
Appendix Q
Supplemental Existing Plus Project Traffic Analysis

APPENDIX Q

Supplemental Existing Plus Project Traffic Analysis

The City’s level of service policy focuses on conditions under full build out of all vacant land within the City and 2020 “market levels” of development in the rest of the region. This section addresses the traffic impacts of the WRSP and SOI Amendment under existing conditions. Because the WRSP and SOI Amendment Area would be developed over the next 10 to 20 years, when traffic levels have increased and planned improvements have been constructed, actual impacts are expected to be more consistent with those described in Section 4.3. Impacts on bicycle facilities and on transit are discussed in Section 4.3. Existing roadways and their operation (without the WRSP or SOI Amendment) are described in Section 4.3.

As discussed in Section 4.3, the Remainder Area is unlikely to be developed without the WRSP. Therefore, the traffic impacts of the Remainder Area must be considered, in the context of WRSP buildout, and would be the same as the full SOI Amendment.

IMPACT Q-1: INCREASED TRAFFIC ON CITY OF ROSEVILLE ROADWAYS.			
Applicable Policies and Regulations:	General Plan Policy CB-1		
	SOI	WRSP	Remainder Area
Significance with Policies and Regulations:	Significant	Significant	Significant
Mitigation Measures:	N/A	MM Q-1 (Implement the recommended improvements at the intersections outlined in Table Q-3)	MM Q-2 (Implement the improvements at the intersections outlined in Table Q-2)
Significance after Mitigation:	Less Than Significant	Less Than Significant	Less Than Significant

■ SOI Amendment/Remainder Area

City Roadways

The daily traffic volumes within the City under the Existing Plus Full SOI Amendment Area scenario are shown in Figure Q-1.

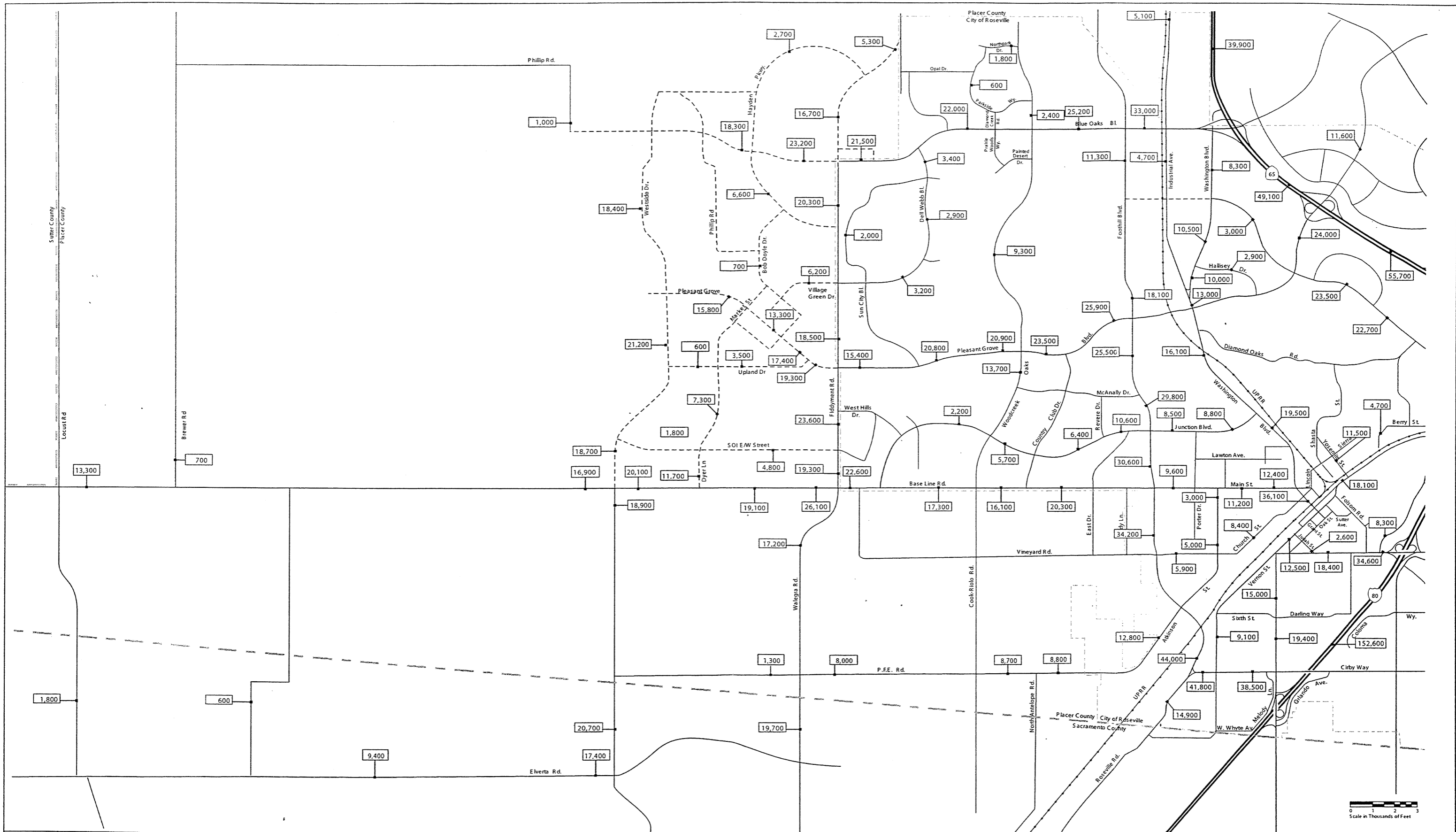
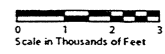


FIGURE Q-1
Daily Traffic Volumes Under Existing Plus Full SOI Amendment



10659-00

Source: DKS Associates



City of Roseville

Supplemental Existing Plus Project Traffic Analysis

A planning-level signal warrant analysis indicates the following 20¹ intersections would require signalization under the Existing Plus SOI Amendment scenario:

- Within SOI Amendment Area:
 - › Fiddymment Road and Blue Oaks Boulevard (relocated intersection),
 - › Fiddymment Road and Hayden Parkway South,
 - › Fiddymment Road and Hayden Parkway North,
 - › Fiddymment Road and Del Webb Boulevard,
 - › Fiddymment Road and Pleasant Grove Boulevard,
 - › Fiddymment Road and SOI East/West Street,
 - › Fiddymment Road and Westhills Drive,
 - › Blue Oaks Boulevard and Hayden Parkway,
 - › Blue Oaks Blvd and West Side Drive,
 - › Blue Oaks Boulevard and Philip Road,
 - › Blue Oaks Boulevard and "N/S" Street,
 - › Pleasant Grove Boulevard and Bob Doyle Drive,
 - › Pleasant Grove Boulevard and Village Green Drive,
 - › Pleasant Grove Boulevard and Collector "C",
 - › Pleasant Grove Boulevard and West Side Drive,
 - › Baseline Road and Watt Avenue, and
 - › Baseline Road and Market Street.
- Outside SOI Amendment Area:
 - › Blue Oaks Boulevard and Del Webb Boulevard,
 - › Diamond Creek and Blue Oaks Boulevard, and
 - › Sun City and Pleasant Grove Boulevard.

Table K-1, in Appendix K provides the estimated levels of service for all signalized intersections in the City of Roseville under Existing No Project and Existing Plus SOI Amendment conditions. This table includes new intersections that would warrant signals under Existing Plus SOI Amendment conditions.

Table Q-1 shows the six intersections that would experience a significant level of service impact with build out of the SOI Amendment under existing conditions. Five intersections that would operate at LOS C or better under Existing No Project conditions would deteriorate to LOS D or worse conditions under Existing Plus Project scenario. Three of these would degrade to LOS D and two to LOS F. One intersection that already operates at LOS D under Existing No Project conditions would degrade to LOS

¹ Note that three of these intersections are not signalized under existing conditions, but would be under 2020 conditions. Therefore, the signal warrant list in Section 4.3, Transportation and Circulation in Chapter 4 includes only 17 intersections.

Supplemental Existing Plus Project Traffic Analysis

E under Existing Plus SOI Amendment conditions. The degradation in intersection operations is considered a **significant impact**.

TABLE Q-1 City of Roseville Intersections Level of Service Impacts Existing Conditions

Roadway		No Project		SOI Amendment		WRSP	
North/South	East/West	LOS	V/C	LOS	VC	LOS	V/C
Fiddymont Road	Baseline Road	B	0.65	B	0.65	D	0.85
Riverside Avenue	Cirby Way	D	0.89	E	0.94	E	0.93
Riverside/Vernon	Douglas Boulevard	E	0.94	E	1.00	F	1.01
Sunrise Avenue	Lead Hill Boulevard	C	0.80	D	0.86	D	0.85
Woodcreek Oaks	Baseline Road	C	0.75	F	1.08	D	0.88
Foothills Boulevard	Atkinson Road	C	0.75	D	0.82	C	0.79
Foothills Boulevard	Village Green Drive/Baseline	C	0.76	D	0.88	C	0.76
Watt Avenue	Baseline Road	C	0.80	F	1.31	N/A ¹	N/A ¹

NOTES:

Intersections that would experience a significant impact are shaded.

1. This intersection would be in Placer County, not the City of Roseville under these conditions.

SOURCE: DKS Associates 2003

Improvements recommended in MM Q-2, shown in Table Q-2, would reduce the impacts of the SOI Amendment at each of the five intersections that are currently in the City of Roseville. These improvements represent a portion of 2020 CIP improvements. The intersection of Watt Avenue and Baseline Road could be improved to LOS C or better conditions by widening Watt Avenue to four lanes south from Baseline Road to allow two northbound and southbound thru lanes at this intersection (see MM Q-2(f)). Implementation of these improvements, would provide a level of service as good as or better than that under the Existing No Project Scenario, so the impacts of the SOI Amendment would be less than significant. However, a portion of MM Q-2(f), the widening of a portion of Watt Avenue south of Baseline Road, lies outside the jurisdiction of the City of Roseville. Placer County can implement this suggested mitigation measure, but may choose not to. If the improvements are not made, levels of service would remain as shown in Table Q-2. Therefore the impact is considered **significant and unavoidable**.

West Roseville Specific Plan

City Roadways

The daily traffic volumes within the City under the Existing Plus WRSP scenario are shown in Figure Q-2.

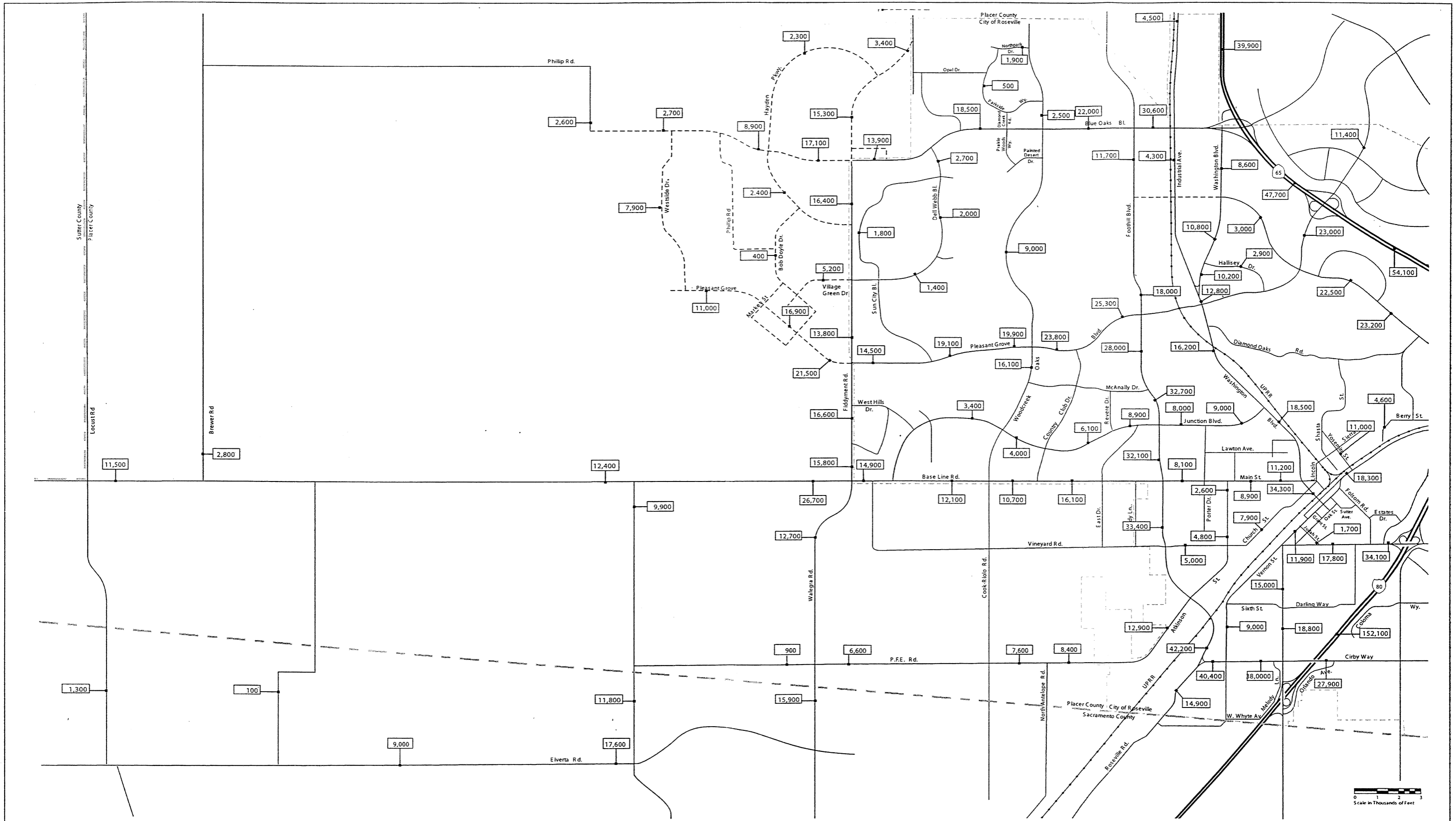


FIGURE Q-2
Daily Traffic Volumes Under Existing Plus Project West Roseville Specific Plan



10659-00

Source: DKS Associates

0 1 2 3
 Scale in Thousands of Feet



City of Roseville

Supplemental Existing Plus Project Traffic Analysis

TABLE Q-2 City of Roseville Intersections Recommended Mitigations Existing Plus SOI Amendment

Intersection		Recommended Mitigation	Level of Service	
North/south	East/west		Before Mitigation	After Mitigation
Riverside Ave	Cirby Way	Q-2(a) Add 3 rd eastbound thru-lane <u>and</u> add 3 rd southbound thru lane <u>or</u> Add 3 rd northbound left-turn lane	E	D <u>or</u> C
Sunrise Avenue	Lead Hill Blvd	Q-2(b) Add 2 nd northbound left-turn lane	D	B
Woodcreek Oaks	Baseline Road	Q-2(c) Add 2 nd eastbound thru-lane	F	C
Foothills Blvd	Atkinson Rd	Q-2(d) Add 2 nd westbound left-turn lane <u>or</u> Add 2 nd loop ramp (in 2020 CIP)	D	C <u>or</u> A
Foothills Blvd	Village Green Drive/Baseline	Q-2(e) Add 2 nd northbound left-turn lane	D	C
Watt Ave	Baseline Rd	Q-2(f) Widen Watt Ave to 4 lanes adjacent to intersection	F	B

NOTES:
Intersections operating at LOS D or worse are shaded.
SOURCE: DKS Associates, 2003.

An intersection level of service analysis was completed for the Existing Plus WRSP scenario. This analysis includes all existing signalized intersections within the City of Roseville, including signals that are currently operational and plus signals that would likely be warranted on or adjacent to the WRSP area due to development of the WRSP. A planning-level signal warrant analysis indicates the following 13² intersections would require signalization under the Existing Plus WRSP scenario:

- Within WRSP:
 - › Fiddymment Road and Hayden Parkway South,
 - › Fiddymment Road and Hayden Parkway North,
 - › Fiddymment Road and Del Webb Boulevard,
 - › Fiddymment Road and Pleasant Grove Boulevard,
 - › Blue Oaks Boulevard and "N/S" Street,
 - › Blue Oaks Boulevard and West Side Drive,
 - › Blue Oaks Boulevard and Hayden Parkway,
 - › Pleasant Grove Boulevard and Bob Doyle Drive,
 - › Pleasant Grove Boulevard and Village Green Drive, and
 - › Fiddymment Road and Blue Oaks Boulevard.

² Note that three of these intersections are not signalized under existing conditions, but would be under 2020 conditions. Therefore, the signal warrant list in Section 4.3, Transportation and Circulation in Chapter 4 includes only 17 intersections.

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- Outside WRSP
 - › Blue Oaks Boulevard and Del Webb Boulevard.
 - › Diamond Creek and Blue Oaks Boulevard, and
 - › Sun City Pleasant Grove Boulevard.

Table K-1 in Appendix K provides the estimated levels of service for all signalized intersections in the City of Roseville under Existing No Project and Existing Plus WRSP conditions. This table includes new intersections that would warrant signals under Existing Plus WRSP conditions.

Table Q-1 shows the five intersections that would experience a significant level of service impact with the addition of the WRSP. Three intersections that would operate at LOS C or better under Existing No Project conditions deteriorate to LOS D under Existing Plus WRSP conditions. One intersection that already operates at LOS D under Existing No Project conditions would degrade to LOS E under Existing Plus WRSP conditions. One intersection that would operate at LOS E under Existing No Project conditions would degrade to LOS F under Existing Plus WRSP Conditions.

Potential improvements recommended in MM Q-1, shown in Table Q-3, would reduce the impacts of the WRSP at each of these five intersections to acceptable levels. Four of these improvements are already included in the City's 2020 CIP improvements. The improvement at Riverside/Vernon/Douglas is not in the CIP but only consists of re-striping one approach. This would not include any additional lanes. Implementation of these improvements would provide the level of service that would be the same as or better than under the Existing No Project scenario and would reduce the impacts of the WRSP to a **less-than-significant level**.

TABLE Q-3 City of Roseville Intersections Recommended Mitigation Existing Plus WRSP Scenario

Intersection		Recommended Mitigation	Level of Service	
North/south	East/west		Before Mitigation	After Mitigation
Fiddymont Road	Baseline Road	Q-1(a) Add westbound free right-turn lane	D	C
Riverside Avenue	Cirby Way	Q-1(b) Add 3 rd southbound thru lane	E	D
		or Add 3 rd northbound left-turn lane		C
Riverside/Vernon	Douglas Boulevard	Q-1(c) Restripe the westbound approach to provide a left turn lane and a through/right turn lane	F	C
Sunrise Avenue	Lead Hill Boulevard	Q-1(d) Add 2 nd northbound left	D	B
Woodcreek Oaks	Baseline Road	Q-1(e) Add northbound free right	D	C

NOTES:
 Intersections subject to a significant impact are shaded.
 SOURCE: DKS Associates, 2003.

Supplemental Existing Plus Project Traffic Analysis

IMPACT Q-2 INCREASED TRAFFIC ON STATE HIGHWAYS			
Applicable Policies and Regulations:	None Applicable		
	SOI	WRSP	Remainder Area
Significance with Policies and Regulations:	Significant	Significant	Significant
Mitigation Measures:	N/A	None available	None available
Significance after Mitigation:	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable

■ SOI Amendment/Remainder Area

State Highways

Table Q-4 shows the projected daily traffic volumes on State Highways within the vicinity of the SOI Amendment Area under Existing Plus SOI Amendment conditions. Table Q-5 provides estimated change in daily traffic volumes for interchange ramps to the State highways within the city.

The level of service analysis for the State Highways shown in Table Q-4 indicates that development the full SOI Amendment Area would increase traffic on most highway segments. One segment, State Route (SR) 70/99 south of Riego Road (in South Sutter and North Sacramento counties), would degrade from LOS D to LOS F conditions. Currently, SR 70/99 is a four-lane-highway that is controlled by traffic signals at its intersections with Elverta Road and Riego Road. The Metropolitan Transportation Plan includes construction of grade-separated interchanges at both of these locations. With these improvements, this segment of SR 70/99 would improve to LOS E or better.

The poor level of service anticipated on I-80 would exist with or without the SOI Amendment, which would increase congestion on these segments. This would be a significant impact. These highway segments could be improved by the addition of HOV, auxiliary and/or mixed-flow lanes on I-80 through Roseville, ramp metering (throughout the I-80 and SR 65 corridors) and regional TSM/TDM elements. Such improvements and measures should be resolved on a regional level, through cooperative effort involving SACOG, the Placer County Transportation Planning Agency (PCTPA) and Caltrans. No City or regional mechanism is in place to mitigate impacts on I-80, SR 65 or SR 70/99. Therefore, this impact would be **significant and unavoidable**.

It should be noted that the traffic volume forecasts are not based on a simple layering/adding of assumed project-generated traffic volumes onto existing traffic counts. Rather, the City’s travel demand model is used to predict how travel patterns would change if the project land uses is added to existing land uses. The travel model redistributes trips and can cause traffic on some roadways to decrease and cause

Supplemental Existing Plus Project Traffic Analysis

changes in “critical” traffic movements at intersections, sometimes at intersections some distance from the WRSP Area.

West Roseville Specific Plan

State Highways

Table Q-4 shows the projected daily traffic volumes on State Highways in the vicinity of the WRSP under Existing Plus WRSP conditions. Table Q-5 provides estimated change in daily traffic volumes for interchange ramps to the State highways within the city. The level of service analysis for the State Highways shown in Table Q-4 indicates that I-80 between Eureka Boulevard and the Sacramento/Placer County line currently operates at LOS F conditions during peak hours.

The WRSP would increase congestion on portions of the State highway system that operate at LOS F. No mechanism for requiring regional mitigation is currently in place. Therefore, this impact is considered **significant and unavoidable**.

Table Q-4 Average Daily Traffic Volumes State Highways Existing Conditions

Facility	Segment	Lanes	No Project		SOI Amendment		WRSP	
			ADT	LOS	ADT	LOS	ADT	LOS
I-80	Sac. County line to Riverside Ave	8	172,200	F1	175,600	F1	174,500	F1
	Riverside Avenue to Douglas Blvd	6	151,300	F2	152,700	F2	152,100	F2
	Douglas Blvd to Eureka Rd	6	140,000	F1	141,000	F1	140,600	F1
	Eureka Rd to SR 65	8	150,000	D	152,300	E	151,900	D
	SR 65 to Rocklin Rd	6	109,000	D	110,400	D	109,800	D
SR 65	Galleria to Pleasant Grove Blvd	4	50,500	B	55,700	C	54,100	C
	Pleasant Grove Blvd to Blue Oaks Blvd	4	43,400	B	49,100	B	47,700	B
	Blue Oaks Blvd to Sunset Blvd	4	40,000	B	39,900	B	39,900	B
SR 70/99	North of Riego Road	4	25,300	C	25,300	C	25,500	C
	South of Riego Road	4	31,900	D	36,500	F	33,300	E

NOTES:

Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3. ____

F1 represents LOS F conditions for 1 hour during the morning and evening peak commute periods while F2 represents LOS F conditions for 2 hours.

Highway segments experiencing significant impacts (LOS F) are shaded.

SOURCE: DKS Associates, 2003.

Supplemental Existing Plus Project Traffic Analysis**Table Q-5 Estimated Change in Average Daily Traffic Volumes Interchange Ramps Existing Conditions**

Interchange	Ramps	Estimated Change in Daily Volume	
		SOI Amendment	WRSP
I-80 / Riverside Ave	Westbound On from Southbound Riverside Ave	+260 (2.6%)	+120 (1.2%)
	Westbound On from Northbound Riverside Ave	+480 (12.8%)	+190 (5.1%)
	Westbound Off	-280 (3.5%)	-260 (3.2%)
	Eastbound On	-250 (3.1%)	-400 (5.1%)
	Eastbound Off to Northbound Riverside Ave	+60 (0.6%)	+110 (1.2%)
	Eastbound Off to Auburn Blvd/Orlando Ave	+690 (10.4%)	+240 (3.6%)
SR 65 / Pleasant Grove Blvd	Northbound On from Eastbound Pleasant Grove	-10 (3.3%)	0
	Northbound On from Westbound Pleasant Grove	+250 (19.9%)	+210 (17%)
	Northbound Off	+30 (0.4%)	-210 (3.1%)
	Southbound On from Eastbound Pleasant Grove	-100 (1.8%)	-370 (6.5%)
	Southbound On from Westbound Pleasant Grove	-80 (2.9%)	-10 (3.3%)
	Southbound Off	+170 (11.8%)	+160 (11.1%)
SR 65 / Blue Oaks Blvd	Northbound On	-110 (2.6%)	+20 (0.6%)
	Northbound Off to Eastbound Blue Oaks Blvd	+1790 (70.9%)	+1230 (48.6%)
	Northbound Off to Westbound Blue Oaks Blvd	+1160 (17.4%)	+1160 (17.5%)
	Southbound On from Eastbound Blue Oaks Blvd	+2470 (34.8%)	+1835 (25.9%)
	Southbound On from Washington Blvd	+370 (69.8%)	+390 (73.3%)
	Southbound Off	-10 (0.3%)	+70 (1.4%)

SOURCE: DKS Associates, 2002.

Supplemental Existing Plus Project Traffic Analysis

IMPACT Q-3: INCREASED TRAFFIC ON PLACER COUNTY ROADWAYS			
Applicable Policies and Regulations:	None Applicable		
	SOI	WRSP	Remainder Area
Significance with Policies and Regulations:	Significant	Significant	Significant
Mitigation Measures:	N/A	MM Q-3 (Improve County Roads)	MM Q-4 (Improve County Roads)
Significance after Mitigation:	Significant	Significant	Significant

SOI Amendment/Remainder Area

Placer County Roadways

Table Q-6 shows the projected daily traffic volumes on Placer County roadways under Existing Plus SOI Amendment conditions. These daily volumes were estimated by the City of Roseville’s travel demand model. It was assumed that with full development of the SOI Amendment Area, Fiddymnt Road from Pleasant Grove Boulevard to Baseline Road would be annexed into the City of Roseville and thus would not be part of Placer County’s roadway system. It was also assumed that Baseline Road from Fiddymnt Road to Watt Avenue would be widened to four lanes as part of full development of the SOI Amendment Area.

Table Q-6 Placer County Average Daily Traffic Volumes and Levels of Service Roadways Existing Conditions

Roadway	Existing Lanes	Existing		SOI Amendment		WRSP		
		ADT	LOS	ADT	LOS	ADT	LOS	
Baseline Rd	Sutter Co. to Watt Ave	2	12,800	D	16,900	E	12,400	D
	Watt Ave to Fiddymnt	2	17,100	E	20,100 ²	A ²	19,200	F
Fiddymnt Rd	Baseline Rd to Pleasant Grove Blvd	2	8,800	A	N/A ¹	N/A ¹	15,800	E
	Blue Oaks Blvd to Sunset Blvd West	2	2,400	A	5,300	A	3,400	A
Walerga Road	Baseline Road to PFE Road	2	8,900	A	17,200	B	12,700	B
Watt Avenue	Baseline Road to PFE Road	2	7,000	A	18,900	F	9,900	A
Phillip Road	WRSP to Brewer Road	2	100	A	1,000	A	2,600	A
Brewer Road	Baseline Road to Phillip Road	2	700	A	700	A	2,800	A

NOTES:

Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-___ in Section 4.3, Transportation and Circulation.

¹ This segment assumed to be within the City under this scenario.

² This segment assumed to be widened to four lanes under this scenario.

SOURCE: DKS Associates, 2002.

Supplemental Existing Plus Project Traffic Analysis

A roadway segment level of service analysis indicates that Baseline Road, which currently operates at LOS D conditions between Watt Avenue and the Sutter County line, would operate at LOS E conditions under the Existing Plus SOI Amendment scenario. This would be a **significant impact**. Table Q-7 shows mitigation required for Placer roadways under the Existing Plus SOI Amendment scenario. The analysis also indicates that that Watt Avenue, which currently operates at LOS A conditions between Baseline Road and PFE Road, would operate at LOS F conditions under the Existing Plus SOI Amendment scenario. Widening these roadway segments from two to four lanes would provide LOS C or better conditions and thus would reduce the impacts of the SOI Amendment to a less-than-significant level.

Table Q-7 Placer County Recommended Roadway Segment Mitigations Existing Plus Full SOI Amendment

Roadway	Location	Existing lanes	Mitigation	LOS	
				Before Mitigation	After Mitigation
Baseline Rd	Watt Ave to Sutter Co Line	2	Q-4(a) Widen to 4 lanes	E	A
Watt Ave	Baseline Rd to PFE Rd	2	Q-4(b) Widen to 4 lanes	F	A

NOTES:
 Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-6.
 Segments that operate at LOS D or worse are shaded.
 SOURCE: DKS Associates, 2003.

An intersection level of service analysis, summarized in Table Q-8, was also conducted at several key intersections in unincorporated Placer County under Existing Plus SOI Amendment conditions. This analysis indicates that development of the full SOI Amendment Area would increase delay at the intersection of Walerga Road and PFE Road and cause its operations to degrade from LOS A to LOS D conditions. This would be a **significant impact**. The addition of a westbound left turn lane would improve the level of service at this intersection to LOS C (see MM Q-4(a) and in Table Q-9). Placer County’s Capital Improvement Plan calls for PFE Road to be severed east of this intersection in the future, and thus the traffic volume on PFE Road at Walerga Road will decrease in the future. The analysis also indicates that development of the full SOI Amendment would cause the intersection of Watt Avenue and Baseline Road to operate at LOS F conditions. This impact could be reduced to LOS C or better conditions by widening Watt Avenue to four lanes south from Baseline Road to allow two northbound and southbound thru lanes at this intersection. These improvements would reduce the impacts of the SOI Amendment to a less-than-significant level. However, the improvements lie outside the jurisdiction of the City of Roseville. Placer County can implement this suggested mitigation measure, but may choose not. If the improvements are not made, levels of service would remain as shown in Table Q-6 and Q-8. Therefore, the impact is considered **significant and unavoidable**.

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Table Q-8 Placer County Intersections Levels of Service Existing Conditions

Roadway			No Project		SOI Amendment		WRSP	
North/south	East/west	Traffic Control	LOS ¹	Delay ¹ / V/C	LOS ¹	Delay ¹ / V/C	LOS ¹	Delay ¹ / V/C
Walerga Road	PFE Road	Signal	A	0.48	D	0.86	C	0.73
Watt Avenue	PFE Road	1-Way Stop	A	3.4 sec	C	20.2 sec	A	3.9 sec
Watt Avenue	Baseline Road	Signal	C ²	0.80	F ²	1.31	C ²	0.80
Pleasant Grove Road	Baseline Road	3-Way Stop	A/C	5.1 sec	A	7.1 sec	A	5.5 sec

NOTES

For stop-sign controlled intersections (including one and two-way stop signs) LOS based on average delay of all intersection approaches

Analysis assumes that signal at Watt/Baseline planned for early 2003 is in place. Level of service analysis for this intersection is based on modified Circular 212 capacities used by Roseville for its CIP.

Roadway segments subject to significant impacts are shaded.

SOURCE: DKS Associates, 2002.

Table Q-9 City of Roseville Intersections Recommended Mitigations Existing Plus Full SOI Amendment

Intersection		Recommended Mitigation	Level of Service	
North/south	East/west		Before Mitigation	After Mitigation
Walerga Road	PFE Road	Q-4(c) Add northbound free right-turn lane	D	C
Watt Ave	Baseline Rd	Q-4(b) Widen Watt Ave to 4 lanes	F	C

NOTE: Intersections subject to a significant impact are shaded.

SOURCE: DKS Associates, 2003.

West Roseville Specific Plan

Placer County Roadways

Table Q-6 shows the projected daily traffic volumes on Placer County roadways under Existing Plus WRSP conditions. These daily volumes were estimated by the City of Roseville's travel demand model. A roadway segment level of service analysis indicates that Baseline Road, which currently operates at LOS E conditions between Fiddymment Road and Watt Avenue, would operate at LOS F conditions under the Existing Plus WRSP scenario. The analysis also indicates that that Fiddymment Road, which currently operates at LOS A conditions between Pleasant Grove Boulevard and Baseline Road, would operate at LOS E conditions under the Existing Plus WRSP scenario. This is considered a **significant impact**. Widening both of these roadway segments from two to four lanes (see MM Q-3(a) and Table Q-10) would provide LOS C or better conditions, and thus would reduce the impacts of the WRSP to a **less-than-significant** level.

Supplemental Existing Plus Project Traffic Analysis**Table Q-10 Placer County Roadway Segment Mitigations Existing Plus WRSP**

Roadway	Location	Existing lanes	Mitigation	LOS	
				Before Mitigation	After Mitigation
Baseline Rd	Fiddymnt Rd to Watt Ave	2	Q-3(a) Widen to 4 lanes	F	A
Fiddymnt Rd	Pleasant Grove Blvd to Baseline Rd	2	Q-3(b) Widen to 4 lanes	E	A

NOTES:

Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-6.

Segments that operate at LOS D or worse are shaded.

SOURCE: DKS Associates, 2003.

It was estimated that the WRSP would increase traffic on Phillip Road west of the WRSP area from a very low existing volume (about 100 vehicles per day) to about 2,600 daily vehicles. Phillip Road is a narrow unimproved rural road, a portion of which is gravel. While the WRSP would not cause a level of service impact on Phillip Road, it would exceed a threshold used by Placer County in its CIP and traffic fees for defining improvements to rural roadways.

If a rural collector or arterial roadway currently carries less than 2,000 daily vehicles but future growth causes the roadway to carry more than 2,000 daily vehicles, then improvements to that roadway, primarily involving a wider cross-section and potentially paved shoulders is justified and thus included in Placer County's CIP and traffic fees. This impact would occur with the WRSP, but not with the SOI Amendment. About 2,600 vehicles would use Phillip Road under Existing Plus WRSP conditions, while only about 1,000 vehicles would use Phillip Road under Existing Plus Full SOI Amendment conditions. This is due to other new roadways such as the extension of Watt Avenue to Westside Drive.

It was estimated that the WRSP would increase traffic on Brewer Road south of Philip Road from a very low existing volume (about 700 vehicles per day) to about 2,800 daily vehicles. Brewer Road is a narrow rural road. While this roadway's traffic carrying capacity is sufficient that the WRSP would not cause a level of service impact, it would cross a threshold used by Placer County in its CIP and traffic fees for defining improvements to rural roadways. This impact would occur with the WRSP, but not with the SOI Amendment Area for the reasons discussed above. About 2,800 vehicles would use Brewer Road under Existing Plus WRSP conditions, but only about 700 vehicles would use Brewer Road under Existing Plus SOI Amendment conditions.

MM Q-3(c) prohibits extension of Blue Oaks Boulevard through the Roseville Energy Park (to Westside Drive) until a north/south connection is constructed from Westside Drive to Baseline Road. Not extending Blue Oaks Boulevard all the way to Westside Drive would reduce the volume on Phillip Road from 2,600 daily vehicles to 1,400 daily vehicles and on Brewer Road from 2,800 to 1,800. Once a connection between Baseline Road and Westside Drive is established, Blue Oaks Boulevard Extension

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could be extended to Westside Drive. With both of these improvements in place, Phillip Road and Brewer Road would both carry less than 2,000 daily vehicles.

An intersection level of service analysis, summarized in Table Q-8, was also conducted at several key intersections in unincorporated Placer County under Existing Plus WRSP conditions. No Placer County intersections were shown to operate at LOS D or worse with the addition of WRSP traffic. The mitigations identified would reduce the impact on Placer County roadways to a less-than-significant level. However, the improvements lie outside the jurisdiction of the City of Roseville. Placer County can implement this suggested mitigation measure, but may choose not to. If the improvements are not made, levels of service would remain as shown in Tables Q-6. Therefore, the impact is considered **significant and unavoidable**.

IMPACT Q-4: INCREASED TRAFFIC VOLUMES ON CITY OF ROCKLIN ROADWAYS.			
Applicable Policies and Regulations:	None Applicable		
	SOI	WRSP	Remainder Area
Significance with Policies and Regulations:	Less than Significant	Less than Significant	Less than Significant
Mitigation Measures:	N/A	None required	None required
Significance after Mitigation:	Less than Significant	Less than Significant	Less than Significant

■ SOI Amendment/Remainder Area

City of Rocklin Roadways

Table Q-11 shows the projected daily traffic volumes on roadways in the City of Rocklin under the Existing Plus SOI Amendment scenario. These daily volumes were estimated by the City of Roseville’s travel demand model. The level of service analysis for Rocklin’s roadways, also shown in Table Q-11, indicates that the full SOI Amendment would not cause any of Rocklin’s roadways to degrade to LOS D or worse conditions. Therefore, the SOI Amendment would have a **less-than-significant impact** on Rocklin’s roadways.

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Table Q-11 Rocklin Roadways Average Daily Traffic Volumes and Levels of Service Existing Conditions

Roadway	Location	Existing Lanes	No Project		SOI Amendment		WRSP	
			ADT	LOS	ADT	LOS	ADT	LOS
Sunset Blvd	SR 65 to W. Stanford Ranch	4	11,600	A	11,900	A	11,500	A
	W. Stanford Ranch W. Oaks	6	8,900	A	9,000	A	9,000	A
	W. Oaks to Park	6	15,000	A	16,100	A	15,800	A
	Park to Stanford Ranch	6	20,300	A	21,400	A	21,000	A
	Stanford Ranch to Whitney Blvd	4	13,900	A	14,200	A	14,100	A
	Whitney Blvd to Pacific Ave	4	21,400	B	22,200	B	21,900	B
Park Drive	Roseville City limits to Sunset Blvd	4	11,300	A	11,600	A	11,400	A
Blue Oaks Blvd	Route 65 to Lone Tree Blvd	6	5,300	A	6,700	A	6,300	A
	Lone Tree Blvd to Sunset Blvd	4	8,200	A	9,600	A	9,300	A
Stanford Ranch Rd	Fairway Dr to Sunset Blvd	6	28,000	A	28,300	A	28,200	A

NOTES:
 Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-__.
 SOURCE: DKS Associates, 2002.

West Roseville Specific Plan

City of Rocklin Roadways

Table Q-11 shows the projected daily traffic volumes on roadways in the City of Rocklin under the Existing Plus WRSP scenario. These daily volumes were estimated by the City of Roseville’s travel demand model. A roadway segment level of service analysis for Rocklin’s roadways, also shown in Table Q-11, indicates that the WRSP would not cause any of Rocklin’s roadways to degrade to LOS D or worse conditions. Therefore, the WRSP would have a **less-than-significant impact** on Rocklin’s roadways.

IMPACT Q-5: INCREASED TRAFFIC VOLUME ON THE SUTTER COUNTY ROADWAYS.			
Applicable Policies and Regulations:	None Applicable		
	SOI	WRSP	Remainder Area
Significance with Policies and Regulations:	Significant	Significant	Significant
Mitigation Measures:	N/A	None required	MM Q-5 (Add second westbound left-turn lane at intersection of Riego Road and State Route 70/99)
Significance after Mitigation:	Significant and Unavoidable	Less than Significant	Significant and Unavoidable

■ SOI Amendment/Remainder Area

Sutter County Roadways

Table Q-12 shows the projected daily traffic volumes on selected roadways in Sutter County under the Existing Plus SOI Amendment scenario. These daily volumes were estimated by the City’s travel demand model. A roadway segment level of service analysis for Sutter County roadways, also shown in Table Q-12, indicates that the SOI Amendment would not cause any of Sutter County’s roadways to degrade to LOS D or worse conditions.

Table Q-12 Sutter County Roadways Average Daily Traffic Volumes Existing Conditions

Roadway	Existing Lanes	No Project		SOI Amendment		WRSP	
		ADT	LOS	ADT	LOS	ADT	LOS
Riego Road	2	10,600	A	13,000	B	11,700	B
Sunset West/Howsley Road	2	600	A	1,600	A	1,300	A
Carlett Road	2	100	A	300	A	100	A

NOTES:
 Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-__.
 SOURCE: DKS Associates, 2002.

An intersection level of service analysis, summarized in Table Q-13, was also conducted at key intersections in unincorporated Sutter County under Existing Plus SOI Amendment conditions. This analysis indicates the SOI Amendment would cause the intersection of Riego Road and State Route 70/99 to degrade from LOS C to LOS D conditions. This is a **significant impact**. The addition of a second westbound left-turn lane at this intersection would result in LOS C or better conditions at this intersection (see MM Q-5 and Table Q-14). The Metropolitan Transportation Plan includes construction of grade-separated interchanges at this intersection. Implementation of the second westbound left-turn lane or the interchange would reduce the impact of development of the full SOI Amendment Area to a less-than-significant level. However, the improvements lie outside the jurisdiction of the City of Roseville. Sutter County can implement this suggested mitigation measure, but may choose not to. If the improvements are not made, levels of service would remain as shown in Table Q-13. Therefore, the impact is considered **significant and unavoidable**.

Supplemental Existing Plus Project Traffic Analysis

Table Q-13 Sutter County Intersections Levels of Service Existing Conditions

Roadway			No Project		SOI Amendment		WRSP	
North/south	East/west	Traffic Control	LOS	Delay ¹ / V/C	LOS	Delay ¹ / V/C	LOS	Delay ¹ / V/C
SR 70/99	Riego Road	Signal	C	0.74	D	0.84	C	0.78
Pleasant Grove Road W	Riego Road	3-Way Stop	C	15.4 sec	C	25.4 sec	C	22.9 sec

NOTES:

¹ For stop-sign controlled intersections (including one and two-way stop signs) LOS based on average delay of all intersection approaches. Shaded cells indicate a significant impact.

SOURCE: DKS Associates, 2002.

Table Q-14 Sutter County Intersections Recommended Mitigation Existing Plus WRSP Scenario

Intersection		Recommended Mitigation	Level of Service	
North/south	East/west		Before Mitigation	After Mitigation
SR 70/99	Riego Road	Q-5 Add 2 nd westbound left turn lane	D	C

NOTE: Intersections subject to a significant impact are shaded.

SOURCE: DKS Associates, 2003.

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Sutter County Roadways

Table Q-12 shows the projected daily traffic volumes on selected roadways in Sutter County under the Existing Plus WRSP scenario. These daily volumes were estimated by the City's travel demand model. A roadway segment level of service analysis for Sutter County roadways, also shown in Table Q-12, indicates that the WRSP would not cause any of Sutter County's roadways to degrade to LOS D or worse conditions.

An intersection level of service analysis, summarized in Table Q-13, was also conducted at key intersections in unincorporated Sutter County under Existing Plus WRSP conditions. This analysis indicates the WRSP would not cause any of Sutter County's intersections to degrade to LOS D or worse conditions. Therefore, the WRSP would have a **less-than-significant** impact on Sutter County roadways and intersections.

Supplemental Existing Plus Project Traffic Analysis

IMPACT Q-6: INCREASED TRAFFIC ON SACRAMENTO COUNTY ROADWAYS.			
Applicable Policies and Regulations:	None Applicable		
	SOI	WRSP	Remainder Area
Significance with Policies and Regulations:	Significant	Less than Significant	Significant
Mitigation Measures:	N/A	None required	Mitigation Measures Q-6 (Construct identified improvements on Sacramento County roadways)
Significance after Mitigation:	Significant and Unavoidable	Less than Significant	Significant and Unavoidable

SOI Amendment/Remainder Area

Sacramento County Roadways

Table Q-15 shows the projected daily traffic volumes on Sacramento County roadways under Existing Plus Full SOI Amendment conditions.

Table Q-15 Sacramento County Existing Average Daily Traffic Volumes and Levels of Service

Roadway	Location	Existing Lanes	No Project		SOI Amendment		WRSP	
			ADT	LOS	ADT	LOS	ADT	LOS
Watt Avenue	Placer Co Line to Elverta Rd	2	8,800	A	20,700	F	11,800	B
Walerga Road	Placer Co Line to Elverta Rd	2	11,100	B	19,700	F	15,900	D
Elverta Road	West of Watt Ave	2	17,700	E	17,400	E	17,600	E

NOTES:
 Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9.
 Segments that experience significant impacts are shaded.
 SOURCE: DKS Associates, 2003.

A roadway segment level of service analysis indicates that development of the full SOI Amendment would cause Watt Avenue From the Placer County Line to Elverta Road to worsen from LOS A to LOS F and Walerga Road from Placer County Line to Elverta Road to worsen from LOS B to LOS F. Both of these LOS changes are considered impacts in Sacramento County.

Implementation of the measures identified in Table Q-16 would reduce these impacts to a less-than-significant level. However, the improvements lie outside the jurisdiction of the City of Roseville. Sacramento County can implement this suggested mitigation measure, but may choose not to. If the improvement is not made, levels of service would remain as shown in Table Q-15. Therefore, this impact is considered **significant and unavoidable**.

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Table Q-16 Sacramento County Recommended Mitigation For Roadway Segments SOI Amendment

Roadway	Location	Existing Lanes	Mitigation	LOS	
				Before Mitigation	After Mitigation
Watt Avenue	Placer County Line to Elverta Road	2	Q-6(a) Widen to 4 lanes	F	A
Walerga Road	Placer Co Line to Elverta Rd	2	Q-6(b) Widen to 4 lanes	F	A

NOTES:

Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9.

SOURCE: DKS Associates, 2003.

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Sacramento County Roadways

Table Q-15 shows the projected daily traffic volumes on Sacramento County roadways under Existing Plus WRSP conditions.

A roadway segment level of service analysis (summarized in Table Q-15) indicates that development of the full WRSP would cause Walerga Road from Placer County Line to Elverta Road to worsen from LOS B to LOS D. Since only a degradation of LOS from E to F is considered an impact in Sacramento County, this change in LOS is considered less than significant.

Traffic Mitigation Measures

MM Q-1: *Pay fair share of improvements in the CIP including improvements to the following City intersections (WRSP):*

- *Fiddymment Road/Baseline Road*
- *Riverside Avenue/Cirby Way*
- *Riverside Avenue/Vernon Street/Douglas Boulevard*
- *Sunrise Avenue/Lead Hill Boulevard*
- *Woodcreek Oaks/Baseline Road*

MM Q-1 applies to Impact Q-1 for the WRSP.

The following roadway improvements would be necessary to achieve acceptable service levels under the existing plus WRSP scenario. The City of Roseville’s 2020 CIP as well as the City’s traffic impact fees already include the improvements.

- a. *Intersection of Fiddymment Road/Baseline Road: Add a westbound free right-turn lane to the intersection of Fiddymment Road and Baseline Road. With this improvement, this intersection would operate at LOS C.*
- b. *Intersection of Riverside Avenue/Cirby Way: Add a 3rd southbound thru lane or add 3rd northbound left-turn lane to the intersection of Riverside Avenue and Cirby Way. With this improvement, this*

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intersection would operate at LOS D or C, respectively. Because the pre-project condition was LOS D, the WRSP is responsible for improving the intersection to LOS D.

- c. Intersection of Riverside Avenue/Vernon Street/Douglas Boulevard: Restripe the westbound approach from Douglas Boulevard to provide a left turn lane and a through/right turn lane.*
- d. Intersection of Sunrise Avenue/Lead Hill Boulevard: Add a 2nd northbound left to the intersection of Sunrise Avenue and Lead Hill Boulevard. With this improvement, the intersection would operate at LOS B.*
- e. Intersection of Woodcreek Oaks/Baseline Road: Add a northbound free right to the intersection of Woodcreek Oaks and Baseline Road. With this improvement, the intersection would operate at LOS C.*

The WRSP would develop over a period of years. Therefore the project's impacts to these intersections would occur over a period of time. As with other improvements in the 2020 CIP, the City will monitor traffic conditions and decide when specific improvements are needed. The City of Roseville's traffic impact fees shall be revised to include the WRSP. The applicant shall contribute the WRSP's fair share of the cost of these improvements through the updated traffic impact fees.

MM Q-2: *Pay fair share of improvements in the CIP including improvements to the following City intersections (Remainder):*

- *Riverside Avenue/Cirby Way*
- *Sunrise Avenue/Lead Hill Boulevard*
- *Woodcreek Oaks/Baseline Road*
- *Foothills Boulevard/Atkinson Road*
- *Foothills Boulevard/Village Green Drive/Baseline Road*
- *Watt Avenue/Baseline Road*

MM Q-2 applies to Impact Q-1 for the Remainder Area.

The City of Roseville's 2020 CIP and traffic impact fees include the following improvements, which would be required to ensure that service levels are acceptable with development of the SOI Amendment Area.

- a. Intersection of Riverside Avenue/Cirby Way: Add a 3rd eastbound thru-lane and add 3rd southbound thru lane or add a 3rd northbound left-turn lane to the intersection of Riverside Ave and Cirby Way. With this improvement, this intersection would operate at LOS D or C, respectively. Because the pre-project condition was LOS D, Remainder Area development would only be responsible for improving the intersection to LOS D.*

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- b. *Intersection of Sunrise Avenue/Lead Hill Boulevard: Add a 2nd northbound left to the intersection of Sunrise Avenue and Lead Hill Boulevard. With this improvement, the intersection would operate at LOS B.*
- c. *Intersection of Woodcreek Oaks/Baseline Road: Add a 2nd eastbound thru-lane to the intersection of Woodcreek Oaks and Baseline Road. With this improvement, the intersection would operate at LOS C.*
- d. *Intersection of Foothills Boulevard/Atkinson Road: Add 2nd westbound left-turn lane or add 2nd loop ramp (in 2020 CIP) to the intersection of Foothills Boulevard and Atkinson Road. With this improvement, the intersection would operate at LOS C or A, respectively.*
- e. *Intersection of Foothills Boulevard/Village Green Drive/Baseline Road: Add a 2nd northbound left-turn lane to the intersection of Foothills Boulevard and Village Green Drive/Baseline Road. With this improvement, the intersection would operate at LOS C.*
- f. *Intersection of Watt Avenue/Baseline Rd: Widen Watt Avenue to 4 lanes through the intersection of Watt Avenue and Baseline Road. With this improvement, the intersection would operate at LOS B.*

If development is approved in the Remainder Area would likely develop over a period of years. Therefore the impacts on these intersections would occur over a period of time. As with other improvements in the 2020 CIP, the City will monitor traffic conditions and decide when specific improvements are needed. The City of Roseville's traffic impact fees should be revised to include the Remainder Area. Specific Plans and/or development proposals shall provide for fair share contributions of the cost of the improvement through the updated traffic impact fees.

MM Q-3: *Construct roadway improvements at the following locations in Placer County (WRSP):*

- *Baseline Road from Fiddymment Road to Watt Avenue*
- *Fiddymment Road from Pleasant Grove Boulevard to Baseline Road*
- *Phillip Road outside of the WRSP Area*

MM Q-3 applies to Impact Q-3 for the WRSP.

- a. *Widen Baseline Road from Fiddymment Road to Watt Avenue from two to four lanes. This improvement is already included in Placer County's 2010 CIP.*
- b. *Widen Fiddymment Road from Pleasant Grove Boulevard to Baseline Road from two to four lanes.*
- c. *Improve Phillip Road to County standards.*

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With these improvements, the Baseline and Fiddymment Road segments would operate at LOS A. However, the improvements lie outside the jurisdiction of the City of Roseville. Placer County can implement this suggested mitigation measure, but may choose not to. If the improvements are not made, levels of service would remain as shown in Tables Q-6 and Q-8.

MM Q-4: Construct the roadway improvements at the following locations in Placer County (Remainder):

- *Baseline Road from Watt Avenue to Sutter County line*
- *Watt Avenue from Baseline Road to PFE Road*
- *Walerga Road/PFE Road intersection*

MM Q-4 applies to Impact Q-4 for the Remainder Area.

- a. Widen Baseline Road from Watt Avenue to the Sutter County line from two to four lanes.*
- b. Widen Watt Avenue from Baseline Road to PFE Road from two to four lanes.*
- c. Add Right-turn lane on the northbound approach of the Walerga Road/PFE Road intersection.*

With these improvements, service levels would improve to LOS C at the Walerga Road/PFE Road intersection, LOS C on the Baseline Road segment, and LOS C on the Watt Avenue segment. Further, Phillip Road would be able to accommodate the increased traffic volume. However, the improvements lie outside the jurisdiction of the City of Roseville. Placer County can implement this suggested mitigation measure, but may choose not to. If the improvements are not made, levels of service would remain as shown in table Q-6 and Q-8. Therefore, this impact is considered **significant and unavoidable**.

MM Q-5: Add second westbound left-turn lane at intersection of Riego Road and State Route 70/99 (Remainder)

MM Q-5 applies to Impact Q-5 for the Remainder Area.

With this improvement, the intersection of Riego Road and State Route 70/99 would operate at LOS C. However, the improvements lie outside the jurisdiction of the city of Roseville. Sutter County can implement this suggested mitigation measure, but may choose not to. If the improvements are not made, the levels of service would remain as shown in Table Q-13.