10% Affordable Housing Goal shall apply ~~to all new residential properties planned for 4+ units.~~ **consistent with General Plan Land Use Element Policy LU5.5, which requires 10% of all new housing units to cost no more than 30% of the total monthly income of very low-, low-income, and moderate-income households. The Policy further requires the breakdown of the affordable units will be, at a minimum, 40% for rental to very low- and 40% for rental to low-income households. The remaining 20% may be reserved for moderate-income purchase (which will be priced to be affordable to households earning 95% of the Area Median Income) or may be distributed equally among the rental obligations.**
Policy H2.5 The City shall strive to maintain an overall vacancy rate of 5% for both owner and rental housing units.

Policy H2.6 The City shall continue to pursue potential federal, state, and local subsidies for construction of new affordable housing as well as the continued availability of existing affordable housing.
Policy H2.7 The City shall provide direct financial assistance in support of local affordable housing activities **when feasible**.
Policy H2.8 The City shall encourage the Roseville business and development communities to participate in a community affordable housing goal.
Policy H2.9 Encourage construction of affordable housing units to be intermixed with market-rate units ~~to minimize low-income pocket areas~~.
Policy H2.10 Encourage developers to incorporate ~~manufactured and second units~~ **accessory dwelling units, cohousing, and other flexible housing options** into their projects.
Policy H2.11 Promote efficient and cost-effective development types, such as mixed-use projects**,** ~~and~~ small-lot subdivisions **and other medium density housing such as duplexes and townhomes**, as a means of achieving housing affordability and carrying out the provisions of the Land Use Element.
Policy H2.11 The City shall work to ~~maintain~~ **preserve** the affordability of assisted units.
Goal H3 Maintain adequate land within the various land use categories that allows development of housing to meet projected demand for high-density units.
Policy H3.1 Encourage development of mixed-use **and infill** projects in accordance with goals and policies contained in the Land Use Element.
Policy H3.2 Continue to encourage developers to use ~~manufactured units~~ **accessory dwelling units, cohousing, and other flexible housing options** in their housing projects **as part of the City strategy for maximizing affordability of land development and the availability of housing**.
Policy H3.3 ~~Continue to support the use of second units as part of the City strategy for maximizing affordability of land development.~~ **Encourage the development of accessory dwelling units, including on existing multi-family sites.**
Policy H3.4 Continue to support the use of Voluntary Rezones **to encourage and facilitate increased land use density, thereby maximizing the affordability of land development** either through increasing **the permitted** density of **properties zoned for residential use** ~~current residential zoning~~ or rezoning non-residential parcels **to mixed use or high density residential use** ~~which will encourage and facilitate higher densities thereby maximizing affordability of land development~~.
Policy H3.5 Encourage development of higher density residential units by use of mixed use ~~parcels housing overlay~~ zoning **within three key commercial corridors with** ~~on currently~~ underutilized infill parcels**: the Douglas Boulevard/Harding Boulevard corridor, Douglas Boulevard/Sunrise Avenue corridor, and the Atlantic Street corridor.** ~~within the Downtown Specific Plan.~~
Goal H4.1 Ensure the availability of ~~adequate~~ **quality** housing opportunities for the elderly, the disabled, large families, female heads of households, and the homeless.
Goal H4.2 Participate in local and regional efforts to provide a network of facilities and resources to aid the special needs populations.
Goal H4.3 Design and implement programs to affirmatively further fair housing and promote housing opportunities throughout the City for protected classes to address significant disparities in housing needs and access identified within the Sacramento Valley Fair Housing Collaborative Analysis of Impediments to Fair Housing Choice.
Policy H4.1 Special housing needs shall be met through direct rental subsidies and below-market construction financing.

Policy H4.2 Continue the City's housing rehabilitation loan and grant programs to assist low-income elderly and disabled households.
Policy H4.3 Encourage construction of 3+ bedroom units in multi-family rental complexes to help meet the housing needs of low–income, large families.
Policy H4.4 Actively facilitate construction of rental units that include child ~~day~~ care facilities ~~which are~~ affordable to lower-income, female heads of households.
Policy H4.5 Work in conjunction with other Placer County jurisdictions, agencies, and organizations to provide shelter and supportive services for homeless individuals and families.
Policy H4.6 Encourage programs and developments that support inclusive, racially and ethnically diverse, and mixed-income residential communities throughout the City.
Policy H4.7 Support resources and assistance that help individuals who were justice-involved to locate, obtain, and maintain affordable housing.
Policy H4.8 Support programs and services which provide housing discrimination protection.
Policy H4.9 Support programs and measures that increase the affordability and availability of housing for people with disabilities.
Goal H5 Promote affordable housing development through the local government permit process.
Policy H5.1 The City shall continue to explore options to restructure how fees are assessed.
Policy H5.2 The City shall review and modify its Subdivision Improvement Standards, where reasonable, to provide cost savings in the development of residential units while continuing to ensure the public health, safety and welfare.
Policy H5.3 The City ~~shall assign priority to educating the citizens of Roseville regarding~~ **recognizes** the importance of providing affordable housing to support job growth**, and shall prioritize communicating this message to the community**.
Policy H5.4 The City shall ensure that its Zoning Ordinance is regularly updated to be in compliance with new legislation.
~~**Policy H8.4** The City shall attempt to implement a Mortgage Revenue Bond Program for both owner-occupied and rental properties.~~
Goal H6 Continue efforts to encourage energy efficiency in housing construction and maintenance.
Policy H6.1 Roseville Electric shall ~~commit to offering Energy Efficiency and Renewable Energy programs~~ **pursue reasonable and cost-effective energy efficiency, conservation, and load management programs that provide benefits to the community.**
Policy H6.2 Roseville Electric shall continue to apply energy-efficien**cy**~~t~~ requirements to all residential construction.
Policy H6.3 Roseville Electric shall continue the Electric Rate Assistance Programs for residential customers whose medical status or income qualify.
PROGRAMS
Program 1 ~~Section 8~~ Housing Choice Vouchers (Federal) The ~~Section 8~~ Housing Choice Voucher **(HCV)** Program is administered by the Roseville Housing Authority **(RHA)** and provides rental assistance to **extremely and** very low-income households through direct payments to the property owner. **The Housing Authority currently has 785 vouchers which includes separate vouchers for the following special needs groups:**

- 75 vouchers for households with a head-of-household or spouse that are non-elderly and disabled (NED)

- 65 vouchers for veteran households that come by referral from the Veterans Affairs Department (VASH)

- 33 vouchers that assist households who have a non-elderly adult with a disability and are transitioning out of institutional and other segregated settings, or are currently homeless or at risk of becoming homeless (Mainstream – new program in 2018)

- 30 vouchers that are attached to specific units at the Main Street Plaza affordable project (Project Based Vouchers – new program in 2020). Of the 30 PBV vouchers:

- 1 is a regular HCV voucher

- 10 are regular vouchers layered with Placer County Mental Health Services Act funding, 3 of which much come from homelessness

- 19 are VASH vouchers

- 50 new Emergency Housing Vouchers for those who are homeless or at risk of homelessness, fleeing or attempting to flee domestic violence, dating violence, sexual assault, stalking, or human trafficking, recently homeless, or having high risk of housing instability (new program in 2021)

All of the HCV programs listed above support Roseville households that are extremely low-income. The Housing Choice Voucher Rental Assistance Program requires that 75% of new households admitted to the program each year fall under the extremely low-income category. Between 2013 and 2020, RHA issued 525 vouchers to new households. Over the last 8 years, RHA has assisted 49 extremely low-income households per year, at the minimum. The **HCV rental assistance** program is promoted on the City's website**,** ~~and~~ through program brochures **and through service providers throughout the region**.

- **Community Development Block Grant (Federal)**
  The City is an entitlement jurisdiction for Community Development Block Grant (CDBG) funds and sets aside a portion of its annual allocation of CDBG funds for the following housing activities:

- **Owner Occupied Housing Rehabilitation Program**
  The City began the **Owner Occupied** Housing Rehabilitation Program in 1980. The program is considered a key component in the City's affordable housing strategy as a means of preserving Roseville's housing stock affordable to lower-income households. The program, targeted to low-income **home**owner**s** ~~households~~, offers grants to elderly and disabled ~~households~~ **homeowners** and deferred loans to all low-income households for health and safety repairs and ~~home improvements~~ **energy efficient upgrades**. Deferred loans become due and payable upon sale, change of title, ~~or~~ change of use **or 30 years**. Any program income received as a result of a loan payoff is used to fund new loans and grants. The Housing Rehabilitation Program is promoted on the City's website and through the use of program brochures. **Implementation of this program will be directed to disadvantaged geographic areas of the City, where there are overlapping factors such as poverty, overcrowding, cost burden, and poor housing conditions.**

~~**Handyperson Program**~~

~~The City initiated funding for the Handyperson Program in 1999 as a result of public input, which identified a need for such a program in Roseville. The Handyperson Program provides grants to seniors and disabled homeowners in need of minor home repairs, such as installation of grab bars, repair of minor plumbing leaks, etc. The program is administered by Seniors First. Senior and disabled homeowners may be referred to the Housing Rehabilitation Program for assistance if repairs exceed the scope of the Handyperson Program.~~

~~The Handyperson Program is promoted on the City's website, through the use of program brochures, and in the Senior Resource Guide for Placer County.~~

~~**Paint Program**~~

~~The City began the Paint Program in 1995, which provides vouchers for exterior paint and materials to assist low-income homeowners and renters with property maintenance. The program is administered by the City's Housing Division and is promoted on the City's website and through program brochures.~~

- **Home Investment Partnership Program (HOME) (State)**
  The City began its participation in the State-administered HOME Program in 1994 for the creation and maintenance of affordable housing. The City utilizes HOME funds for the following programs:

- **Housing Rehabilitation Program**
  The CDBG funds are leveraged with HOME funds to provide loans and CDBG grants to low-income homeowners. The Housing Rehabilitation Program is described above.

- **First Time Home Buyer (FTHB) – Down Payment Assistance (DAP) Program**
  The City sets aside a portion of its HOME grant for down payment assistance in the form of deferred, shared appreciation loans (second mortgages). The FTHB-DAP Program is targeted to low-income households. The homebuyer must qualify under the City's definition of a first-time home buyer, be able to provide at least a 1% down payment, and have attended a Home Buyer's Seminar. The buyer must also comply with the City's criteria with regard to home selection. **Outreach for this program will be directed to disadvantaged geographic areas of the City, where there are overlapping factors such as poverty, overcrowding, cost burden, and poor housing conditions and where there is a higher proportion of communities of color.**

- **Multi-Family New Construction**
  The City also pursues HOME funds for construction of multi-family affordable units. HOME funds are leveraged with other funding sources such as Section 202 funds, Low Income Housing Tax Credits, Tax Exempt Housing Bonds, etc., to provide affordable rental housing targeted to extremely low- and very low-income households.

(Policies H2.1, H2.2, H2.5, H2.6)

Time Frame: Annual Applications, ~~2013–2021~~ **2021–2029**

Objectives: To support low income households that need assistance in order to stay housed by issuing a minimum of 65 Housing Choice Vouchers per year, 49 of them to extremely low income households, and assisting 6 low income homeowners per year.

Implementing Agency: Housing Division and Roseville Housing Authority

Funding Source: HUD, HOME, CDBG

PROGRAM 2 DENSITY BONUS PROGRAM

The City shall continue to implement its Density Bonus Program to help promote and create affordable housing units. The program provides a property owner the ability to construct more income-producing units within the project that can offset the cost of providing affordable units. The Density Bonus Program is promoted on the City's website, and information is available at the City's Permit Center. The City's Housing Division staff also actively promotes the Density Bonus Program in conjunction with implementation of the 10% Affordable Housing Program.

The City's Density Bonus Program is consistent with State Government Code Section 65915–65918. The Density Bonus Program provides for a minimum 20% to a maximum ~~35~~**50**% density bonus in the maximum number of dwelling units, in addition to incentives and/or concessions. The concessions and/or incentives may include reduction in zoning standards, development standards, design requirements, mixed-use zoning, financial assistance, or any other incentive that would reduce costs of the developer.

A developer may qualify for a density bonus and additional incentives and/or concessions if the developer agrees to construct and maintain a minimum of:

- Five percent (5%) of the units affordable to very low-income households
- Ten percent (10%) of the units affordable to lower-income households
- Ten percent (10%) of the units in a condominium project affordable to moderate-income households
- A senior housing development **or mobilehome park that limits residency based on age**
- **Donates land to the City dedicated for the construction of very low income units**
- **Includes a qualifying child care facility**
- **Ten percent (10%) of the units for transitional foster youth, disabled veterans, or homeless persons and dedicated to very low income households**
- **Twenty percent (20%) of the units for lower income students in a student housing development or**
- **One hundred percent (100%) of the units dedicated to lower income households, except that up to twenty percent (20%) of the units may be dedicated to moderate income households.**

The density bonus is increased on a sliding scale, depending on the type and number of affordable units, up to a maximum ~~35~~**50**% density bonus. The number of concessions/incentives granted by the City also increases based on the number and type of affordable units to be constructed. The developer must enter into an Affordable Housing Agreement to secure the affordable units for a minimum of ~~30~~ **55** years prior to issuance of building permits or prior to final map approval.

(Policies H2.1, H2.2, H2.4)

Time Frame: Ongoing**, and at least annually**

Objectives: To increase the City's supply of affordable housing.

Implementing Agency: Housing Division and Planning Division

Funding Source: General Fund

PROGRAM 3 ~~SECOND UNIT~~ ACCESSORY DWELLING UNITS ORDINANCE

A**n accessory** ~~second~~ dwelling unit **(ADU)** shall be as defined by Government Code Section 65852.2 **as it now exists or may hereafter be amended,** and ~~shall~~ mean**s** an attached or detached residential dwelling unit that provides complete independent living facilities for one (1) or more persons. It shall include permanent provisions for living, sleeping, eating, cooking, and sanitation on the same parcel as the primary dwelling is situated. It also includes an efficiency unit and a manufactured home as defined in the Health and Safety Code. **A junior accessory dwelling unit (JADU) shall be as defined by Government Code Section 65852.22, as it now exists or may hereafter be amended, and currently means a unit that is no more than 500 square feet in**

size and contained entirely within a single-family dwelling. A junior accessory dwelling unit may include separate sanitation facilities, or may share sanitation facilities with the existing structure.

~~The floor area of the second dwelling unit for an attached unit shall not exceed 30% of the existing dwelling's living area. The floor area of the detached unit shall not exceed 1,200 square feet. Fees associated with the development of the second units are the same as those for new single-family units. A second unit is permitted provided it complies with the applicable design and development standards identified in Chapter 19.60 of the Zoning Ordinance.~~

The City currently supports and promotes the development of ~~second~~ **ADUs and JADUs** ~~units~~ on the City's website and information is available at the City's Permit Center.

(Policies H2.1, H2.2, and H2.9)

Time Frame: Ongoing**, and at least annually**

Objectives: **Issue building permits for a minimum of 10 units annually (five times the average rate between 2013 and 2017) for a total of 80 units.**

Implementing Agency: Planning Division

Funding Source: General Fund

PROGRAM 4 CONDOMINIUM CONVERSION ORDINANCE

The City shall continue to enforce its Condominium Conversion Ordinance to define those conditions under which the conversion of rental units to condominiums would be permitted. Under the ordinance, conversions cannot occur unless certain criteria are met, including the City's established minimum citywide vacancy rates for multi-family rental housing; a minimum percentage of multi-family rental units citywide; provision for affordable housing requirements and Community Benefit Fee; and tenant protections, including a Tenant Relocation Plan, etc.

If the conversion meets the required criteria, the developer must enter into an Affordable Housing Agreement to secure the affordable units provided as part of the conversion approval.

(Policies H2.1, H2.2, H2.4, and H2.11)

Time Frame: Ongoing**, and at least annually**

Objectives: To support the conversion of rental units to condominiums.

Implementing Agency: Planning Division and Housing Division

Funding Source: General Fund

PROGRAM 5 STREAMLINE PROJECT PROCESSING

To **provide certainty and** facilitate ~~project approval and provide internal support to project applicants~~ **application processing**, the City **publishes processing schedules for all entitlements, provides pre-application review to ensure applications are complete prior to submittal, and provides an online permit system. The online permit system allows applicants to submit an application, pay fees, and process comments and revisions entirely online. The online permit system streamlines development and reduces applicant costs by eliminating the need for printing, travel to City offices, and mailing delays. The City's entitlement processing timelines are included within Table X-37 on page 148.** ~~established the Development Services Director position within the Development Services Department. That position acts as a~~

~~liaison between project applicants, the development community, the Chamber of Commerce, and City staff to continually assess the City's existing project processing system and identify short- and long-term areas for improvement of the plan check process.~~

(Policies H2.1 and H2.2)

Time Frame: Ongoing, as applications are processed.

Objective: Complete 100% of complete applications within the City's adopted schedules.

Implementing Agency: Development Services Department

Funding Source: General Fund

~~**6. REVIEW OF SUBDIVISION IMPROVEMENT STANDARDS AND ZONING ORDINANCES**~~

~~The City's intent is to ensure current standards represent the best means to achieve housing and other City objectives. The City, through the Public Works and Planning departments, shall continue to review and modify Subdivision Improvement Standards on an annual basis.~~

~~Properly developed and updated standards can help reduce the costs of development while balancing basic environmental, health, safety, and welfare needs.~~

~~*(Policies 1 and 2)*~~

~~**Time Frame:** Evaluate of the Zoning Ordinance every 2–5 years.~~

~~**Implementing Agency:** Planning Department~~

~~**Funding Source:** General Fund~~

PROGRAM 6 SPECIFIC PLAN AREAS (SPA)

The provision of affordable housing is a societal goal, one that should be achieved through the efforts of the entire community. The City shall ensure that Specific Plans are consistent with the goals and policies of the General Plan. The primary purpose of the Specific Plan Area process is to guide the comprehensive urbanization of land use in a mix of residential neighborhoods, schools, parks, open spaces, supporting retail and public facilities, ~~office~~ **employment** uses, and an affordable housing component. The Specific Plan Areas are the first step in implementing programs such as the 10% Affordable Housing ~~Goal~~ **policy**.

The City's General Plan Land Use Element contains a section called Growth Management, which establishes the policy framework the City uses when considering new growth and annexation. Land Use Policy LU8.5 states "The City shall use the specific plan process to ensure a comprehensive, logical growth process for new development areas (e.g. annexations) or any areas where significant land use changes are considered." The City's General Plan establishes that the City does not grow in a piece-meal fashion. Instead, the City considers all annexations or significant land use plans inside the context of a detailed Specific Plan process. Additional Land Use Element policies describe the minimum standards, information, and benchmarks which must be met by new Specific Plans, which includes demonstration of compliance with the City's 10% affordable housing policy.

The City's 10% affordable housing policy has produced over 3,000 units since program inception, which is an average of 100 units per year. Furthermore, over the last decade the City's average overall housing production has been approximately 950 units per year, which means that on average 10% of the City's growth during the prior Housing Element cycle has been affordable housing. The 10% goal is applied within each Specific Plan as well, not just

for the City as a whole. For example, the Stoneridge Specific Plan included capacity for 2,861 total units, 286 units of which were required to be affordable. At the time the Specific Plan was adopted in 1998 the City's policy did not require a 40/40/20 split of very low/low/moderate income units, so the Specific Plan called for a split of 75% very low and low (combined) and 25% moderate income units. The Specific Plan is nearly fully built with a total of 2,745 total units constructed, of which 251 are affordable, with 116 mixed income units remaining, of which 29 are lower income[1]. Of the constructed affordable units, 73 were moderate income purchase, 150 were low and very low income rental (for seniors), and 28 were low income purchase.

Compliance with the City's General Plan growth management policies results in a robust and detailed Specific Plan. The City's Specific Plans are divided into large lots, and each of these, if residential, is assigned a specific number of allocated units. This is evident in the City's residential capacity inventory in Table X-29 (page 77), where each Specific Plan includes a list of numbered large lots (e.g. AR-1 for Amoruso Ranch Specific Plan Large Lot 1) and these are assigned a land use designation, zoning designation, density, and specific number of allocated units. In turn, this allows the City's infrastructure planning for roads, drainage, sewer, and water, as well as service planning for parks, schools, fire services, and transit to be extremely robust and detailed. Each plan specifically defines the size and location of infrastructure and services, including lift stations, electric substations, wells, and fire stations. The detailed planning process enables the California Environmental Quality Act (CEQA) process to be likewise detailed and specific, resulting in the ability of future subdivision or multifamily projects consistent with the Specific Plan to use CEQA exemptions.

As part of assigning each large lot a specific unit allocation and density, a new Specific Plan must designate at least 10% of the total units as affordable. The affordable housing section or chapter of each Specific Plan includes a table or list of all large lots with an affordable housing obligation, along with ~~Within each SPA, specific parcels are subject to certain affordable housing requirements. Agreements between the City and developers may include a variety of housing types, including mixed use, wherever applicable to help achieve the 10% Affordable Housing Goal.Specific Plans identify programs to meet the 10% Affordable Housing Goal. T~~ the type of units **and** targeted income categories~~, and parcel-by-parcel obligations are specified~~. Strategies, including City and landowner obligations, are described. A provision for the payment of in-lieu fees for affordable housing may be included, if appropriate. **The City works with the Specific Plan applicant(s) to ensure an appropriate mix and type of residential and non-residential uses, and to ensure that affordable housing sites are distributed through the planning area in order to avoid the creation of concentrated affluence. The City does not meet its affordable housing policy in a piece-meal or project-by-project fashion; the affordable housing plan is established at the time the Specific Plan is approved.** ~~Development Agreements are utilized to secure implementation of the Affordable Housing Program.~~ Additional discussion regarding the City's Specific Plan Areas is provided under the 10% Affordable Housing Goal in the Housing Constraints section of this Housing Element.

(Policies H2.1, H2.2, H2.3, H2.4, H2.8, and H2.10)

Time Frame: Ongoing, as SPAs are approved

Objectives: Ensure affordable units are integrated throughout the SPA and provide 10% of total SPA units as affordable units, consistent with Land Use Element Policy LU5.5.

[1] **These affordable units are located on Parcel 17 (4 purchase units), Parcel 54 (69 purchase units), Parcel 21 (150 rental units), and Parcel 23 (28 purchase units), which are distributed through the Specific Plan. The map is located here:**
https://www.roseville.ca.us/UserFiles/Servers/Server_7964838/File/Government/Departments/Development%20Services/Planning/Specific%20Plans%20&%20Planning%20Areas/Stoneridge%20Specific%20Plan/Stoneridge%20Tables%20and%20Map.pdf

Implementing Agency: Housing Division and Planning Division

Funding Source: General Fund

PROGRAM 7 PUBLIC/PRIVATE PARTNERSHIPS

~~The provision of affordable housing is a societal goal, one that should be achieved through the efforts of the entire community.~~ **While the Specific Plan Areas program above establishes the process by which affordable housing is scoped and planned within each Specific Plan, the Public/Private Partnerships program ensures the requirement is recorded on each property and defines the responsibilities of the City and property owner.** Within each of the adopted Specific Plans, the City has included a provision for a public/private partnership, between developers of housing and the City, to achieve the 10% Affordable Housing Goal. **In addition to implementing the Affordable Housing Goal within the Specific Plan, the City also requires the affordable housing plan to be reflected within a Development Agreement. The Development Agreement restates the land use plan, including the units allocated and the affordable housing obligations, but also includes a financing plan. The financing plan uses the detailed infrastructure and service studies to establish the per-unit fees which will be applied to every residential unit or non-residential project. This makes fees predictable and transparent for developers.** Roseville has identified the following specific roles in this partnership to provide affordable housing:

City of Roseville

The City shall continue with an aggressive affordable housing program designed to maximize potential funds available through existing federal, state, and local programs. Developers for each of the designated affordable housing parcels are required to provide affordable housing pursuant to the terms of the Specific Plan Development Agreement. **The Development Agreement requires a developer to enter into an Affordable Housing Agreement** ~~P~~**p**rior to building permits being issued or recording of the final map~~, developers are required to enter into an Affordable Housing Development Agreement~~. The City of Roseville will assist all property owners in obtaining appropriate and available subsidies for construction of the affordable housing obligation. ~~If adequate subsidies are unavailable, the affordable housing goal may be deferred to a later phase of the project to allow time to assemble the necessary financing.~~

Development Community

Developers for each of the designated affordable housing parcels are required to provide affordable housing pursuant to the terms of the Specific Plan Development Agreement.

(Policy H2.7)

Time Frame: Ongoing Roseville Specific Plan Process

Objectives: Ensure affordable units are integrated throughout the SPA and provide 10% of total SPA units as affordable units, consistent with Land Use Element Policy LU5.5.

Implementing Agency: Housing Division and Planning Division

Funding Source: General Fund

PROGRAM 8 AFFORDABLE HOUSING AGREEMENTS

Implementation of the City's Affordable Housing Goal begins with planning of the Specific Plan, is established by the Development Agreement, and then when a developer is ready to pursue construction on a site with an affordable housing obligation, is effectuated by the Affordable Housing Agreement. The City shall require Affordable Housing Agreements for all housing projects subject to affordability requirements. Such agreements shall stipulate: (1) the number of affordable units to be constructed;

(2) the affordable purchase ~~price~~ **calculations** or rental price; (3) the income group to whom the units will be affordable; and (4) the length of time the units will remain affordable. Maximum rents and purchase prices will be determined based on unit size and occupancy levels as follows:

Unit Size	Household Size
1 Bedroom	1.5 Persons
2 Bedroom	3 Persons
3 Bedrooms	4.5 Persons
4 Bedrooms	6 Persons

~~If adequate subsidies are not available to assist in achieving the 10% Affordable Housing Goal, the goal may be deferred to a future date agreed upon by the property owner and the City. Deferring the goal will give the City an opportunity to assemble the necessary financing.~~

The City shall, on an annual basis, review all Affordable Housing Agreements for compliance with affordability provisions. Any property owner who fails to comply with the requirements of an Affordable Housing Agreement may be found by the City Council to be in default of the agreement.

(Policies H2.1, H2.2, H2.3, H2.7, H2.9, and H2.10)

Time Frame: Ongoing and Annual Monitoring

Objectives: Provide 10% of total SPA units as affordable units, consistent with Land Use Element Policy LU5.5.

Implementing Agency: Housing Division

Funding Source: General Fund

PROGRAM 9 IN-LIEU FEES

The City prefers affordable housing be developed as specified under the 10% Affordable Housing Goal within each of the Specific Plan Areas. The collection of in-lieu fees presents a challenge to the City, since the City does not control or own land to ensure the development of the affordable units. Therefore, the City has not established a formal in-lieu fee program and encourages the development of affordable housing. In-lieu fees may be considered on a case-by-case basis. In all cases where in-lieu fees are considered as an alternative to producing affordable units, Housing Division staff will review the project based on: (1) a good faith effort by the owner to secure and use available subsidies; (2) the type of project and its ability to absorb the affordable units; and (3) the ability to use the in-lieu fees within the same Specific Plan or infill areas. **Projects in areas of high opportunity or in areas at risk of displacement will be prioritized to receive any funds collected.**

Development Agreements shall be the mechanism used to secure implementation of the affordable housing program.

(Policies H2.1, H2.2, and H2.3)

Time Frame: Ongoing, as SPAs are approved.

Objectives: Provide 10% of total SPA units as affordable units, consistent with Land Use Element Policy LU5.5.

Implementing Agency: Housing Division

Funding Source: General Fund

PROGRAM 10 NON-RESIDENTIAL CONSTRUCTION FEE

The City shall consider the establishment of a non-residential construction fee program, **and has initiated a nexus study to review the establishment of a non-residential construction fee** which would levy a fee on non-residential construction to assist in the development and retention of affordable housing. The rationale behind this fee is that new employment is a factor in the need for additional housing. The City ~~expects~~ **will** ~~to~~ review the establishment of a non-residential construction fee by 20**21**~~14-2015~~, at which time the City will determine if it will pursue a program and, if so, the specifics of the program.

(Policy H2.7)

Time Frame: 2021 ~~2014–2015~~

Objectives: Provide additional funding sources for affordable housing.

Implementing Agency: ~~Housing Division~~ **Development Services Department, Affordable Housing and Planning Administration for nexus study**

Funding Source: ~~General Fund~~ Funds would be generated as part of this program to provide affordable housing.

~~**PROGRAM 11 UNITS AT RISK**~~

~~As noted, the City does not have any projects at risk of conversion to market rate during the eight-year planning period of the Housing Element and subsequent eight-year planning period. However, the City has identified the following program for projects at risk of conversion in future years.~~

~~On an annual basis, the City will update its list of subsidized rental properties and identify those units at risk of converting to market-rate units.~~

~~If the City identifies projects with affordable units at risk, the City will contact the owner regarding their interest in selling properties or maintaining the rental units as affordable.~~

~~The City will work with property owners to identify and apply for federal, state, and local subsidies to ensure the continued affordability of housing units.~~

~~The City will maintain a list of nonprofit agencies interested in acquisition/rehabilitation of at-risk units and inform them of the status of such units.~~

~~The City will work with nonprofit agencies to identify and apply for federal, state, and local subsidies available to assist with providing funds for the acquisition and rehabilitation of at-risk projects.~~

~~The City will make available to tenants of projects at risk of conversion, referral and contact information regarding tenant rights and conversion procedures, as well as information regarding other affordable housing opportunities within the city.~~

PROGRAM 11 PRESERVATION OF AFFORABLE HOUSING

The City shall designate a Preservation Coordinator who will:

- **On an annual basis, update and analyze the risk of conversion to the highest risk properties.**
- **Register with State HCD as a Qualified Entity to receive notices of properties facing a potential loss of affordability.**

- **If the Preservation Coordinator identifies projects with affordable units at risk, the City will contact the owner regarding their interest in selling properties or maintaining the rental units as affordable.**

- **The City will work with property owners to assist with the provision of the required notifications to tenants, local governments, and Qualified Entities in addition to assisting qualified local nonprofit organizations to register as a Qualified Entity.**

- **The City will assist with the identification and application for federal, state, and local subsidies to ensure the continued affordability of housing units.**

- **The City will make available to tenants of projects at risk of conversion, referral and contact information regarding tenant rights and conversion procedures, as well as information regarding other affordable housing opportunities within the City.**

(Policy H2.6, H2.11)

Time Frame: ~~Annually monitor.~~ **Ongoing, and at least annually**

Objectives: To ensure affordable units remain affordable for as long as possible.

Implementing Agency: Housing Division

Funding Source: General Fund

PROGRAM 12 HOUSING SUCCESSOR AGENCY

~~On 2/22/12 the City became the Housing Successor of the Former Redevelopment Agency and will be working with the Department of Finance, in order to approve 2–3 affordable rental housing projects which were slated for development, using 2006 Housing Bonds in the amount of $5.5 million. After the expenditure of those funds, there will not be any further assistance for affordable housing development using Low/Moderate Income Housing Fund or bond funds generated through the former Redevelopment Agency's tax increment.~~

All redevelopment agencies were dissolved in California effective February 1, 2012. The City of Roseville elected to function as the successor to the former Redevelopment Agency ("Successor Agency") and to form a Housing Successor to serve as the governing body for the former agency's low and moderate income housing assets. Housing Successors receive the non-cash housing assets of the former Redevelopment Agencies and are charged with monitoring and maintaining existing low-and moderate income housing assets and meeting outstanding requirements for former redevelopment agencies.

Beginning in 2015, agreements were made to spend the remaining $5.9 million in bond proceeds on an affordable housing development constructed by Mercy Housing. That project was completed in 2018 and the total distributed to Mercy in the form of a loan was $5.76 million. After the expenditure of those funds, there are no longer any significant funding sources available.

The Housing Successor receives 20% of loan repayment revenues, approximately $240,000 annually, until all loans are paid back, which is projected to be 2036. As of October 2020 there are current projects, planned for yet unencumbered, totaling approximately $1.2 million. The Housing Successor may spend up to $250,000 for Homeless Prevention and Rapid Rehousing (HPRR) each year, the maximum allowed in the law. The City will annually track the demographics of the people benefiting from these funds to ensure they are equitably distributed, and make adjustments to funding if they are not; this assessment shall use the best available data, including updated Census, ACS, Point in Time counts, and other data. Going forward the fund's revenues will be only from loan payment funds. Surplus funds may provide small gap funding for future affordable development projects. Projects in

areas of high opportunity or in areas at risk of displacement will be prioritized to receive any funds collected.

Time Frame: 2021–2029 ~~2013–2021, or until the $5.5 million is expended.~~

Objectives: Gap financing for future developments and Homeless Prevention and Rapid Rehousing Program

Implementing Agency: Housing Division

Funding Source: **City loan payoffs** ~~Housing Bonds~~

PROGRAM 13 RESIDENTIAL CAPACITY MONITORING (NO NET LOSS) ~~**MONITOR THE CITY'S LAND INVENTORY**~~

The City will continuously monitor the development of all sites identified in the adequate sites inventory, to ensure the minimum Regional Housing Needs Allocation for each income category is met at all times. The City will use an evaluation and tracking procedure pursuant to Government Code Section 65863. The City will track all instances where a site identified in the City's adequate sites inventory is developed with greater or fewer units (at the specified income level) than had been identified in the inventory. If a project is proposed which would reduce the City's capacity in any income category below the amount allocated by the City's Regional Housing Needs Assessment, the City will identify and, if necessary, rezone within six months sufficient sites to offset the shortfall and ensure no net loss in capacity. ~~The City will annually review its land inventory to ensure there is enough vacant residential land in the city to meet its RHNA allocation.~~

(Goal H3)

Time Frame: ~~Annually~~ **Ongoing as applications are received, and at least monthly.**

Objectives: Evaluate 100% of residential applications for RHNA consistency.

Implementing Agency: Planning Division and Housing Division

Funding Source: General Fund

~~**Downtown Specific Plan**~~

~~The City will implement the Downtown Specific Plan focusing on infill development, revitalization of older neighborhoods and commercial corridors, as well as encouraging the development of mixed use and high density residential units. The City offers various programs in the Downtown Specific Plan, which encourage and facilitate the development of high density and mixed use housing.~~

~~**Time Frame:** Ongoing~~

~~**Implementing Agency:** Housing Division~~

~~Funding Source: General Fund~~

PROGRAM 14 REZONE PROGRAM FOR ADEQUATE SITES

The City has been allocated a RHNA of 12,066 total units, of which 6,178 units must be lower income (a combination of low and very low income). As of the writing of this Housing Element, the City has insufficient units to meet the lower income RHNA, and has therefore committed to providing adequate sites through a rezone program consisting of the below. Each strategy describes two figures: the total capacity and the realistic capacity. The total capacity describes the total number of units which could result from full implementation of the strategy. The realistic capacity is a smaller number of units and represents the units the rezone program could realistically achieve within the 8-year planning period. The

rezone program has generally been designed to operate as a menu, identifying a broad array of sites which could accommodate units from which to select in order to achieve the RHNA obligation.

1. Commercial Corridors: The City has identified three commercial corridors for revitalization. The Douglas Boulevard/Harding Boulevard Corridor includes a mix of single-family residential properties, single-family residences which have been converted to businesses, aging hotels, and many older commercial properties with large, minimally improved parking fields. The Douglas Boulevard/Sunrise Avenue Corridor includes a mix of land uses, including commercial businesses and business professional offices with large, minimally improved parking fields and single-family homes, duplexes, and apartments. The Atlantic Street Corridor includes a mix of uses along the street frontage, with residential uses to the rear; many of the residential properties contain more than one housing unit, or room for additional units. The Commercial Corridors strategy will consist of the preparation of Specific Plans for each corridor, the establishment of mixed-use land use and zoning designations to provide more opportunities for redevelopment and reuse, more flexible zoning and development standards, and streamlined approval processes. The City anticipates adding capacity for a minimum of 400 lower income residential units, which represents both the total and realistic capacity. See Appendix E for details.

2. Infill Intensification: The central core of Roseville where development occurred prior to the 1980s is known as the City's "Infill Area," and is approximately 8,500 acres. This older area of the City is not within a Specific Plan, and much of the development occurred prior to the adoption of the City's General Plan or Zoning regulations. Consequently, inconsistencies between a property's land use and zoning designations are relatively common, and the land use designation density typically reflects the built conditions rather than planned future conditions. These factors have presented regulatory barriers to development and redevelopment. The City would amend the land use and zoning designation of selected properties in the Infill Area, to remedy inconsistencies between land use and zoning and to increase the permitted residential densities. This program has the potential to add capacity for 832 units at all levels of affordability. The realistic capacity of this program is 186 units, based on the assumption that vacant or significantly underutilized sites are most likely to develop. See Appendix E for details. This program will include a replacement program, to ensure that if units are demolished and replaced the residents are not displaced and at least as many homes are rebuilt as were removed.

3. Opportunity Sites: Staff examined vacant sites throughout the City to find properties with the potential to be converted to a high density residential land use designation. After screening out sites due to the presence of approved entitlements, Development Agreements, or significant environmental constraints (floodplain, wetland preserves, etc), the City has identified potential sites for evaluation as part of this rezone program. Additional sites may be identified as the City develops this option and sites on this list may be removed due to constraints. The current list of sites has the potential to add a total capacity of 1,350 lower income (high density) residential units. The realistic capacity of this strategy is 600 lower income (high density) units. See Appendix E for details.

4. Vacant Sites—Residential Intensification: The western areas of the City include multiple vacant sites with High Density Residential land uses at densities below 25 units per acre. Increasing the land use density of these sites to 30 units per acre would yield additional units. As part of this strategy the City would develop and adopt a Land Use Amendment Policy requiring all Specific Plan Amendment projects involving land use changes to also amend the land use of High Density Residential sites the applicant/property owner controls to between 25 and 30 units to the acre. If all of the sites were amended to 30 units per acre the total capacity is 1,880 high density units. However, the realistic capacity is 900 units. See Appendix E for details.

The above rezone program has a realistic capacity of 2,086 lower income (high density) units. In adopting this program the City is approving a menu of strategies which may be pursued, and providing evidence

for the realistic capacity which could be added by each. In implementing the rezone program, the City may choose to implement one, all, or portions of these, based on need and to the extent necessary to ensure the City achieves the minimum required RHNA capacity, which currently requires the addition of 1,718 lower income units. The City's rezone program, in combination with other programs, shall result in the City's achievement and maintenance of the minimum required capacity of 6,178 lower income units. As stated in Housing Element Program 15, the City's adopted Zoning Ordinance permits ministerial (by-right) development of multifamily projects where at least 20% of the sites are affordable to lower income households. All of the sites identified in the City's rezone program shall be zoned with a minimum density of at least 20 units per acre, and more than 50% shall be accommodated on sites designated for residential use and for which nonresidential uses or mixed uses are not permitted.

(Policy H3.2, H3.4, H3.5)

Time Frame: 2024

Objectives: Achieve a minimum lower income capacity of 6,178 units by 2024.

Implementing Agency: Planning Division

Funding Source: General Fund/Grant Funding

PROGRAM 15 AFFORDABLE HOUSING STREAMLINING

The City has a ministerial approval process for affordable housing projects which meet specified criteria. The streamlined approval process is an opt-in program for developers who must request streamlined ministerial approval at the time of application to the City. To qualify, the developer must agree to enter into an affordable housing agreement with the City ensuring a minimum of 20% of the units will be affordable to low, very low, or extremely low income households. A qualifying project may opt to be reviewed for conformity with the City's Objective Design Standards though the ministerial Building Permit process in lieu of the City's discretionary Design Review Permit process. The Objective Design Standards are available on the City's Planning Division website. The City's discretionary Design Review Permit process is required for any developer seeking exceptions, variances, or modifications to objective zoning or objective design standards, excluding modifications granted as part of a density bonus concession, incentive, parking reduction, or waiver of development standards pursuant to Density Bonus Law or the City's density bonus program. The program applies citywide to all affordable housing projects meeting the affordability requirement, including to sites which have been included in the inventory for more than one Housing Element cycle.

(Policy H3.1)

Time Frame: Ongoing as applications are received, and at least annually.

Objectives: To streamline the approval of affordable housing projects by providing a ministerial approval process, thereby shortening timeframes by an average of three to five months and fees by $8,000 or more.

Implementing Agency: Housing Division and Planning Division

Funding Source: General Fund

PROGRAM 16 PRIORITIZE AFFORDABLE HOUSING

The City will prioritize the timely and efficient processing of affordable housing projects through various means, including via the City's ministerial approval process, prioritizing utility services for affordable projects, and providing support and assistance in securing grants and other financial subsidies. The City will also develop a phasing program for affordable housing sites, which will include streamlined

processes for lot line adjustments, parcel maps, and similar entitlements which may be necessary to support construction and financing of affordable housing. At minimum, the phasing program will provide for ministerial processing of lot line adjustments, voluntary mergers, and parcel maps. The City will also investigate the development of fee reductions for affordable housing projects. The City will annually track the use of Program 16 to determine its effectiveness, which will be evaluated based on the percent of affordable housing projects using the program, as well as the percent of large site property owners/developers using the program. The City will annually meet with affordable housing developers to discuss constraints to the production of affordable housing, and based on this feedback, commits to implementing program improvements to ensure the City meets its goal of 100% of affordable housing projects using the program.

(Policy H3.1)

Time Frame: 2024 and ongoing

Objectives: To facilitate and incentivize the construction of affordable housing. The goal is for 100% of affordable housing projects to leverage this program.

Implementing Agency: Housing Division and Planning Division

Funding Source: General Fund

PROGRAM 17 HOUSING REPLACEMENT PROGRAM

Sites that have residential uses, or which had residential uses that were vacated or demolished anytime within the prior five years, shall be subject to this replacement program if any of the units were subject to an affordable housing agreement (or other affordability requirement pursuant to Government Code Section 65583.2). Development proposals on such sites shall maintain all affordable units at the same or lower income level, or shall be contingent on the replacement of all lost affordable units, at the same or lower income level.

(Policy H3.1)

Time Frame: Ongoing, as applications are received.

Objectives: To ensure conservation and replacement of affordable units.

Implementing Agency: Housing Division and Planning Division

Funding Source: General Fund

PROGRAM 18 ACCESSORY DWELLING UNIT OUTREACH PROGRAM

The City will develop an accessory dwelling unit outreach program targeting existing multifamily sites, to help educate the owners of multifamily properties about the use of accessory dwelling units as a means to add units on multifamily sites without the need for additional entitlements. The program is intended to promote and create affordable housing units. The program will be promoted on the City's website and information will be available at the City's Permit Center. The City's Housing Division staff will also actively promote the program in conjunction with implementation of the 10% Affordable Housing Program and other Housing programs.

(Policy H3.2, H3.3)

Time Frame: 2022

Objectives: Ensure 100% of multifamily property owners who contact the City receive information on accessory dwelling units.

Implementing Agency: Planning Division and Housing Division

Funding Source: General Fund

PROGRAM 19 FEDERAL AND STATE PROGRAMS

The City shall pursue the following state and federal sources that will assist the City in addressing the housing and supportive needs of special needs populations. **The City shall meet a minimum of once annually with affordable housing developers to discuss barriers to the production of affordable housing, with a particular emphasis on the production of extremely low income housing and housing for special needs groups. Consistent with this program and other housing programs (such as Program 8, 9, 10, 12, and 16) the City shall prioritize, incentivize, and facilitate the construction of housing for extremely low income and special needs households, including by using financial resources to provide gap funding.**

Section 8 Housing Choice Voucher Program (Federal)

The Department of Housing and Urban Development (HUD) provides funding for rental subsidy payments for households earning 50% or less of the **area** median income. **Special vouchers have also been made available for veterans, called Veterans Administration Supportive Housing (VASH), as well as Mainstream Vouchers which serve those with mental illness and are homeless or near homelessness.** The **HCV** ~~is~~ program**s serve households who are extremely low income and/or disabled and** ~~is~~ **are** administered by the Roseville Housing Authority. **The Roseville Housing Authority (RHA) shall provide Housing Choice Vouchers (HCVs) to very low- and extremely low-income households in order to provide affordable housing options to those most in need; 75% of new households receiving vouchers shall be extremely low income. RHA shall offer Small Area Fair Market Rents and provide landlord education on the benefits of participating in the program. RHA shall also consider implementing a Landlord Incentive Program based on available federal funding and other best practices to incentivize new landlords to participate in the program. RHA will provide outreach materials to multifamily property owners and managers in areas of high opportunity on the benefits of accepting HCVs and will work to increase the number of properties accepting HCVs in high opportunity areas.**

Section 202 (Federal)

HUD provides long-term, direct loans to private, non-profit sponsors to finance new construction of elderly and disabled housing affordable to households earning 50% or less of the median income. The City will support applications by non-profit housing developers for Section 202 funding.

HOME Investment Partnership Program (State)

The Housing Division utilizes State-administered federal HOME funds for the First Time Homebuyer Program, which provides down payment assistance to low-income first time homebuyers. The City's First Time Home Buyer Down Payment Assistance Program allows displaced homemakers to qualify as first time home buyers. The City also uses HOME funds to leverage Community Development Block Grant funds for the Housing Rehabilitation Program described below. The City will pursue HOME funds for financing of affordable multi-family rental projects targeted to special needs groups such as seniors **and those with disabilities**.

Community Development Block Grant (CDBG) (Federal)

The City will continue to set aside CDBG funds for the following programs that address the needs of special needs populations, including elderly, disabled, and homeless individuals and families.

Housing Rehabilitation Program

Deferred loans up to $100,000 are available to low-income homeowners for health and safety repairs and general home improvements. Elderly and disabled homeowners can also receive a $5,000 grant for health and safety repairs. **Outreach for this program will be directed to disadvantaged geographic areas of the City, where there are overlapping factors such as poverty, overcrowding, cost burden, and poor housing conditions and where there is a higher proportion of communities of color based on the most current census data.** ~~Roseville Handyperson Program~~

~~The Roseville Handyperson Program provides grants to elderly and disabled homeowners for minor home repairs and handicapped accessible improvements.~~

Public Service Funds

The City has made CDBG Public Service funds available to non-profit agencies and organizations that provide supportive services to special needs populations. The City will continue to consider applications for funding for special needs activities under the Public Service category during the Annual Action Plan process.

(Policies H4.1, H4.2, H4.3, H4.4 and H4.5)

Time Frame: Ongoing, as funding is available**, and at least annually**.

Objectives: Effectively implement federal and state programs and leverage funding opportunities, increase the number of participating properties in high resource areas of the City, and obtain funding for affordable housing projects serving special needs populations.

Implementing Agency: Housing Division

Funding Source: Housing Choice Voucher, CDBG, HOME, Section 202

PROGRAM 20 HOMELESS PREVENTION AND RAPID REHOUSING PROGRAM ~~LOCAL PROGRAMS~~

~~The City shall continue to utilize and encourage service providers who assist special needs populations to use the following local financing programs to address the needs of special needs populations:~~

~~**Homeless Voucher Program**~~

The City Council has approved Roseville Homeless Prevention Rapid Rehousing (HPRR) funds consisting of Permanent Local Housing Allocation funds and up to $250,000 in Low and Moderate Income Funds to assist Roseville homeless and those about to be homeless with grants for payment of past due rent, security deposits, first month's rent, past due utility bills, and emergency motel vouchers. Non-profits apply for program funds annually. On average, the HPRR program serves the community by providing over 37,000 bed nights for the homeless annually, providing rental assistance to maintain permanent housing for approximately 500 households, placing 50 individuals into transitional or treatment facilities, and permanently housing 15 people from homelessness per year. The City will annually track the demographics of the people benefiting from these funds to ensure they are equitably distributed, and make adjustments to funding if they are not. ~~The City Council has approved Roseville General Funds to assist homeless persons in Roseville and those about to be homeless with grants up to $1,500 for payment of past due rent, security deposits, first month's rent, past due utility bills, and emergency motel vouchers. The Salvation Army administers the program and provides dollar-for-dollar matching funds. The program is promoted by the Salvation Army and by referrals from local nonprofit organizations and/or advocates for the homeless.~~

(Policy H4.5)

Time Frame: Ongoing, as funding is available, and at least annually.

Objectives: Fund non-profits to implement homeless prevention and rapid rehousing programs such as rent, utilities and deposit payments, homeless hotel vouchers, and ready-to-rent programs.

Implementing Agency: Housing Division & Non-profit**s that apply for funding**~~, City Manager, City Council~~

Funding Source: ~~General Fund, Citizens' Benefit Fund, and REACH Fund~~ **Permanent Local Housing Allocation and Low and Moderate Income Fund**

PROGRAM 21 ROSEVILLE COMMUNITY GRANT FUNDS

~~**Roseville Community Grant Funds**~~

~~The City has established the following community grants.~~ The Grants Advisory Commission reviews grant applications and makes grant recommendations on an annual basis to the City Council **for the following community grants:**

Citizens' Benefit Fund

The Citizens' Benefit was established in 1993 following the sale of the City-owned Roseville Hospital. The proceeds were invested and a portion of the interest earned each year is made available for grants with the purpose of improving the quality of life for the citizens of Roseville. Public agencies, schools and non-profit 501(c)3 or 501(c)4 are eligible to apply.

~~The Citizens' Benefit Fund utilizes interest payments on funds received from the sale of the City-owned Roseville Community Hospital to provide grants of up to $30,000 to public agencies, schools, and nonprofit organizations serving citizens of Roseville are eligible to apply "to improve the quality of life for the citizens of Roseville."~~

REACH Fund

The Roseville Employees Annual Charitable Hearts Fund (REACH) is a community giving fund created through the generosity of Roseville employees and retirees. These employee-donated funds are dispersed to local charitable organizations that serve youth, seniors and families in the South Placer County region.

~~The REACH Fund utilizes contributions by Roseville City employees, retirees, and businesses to provide grants up to $7,500 to public agencies, schools, and nonprofit organizations that assist youth, families, or seniors in Placer County.~~

(Policy H4.5)

Time Frame: Ongoing, as funding is available, and at least annually

Objectives: Provide funding to public agencies and non-profits for programs that benefit and support the Roseville community.

Implementing Agency: Housing Division, City Manager, City Council

Funding Source: Citizens' Benefit Trust, and REACH Fund

PROGRAM 22 ADDRESS SIGNIFICANT DISPARITIES AND INCREASE OPPORTUNITIES

To Achieve Getting People and Families off the Street, the City will:

- **Create opportunities for development of permanent supportive housing for people experiencing homelessness, including families, by identifying sites and properties and prioritize local funding**

and incentives for that use. Current activities include consideration of a Project Homekey development which would create new permanent supportive housing units for people experiencing homelessness.

- Create and fund rehousing plans to move people from emergency COVID sheltering to permanent affordable housing, and in the future, respond similarly to major health or housing displacement emergencies. In its COVID response, the City has partnered with Placer County on a COVID rehousing program.

To Achieve Keeping People in their Homes, the City will:

- Provide Rental Assistance: fund rental assistance and work with tenants, nonprofit housing providers, advocates and the state to find solutions on rent that keeps tenants out of debt, prevents displacement, and sustains financial security of nonprofit housing providers. City's CDBG-CV3 funds are supporting a COVID rental assistance program. The City is partnering with Placer County on rental assistance for low-income households who are facing hardships due to the COVID-19 pandemic.

- Continue and adopt policies to prevent displacement including strategies to protect senior and low-income homeowners such as targeting home repair programs and no-net loss policies for existing affordable housing and condo conversion ordinances. The City will continue its income-qualified Owner-Occupied Housing Rehabilitation deferred loan and grant program. Applications and outreach materials are posted in English and Spanish. The City will direct implementation of these policies and programs into geographic areas of the community at greatest sensitivity or risk of displacement.

To Increase and Preserve the Affordable Housing Supply, the City will:

- Undertake all preservation programs outlined in the preservation section of the HE which includes continuing to annually monitor and support preservation of existing regulated affordable homes at risk of converting to market rates. The City currently monitors such developments and will enhance its program by naming a Preservation Coordinator.

- Provide outreach on targeted first-time homebuyer programs in neighborhoods that have suffered from historic disinvestment to increase awareness and access to such programs like HUD Section 8 Homebuyer assistance. Outreach will be in English and Spanish.

- Strengthen its local housing trust fund with local revenue sources. Currently the City's revenue sources include in lieu fees and pay offs from affordable purchase loans. Actions to include re-applying for state Local Housing Trust Fund (LHTF) Program as they are released.

Metrics: Number of households assisted with rental assistance; owner occupied rehab; number of permanent supportive housing projects the City explores.

(Policy H4.10)

Time Frame: Ongoing, and at least annually

Objectives: To ensure that direct and indirect government activities and influence is equitable and supports access to housing opportunists for all groups. Metrics for success include 700 low, very low and extremely low income households assisted with rental assistance; 15 owner-occupied rehab projects (based on current funding levels) within a disadvantaged community area or area at risk of displacement; at least 1 permanent supportive housing project explored annually.

Implementing Agency: Housing Division

Funding Source: Community Development Block Grant, General Fund

PROGRAM 23 HOMELESS OUTREACH

The Roseville Police Department uses a Social Services Unit consisting of two full-time Problem-Oriented Policing Officers and two Homeless Outreach Workers from Placer County Health and Human Services to link homeless individuals to services throughout the County and to build trust with unsheltered individuals, particularly among communities where distrust is widespread and acts as a barrier to accessing services.

(Policy H4.5)

Time Frame: Ongoing, and at least annually

Objectives: Contact 50 high-risk community members per month.

Implementing Agency: Roseville Police Department Social Services Unit

Funding Source: Community Development Block Grant, Downtown Roseville Partnership, General Fund

PROGRAM 24 FAMILY MOBILE TEAM

The Roseville Police Department collaborates with Placer County Mental Health on a Family Mobile Team unit, which responds to family crisis situations and calls from minors in dangerous situations, to connect these individuals to support and services to avoid these situations from resulting in homelessness.

(Policy H4.5)

Time Frame: Ongoing, and at least annually

Objectives: A minimum of 350 interactions annually.

Implementing Agency: Roseville Police Department Social Services Unit

Funding Source: Community Development Block Grant, Downtown Roseville Partnership, General Fund

PROGRAM 25 FAMILY REUNIFICATION PROGRAM

The City will implement a Family Connect and Reunification Program to assist those experiencing homelessness to be reconnected with family and friends who can help support the individual, including by providing transportation to the friend or family member.

(Policy H4.5)

Time Frame: Ongoing, and at least annually.

Objectives: Reunification of 20 individuals experiencing homelessness

Implementing Agency: Roseville Police Department Social Services Unit

Funding Source: Grant program or other funding

PROGRAM 26 REGIONAL HOUSING PROGRAMS

When feasible, the City will address affordable housing issues on a regional basis.

Homeless Emergency Assistance and Rapid Transition to Housing (HEARTH) Act Funds

The City's Housing Division will continue to participate in the Placer Consortium on Homelessness (PCOH) with other jurisdictions, local organizations, and service providers to establish and promote a network of facilities and resources to assist the homeless population and other special needs populations. The City will continue to participate in the preparation of the Placer County Continuum of Care annual application for Homeless Emergency Assistance and Rapid Transition to Housing (HEARTH) Act funds.

(Policy H4.5)

Time Frame: Annually

Objectives: Participate in regional approaches to affordable housing.

Implementing Agency: Housing Division

Funding Source: Homeless Emergency Assistance and Rapid Transition to Housing (HEARTH) Act funds (Federal)

PROGRAM 27 FAIR HOUSING AND HOUSING DISCRIMINATION LEGAL SERVICES

In 2019, the City completed a regional effort that updated the 2000 Analysis of Impediments to Fair Housing Choice (AI) pursuant to the 2015 AFFH Final Rule. Relevant sections are incorporated into the Housing Element.

The City shall continue to actively participate in the ongoing region-wide collaborative effort to improve fair housing choice and affirmatively further fair housing.

The City's 19 fair housing indicators for zoning codes analysis for ideal outcomes to prevent fair housing barriers included in the AI based on a checklist developed by the Region IX HUD office found that all of the 19 indicators supported fair housing and that none of the City's zoning codes create barriers to fair housing or impact housing choice. The City will work to ensure that it does not create barriers in its future actions to fair housing or impact housing choice by:

- **Regularly complete analysis of the characteristics of the beneficiaries of housing and service programs relative to the income-adjusted resident population**
- **Require that developers receiving public subsidies (monetary or in the form of density bonuses and fast track review) use affirmative fair housing marketing practices**
- **Monitor how public sector investments can contribute to economic changes in neighborhoods, possibly accelerating displacement of low-income residents**
- **Conduct robust and meaningful public engagement activities and events when considering adoption of polices to ensure all voices in the community are heard.**
- **In making planning decisions, be aware of how the built environment communicates inclusiveness or exclusiveness to different types of residents**

- **Holding monthly housing meetings for non-profit organizations and local stakeholders, including the Latino Leadership Council, to share regional resources and ensure equitable distribution of resources.**

- **Encourage and support affordable housing across the City in all neighborhoods, with a focus on areas of high opportunity.**

The City will continue to provide assistance regarding equal housing opportunities through its Housing Division and Housing Authority in addition to funding a program which will provide the services of legal counsel to persons experiencing housing discrimination.

The City of Roseville will continue its collaborative Housing Education Campaign to provide fair housing counseling workshops and one-on-one counseling for Roseville residents, landlords/property owners, and tenants, with counseling provided by Project Sentinel or similar HUD qualified fair housing provider, through the City's Fair Housing Education Program. Under contract with the City, fair housing provider will also offer fair housing workshops, respond to inquiries and provide wide-ranging fair housing information. Its website is a rich resource with information in six languages.

In addition to the provision of workshops and one-on-one counseling, the City's website includes fair housing information and referral service data with links to other Fair Housing resources.

(Policies H4.6, H4.7, H4.8)

Time Frame: Ongoing, and at least annually.

Objectives: To ensure residents are informed of their housing rights and are provided with support on fair housing issues, and that City actions do not create barriers to fair housing or impact choice. Annually, 50 responses to inquiries; at least 1 Fair Housing Workshop; Adequate annual funding, $12,000 for 2022, future years amount responsive to resources/needs.

Implementing Agency: Housing Division and Roseville Housing Authority

Funding Source: Housing Choice Voucher Rental Assistance, Community Development Block Grant Funding, City's Low- and Moderate-Income Fund, General Fund

~~**PROGRAM 26 FAIR HOUSING**~~

~~The City will continue to provide assistance regarding equal housing opportunities through its Housing Division and Housing Authority.~~

~~The City of Roseville will continue its collaborative Housing Education Campaign to provide fair housing counseling workshops and one-on-one counseling for Roseville residents, landlords/property owners, and tenants, with counseling provided by Legal Services of Northern California through the City's Fair Housing Education Program.~~

~~In addition to the provision of workshops and one-on-one counseling, the City's website includes fair housing information and referral service data with links to other Fair housing resources.~~

~~**Time Frame:** Ongoing~~

~~**Implementing Agency:** Housing Division and Roseville Housing Authority~~

~~**Funding Source:** General Fund~~

PROGRAM 28 SUPPORT FOR HOUSING FOR PERSONS WITH DEVELOPMENTAL DISABILITIES

Work with the Alta California Regional center to implement an outreach program that informs families and housing developers within the City on housing and services available for persons with developmental disabilities. The program could include the development of an informational brochure, including information on services on the City's website. The City will also revise the Zoning Ordinance to require an Administrative Permit for large Community Care homes (7 to 12 persons) instead of a Use Permit. Standards for approval of an Administrative Permit for large Community Care homes will be developed, to facilitate objectivity and certainty in review.

(Policies H4.1, H4.8, H4.9)

Time Frame: Ongoing, and at least annually

Objectives: To ensure residents are informed of housing options for persons with developmental disabilities

Implementing Agency: Housing Division

Funding Source: General Fund

PROGRAM 29 ALLOW SHARED HOUSING UNDER HOUSING CHOICE VOUCHER FOR PERSONS WITH DISABILITIES

Continue Roseville Housing Authority's policy to allow Shared Housing to enable persons with disabilities to use their voucher in housing that is shared with non-related persons. The rent and rental subsidy for these households is based on the use of one bedroom (or two if a live-in aide is required). The HCV rental assistance Shared Housing option does not factor in the income of the other household members who may be providing an increased level of independence for the disabled HCV participant.

RHA has operated this policy for more than 20 years and a number of developmentally disabled individuals have made use of the Shared Housing option. The program has received positive feedback from the participants, their families and landlords on the benefit of this provision.

(Policies H4.1, H4.9)

Time Frame: Ongoing, and at least annually

Objectives: To provide rental assistance for residents with disabilities

Implementing Agency: Roseville Housing Authority

Funding Source: Housing Choice Voucher Rental Assistance

PROGRAM 30 PROCESS AND FEE STRUCTURE REVIEW

Permit Process – To expedite project facilitation and provide internal support to project applicants, the City established the ~~Development Advisory Committee~~ **Economic Development Advisory Committee** to **advise and assist the City Council in creating a community environment conducive to existing businesses, attracting new businesses, and promoting tourism. In order to expedite project facilitation and provide internal support to project applicants, the Economic Development Advisory Committee also functions as a liaison, building relationships between the City, the development community, and business owners. The Committee provides input into delivery of development services, cost of services, construction standards, development impact fees, and other development service policy areas. The Committee regularly reviews the City's fee system to work toward reducing the cost of development**

impact fees, as well as provide direction on the Economic Development Strategy. ~~function as a liaison building relationships between the City and development community, providing input into delivery of development services, cost of services, construction standards, development impact fees, and other development service policy areas.~~

Fee Structure – The City will continue to review its fee system and work toward graduated fees as a means of reducing the cost of housing development.

The Development Services Department will work with the ~~Development advisory committee~~ **Economic Development Advisory Committee.**

(Policy H5.1)

Time Frame: Annually review process and fee structure.

Objectives: **Review process and fee structure once per year.**

Implementing Agency: Development Services Department

Funding Source: General Fund

PROGRAM 31 REVIEW OF SUBDIVISION IMPROVEMENT STANDARDS AND ZONING ORDINANCES

The City will ~~continue~~ **regularly** ~~to~~ review ~~of~~ **the** Subdivision Improvement Standards and Zoning Ordinance~~s~~ **to ensure residential development standards are appropriate, aligned with the City's housing-related policies, reflective of modern planning practices, and are not unduly burdensome or restrictive. The City will annually review housing legislation and update the Zoning Ordnance as needed to comply with new state laws. Current amendments needed pursuant to this program include reducing the parking requirements for emergency shelters consistent with AB 139, adding employee housing (for six or fewer people) as a permitted residential use, and adjusting the description of transitional and supportive housing to state that these uses are permitted by right where multifamily and mixed use are permitted (to ensure consistency with AB 2162).**

(Policy H5.2)

Time Frame: ~~Annually review Subdivision Improvement Standards~~ **Ongoing, and at least annually**

Objectives: **Complete review of the Subdivision Improvement Standards and Zoning Ordinance once per year.**

Implementing Agency: Planning Division

Funding Source: General Fund

PROGRAM 32 PUBLIC EDUCATION PROGRAM

The City will continue to educate ~~its citizens~~**the greater Roseville community about** ~~regarding~~ the necessity of providing the affordable housing needed to support the job growth occurring in Roseville **and the region**. Specifically, this information will focus on the need to provide affordable housing in close proximity to jobs **for multiple reasons, including** ~~in an effort~~ to reduce the traffic and air quality impacts that result from long commutes **and reduce inequities by ensuring all sectors of the City's employment base can afford to live in the community where they work.** In addition, the City will continue to monitor community opposition to affordable housing projects in an effort to remove negative perceptions. Education will occur through public

hearings, presentations to various service organizations and other community groups, and articles published in the local newspaper and the City's newsletter.

(Policy H5.3)

Time Frame: Bi-annually.

Objectives: 100% of staff reports or other City materials for affordable housing projects will include information about the necessity of affordable housing and City newsletters will contain such materials a minimum of twice annually. A FlashVote survey or other survey will be distributed annually to evaluate the community's perceptions of affordable housing.

Implementing Agency: Housing Division, Planning Division

Funding Source: General Fund

PROGRAM 33 PUBLIC PARTICIPATION

The Planning Division will continue to **provide multiple ways for residents to be informed of development projects and multiple opportunities and means for community input on proposed projects within the City, including:**

- **Uploading initial notices that an application was received to the Roseville Coalition of Neighborhood Associations' (RCONA) website.**
- **Maintenance of the City's Development Activity website, which includes a list of all new applications received during the previous week, a description of all active development proposals in the City, and interactive maps displaying the location of current and upcoming construction in the City.**
- **Maintenance of the City's Planning Projects of Interest website, where project details and documents are uploaded for projects generating significant community interest.**
- **Maintenance of the City's Online Permitting Services portal, which allows the public to look up documents and details for all active applications in the City.**
- **For General Plan Amendments, physically posting a notice of the project application on the project site.**
- **Encouraging applicants to hold neighborhood meetings before the public decision-making process begins, to ensure the community understands the proposal and to receive any concerns and questions early in the process.**
- **Uploading public hearing notices and notices of intent to approve a project to the RCONA website, in addition to the direct mailing of such notices to properties within 300 feet of the project.**

Neighborhood forums and other outreach allows people affected by a project to have their questions and concerns addressed early in the planning process, which can reduce costs by avoiding late-stage design changes due to unexpected comments. Outreach also has the potential to improve community investment in a project and ensure the achievement of equity goals. The intent of the City's public participation process is to provide clear processes and means for community notice and input as part of a timely and transparent decision-making process. This program is also consistent with the City's General Plan, which directs the City to continue and improve our public participation programs. ~~encourage developers to meet with interested parties before the public decision-making process begins.~~

~~Preliminary neighborhood forums allow persons directly affected by the project to have their questions and concerns addressed early in the planning process.~~

(Policy H5.3)

Time Frame: Ongoing, as projects are processed through the Planning Division.

Objectives: **Provide multiple means and opportunities for public participation as part of Planning entitlement projects**.

Implementing Agency: Planning Division

Funding Source: General Fund

PROGRAM 34 SPECIAL NEEDS HOUSING LAWS

The City will review the Zoning Ordinance and its other planning documents and, if necessary, make changes to ensure compliance with the Supportive Housing Streamlining Act (AB 2162), AB 101 (Low-Barrier Navigation Centers), and other existing and future legislation.

AB 2162 requires supportive housing to be considered a use by right in zones where multi-family and mixed uses are permitted, including nonresidential zones permitting multi-family uses, if the proposed housing development meets specified criteria. AB 101 requires that Low-Barrier Navigation Centers (LBNC) be a by-right use in areas zoned for mixed-use and nonresidential zones permitting multi-family uses. LBNC provide temporary room and board with limited barriers to entry while case managers work to connect homeless individuals and families to income, public benefits, health services, permanent housing, or other shelter.

(Policy H5.4)

Time Frame: Within two years of adoption of the Housing Element

Objectives: City ensures compliance with AB 2162 and AB 101 and other legislation

Implementing Agency: Planning Division

Funding Source: General Fund

PROGRAM 35 ROSEVILLE ELECTRIC PROGRAM

Peak Load Management Program

Roseville Electric will continue to explore and implement peak load management programs deigned to most efficiently manage energy use during critical peak demand.

Energy Audits

Roseville Electric will continue to offer online energy audits and custom energy information to aid customers in reducing home energy costs. These tools will include suggestions for low- and no-cost conservation practices and an analysis of recommended energy efficiency measures.
~~Roseville Electric will continue to implement the peak load management program. This program cycles customer equipment off and on when City load approaches its resource limits.~~

~~Energy Audits Roseville Electric will continue to offer online energy audits to aid customers in reducing home energy costs. The audit includes a utility bill analysis to show the customer where energy is being used. Also~~

~~included are suggested low- and no-cost conservation practices and an analysis of recommended energy efficiency measures.~~

Energy Efficiency Rebates and Renewable Energy Rebates

Roseville Electric will continue to offer rebates to electric customers who install or upgrade their homes with qualified energy-efficiency measures. Renewable energy options are available through Roseville Electric's community solar program. ~~Roseville Electric will continue to offer rebates to electric customers who install or upgrade their homes with qualified energy-efficiency measures and/or renewable energy systems. Renewable energy rebates will continue to gradually decline through 2016, in compliance with state law.~~

Electric Rate Assistance Programs

Roseville Electric offers a discount to residential customers whose income is no greater than specified by the US Department of Housing and Urban Development as "very low" for Placer County. Roseville Electric also offers Medical Support Rate Reductions for customers who have medical devices in their homes.

~~Roseville Electric closed the Senior Low-Income Rate Reduction to new applicants effective July 1, 1998. Electric customers receiving the Senior Low-Income Rate may either continue receiving the senior discount or apply for the Electric Rate Assistance Program discount.~~

Roseville Electric may offer energy efficiency rebates to low-income customers through a partnership with the City's Housing Division.

Roseville Utility Exploration Center

The Utility Exploration Center is an interdepartmental project sponsored by Roseville Electric and the Environmental Utilities Department with support from the Parks, Recreation and Libraries Department and the City Manager's Office. The center is a key component of Mahany Park and is a one-of-a-kind center offering an exciting new take on preserving our natural resources and protecting our environment through new technologies and measures in energy efficiency, water efficiency, recycling, and water quality, with environmentally sustainable building materials making the center an exhibit in itself. The center offers children and adults fun and interactive tools for learning.

Community Solar Program

Roseville Electric Utility offers a solar option for residents interested in solar without long-term commitments or the need to install costly equipment. This program offers various participation levels as well as options for income qualified residents. The program began in 2019 as a pilot and is expected to continue through 2029.

~~**Green Roseville**~~
~~Green Roseville offers residential and commercial customers a way to contribute to Roseville Electric's purchase of renewable energy. The minimum amounts of renewables that must be purchased by Roseville Electric are set by state law.~~

~~**BEST Homes Project**~~

~~The BEST Homes Project incorporates rooftop solar generation, as well as other energy efficiency features, in up to 20% of new homes built in Roseville. This program ends in 2016.~~

(Policies H6.1, H6.2, H6.3)

Time Frame: Ongoing, as funding is available**, and at least annually**.

Objectives: **Meet the City's Renewable Portfolio Standards requirements**.

Implementing Agency: Roseville Electric Department, Housing Division

Funding Source: Roseville Electric

PROGRAM 36 NEW CONSTRUCTION EFFICIENCY MEASURES

The Roseville Building Department will continue to enforce Title 24 of the Building Code. Title 24 is the State residential energy conservation standard, which defines construction standards for energy requirements to promote energy efficiency and conservation.

(Policies H6.1, H6.2)

Time Frame: Ongoing**, as applications are received.**

Objectives: Review 100% of building permits for consistency with Title 24 requirements.

Implementing Agency: Building Department

Funding Source: General Fund