CHAPTER 9 – UTILITIES PLAN

The Amoruso Ranch Specific Plan (ARSP) includes utility infrastructure required to serve the Plan Area. Each component of the utility infrastructure system is designed to accommodate build-out of the ARSP in a phased approach, generally moving from south to north, adjacent to Westbrook Boulevard. Phasing of infrastructure improvements and funding obligations are detailed in the Specific Plan development agreements. Table 9.1 summarizes the utility providers to the ARSP.

Table 9.1
Utility Providers

Utility	***Provider***
Potable Water	City of Roseville
Wastewater	City of Roseville
Recycled Water	City of Roseville
Drainage & Flood Control	City of Roseville
Electric Service	City of Roseville Electric
Natural Gas	Pacific Gas & Electric
Communications	AT&T, Comcast, Wave Broadband
Solid Waste Disposal	City of Roseville

Utility infrastructure will be constructed, dedicated, and easements provided consistent with this Specific Plan, the project development agreements, and other applicable standards and requirements of the City of Roseville.

9.1 Potable Water

The City of Roseville will provide potable water service (supply through wholesale water from the Placer County Water Agency (PCWA), and treatment, and conveyance to the ARSP. Water will be delivered to the site via the City's existing backbone system through the Creekview Specific Plan (CSP) along Westbrook Boulevard.

A. Water Supply and Demand
The water demand for the ARSP is approximately 1,503 acre-feet per year (AFY). With full implementation of water conservation measures described in Section B, below, the ARSP's overall water demand will be reduced by approximately 165 AFY. Water demand, after conservation measures, will be satisfied with a combination of potable and non-potable (recycled) water sources. Non-potable (recycled) water will be utilized for irrigation purposes with a semi-aggressive approach in both wet and dry years. Section 9.2 of this document discusses the proposed recycled water system and recycled water use plans in more detail. To supplement water supply the ARSP includes provisions for one onsite aquifer storage and recovery (ASR) groundwater well on Parcel AR-58. The well will be capable of providing a minimum total supply capacity of 1,800 gallons per minute (gpm).

B. Water Conservation Measures
The ARSP includes significant water-saving measures aimed at reducing overall water demands for potable and recycled water to the extent feasible. The following water conservation measures will be implemented in the ARSP in an effort to meet the City's water conservation goal:

Turf Reductions in Residential Areas
This measure involves limiting the amount of turf in the front yards of residential properties and using a higher percentage of low water use plant species in lieu of turf. Typically, about 75% of a total residential front yard is assumed to consist of landscaping, with the balance consisting of driveways, planters, or walkways. For the ARSP, limitations will be placed on the landscaped portion of each front yard, allowing up to 42% of the total landscaped area to be turf (instead of the typical 75%), with the remaining landscaped area comprised of low water use plant species. For the Roseville area, low water use plantings on average use approximately 65-75% less water than used on a typical turf lawn.

Turf Reductions in Non-Residential Areas (Parks, Paseos, and Landscape Corridors)
This measure involves limiting the use of turf on non-residential parcels, with a focus on water efficiencies at parks, paseos, and landscape corridors. For these areas, landscape design will reduce the area of turf and increase the area of low water use plant species. To achieve the desired water conservation, the following criteria will be implemented:

- Parks. It is assumed approximately 80% of a typical park's square footage consists of turf. The ARSP parks will have a maximum aggregate turf area of 60%, with the remaining 20% area comprised of low water use plant species. Less than 60% turf is acceptable provided it is compatible with the amenities planned for the park.

- Paseos and Landscape Corridors. It is assumed paseos and landscape corridors are typically comprised of 80% turf area. The ARSP paseos and landscape corridors will have a maximum of 60% turf area, with the remaining 20% of the area comprised of low water use plant species.

Smart Irrigation Controllers
Smart and centrally located irrigation controllers restrict irrigation to times and rates necessary to maintain landscaping. They account for changes in the demand for water, which varies with weather patterns and seasonal influences. In the ARSP, smart irrigation controllers will be required for residential, commercial, and quasi-public parcels subject to turf reduction measures, and centrally controlled irrigation controllers for larger commercial and publicly maintained parcels. It is anticipated that these controllers could result in approximately 20% total irrigation water demand reduction.

Re-circulating Hot Water Systems
Re-circulating hot water systems feature a pump on a residential hot water line system which reduces time necessary to receive hot water at any hot water faucet. This type of system will be included on all residential units to generate additional water conservation. It is anticipated that these systems could result in approximately 1.5% total potable water demand reduction.

With full implementation of the water conservation measures outlined above and the recycled water system, as described in Section 9.2, the ARSP will reduce the potable water demand by approximately 437 AFY, resulting in a total potable water demand of approximately 1066 AFY.

C. Water Transmission System

Water will be supplied to the ARSP area via a 24-inch main line extended from the south property line from the proposed CSP area. Within the ARSP, water will be distributed through an infrastructure system that parallels the collector and arterial roadway systems. The transmission and distribution system will consist of 6-inch to 24-inch diameter mains. Connections with neighboring proposed and existing neighborhoods and specific plans will be provided at the south terminations of Westbrook Boulevard, and the eastern terminations of Road “B” and Road “D”. All water improvements will be constructed to the City’s standards using a phased approach.

Figure 9.1 also depicts the overall backbone water distribution system and points of connection. Additionally, the ARSP includes provision for a groundwater well. The water distribution infrastructure will be designed to the City’s standards and constructed and installed over time to coincide with development entitlements, and would be designed to accommodate buildout of the ARSP.

Details regarding the water facilities are contained in the ARSP Water Master Plan and the ARSP Environmental Impact Report (EIR) on file with the City.

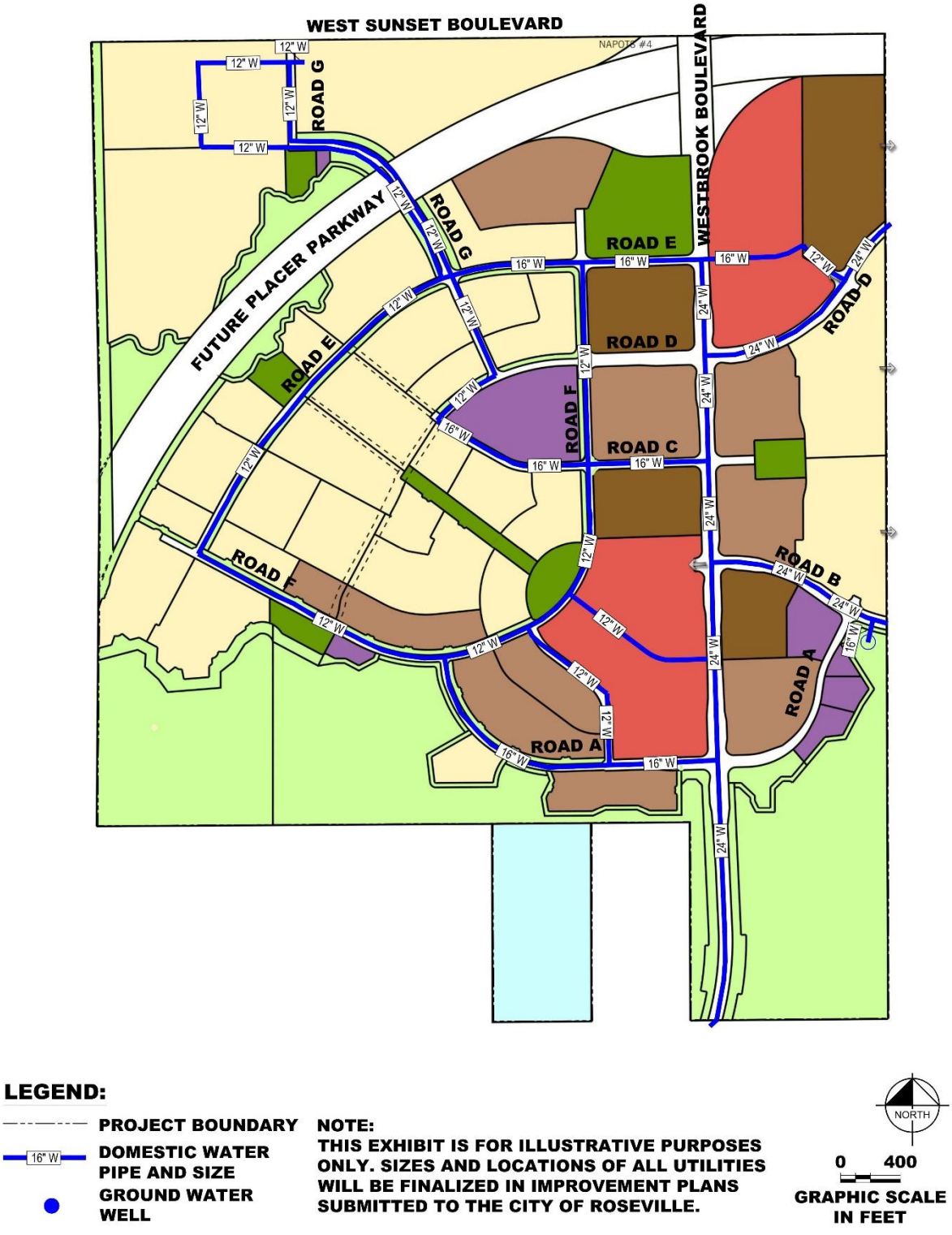

Figure 9.1: Water Distribution System & Facility Locations

9.2 Recycled Water

The City's recycled water system currently delivers approximately 3,000 AFY of recycled water to parks, street landscaping areas and golf courses within the City limits. The City has evaluated the ARSP as one of several Urban Growth Areas (UGAs) that will require additional recycled water.

The City will ultimately provide the ARSP with recycled water from the Pleasant Grove Wastewater Treatment Plant (PGWWTP). The ARSP will use recycled water to irrigate landscaping at the proposed community pocket parks, sports fields, the proposed school parks/sports fields, the commercial and village center areas, as well as publicly landscaped areas such as the organic and traditional paseos and other landscaped medians. Recycled water will also be used to irrigate landscaping within multi-family residential parcels. The estimated annual recycled water demand in the ARSP is approximately 272 AFY. Through implementation of water conservation measures described in Section 9.1B, above, this demand is reduced by approximately 50 AFY. The use of recycled water for irrigation purposes offsets potable water demand typically needed for irrigation.

Recycled water will be supplied to the ARSP via infrastructure within the West Roseville Specific Plan and the Creekview Specific Plan. In order to provide capacity to serve the ARSP's demand that may exceed the City's available committed supply, the ARSP will be required to provide storage facilities capable of storing recycled water demand during one peak day, which has been determined to be a 24-hour period in July. . The storage of recycled water for ARSP is planned to be located within an Infill Area adjacent to the City's existing Roseville Energy Park just north of Phillip Road at the intersection with West Park Drive. This proposed facility would also serve the storage needs of the Creekview Specific Plan. The ARSP onsite backbone system of dedicated non-potable water lines ranging in size from 6 inches to 12 inches will be constructed running parallel to the collector and arterial roadway system, and is depicted in Figure 9.2.

The recycled water distribution infrastructure will be constructed and installed over time to coincide with development entitlements, and would be designed to accommodate buildout of the ARSP. All recycled water improvements will be constructed to the City's standards using a phased approach. Specific details regarding the recycled water facilities and supplies, including technical analysis, are contained in the ARSP Recycled Water Study and the ARSP EIR on file with the City.

9.3 Wastewater / Sanitary Sewer

Sanitary sewer service will be provided by the City of Roseville. Wastewater generated within the ARSP will be treated at the City's Pleasant Grove Wastewater Treatment Plant (PGWWTP) The PGWWTP is located west of Phillip Road and south of Blue Oaks Boulevard, within the WRSP. The ARSP is estimated to generate approximately 0.61 million gallons per day (mgd) average daily wastewater flow.

The backbone wastewater collection system is illustrated on Figure 9.3. Wastewater flows from the ARSP will be directed to the PGWWTP through the southern portion of the site, where it will connect with an existing transmission line to be provided by the proposed CSP. Infrastructure within the CSP area was planned and sized to accommodate flow from the ARSP. On-site sewer collection pipes will range in size from 6 inches to 24 inches. Two lift station facilities will also be required. One small lift station (located on Parcel AR-56) will be needed to pump wastewater under the proposed Placer Parkway alignment from the northwest property corner. The second, and larger, lift station (located on Parcel AR-57) will be needed in order to pump the wastewater from the ARSP to a connection point within the CSP. The wastewater collection infrastructure will be constructed and installed over time to coincide with development entitlements, and would be designed to accommodate buildout of the ARSP.

All sewer improvements will be consistent with the South Placer Regional Wastewater and Recycled Water Systems Evaluation and will be constructed to the City's standards using a phased approach. Details regarding the sanitary sewer system are contained in the ARSP Sanitary Sewer Master Plan and the ARSP EIR on file with the City.

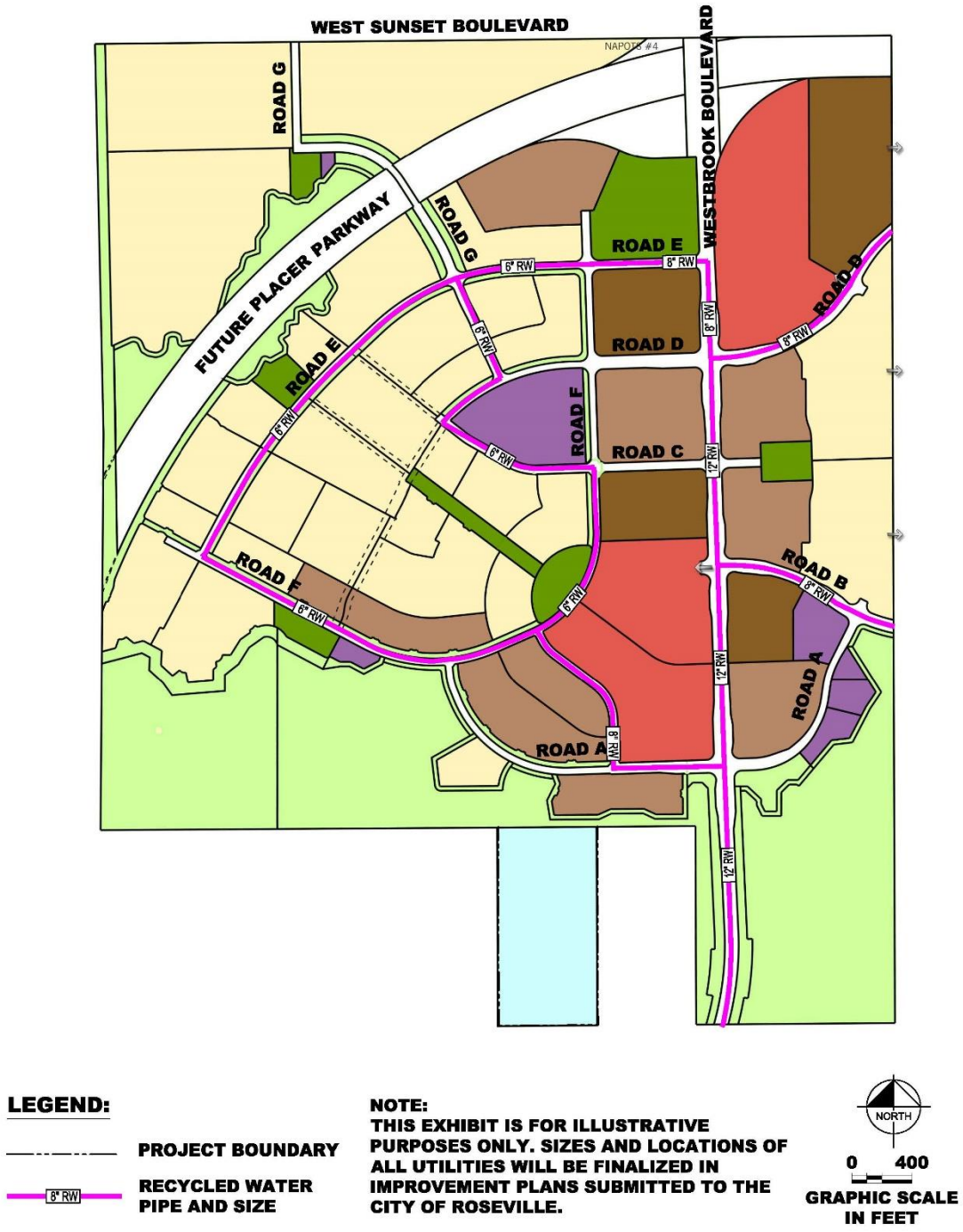

Figure 9.2: Recycled Water Distribution System & Facility Locations

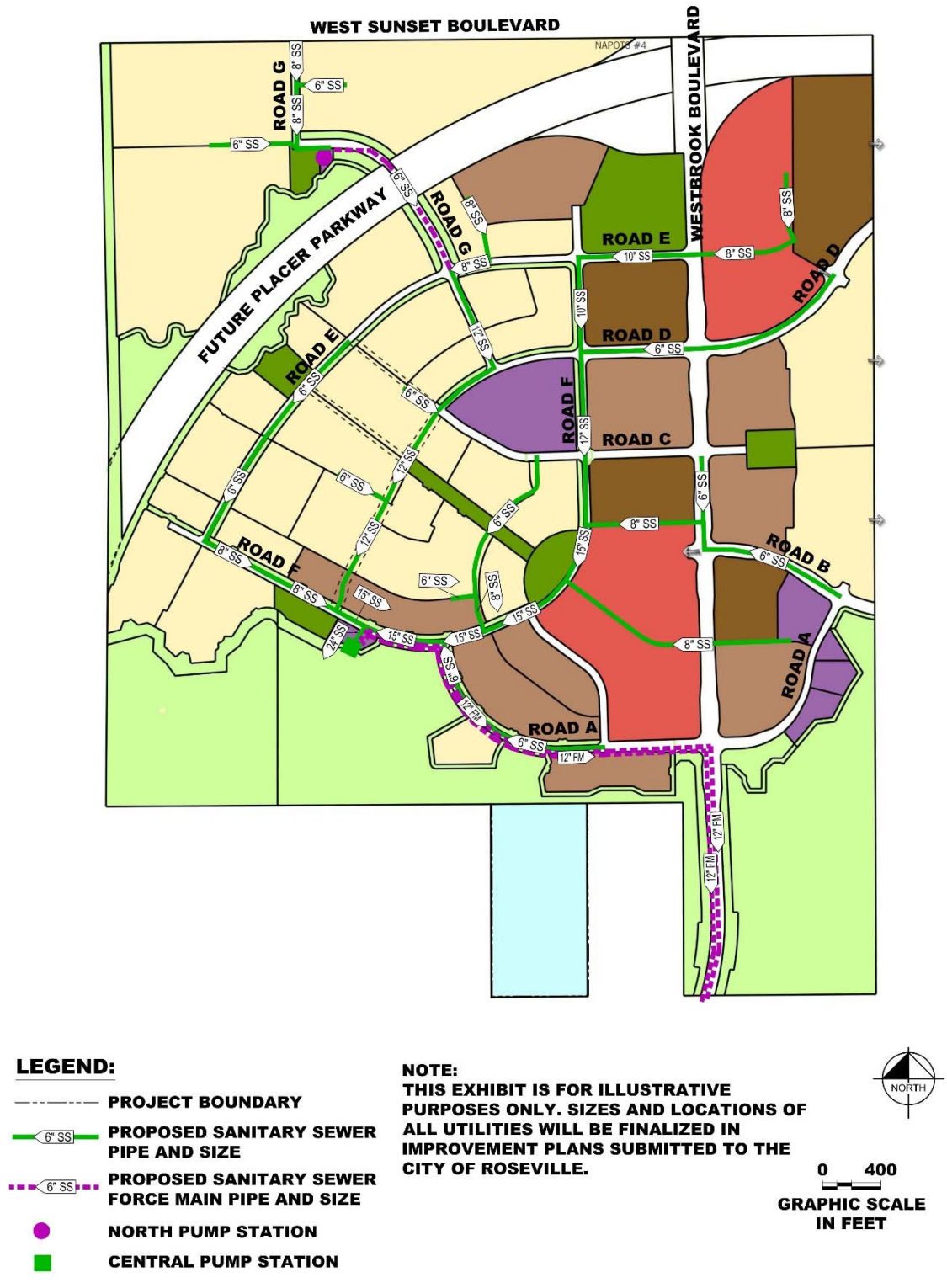

Figure 9.3: Sanitary Sewer Distribution System & Facility Locations

9.4 Drainage & Flood Control

A. Existing Conditions

The ARSP is entirely contained within the Pleasant Grove Creek watershed, which is located within the larger Natomas Cross Canal watershed of northwestern Placer County and southeastern Sutter County. The Pleasant Grove Creek watershed drains to the Pleasant Grove Canal, to the Natomas Cross Canal, and then to the Sacramento River.

Most of the ARSP drains to Pleasant Grove Creek by overland flow or through a few man-made agricultural channels.

University Creek, a tributary to the Pleasant Grove Creek, meanders westerly near the southern boundary of the ARSP, crossing both the southeast and southwest corners of the ARSP before and after passing through the Creekview Specific Plan (CSP) area (immediately south of the ARSP). An area around and including this tributary is covered by Zone A on the currently effective Flood Insurance Rate Map (FIRM) panel 06061C0400F dated June 8, 1998. The approximately four square mile University Creek drainage shed is relatively undeveloped. Rainfall within this drainage shed influences the peak flows of University Creek as it traverses through the Plan Area. The ARSP area is comprised of multiple drainage sheds that drain from the site in several directions, with the southern portion of the Plan Area draining directly into University Creek.

As a result of past farming practices, immediately downstream and to the west of the Plan Area, University Creek has been channelized and redirected to the south around agricultural (rice) fields before turning due west to its confluence with Pleasant Grove Creek. The property to the southwest of the project site is part of the City of Roseville's flood control Retention Basin Project designed to mitigate downstream volumetric impacts resulting from development within the City as described in the City of Roseville Retention Basin Project final Environmental Impact Report (EIR) dated January 10, 2003. The Final EIR refers to University Creek near the southern boundary of the project site as "Northern Tributary Two." The channeling of the natural creek system west of the Plan Area creates a bottleneck which restricts downstream conveyance of floodwaters resulting in an unnatural and expanded 100-year floodplain which results in raising water surface elevations higher than the historic floodplain conditions.

Further, existing County residents to the northwest and north have experienced flooding due to man-made alterations. The ARSP proposes to alleviate a portion of the existing off-site flooding by redirecting flows from the northern portion of the Plan Area that in the pre-project condition drain off the site to the north, to the south, and through the drainage system (Figure 9.4) with ultimate discharge into University Creek.

B. Proposed Site Grading

The project site will be graded such that the base building pad elevation will exceed the regulatory flood elevation by a minimum of two feet.

The project site will be generally graded from a high point in the northeast property corner to a low point in the southwest property corner, which generally follows the existing site topography. The major roadways will generally follow existing grades and connect with existing edge conditions at the south (Creekview Specific Plan), and at the north (Placer Parkway and West Sunset Boulevard.)

C. Drainage System

The Drainage Master Plan (DMP) for the project describes and evaluates a drainage system that collects on-site storm water and conveys it to two discharge points. Storm water generated from the northerly 300 acres of the site is redirected southward within open channels and combined with stormwater generated from portions of the southern area of the site to discharge into University Creek at the southwest corner of the site. The remaining storm water generated from the eastern portion of the site will be directed to the second discharge location and into University Creek.

The open channels within the plan are will be designed to convey 100-year flows with a minimum of 1-foot of free-board. A utility maintenance road will be constructed adjacent to the channels to provide future maintenance vehicle access and inspection. Ramps from the adjacent utility maintenance roads and into the bottom of the channels will be constructed to facilitate easy access into the channels. The bottom of the channels will be designed and constructed in a manner that will provide channel stability, maintenance vehicle stability, opportunity for infiltration, and vegetative growth that can be credited towards the overall water quality objectives. Maintenance costs for the channels will be assessed through the Community Facilities District for maintenance.

Peak flow rate increases resulting from the proposed development will be mitigated through such features that include vegetated treatment swales, and creation of additional conveyance with a created channel system located on the western boundary, and along the southern open space. Traditional permanent detention basins for peak stormwater flow-attenuation are not planned.

Onsite drainage improvements consist of a combination of conventional subsurface and surface drainage systems, construction of pipe conveyance systems and construction of culverts and bridges at roadway and trail crossings of creeks and tributaries. Where applicable, outfall structures will be extended past any planned bikeway alignments in the open space areas.

Prior to the collection and conveyance of the storm water into the drainage system, all storm water flows will be directed into low-impact-development (LID) and other storm water Best Management Practice (BMP) features throughout the site. The use of storm water LID's and BMP's is a requirement of the State Issued MS4 permit, further discussed below, which establishes the criteria that promotes improving the water quality discharges before entering the traditional underground storm drain network. The storm drain system will have a network of underground storm drainage pipes ranging in size from eight inches to 72 inches in diameter, as illustrated in Figure 9.4. The stormwater will then outfall either to a conventional outfall within open space parcel AR-96 (with a constructed swale to direct outfall flows to University Creek, or to one of the three open channels that converge into one discharge point that will ultimately discharge directly into University Creek near the southwestern corner of the ARSP. If detention basins are located on site they would be sized for hydromodification management of the development.

The City of Roseville Retention Basin project mitigates downstream volumetric impacts resulting from development projects constructed within the City. A drainage impact fee is assessed to all new development at the time of building permit issuance for the construction cost of the future facility. The retention facility is located on the City of Roseville's Al Johnson Wildlife Area site, immediately southwest of the ARSP. Per the Retention Basin Final Environmental Impact Report dated January 10, 2003 the retention facility will mitigate for the hypothetical 8-day, 100-year flood event. Although the ARSP was not contemplated as a contributing land mass as part of the MOU area subject to the drainage impact fee and the mitigations provided by the retention facility at the time it was established, the City will annex the ARSP into the MOU and assess a drainage mitigation fee to the ARSP for its contribution towards the construction of the retention basin. Therefore, the facility will be used to mitigate the ARSP volumetric increase.

The location and sizes of the drainage facilities are based on the best available information and is subject to refinement during the subdivision map and improvement plan approvals. Drainage facilities will be designed and constructed in conformance with the City of Roseville Improvement Standards and other permit criteria applicable at the time of development.

Specific detail regarding the drainage system is contained in the ARSP Drainage Master Plan and ARSP EIR on file with the City.

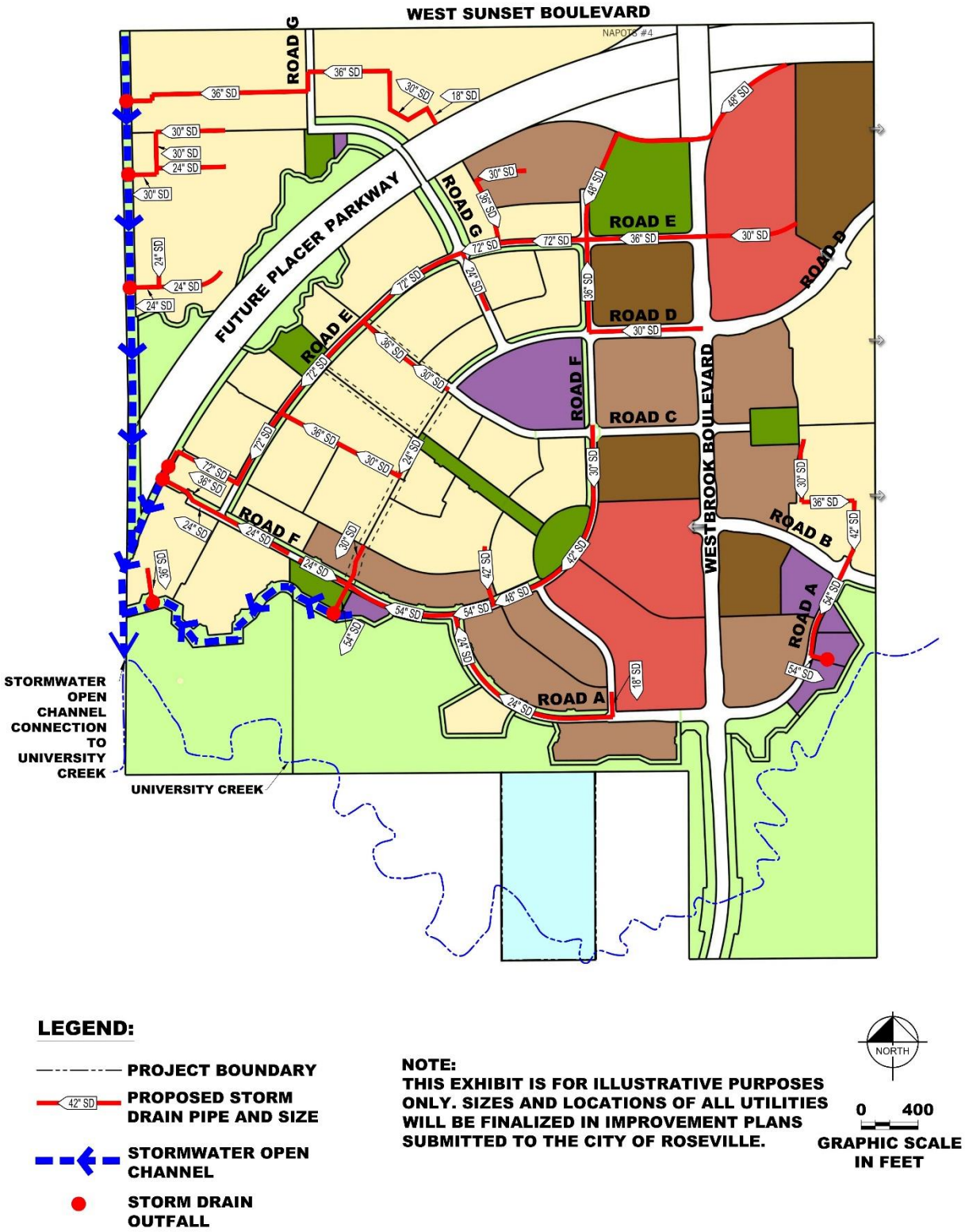

Figure 9.4: Storm Drainage System & Facility Locations

9.5 Stormwater Quality

The ARSP provides a comprehensive plan for the management of urban runoff for flow control and water quality improvement. The integrated stormwater management system plan is reflected, in part, in specific design criteria contained in this section. The objectives of the stormwater management plan are intended to fulfill the requirements of the City's National Pollutant Discharge Elimination System (NPDES) Phase II Permit, as issued by the State Water Resources Control Board, and to minimize the negative effects of urban stormwater runoff on the natural open space areas, including wetland areas and principal drainage corridors.

The ARSP design will be in accordance with permit criteria applicable at the time of development. The stormwater management plan provides the framework for stormwater treatment during two components of the development process. First, during the construction phase while infrastructure is being built to support the community, and, then during the post-construction phase which will be part of the improvements that make up the community and continue to protect the natural resources in perpetuity. Each phase of the development will have specific stormwater quality features integrated for the construction and post-construction states, ensuring that water quality is maintained to agency standards even when the full development has not been built out.

A. Stormwater Management During Construction Activities
The release of on-site stormwater runoff during construction activities is regulated by the State General Construction Permit issued by the Regional Water Quality Control Board for all construction sites. The General Construction permit requires a Storm Water Pollution Prevention Plan (SWPPP) address how stormwater from the construction site will be maintained and treated prior to being discharged from the site. The SWPPP is an evolving document which changes with the dynamics of the site development.

The use of Best Management Practices (BMPs) during the construction process will generally incorporate erosion controls and sediment controls. Erosion and sediment control BMPs include such things as applying straw mulch to disturbed areas, the use of fiber rolls and silt fences, sedimentation basins, drain inlet protection, stabilized construction accesses, and material management. The final sizing and selection of nonmechanical BMPs will consider requirements specific to the Pleasant Grove watershed and proposed development activities.

B. Post Construction Stormwater Management
Post construction stormwater management is intended to treat the urban runoff generated on-site in perpetuity. The BMP techniques within the site will reduce and/or eliminate the pollutants from the urban stormwater runoff and prevent the contamination of receiving waters. The ARSP will work with the permit criteria applicable at the time of development and in conformance with the City of Roseville Improvement Standards, the City's Stormwater Quality Design Manual, the Placer County Flood Control Agency's Stormwater Management Manual, and the City's Open Space Preserve Overarching Management Plan, to design and address post construction stormwater treatment.

Post construction stormwater treatment is composed of three general elements: source control, runoff reduction (hydromodification) and treatment of runoff. All three elements will be used in the ARSP. The basic practice of source control is to minimize the potential for constituents to enter runoff at the source with the general premise of keeping clean water clean. LID and bio-retention measures are the main tool the ARSP will employ for runoff reduction and hydromodification attainment. Implementation of LID and bio-retention facilities includes construction of decentralized small-scale improvements designed to provide local infiltration and treatment opportunities that reduce the quantity of runoff entering the storm drain systems during the design rainfall events specified in the State Permit. LID and bio-retention will be implemented to offset runoff increases which occur with the development as a matter of the conversion of native ground surfaces to impervious cover. Additional treatment control BMPs may be located as end of the pipe treatment to provide further treatment of the stormwater before it enters into the natural creek system. The open channels will be designed to provide a certain level of treatment. Depending on the effectiveness of the above referenced strategies to reduce runoff of the design storm events, retention facilities will be incorporated to ensure that hydromodification objectives have been met.

C. Low Impact Development (LID) and Bio-retention

Low impact development (LID) and bio-retention is an approach to stormwater management emphasizing the use of small scale, natural, constructed and proprietary drainage features integrated throughout a project site to capture urban runoff and precipitation of the design storms. LID measures can slow, clean, infiltrate, and evaportranspire runoff, improving the quality and reducing the quantity of urban runoff entering the city storm drain systems. This is an integral runoff reduction strategy to achieve the hydromodification objectives of the permit. The added opportunities for infiltration offered by the use of LID can add water to local aquifers, increasing water reuse. It is a sustainable practice which benefits water quality protection, stream stability and can contribute to water supply.

The intent is to incorporate the systems of natural processes into a built environment and to mimic the natural environment in its capacity to absorb the storm water generated from the design storm events. In addition to traditional stormwater management, which collects and conveys stormwater runoff through storm drains, pipes, or other conveyances to a centralized stormwater facility, LID and bio-retention within the ARSP will take a different approach by using site design elements and stormwater management to minimize changes to the site's predevelopment runoff rates and volumes.

Key principles of low impact development include:

- Decentralize and manage urban runoff to integrate stormwater management throughout the watershed;
- Preserve the ecosystem's natural hydrological functions and cycles;
- Account for a site's topographic features in its design;
- Reduce directly connected impervious surfaces to slow runoff and provide additional infiltration opportunities; and
- Reduce impervious ground cover and maximize infiltration on-site.

As the ARSP develops, specific LID techniques, tools, and material, specified in construction documents, will control the amount of impervious surface, increase infiltration, and improve water quality by reducing runoff from the developed sites.

A number of LID elements may be implemented into development plans with ARSP to achieve an overall reduction in stormwater runoff. The selection and use of these elements may vary by development project, depending on the runoff reduction needed. The various LID options may include, but are not limited to, the following:

- Disconnected roof drains;
- Disconnected and separated pavement;
- Bio-retention facilities, rain gardens, and bioswales;
- Tree Planting;
- Grass swales and channels;
- Curb cuts and vegetated filter strips;
- Impervious surface reduction – permeable pavements and porous pavements;
- Stream Buffers;
- Soil Amendments; or
- Pollution prevention and good housekeeping practices.

An additional project design element within the open space areas will also provide benefits. The onsite open channel will provide additional floodplain storage capacity which will be factored into the project hydrology analysis. The channel will also provide LID and treatment potential including: added infiltration opportunities, evapo-transpiration opportunities, nutrient uptake, biological filtering, and stream buffers.

D. End of Pipe Stormwater Treatment Control

In addition to the implementation of the above-referenced LID and bio-retention measures, the storm drain system will be designed to provide additional protection of the natural environment and receiving water of Pleasant Grove Creek by providing nonmechanical end of pipe treatment techniques. This element adds to the treatment train and consists of final treatment elements such as grass treatment swales.

Special consideration will be taken to capture, convey and release the urban stormwater to the creek system. The treatment and conveyance of storm runoff in and through the open spaces will be made part of the Corp of Engineers 404 permitting process. Standard practices include the use of headwall structures, directly at the outfall location, to stabilize and protect the outlet pipe, surrounding topography and aid in velocity attenuation while minimizing future maintenance costs.

A conveyance "grassy swale" consistent with the City's Open Space Preserve Overarching Management Plan (OSPOMP) which directs stormwater from the pipe outlets to receiving waters while avoiding sensitive habitat will be used at each outfall. Depending on the size of and frequency of particular storm events, and the actual drainage area being conveyed, the conveyance swales will be armored with geo-synthetics to minimize the potential for future erosion and rilling of the open space. Soft-armoring will provide opportunities to create grassy swales and additional wetland habitat to aide in stormwater filtration and infiltration. Based on the LIDs planned, the need for additional filtration units is not anticipated. However, additional structural BMPs can be added to the treatment train and end of pipe treatment if needed. These may include such devices as:

- Installation of "fossil filter" or equivalent petroleum absorbing insert assemblies in the project drop inlets;
- Trash screen vaults; or
- Other structural BMPs as approved by the City.

The final selection of BMPs will consider requirements specific to the Pleasant Grove Creek watershed and proposed development flows. Other BMPs will involve prompt re-vegetation of disturbed areas and proper erosion protection per the NPDES permit during construction.

9.6 Dry Utilities

Electric, natural gas and telecommunications facilities will be extended in joint trenches and made available to all parcels in the ARSP. This will be accomplished by placing the joint trenches in public utility easements (PUEs) or road rights-of-way when appropriate as depicted in the Circulation Plan – Chapter 7. Reduced PUE's may go through the Design Review for Residential Subdivision (DRRS) during small lot tentative map process and be approved by the City so that homes with front porches close to the sidewalk are encouraged in a Plan Area.

A. Electric Service

Roseville Electric, the City's electric utility, will provide electric service to the ARSP. Roseville Electric operates the Roseville Energy Park (REP), a 160-megawatt natural gas-fired, electric power plant, which uses state-of-the-art equipment to locally generate approximately half of the City's electricity needs. The Roseville Energy Park is located south of the ARSP. Additional electricity resources needed to serve the ARSP, including state and federal mandated renewable electricity resources, will be purchased from outside sources or generated by new Roseville-owned generating facilities. As required by state regulations, Roseville will use energy efficiency programs and initiatives to meet electricity demand, before acquiring new electricity sources.

Electric Energy Efficiency and Conservation

The ARSP includes implementation of cost-effective energy efficiency, load management, and renewable energy programs to meet electricity demand, before new electricity sources are acquired.

Peak Electric Demand and Distribution

Peak electric demand for electrical service is estimated to be 21 mW per year at full build out. Currently, an electric substation is planned to be constructed within the Creekview Specific Plan Area. This substation is expected to be approximately 0.9 to 1.0 acres.

Underground electrical distribution will be extended to the ARSP area through a 12 kV system to individual parcels in conjunction with roadway improvements or as phasing requirements dictate. Street lighting, signal power and other ancillary power facilities will be provided along all public street frontages

as part of the overall roadway frontage improvements. All electric and street light facilities will be constructed to the City's standards at the time of construction.

B. Natural Gas

Pacific Gas & Electric Company (PG&E) will provide natural gas upon request and in accordance with the rules and tariffs of the California Public Utilities Commission. PG&E's long-range plans provide for availability of gas service to accommodate increased demand. Service will be provided to the ARSP through extensions planned by the CSP. Delivery of gas service to individual projects in the ARSP will be reviewed by PG&E at the time of proposal.

C. Communication

The ARSP is within the service areas of AT&T, Comcast, and Wave Broadband. Together, these providers offer both voice and data communication services. Distribution lines to individual parcels will be extended from existing infrastructure adjacent to the ARSP in accordance with the infrastructure Phasing Plan for dry utilities. The providers will review delivery of telephone, cable television, and high-speed data line services to individual projects in the ARSP at the time of proposal.

D. Locations of Above Ground Utility Structures

As an Urban Village, development within the Plan Area will be more integrated without the separations created by subdivision walls. This makes coordination between buildings, landscaping, and the necessary infrastructure components even more critical. As the design framework and guidelines are established by this Specific Plan, guidelines for locations of above ground utility structures are also established. Refer to Section 11.17 for guidelines related to siting and screening of above grade structures.

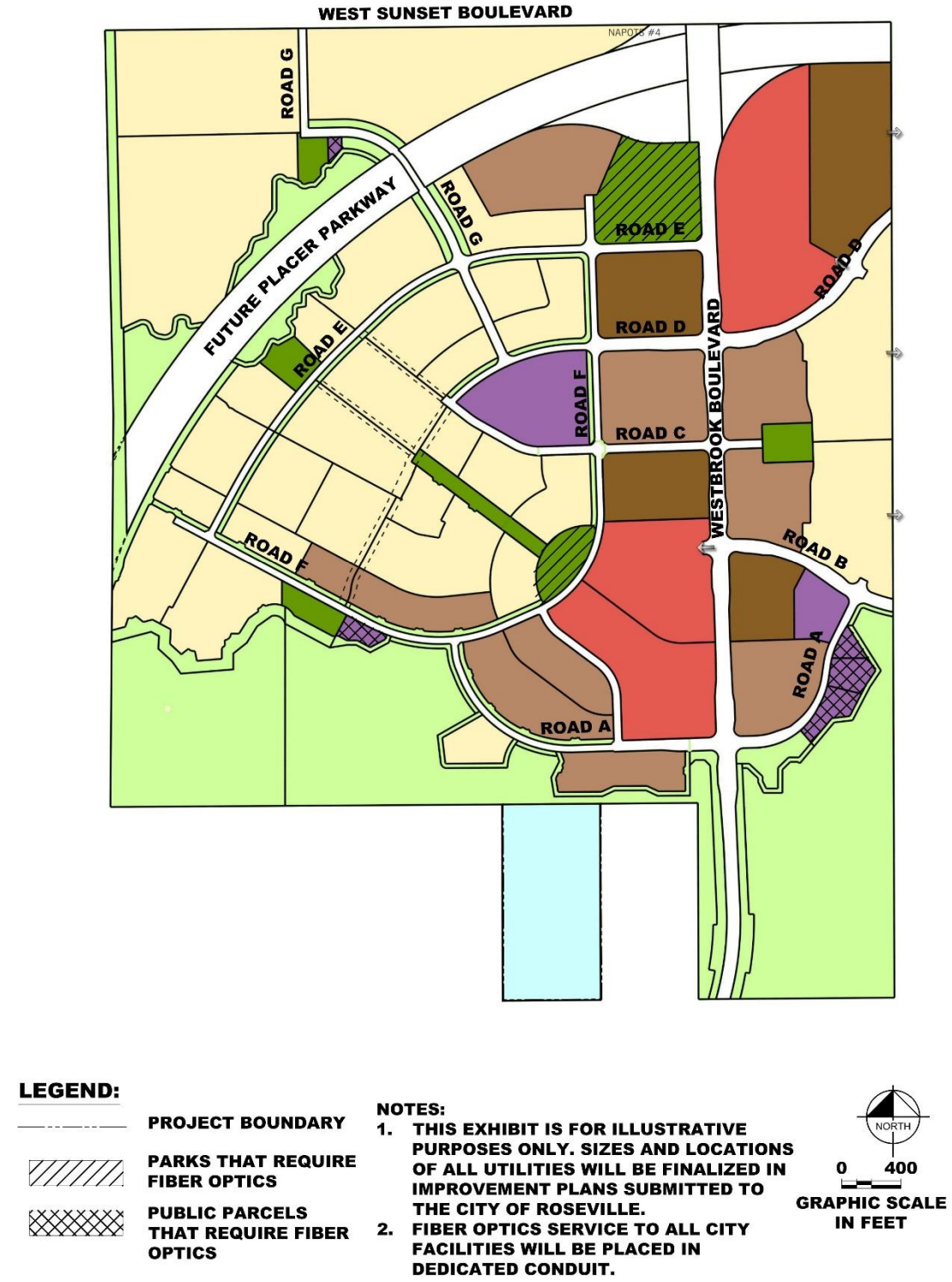

Figure 9.5: Dry Utilities Locations

9.7 Solid Waste

The City of Roseville will provide solid waste services to the ARSP. Solid waste will be collected and delivered to the Western Placer Waste Management Authority facility located north of the City at Athens Avenue and Fiddyment Road. The Authority owns a Material Recovery Facility (MRF) which receives, separates, processes, and markets recyclable materials removed from the waste stream. Residual waste is transferred to the Authority's Western Regional Sanitary Landfill located on the same site.

At full buildout, the ARSP is anticipated to generate approximately 8,660 tons of solid waste annually. A solid waste recycling area is planned within the ARSP on AR-55. This site will provide residents with a location to off-load recyclable materials.