

CABAZON COMMUNITY PLAN INFRASTRUCTURE PLAN

Prepared for:

**RIVERSIDE COUNTY TRANSPORTATION AND LAND
MANAGEMENT AGENCY**

Prepared by:



**October 2025
First Draft**

Revision Date(s): December 2025, March 2026

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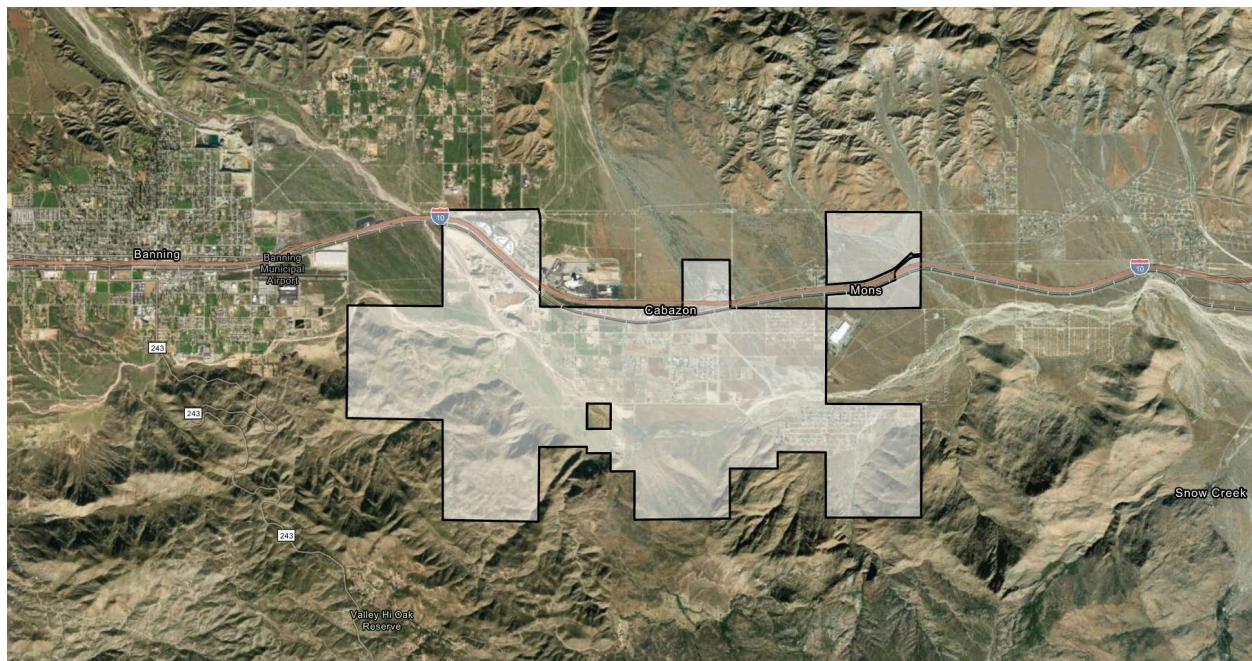
SECTION 1 - INTRODUCTION

■ Project Location

The Cabazon Community Plan (CCP) is located approximately 90 miles east of Los Angeles and 120 miles north of San Diego, in western Riverside County. The Community is bound by the City of Banning to the west, the Cities of Desert Hot Springs and Palm Springs to the east, and unincorporated areas of Riverside County to the north and south. The Morongo Reservation is located in the San Bernardino Mountains to the north, while the Cleveland National Forest is located to the south. **Figure 1-1** shows the general vicinity of the Community Plan.

The CCP terrain ranges in elevation from 1,275 feet at the southeast corner within the San Geronio River to a maximum of 4,000 feet above sea level at the southern edge of the boundary with the Cleveland National Forest.

Figure 1-1 - Cabazon Community Plan General Vicinity Map



■ Purpose

The purpose of this Cabazon Infrastructure Plan is to identify, evaluate and prioritize infrastructure improvements necessary to support anticipated economic growth and land use changes within the Cabazon Community Plan (CCP), which is an Environmental Justice Community in its entirety. The goal of this analysis is to provide a strategic framework to guide infrastructure investment, support interagency coordination, and ensure consistency with the County's goals for economic vitality, environmental sustainability, housing access, and community well-being.

As the CCP is positioned for future development, existing infrastructure systems currently lack sufficient capacity to accommodate projected demands. This Infrastructure Plan serves as a foundational technical resource to inform and support proposed updates to land use designations and infrastructure planning efforts within the CCP, as outlined by the Riverside County Transportation and Land Management Agency (RCTLMA). This analysis builds upon the Existing Conditions Atlas Summary, Draft July 2024 (Appendix C), to identify infrastructure deficiencies, and forecast future needs based on the proposed Cabazon Community Plan.

The Plan focuses on the projections listed below:

- **Domestic Water Supply and Distribution**
- **Wastewater Collection and Treatment**
- **Flood Control and Drainage Systems**
- **Electric Power Supply**
- **Natural Gas Distribution**
- **Telecommunications and Broadband Services**
- **Roadway Right-of-Way**

■ County Vision

Prioritization of Infrastructure

The County of Riverside intends to implement infrastructure improvements based on the prioritized need to support housing production, economic development, and public safety within the Cabazon Community Plan (CCP). Infrastructure priorities are organized into short-term, medium-term, and long-term goals to provide a clear implementable path forward.

While multiple infrastructure needs exist, the priorities outlined below represent the most critical actions necessary to facilitate community resilience. These efforts emphasize housing accessibility, community empowerment, environmental justice, and life safety improvements.

Short-term infrastructure goals:

- Continue collaboration with the Cabazon community to identify development opportunities and corresponding infrastructure improvements, with a focus on housing production.
- Identify grant funding opportunities and coordinate with other agencies and government entities to support infrastructure development.

- Implement infrastructure improvements on a development-by-development basis, including circulation improvements, flood protection measures, self-resiliency strategies, and mitigation of localized risks.
- Develop and apply self-resiliency measures checklist and local risks assessment checklist on a development-by-development basis within the CCP boundary.

Medium-term infrastructure goals:

- Plan for the reduction of traffic blockages associated with railway infrastructure and improve life safety access through projects such as grade separations and an I-10 bypass.
- Evaluate and consider construction of a wastewater treatment plant, with priority given to serving the community core and supporting commercial and industrial development, while emphasizing Environmental Justice Community needs.
- Coordinate with Riverside County Flood Control & Water Conservation District to identify and develop comprehensive flood resiliency strategies responsive to the community needs outlined in the CCP.

Long-term infrastructure goals:

- Work with regional transportation agencies to improve the implementation of regional I-10 interchanges to improve circulation into and out of the CCP area.
- Transition development outside of the community core from a septic-based wastewater systems to a wastewater treatment plant and/or comprehensive sewer system, while continuing to emphasize Environmental Justice Community needs.
- Continue to identify evolving development needs and pursue long term funding opportunities to address infrastructure deficiencies.
- Coordinate with developers and local partners to implement community-wide resiliency measures that address climate change impacts and potential disasters.
- Work with Riverside Flood Control & Water Conservation District to support implementation of comprehensive flood control infrastructure improvements.

Housing

The County's goal is to prioritize development in the CCP boundary with a strong emphasis on housing development in the downtown core area, which is identified as a Mixed-Use Area (MUA) land use designation. The MUA has no upper limit of density and supports either residential development and/or commercial services. The nature of having no upper limit of density on MUA is intended to accommodate a wide range of housing types, including affordable housing.

The parcels identified as Highest Density Residential Areas (HHDR) represent a secondary focus area for prioritized housing development adjacent to the downtown core area and community center. The HHDR land use designation has a lower limit of 14 dwelling units per acre and an upper limit of 60 dwelling units per acre. This range supports higher density housing types including for-sale and for-lease units, and affordable housing opportunities.

To support timely infrastructure installation, the County also intends to prioritize larger scale commercial and industrial development within the CCP boundary. These developments are expected to serve as catalysts for an infrastructure that supports housing production and economic growth.

Environmental Justice

The entire Cabazon Community Plan (CCP) boundary is designated as an “Environmental Justice (EJ) Community” pursuant to the Healthy Communities (Environmental Justice) Element of the Riverside County General Plan. The Environmental Justice section of the Healthy Communities Element identifies environmental justice policies that address quality of life and environmental safety. These environmental justice policies apply to the Environmental Justice Communities (“EJ Communities”) shown on Figure LU-4.1 with the Element, entitled “Riverside County Environmental Justice Communities,” within the General Plan Land Use Element with specific policies located in the Healthy Communities Element. It is important to note that in addition to policies shown under the Environmental Justice Section, all other policies within the Healthy Communities Element also directly apply within EJ Communities; for example, policies HC 2.1, HC 11.1 and HC 11.2 above all encourage access to food, which is an issue within EJ Communities.

Development proposed within EJ Communities must analyze and address eight broad topics under the categories of “Civic Engagement, Health Risk Reduction, Public Facilities and Other” and propose any of various measures intended to mitigate the potential for adverse development impacts to vulnerable communities. To comply with the intent and requirements of the Healthy Communities Element, the proposed entitlement must contribute to the broader community.

Environmental justice policies address eight topics under the following categories:

1. *Civic Engagement*: this category includes policies that promote civic engagement in the decision-making process.
2. *Health Risk Reduction*: this category addresses pollution prevention in the day-to-day living environment that is grouped under the following headings:
 - Pollution Exposure
 - Food Access
 - Safe and Sanitary Homes
 - Physical Activity
3. *Public Facilities*: this category includes policies that prioritize improvements and programs for public facilities, including Health Care Facilities.
4. *Other*: this category includes policies that do not fall under one of the above sections.

The objectives of these environmental justice policies are to increase civic engagement, reduce unique and compounded health risks, and prioritize improvements and programs for public facilities within EJ Communities.

Resiliency

In addition to the traditional infrastructure improvements the County shall implement a self-resiliency checklist for all proposed entitlements within the CCP boundary. This checklist will assess opportunities to incorporate alternative and supplemental infrastructure solutions, including, but not limited to, the following options:

- Microgrids
- Energy storage technologies
- Permeable paving and surfaces
- Water recycling
- Bioswales and other nature-based solutions

Local Risks

Additionally, the County shall also implement a local risks assessment checklist for all proposed entitlements within the CCP boundary. This assessment will identify and evaluate strategies to mitigate local infrastructure risks, including, but not limited to, the following options:

- High winds
- Flooding
- Drought
- Extreme heat

SECTION 2 - INFRASTRUCTURE AND UTILITIES

To develop infrastructure systems sufficient to enable sustainable and orderly development within the CCP boundary, the wastewater generation and water demand calculations are based on measurable analyses for the proposed future types of land uses: Commercial Retail (CR), Mixed Use Areas (MUA), Medium Density Residential (MDR), High Density Residential (HDR), Very High Density Residential (HHDR). The above land uses need for water utility sources is not directly proportional to the lot size or density.

Therefore, the water duty factors were created utilizing averages from established Water Districts within the same region including the Morongo Wastewater Treatment Plant, Cabazon Water District, Cabazon Community Facilities District, Mission Springs and the City of Banning. The current projections of these areas have been used to estimate the future overall demand of the 30-year plan.

■ Utilities and Service Systems

This section describes the proposed water, wastewater, non-potable water, storm drainage, and roadway network infrastructure needed to properly serve the Land Uses proposed within the future overall demand of the 30-year Cabazon Community Plan (CCP) as shown on **Figure 1** in Appendix A.

■ Domestic Water System

Existing Infrastructure: The CCP is located within the service boundary of the Cabazon Water District (CWD). The district encompasses approximately 7.5 square miles and provides domestic water service to roughly 950 connections. All domestic water is sourced from groundwater, extracted via four active wells with a combined pumping capacity of 2,250 gallons per minute (GPM). CWD maintains four reservoirs with a total storage capacity of 3.5 million gallons. The existing water distribution system includes approximately 40 miles of pipeline, ranging in diameter from 4 inches to 16 inches.

Water duty factors were created utilizing averages from established Water Districts within the same region.- **Table 2-1** shows the total water demand associated with each land use type as well as the total overall demand at 30-years.

Table 2-1-1 Overall Projected Domestic Water Demand by Land Use (Net Acreage)

Updated Land Use Type/Acreage Within Cabazon Community Plan Area			Domestic Water		
LAND USE	Description	ACREAGE	Density	Demand (gpd/ac)	Total (gpd)
CITY	City		N/A		
CR	Commercial Retail (0.20-0.35 FAR)	228.9	0.20-0.35 FAR	2,000	457,820
HDR	High Density Residential	87.5	N/A	3,000	262,530
HHDR	High Density Residential	271.0	14-40 du/ac	4,000	1,083,960
IND	Indian Lands		N/A		0
LDR	Low Density Residential	1942.2	0.5ac min	1,000	1,942,230
LI	Light Industrial	1073.9	0.25-0.60 FAR	1,500	1,610,850
MDR	Medium Density Residential	189.1	2-5 du/ac	1,750	330,890
MUA	Mixed Use Area	509.2	5edu/ac	2,000	1,018,340
OS-C	Open Space - Conservation	383.3	N/A		0
OS-CH	Open Space - Conservation Habitat		N/A		0
OS-RUR	Open Space - Rural		1 du/20ac	35	0
OS-W	Open Space - Water		N/A		0
PF	Public Facilities	17.4	≤0.60 FAR	2,250	39,218
RD	Rural Desert	186.9	10ac min	75	14,018
RM	Rural Mountainous	1081.2	10ac min	75	0
RR	Rural Residential	1344.1	5ac min	125	168,013
VLDR	Very Low Density Residential	145.3	1ac min	500	72,665
TOTAL		7460.0			7,000,533
	Unlikely to be served by sewer and water due to topography/cost of supportive infrastructure				

Table 2-1 A shows the total water demand associated with the total gross area for each land use type as well as the total overall demand at 30 years. Facility sizing was based upon the net area for the CCP to be consistent with the water duty generation factors utilized for each specific land use type.

Table 2-1-2A Projected Domestic Water Demand by Land Use (Gross Acreage)

Updated Land Use Type/Gross Acreage Within Cabazon Community Plan Area			Domestic Water		
LAND USE	Description	ACREAGE	Density	Demand (gpd/ac)	Total (gpd)
CITY	City		N/A		
CR	Commercial Retail (0.20-0.35 FAR)	244.2	0.20-0.35 FAR	2,000	488,400
HDR	High Density Residential	100.0	N/A	3,000	300,000
HHDR	High Density Residential	281.6	14-40 du/ac	4,000	1,126,400
IND	Indian Lands		N/A		0
LDR	Low Density Residential	1955.7	0.5ac min	1,000	1,955,700
LI	Light Industrial	1076.1	0.25-0.60 FAR	1,500	1,614,150
MDR	Medium Density Residential	192.1	2-5 du/ac	1,750	336,175
MUA	Mixed Use Area	538.6	5edu/ac	2,000	1,077,200
OS-C	Open Space - Conservation	383.5	N/A		0
OS-CH	Open Space - Conservation Habitat		N/A		0
OS-RUR	Open Space - Rural		1 du/20ac	35	0
OS-W	Open Space - Water		N/A		0
PF	Public Facilities	19.0	≤0.60 FAR	2,250	42,750
RD	Rural Desert	187.0	10ac min	75	14,025
RM	Rural Mountainous	1083.2	10ac min	75	0
RR	Rural Residential	1353.0	5ac min	125	169,125
VLDR	Very Low Density Residential	145.5	1ac min	500	72,750
TOTAL		7559.5			7,196,675
	Unlikely to be served by sewer and water due to topography/cost of supportive infrastructure				

Proposed Infrastructure: Potable Water System

In order to support future development, the following facilities were assessed based on the ultimate demand at build out. Existing production, storage, and pipelines were taken into consideration and utilized in determining the required infrastructure.

Groundwater Wells

Existing Infrastructure: CWD currently owns and operates 4 groundwater wells with a production rate of 2,250gpm. To support the CCP at build out, approximately 4,900gpm of production is required. CWD currently has targeted one additional well site for future construction to be located north of Interstate 10 near the Main Street exit. This project has not been scheduled as of the date of this report, though the well site has been acquired. It is assumed that this well site will yield production of approximately 1,000gpm.

Proposed Infrastructure: To support future development, two additional well sites will need to be evaluated and identified. Three additional groundwater wells with an average production of 1,000gpm each will need to be constructed within the 30 years. Existing wells and well sites are shown on Figure 2 in Appendix A, as well as future groundwater wells and location.

Water Tanks

Existing Infrastructure: CWD currently owns four domestic water reservoirs with a combined storage capacity of 4.5 million gallons.

Proposed Infrastructure: The anticipated total storage is estimated at 14.96 million gallons. This requirement is based on the need to provide adequate operational, emergency, and fire flow storage.

The criteria used to determine each component are as follows:

- **Operational Storage:** Equal to one-half of the maximum day demand (MDD).
- **Emergency Storage:** Equal to one-half of the MDD.
- **Fire Flow Storage:** Based on the highest fire flow requirement within the pressure zone.

For this analysis, the MDD is assumed to be twice the average day demand (ADD). According to **Table 2-1**, the ADD is 7.0 million gallons per day (mgd), resulting in an MDD of 14.0 mgd. The highest fire flow requirement in the pressure zone is 4,000 gallons per minute (gpm) sustained over four hours, which equates to 960,000 gallons of required fire flow storage. Utilizing the existing storage capacity of 4.5 million gallons, it is recommended that an additional 10.5 million gallons of storage be provided at build out.

Existing Infrastructure: Currently, CWD has four pressure zones within their service area, PZ 2156, PZ 2021, PZ 1930, and PZ 1713.

Proposed Infrastructure: To support future development, it is recommended that an additional pressure zone be created to support a PZ 1821. Creation of PZ 1821 would primarily serve the

area east of Almond Street, west of Elm Street, north of Esperanza Avenue, and south of Bonita Avenue (see Figure 2 in Appendix A). The addition of PZ 1821 will allow CWD to maintain pressures between 50-110 psi throughout the CCP.

Distribution Network System

Existing Infrastructure: CWD's existing water distribution system includes approximately 40 miles of pipeline, ranging in diameter from 4 inches to 16 inches.

Proposed Infrastructure: To support future development, several miles of additional domestic water pipeline will need to be constructed primarily within roadway designations classified as Major (118' ROW), Secondary (100' ROW), and Collector (74' ROW). Additionally, several segments of undersized pipelines will need to be upsized as development occurs. Required backbone pipeline infrastructure has been identified and is shown on **Figure 2** in Appendix A.

In addition to domestic water pipelines, several pressure reducing valves (PRV's) should be installed to support system reliability and allow water to flow from a higher-pressure zone to a lower pressure zone. The majority of existing and proposed storage is located north of Interstate 10 at higher elevations which will allow domestic water to flow to lower pressure zones through PRV's.

■ **Wastewater and Sewer**

Existing Wastewater Conditions

Existing Infrastructure: The CCP currently lacks a centralized sewer system within its plan boundary. As a result, existing residential and commercial properties rely on septic systems and Onsite Wastewater Treatment Systems (OWTS) for wastewater disposal. While these systems may be adequate for low-density development, they pose significant limitations for future growth, particularly in terms of environmental sustainability, public health, and regulatory compliance.

The absence of centralized wastewater collection and treatment systems is a critical constraint to future development. To enable reach the anticipated overall demand as envisioned in the proposed Cabazon Community Plan, a comprehensive wastewater infrastructure system must be designed and implemented.

Wastewater Demand Projections

To determine infrastructure requirements, wastewater generation factors were developed based on the proposed Cabazon Community Plan. These factors were derived from regional averages used by established utility districts with similar demographic and geographic characteristics. **Table 2-3** presents the projected wastewater generation by land use type, along with the expected total average daily flow (ADF).

The ultimate ADF for the CCP is estimated at 3.08 million gallons per day (mgd). When applying appropriate peaking factors to account for wet weather flows and diurnal variations, the design capacity for treatment facilities should be approximately 4.5 mgd.

Table 2-3-3 Projected Wastewater Generation by Land Use

Updated Land Use Type/Acreage Within Cabazon Community Plan Area			Wastewater		
LAND USE	Description	ACREAGE	Density	WW Generation (gpd/ac)	Total (gpd)
CITY	City		N/A		
CR	Commercial Retail (0.20-0.35 FAR)	228.9	0.20-0.35 FAR	1,175	268,969
HDR	High Density Residential	87.5	8-14 du/ac	2,000	0
HHDR	High Density Residential	271.0	14-40 du/ac	2,700	731,673
IND	Indian Lands		N/A		0
LDR	Low Density Residential	1942.2	0.5ac min	265	514,691
LI	Light Industrial	1073.9	0.25-0.60 FAR	750	805,425
MDR	Medium Density Residential	189.1	2-5 du/ac	750	141,810
MUA	Mixed Use Area	509.2	5edu/ac	1,000	509,170
OS-C	Open Space - Conservation	383.3	N/A		0
OS-CH	Open Space - Conservation Habitat		N/A		0
OS-RUR	Open Space - Rural		1 du/20ac	35	0
OS-W	Open Space - Water		N/A		0
PF	Public Facilities	17.4	≤0.60 FAR	1,200	20,916
RD	Rural Desert	186.9	10ac min	26	4,859
RM	Rural Mountainous	1081.2	10ac min	26	0
RR	Rural Residential	1344.1	5ac min	52	69,893
VLDR	Very Low Density Residential	145.3	1ac min	135	19,620
TOTAL		7460.0			3,087,026
	Unlikely to be served by sewer and water due to topography/cost of supportive infrastructure				

Table 2-3A presents the projected wastewater generation for the overall gross area by land use type, along with the expected total average daily flow (ADF). Facility sizing was based upon the net area for the CCP to be consistent with the wastewater generation factors utilized for each specific land use type.

Table 2-3 -4A Projected Wastewater Generation by Land Use (Gross Acreage)

Updated Land Use Type/Gross Acreage Within Cabazon Community Plan Area			Wastewater		
LAND USE	Description	ACREAGE	Density	WW Generation (gpd/ac)	Total (gpd)
CITY	City		N/A		
CR	Commercial Retail (0.20-0.35 FAR)	244.2	0.20-0.35 FAR	1,175	286,935
HDR	High Density Residential	100.0	8-14 du/ac	2,000	0
HHDR	High Density Residential	281.6	14-40 du/ac	2,700	760,320
IND	Indian Lands		N/A		0
LDR	Low Density Residential	1955.7	0.5ac min	265	518,261
LI	Light Industrial	1076.1	0.25-0.60 FAR	750	807,075
MDR	Medium Density Residential	192.1	2-5 du/ac	750	144,075
MUA	Mixed Use Area	538.6	5edu/ac	1,000	538,600
OS-C	Open Space - Conservation	383.5	N/A		0
OS-CH	Open Space - Conservation Habitat		N/A		0
OS-RUR	Open Space - Rural		1 du/20ac	35	0
OS-W	Open Space - Water		N/A		0
PF	Public Facilities	19.0	≤0.60 FAR	1,200	22,800
RD	Rural Desert	187.0	10ac min	26	4,862
RM	Rural Mountainous	1083.2	10ac min	26	0
RR	Rural Residential	1353.0	5ac min	52	70,356
VLDR	Very Low Density Residential	145.5	1ac min	135	19,643
TOTAL		7559.5			3,172,926
	Unlikely to be served by sewer and water due to topography/cost of supportive infrastructure				

Ownership and Maintenance Considerations

Currently, CWD does not provide sewer service, and no formal wastewater utility exists within the CCP. A future feasibility analysis is recommended to evaluate potential ownership and operational models for the proposed wastewater infrastructure. Options include:

- **Cabazon Water District (CWD):** Expansion of services to include wastewater.
- **City of Banning:** Potential regional partnership or annexation.
- **Community Facilities District (CFD):** Created and managed by the County of Riverside to oversee wastewater infrastructure.

Each option should be evaluated based on governance structure, funding mechanisms, long-term maintenance responsibilities, and regulatory compliance.

Proposed Wastewater Infrastructure

Proposed Infrastructure: In order to support future development, the following facilities were assessed based on the ultimate wastewater generation at build out. Future wastewater infrastructure will include the installation of backbone gravity sewer pipelines, sewer force main pipelines, sewer lift station(s), and a wastewater treatment plant.

Backbone Sewer System

Proposed Infrastructure: A network of gravity sewer pipelines will be installed to collect wastewater from developed areas. Pipeline diameters will range from 8 inches to 15 inches, depending on flow volumes and service area. These pipelines will be located primarily within:

- Major roadways (118' ROW)
- Secondary roadways (100' ROW)
- Collector roadways (74' ROW)

Due to the topographic gradient, which slopes from northwest to southeast, sewer lift station(s) and associated force main pipelines will be required to convey wastewater from low-lying areas to higher elevations where treatment facilities are located. A dedicated 8-inch force main will be installed to support these conveyance needs.

Figures 3 and 4 in Appendix A identify the proposed backbone sewer alignments and lift station locations.

Wastewater Treatment Plant (WWTP)

Proposed Infrastructure: A WWTP is proposed to be constructed in one of two proposed locations to provide sewer service to the CCP.

- **Alternative 1:** Located at the Easterly terminus of Irene Street on property currently owned by the County of Riverside (APN 526-170-021-8). The parcel is 2.66 acres. However, due to space limitations (± 1 acre), it is likely that the WWTP would have a limited capacity and

require additional property acquisition or relocation. Preliminary analysis shows that the aforementioned site could treat up to 0.5mgd before expansion or relocation is required. See **Figure 3** in Appendix A for Alternative 1 WWTP site location.

Ultimate average daily flow (ADF) within the CCP is 3.08mgd. An adequately designed WWTP would be required to have the capacity to treat up to 4.5mgd when applying appropriate peaking factors to the ultimate wet weather flow.

- Alternative 2: Located at the southeast corner of Dolores Avenue and Elm Street (APN 525-170-009-1). This property is approximately 8.9 acres which allows for a WWTP capable of treating future wastewater flow. The property is currently owned by CWD. Potentially, an agreement with CWD could be made to operate the wastewater facilities and reduce overall costs. See **Figure 4** in Appendix A for Alternative 2 WWTP site location.

RCTLMA has initiated a separate feasibility study for a future WWTP in the CCP which will further analyze sizing, treatment type, and site location. The feasibility study is scheduled to be completed by June 2026.

Lift Stations

The topography of the CCP generally decreases from the northeast to the southeast. Alternative 1 location for the WWTP site is higher in elevation than much of the proposed development to the east and the south, which necessitates sewage lift stations to pump effluent back to the WWTP.

Proposed Infrastructure: For Alternative 1 **Figure 3**, two lift stations would be required. One lift station would be located at the intersection of Esperanza Avenue and Almond Street and would be sized to handle 1mgd of wastewater. The second lift station would be located at the intersection of Margaret Avenue and Lime Street and would be sized to handle 800,000gpd.

Proposed Infrastructure: The Alternative 2 **Figure 4** location for the WWTP site is located easterly and southerly of the Alternative 1 location which would allow a higher volume of effluent to flow via gravity and reduce the need for two separate lift station. In support of Alternative 2, a lift station is proposed to be located at the intersection of Margaret Avenue and Lime Street and would be sized to handle 500,000gpd.

■ Recycled Water

Recycled Water System

Recycled water is not included as part of this Infrastructure Plan at this time due to the lack of a wastewater treatment strategy; however, it represents a critical opportunity for future water resource sustainability and resilience in the Cabazon Community Plan (CCP). As the community transitions from septic systems and Onsite Wastewater Treatment Systems (OWTS) to a centralized wastewater collection and treatment system, the potential to generate recycled water becomes increasingly viable.

Proposed Infrastructure: Preliminary estimates indicate that approximately 80% of the total wastewater generated equating to roughly 2.5 million gallons per day (mgd) of the projected 3.08 mgd average daily flow - could be treated and reused as recycled water. This reclaimed water could serve a variety of non-potable uses, including:

- **Landscape irrigation** for parks, medians, and public spaces
- **Agricultural irrigation** for nearby farming operations
- **Industrial uses** such as cooling and processing water
- **Construction water** for dust control and soil compaction
- **Groundwater recharges** through percolation basins or injection wells

Integrating recycled water into the overall water supply strategy would significantly reduce reliance on potable groundwater sources, enhance drought resilience, and support long-term environmental sustainability goals. Additionally, the use of recycled water could help offset future potable water infrastructure costs by reducing demand on domestic water systems.

To realize this potential, future planning efforts should include a comprehensive recycled water feasibility study. This study should evaluate treatment technologies, distribution infrastructure, regulatory requirements, and potential end users. Coordination with the proposed wastewater treatment plant (WWTP) design and siting will be essential to ensure that recycled water production is technically and economically feasible.

While recycled water is not currently part of the infrastructure recommendations in this report, it is strongly encouraged that recycled water be considered as a key component of future water supply planning within the CCP.

■ Storm Drainage

Federal Emergency Management Agency (FEMA) Flood Hazard Zones

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs), the Cabazon Community Plan (CCP) is within and adjacent to 1% Annual Chance (100-year) Flood Hazard Zones (Zone A) and Areas of Undetermined Flood Hazard Zones (Zone D). The FEMA Flood Hazard Map identifies the Cabazon Community Plan within FIRM panels 06065C0837G, 06065C0839G, 06065C0845G, 06065C0855G, 06065C0860G, 06065C0865G, and 06065C0870G. The Flood Hazard Zones in relation to the CCP are mapped on the “Existing Wastewater Facilities and Flood Hazard Zones in the Cabazon Community Plan” exhibit within the Existing Condition Infrastructure Summary (**Appendix C**). The Flood Hazard Zones correlate to San Gorgonio River and natural water courses within Millard Canyon and Stubble Canyon that discharge flows into the river. Development within Cabazon Community Plan will need to take the 100-year Flood Hazard Zone into account in its designs. If structures cannot avoid the 100-year Flood Hazard Zone, then the structures will need to be elevated out of the base flood elevation of the floodplain, and a Conditional Letter of Map Revision (CLOMR) followed with a Letter of Map Recordation (LOMR) will have to be submitted by the County to FEMA for approval.

Proposed Regional Storm Drainage Facilities

Proposed Infrastructure: Riverside County Flood Control and Water Conservation District (RCFC&WCD) will retain responsibility for the operation and maintenance of regional and certain

local backbone flood control facilities. RCFC&WCD is currently preparing a Cabazon Community Plan Master Drainage Plan to provide regional flood protection from the San Gorgonio River, Smith Creek, Millard Canyon Wash, Jenson Creek, and other regional drainage from the surrounding mountains. These regional facilities include a series of levees totaling over 5 miles in length and over 3 miles of concrete channels to provide regional flood protection for the existing and proposed Community Plan. In addition to the preparation of the regional Master Drainage Plan, there is the need for additional drainage facilities within the Community Plan to provide local flood protection. **Figure 5** in Appendix A identifies those additional flood control improvements in addition to those regional facilities proposed by RCFC&WCD.

Proposed Local Storm Drain Facilities

Proposed Infrastructure: While regional flood control facilities are expected to be maintained by RCFC&WCD, local drainage facilities will have various jurisdictional maintenance requirements. It is anticipated that the drainage facilities under the I-10 Freeway will continue to be operated and maintained by Caltrans. Additionally, it is anticipated that existing drainage facilities underneath the railroad will continue to be operated and maintained by the Union Pacific Railroad. The proposed local drainage facilities will utilize these facilities to convey runoff to the regional flood control facilities owned and operated by RCFC&WCD. In the event that certain storm drains facilities operated and maintained by either Caltrans or the railroad have restricted capacity, the upstream area will need to mitigate for the restricted capacity. While this Infrastructure Plan does not contemplate the need for detention basins, proposed developments that drain to existing facilities with restricted capacity may propose to incorporate detention basins as part of the development.

Proposed local drainage facilities can be separated into two categories. Those storm drain facilities that are 36 inches in size and smaller will be either privately maintained or maintained by the Riverside County Transportation Department (RCTD). These facilities will be identified as various areas within community development. Those storm drain facilities that are larger than 36 inches in size will be operated and maintained by RCFC&WCD. These local backbone storm drain facilities will collect runoff from larger areas within the Community Area. This Infrastructure Plan identifies over 10 miles of local backbone storm drain facilities consisting of reinforced concrete pipes (RCP) 48 inches in size and larger and reinforced concrete box (RCB) culverts that would be operated and maintained by RCFC&WCD. While this Infrastructure Plan does not contemplate the need for detention basins, the use of detention basins to reduce the size of local drainage facilities can be considered as the community develops. If the use of detention basins is contemplated, then developing these facilities as a dual use basin/park should be considered.

■ Dry Utilities

Southern California Edison:

Existing Infrastructure: The Cabazon Community Plan (CCP) is located within the service boundary of Southern California Edison (SCE). There are 2 substations operated by SCE in the CCP. Outlet P.T. Substation is located in the northwest side of CCP and includes (2) 12 KV circuits. The Cabazon Substation is located in the west-central area of CCP and includes (2) 12 KV circuits. An additional 33 KV circuit, the Stubby Circuit, runs between these substations.

Proposed Infrastructure: To develop electrical infrastructure requirements at build out, projected electrical demands were developed based on the proposed Cabazon Community Plan. This analysis was supported by Google Maps fielding and SCE's Distributed Resources Plan External Portal (DRPEP) infrastructure website. **Table 2-5** shows the total estimated electrical load associated with each land use type as well as the total overall demand at build out.

Table 2-5 Electrical Load Assumptions by Land Use

REVISED PROPOSED LU ACREAGE			COMMUNITY PLAN AREA				WITHIN CABAZON	
LAND USE	DESCRIPTION	ACREAGE	DENSITY	ASSUMED DENSITY/FAR	BUILDING SF/LOT COUNT		ELECTRICAL LOAD/LOT	TOTAL CONNECTED LOAD
CITY	CITY		N/A					
CR	COMMERCIAL RETAIL	228.9	0.20-0.35/FAR	0.3	2,991,395	SF	SF x 20VA/1000	60MW
HDR	HIGH DENSITY RESIDENTIAL	87.5	8-14 DU/AC	12	1,050	LOTS	9.5KVA/LOT	10MW
HHDR	HIGH DENSITY RESIDENTIAL	271	14-40 DU/AC	30	8,129	LOTS	3.3KVA/LOT	27MW
IND	INDIAN LANDS		N/A					
LDR	LOW DENSITY RESIDENTIAL	1942.2	0.5 AC MIN.	0.65	1,262	LOTS	5 LOTS/75KVA	19MW
LI	LIGHT INDUSTRIAL	1073.9	0.25-0.60 FAR	0.475	22,220,064	SF	SF x .70VA/1000	15MW
MDR	MEDIUM DENSITY RESIDENTIAL	189.1	2-5 DU/AC	4	756	LOTS	7 LOTS/75KVA	8MW
MUA	MIXED USE AREA	509.2	5 EDU/AC	5	2,545	EDU	11KVA/EDU	28MW
OS-C	OPEN SPACE - CONSERVATION	383.3	N/A					
OS-CH	OPEN SPACE - CONSERVATION HABITAT		N/A					
OS-RUR	OPEN SPACE - RURAL		1 DU/20AC					
OS-W	OPEN SPACE - WATER		N/A					
PF	PUBLIC FACILITIES	17.4	0.60 FAR	0.45	341,662	SF	N/A	
RD	RURAL DESERT	186.9	10AC MIN	0.1	18	LOTS	1 LOT/25KVA	450KVA
RM	RURAL MOUNTAINOUS	1081.2	10AC MIN	0.1	108	LOTS	1 LOT/25KVA	3MW
RR	RURAL RESIDENTIAL	1344.1	5AC MIN	0.02	268	LOTS	1 LOT/25KVA	7MW
VLDR	VERY LOW DENSITY RESIDENTIAL	145.3	1AC MINE	1	145	LOTS	4 LOTS/75KVA	3MW
TOTAL		7460						180.5MW

SCE will construct and pay for all of the required infrastructure upgrades and substations required to serve the estimated 180.5MW of new electrical load, as long as the proposed future development gives them ample time to design and construct. Average time frames to design and construct a new substation are 8-10 years. However, that time frame can be shortened by 3-5 years if the SCE substation requirements are included in the site's Environmental Impact Report (EIR).

Per SCE's DRPEP web site, the existing Outlet P.T. Substation has a maximum remaining generation capacity of 11.88MW and the Cabazon Substation has a maximum remaining generation capacity of 12.39MW. In order to serve all of the future land uses, SCE will need to upgrade the Cabazon Substation and construct 1-2 new substation(s). The estimated total electrical demand is 196MW.

While SCE typically needs 1-2 acres in order to construct a 100MW substation, the existing Cabazon Substation sits on a half-acre of land. In theory, the largest expansion the Cabazon Substation could accommodate would be a 50MW site. Typical design and construction time frames for this upgrade would be 3-5 years.

A possible location for one of the new substations would be on the northeasterly boundary line adjacent to SCE's 500KV Transmission Lines. SCE would need to acquire a 5–10-acre site for the new 500/115KV substation. Due to the location of the new 500/115KV substation, SCE will more than likely need to build a second new substation on the southeast side of the Community Plan. This assumes that SCE would run a 115KV transmission circuit from the new 500/115KV substation across the I-10 freeway to the new 115/12KV substation. SCE would need to acquire a 5–10-acre site for the new 115/12KV substation. Typical design and construction time frames

for a new substation would be 8-10 years; however, that time frame can be shortened by 3-5 years if the SCE substation is included in the site's EIR process.

An estimated 14-15 new 12KV circuits are needed to serve all of the development areas within the Community Plan. **Figure 6** in Appendix A identifies the proposed circuit alignments and substation locations.

Conversations between RCTLMA and SCE engineering, transmission, substation engineering, and planning are recommended. SCE will be able to provide clearer directions as to how they can and want to upgrade their infrastructure.

Southern California Gas Company: Gas

Southern California Gas Company (SCG) has various transmission and distribution gas mains throughout the Cabazon Community Plan (CCP) that can be extended to serve new development areas. This analysis does not contemplate the need for gas mains. It is assumed that proposed developments would be responsible for extending this infrastructure as part of individual applicants' and builders' scopes of work and not part of the County's improvements

Frontier Communications: Telephone

Frontier has various distribution facilities throughout the Cabazon Community Plan (CCP) that can be extended to serve new development areas. This analysis does not contemplate the need for these improvements. It is assumed that proposed developments would be responsible for extending this infrastructure as part of individual applicants' and builders' scopes of work and not part of the County's improvements

Charter Communications: Cable Television

Charter Communications has various distribution facilities throughout the Cabazon Community Plan (CCP) that can be extended to serve new development areas. This analysis does not contemplate the need for these improvements. It is assumed that proposed developments would be responsible for extending this infrastructure as part of individual applicants' and builders' scopes of work and not part of the County's improvements

■ Right-of-Way and Circulation Element/Roadway Network

Existing Condition Circulation Elements

Existing Infrastructure: Multiple streets within the CCP are identified in the existing County of Riverside General Plan (GP) Circulation Element, with associated right-of-way (ROW) dimensions.

- **Major Highways (118' ROW)**, including Apache Trail (north of Bonita Avenue), Bonita Avenue, Broadway Street, Elm Street (north of Bonita Avenue), and the portion of Seminole Drive fronting Desert Hills Premium Outlets
- **Secondary Highways (100' ROW)**, including Seminole Drive, Main Street, Almond Street (north of Bonita Avenue) and Magnolia Street (between Bonita Avenue and Esperanza Avenue)

- **Collector (74' ROW)**, including Esperanza Avenue, Apache Trail (south of Bonita Avenue), and Elm Street (south of Bonita Avenue)

The existing County of Riverside General Plan Circulation Element identifies two existing interchanges and two new interchanges within the I-10 freeway stretch that crosses through the CCP. The two existing interchanges are Apache Trail/Morongo Trail at the west end and at Main Street at the east end. The two new interchanges would be in the general location of Millard Pass Road and Orange Street to the north and south of I-10 Freeway, and at Elm Street.

While these roadways are identified in the County of Riverside General Plan, the existing condition of roadway improvements and right-of-way acquisition varies throughout the CCP.

Proposed Circulation Element/Roadway Network

Proposed Infrastructure: To develop roadway network requirements at buildout, roadway demands were evaluated by Urban Crossroads based on the proposed Cabazon Community Plan. The resulting Circulation Analysis, prepared by Urban Crossroads and revised on December 9, 2025, included an evaluation of the roadway classifications and the proposed interchanges as part of a Draft Roadway Master Plan Network (DRMPN).

Figure 7 in Appendix A identifies the proposed roadway classifications per Urban Crossroads.

- **Major Highways (118' ROW)**, including Apache Trail/Morongo Trail (north of Bonita Avenue), Bonita Avenue (between Apache Trail and Broadway Street), Broadway Street (north of Bonita), and the portion of Seminole Drive fronting Desert Hills Premium Outlets
- **Major Frontage Road (97' ROW)**, including Main Street
- **Secondary Highways (100' ROW)**, including Seminole Drive, Broadway Street (between Bonita Avenue and Dolores Avenue), Bonita Avenue (west of Apache Trail/Morongo Trail and realigned), and Bonita Avenue (between Broadway Street and Elm Street)
- **Collector (74' ROW)**, including Magnolia Street, Orange Street, Broadway Street (between Dolores Avenue and Esperanza Avenue), Almond Street (between Bonita Avenue and Esperanza Avenue), Olive Street, Elm Street (south of Bonita Avenue), Carmen Avenue, Dolores Avenue, and Esperanza Avenue
- **Collector Frontage Road (59' ROW)**, including Railroad Avenue (east of Main Street)

In comparison with the existing County of Riverside General Plan Circulation Element, the following roadway classification revisions were made:

- **Upgraded**
 - Main Street
- **Downgraded**
 - Bonita Avenue (west of Apache Trail/Morongo Trail) and realigned
 - Bonita Avenue (between Broadway Street and Elm Street)
 - Magnolia Street (between Bonita Avenue and Dolores Avenue)
 - Broadway Street (between Bonita Avenue and Esperanza Avenue)
- **Removed**
 - Elm Street (north of Bonita Avenue)
 - Almond Street (north of Bonita Avenue)
 - Magnolia Street (between Dolores Avenue and Esperanza Avenue)
 - Apache Trail/Morongo Trail (south of Bonita Avenue)
 - Esperanza Avenue (west of Orange Street)

- **Added**
 - Railroad Avenue (east of Main Street)
 - Almond Street (between Bonita Avenue and Esperanza Avenue)
 - Carmen Avenue
 - Dolores Avenue
 - Orange Street
 - Olive Street (between Bonita Avenue and Carmen Avenue)

Proposed Regional Interchange & Ramp Modifications

The Draft Roadway Master Plan Network (DRMPN) as prepared by Urban Crossroads includes ramp modifications at the Apache Trail/Morongo Trail I-10 interchange to maximize performance at roundabouts, together with Seminole Drive improvements at the Main Street I-10 interchange. These ramp improvements and the associated improvements to Apache Trail are consistent with alternative 12 of the Interstate 10 Bypass projects as proposed by the Riverside County Transportation Department.

Differing from the County of Riverside General Plan (GP) Circulation Element, the DRMPN does not include a future Elm Street interchange at the I-10 Freeway due to the proximity of major rail lines as well as not being needed to properly serve the area in the existing or proposed land use condition. Additionally, the Morongo Parkway Interchange identified in the County General Plan was also identified as not needed and therefore not included in the DRMPN.

The Urban Crossroads Circulation Analysis discussed a Project Study Report (PSR) prepared in 2002 that explored alternative layouts for the existing and proposed interchanges. A Proposed Morongo Parkway Overcrossing is identified in the approximate location of the Millard Pass Road Interchange as shown in the GP, as well as a reconfiguration of the Main Street and I-10 Freeway interchange. However, these improvements were not included in the Circulation Analysis as the Urban Crossroads Circulation Analysis concludes that the two existing interchanges, with the proposed modifications, provide sufficient services in the existing and proposed Land Use conditions to the surrounding area and therefore no interchange improvements were included.

Although the Urban Crossroads Circulation Analysis did not include improvements for the Morongo Parkway Interchange and the I-10/Main Street/A Street Interchange, the I-10 Mobility Study prepared by Caltrans in conjunction with multiple regional agencies in 2022 includes these interchanges as identified projects to improve regional circulation. **Figure 8** in Appendix A illustrates how these two interchanges will integrate into the circulation network for the CCP, tribal lands, and Interstate 10.

Proposed Right-of-Way Acquisition

Throughout the CCP, a variety of existing roadway improvements and existing rights-of-way are present. Utilizing Assessor's Parcel Number (APN) maps in conjunction with the ROW dimensions proposed in the Draft Roadway Master Plan Network prepared by Urban Crossroads, approximate required right-of-way acquisition acreages were determined. Based on available assessor map data, additional roadway right-of-way widths would need to be expanded by approximately 2'-20' for the roadways reviewed. Notably, portions of Seminole Drive and Railroad Avenue cross through the CCP boundary, into Tribal Lands. Coordination with Tribes will be required for right-of-way acquisition associated with the portions of Seminole Drive and Railroad

Avenue within Tribal Lands. **Figure 9** in Appendix A illustrates the updated roadway network classifications based on inclusion of the interchange at Morongo Parkway and at main Street/A Street. **Table 2.4** summarizes the update right of way needs for the CCP roadway network and the two proposed interchanges.

Table 2.4 Circulation Right-of-Way Needs Assessment

Roadway Name	Roadway Classification	Ultimate Right-of-Way	Existing Right-of-Way (based on Assessor Maps)	Range of Right-of-Way Acquisition
"A" Street	Major	118'	0'	118'
Almond Street	Collector	74'	50'-52'	22'-24'
Apache Trail / Morongo Trail	Major	118'	29'-118'	0'-89'
Bonita Avenue	Major	118'	41'-80'	38'-77'
	Secondary	100'	50'-60'	40'-50'
Broadway	Major	118'	60'-80'	38'-58'
	Secondary	100'	50'-90'	10'-50'
	Collector	74'	50'-65'	9'-24'
Carmen Avenue	Collector	74'	48'-65'	9'-26'
Dolores Avenue	Collector	74'	49'-52'	22'-25'
Elm Street	Collector	74'	60'-62'	12'-14'
Esperanza Avenue	Collector	74'	22'-61'	13'-52'
Magnolia Street	Collector	74'	44'-54'	20'-30'
Main Street	Major Frontage	97'	87'-174'	0'-10'
Morongo Parkway	Major	118'	0'-55'	63'-118'
Olive Street	Collector	74'	55'	19'
Orange Street	Collector	74'	42'-50'	24'-32'
Railroad Avenue	Collector Frontage	74'	97'-105'	-
Seminole Drive	Major	118'	50'-80'	38'-68'
	Secondary	100'	50'-80'	20'-50'

SECTION 3 - ROUGH ORDER OF MAGNITUDE COSTS

■ Rough Order of Magnitude Costs

This analysis evaluated construction costs for the Cabazon Community Plan (CCP). It's important to note that the infrastructure improvements will be over the course of 30 years or more and many of the improvements will become required conditions of approval of and constructed by proposed development projects on a development-by-development basis. Given the disadvantaged unincorporated community status of the CCP, the County expects to actively pursue grant funding to support many of these improvements and beyond.

Table 3- summarizes the cost estimates compiled for the proposed infrastructure improvements discussed above in **Section 2**. The cost estimate spreadsheets are included in Appendix B.

Table 3-1-1 Rough Order of Magnitude Costs

Infrastructure Improvements	Total Construction Costs
Domestic Water	\$ 105,727,960
Wastewater (Alt 1)	\$ 134,812,080
Wastewater (Alt 2)	\$ 129,666,420
Recycled Water	n/a
Storm Drain	\$ 323,113,000
<i>Regional Storm Drainage Facilities</i>	<i>\$ 195,200,000</i>
<i>Local Storm Drainage Facilities</i>	<i>\$ 127,913,000</i>
Electrical	\$ 30,767,630
<i>Circuit A&B</i>	<i>\$ 8,273,090</i>
<i>Circuit C</i>	<i>\$ 715,740</i>
<i>Circuit D, E & F</i>	<i>\$ 3,225,130</i>
<i>Circuit G, H, K & L</i>	<i>\$ 7,866,820</i>
<i>Circuit I, J, M & N</i>	<i>\$ 10,686,850</i>
Gas	n/a
Telephone	n/a
Cable Television	n/a
Roadway Network	\$ 50,144,600
<i>Within CCP</i>	<i>\$ 42,648,300</i>
<i>Outside CCP, Within Tribal Lands</i>	<i>\$ 7,496,300</i>
Interchange Improvements	\$ 293,711,500
<i>Morongo Parkway Interchange and Grade Separation</i>	<i>\$ 150,000,000</i>
<i>"A" Street Interchange</i>	<i>\$ 130,000,000</i>
<i>Additional Improvements</i>	<i>\$ 13,711,500</i>
Total (Wastewater Alt 1)	\$ 938,276,770
Total (Wastewater Alt 2)	\$ 933,131,110

CONCLUSION

The goal of this Cabazon Infrastructure Plan is to analyze the infrastructure improvements necessary to support the proposed Cabazon Community Plan. As an Environmental Justice Community, the purpose of both the Cabazon Community Plan and Cabazon Infrastructure Plan is to provide a strategic framework to support housing and economic growth in the community.

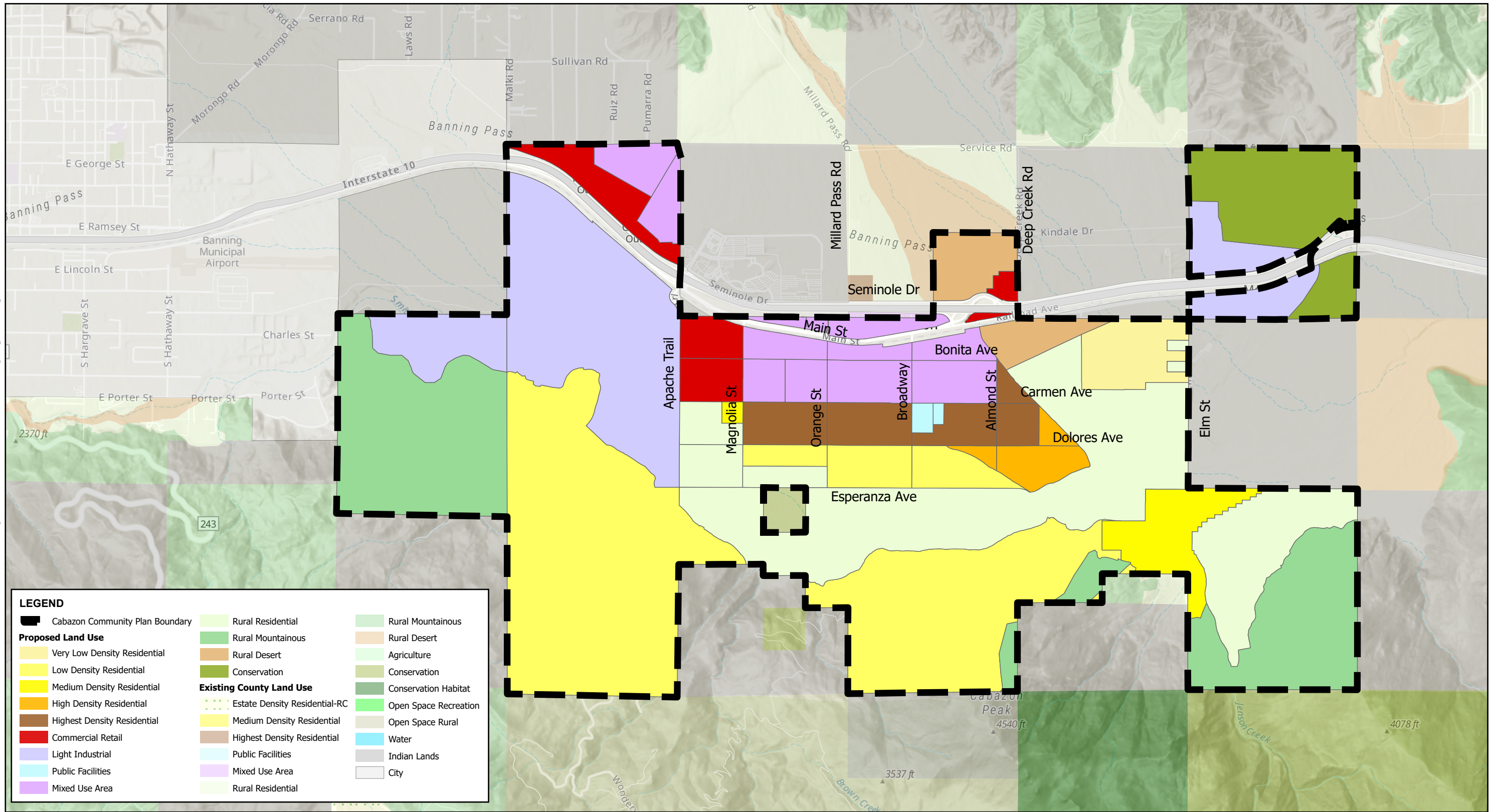
To develop infrastructure systems sufficient to enable sustainable and orderly development within the CCP boundary, the wastewater generation and water demand calculations are based on measurable analyses for the proposed future types of land uses: Commercial Retail (CR), Mixed Use Areas (MUA), Medium Density Residential (MDR), High Density Residential (HDR), Very High Density Residential (HHDR). The above land uses need for water utility sources is not directly proportional to the lot size or density.

The water duty factors were created utilizing averages from the Morongo Wastewater Treatment Plant, Cabazon Water District, Cabazon Community Facilities District, Mission Springs and the City of Banning. Based on those projections, the estimated future overall demand of the 30-year plan will require the proposed infrastructure:

- Domestic Water Supply and Distribution - to support future development, it is proposed to add:
 - two additional well sites will need to be evaluated and identified. Three additional groundwater wells with an average production of 1,000gpm each will need to be constructed within the 30 year.
 - one additional domestic water reservoir; and
 - additional water pipelines
- Wastewater Collection and Treatment
 - A network of gravity sewer pipelines will be installed to collect wastewater from developed areas
 - Wastewater Treatment Plan Alternative 1
 - Wastewater Treatment Plan Alternative 2
 - Potential recycled water system
- Flood Control and Drainage Systems
- Electric Power Supply
- Natural Gas Distribution
- Telecommunications and Broadband Services
- Roadway Right-of-Way

APPENDIX A – Exhibits

H:\2023\23-3320\GIS\Pro\23-3320 Land Use and Acreage.aprx; Map created 18 Dec 2025



Sources: Riverside Co. GIS, 2024

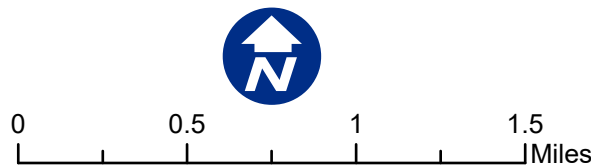
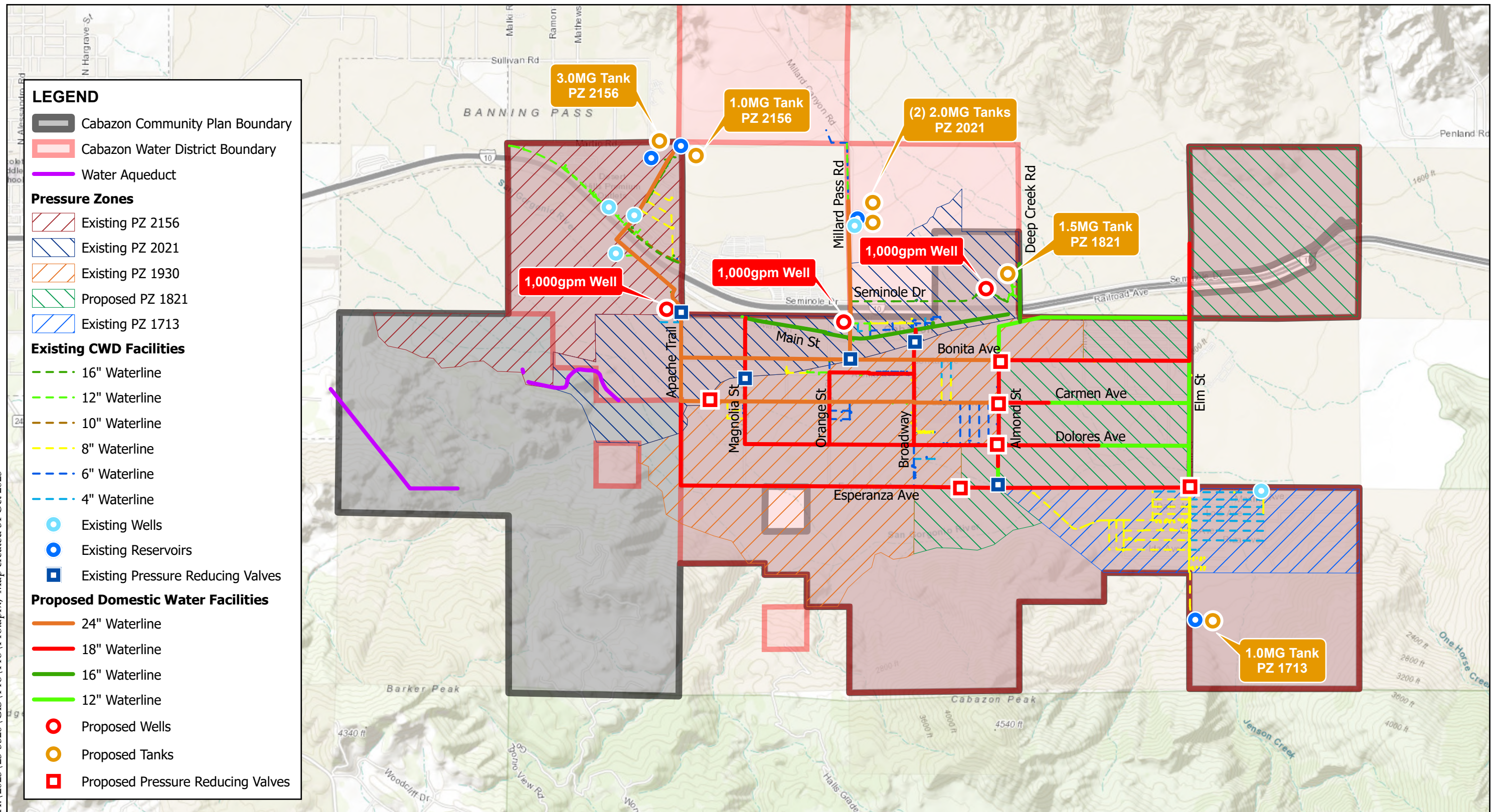


Figure 1 - Proposed County General Plan Use
TLMA Cabazon Community Infrastructure Improvement Plan

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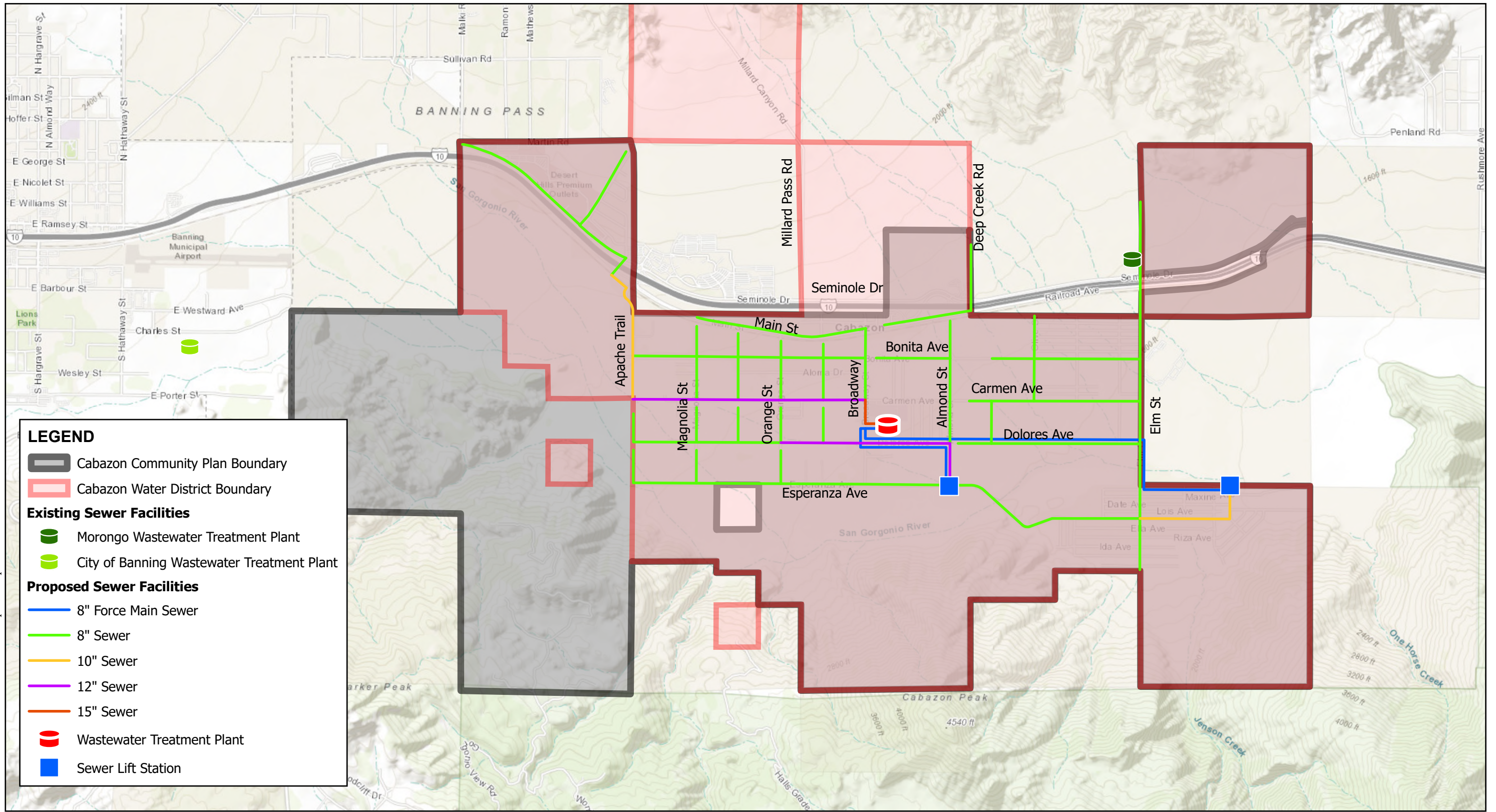
Sources: Riverside Co. GIS, 2024;
CVWD, 2024; DWA, 2024; MSWD, 2024; CWD, 2024.



0 0.5 1 1.5 Miles

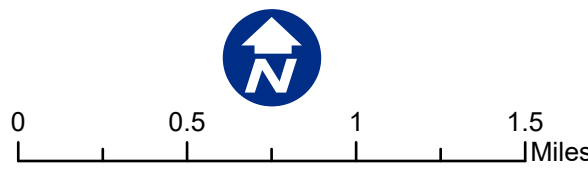
Figure 2 - Proposed Domestic Water Facilities
TLMA Cabazon Community Infrastructure Improvement Plan

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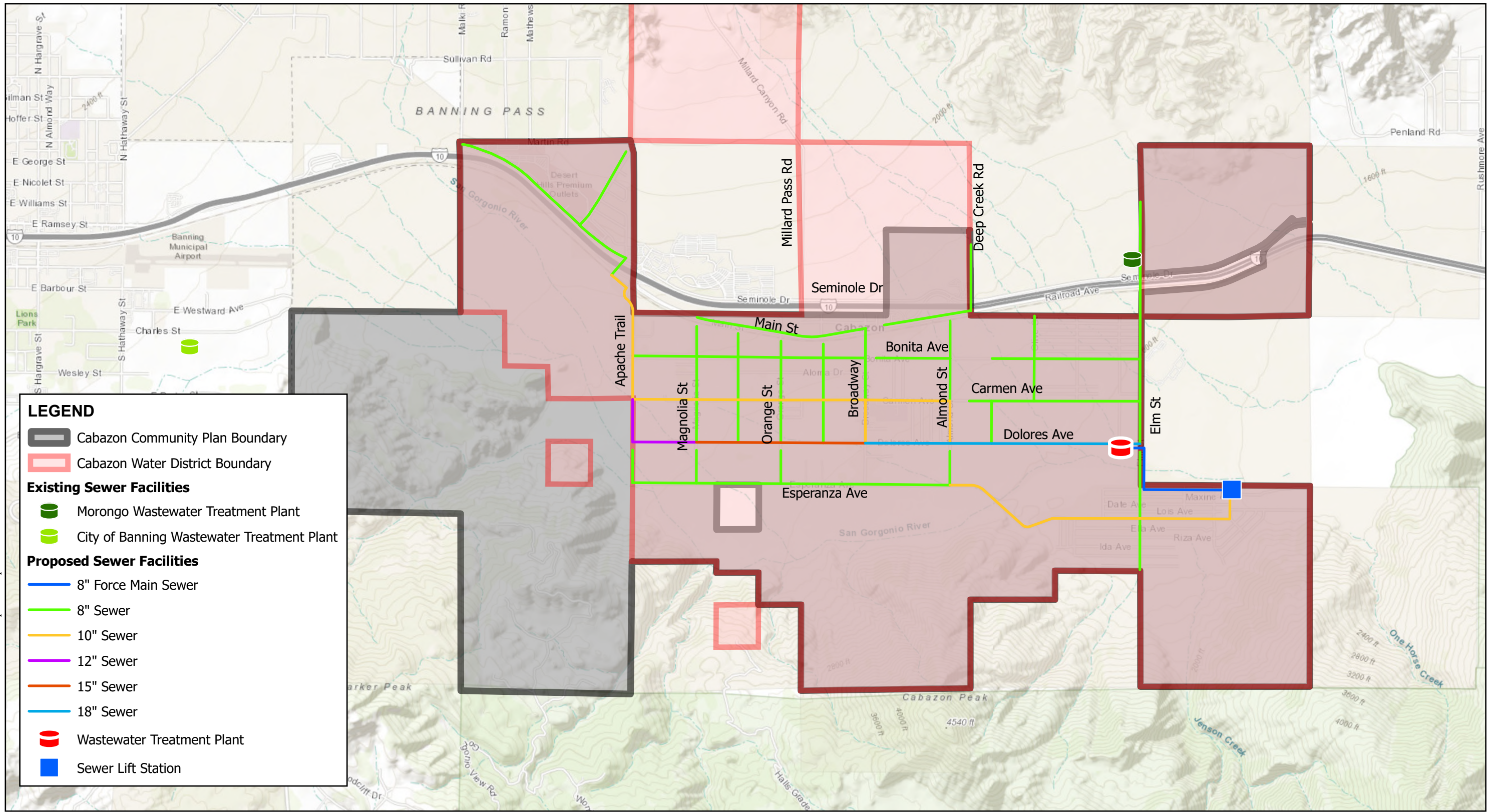


Sources: Riverside Co. GIS, 2024;
CVWD, 2024; DWA, 2024; MSWD, 2024; CWD, 2024.

Figure 3 - Proposed Wastewater (Sewer) Facilities - Alternative 1
TLMA Cabazon Community Infrastructure Improvement Plan

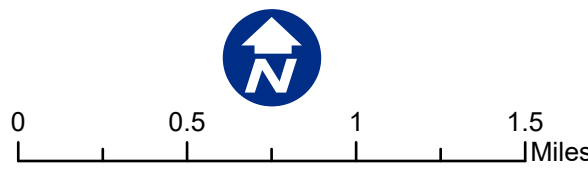


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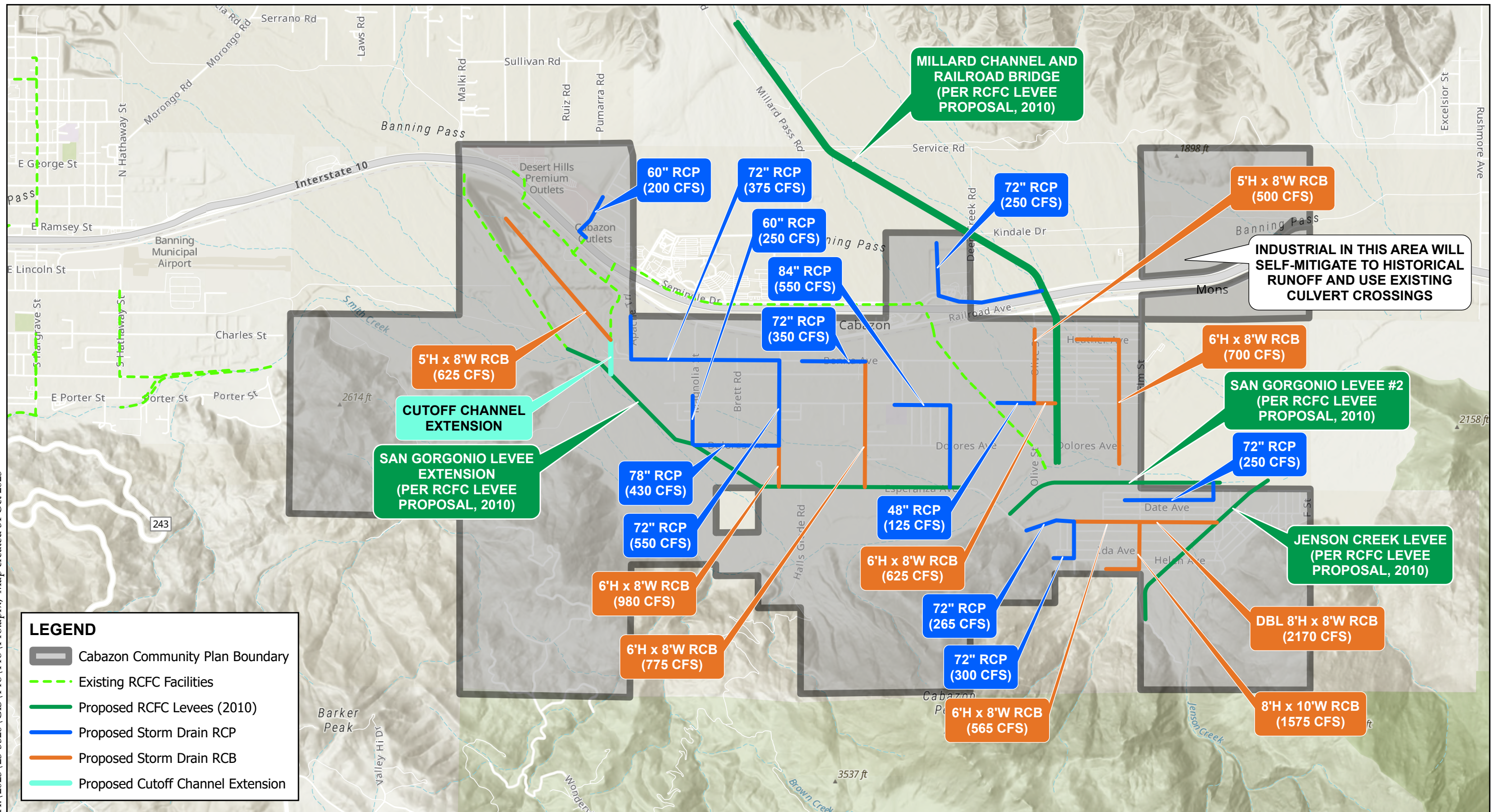


Sources: Riverside Co. GIS, 2024;
CVWD, 2024; DWA, 2024; MSWD, 2024; CWD, 2024.

Figure 4 - Proposed Wastewater (Sewer) Facilities - Alternative 2
TLMA Cabazon Community Infrastructure Improvement Plan

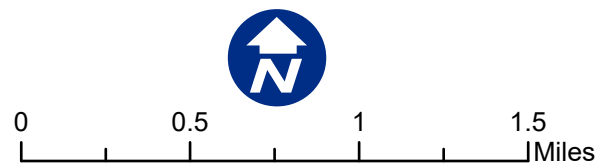


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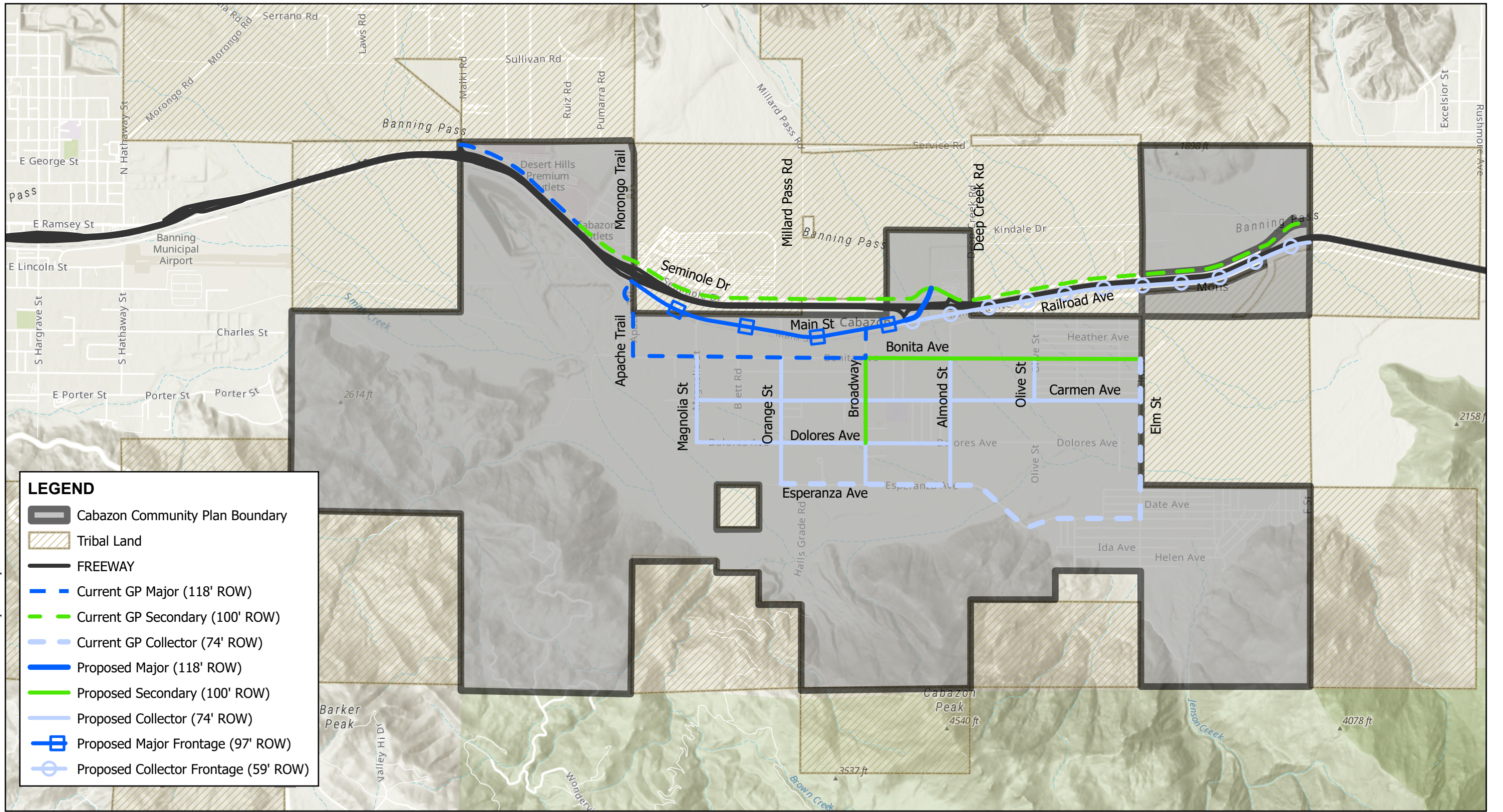


Sources: Riverside Co. GIS, 2024;
CVWD, 2024; DWA, 2024; MSWD, 2024; CWD, 2024; RCFC, 2024.

Figure 5 - Proposed Storm Drain Facilities
TLMA Cabazon Community Infrastructure Improvement Plan

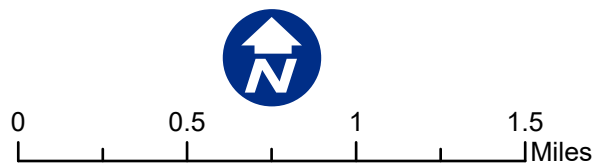


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Sources: Riverside Co. GIS, 2024.

Figure 7 - Proposed Road Circulation
TLMA Cabazon Community Infrastructure Improvement Plan



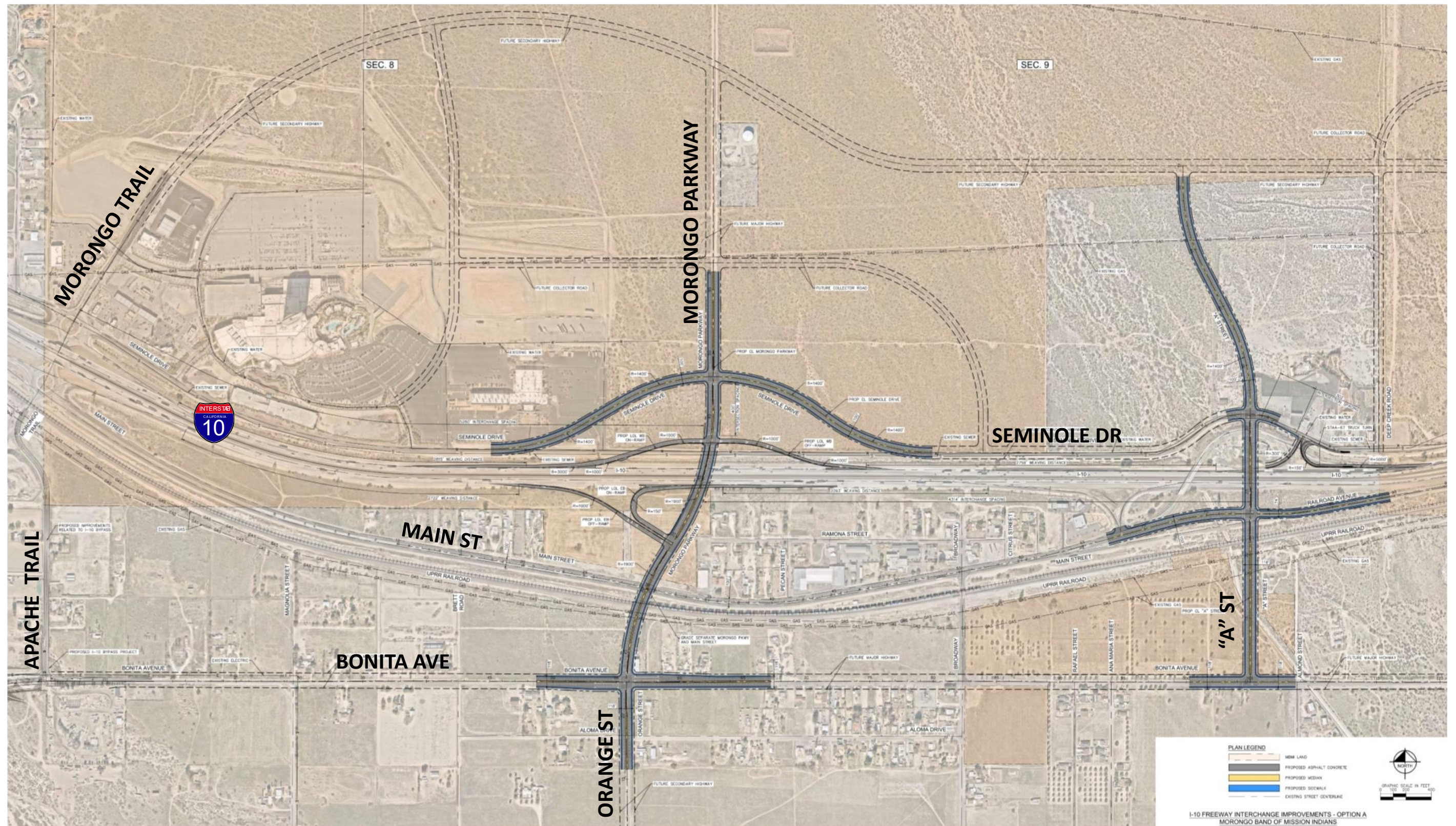
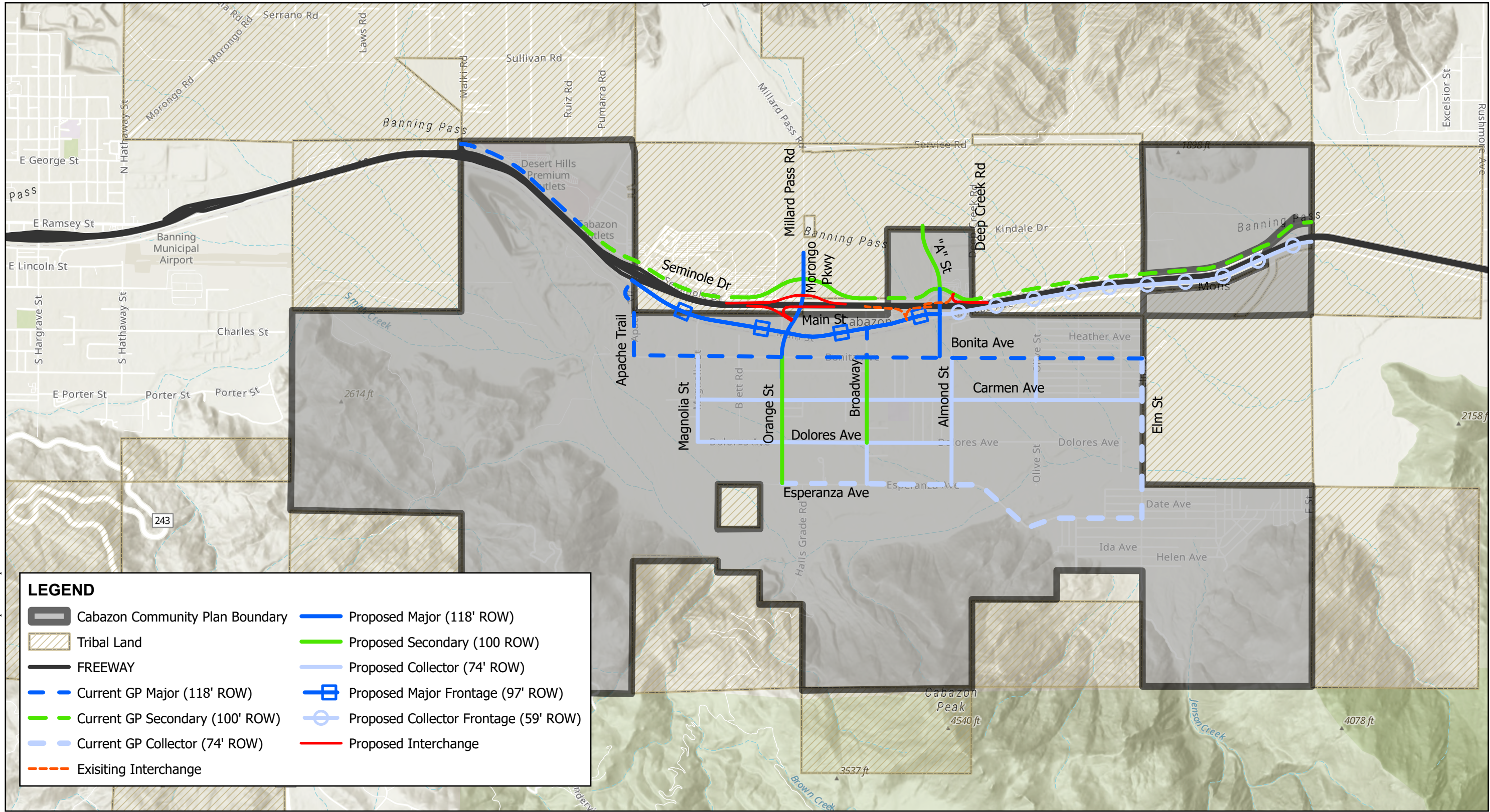


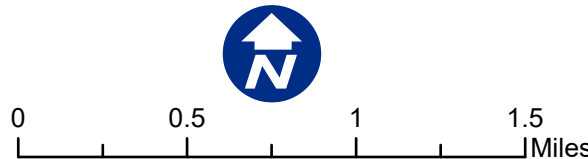
Figure 8 - I-10 Freeway Interchange Improvements
 TLMA Cabazon Community Infrastructure Improvement Plan

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Sources: Riverside Co. GIS, 2024.

Figure 9 - Proposed Road Circulation with Interchange
TLMA Cabazon Community Infrastructure Improvement Plan



APPENDIX B – Cost Estimates

- **Domestic Water**



ENGINEER'S CONSTRUCTION COST ESTIMATE

CABAZON COMMUNITY PLAN

Printed Plan Date: N/A

W.O.: 2023-3320

Estimate Prepared By: JH

Client: RCTLMA

Date Prepared: 10/30/2025

Plan Title: Domestic Water Infrastructure

Estimate Checked By: _____

Purpose of Estimate: Planning

Date Checked: _____

Item No.	Description	Quantity ⁽¹⁾	Unit	Unit Price	Bid Extensions
100	12" Water Main	19,000	lf	\$291.00	\$5,529,000
101	16" Water Main	10,300	lf	\$394.00	\$4,058,200
102	18" Water Main	56,400	lf	\$431.00	\$24,308,400
103	24" Water Main	34,300	lf	\$552.00	\$18,933,600
104	Groundwater Well (1.0MGD)	3	ea	\$2,500,000.00	\$7,500,000
105	Reservoir (1.0 MG)	2	ea	\$2,400,000.00	\$4,800,000
106	Reservoir (1.5 MG)	1	ea	\$3,200,000.00	\$3,200,000
107	Reservoir (2.0 MG)	2	ea	\$3,900,000.00	\$7,800,000
108	Reservoir (3.0 MG)	1	ea	\$5,200,000.00	\$5,200,000
120	Contingency - 30%				\$24,398,760
TOTAL SCHEDULE I (SUM OF EXTENSION 100 THRU 120)					\$105,727,960.00

- **Wastewater**



ENGINEER'S CONSTRUCTION COST ESTIMATE

CABAZON COMMUNITY PLAN

Printed Plan Date: N/A

W.O.: 2023-3320

Estimate Prepared By: JH

Client: RCTLMA

Date Prepared: 10/30/2025

Plan Title: WW Infrastructure (Alt1)

Estimate Checked By: _____

Purpose of Estimate: Planning

Date Checked: _____

Item No.	Description	Quantity ⁽¹⁾	Unit	Unit Price	Bid Extensions
100	8" Sewer Pipe	105,800	lf	\$325.00	\$34,385,000
101	10" Sewer Pipe	8,100	lf	\$369.00	\$2,988,900
102	12" Sewer Pipe	13,900	lf	\$421.00	\$5,851,900
103	15" Sewer Pipe	1,300	lf	\$446.00	\$579,800
104	8" Force Main	18,400	lf	\$315.00	\$5,796,000
105	Lift Station (0.8MGD)	1	ea	\$1,700,000.00	\$1,700,000
106	Lift Station (1.0MGD)	1	ea	\$2,000,000.00	\$2,000,000
107	Waste Water Treatment Plant	4,200,000	gal	\$12.00	\$50,400,000
120	Contingency - 30%				\$31,110,480
TOTAL SCHEDULE I (SUM OF EXTENSION 100 THRU 120)					\$134,812,080.00



ENGINEER'S CONSTRUCTION COST ESTIMATE

CABAZON COMMUNITY PLAN

Printed Plan Date: N/A

W.O.: 2023-3320

Estimate Prepared By: JH

Client: RCTLMA

Date Prepared: 10/30/2025

Plan Title: Wastewater Infrastructure (Alt 2)

Estimate Checked By: _____

Purpose of Estimate: Planning

Date Checked: _____

Item No.	Description	Quantity	Unit	Unit Price	Bid Extensions
SCHEDULE I - TITLE					
100	8" Sewer Pipe	87,800	lf	\$325.00	\$28,535,000.00
101	10" Sewer Pipe	27,100	lf	\$369.00	\$9,999,900.00
102	12" Sewer Pipe	3,400	lf	\$421.00	\$1,431,400.00
103	15" Sewer Pipe	5,300	lf	\$446.00	\$2,363,800.00
103	18" Sewer Pipe	8,600	lf	\$498.00	\$4,282,800.00
105	8" Force Main	4,700	lf	\$315.00	\$1,480,500.00
107	Lift Station (0.5MGD)	1	ea	\$1,250,000.00	\$1,250,000.00
108	Waste Water Treatment Plant	4,200,000	gal	\$12.00	\$50,400,000.00
					\$0.00
120	Contingency - 30%				\$29,923,020.00
TOTAL SCHEDULE I (SUM OF EXTENSION 100 THRU 120)					\$129,666,420.00

- **Storm Drainage**

Regional Storm Drain Facilities - Cabazon Levee Proposal (2010)

FACILITY NAME	2010 COST ESTIMATE ¹	FACTOR ²	ADJUSTED 2025 COST ESTIMATE
Millard Channel and RR Bridge	\$67,000,000	1.6	\$107,200,000
San Gorgonio Levee Extension	\$29,000,000	1.6	\$46,400,000
San Gorgonio Levee #2	\$15,000,000	1.6	\$24,000,000
Jenson Creek Levee	\$11,000,000	1.6	\$17,600,000
Total			\$195,200,000

¹ The 2010 Cost Estimates were taken from the Cabazon Levee Proposal Exhibit, which estimates costs for the concrete lined levees based on the 2010 unit cost sheet. The following quantities were considered in that evaluation: compacted fill, embankment compaction, concrete, cutoff wall, excavation, and other miscellaneous lump sum items.

² The ENR Cost Index was utilized to determine the conversion factor between 2010 and 2025 costs.

**RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
2025 DESIGN COSTS**

PROJECT DESCRIPTION:

Cabazon Community Area

ITEM	UNIT	QUANTITY	CRITERIA	2025 COST	TOTAL
TRAP. CHANNEL EXCAVATION	CY		b > 8	\$12.56	
			b ≤ 8	\$17.59	
RCB & RECT. CHAN. EXCAVATION	CY	94,026	b > 12	\$15.20	\$1,428,865
			b ≤ 12	\$23.03	
COMPACTED FILL	CY		EXC > FILL	\$12.90	
			EXC < FILL	\$25.80	
STRUCTURE BACKFILL	CY	25,477		\$56.40	\$1,436,894
TRAP. CHANNEL CONCRETE	CY		b > 8 ¹	\$663.00	
			b ≤ 8	\$835.38	
R.C.B. CONCRETE (INCLUDING STEEL)	CY	24,033	L > 150	\$1,321.00	\$31,747,544
			L < 150	\$1,420.00	
RECT. CHAN. CONC. (INCLUDING STEEL)	CY		L > 150	\$991.00	
			L < 150	\$1,065.00	
CUTOFF WALL (2' TYP.)	LF			\$33.15	
SUBDRAIN	LF		6 < b ≤ 16	\$36.21	
			b > 16	\$60.48	
FENCING (6' TYP.)	LF			\$50.00	
CATCH BASINS	LF			\$848.13	
MANHOLES (PIPE)	EA	70	FOR MAINLINE	\$10,800.00	\$756,000
			FOR JUNCTION	\$18,500.00	
MANHOLES (RCB)	EA	52		\$5,994.00	\$311,688
HOT MIX ASPHALT (HMA) TYPE A ³	SF			\$6.85	
COARSE AGGREGATE FOR ACCESS ROADS (3" THICK)	SF			\$1.22	
ROCK SLOPE PROTECTION ⁴	CY ²			\$152.72	
CONC.-ROCK SLOPE PROTECTION ⁵				\$264.71	
STORM DRAINS	SEE STORM DRAIN COST SHEET				\$38,894,902
SLAB BRIDGES	LBS	SEE BRIDGE COST SHEET	REBAR CONCRETE	\$1.71	
	CY			\$850.00	
MISCELLANEOUS COSTS	SEE MISCELLANEOUS COST SHEET				
DAM & BASIN COSTS	SEE DAM & BASIN COST SHEET				
1. No.4 bars at 18 inches 2. 1.9 tons/cy 3. Includes 4" HMA & 8" A.B. 4. Use 75% for large installations (>1000cy) 5. Use 125% of rock slope protection to determine concreted-rock quantity 6. i.e. Mobilization, Water Control, etc. 7. Connector pipe, etc. 8. Cell typically only used for ADP Updates.	CONSTRUCTION COST				\$74,575,894
	LUMP SUM ITEMS (22%) ⁶				\$16,406,697
	CONTINGENCIES (12%) ⁷				\$8,949,107
	SUBTOTAL				\$99,931,697
	ENG & ADMIN. (25%); MSHCP MITIGATION FEE: (3%) ? ☒ ON FOR YES				\$27,980,875
	AS-BUILT COSTS ⁸				\$0
	ENV. MITIGATION COSTS (LS)				\$0
	R/W (FROM R/W SHEET)				\$0
	R/W (FROM DAM & BASIN SHEET)				\$0
rev. 10/1/2019					
NAME & DATE				TOTAL	\$127,913,000
WFBB 10/31/25					

Cabazon Community Area

DESERT AREA

STORM DRAIN TOTAL	\$38,894,902
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MISCELLANEOUS COSTS

MISCELLANEOUS TOTAL

RCB QUANTITY SUMMARY SHEET

Cabazon Community Area
MDP / ADP
 Cabazon Community Area
FACILITY

10/31/25
DATE
 WEBB
ENGINEER

	Location	No. Cells	Cell Height (FT)	Cell Width (FT)	Concrete per Cell (CF/LF) ¹	Length (FT)	Depth from F.G. to Top of RCB (FT)	Avg. Overburden E.G. to F.G. (FT)	RCB Height (FT) ²	RCB Width (FT) ²	Concrete (CY)	Trench Depth Below F.G. (FT)	Sloped or Shored Trench	Height of Sloped Portion of Trench (FT)	Structural Excavation (CY) ³	Structural Backfill (CY) ³	R/W Width (FT) ⁴	R/W (AC)	With Overburden		
																			Overburden Excavation (CY)	R/W Width (FT) ⁵	R/W (AC)
1	5'H x 8'W RCB	1	5.0	8.0	19.6	7300.0			6.50	9.33	5299.3	6.5	Sloped	3.0	21743.5	5339.8	15.8	2.65			
2	6'H x 8'W RCB	1	6.0	8.0	22.6	13100.0			7.50	9.33	10965.2	7.5	Sloped	4.0	47065.4	13100.0	17.3	5.21			
3	8'H x 10'W RCB	1	8.0	10.0	34.7	2500.0			9.50	11.33	3213.0	9.5	Shored		13488.2	3518.5	28.5	1.63			
4	DBL 8'H x 8'W RCB	1	8.0	8.0	49.2	2500.0			9.50	9.33	4555.6	9.5	Shored		11729.0	3518.5	26.5	1.52			
5									0.00	0.00		0.0			0.0	0.0	0.0				
6									0.00	0.00		0.0			0.0	0.0	0.0				
7									0.00	0.00		0.0			0.0	0.0	0.0				
8									0.00	0.00		0.0			0.0	0.0	0.0				
9									0.00	0.00		0.0			0.0	0.0	0.0				
10									0.00	0.00		0.0			0.0	0.0	0.0				
11									0.00	0.00		0.0			0.0	0.0	0.0				
12									0.00	0.00		0.0			0.0	0.0	0.0				
13									0.00	0.00		0.0			0.0	0.0	0.0				
14									0.00	0.00		0.0			0.0	0.0	0.0				
15									0.00	0.00		0.0			0.0	0.0	0.0				
16									0.00	0.00		0.0			0.0	0.0	0.0				
17									0.00	0.00		0.0			0.0	0.0	0.0				
18									0.00	0.00		0.0			0.0	0.0	0.0				
19									0.00	0.00		0.0			0.0	0.0	0.0				
20									0.00	0.00		0.0			0.0	0.0	0.0				
rev. 10/1/2019						25,400						24,033				94,026	25,477	11.0	0		0.0

- Caltrans Standard Plans, 2010, D80 & D81.
- Assumes wall thickness, t2 = 8", roof and invert slab thicknesses, t1, t3 = 9".
- Below finish grade, per RCB pay lines (normal condition), Std. Dwg. No. M815. Refer to "Storm Drain Easement Widths," RCFC, Nov. 10, 1987 for sloped or shored trench sections.
- "Storm Drain Easement Widths," RCFC, Nov. 10, 1987. Assumes a minimum width of 10' for construction access, the width of the sloped excavation, or the width of the shored excavation plus 8', whichever is greater.
- Assumes cut slopes of 0.75H:1V between overburden and finish grade.

- **Dry Utilities – Electrical**

PRELIMINARY COST REPORT

If Developer Driven - New 12KV OH Circuits A & B

October 29, 2025

The following is an opinion of probable gas, electric, telephone, and CATV costs. Utility Specialists' opinion of probable costs is made on the basis of our experience and qualifications and represents our best judgement based on direction, plans, and information provided by the client. Utility Specialists, cannot and does not guarantee that proposals, bids or the construction costs will not vary from the opinions that we have prepared. This information is proprietary and not for distribution without the written consent of Utility Specialists.

	REFUNDABLE OPTION COST OPINIONS	NON-REFUNDABLE ELECTRIC OPTION COST OPINIONS
A. ELECTRIC DISTRIBUTION SYSTEM (UTILITY CHARGES)		
1. Electric Deposit	\$0	\$0
2. Tax on Value of Trench & Conduit	\$0	\$0
3. Tax on Value of Substructures	\$0	\$0
4. Electric Line Relocations & Removals	\$0	\$0
5. New OH R15 Electric Circuits A & B	\$8,173,090	\$8,173,090
6. Right-of-Way Fees	\$100,000	\$100,000
7. Street Lights (SCE)	\$0	\$0
8. Excess Electric Service Cable/Service Delivery Point	\$0	\$0
B. GAS DISTRIBUTION SYSTEM (UTILITY CHARGES)		
1. Gas Deposit	\$0	\$0
2. Gas/Fuel Line Relocations	\$0	\$0
C. TELEPHONE DISTRIBUTION SYSTEM (UTILITY CHARGES)		
1. Telephone Deposit	\$0	\$0
2. Tax on Value of Customer Work	\$0	\$0
3. Telephone Relocations	\$0	\$0
4. Telephone Conversion	\$0	\$0
5. Secondary M.P.O.E.	\$0	\$0
D. CATV DISTRIBUTION SYSTEM (UTILITY CHARGES)		
1. CATV Deposit	\$0	\$0
2. Sunesys Conversions	\$0	\$0
3. CATV Conversions	\$0	\$0
E. CONTRACTOR INSTALLATION COSTS		
1. Trench, Backfill, Conduit & Substructure Installation		
-Mains	\$0	\$0
-Services	\$0	\$0
-Conversions	\$0	\$0
2. Electric Installation Cost	\$0	\$0
3. Street Lights & Installation Cost	\$0	\$0
4. Dry Utility Consulting Fees	\$0	\$0
F. ESTIMATED REIMBURSEMENTS		
1. Electric Facilities (given as a refund based on allowance)	\$0	
2. Gas Trench (given as refund based on allowance)	\$0	
3. Telephone Trench, Conduit & Substructures	\$0	
4. CATV Facilities	\$0	
G. ESTIMATED REFUNDS		
1. Electric Deposit (refundable option only)	\$0	
2. Gas Deposit (refundable option only)	\$0	
3. Telephone Deposit	\$0	
H. TOTALS	\$8,273,090	\$8,273,090
I. NET COST -Total Cost Minus Refunds & Reimbursements	\$8,273,090	\$8,273,090

PRELIMINARY COST REPORT

If Developer Driven - New 12KV OH Circuits C

October 29, 2025

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	REFUNDABLE OPTION COST OPINIONS	NON-REFUNDABLE ELECTRIC OPTION COST OPINIONS
A. ELECTRIC DISTRIBUTION SYSTEM (UTILITY CHARGES)		
1. Electric Deposit	\$0	\$0
2. Tax on Value of Trench & Conduit	\$0	\$0
3. Tax on Value of Substructures	\$0	\$0
4. Electric Line Relocations & Removals	\$0	\$0
5. New OH R15 Electric Circuits A & B	\$714,740	\$714,740
6. Right-of-Way Fees	\$1,000	\$1,000
7. Street Lights (SCE)	\$0	\$0
8. Excess Electric Service Cable/Service Delivery Point	\$0	\$0
B. GAS DISTRIBUTION SYSTEM (UTILITY CHARGES)		
1. Gas Deposit	\$0	\$0
2. Gas/Fuel Line Relocations	\$0	\$0
C. TELEPHONE DISTRIBUTION SYSTEM (UTILITY CHARGES)		
1. Telephone Deposit	\$0	\$0
2. Tax on Value of Customer Work	\$0	\$0
3. Telephone Relocations	\$0	\$0
4. Telephone Conversion	\$0	\$0
5. Secondary M.P.O.E.	\$0	\$0
D. CATV DISTRIBUTION SYSTEM (UTILITY CHARGES)		
1. CATV Deposit	\$0	\$0
2. Sunesys Conversions	\$0	\$0
3. CATV Conversions	\$0	\$0
E. CONTRACTOR INSTALLATION COSTS		
1. Trench, Backfill, Conduit & Substructure Installation		
-Mains	\$0	\$0
-Services	\$0	\$0
-Conversions	\$0	\$0
2. Electric Installation Cost	\$0	\$0
3. Street Lights & Installation Cost	\$0	\$0
4. Dry Utility Consulting Fees	\$0	\$0
F. ESTIMATED REIMBURSEMENTS		
1. Electric Facilities (given as a refund based on allowance)	\$0	
2. Gas Trench (given as refund based on allowance)	\$0	
3. Telephone Trench, Conduit & Substructures	\$0	
4. CATV Facilities	\$0	
G. ESTIMATED REFUNDS		
1. Electric Deposit (refundable option only)	\$0	
2. Gas Deposit (refundable option only)	\$0	
3. Telephone Deposit	\$0	
H. TOTALS	\$715,740	\$715,740
I. NET COST -Total Cost Minus Refunds & Reimbursements	\$715,740	\$715,740

PRELIMINARY COST REPORT

If Developer Driven - New 12KV OH Circuits D,E & F

October 29, 2025

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	REFUNDABLE OPTION COST OPINIONS	NON-REFUNDABLE ELECTRIC OPTION COST OPINIONS
A. ELECTRIC DISTRIBUTION SYSTEM (UTILITY CHARGES)		
1. Electric Deposit	\$0	\$0
2. Tax on Value of Trench & Conduit	\$0	\$0
3. Tax on Value of Substructures	\$0	\$0
4. Electric Line Relocations & Removals	\$0	\$0
5. New OH R15 Electric Circuits A & B	\$3,223,130	\$3,223,130
6. Right-of-Way Fees	\$2,000	\$2,000
7. Street Lights (SCE)	\$0	\$0
8. Excess Electric Service Cable/Service Delivery Point	\$0	\$0
B. GAS DISTRIBUTION SYSTEM (UTILITY CHARGES)		
1. Gas Deposit	\$0	\$0
2. Gas/Fuel Line Relocations	\$0	\$0
C. TELEPHONE DISTRIBUTION SYSTEM (UTILITY CHARGES)		
1. Telephone Deposit	\$0	\$0
2. Tax on Value of Customer Work	\$0	\$0
3. Telephone Relocations	\$0	\$0
4. Telephone Conversion	\$0	\$0
5. Secondary M.P.O.E.	\$0	\$0
D. CATV DISTRIBUTION SYSTEM (UTILITY CHARGES)		
1. CATV Deposit	\$0	\$0
2. Sunesys Conversions	\$0	\$0
3. CATV Conversions	\$0	\$0
E. CONTRACTOR INSTALLATION COSTS		
1. Trench, Backfill, Conduit & Substructure Installation		
-Mains	\$0	\$0
-Services	\$0	\$0
-Conversions	\$0	\$0
2. Electric Installation Cost	\$0	\$0
3. Street Lights & Installation Cost	\$0	\$0
4. Dry Utility Consulting Fees	\$0	\$0
F. ESTIMATED REIMBURSEMENTS		
1. Electric Facilities (given as a refund based on allowance)	\$0	
2. Gas Trench (given as refund based on allowance)	\$0	
3. Telephone Trench, Conduit & Substructures	\$0	
4. CATV Facilities	\$0	
G. ESTIMATED REFUNDS		
1. Electric Deposit (refundable option only)	\$0	
2. Gas Deposit (refundable option only)	\$0	
3. Telephone Deposit	\$0	
H. TOTALS	\$3,225,130	\$3,225,130
I. NET COST -Total Cost Minus Refunds & Reimbursements	\$3,225,130	\$3,225,130

PRELIMINARY COST REPORT

If Developer Driven - New 12KV OH Circuits G,K & L

October 29, 2025

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	REFUNDABLE OPTION COST OPINIONS	NON-REFUNDABLE ELECTRIC OPTION COST OPINIONS
A. ELECTRIC DISTRIBUTION SYSTEM (UTILITY CHARGES)		
1. Electric Deposit	\$0	\$0
2. Tax on Value of Trench & Conduit	\$0	\$0
3. Tax on Value of Substructures	\$0	\$0
4. Electric Line Relocations & Removals	\$0	\$0
5. New OH R15 Electric Circuits A & B	\$7,864,820	\$7,864,820
6. Right-of-Way Fees	\$2,000	\$2,000
7. Street Lights (SCE)	\$0	\$0
8. Excess Electric Service Cable/Service Delivery Point	\$0	\$0
B. GAS DISTRIBUTION SYSTEM (UTILITY CHARGES)		
1. Gas Deposit	\$0	\$0
2. Gas/Fuel Line Relocations	\$0	\$0
C. TELEPHONE DISTRIBUTION SYSTEM (UTILITY CHARGES)		
1. Telephone Deposit	\$0	\$0
2. Tax on Value of Customer Work	\$0	\$0
3. Telephone Relocations	\$0	\$0
4. Telephone Conversion	\$0	\$0
5. Secondary M.P.O.E.	\$0	\$0
D. CATV DISTRIBUTION SYSTEM (UTILITY CHARGES)		
1. CATV Deposit	\$0	\$0
2. Sunesys Conversions	\$0	\$0
3. CATV Conversions	\$0	\$0
E. CONTRACTOR INSTALLATION COSTS		
1. Trench, Backfill, Conduit & Substructure Installation		
-Mains	\$0	\$0
-Services	\$0	\$0
-Conversions	\$0	\$0
2. Electric Installation Cost	\$0	\$0
3. Street Lights & Installation Cost	\$0	\$0
4. Dry Utility Consulting Fees	\$0	\$0
F. ESTIMATED REIMBURSEMENTS		
1. Electric Facilities (given as a refund based on allowance)	\$0	
2. Gas Trench (given as refund based on allowance)	\$0	
3. Telephone Trench, Conduit & Substructures	\$0	
4. CATV Facilities	\$0	
G. ESTIMATED REFUNDS		
1. Electric Deposit (refundable option only)	\$0	
2. Gas Deposit (refundable option only)	\$0	
3. Telephone Deposit	\$0	
H. TOTALS	\$7,866,820	\$7,866,820
I. NET COST -Total Cost Minus Refunds & Reimbursements	\$7,866,820	\$7,866,820

PRELIMINARY COST REPORT

If Developer Driven - New 12KV OH Circuits I, J, M & N

October 29, 2025

The following is an opinion of probable gas, electric, telephone, and CATV costs. Utility Specialists' opinion of probable costs is made on the basis of our experience and qualifications and represents our best judgement based on direction, plans, and information provided by the client. Utility Specialists, cannot and does not guarantee that proposals, bids or the construction costs will not vary from the opinions that we have prepared. This information is proprietary and not for distribution without the written consent of Utility Specialists.

	REFUNDABLE OPTION COST OPINIONS	NON-REFUNDABLE ELECTRIC OPTION COST OPINIONS
A. ELECTRIC DISTRIBUTION SYSTEM (UTILITY CHARGES)		
1. Electric Deposit	\$0	\$0
2. Tax on Value of Trench & Conduit	\$0	\$0
3. Tax on Value of Substructures	\$0	\$0
4. Electric Line Relocations & Removals	\$0	\$0
5. New OH R15 Electric Circuits A & B	\$10,682,850	\$10,682,850
6. Right-of-Way Fees	\$4,000	\$4,000
7. Street Lights (SCE)	\$0	\$0
8. Excess Electric Service Cable/Service Delivery Point	\$0	\$0
B. GAS DISTRIBUTION SYSTEM (UTILITY CHARGES)		
1. Gas Deposit	\$0	\$0
2. Gas/Fuel Line Relocations	\$0	\$0
C. TELEPHONE DISTRIBUTION SYSTEM (UTILITY CHARGES)		
1. Telephone Deposit	\$0	\$0
2. Tax on Value of Customer Work	\$0	\$0
3. Telephone Relocations	\$0	\$0
4. Telephone Conversion	\$0	\$0
5. Secondary M.P.O.E.	\$0	\$0
D. CATV DISTRIBUTION SYSTEM (UTILITY CHARGES)		
1. CATV Deposit	\$0	\$0
2. Sunesys Conversions	\$0	\$0
3. CATV Conversions	\$0	\$0
E. CONTRACTOR INSTALLATION COSTS		
1. Trench, Backfill, Conduit & Substructure Installation		
-Mains	\$0	\$0
-Services	\$0	\$0
-Conversions	\$0	\$0
2. Electric Installation Cost	\$0	\$0
3. Street Lights & Installation Cost	\$0	\$0
4. Dry Utility Consulting Fees	\$0	\$0
F. ESTIMATED REIMBURSEMENTS		
1. Electric Facilities (given as a refund based on allowance)	\$0	
2. Gas Trench (given as refund based on allowance)	\$0	
3. Telephone Trench, Conduit & Substructures	\$0	
4. CATV Facilities	\$0	
G. ESTIMATED REFUNDS		
1. Electric Deposit (refundable option only)	\$0	
2. Gas Deposit (refundable option only)	\$0	
3. Telephone Deposit	\$0	
H. TOTALS	\$10,686,850	\$10,686,850
I. NET COST -Total Cost Minus Refunds & Reimbursements	\$10,686,850	\$10,686,850

- **Circulation Element/Roadway Network**

Almond Street - Within CCP from Bonita Ave to Esperanza Ave

Sheet 1 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT
IMPROVEMENT REQUIREMENT WORKSHEET
STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
4,253	TON	Asphalt Concrete: The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF (SF) x (FT) = (CF) (CF) x (152 LBS/CF) ÷ (2,000 LBS/TON) = (TON)	\$ 100.00	\$ 425,280.80
2,961	C.Y.	Aggregate Base (Class II) (SF) x (FT) = (CF) (CF) ÷ (27 CF/C.Y.) = (C.Y.)	\$ 55.00	\$ 162,840.74
5.9	TON	Asphalt Emulsion (Fog Seal & Paint Binder) (SF) ÷ (9 SF/SqYd) = (SqYd) (SqYd) x (0.08 GAL/SqYd) = (GAL) (GAL) ÷ (240 GAL/TON) = (TON)	\$ 1,500.00	\$ 8,882.22
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
7,994	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 319,760.00
	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 0.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
39,970	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 399,700.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00

Almond Street - Within CCP from Bonita Ave to Esperanza Ave

Sheet 2 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT
IMPROVEMENT REQUIREMENT WORKSHEET
STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
			\$	\$ 0.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00

Sheet 3 of 4

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	L.F.	36" CSP, HDPE, Or Equal	\$ 250.00	\$ 0.00
	L.F.	42" CSP, HDPE, Or Equal	\$ 300.00	\$ 0.00
	L.F.	48" CSP, HDPE, Or Equal	\$ 360.00	\$ 0.00
	L.F.	54" CSP, HDPE, Or Equal	\$ 400.00	\$ 0.00
	L.F.	60" CSP, HDPE, Or Equal	\$ 480.00	\$ 0.00
	EA.	Catch Basin W=4'	\$ 2,800.00	\$ 0.00
	EA.	Catch Basin W=7'	\$ 5,000.00	\$ 0.00
	EA.	Catch Basin W=14'	\$ 10,000.00	\$ 0.00
	EA.	Catch Basin W=21'	\$ 15,000.00	\$ 0.00
	EA.	Catch Basin W=28'	\$ 20,000.00	\$ 0.00
	EA.	Type IX Inlet	\$ 3,000.00	\$ 0.00
	EA.	Type X Inlet	\$ 3,000.00	\$ 0.00
	EA.	Junction Structure No. 1	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 2	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 6	\$ 4,500.00	\$ 0.00
	EA.	Transition Structure No. 1	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 2	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 1	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 2	\$ 4,000.00	\$ 0.00
	EA.	Manhole No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 4	\$ 6,000.00	\$ 0.00
	EA.	Adjust Water Valve to Grade (if no water plan)	\$ 300.00	\$ 0.00
	EA.	Adjust Sewer Manhole to Grade (if no sewer plan)	\$ 1,000.00	\$ 0.00
		SIGNING, STRIPING AND SIGNALS		
	S.F.	Remove Traffic Stripes and Paint Markings	\$ 2.00	\$ 0.00
	EA.	Remove, Sign, Salvage	\$ 150.00	\$ 0.00

Almond Street - Within CCP from Bonita Ave to Esperanza Ave

Sheet 4 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT
IMPROVEMENT REQUIREMENT WORKSHEET
STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Relocate Roadside Sign	\$ 200.00	\$ 0.00
	EA.	Street Name Sign	\$ 400.00	\$ 0.00
	EA.	Install Sign (Strap and Saddle Bracket Method)	\$ 250.00	\$ 0.00
	EA.	Install Sign Mast Arm Hanger Method)	\$ 500.00	\$ 0.00
	EA.	Road Sign - One Post	\$ 400.00	\$ 0.00
	EA.	Road Sign - Two Post	\$ 450.00	\$ 0.00
	EA.	Object Marker - Modified Type "F" Delineator	\$ 90.00	\$ 0.00
	EA.	Delineator (Class 1 Type F)	\$ 60.00	\$ 0.00
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 1,316,463.76
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 329,115.94
	C.	Streets/Drainage Total (A + B)		\$ 1,645,579.70
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 1,645,579.70

Apache Trail - Within CCP from I-10 to Bonita Ave

Sheet 1 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
6,005	TON	Asphalt Concrete: The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF (SF) x (FT) = (CF) (CF) x (152 LBS/CF) ÷ (2,000 LBS/TON)= (TON)	\$ 100.00	\$ 600,497.28
3,252	C.Y.	Aggregate Base (Class II) (SF) x (FT) = (CF) (CF) ÷ (27 CF/C.Y.) = (C.Y.)	\$ 55.00	\$ 178,835.56
6.5	TON	Asphalt Emulsion (Fog Seal & Paint Binder) (SF) ÷ (9 SF/SqYd) = (SqYd) (SqYd) x (0.08 GAL/SqYd) = (GAL) (GAL) ÷ (240 GAL/TON) = (TON)	\$ 1,500.00	\$ 9,754.67
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 0.00
4,594	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 206,730.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
22,970	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 229,700.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00

Apache Trail - Within CCP from I-10 to Bonita Ave

Sheet 2 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
			\$	\$ 0.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00

Sheet 3 of 4

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	L.F.	36" CSP, HDPE, Or Equal	\$ 250.00	\$ 0.00
	L.F.	42" CSP, HDPE, Or Equal	\$ 300.00	\$ 0.00
	L.F.	48" CSP, HDPE, Or Equal	\$ 360.00	\$ 0.00
	L.F.	54" CSP, HDPE, Or Equal	\$ 400.00	\$ 0.00
	L.F.	60" CSP, HDPE, Or Equal	\$ 480.00	\$ 0.00
	EA.	Catch Basin W=4'	\$ 2,800.00	\$ 0.00
	EA.	Catch Basin W=7'	\$ 5,000.00	\$ 0.00
	EA.	Catch Basin W=14'	\$ 10,000.00	\$ 0.00
	EA.	Catch Basin W=21'	\$ 15,000.00	\$ 0.00
	EA.	Catch Basin W=28'	\$ 20,000.00	\$ 0.00
	EA.	Type IX Inlet	\$ 3,000.00	\$ 0.00
	EA.	Type X Inlet	\$ 3,000.00	\$ 0.00
	EA.	Junction Structure No. 1	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 2	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 6	\$ 4,500.00	\$ 0.00
	EA.	Transition Structure No. 1	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 2	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 1	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 2	\$ 4,000.00	\$ 0.00
	EA.	Manhole No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 4	\$ 6,000.00	\$ 0.00
	EA.	Adjust Water Valve to Grade (if no water plan)	\$ 300.00	\$ 0.00
	EA.	Adjust Sewer Manhole to Grade (if no sewer plan)	\$ 1,000.00	\$ 0.00
		SIGNING, STRIPING AND SIGNALS		
	S.F.	Remove Traffic Stripes and Paint Markings	\$ 2.00	\$ 0.00
	EA.	Remove, Sign, Salvage	\$ 150.00	\$ 0.00

Apache Trail - Within CCP from I-10 to Bonita Ave

Sheet 4 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Relocate Roadside Sign	\$ 200.00	\$ 0.00
	EA.	Street Name Sign	\$ 400.00	\$ 0.00
	EA.	Install Sign (Strap and Saddle Bracket Method)	\$ 250.00	\$ 0.00
	EA.	Install Sign Mast Arm Hanger Method)	\$ 500.00	\$ 0.00
	EA.	Road Sign - One Post	\$ 400.00	\$ 0.00
	EA.	Road Sign - Two Post	\$ 450.00	\$ 0.00
	EA.	Object Marker - Modified Type "F" Delineator	\$ 90.00	\$ 0.00
	EA.	Delineator (Class 1 Type F)	\$ 60.00	\$ 0.00
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 1,225,517.50
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 306,379.38
	C.	Streets/Drainage Total (A + B)		\$ 1,531,896.88
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 1,531,896.88

Bonita Avenue - Within CCP from Apache Trail to Elm St

Sheet 1 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
36,703	TON	Asphalt Concrete: The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF (SF) x (FT) = (CF) (CF) x (152 LBS/CF) ÷ (2,000 LBS/TON)= (TON)	\$ 100.00	\$ 3,670,330.32
19,874	C.Y.	Aggregate Base (Class II) (SF) x (FT) = (CF) (CF) ÷ (27 CF/C.Y.) = (C.Y.)	\$ 55.00	\$ 1,093,070.00
39.7	TON	Asphalt Emulsion (Fog Seal & Paint Binder) (SF) ÷ (9 SF/SqYd) = (SqYd) (SqYd) x (0.08 GAL/SqYd) = (GAL) (GAL) ÷ (240 GAL/TON) = (TON)	\$ 1,500.00	\$ 59,622.00
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
17,226	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 689,040.00
14,476	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 651,420.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
158,510	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 1,585,100.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00

Bonita Avenue - Within CCP from Apache Trail to Elm St

Sheet 2 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
			\$	\$ 0.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00

Sheet 3 of 4

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	L.F.	36" CSP, HDPE, Or Equal	\$ 250.00	\$ 0.00
	L.F.	42" CSP, HDPE, Or Equal	\$ 300.00	\$ 0.00
	L.F.	48" CSP, HDPE, Or Equal	\$ 360.00	\$ 0.00
	L.F.	54" CSP, HDPE, Or Equal	\$ 400.00	\$ 0.00
	L.F.	60" CSP, HDPE, Or Equal	\$ 480.00	\$ 0.00
	EA.	Catch Basin W=4'	\$ 2,800.00	\$ 0.00
	EA.	Catch Basin W=7'	\$ 5,000.00	\$ 0.00
	EA.	Catch Basin W=14'	\$ 10,000.00	\$ 0.00
	EA.	Catch Basin W=21'	\$ 15,000.00	\$ 0.00
	EA.	Catch Basin W=28'	\$ 20,000.00	\$ 0.00
	EA.	Type IX Inlet	\$ 3,000.00	\$ 0.00
	EA.	Type X Inlet	\$ 3,000.00	\$ 0.00
	EA.	Junction Structure No. 1	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 2	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 6	\$ 4,500.00	\$ 0.00
	EA.	Transition Structure No. 1	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 2	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 1	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 2	\$ 4,000.00	\$ 0.00
	EA.	Manhole No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 4	\$ 6,000.00	\$ 0.00
	EA.	Adjust Water Valve to Grade (if no water plan)	\$ 300.00	\$ 0.00
	EA.	Adjust Sewer Manhole to Grade (if no sewer plan)	\$ 1,000.00	\$ 0.00
		SIGNING, STRIPING AND SIGNALS		
	S.F.	Remove Traffic Stripes and Paint Markings	\$ 2.00	\$ 0.00
	EA.	Remove, Sign, Salvage	\$ 150.00	\$ 0.00

Bonita Avenue - Within CCP from Apache Trail to Elm St

Sheet 4 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Relocate Roadside Sign	\$ 200.00	\$ 0.00
	EA.	Street Name Sign	\$ 400.00	\$ 0.00
	EA.	Install Sign (Strap and Saddle Bracket Method)	\$ 250.00	\$ 0.00
	EA.	Install Sign Mast Arm Hanger Method)	\$ 500.00	\$ 0.00
	EA.	Road Sign - One Post	\$ 400.00	\$ 0.00
	EA.	Road Sign - Two Post	\$ 450.00	\$ 0.00
	EA.	Object Marker - Modified Type "F" Delineator	\$ 90.00	\$ 0.00
	EA.	Delineator (Class 1 Type F)	\$ 60.00	\$ 0.00
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 7,748,582.32
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 1,937,145.58
	C.	Streets/Drainage Total (A + B)		\$ 9,685,727.90
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 9,685,727.90

Broadway - Within CCP from Main St to Esperanza Ave

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
10,027	TON	Asphalt Concrete: The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF (SF) x (FT) = (CF) (CF) x (152 LBS/CF) ÷ (2,000 LBS/TON) = (TON)	\$ 100.00	\$ 1,002,733.36
6,643	C.Y.	Aggregate Base (Class II) (SF) x (FT) = (CF) (CF) ÷ (27 CF/C.Y.) = (C.Y.)	\$ 55.00	\$ 365,350.74
11.3	TON	Asphalt Emulsion (Fog Seal & Paint Binder) (SF) ÷ (9 SF/SqYd) = (SqYd) (SqYd) x (0.08 GAL/SqYd) = (GAL) (GAL) ÷ (240 GAL/TON) = (TON)	\$ 1,500.00	\$ 16,950.44
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
7,998	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 319,920.00
1,858	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 83,610.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
24,640	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 246,400.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00

Broadway - Within CCP from Main St to Esperanza Ave

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
			\$	\$ 0.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00
	L.F.	36" CSP, HDPE, Or Equal	\$ 250.00	\$ 0.00
	L.F.	42" CSP, HDPE, Or Equal	\$ 300.00	\$ 0.00
	L.F.	48" CSP, HDPE, Or Equal	\$ 360.00	\$ 0.00
	L.F.	54" CSP, HDPE, Or Equal	\$ 400.00	\$ 0.00
	L.F.	60" CSP, HDPE, Or Equal	\$ 480.00	\$ 0.00

Broadway - Within CCP from Main St to Esperanza Ave

Broadway - Within CCP from Main St to Esperanza Ave

Broadway - Within CCP from Main St to Esperanza Ave

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 2,034,964.55
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 508,741.14
	C.	Streets/Drainage Total (A + B)		\$ 2,543,705.68
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 2,543,705.68

Carmen Avenue - Within CCP from Magnolia St to Elm St

Sheet 1 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
14,810	TON	Asphalt Concrete: The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF (SF) x (FT) = (CF) (CF) x (152 LBS/CF) ÷ (2,000 LBS/TON)= (TON)	\$ 100.00	\$ 1,480,981.60
10,310	C.Y.	Aggregate Base (Class II) (SF) x (FT) = (CF) (CF) ÷ (27 CF/C.Y.) = (C.Y.)	\$ 55.00	\$ 567,070.37
20.6	TON	Asphalt Emulsion (Fog Seal & Paint Binder) (SF) ÷ (9 SF/SqYd) = (SqYd) (SqYd) x (0.08 GAL/SqYd) = (GAL) (GAL) ÷ (240 GAL/TON) = (TON)	\$ 1,500.00	\$ 30,931.11
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
27,838	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 1,113,520.00
	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 0.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
139,190	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 1,391,900.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00

Carmen Avenue - Within CCP from Magnolia St to Elm St

Sheet 2 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
			\$	\$ 0.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00

Sheet 3 of 4

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	L.F.	36" CSP, HDPE, Or Equal	\$ 250.00	\$ 0.00
	L.F.	42" CSP, HDPE, Or Equal	\$ 300.00	\$ 0.00
	L.F.	48" CSP, HDPE, Or Equal	\$ 360.00	\$ 0.00
	L.F.	54" CSP, HDPE, Or Equal	\$ 400.00	\$ 0.00
	L.F.	60" CSP, HDPE, Or Equal	\$ 480.00	\$ 0.00
	EA.	Catch Basin W=4'	\$ 2,800.00	\$ 0.00
	EA.	Catch Basin W=7'	\$ 5,000.00	\$ 0.00
	EA.	Catch Basin W=14'	\$ 10,000.00	\$ 0.00
	EA.	Catch Basin W=21'	\$ 15,000.00	\$ 0.00
	EA.	Catch Basin W=28'	\$ 20,000.00	\$ 0.00
	EA.	Type IX Inlet	\$ 3,000.00	\$ 0.00
	EA.	Type X Inlet	\$ 3,000.00	\$ 0.00
	EA.	Junction Structure No. 1	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 2	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 6	\$ 4,500.00	\$ 0.00
	EA.	Transition Structure No. 1	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 2	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 1	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 2	\$ 4,000.00	\$ 0.00
	EA.	Manhole No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 4	\$ 6,000.00	\$ 0.00
	EA.	Adjust Water Valve to Grade (if no water plan)	\$ 300.00	\$ 0.00
	EA.	Adjust Sewer Manhole to Grade (if no sewer plan)	\$ 1,000.00	\$ 0.00
		SIGNING, STRIPING AND SIGNALS		
	S.F.	Remove Traffic Stripes and Paint Markings	\$ 2.00	\$ 0.00
	EA.	Remove, Sign, Salvage	\$ 150.00	\$ 0.00

Carmen Avenue - Within CCP from Magnolia St to Elm St

Sheet 4 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Relocate Roadside Sign	\$ 200.00	\$ 0.00
	EA.	Street Name Sign	\$ 400.00	\$ 0.00
	EA.	Install Sign (Strap and Saddle Bracket Method)	\$ 250.00	\$ 0.00
	EA.	Install Sign Mast Arm Hanger Method)	\$ 500.00	\$ 0.00
	EA.	Road Sign - One Post	\$ 400.00	\$ 0.00
	EA.	Road Sign - Two Post	\$ 450.00	\$ 0.00
	EA.	Object Marker - Modified Type "F" Delineator	\$ 90.00	\$ 0.00
	EA.	Delineator (Class 1 Type F)	\$ 60.00	\$ 0.00
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 4,584,403.08
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 1,146,100.77
	C.	Streets/Drainage Total (A + B)		\$ 5,730,503.85
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 5,730,503.85

Dolores Avenue - Within CCP from Magnolia St to Almond St

Sheet 1 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
8,476	TON	Asphalt Concrete: The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF (SF) x (FT) = (CF) (CF) x (152 LBS/CF) ÷ (2,000 LBS/TON)= (TON)	\$ 100.00	\$ 847,582.40
5,901	C.Y.	Aggregate Base (Class II) (SF) x (FT) = (CF) (CF) ÷ (27 CF/C.Y.) = (C.Y.)	\$ 55.00	\$ 324,540.74
11.8	TON	Asphalt Emulsion (Fog Seal & Paint Binder) (SF) ÷ (9 SF/SqYd) = (SqYd) (SqYd) x (0.08 GAL/SqYd) = (GAL) (GAL) ÷ (240 GAL/TON) = (TON)	\$ 1,500.00	\$ 17,702.22
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
15,932	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 637,280.00
	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 0.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
79,660	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 796,600.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00

Dolores Avenue - Within CCP from Magnolia St to Almond St

Sheet 2 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
			\$	\$ 0.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00

Sheet 3 of 4

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Dolores Avenue - Within CCP from Magnolia St to Almond St

Sheet 4 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Relocate Roadside Sign	\$ 200.00	\$ 0.00
	EA.	Street Name Sign	\$ 400.00	\$ 0.00
	EA.	Install Sign (Strap and Saddle Bracket Method)	\$ 250.00	\$ 0.00
	EA.	Install Sign Mast Arm Hanger Method)	\$ 500.00	\$ 0.00
	EA.	Road Sign - One Post	\$ 400.00	\$ 0.00
	EA.	Road Sign - Two Post	\$ 450.00	\$ 0.00
	EA.	Object Marker - Modified Type "F" Delineator	\$ 90.00	\$ 0.00
	EA.	Delineator (Class 1 Type F)	\$ 60.00	\$ 0.00
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 2,623,705.36
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 655,926.34
	C.	Streets/Drainage Total (A + B)		\$ 3,279,631.70
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 3,279,631.70

Elm Street - Within CCP from Bonita Ave to Esperanza Ave

Sheet 1 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
5,387	TON	Asphalt Concrete: The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF (SF) x (FT) = (CF) (CF) x (152 LBS/CF) ÷ (2,000 LBS/TON) = (TON)	\$ 100.00	\$ 538,703.20
3,750	C.Y.	Aggregate Base (Class II) (SF) x (FT) = (CF) (CF) ÷ (27 CF/C.Y.) = (C.Y.)	\$ 55.00	\$ 206,270.37
7.5	TON	Asphalt Emulsion (Fog Seal & Paint Binder) (SF) ÷ (9 SF/SqYd) = (SqYd) (SqYd) x (0.08 GAL/SqYd) = (GAL) (GAL) ÷ (240 GAL/TON) = (TON)	\$ 1,500.00	\$ 11,251.11
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
10,126	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 405,040.00
	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 0.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
50,630	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 506,300.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00

Elm Street - Within CCP from Bonita Ave to Esperanza Ave

Sheet 2 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
			\$	\$ 0.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00

Sheet 3 of 4

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	L.F.	36" CSP, HDPE, Or Equal	\$ 250.00	\$ 0.00
	L.F.	42" CSP, HDPE, Or Equal	\$ 300.00	\$ 0.00
	L.F.	48" CSP, HDPE, Or Equal	\$ 360.00	\$ 0.00
	L.F.	54" CSP, HDPE, Or Equal	\$ 400.00	\$ 0.00
	L.F.	60" CSP, HDPE, Or Equal	\$ 480.00	\$ 0.00
	EA.	Catch Basin W=4'	\$ 2,800.00	\$ 0.00
	EA.	Catch Basin W=7'	\$ 5,000.00	\$ 0.00
	EA.	Catch Basin W=14'	\$ 10,000.00	\$ 0.00
	EA.	Catch Basin W=21'	\$ 15,000.00	\$ 0.00
	EA.	Catch Basin W=28'	\$ 20,000.00	\$ 0.00
	EA.	Type IX Inlet	\$ 3,000.00	\$ 0.00
	EA.	Type X Inlet	\$ 3,000.00	\$ 0.00
	EA.	Junction Structure No. 1	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 2	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 6	\$ 4,500.00	\$ 0.00
	EA.	Transition Structure No. 1	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 2	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 1	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 2	\$ 4,000.00	\$ 0.00
	EA.	Manhole No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 4	\$ 6,000.00	\$ 0.00
	EA.	Adjust Water Valve to Grade (if no water plan)	\$ 300.00	\$ 0.00
	EA.	Adjust Sewer Manhole to Grade (if no sewer plan)	\$ 1,000.00	\$ 0.00
		SIGNING, STRIPING AND SIGNALS		
	S.F.	Remove Traffic Stripes and Paint Markings	\$ 2.00	\$ 0.00
	EA.	Remove, Sign, Salvage	\$ 150.00	\$ 0.00

Elm Street - Within CCP from Bonita Ave to Esperanza Ave

Sheet 4 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Relocate Roadside Sign	\$ 200.00	\$ 0.00
	EA.	Street Name Sign	\$ 400.00	\$ 0.00
	EA.	Install Sign (Strap and Saddle Bracket Method)	\$ 250.00	\$ 0.00
	EA.	Install Sign Mast Arm Hanger Method)	\$ 500.00	\$ 0.00
	EA.	Road Sign - One Post	\$ 400.00	\$ 0.00
	EA.	Road Sign - Two Post	\$ 450.00	\$ 0.00
	EA.	Object Marker - Modified Type "F" Delineator	\$ 90.00	\$ 0.00
	EA.	Delineator (Class 1 Type F)	\$ 60.00	\$ 0.00
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 1,667,564.68
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 416,891.17
	C.	Streets/Drainage Total (A + B)		\$ 2,084,455.85
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 2,084,455.85

Esperanza Avenue - Within CCP from Orange St to Elm St

Sheet 1 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
12,545	TON	Asphalt Concrete: The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF (SF) x (FT) = (CF) (CF) x (152 LBS/CF) ÷ (2,000 LBS/TON)= (TON)	\$ 100.00	\$ 1,254,456.00
8,733	C.Y.	Aggregate Base (Class II) (SF) x (FT) = (CF) (CF) ÷ (27 CF/C.Y.) = (C.Y.)	\$ 55.00	\$ 480,333.33
17.5	TON	Asphalt Emulsion (Fog Seal & Paint Binder) (SF) ÷ (9 SF/SqYd) = (SqYd) (SqYd) x (0.08 GAL/SqYd) = (GAL) (GAL) ÷ (240 GAL/TON) = (TON)	\$ 1,500.00	\$ 26,200.00
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
23,580	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 943,200.00
	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 0.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
117,900	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 1,179,000.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00

Esperanza Avenue - Within CCP from Orange St to Elm St

Sheet 2 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
			\$	\$ 0.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00

Sheet 3 of 4

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	L.F.	36" CSP, HDPE, Or Equal	\$ 250.00	\$ 0.00
	L.F.	42" CSP, HDPE, Or Equal	\$ 300.00	\$ 0.00
	L.F.	48" CSP, HDPE, Or Equal	\$ 360.00	\$ 0.00
	L.F.	54" CSP, HDPE, Or Equal	\$ 400.00	\$ 0.00
	L.F.	60" CSP, HDPE, Or Equal	\$ 480.00	\$ 0.00
	EA.	Catch Basin W=4'	\$ 2,800.00	\$ 0.00
	EA.	Catch Basin W=7'	\$ 5,000.00	\$ 0.00
	EA.	Catch Basin W=14'	\$ 10,000.00	\$ 0.00
	EA.	Catch Basin W=21'	\$ 15,000.00	\$ 0.00
	EA.	Catch Basin W=28'	\$ 20,000.00	\$ 0.00
	EA.	Type IX Inlet	\$ 3,000.00	\$ 0.00
	EA.	Type X Inlet	\$ 3,000.00	\$ 0.00
	EA.	Junction Structure No. 1	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 2	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 6	\$ 4,500.00	\$ 0.00
	EA.	Transition Structure No. 1	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 2	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 1	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 2	\$ 4,000.00	\$ 0.00
	EA.	Manhole No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 4	\$ 6,000.00	\$ 0.00
	EA.	Adjust Water Valve to Grade (if no water plan)	\$ 300.00	\$ 0.00
	EA.	Adjust Sewer Manhole to Grade (if no sewer plan)	\$ 1,000.00	\$ 0.00
		SIGNING, STRIPING AND SIGNALS		
	S.F.	Remove Traffic Stripes and Paint Markings	\$ 2.00	\$ 0.00
	EA.	Remove, Sign, Salvage	\$ 150.00	\$ 0.00

Esperanza Avenue - Within CCP from Orange St to Elm St

Sheet 4 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Relocate Roadside Sign	\$ 200.00	\$ 0.00
	EA.	Street Name Sign	\$ 400.00	\$ 0.00
	EA.	Install Sign (Strap and Saddle Bracket Method)	\$ 250.00	\$ 0.00
	EA.	Install Sign Mast Arm Hanger Method)	\$ 500.00	\$ 0.00
	EA.	Road Sign - One Post	\$ 400.00	\$ 0.00
	EA.	Road Sign - Two Post	\$ 450.00	\$ 0.00
	EA.	Object Marker - Modified Type "F" Delineator	\$ 90.00	\$ 0.00
	EA.	Delineator (Class 1 Type F)	\$ 60.00	\$ 0.00
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 3,883,189.33
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 970,797.33
	C.	Streets/Drainage Total (A + B)		\$ 4,853,986.67
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 4,853,986.67

Magnolia Street - Within CCP from Bonita Ave to Dolores Ave

Sheet 1 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
2,849	TON	Asphalt Concrete: The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF (SF) x (FT) = (CF) (CF) x (152 LBS/CF) ÷ (2,000 LBS/TON)= (TON)	\$ 100.00	\$ 284,939.20
1,984	C.Y.	Aggregate Base (Class II) (SF) x (FT) = (CF) (CF) ÷ (27 CF/C.Y.) = (C.Y.)	\$ 55.00	\$ 109,103.70
4.0	TON	Asphalt Emulsion (Fog Seal & Paint Binder) (SF) ÷ (9 SF/SqYd) = (SqYd) (SqYd) x (0.08 GAL/SqYd) = (GAL) (GAL) ÷ (240 GAL/TON) = (TON)	\$ 1,500.00	\$ 5,951.11
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
5,356	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 214,240.00
	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 0.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
26,780	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 267,800.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00

Magnolia Street - Within CCP from Bonita Ave to Dolores Ave

Sheet 2 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
			\$	\$ 0.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00

Sheet 3 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT
IMPROVEMENT REQUIREMENT WORKSHEET
STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	L.F.	36" CSP, HDPE, Or Equal	\$ 250.00	\$ 0.00
	L.F.	42" CSP, HDPE, Or Equal	\$ 300.00	\$ 0.00
	L.F.	48" CSP, HDPE, Or Equal	\$ 360.00	\$ 0.00
	L.F.	54" CSP, HDPE, Or Equal	\$ 400.00	\$ 0.00
	L.F.	60" CSP, HDPE, Or Equal	\$ 480.00	\$ 0.00
	EA.	Catch Basin W=4'	\$ 2,800.00	\$ 0.00
	EA.	Catch Basin W=7'	\$ 5,000.00	\$ 0.00
	EA.	Catch Basin W=14'	\$ 10,000.00	\$ 0.00
	EA.	Catch Basin W=21'	\$ 15,000.00	\$ 0.00
	EA.	Catch Basin W=28'	\$ 20,000.00	\$ 0.00
	EA.	Type IX Inlet	\$ 3,000.00	\$ 0.00
	EA.	Type X Inlet	\$ 3,000.00	\$ 0.00
	EA.	Junction Structure No. 1	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 2	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 6	\$ 4,500.00	\$ 0.00
	EA.	Transition Structure No. 1	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 2	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 1	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 2	\$ 4,000.00	\$ 0.00
	EA.	Manhole No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 4	\$ 6,000.00	\$ 0.00
	EA.	Adjust Water Valve to Grade (if no water plan)	\$ 300.00	\$ 0.00
	EA.	Adjust Sewer Manhole to Grade (if no sewer plan)	\$ 1,000.00	\$ 0.00
		SIGNING, STRIPING AND SIGNALS		
	S.F.	Remove Traffic Stripes and Paint Markings	\$ 2.00	\$ 0.00
	EA.	Remove, Sign, Salvage	\$ 150.00	\$ 0.00

Magnolia Street - Within CCP from Bonita Ave to Dolores Ave

Sheet 4 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Relocate Roadside Sign	\$ 200.00	\$ 0.00
	EA.	Street Name Sign	\$ 400.00	\$ 0.00
	EA.	Install Sign (Strap and Saddle Bracket Method)	\$ 250.00	\$ 0.00
	EA.	Install Sign Mast Arm Hanger Method)	\$ 500.00	\$ 0.00
	EA.	Road Sign - One Post	\$ 400.00	\$ 0.00
	EA.	Road Sign - Two Post	\$ 450.00	\$ 0.00
	EA.	Object Marker - Modified Type "F" Delineator	\$ 90.00	\$ 0.00
	EA.	Delineator (Class 1 Type F)	\$ 60.00	\$ 0.00
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 882,034.01
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 220,508.50
	C.	Streets/Drainage Total (A + B)		\$ 1,102,542.52
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 1,102,542.52

Main Street - Within CCP from Apache Trail to Seminole Dr

Sheet 1 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
23,324	TON	Asphalt Concrete: The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF (SF) x (FT) = (CF) (CF) x (152 LBS/CF) ÷ (2,000 LBS/TON)= (TON)	\$ 100.00	\$ 2,332,385.28
12,629	C.Y.	Aggregate Base (Class II) (SF) x (FT) = (CF) (CF) ÷ (27 CF/C.Y.) = (C.Y.)	\$ 55.00	\$ 694,613.33
25.3	TON	Asphalt Emulsion (Fog Seal & Paint Binder) (SF) ÷ (9 SF/SqYd) = (SqYd) (SqYd) x (0.08 GAL/SqYd) = (GAL) (GAL) ÷ (240 GAL/TON) = (TON)	\$ 1,500.00	\$ 37,888.00
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 0.00
20,500	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 922,500.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
51,250	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 512,500.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00

Main Street - Within CCP from Apache Trail to Seminole Dr

Sheet 2 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
			\$	\$ 0.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00

Sheet 3 of 4

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	L.F.	36" CSP, HDPE, Or Equal	\$ 250.00	\$ 0.00
	L.F.	42" CSP, HDPE, Or Equal	\$ 300.00	\$ 0.00
	L.F.	48" CSP, HDPE, Or Equal	\$ 360.00	\$ 0.00
	L.F.	54" CSP, HDPE, Or Equal	\$ 400.00	\$ 0.00
	L.F.	60" CSP, HDPE, Or Equal	\$ 480.00	\$ 0.00
	EA.	Catch Basin W=4'	\$ 2,800.00	\$ 0.00
	EA.	Catch Basin W=7'	\$ 5,000.00	\$ 0.00
	EA.	Catch Basin W=14'	\$ 10,000.00	\$ 0.00
	EA.	Catch Basin W=21'	\$ 15,000.00	\$ 0.00
	EA.	Catch Basin W=28'	\$ 20,000.00	\$ 0.00
	EA.	Type IX Inlet	\$ 3,000.00	\$ 0.00
	EA.	Type X Inlet	\$ 3,000.00	\$ 0.00
	EA.	Junction Structure No. 1	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 2	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 6	\$ 4,500.00	\$ 0.00
	EA.	Transition Structure No. 1	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 2	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 1	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 2	\$ 4,000.00	\$ 0.00
	EA.	Manhole No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 4	\$ 6,000.00	\$ 0.00
	EA.	Adjust Water Valve to Grade (if no water plan)	\$ 300.00	\$ 0.00
	EA.	Adjust Sewer Manhole to Grade (if no sewer plan)	\$ 1,000.00	\$ 0.00
		SIGNING, STRIPING AND SIGNALS		
	S.F.	Remove Traffic Stripes and Paint Markings	\$ 2.00	\$ 0.00
	EA.	Remove, Sign, Salvage	\$ 150.00	\$ 0.00

Main Street - Within CCP from Apache Trail to Seminole Dr

Sheet 4 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Relocate Roadside Sign	\$ 200.00	\$ 0.00
	EA.	Street Name Sign	\$ 400.00	\$ 0.00
	EA.	Install Sign (Strap and Saddle Bracket Method)	\$ 250.00	\$ 0.00
	EA.	Install Sign Mast Arm Hanger Method)	\$ 500.00	\$ 0.00
	EA.	Road Sign - One Post	\$ 400.00	\$ 0.00
	EA.	Road Sign - Two Post	\$ 450.00	\$ 0.00
	EA.	Object Marker - Modified Type "F" Delineator	\$ 90.00	\$ 0.00
	EA.	Delineator (Class 1 Type F)	\$ 60.00	\$ 0.00
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 4,499,886.61
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 1,124,971.65
	C.	Streets/Drainage Total (A + B)		\$ 5,624,858.27
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 5,624,858.27

Olive Street - Within CCP from Bonita Ave to Carmen Ave

Sheet 1 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
1,467	TON	Asphalt Concrete: The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF (SF) x (FT) = (CF) (CF) x (152 LBS/CF) ÷ (2,000 LBS/TON) = (TON)	\$ 100.00	\$ 146,725.60
1,021	C.Y.	Aggregate Base (Class II) (SF) x (FT) = (CF) (CF) ÷ (27 CF/C.Y.) = (C.Y.)	\$ 55.00	\$ 56,181.48
2.0	TON	Asphalt Emulsion (Fog Seal & Paint Binder) (SF) ÷ (9 SF/SqYd) = (SqYd) (SqYd) x (0.08 GAL/SqYd) = (GAL) (GAL) ÷ (240 GAL/TON) = (TON)	\$ 1,500.00	\$ 3,064.44
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
2,758	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 110,320.00
	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 0.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
13,790	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 137,900.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00

Olive Street - Within CCP from Bonita Ave to Carmen Ave

Sheet 2 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
			\$	\$ 0.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00

Sheet 3 of 4

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Olive Street - Within CCP from Bonita Ave to Carmen Ave

Sheet 4 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Relocate Roadside Sign	\$ 200.00	\$ 0.00
	EA.	Street Name Sign	\$ 400.00	\$ 0.00
	EA.	Install Sign (Strap and Saddle Bracket Method)	\$ 250.00	\$ 0.00
	EA.	Install Sign Mast Arm Hanger Method)	\$ 500.00	\$ 0.00
	EA.	Road Sign - One Post	\$ 400.00	\$ 0.00
	EA.	Road Sign - Two Post	\$ 450.00	\$ 0.00
	EA.	Object Marker - Modified Type "F" Delineator	\$ 90.00	\$ 0.00
	EA.	Delineator (Class 1 Type F)	\$ 60.00	\$ 0.00
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 454,191.53
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 113,547.88
	C.	Streets/Drainage Total (A + B)		\$ 567,739.41
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 567,739.41

Orange Street - Within CCP from Bonita Ave to Esperanza Ave

Sheet 1 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
4,237	TON	Asphalt Concrete: The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF (SF) x (FT) = (CF) (CF) x (152 LBS/CF) ÷ (2,000 LBS/TON) = (TON)	\$ 100.00	\$ 423,684.80
2,950	C.Y.	Aggregate Base (Class II) (SF) x (FT) = (CF) (CF) ÷ (27 CF/C.Y.) = (C.Y.)	\$ 55.00	\$ 162,229.63
5.9	TON	Asphalt Emulsion (Fog Seal & Paint Binder) (SF) ÷ (9 SF/SqYd) = (SqYd) (SqYd) x (0.08 GAL/SqYd) = (GAL) (GAL) ÷ (240 GAL/TON) = (TON)	\$ 1,500.00	\$ 8,848.89
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
7,964	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 318,560.00
	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 0.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
39,820	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 398,200.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00

Orange Street - Within CCP from Bonita Ave to Esperanza Ave

Sheet 2 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
			\$	\$ 0.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00

Sheet 3 of 4

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	L.F.	36" CSP, HDPE, Or Equal	\$ 250.00	\$ 0.00
	L.F.	42" CSP, HDPE, Or Equal	\$ 300.00	\$ 0.00
	L.F.	48" CSP, HDPE, Or Equal	\$ 360.00	\$ 0.00
	L.F.	54" CSP, HDPE, Or Equal	\$ 400.00	\$ 0.00
	L.F.	60" CSP, HDPE, Or Equal	\$ 480.00	\$ 0.00
	EA.	Catch Basin W=4'	\$ 2,800.00	\$ 0.00
	EA.	Catch Basin W=7'	\$ 5,000.00	\$ 0.00
	EA.	Catch Basin W=14'	\$ 10,000.00	\$ 0.00
	EA.	Catch Basin W=21'	\$ 15,000.00	\$ 0.00
	EA.	Catch Basin W=28'	\$ 20,000.00	\$ 0.00
	EA.	Type IX Inlet	\$ 3,000.00	\$ 0.00
	EA.	Type X Inlet	\$ 3,000.00	\$ 0.00
	EA.	Junction Structure No. 1	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 2	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 6	\$ 4,500.00	\$ 0.00
	EA.	Transition Structure No. 1	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 2	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 1	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 2	\$ 4,000.00	\$ 0.00
	EA.	Manhole No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 4	\$ 6,000.00	\$ 0.00
	EA.	Adjust Water Valve to Grade (if no water plan)	\$ 300.00	\$ 0.00
	EA.	Adjust Sewer Manhole to Grade (if no sewer plan)	\$ 1,000.00	\$ 0.00
		SIGNING, STRIPING AND SIGNALS		
	S.F.	Remove Traffic Stripes and Paint Markings	\$ 2.00	\$ 0.00
	EA.	Remove, Sign, Salvage	\$ 150.00	\$ 0.00

Orange Street - Within CCP from Bonita Ave to Esperanza Ave

Sheet 4 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Relocate Roadside Sign	\$ 200.00	\$ 0.00
	EA.	Street Name Sign	\$ 400.00	\$ 0.00
	EA.	Install Sign (Strap and Saddle Bracket Method)	\$ 250.00	\$ 0.00
	EA.	Install Sign Mast Arm Hanger Method)	\$ 500.00	\$ 0.00
	EA.	Road Sign - One Post	\$ 400.00	\$ 0.00
	EA.	Road Sign - Two Post	\$ 450.00	\$ 0.00
	EA.	Object Marker - Modified Type "F" Delineator	\$ 90.00	\$ 0.00
	EA.	Delineator (Class 1 Type F)	\$ 60.00	\$ 0.00
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 1,311,523.32
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 327,880.83
	C.	Streets/Drainage Total (A + B)		\$ 1,639,404.15
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 1,639,404.15

Portion of Railroad Avenue - Outside of CCP, Within Tribal Lands

Sheet 1 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
4,591	TON	Asphalt Concrete: The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF (SF) x (FT) = (CF) (CF) x (152 LBS/CF) ÷ (2,000 LBS/TON)= (TON)	\$ 100.00	\$ 459,052.16
3,196	C.Y.	Aggregate Base (Class II) (SF) x (FT) = (CF) (CF) ÷ (27 CF/C.Y.) = (C.Y.)	\$ 55.00	\$ 175,771.85
6.4	TON	Asphalt Emulsion (Fog Seal & Paint Binder) (SF) ÷ (9 SF/SqYd) = (SqYd) (SqYd) x (0.08 GAL/SqYd) = (GAL) (GAL) ÷ (240 GAL/TON) = (TON)	\$ 1,500.00	\$ 9,587.56
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
10,786	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 431,440.00
	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 0.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
32,358	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 323,580.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00

Portion of Railroad Avenue - Outside of CCP, Within Tribal Lands

Sheet 2 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
			\$	\$ 0.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00

Sheet 3 of 4

STREET IMPROVEMENTS

SIGNING, STRIPING AND SIGNALS

Portion of Railroad Avenue - Outside of CCP, Within Tribal Lands

Sheet 4 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Relocate Roadside Sign	\$ 200.00	\$ 0.00
	EA.	Street Name Sign	\$ 400.00	\$ 0.00
	EA.	Install Sign (Strap and Saddle Bracket Method)	\$ 250.00	\$ 0.00
	EA.	Install Sign Mast Arm Hanger Method)	\$ 500.00	\$ 0.00
	EA.	Road Sign - One Post	\$ 400.00	\$ 0.00
	EA.	Road Sign - Two Post	\$ 450.00	\$ 0.00
	EA.	Object Marker - Modified Type "F" Delineator	\$ 90.00	\$ 0.00
	EA.	Delineator (Class 1 Type F)	\$ 60.00	\$ 0.00
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 1,399,431.57
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 349,857.89
	C.	Streets/Drainage Total (A + B)		\$ 1,749,289.46
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 1,749,289.46

Portion of Railroad Avenue - Within CCP

Sheet 1 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
10,737	TON	Asphalt Concrete: The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF (SF) x (FT) = (CF) (CF) x (152 LBS/CF) ÷ (2,000 LBS/TON)= (TON)	\$ 100.00	\$ 1,073,709.00
7,475	C.Y.	Aggregate Base (Class II) (SF) x (FT) = (CF) (CF) ÷ (27 CF/C.Y.) = (C.Y.)	\$ 55.00	\$ 411,125.00
15.0	TON	Asphalt Emulsion (Fog Seal & Paint Binder) (SF) ÷ (9 SF/SqYd) = (SqYd) (SqYd) x (0.08 GAL/SqYd) = (GAL) (GAL) ÷ (240 GAL/TON) = (TON)	\$ 1,500.00	\$ 22,425.00
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
26,910	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 1,076,400.00
	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 0.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
80,730	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 807,300.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00

Portion of Railroad Avenue - Within CCP

Sheet 2 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
			\$	\$ 0.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00

Sheet 3 of 4

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	L.F.	36" CSP, HDPE, Or Equal	\$ 250.00	\$ 0.00
	L.F.	42" CSP, HDPE, Or Equal	\$ 300.00	\$ 0.00
	L.F.	48" CSP, HDPE, Or Equal	\$ 360.00	\$ 0.00
	L.F.	54" CSP, HDPE, Or Equal	\$ 400.00	\$ 0.00
	L.F.	60" CSP, HDPE, Or Equal	\$ 480.00	\$ 0.00
	EA.	Catch Basin W=4'	\$ 2,800.00	\$ 0.00
	EA.	Catch Basin W=7'	\$ 5,000.00	\$ 0.00
	EA.	Catch Basin W=14'	\$ 10,000.00	\$ 0.00
	EA.	Catch Basin W=21'	\$ 15,000.00	\$ 0.00
	EA.	Catch Basin W=28'	\$ 20,000.00	\$ 0.00
	EA.	Type IX Inlet	\$ 3,000.00	\$ 0.00
	EA.	Type X Inlet	\$ 3,000.00	\$ 0.00
	EA.	Junction Structure No. 1	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 2	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 6	\$ 4,500.00	\$ 0.00
	EA.	Transition Structure No. 1	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 2	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 1	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 2	\$ 4,000.00	\$ 0.00
	EA.	Manhole No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 4	\$ 6,000.00	\$ 0.00
	EA.	Adjust Water Valve to Grade (if no water plan)	\$ 300.00	\$ 0.00
	EA.	Adjust Sewer Manhole to Grade (if no sewer plan)	\$ 1,000.00	\$ 0.00
		SIGNING, STRIPING AND SIGNALS		
	S.F.	Remove Traffic Stripes and Paint Markings	\$ 2.00	\$ 0.00
	EA.	Remove, Sign, Salvage	\$ 150.00	\$ 0.00

Portion of Railroad Avenue - Within CCP

Sheet 4 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Relocate Roadside Sign	\$ 200.00	\$ 0.00
	EA.	Street Name Sign	\$ 400.00	\$ 0.00
	EA.	Install Sign (Strap and Saddle Bracket Method)	\$ 250.00	\$ 0.00
	EA.	Install Sign Mast Arm Hanger Method)	\$ 500.00	\$ 0.00
	EA.	Road Sign - One Post	\$ 400.00	\$ 0.00
	EA.	Road Sign - Two Post	\$ 450.00	\$ 0.00
	EA.	Object Marker - Modified Type "F" Delineator	\$ 90.00	\$ 0.00
	EA.	Delineator (Class 1 Type F)	\$ 60.00	\$ 0.00
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 3,390,959.00
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 847,739.75
	C.	Streets/Drainage Total (A + B)		\$ 4,238,698.75
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 4,238,698.75

Portion of Seminole Drive - Outside CCP, Within Tribal Lands

Sheet 1 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
27,823	TON	Asphalt Concrete: The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF (SF) x (FT) = (CF) (CF) x (152 LBS/CF) ÷ (2,000 LBS/TON)= (TON)	\$ 100.00	\$ 2,782,306.80
15,066	C.Y.	Aggregate Base (Class II) (SF) x (FT) = (CF) (CF) ÷ (27 CF/C.Y.) = (C.Y.)	\$ 55.00	\$ 828,605.56
30.1	TON	Asphalt Emulsion (Fog Seal & Paint Binder) (SF) ÷ (9 SF/SqYd) = (SqYd) (SqYd) x (0.08 GAL/SqYd) = (GAL) (GAL) ÷ (240 GAL/TON) = (TON)	\$ 1,500.00	\$ 45,196.67
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
27,118	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 1,084,720.00
	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 0.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
135,590	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 1,355,900.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00

Portion of Seminole Drive - Outside CCP, Within Tribal Lands

Sheet 2 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
			\$	\$ 0.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00

Sheet 3 of 4

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	L.F.	36" CSP, HDPE, Or Equal	\$ 250.00	\$ 0.00
	L.F.	42" CSP, HDPE, Or Equal	\$ 300.00	\$ 0.00
	L.F.	48" CSP, HDPE, Or Equal	\$ 360.00	\$ 0.00
	L.F.	54" CSP, HDPE, Or Equal	\$ 400.00	\$ 0.00
	L.F.	60" CSP, HDPE, Or Equal	\$ 480.00	\$ 0.00
	EA.	Catch Basin W=4'	\$ 2,800.00	\$ 0.00
	EA.	Catch Basin W=7'	\$ 5,000.00	\$ 0.00
	EA.	Catch Basin W=14'	\$ 10,000.00	\$ 0.00
	EA.	Catch Basin W=21'	\$ 15,000.00	\$ 0.00
	EA.	Catch Basin W=28'	\$ 20,000.00	\$ 0.00
	EA.	Type IX Inlet	\$ 3,000.00	\$ 0.00
	EA.	Type X Inlet	\$ 3,000.00	\$ 0.00
	EA.	Junction Structure No. 1	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 2	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 6	\$ 4,500.00	\$ 0.00
	EA.	Transition Structure No. 1	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 2	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 1	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 2	\$ 4,000.00	\$ 0.00
	EA.	Manhole No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 4	\$ 6,000.00	\$ 0.00
	EA.	Adjust Water Valve to Grade (if no water plan)	\$ 300.00	\$ 0.00
	EA.	Adjust Sewer Manhole to Grade (if no sewer plan)	\$ 1,000.00	\$ 0.00
		SIGNING, STRIPING AND SIGNALS		
	S.F.	Remove Traffic Stripes and Paint Markings	\$ 2.00	\$ 0.00
	EA.	Remove, Sign, Salvage	\$ 150.00	\$ 0.00

Portion of Seminole Drive - Outside CCP, Within Tribal Lands

Sheet 4 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Relocate Roadside Sign	\$ 200.00	\$ 0.00
	EA.	Street Name Sign	\$ 400.00	\$ 0.00
	EA.	Install Sign (Strap and Saddle Bracket Method)	\$ 250.00	\$ 0.00
	EA.	Install Sign Mast Arm Hanger Method)	\$ 500.00	\$ 0.00
	EA.	Road Sign - One Post	\$ 400.00	\$ 0.00
	EA.	Road Sign - Two Post	\$ 450.00	\$ 0.00
	EA.	Object Marker - Modified Type "F" Delineator	\$ 90.00	\$ 0.00
	EA.	Delineator (Class 1 Type F)	\$ 60.00	\$ 0.00
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 6,096,729.02
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 1,524,182.26
	C.	Streets/Drainage Total (A + B)		\$ 7,620,911.28
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 7,620,911.28

Portion of Seminole Drive - Within CCP

Sheet 1 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
32,844	TON	Asphalt Concrete: The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF (SF) x (FT) = (CF) (CF) x (152 LBS/CF) ÷ (2,000 LBS/TON)= (TON)	\$ 100.00	\$ 3,284,431.20
17,784	C.Y.	Aggregate Base (Class II) (SF) x (FT) = (CF) (CF) ÷ (27 CF/C.Y.) = (C.Y.)	\$ 55.00	\$ 978,144.44
35.6	TON	Asphalt Emulsion (Fog Seal & Paint Binder) (SF) ÷ (9 SF/SqYd) = (SqYd) (SqYd) x (0.08 GAL/SqYd) = (GAL) (GAL) ÷ (240 GAL/TON) = (TON)	\$ 1,500.00	\$ 53,353.33
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
20,396	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 815,840.00
9,190	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 413,550.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
147,930	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 1,479,300.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00

Portion of Seminole Drive - Within CCP

Sheet 2 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
			\$	\$ 0.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00

Sheet 3 of 4

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	L.F.	36" CSP, HDPE, Or Equal	\$ 250.00	\$ 0.00
	L.F.	42" CSP, HDPE, Or Equal	\$ 300.00	\$ 0.00
	L.F.	48" CSP, HDPE, Or Equal	\$ 360.00	\$ 0.00
	L.F.	54" CSP, HDPE, Or Equal	\$ 400.00	\$ 0.00
	L.F.	60" CSP, HDPE, Or Equal	\$ 480.00	\$ 0.00
	EA.	Catch Basin W=4'	\$ 2,800.00	\$ 0.00
	EA.	Catch Basin W=7'	\$ 5,000.00	\$ 0.00
	EA.	Catch Basin W=14'	\$ 10,000.00	\$ 0.00
	EA.	Catch Basin W=21'	\$ 15,000.00	\$ 0.00
	EA.	Catch Basin W=28'	\$ 20,000.00	\$ 0.00
	EA.	Type IX Inlet	\$ 3,000.00	\$ 0.00
	EA.	Type X Inlet	\$ 3,000.00	\$ 0.00
	EA.	Junction Structure No. 1	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 2	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 6	\$ 4,500.00	\$ 0.00
	EA.	Transition Structure No. 1	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 2	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 1	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 2	\$ 4,000.00	\$ 0.00
	EA.	Manhole No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 4	\$ 6,000.00	\$ 0.00
	EA.	Adjust Water Valve to Grade (if no water plan)	\$ 300.00	\$ 0.00
	EA.	Adjust Sewer Manhole to Grade (if no sewer plan)	\$ 1,000.00	\$ 0.00
		SIGNING, STRIPING AND SIGNALS		
	S.F.	Remove Traffic Stripes and Paint Markings	\$ 2.00	\$ 0.00
	EA.	Remove, Sign, Salvage	\$ 150.00	\$ 0.00

Portion of Seminole Drive - Within CCP

Sheet 4 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Relocate Roadside Sign	\$ 200.00	\$ 0.00
	EA.	Street Name Sign	\$ 400.00	\$ 0.00
	EA.	Install Sign (Strap and Saddle Bracket Method)	\$ 250.00	\$ 0.00
	EA.	Install Sign Mast Arm Hanger Method)	\$ 500.00	\$ 0.00
	EA.	Road Sign - One Post	\$ 400.00	\$ 0.00
	EA.	Road Sign - Two Post	\$ 450.00	\$ 0.00
	EA.	Object Marker - Modified Type "F" Delineator	\$ 90.00	\$ 0.00
	EA.	Delineator (Class 1 Type F)	\$ 60.00	\$ 0.00
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 7,024,618.98
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 1,756,154.74
	C.	Streets/Drainage Total (A + B)		\$ 8,780,773.72
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 8,780,773.72

"A" Street - Interchange Improvements Within CCP

Sheet 1 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
10,033	TON	Asphalt Concrete: The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF (SF) x (FT) = (CF) (CF) x (152 LBS/CF) ÷ (2,000 LBS/TON) = (TON)	\$ 100.00	\$ 1,003,304.88
5,433	C.Y.	Aggregate Base (Class II) (SF) x (FT) = (CF) (CF) ÷ (27 CF/C.Y.) = (C.Y.)	\$ 55.00	\$ 298,796.67
10.9	TON	Asphalt Emulsion (Fog Seal & Paint Binder) (SF) ÷ (9 SF/SqYd) = (SqYd) (SqYd) x (0.08 GAL/SqYd) = (GAL) (GAL) ÷ (240 GAL/TON) = (TON)	\$ 1,500.00	\$ 16,298.00
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
4,122	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 164,880.00
4,224	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 190,080.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
41,730	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 417,300.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00

"A" Street - Interchange Improvements Within CCP

Sheet 2 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
			\$	\$ 0.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00

Sheet 3 of 4

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	L.F.	36" CSP, HDPE, Or Equal	\$ 250.00	\$ 0.00
	L.F.	42" CSP, HDPE, Or Equal	\$ 300.00	\$ 0.00
	L.F.	48" CSP, HDPE, Or Equal	\$ 360.00	\$ 0.00
	L.F.	54" CSP, HDPE, Or Equal	\$ 400.00	\$ 0.00
	L.F.	60" CSP, HDPE, Or Equal	\$ 480.00	\$ 0.00
	EA.	Catch Basin W=4'	\$ 2,800.00	\$ 0.00
	EA.	Catch Basin W=7'	\$ 5,000.00	\$ 0.00
	EA.	Catch Basin W=14'	\$ 10,000.00	\$ 0.00
	EA.	Catch Basin W=21'	\$ 15,000.00	\$ 0.00
	EA.	Catch Basin W=28'	\$ 20,000.00	\$ 0.00
	EA.	Type IX Inlet	\$ 3,000.00	\$ 0.00
	EA.	Type X Inlet	\$ 3,000.00	\$ 0.00
	EA.	Junction Structure No. 1	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 2	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 6	\$ 4,500.00	\$ 0.00
	EA.	Transition Structure No. 1	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 2	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 1	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 2	\$ 4,000.00	\$ 0.00
	EA.	Manhole No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 4	\$ 6,000.00	\$ 0.00
	EA.	Adjust Water Valve to Grade (if no water plan)	\$ 300.00	\$ 0.00
	EA.	Adjust Sewer Manhole to Grade (if no sewer plan)	\$ 1,000.00	\$ 0.00
		SIGNING, STRIPING AND SIGNALS		
	S.F.	Remove Traffic Stripes and Paint Markings	\$ 2.00	\$ 0.00
	EA.	Remove, Sign, Salvage	\$ 150.00	\$ 0.00

"A" Street - Interchange Improvements Within CCP

Sheet 4 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Relocate Roadside Sign	\$ 200.00	\$ 0.00
	EA.	Street Name Sign	\$ 400.00	\$ 0.00
	EA.	Install Sign (Strap and Saddle Bracket Method)	\$ 250.00	\$ 0.00
	EA.	Install Sign Mast Arm Hanger Method)	\$ 500.00	\$ 0.00
	EA.	Road Sign - One Post	\$ 400.00	\$ 0.00
	EA.	Road Sign - Two Post	\$ 450.00	\$ 0.00
	EA.	Object Marker - Modified Type "F" Delineator	\$ 90.00	\$ 0.00
	EA.	Delineator (Class 1 Type F)	\$ 60.00	\$ 0.00
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 2,090,659.55
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 522,664.89
	C.	Streets/Drainage Total (A + B)		\$ 2,613,324.43
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 2,613,324.43

Bonita Avenue - Interchange Improvements, Within CCP from Apache Trail to Elm St

Sheet 1 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
40,427	TON	Asphalt Concrete: The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF (SF) x (FT) = (CF) (CF) x (152 LBS/CF) ÷ (2,000 LBS/TON)= (TON)	\$ 100.00	\$ 4,042,686.24
21,890	C.Y.	Aggregate Base (Class II) (SF) x (FT) = (CF) (CF) ÷ (27 CF/C.Y.) = (C.Y.)	\$ 55.00	\$ 1,203,962.22
43.8	TON	Asphalt Emulsion (Fog Seal & Paint Binder) (SF) ÷ (9 SF/SqYd) = (SqYd) (SqYd) x (0.08 GAL/SqYd) = (GAL) (GAL) ÷ (240 GAL/TON) = (TON)	\$ 1,500.00	\$ 65,670.67
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 0.00
31,702	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 1,426,590.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
158,510	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 1,585,100.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00

Bonita Avenue - Interchange Improvements, Within CCP from Apache Trail to Elm St

Sheet 2 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
			\$	\$ 0.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00

Sheet 3 of 4

IMPROVEMENT REQUIREMENT WORKSHEET

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	L.F.	36" CSP, HDPE, Or Equal	\$ 250.00	\$ 0.00
	L.F.	42" CSP, HDPE, Or Equal	\$ 300.00	\$ 0.00
	L.F.	48" CSP, HDPE, Or Equal	\$ 360.00	\$ 0.00
	L.F.	54" CSP, HDPE, Or Equal	\$ 400.00	\$ 0.00
	L.F.	60" CSP, HDPE, Or Equal	\$ 480.00	\$ 0.00
	EA.	Catch Basin W=4'	\$ 2,800.00	\$ 0.00
	EA.	Catch Basin W=7'	\$ 5,000.00	\$ 0.00
	EA.	Catch Basin W=14'	\$ 10,000.00	\$ 0.00
	EA.	Catch Basin W=21'	\$ 15,000.00	\$ 0.00
	EA.	Catch Basin W=28'	\$ 20,000.00	\$ 0.00
	EA.	Type IX Inlet	\$ 3,000.00	\$ 0.00
	EA.	Type X Inlet	\$ 3,000.00	\$ 0.00
	EA.	Junction Structure No. 1	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 2	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 6	\$ 4,500.00	\$ 0.00
	EA.	Transition Structure No. 1	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 2	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 1	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 2	\$ 4,000.00	\$ 0.00
	EA.	Manhole No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 4	\$ 6,000.00	\$ 0.00
	EA.	Adjust Water Valve to Grade (if no water plan)	\$ 300.00	\$ 0.00
	EA.	Adjust Sewer Manhole to Grade (if no sewer plan)	\$ 1,000.00	\$ 0.00
		SIGNING, STRIPING AND SIGNALS		
	S.F.	Remove Traffic Stripes and Paint Markings	\$ 2.00	\$ 0.00
	EA.	Remove, Sign, Salvage	\$ 150.00	\$ 0.00

Bonita Avenue - Interchange Improvements, Within CCP from Apache Trail to Elm St

Sheet 4 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Relocate Roadside Sign	\$ 200.00	\$ 0.00
	EA.	Street Name Sign	\$ 400.00	\$ 0.00
	EA.	Install Sign (Strap and Saddle Bracket Method)	\$ 250.00	\$ 0.00
	EA.	Install Sign Mast Arm Hanger Method)	\$ 500.00	\$ 0.00
	EA.	Road Sign - One Post	\$ 400.00	\$ 0.00
	EA.	Road Sign - Two Post	\$ 450.00	\$ 0.00
	EA.	Object Marker - Modified Type "F" Delineator	\$ 90.00	\$ 0.00
	EA.	Delineator (Class 1 Type F)	\$ 60.00	\$ 0.00
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 8,324,009.13
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 2,081,002.28
	C.	Streets/Drainage Total (A + B)		\$ 10,405,011.41
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 10,405,011.41

Orange Street - Interchange Improvements, Within CCP from Bonita Ave to Esperanza Ave

Sheet 1 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
10,503	TON	Asphalt Concrete: The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF (SF) x (FT) = (CF) (CF) x (152 LBS/CF) ÷ (2,000 LBS/TON)= (TON)	\$ 100.00	\$ 1,050,295.68
5,687	C.Y.	Aggregate Base (Class II) (SF) x (FT) = (CF) (CF) ÷ (27 CF/C.Y.) = (C.Y.)	\$ 55.00	\$ 312,791.11
11.4	TON	Asphalt Emulsion (Fog Seal & Paint Binder) (SF) ÷ (9 SF/SqYd) = (SqYd) (SqYd) x (0.08 GAL/SqYd) = (GAL) (GAL) ÷ (240 GAL/TON) = (TON)	\$ 1,500.00	\$ 17,061.33
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 0.00
7,964	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 358,380.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
39,820	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 398,200.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00

Orange Street - Interchange Improvements, Within CCP from Bonita Ave to Esperanza Ave

Sheet 2 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
			\$	\$ 0.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00

Sheet 3 of 4

STREET IMPROVEMENTS

SIGNING, STRIPING AND SIGNALS

Orange Street - Interchange Improvements, Within CCP from Bonita Ave to Esperanza Ave

Sheet 4 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Relocate Roadside Sign	\$ 200.00	\$ 0.00
	EA.	Street Name Sign	\$ 400.00	\$ 0.00
	EA.	Install Sign (Strap and Saddle Bracket Method)	\$ 250.00	\$ 0.00
	EA.	Install Sign Mast Arm Hanger Method)	\$ 500.00	\$ 0.00
	EA.	Road Sign - One Post	\$ 400.00	\$ 0.00
	EA.	Road Sign - Two Post	\$ 450.00	\$ 0.00
	EA.	Object Marker - Modified Type "F" Delineator	\$ 90.00	\$ 0.00
	EA.	Delineator (Class 1 Type F)	\$ 60.00	\$ 0.00
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 2,136,728.12
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 534,182.03
	C.	Streets/Drainage Total (A + B)		\$ 2,670,910.16
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 2,670,910.16

Main Street - Interchange Improvements, Within CCP from Apache Trail to "A" Street

Sheet 1 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
2,594	TON	Asphalt Concrete: The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF (SF) x (FT) = (CF) (CF) x (152 LBS/CF) ÷ (2,000 LBS/TON)= (TON)	\$ 100.00	\$ 259,352.28
1,404	C.Y.	Aggregate Base (Class II) (SF) x (FT) = (CF) (CF) ÷ (27 CF/C.Y.) = (C.Y.)	\$ 55.00	\$ 77,238.33
2.8	TON	Asphalt Emulsion (Fog Seal & Paint Binder) (SF) ÷ (9 SF/SqYd) = (SqYd) (SqYd) x (0.08 GAL/SqYd) = (GAL) (GAL) ÷ (240 GAL/TON) = (TON)	\$ 1,500.00	\$ 4,213.00
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 0.00
2,298	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 103,410.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
5,745	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 57,450.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00

Main Street - Interchange Improvements, Within CCP from Apache Trail to "A" Street

Sheet 2 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
			\$	\$ 0.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00

Sheet 3 of 4

IMPROVEMENT REQUIREMENT WORKSHEET

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	L.F.	36" CSP, HDPE, Or Equal	\$ 250.00	\$ 0.00
	L.F.	42" CSP, HDPE, Or Equal	\$ 300.00	\$ 0.00
	L.F.	48" CSP, HDPE, Or Equal	\$ 360.00	\$ 0.00
	L.F.	54" CSP, HDPE, Or Equal	\$ 400.00	\$ 0.00
	L.F.	60" CSP, HDPE, Or Equal	\$ 480.00	\$ 0.00
	EA.	Catch Basin W=4'	\$ 2,800.00	\$ 0.00
	EA.	Catch Basin W=7'	\$ 5,000.00	\$ 0.00
	EA.	Catch Basin W=14'	\$ 10,000.00	\$ 0.00
	EA.	Catch Basin W=21'	\$ 15,000.00	\$ 0.00
	EA.	Catch Basin W=28'	\$ 20,000.00	\$ 0.00
	EA.	Type IX Inlet	\$ 3,000.00	\$ 0.00
	EA.	Type X Inlet	\$ 3,000.00	\$ 0.00
	EA.	Junction Structure No. 1	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 2	\$ 3,800.00	\$ 0.00
	EA.	Junction Structure No. 6	\$ 4,500.00	\$ 0.00
	EA.	Transition Structure No. 1	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 2	\$ 15,000.00	\$ 0.00
	EA.	Transition Structure No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 1	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 2	\$ 4,000.00	\$ 0.00
	EA.	Manhole No. 3	\$ 3,500.00	\$ 0.00
	EA.	Manhole No. 4	\$ 6,000.00	\$ 0.00
	EA.	Adjust Water Valve to Grade (if no water plan)	\$ 300.00	\$ 0.00
	EA.	Adjust Sewer Manhole to Grade (if no sewer plan)	\$ 1,000.00	\$ 0.00
		SIGNING, STRIPING AND SIGNALS		
	S.F.	Remove Traffic Stripes and Paint Markings	\$ 2.00	\$ 0.00
	EA.	Remove, Sign, Salvage	\$ 150.00	\$ 0.00

Main Street - Interchange Improvements, Within CCP from Apache Trail to "A" Street

Sheet 4 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Relocate Roadside Sign	\$ 200.00	\$ 0.00
	EA.	Street Name Sign	\$ 400.00	\$ 0.00
	EA.	Install Sign (Strap and Saddle Bracket Method)	\$ 250.00	\$ 0.00
	EA.	Install Sign Mast Arm Hanger Method)	\$ 500.00	\$ 0.00
	EA.	Road Sign - One Post	\$ 400.00	\$ 0.00
	EA.	Road Sign - Two Post	\$ 450.00	\$ 0.00
	EA.	Object Marker - Modified Type "F" Delineator	\$ 90.00	\$ 0.00
	EA.	Delineator (Class 1 Type F)	\$ 60.00	\$ 0.00
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 501,663.61
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 125,415.90
	C.	Streets/Drainage Total (A + B)		\$ 627,079.52
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 627,079.52

"A" Street Interchange

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
	TON	<u>Asphalt Concrete:</u> The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF $\left(\frac{\text{SF}}{\text{CF}} \right) \times \left(\frac{\text{FT}}{\text{CF}} \right) = \left(\frac{\text{CF}}{\text{CF}} \right)$ $\left(\frac{\text{CF}}{\text{CF}} \right) \times (152 \text{ LBS/CF}) \div (2,000 \text{ LBS/TON}) = \left(\frac{\text{TON}}{\text{TON}} \right)$	\$ 100.00	\$ 0.00
	C.Y.	Aggregate Base (Class II) $\left(\frac{\text{SF}}{\text{CF}} \right) \times \left(\frac{\text{FT}}{\text{CF}} \right) = \left(\frac{\text{CF}}{\text{CF}} \right)$ $\left(\frac{\text{CF}}{\text{CF}} \right) \div (27 \text{ CF/C.Y.}) = \left(\frac{\text{C.Y.}}{\text{C.Y.}} \right)$	\$ 55.00	\$ 0.00
	TON	Asphalt Emulsion (Fog Seal & Paint Binder) $\left(\frac{\text{SF}}{\text{SF}} \right) \div (9 \text{ SF/SqYd}) = \left(\frac{\text{SqYd}}{\text{SqYd}} \right)$ $\left(\frac{\text{SqYd}}{\text{SqYd}} \right) \times (0.08 \text{ GAL/SqYd}) = \left(\frac{\text{GAL}}{\text{GAL}} \right)$ $\left(\frac{\text{GAL}}{\text{GAL}} \right) \div (240 \text{ GAL/TON}) = \left(\frac{\text{TON}}{\text{TON}} \right)$	\$ 1,500.00	\$ 0.00
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 0.00
	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 0.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 0.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00

"A" Street Interchange

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
1	EA.	Interchange Improvements	\$ 100,000,000.00	\$ 100,000,000.00
1	EA.	Railroad Grade Separation	\$ 30,000,000.00	\$ 30,000,000.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00
	L.F.	36" CSP, HDPE, Or Equal	\$ 250.00	\$ 0.00
	L.F.	42" CSP, HDPE, Or Equal	\$ 300.00	\$ 0.00
	L.F.	48" CSP, HDPE, Or Equal	\$ 360.00	\$ 0.00
	L.F.	54" CSP, HDPE, Or Equal	\$ 400.00	\$ 0.00
	L.F.	60" CSP, HDPE, Or Equal	\$ 480.00	\$ 0.00

[illegible]

"A" Street Interchange

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 130,000,000.00
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 32,500,000.00
	C.	Streets/Drainage Total (A + B)		\$ 162,500,000.00
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 162,500,000.00

Morongo Parkway Overpass, Interchange and Grade Separation

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
	TON	<u>Asphalt Concrete:</u> The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF $\left(\frac{\text{SF}}{\text{CF}} \right) \times \left(\frac{\text{FT}}{\text{CF}} \right) = \left(\frac{\text{CF}}{\text{CF}} \right)$ $\left(\frac{\text{CF}}{\text{CF}} \right) \times (152 \text{ LBS/CF}) \div (2,000 \text{ LBS/TON}) = \left(\frac{\text{TON}}{\text{TON}} \right)$	\$ 100.00	\$ 0.00
	C.Y.	Aggregate Base (Class II) $\left(\frac{\text{SF}}{\text{CF}} \right) \times \left(\frac{\text{FT}}{\text{CF}} \right) = \left(\frac{\text{CF}}{\text{CF}} \right)$ $\left(\frac{\text{CF}}{\text{CF}} \right) \div (27 \text{ CF/C.Y.}) = \left(\frac{\text{C.Y.}}{\text{C.Y.}} \right)$	\$ 55.00	\$ 0.00
	TON	Asphalt Emulsion (Fog Seal & Paint Binder) $\left(\frac{\text{SF}}{\text{SF}} \right) \div (9 \text{ SF/SqYd}) = \left(\frac{\text{SqYd}}{\text{SqYd}} \right)$ $\left(\frac{\text{SqYd}}{\text{SqYd}} \right) \times (0.08 \text{ GAL/SqYd}) = \left(\frac{\text{GAL}}{\text{GAL}} \right)$ $\left(\frac{\text{GAL}}{\text{GAL}} \right) \div (240 \text{ GAL/TON}) = \left(\frac{\text{TON}}{\text{TON}} \right)$	\$ 1,500.00	\$ 0.00
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 0.00
	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 0.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 0.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00

Morongo Parkway Overpass, Interchange and Grade Separation

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
1	EA.	Interchange Improvements	\$ 120,000,000.00	\$ 120,000,000.00
1	EA.	Railroad Grade Separation	\$ 30,000,000.00	\$ 30,000,000.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00
	L.F.	36" CSP, HDPE, Or Equal	\$ 250.00	\$ 0.00
	L.F.	42" CSP, HDPE, Or Equal	\$ 300.00	\$ 0.00
	L.F.	48" CSP, HDPE, Or Equal	\$ 360.00	\$ 0.00
	L.F.	54" CSP, HDPE, Or Equal	\$ 400.00	\$ 0.00
	L.F.	60" CSP, HDPE, Or Equal	\$ 480.00	\$ 0.00

UNIT COSTS 1/30/2024

FORMAT 1/30/24

Morongo Parkway Overpass, Interchange and Grade Separation

Morongo Parkway Overpass, Interchange and Grade Separation

Morongo Parkway Overpass, Interchange and Grade Separation

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 150,000,000.00
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 37,500,000.00
	C.	Streets/Drainage Total (A + B)		\$ 187,500,000.00
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 187,500,000.00

Morongo Parkway - Interchange Improvements Outside CCP, Within Tribal Lands

Sheet 1 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
8,689	TON	Asphalt Concrete: The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF (SF) x (FT) = (CF) (CF) x (152 LBS/CF) ÷ (2,000 LBS/TON)= (TON)	\$ 100.00	\$ 868,898.88
4,705	C.Y.	Aggregate Base (Class II) (SF) x (FT) = (CF) (CF) ÷ (27 CF/C.Y.) = (C.Y.)	\$ 55.00	\$ 258,768.89
9.4	TON	Asphalt Emulsion (Fog Seal & Paint Binder) (SF) ÷ (9 SF/SqYd) = (SqYd) (SqYd) x (0.08 GAL/SqYd) = (GAL) (GAL) ÷ (240 GAL/TON) = (TON)	\$ 1,500.00	\$ 14,114.67
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 0.00
6,774	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 304,830.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
33,870	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 338,700.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00

Morongo Parkway - Interchange Improvements Outside CCP, Within Tribal Lands

Sheet 2 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
			\$	\$ 0.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00

Sheet 3 of 4

STREET IMPROVEMENTS

SIGNING, STRIPING AND SIGNALS

Morongo Parkway - Interchange Improvements Outside CCP, Within Tribal Lands

Sheet 4 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Relocate Roadside Sign	\$ 200.00	\$ 0.00
	EA.	Street Name Sign	\$ 400.00	\$ 0.00
	EA.	Install Sign (Strap and Saddle Bracket Method)	\$ 250.00	\$ 0.00
	EA.	Install Sign Mast Arm Hanger Method)	\$ 500.00	\$ 0.00
	EA.	Road Sign - One Post	\$ 400.00	\$ 0.00
	EA.	Road Sign - Two Post	\$ 450.00	\$ 0.00
	EA.	Object Marker - Modified Type "F" Delineator	\$ 90.00	\$ 0.00
	EA.	Delineator (Class 1 Type F)	\$ 60.00	\$ 0.00
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 1,785,312.44
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 446,328.11
	C.	Streets/Drainage Total (A + B)		\$ 2,231,640.54
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 2,231,640.54

Portion of Seminole Drive - Interchange Improvements Outside CCP, Within Tribal Lands

Sheet 1 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
28,344	TON	Asphalt Concrete: The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF (SF) x (FT) = (CF) (CF) x (152 LBS/CF) ÷ (2,000 LBS/TON)= (TON)	\$ 100.00	\$ 2,834,427.60
15,348	C.Y.	Aggregate Base (Class II) (SF) x (FT) = (CF) (CF) ÷ (27 CF/C.Y.) = (C.Y.)	\$ 55.00	\$ 844,127.78
30.7	TON	Asphalt Emulsion (Fog Seal & Paint Binder) (SF) ÷ (9 SF/SqYd) = (SqYd) (SqYd) x (0.08 GAL/SqYd) = (GAL) (GAL) ÷ (240 GAL/TON) = (TON)	\$ 1,500.00	\$ 46,043.33
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
27,626	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 1,105,040.00
	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 0.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
138,130	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 1,381,300.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00

Portion of Seminole Drive - Interchange Improvements Outside CCP, Within Tribal Lands

Sheet 2 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
			\$	\$ 0.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00

Sheet 3 of 4

STREET IMPROVEMENTS

SIGNING, STRIPING AND SIGNALS

Portion of Seminole Drive - Interchange Improvements Outside CCP, Within Tribal Lands

Sheet 4 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Relocate Roadside Sign	\$ 200.00	\$ 0.00
	EA.	Street Name Sign	\$ 400.00	\$ 0.00
	EA.	Install Sign (Strap and Saddle Bracket Method)	\$ 250.00	\$ 0.00
	EA.	Install Sign Mast Arm Hanger Method)	\$ 500.00	\$ 0.00
	EA.	Road Sign - One Post	\$ 400.00	\$ 0.00
	EA.	Road Sign - Two Post	\$ 450.00	\$ 0.00
	EA.	Object Marker - Modified Type "F" Delineator	\$ 90.00	\$ 0.00
	EA.	Delineator (Class 1 Type F)	\$ 60.00	\$ 0.00
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 6,210,938.71
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 1,552,734.68
	C.	Streets/Drainage Total (A + B)		\$ 7,763,673.39
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 7,763,673.39

Portion of Seminole Drive - Interchange Improvements Within CCP

Sheet 1 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
		ROADWAY EXCAVATION		
		All costs in order to construct in the Road R/W shall be included, including Grading. Provide the total Cut and Fill in both (a.) & (b.) and provide the net difference to account for trucking costs.		
	C.Y.	(a.) Cut	\$ 25.00	\$ 0.00
	C.Y.	(b.) Fill	\$ 25.00	\$ 0.00
	C.Y.	(c.) Net Import/Export for Trucking Costs	\$ 15.00	\$ 0.00
		ROADWAY REMOVALS		
	L.F.	Sawcut Existing AC Pavement	\$ 1.50	\$ 0.00
	S.Y.	Grinding AC, in place	\$ 3.00	\$ 0.00
	S.Y.	Remove AC Pavement	\$ 2.00	\$ 0.00
	L.F.	Remove Curb and Gutter	\$ 15.00	\$ 0.00
	L.F.	Remove AC Dike	\$ 3.50	\$ 0.00
	EA.	Relocate Mailbox	\$ 500.00	\$ 0.00
	L.F.	Remove Chain Link Fence	\$ 8.00	\$ 0.00
	L.F.	Remove Barricade	\$ 15.00	\$ 0.00
		ROADWAY CONSTRUCTION		
42,747	TON	Asphalt Concrete: The total AC volume in Cubic Feet is converted to Tons, based on AC unit wt. of 152LBS/CF (SF) x (FT) = (CF) (CF) x (152 LBS/CF) ÷ (2,000 LBS/TON)= (TON)	\$ 100.00	\$ 4,274,726.40
23,147	C.Y.	Aggregate Base (Class II) (SF) x (FT) = (CF) (CF) ÷ (27 CF/C.Y.) = (C.Y.)	\$ 55.00	\$ 1,273,066.67
46.3	TON	Asphalt Emulsion (Fog Seal & Paint Binder) (SF) ÷ (9 SF/SqYd) = (SqYd) (SqYd) x (0.08 GAL/SqYd) = (GAL) (GAL) ÷ (240 GAL/TON) = (TON)	\$ 1,500.00	\$ 69,440.00
Type in total AC Square Footage and convert to Square Yards. Multiply the Square Yards of AC by the total Gallons of Asphalt Emulsion needed, 0.08 GAL/S.Y. (0.05 GAL/S.Y. Fog Seal, and 0.03 GAL/S.Y. Paint Binder) Then Convert the Gallons to Tons.				
	S.F.	Cold Plane AC Overlay (Joining Ex. Pavement)	\$ 4.00	\$ 0.00
26,048	L.F.	Curb and Gutter (Type A-6)	\$ 40.00	\$ 1,041,920.00
9,190	L.F.	Curb and Gutter (Type A-8)	\$ 45.00	\$ 413,550.00
	L.F.	Type "C" Curb	\$ 40.00	\$ 0.00
	L.F.	Type "D-1" Curb	\$ 30.00	\$ 0.00
	L.F.	Type "D" Curb	\$ 35.00	\$ 0.00
	L.F.	AC Dike (6")(incl. material & labor)	\$ 20.00	\$ 0.00
	L.F.	AC Dike (8")(incl. material & labor)	\$ 25.00	\$ 0.00
	S.F.	P.C.C. Cross Gutter and Spandrels	\$ 20.00	\$ 0.00
176,190	S.F.	P.C.C. Sidewalk	\$ 10.00	\$ 1,761,900.00
	S.F.	P.C.C. Drive Approach	\$ 15.00	\$ 0.00
	S.F.	P.C.C. Dip Section, Std. No. 307	\$ 20.00	\$ 0.00

Portion of Seminole Drive - Interchange Improvements Within CCP

Sheet 2 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Curb Ramp	\$ 5,000.00	\$ 0.00
	C.Y.	Structural Reinforced Concrete (e.g. Ret. & Wing Walls)	\$ 1,500.00	\$ 0.00
	L.F.	Barricade, Std. No. 810	\$ 120.00	\$ 0.00
	EA.	Metal Beam Guard Rail End Treatment	\$ 5,000.00	\$ 0.00
	L.F.	Utility Trench, one side (Edison, Telephone, Cable) (Total length of Streets)	\$ 12.00	\$ 0.00
	L.F.	Chain Link Fence (6')	\$ 30.00	\$ 0.00
	L.F.	Relocate Fence	\$ 40.00	\$ 0.00
	EA.	Pipe Swing Gate	\$ 2,500.00	\$ 0.00
	EA.	Relocate Power Distribution Pole	\$ 40,000.00	\$ 0.00
	EA.	Relocate Power Transmission Pole	\$ 200,000.00	\$ 0.00
	EA.	Street Lights (including conduit)	\$ 5,900.00	\$ 0.00
			\$	\$ 0.00
		ROADWAY DRAINAGE CONSTRUCTION		
	EA.	Concrete Bulkhead	\$ 2,500.00	\$ 0.00
	EA.	Pipe Slope Anchors	\$ 400.00	\$ 0.00
	C.Y.	Cut Off Wall	\$ 500.00	\$ 0.00
	EA.	AC Overside Drain	\$ 2,500.00	\$ 0.00
	EA.	Under Sidewalk Drain Std. No. 309	\$ 2,500.00	\$ 0.00
	EA.	Flat Outlet Drainage Structure Std. No. 303	\$ 2,500.00	\$ 0.00
	EA.	Curb Outlet Drainage Structure Std. No. 308	\$ 9,000.00	\$ 0.00
	EA.	Private Drainage Structure Std. No. 310	\$ 700.00	\$ 0.00
	S.F.	Terrace Drain & Down Drain	\$ 10.00	\$ 0.00
	S.F.	Interceptor Drain	\$ 10.00	\$ 0.00
	C.Y.	R.C. Box Culvert	\$ 1,500.00	\$ 0.00
	C.Y.	Concrete Channel	\$ 550.00	\$ 0.00
	C.Y.	Rip Rap (No. 2 Backing)	\$ 80.00	\$ 0.00
	C.Y.	Rip Rap (1/4 Ton)	\$ 130.00	\$ 0.00
	C.Y.	Rip Rap (1/2 Ton)	\$ 180.00	\$ 0.00
	C.Y.	Rip Rap (1 Ton)	\$ 230.00	\$ 0.00
	C.Y.	Rip Rap (2 Ton)	\$ 270.00	\$ 0.00
	C.Y.	Rip Rap Grouting (Enter same Quantity as Rip Rap size above)	\$ 30.00	\$ 0.00
	L.F.	18" RCP Or Arch 21" x 15" RCP	\$ 120.00	\$ 0.00
	L.F.	24" RCP Or Arch 28" x 20" RCP	\$ 150.00	\$ 0.00
	L.F.	30" RCP Or Arch 35" x 24" RCP	\$ 180.00	\$ 0.00
	L.F.	36" RCP Or Arch 42" x 29" RCP	\$ 260.00	\$ 0.00
	L.F.	42" RCP Or Arch 49" x 33" RCP	\$ 350.00	\$ 0.00
	L.F.	48" RCP Or Arch 57" x 38" RCP	\$ 430.00	\$ 0.00
	L.F.	54" RCP Or Arch 64" x 43" RCP	\$ 550.00	\$ 0.00
	L.F.	60" RCP Or Arch 71" x 47" RCP	\$ 600.00	\$ 0.00
	L.F.	18" CSP, HDPE, Or Equal	\$ 80.00	\$ 0.00
	L.F.	24" CSP, HDPE, Or Equal	\$ 140.00	\$ 0.00
	L.F.	30" CSP, HDPE, Or Equal	\$ 180.00	\$ 0.00

Sheet 3 of 4

STREET IMPROVEMENTS

SIGNING, STRIPING AND SIGNALS

Portion of Seminole Drive - Interchange Improvements Within CCP

Sheet 4 of 4

RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT REQUIREMENT WORKSHEET STREET IMPROVEMENTS

QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
	EA.	Relocate Roadside Sign	\$ 200.00	\$ 0.00
	EA.	Street Name Sign	\$ 400.00	\$ 0.00
	EA.	Install Sign (Strap and Saddle Bracket Method)	\$ 250.00	\$ 0.00
	EA.	Install Sign Mast Arm Hanger Method)	\$ 500.00	\$ 0.00
	EA.	Road Sign - One Post	\$ 400.00	\$ 0.00
	EA.	Road Sign - Two Post	\$ 450.00	\$ 0.00
	EA.	Object Marker - Modified Type "F" Delineator	\$ 90.00	\$ 0.00
	EA.	Delineator (Class 1 Type F)	\$ 60.00	\$ 0.00
	EA.	Delineator (Class 2)	\$ 120.00	\$ 0.00
	EA.	Pavement Marker, Reflective	\$ 5.00	\$ 0.00
	L.F.	Paint Traffic Stripe (2 Coats)	\$ 0.50	\$ 0.00
	L.F.	6" Thermoplastic Traffic Stripe	\$ 1.00	\$ 0.00
	L.F.	8" Thermoplastic Traffic Stripe	\$ 1.50	\$ 0.00
	S.F.	Thermoplastic Pavement Marking	\$ 3.00	\$ 0.00
	S.F.	Thermoplastic Cross Walk and Pavement Marking	\$ 6.00	\$ 0.00
	EA.	Signal and Lighting	\$ 500,000.00	\$ 0.00
		LANDSCAPING		
	S.F.	Maintenance Walk Std. No. 113	\$ 15.00	\$ 0.00
	S.F.	Colored Stamped Concrete	\$ 15.00	\$ 0.00
	EA.	Street Trees (15 Gallon)	\$ 150.00	\$ 0.00
	EA.	Street Trees (24 Gallon)	\$ 300.00	\$ 0.00
	EA.	Street Trees (36 Gallon)	\$ 850.00	\$ 0.00
	EA.	Shrub Plant Material (1 Gallon)	\$ 10.00	\$ 0.00
	EA.	Shrub Plant Material (5 Gallon)	\$ 25.00	\$ 0.00
	S.F.	Irrigation	\$ 5.00	\$ 0.00
	C.Y.	Landscape Fill Material	\$ 45.00	\$ 0.00
	EA.	Water Meter (Update with Water District costs)	\$ 10,000.00	\$ 0.00
	EA.	Electric Meter	\$ 10,000.00	\$ 0.00
	A.	Subtotal		\$ 8,834,603.07
	B.	Administrative Contingency (Enter % =>) NOTE: Use 25% for TR and PM (or MS for MAP cases) Use 5% for PP, CU, PU, MS and VL Cases	25%	\$ 2,208,650.77
	C.	Streets/Drainage Total (A + B)		\$ 11,043,253.83
	D.	Additional 20% Bond amount for recordation prior to signed plans, per ORD.460, SEC. 10.3E		\$ 0.00
	E.	Streets/Drainage Total (C + D)		\$ 11,043,253.83

APPENDIX C – Existing Condition Atlas Summary

CABAZON COMMUNITY PLAN

EXISTING CONDITIONS INFRASTRUCTURE SUMMARY

Prepared for:

**RIVERSIDE COUNTY TRANSPORTATION AND LAND
MANAGEMENT AGENCY**

Prepared by:



**July 2024
First Draft**

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SECTION 1 - INTRODUCTION

■ Project Location

The Cabazon Community Plan (CCP) is located approximately 90 miles east of Los Angeles and 120 miles north of San Diego, in western Riverside County. The Community is bound by the City of Banning to the west, the Cities of Desert Hot Springs and Palm Springs to the east, and unincorporated areas of Riverside County to the north and south. The Morongo Reservation is located in the San Bernardino Mountains to the north, while the Cleveland National Forest is located to the south. **Figure 1-1** shows the general vicinity of the Community Plan.

The Cabazon Community Plan terrain ranges in elevation from 1,275 feet at the southeast corner within the San Geronio River to a maximum of 4,000 feet above sea level at the southern edge of the boundary with the Cleveland National Forest.

Figure 1-1 Cabazon Community Area General Vicinity Map



■ Purpose

The purpose of this Existing Condition Infrastructure Summary is to analyze existing infrastructure, responsible agencies, and their limitations or excess capacities within the Cabazon Community Plan and will serve as the baseline for determining enhancements to the existing infrastructure based on the proposal land uses with the Cabazon Community Plan.

SECTION 2 - INFRASTRUCTURE AND UTILITIES

■ Utilities and Service Systems

This section describes the existing water, wastewater, non-potable water, storm drainage, and water quality infrastructure within the Cabazon Community Plan.

The following three water districts operate within Cabazon Community Plan:

Desert Water Agency (DWA) – DWA provides water, wastewater, reclaimed water, irrigation water, and groundwater recharge services to unincorporated Riverside County areas, part of Cathedral City, and most of Palm Springs, which encompasses a total area of 325 square miles. The DWA service boundary includes approximately 110 acres in the southeast corner of Cabazon Community Plan. As of date of report, DWA has not provided system information.

Mission Springs Water District (MSWD) – MSWD provides water and wastewater services to the City of Desert Hot Springs, a portion of the City of Palm Springs, and ten smaller communities in unincorporated Riverside County, which encompasses a total area of 135 square miles. The MSWD service boundary includes approximately 2,901 acres in the easternmost edge of Cabazon Community Plan. The overall MSWD water system currently includes 24 different pressure zones. Within these pressure zones, there are approximately 1.26 million linear feet (240 miles) of pipelines ranging in diameter from 2 inches to 16 inches, 20 storage tanks with an approximate total storage capacity of 20 million gallons (MG), 11 booster pump stations, and 13 groundwater wells.

Cabazon Water District (CWD) – CWD provides water services to the community of Cabazon, which encompasses an area of approximately 12.5 square miles. The CWD service boundary includes approximately 6,275 acres in the Cabazon Community Plan. CWD water system currently includes approximately 0.21 million feet (40 miles) of pipelines ranging in diameter from 4 inches to 16 inches, 3 well pumping plants with an approximate total production capacity of 2,250 gallons per minute (gpm), 3 storage reservoirs with an approximate total storage capacity of 2.5 million gallons (MG). As of date of report, CWD does not have a wastewater collection system.

■ Water System

As of date of report, DWA has not provided system information.

The primary water supply source of MSWD for water systems is groundwater obtained through 13 production wells. An emergency source of water for MSWD is the Coachella Valley Water District (CVWD) via 2 interconnections, which can be utilized on a temporary and very limited basis. MSWD provides water system services to more than 13,500 retail water customers.

CWD pumps groundwater via 3 well pumping plants with an approximate total production capacity of 2,250 gallons per minute (gpm). CWD provides water service for domestic consumption and fire protection to approximately 1,000 service connections.

Existing Potable Water System

The DWA does not have any existing water facilities within the Cabazon Community Plan, although the service area boundary for DWA overlaps the southeast corner of the Cabazon Community Plan.

The existing MSWD distribution system within Cabazon Community Plan consists of two independent systems: Palm Springs Crest and West Palm Springs. Combined, these water systems consist of 2 storage tanks, and 4 groundwater wells. As of date of report, MSWD has not provided system information.

The existing CWD distribution system within Cabazon Community Plan consists of 3 storage reservoirs, 4 wells, and approximately 40 miles of pipeline.

Groundwater Wells

There are 4 MSWD operating production wells (Well 25, 25A, 26, and 26A) within the Cabazon Community Plan. In the project area, the total capacity of active wells is 1,095 gallons per minute (gpm).

CWD operates 4 wells within the Cabazon Community Plan.

Water Pump Stations

There are no booster pumps operated by MSWD within the Cabazon Community Plan.

There are no booster pumps operated by CWD within the Cabazon Community Plan.

Water Tanks

There are 2 MSWD water storage tanks (Woodridge Tank and Cottonwood Tank) located within the Cabazon Community Plan. The total capacity of these tanks is 0.40 mg.

CWD operates 3 water storage tanks (Tanks 2, 3, and 4) within the Cabazon Community Plan.

Distribution Network System

DWA does not have any water distribution facilities within the Cabazon Community Plan. It operates water lines, which range in diameter from 4 inches to 20 inches, approximately 2 miles outside of the project area.

MSWD distribution system network consists of pipes which range in diameter from 4 inches to 8 inches within the project area. As of date of report, MSWD has not provided system information.

CWD distribution system network consists of approximately 40 miles of pipeline, which range in diameter from 4 inches to 16 inches within the Cabazon Community Plan.

■ Recycled Water

DWA, MSWD, and CWD do not provide recycled water services within the Cabazon Community Plan.

■ Wastewater and Sewer

Portions of the Cabazon Community Plan are within DWA, MSWD, and CWD service area boundaries. However, the DWA sanitary sewer collection area is limited to its boundary within the City of Cathedral City, the MWSD sanitary sewer collection area is concentrated in the town of Desert Hot Springs, and CWD does not provide sewer services. Currently, Cabazon Community Area relies on individual sewage disposal systems (ISDS), commonly referred to as septic systems, for sewage disposal.

Wastewater Treatment Plant (WWTP)

There are no Wastewater Treatment Plants (WWTP) within the Cabazon Community Plan. However, there are two WWTP in the near vicinity to the project area: City of Banning WWTP and Morongo WWTP. These WWTPs are located outside of the Community Plan boundary and are owned and maintained by the City of Banning and the Morongo Band of Mission Indians Wastewater Department, respectively.

■ Storm Drainage

Riverside County Flood Control and Water Conservation District (RCFC&WCD) is responsible for the maintenance and operation of flood control facilities including debris dams, storm channels, and storm drains. The district's facilities are the backbone system of flood control in the Cabazon Community Plan. The County also owns and maintains certain flood control facilities that are generally constructed as part of the drainage plans for individual projects and are not under the authority of RCFC&WCD.

The existing storm drain facilities within the Community Plan boundary can be separated to four major categories based on the maintenance responsibility:

County and privately owned and maintained facilities – RCFC&WCD has an online GIS mapping showing both District facilities and City/County facilities. The County facilities range from underground pipe systems and concrete lined channels to culverts, typically crossing Seminole Drive and Main Street. Some of the storm drain systems are privately owned and maintained. Some of the City/County facilities shown on the District GIS map may be duplications of Caltrans or Railroad facilities.

The District (RCFC&WCD) owned and maintained facilities – The Cabazon Community Plan is located in the District's Zone 5. It is not located within a Master Drainage Plan (MDP), but it is located east of Banning MDP and west of Garnet Wash MDP. Cabazon Channel and Cottonwood Canyon Wash are two District facilities within the Cabazon Community Plan that convey flows from northerly mountainous areas, under I-10 Freeway, and discharge them into the San Geronio River. The Smith Creek Channel is a District facility located within Banning which outlets storm flows into the San Geronio River at the western edge of the Community Plan boundary.

Caltrans facilities – Integrated with the construction of I-10 Freeway in 1960's, many drainage culverts were constructed within the State R/W to allow the stormwater runoff to cross under I-10 Freeway along the existing natural drainage courses and to provide for de-watering of the freeway. These culverts are maintained by Caltrans. Typically, neither culvert design capacity nor hydraulics data are depicted on the "as built" plans. For any extension, connection or modifications of these culverts, a Caltrans encroachment permit would need to be obtained.

Railroad facilities – Integrated with the construction of the Railroad in 1875, many drainage culverts were constructed within the Railroad R/W to allow the stormwater runoff to cross under the railroad along the existing natural drainage courses. At the date of the report, the agency responsible for the ownership and maintenance of the culverts is unknown.

Federal Emergency Management Agency (FEMA) Flood Hazard Zones

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs), the Cabazon Community Plan is within and adjacent to 1% Annual Chance (100-year) Flood Hazard Zones (Zone A) and Areas of Undetermined Flood Hazard Zones (Zone D). The FEMA Flood Hazard Map identifies the Cabazon Community Plan within FIRM panels 06065C0837G, 06065C0839G, 06065C0845G, 06065C0855G, 06065C0860G, 06065C0865G, and 06065C0870G. The Flood Hazard Zones in relation to the Site are mapped on the “Existing Wastewater Facilities and Flood Hazard Zones in the Cabazon Community Plan” Exhibit. The Flood Hazard Zones correlate to San Gorgonio River and natural water courses within Millard Canyon and Stubble Canyon that discharge flows into the river. Development within Cabazon Community Plan will need to take the 100-year Flood Hazard Zone into account in its designs. If structures cannot avoid the 100-year Flood Hazard Zone, then the structures will need to be elevated up and out of the base flood elevation of the floodplain, and a Conditional Letter of Map Revision (CLOMR) followed with a Letter of Map Recordation (LOMR) will have to be submitted by the County to FEMA for approval.

■ Dry Utilities

This section describes the existing electrical and gas infrastructure within the Cabazon Community Plan.

Southern California Edison: Electrical Lines

Multiple overhead, sub-transmission, and transmission electrical lines run across the northern edge of the Cabazon Community Plan. These lines are owned and operated by Southern California Edison (SCE). Dirt access roads connect the transmission towers.

Another overhead line is located south of Esperanza Avenue. It runs through the south-central portion of the Cabazon Community Plan. Dirt access roads connect the transmission towers.

Southern California Edison: Electrical Substations

There are 2 substations operated by Southern California Edison (SCE) in the Cabazon Community Plan. Outlet P.T. Substation is located on the northwest side of Cabazon Community Plan and includes two 12 kV circuits, the Purchase Circuit and the Stores Circuit. The Cabazon Substation is located on the west-central area of Cabazon Community Plan and includes two 12 kV circuits, the Fingal Circuit and the Poppet Flats Circuit. An additional 33 kV circuit, the Stubby Circuit, runs between these two substations. Moreover, multiple transmission circuits run throughout the region. The following **Table 2-1** tabulates the circuit size and available power of each substation and circuit.

Table 2-1 Electrical Substation and Circuit Available Power

Name	Circuit Size (kV)	Power Available (MW)
Outlet P.T. Substation	-	4.72
Purchase Circuit	12	7.24
Stores Circuit	12	2.32
Cabazon Substation	-	10.97
Fingal Circuit	12	2.91
Poppet Flats Circuit	12	2.95
Stubby Circuit	33	10.47

The Purchase Circuit, the Stores Circuit, and the Poppet Flats Circuit extend beyond the northern boundary of the Cabazon Community Plan, into Morongo Reservation. The Fingal Circuit extends beyond the southern boundary of the Community Plan, into the Cleveland National Forest. The Toll Circuit and the Snowcreek Circuit are located to the east and southeast, respectively, outside of the Cabazon Community Plan boundary.

The northeastern, southern, and eastern sides of the Cabazon Community Plan are nearing capacity on the existing circuits. The central part of Cabazon Community Plan has available capacity.

Southern California Gas Company: Gas

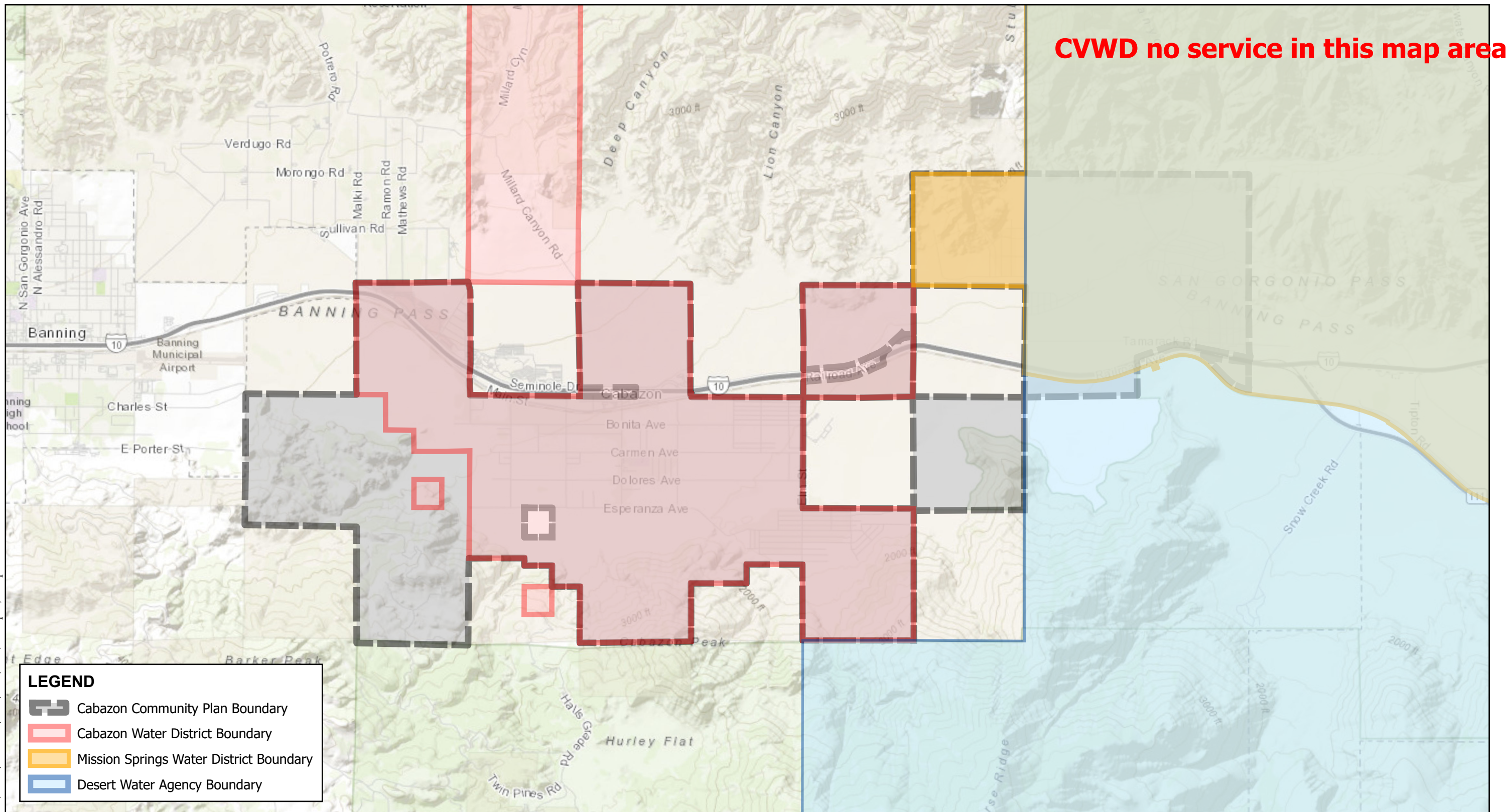
Southern California Gas Company (SCG) operates two transmission mains that run through Cabazon Community Area, one north of I-10 and one south. SCG has distribution mains throughout the area that have capacity to serve future developments within Cabazon Community Plan.

Kinder Morgan: Oil Lines

Kinder Morgan operates two oil main lines (12 inches and 16 inches) that traverse between the City of Banning and the northwest portion of the project area. This is shown on the “Dry Utilities Map – Gas and Oil” Exhibit.

APPENDIX A – Exhibits

H:\2023\23-3320\GIS\Pro\Pro.aprx; Map created 07 Mar 2024



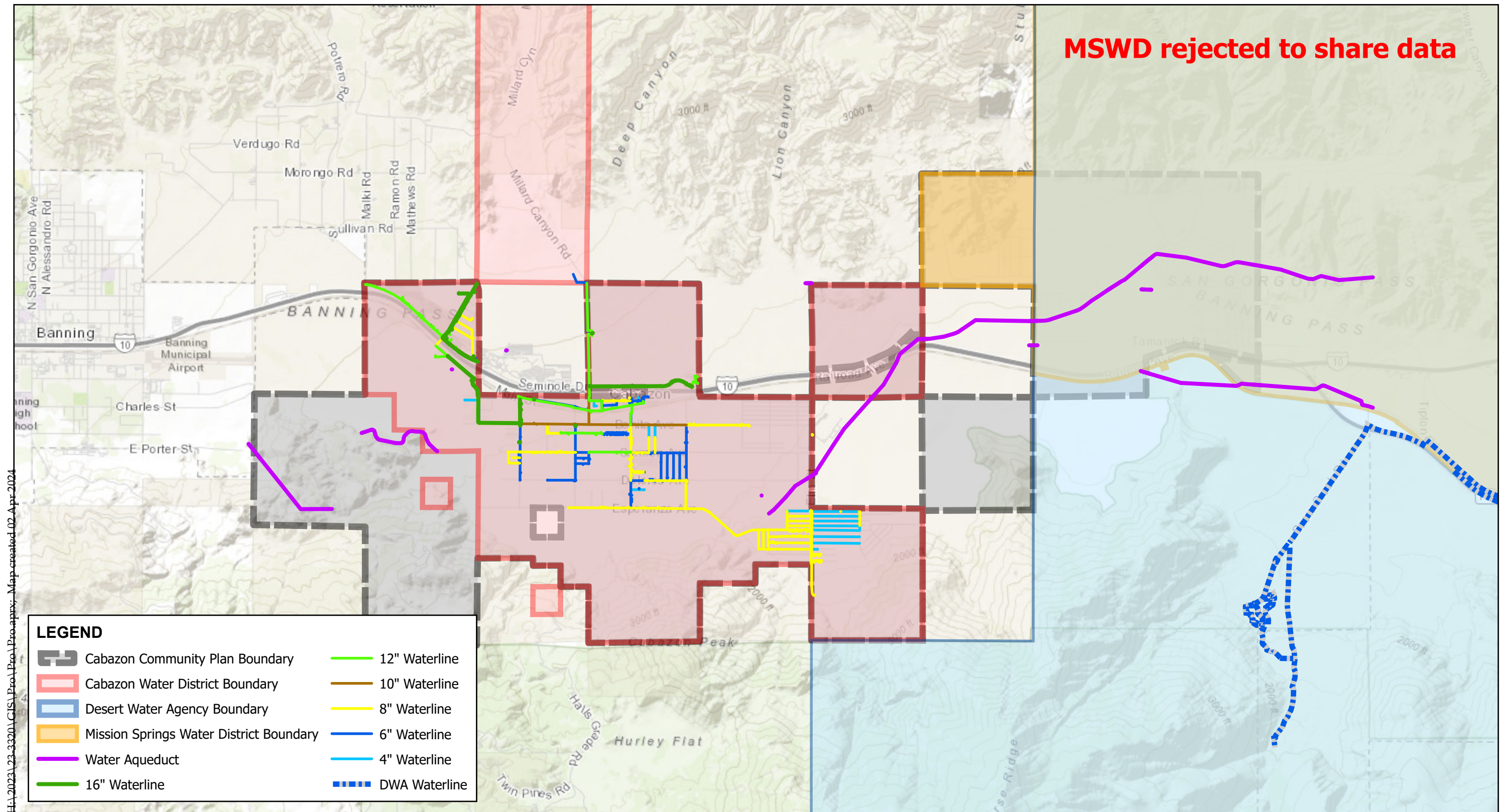
Sources: Riverside Co. GIS, 2024;
CVWD, 2024; DWA, 2024; MSWD, 2024; CWD, 2024.

Existing Water District Boundaries
TLMA Cabazon Community Infrastructure Improvement Plan



0 1 2 3 Miles

ALBERT A.
WEBB
ASSOCIATES



Sources: Riverside Co. GIS, 2024;
CVWD, 2024; DWA, 2024; MSWD, 2024; CWD, 2024.

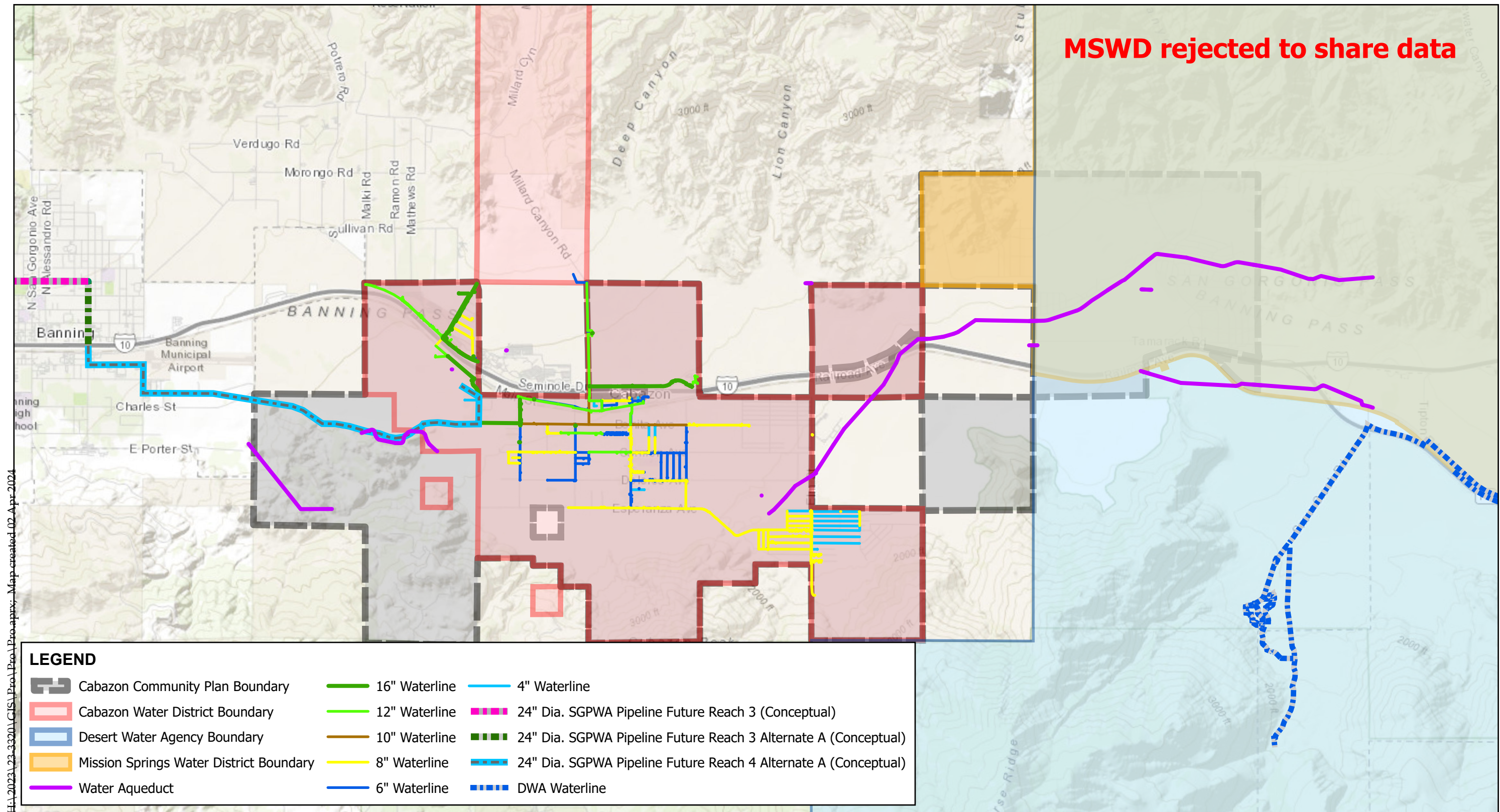


0 1 2 3 Miles

Existing Domestic Water Facilities

TLMA Cabazon Community Infrastructure Improvement Plan

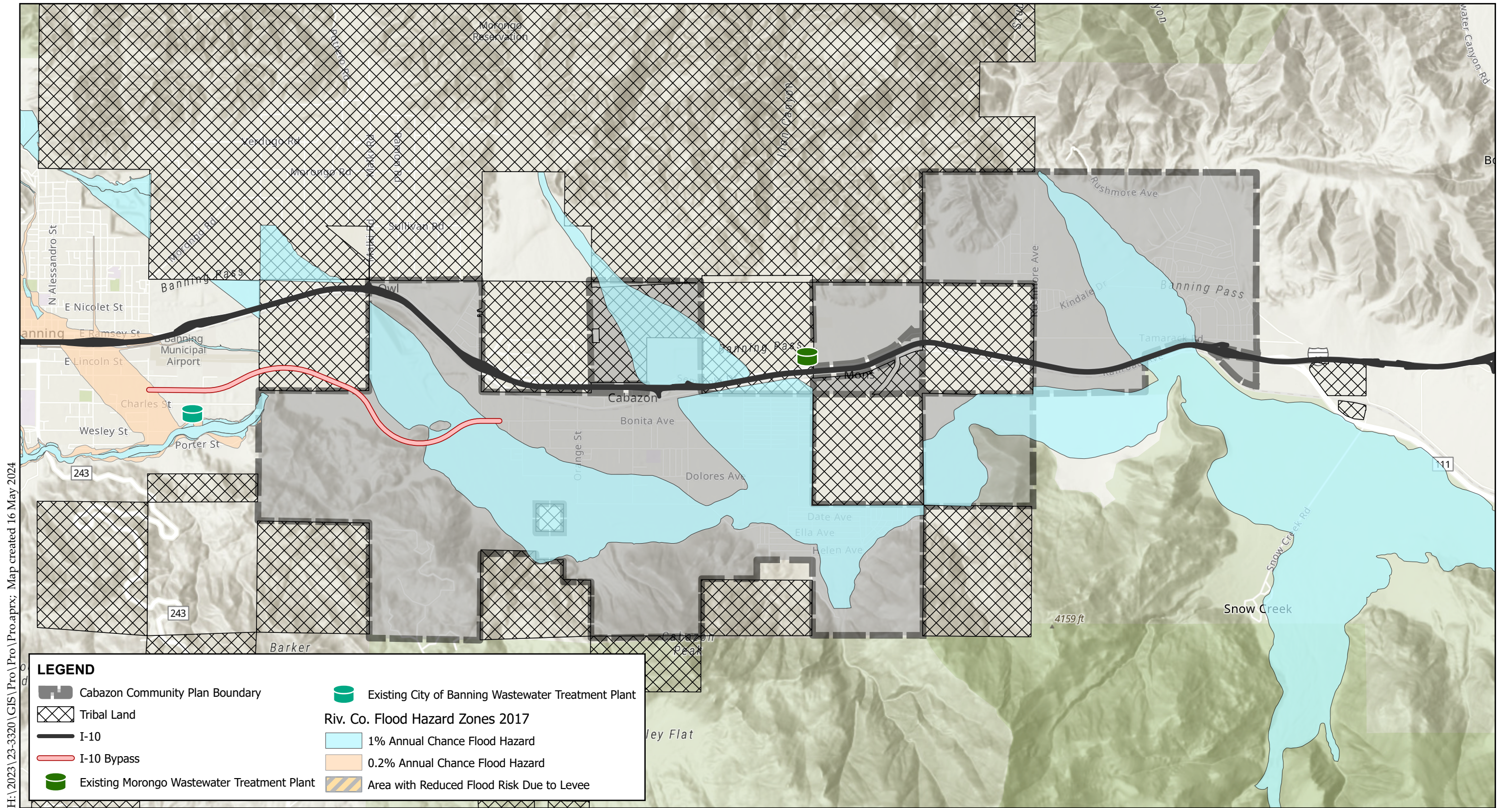




Sources: Riverside Co. GIS, 2024;
CVWD, 2024; DWA, 2024; MSWD, 2024; CWD, 2024.

Existing Domestic Water Facilities + Future San Gorgonio Pass Facility Alignment
TLMA Cabazon Community Infrastructure Improvement Plan



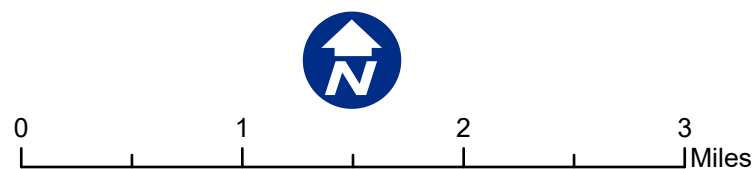


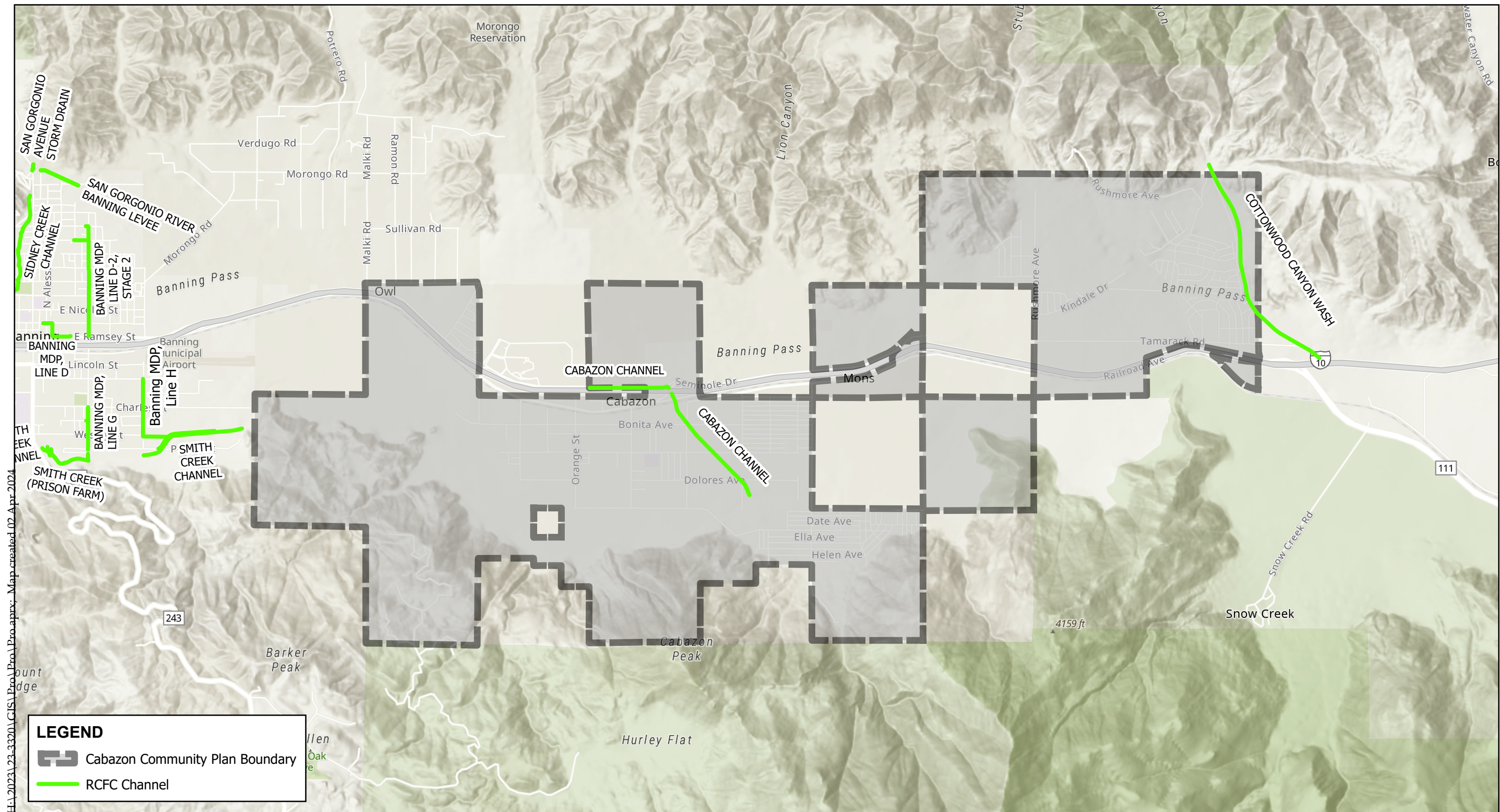
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Sources: Riverside Co. GIS, 2024;
FEMA, 2017.

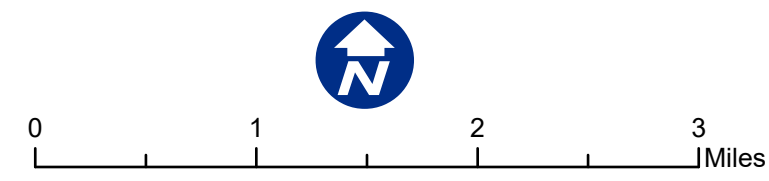
Existing Wastewater Facilities and Flood Hazard Zones in the Cabazon Community Plan Area

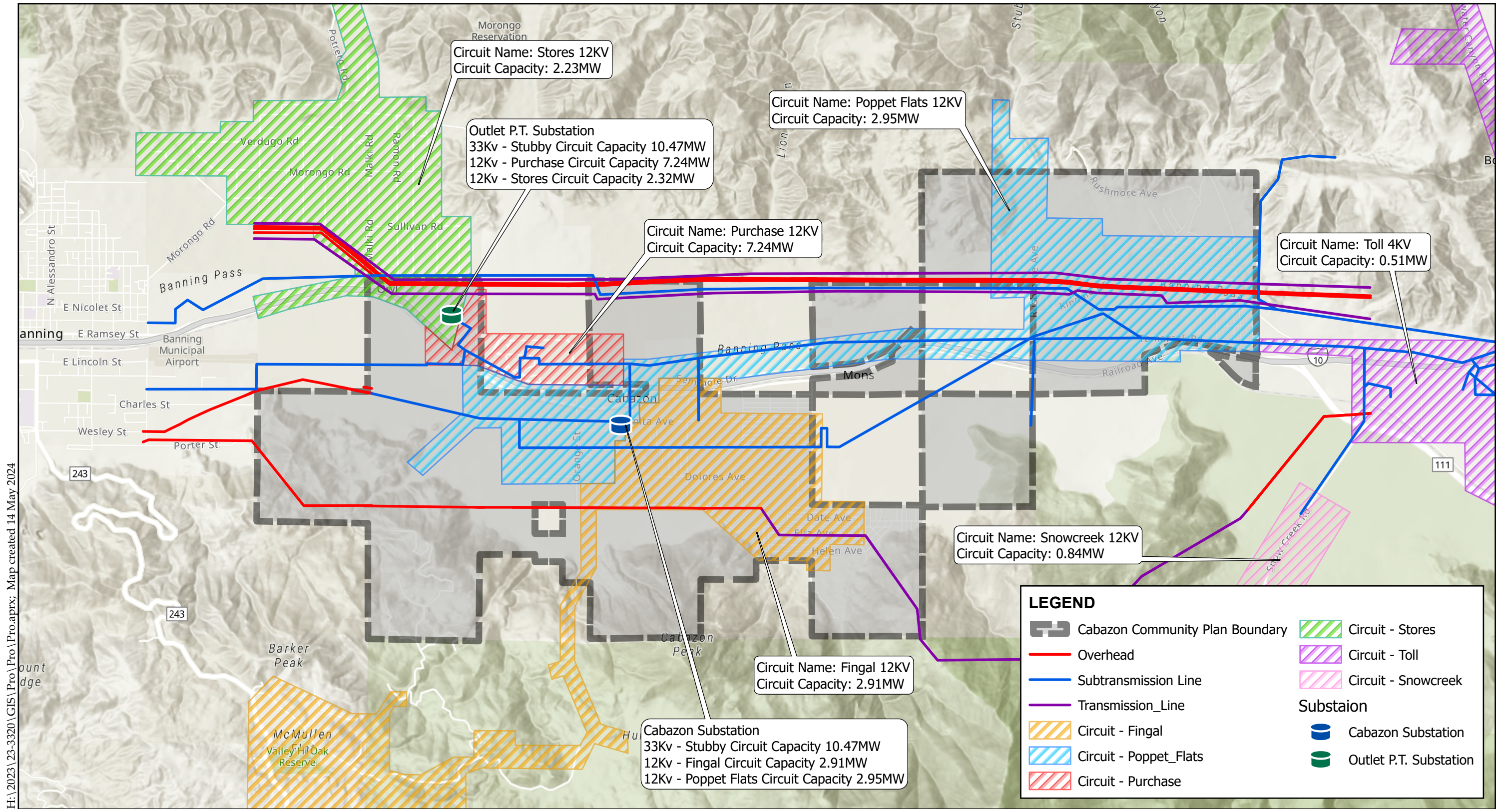
TLMA Cabazon Community Infrastructure Improvement Plan





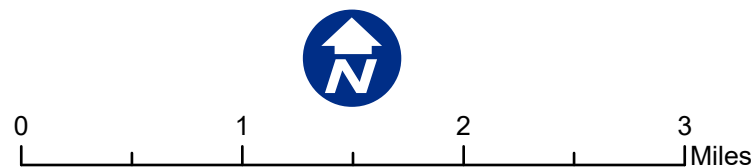
Sources: Riverside Co. GIS, 2024; CVWD, 2024; DWA, 2024; MSWD, 2024; CWD, 2024; RCFC, 2024.





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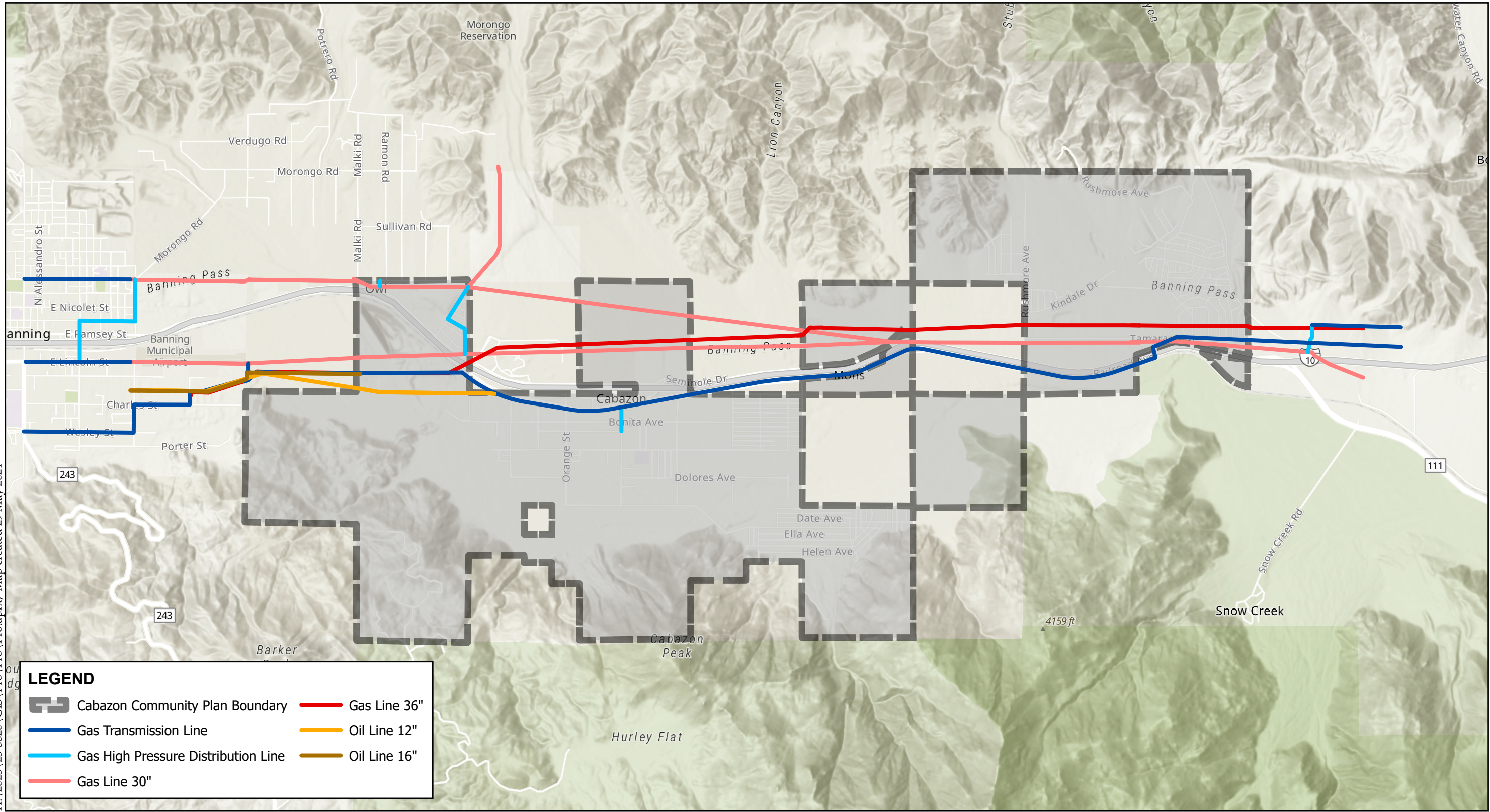
Sources: Riverside Co. GIS, 2024.



Dry Utilities Map - Electricity

TLMA Cabazon Community Infrastructure Improvement Plan

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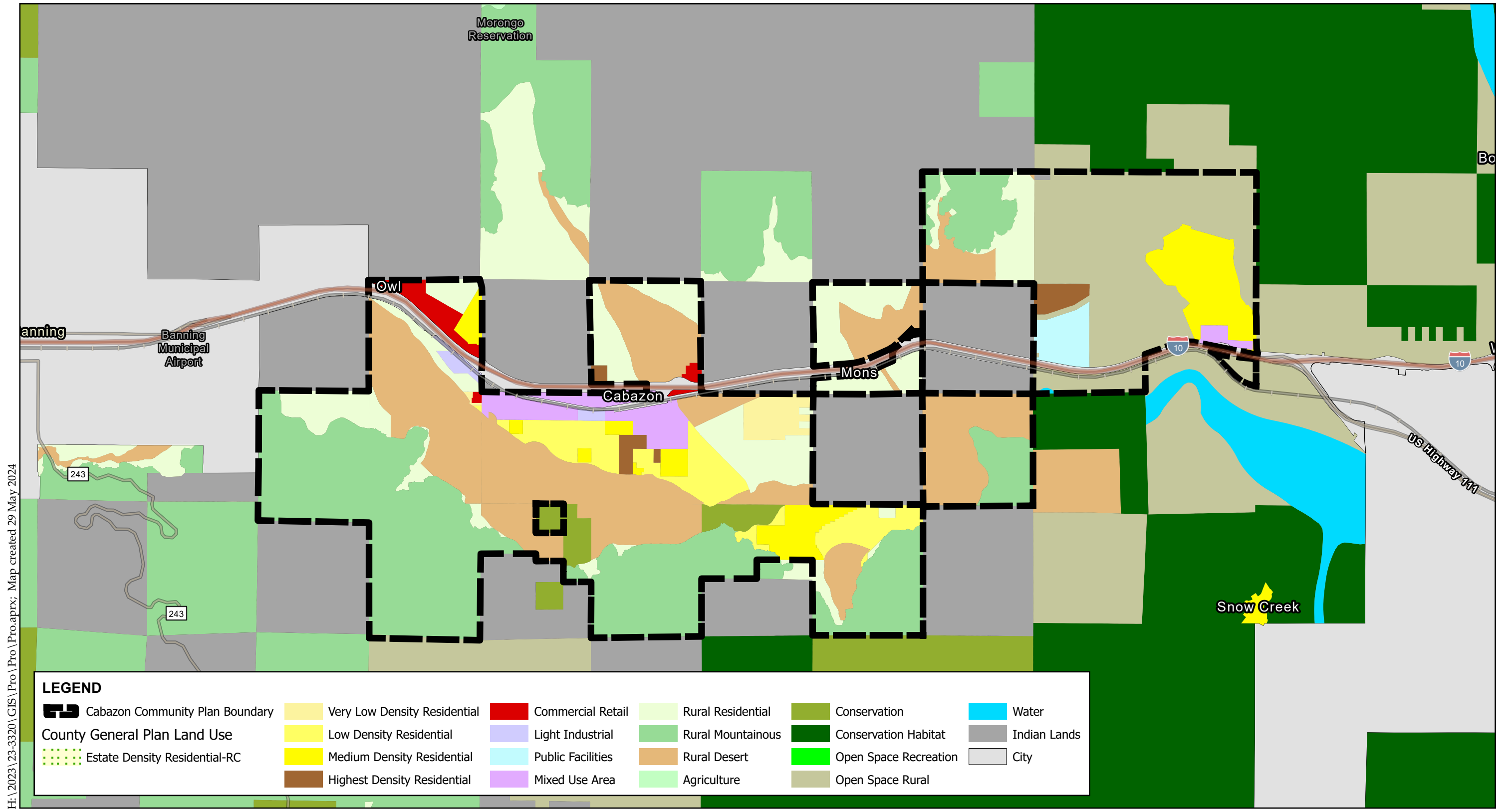


Sources: Riverside Co. GIS, 2024.

Dry Utilities Map - Gas and Oil

TLMA Cabazon Community Infrastructure Improvement Plan

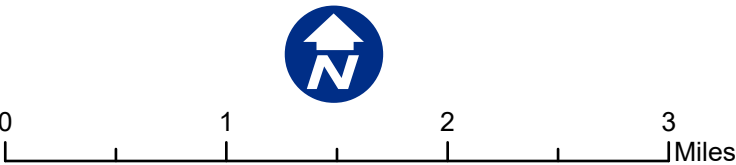


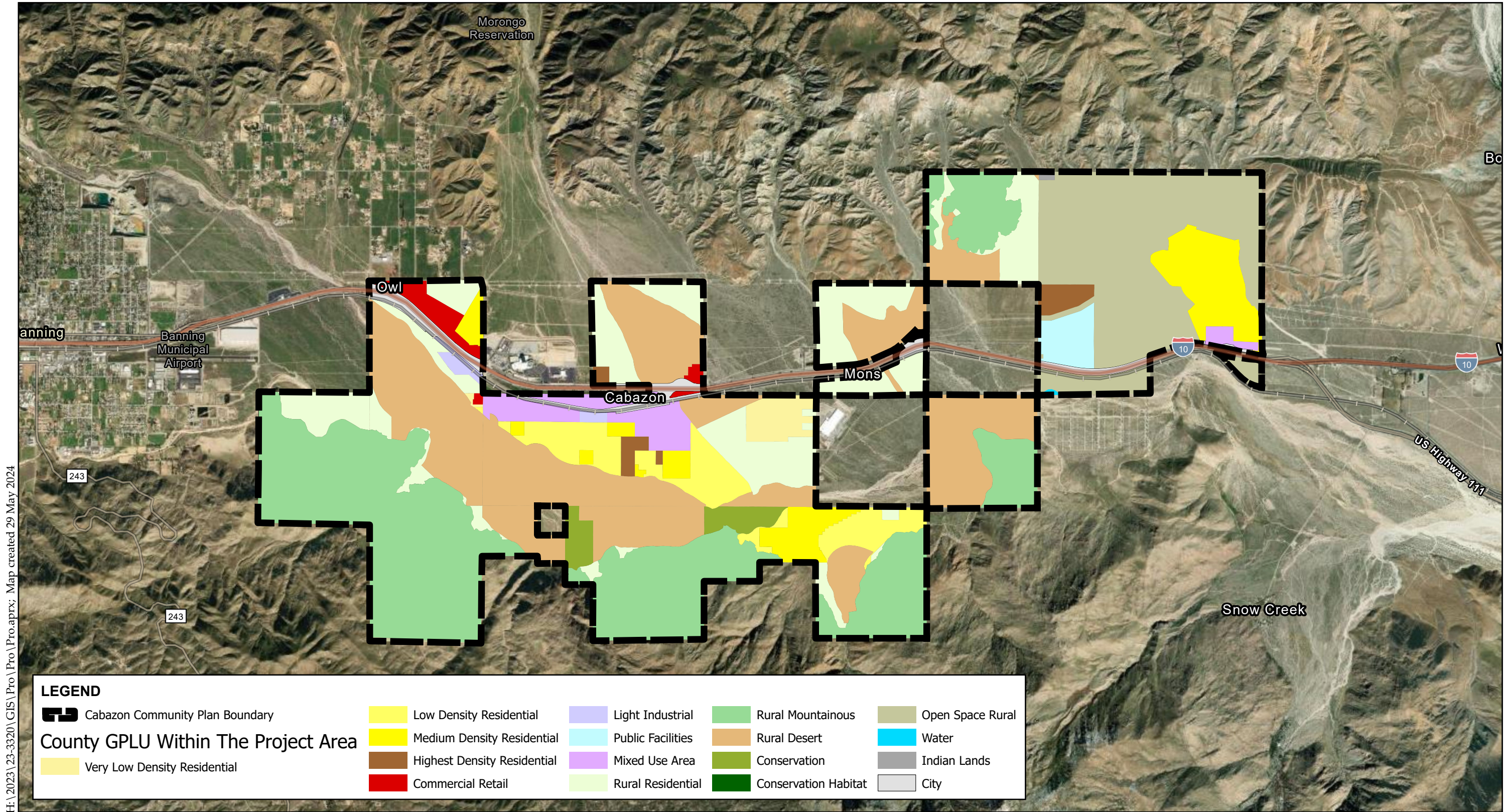


H:\2023\23-3320\GIS\Pro\Pro.aprx; Map created 29 May 2024

Sources: Riverside Co. GIS, 2024.

Existing County General Plan Land Use Near or Within The Cabazon Community Plan Area TLMA Cabazon Community Infrastructure Improvement Plan





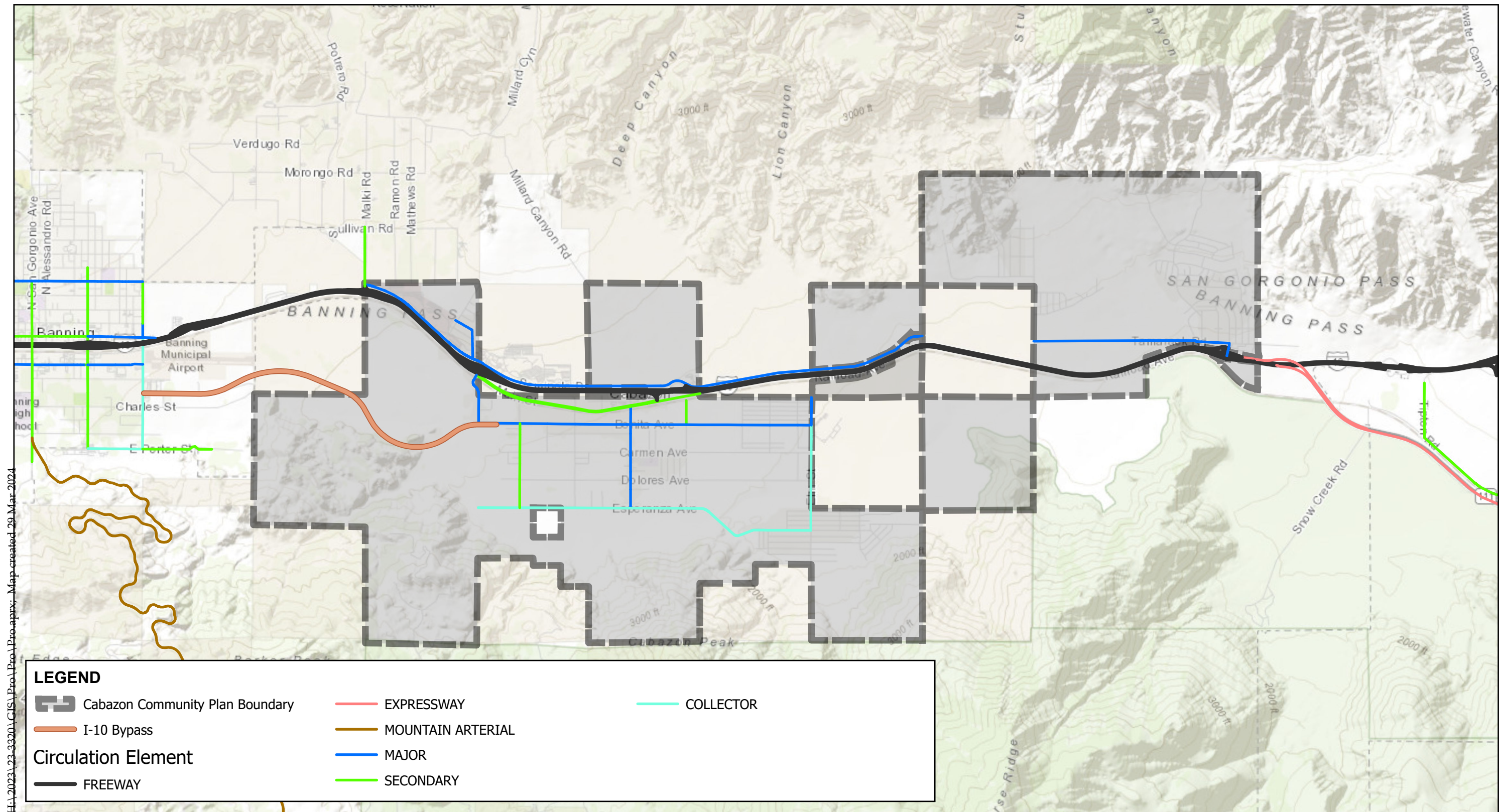
H:\2023\23-3320\GIS\Pro\Pro.aprx; Map created 29 May 2024

Sources: Riverside Co. GIS, 2024.

Existing County General Plan Land Use Within The Cabazon Community Plan Area

TLMA Cabazon Community Infrastructure Improvement Plan





H:\2023\23-3320\GIS\Pro\Pro.aprx: Map created 29 Mar 2024

Sources: Riverside Co. GIS, 2024;
CVWD, 2024; DWA, 2024; MSWD, 2024; CWD, 2024.



0 1 2 3 Miles

Circulation Elements Per RCTLMA

TLMA Cabazon Community Infrastructure Improvement Plan





County of Riverside - TLMA

WASTEWATER TREATMENT PLANT SITING STUDY

Prepared for:



RIVERSIDE COUNTY
**TRANSPORTATION AND
LAND MANAGEMENT AGENCY**

MAY 2026



County of Riverside - TLMA

WASTEWATER TREATMENT PLANT SITING STUDY



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Abbreviations

AC	Acre
APN	Assessor's Parcel Number
CCP	Cabazon Community Plan
County	Riverside County - TLMA
FEMA	Federal Emergency Management Agency
GIS	Geographic Information Systems
MG	Million Gallons
MGD	Million Gallons per Day
RCFC	Riverside County Flood Control and Water Conservation District
RWQCB	Regional Water Quality Control Board
TLMA	Transportation and Land Management Agency
WEBB	Albert A. Webb Associates
WWTP	Wastewater Treatment Plant

SECTION 1 - Introduction

1.1 Background

The Cabazon area, located in unincorporated Riverside County within the San Geronio Pass, is undergoing coordinated land use and infrastructure planning through preparation of the Cabazon Community Plan (CCP) and associated Infrastructure Plan. The Community Plan outlines future land uses and development patterns, while the Infrastructure Plan evaluates existing public systems and identifies improvements necessary to support projected buildout conditions.

The CCP boundary, shown on **Figure 1-1**, encompasses a predominantly undeveloped area surrounding the existing community of Cabazon and generally extending along the Interstate 10 corridor. Existing development is limited and consists primarily of commercial uses, including the Desert Hills Premium Outlets, and low-density residential areas. Large portions of the planning area remain vacant or underutilized.

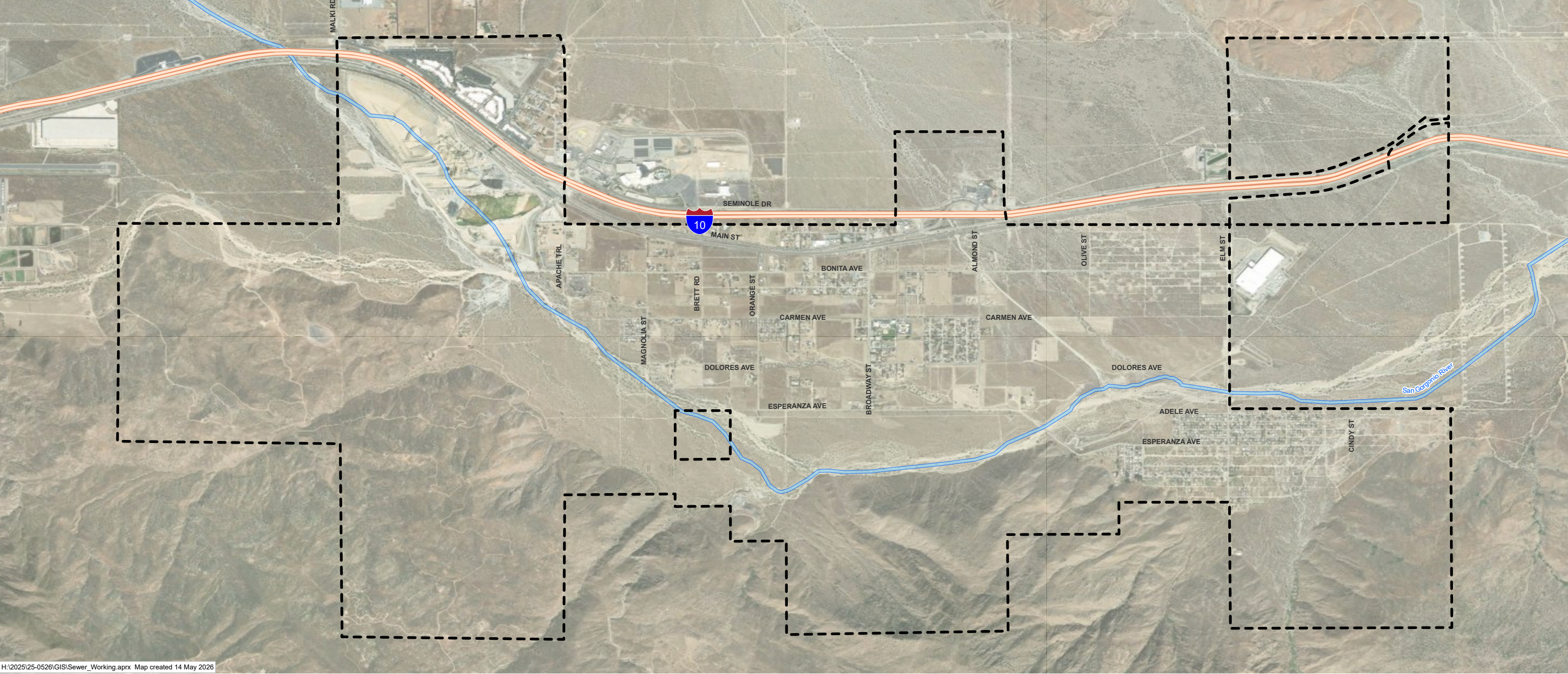
The Cabazon area currently lacks centralized wastewater collection and treatment facilities. Existing development is predominantly served by decentralized systems, which limit the ability to support higher-density land uses and long-term growth anticipated under the CCP. As a result, wastewater infrastructure capacity has been identified as a key constraint to planned development.

In response, the Riverside County Transportation and Land Management Agency (County or TLMA) has initiated this Wastewater Treatment Plant (WWTP) Feasibility Analysis and Siting Study to evaluate potential locations for a WWTP capable of serving the Community Plan area under projected buildout conditions. The analysis considers technical, environmental, economic, and social factors to identify feasible sites and support infrastructure planning decisions.

This study has been prepared in coordination with ongoing planning efforts and will support the Cabazon Infrastructure Plan. Its findings will inform future infrastructure investments and facilitate phased development within the Cabazon area.

FIGURE 1-1

STUDY AREA



H:\2025\25-0526\GIS\Sewer_Working.aprx Map created 14 May 2026

LEGEND

Cabazon Community Plan Boundary

0 1,500 3,000 Feet

Sources: Riverside County GIS, 2026.

SECTION 2 - Future Growth Projections and Wastewater Treatment Plant Sizing

2.1 Planning Horizon and Growth Framework

Future wastewater infrastructure planning for the CCP area was based on growth projections developed by the County as part of the Community Plan update. These projections evaluate development potential over a 30-year planning horizon, with emphasis on a near-term 10-year horizon intended to facilitate early development opportunities within the CCP's primary and secondary core areas.

The primary core area is anticipated to support a mixture of residential and commercial land uses, while the secondary core area is anticipated to accommodate complementary light to heavy industrial land uses. Development beyond the core areas, particularly residential development within more mountainous terrain, is anticipated to occur incrementally over a longer timeframe due to topographic constraints, infrastructure limitations, and market conditions.

2.2 Interim and Ultimate Treatment Conditions

Consistent with the phased growth pattern anticipated under the CCP, wastewater treatment needs were evaluated under two planning conditions: an interim condition intended to address near-term conversion and development demands, and an ultimate (buildout) condition intended to accommodate long-term projected growth across the Community Plan area.

The interim condition focuses on providing centralized wastewater treatment service to existing development currently served by onsite septic systems, as well as immediate development within the primary and secondary core areas over the initial planning horizon. The ultimate condition reflects expansion of treatment capacity over time to support continued development through the 30-year planning period.

2.3 Wastewater Flow Projections

Wastewater flow projections for the CCP area were developed at a planning level to support comparative evaluation of wastewater treatment plant siting alternatives under interim and ultimate service conditions. Projections are presented in terms of average daily wastewater flow and reflect anticipated increases in development intensity over defined planning horizons consistent with County growth assumptions.

Wastewater generation factors applied in this analysis are based on the Infrastructure Needs Analysis prepared by WEBB in October 2025. These factors were derived from regional averages utilized by established wastewater utility districts with similar demographic, land use, and geographic characteristics and are considered appropriate for high-level planning and feasibility evaluations. **Table 2-1** summarizes the planning-level wastewater flow projections evaluated as part of this study.

Table 2-1 Wastewater Flow Projections

Planning Year	Planning Horizon	Estimated Growth ⁽¹⁾	Average Daily ⁽²⁾ Wastewater Flow (MGD)
10 years	Interim (Core Area) ⁽³⁾	15%	0.33
20 years		45%	1.00
30+ years ⁽⁴⁾	Ultimate Buildout	100%	3.77

(1) Growth percentages reflect County planning assumptions for the Cabazon Community Plan

(2) WW flows represent planning level estimates and will be refined during subsequent alternatives analysis and design phases.

(3) Flow projections in the interim phase are based on the Core Area estimated buildout flow of 2.2 MGD, per Table 2-3A of the Cabazon Infrastructure Plan.

(4) Buildout flows are anticipated to occur gradually due to location of proposed residential development in mountainous terrain.

2.4 Wastewater Treatment Capacity and Plant Land Sizing

Wastewater treatment capacity and facility siting requirements were evaluated at a planning level to support comparative screening of potential treatment plant sites under interim and ultimate (buildout) service conditions. At this stage of analysis, specific treatment processes, effluent quality targets, and solids handling approaches have not yet been defined; therefore, facility sizing and land requirements were developed using generalized planning assumptions consistent with similar wastewater treatment facilities in Riverside County. A typical range of approximately 2 to 5 acres per million gallons per day (MGD) of treatment capacity was used to preliminarily estimate land requirements.

Under the interim condition, the wastewater treatment facility is assumed to be sized to treat up to an estimated average daily flow of approximately 1.0 MGD, sufficient to serve existing development currently reliant on onsite septic systems and to support near-term development within the primary and secondary core areas of the Cabazon Community Plan. For purposes of this siting study, interim facilities were evaluated assuming a limited land footprint of approximately 2 to 5 acres. This assumption reflects the focused service area, the near-term planning horizon, and the expectation that advanced treatment processes and long-term solids management facilities would not be required during the initial phase of implementation.

Under the ultimate buildout condition, the wastewater treatment facility is assumed to accommodate an estimated average daily flow of approximately 3.77 MGD, reflecting long-term growth anticipated over the 30-year planning horizon. Planning level land requirements for ultimate facilities were evaluated within a range of approximately 6 to 10 acres, providing flexibility to account for future expansion needs, potential changes in treatment level, regulatory buffer requirements, and operational considerations that may evolve as development patterns are realized.

The interim and ultimate land area assumptions applied in this study are consistent with the scale and configuration of similarly sized municipal wastewater treatment plants in Riverside County, where smaller interim or initial-phase facilities are commonly developed on compact sites, and additional land area is incorporated over time to accommodate expanded treatment capacity, ancillary facilities, and regulatory requirements. These assumptions are intended solely to support high-level siting feasibility and comparative evaluation and do not represent final facility layout or

design criteria. Final treatment plant configuration and parcel sizing will be established through subsequent alternatives analysis, environmental review, regulatory coordination, and detailed facility planning.

2.5 Potential Treatment Plant Sites

An initial desktop review was conducted to identify vacant parcels within the planning area that could accommodate the anticipated WWTP land requirements. Candidate sites were screened and the list was refined based on the evaluation criteria described below.:

- Proximity to proposed collection system
- Proximity to existing users
- Aesthetic concerns
- Evaluation of floodplain
- Topography

Based upon input from the County and field investigations, the full list of potential parcels was reduced to five (5) locations for further evaluation as WWTP sites. Two sites were evaluated for the interim condition, and three sites were evaluated for ultimate buildout conditions. The locations of the potential sites are shown on **Figure 2-1**.

2.5.1 Interim WWTP Locations

- **Site 1:** Approximately 350 ft north of Carmen Avenue and Broadway Street intersection.
APN: 526-131-002
- **Site 2:** At the northwest corner of Carmen Avenue and Broadway Street intersection.
APN: 526-131-004

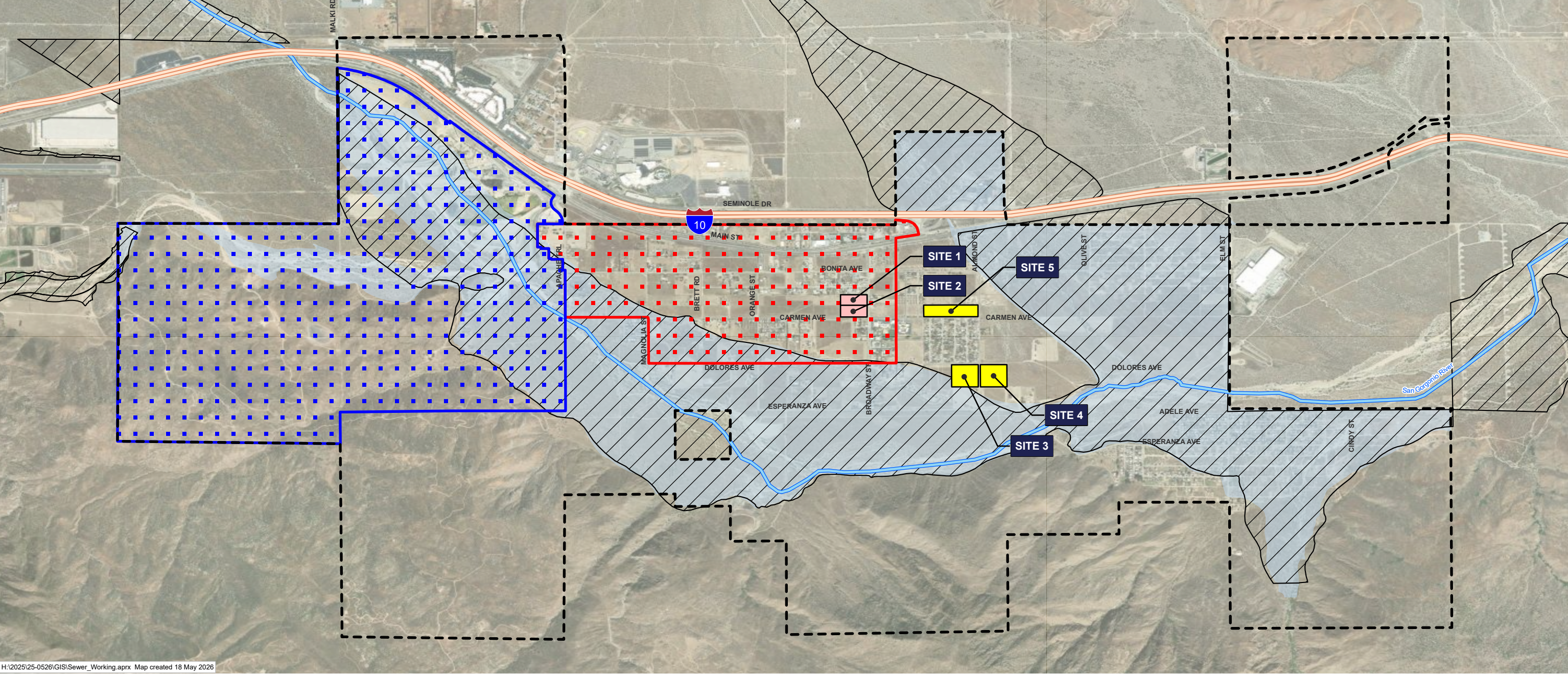
2.5.2 Ultimate WWTP Locations

- **Site 3:** At the southwest corner of Almond Street and Dolores Avenue intersection.
APN: 526-230-011
- **Site 4:** At the southeast corner of Almond Street and Dolores Avenue intersection.
APN: 526-230-012
- **Site 5:** At the northwest corner of Carmen Avenue and Almond Street intersection.
APN: 526-150-015

The potential wastewater treatment plant sites have been reviewed by WEBB, based on engineering criteria which is discussed herein. Each wastewater treatment site was ranked based on the engineering criteria.

FIGURE 2-1

POTENTIAL TREATMENT PLANT SITES



H:\2025\25-0526\GIS\Sewer_Working.aprx Map created 18 May 2026

LEGEND
Potential WWTP Sites
Interim Condition
Ultimate Condition

RCFC Flood Zones
FEMA Flood Zones

Primary Core Boundary
Secondary Core Boundary
Cabazon Community Plan Boundary

0 1,500 3,000 Feet
Sources: Riverside County GIS, 2026.

SECTION 3 - Evaluation of Potential Waste Water Treatment Plant Locations

3.1 Site Selection Criteria

The engineering evaluation of the potential WWTP sites is intended to compare the five selected sites and provide the County recommendations for where to build the proposed WWTP. Each of the sites were evaluated based upon the criteria listed below. A general description of each criterion will follow.

- Land Requirements for Treatment Technology
- Discharge Location
- Future Growth Projections
- Proximity to Electrical Power and Other Utilities
- Proximity to Existing and Future Users
- Facility Access & Aesthetics
- Environmental Considerations
- Topography Considerations
- Projected Land Use
- Ability to Acquire Land

3.1.1 Land Requirements for Treatment Technology

Specific wastewater treatment processes have not yet been selected for the Cabazon wastewater treatment facility. Treatment technologies are therefore considered at a conceptual level to understand how general treatment and effluent disposal approaches may influence overall site requirements.

The interim treatment facility is assumed to treat up to approximately 1.0 MGD, while the ultimate facility is assumed to treat approximately 3.77 MGD, consistent with the phased capacity framework described previously. As discussed earlier, potential treatment plant sites were evaluated using planning level land area assumptions of approximately 2-5 acres/MGD, allowing flexibility for future expansion and operational needs.

Facilities are assumed to utilize conventional municipal wastewater treatment processes typical of similar-scale plants in Riverside County which may include primary and secondary treatment, with potential tertiary treatment and disinfection depending on discharge requirements. Overall land requirements are heavily influenced by the selected effluent discharge or disposal method. Surface water discharge, such as to the San Geronio River, would generally support a more compact facility footprint, while land-based disposal methods, including infiltration or percolation ponds, would require additional site area beyond the core treatment facilities.

3.1.2 Discharge Location

Effluent discharge considerations were evaluated to inform siting feasibility of the proposed WWTP. Evaluation focused on general proximity to potential discharge corridors, potential regulatory constraints, and site physical conditions rather than site specific drainage design.

Several potential sites benefit from proximity to the San Geronio River, which represents a potential surface water discharge option subject to applicable regulatory and water quality requirements. Locations near the river also require consideration of floodplain constraints, including mapped FEMA flood hazard zones and information from the Riverside County Flood Control (RCFC), to assess flooding potential and long-term facility reliability.

Where surface water discharge is determined to be infeasible due to regulatory, hydraulic, hydrologic, and floodplain considerations, land based disposal methods, such as infiltration or percolation basins, may be considered and would require additional site area relative to treatment facilities alone.

3.1.3 Future Growth Projections

Future development within the CCP area is anticipated to occur in a phased manner over the 30-year planning horizon. Near-term growth is expected to be concentrated within the primary and secondary core areas generally located near Carmen Avenue and Broadway Street, where planned land uses, existing infrastructure, and access are most conducive to early development.

These core areas were therefore used as a primary factor in identifying interim wastewater treatment plant locations. The interim facility is intended to serve existing customers currently on septic systems, including properties along Broadway Street south of Carmen Avenue, as well as anticipated early development within the core areas.

Over time, additional development is anticipated to occur in the eastern portion of the service area, where future growth is expected to materialize incrementally. Ultimate wastewater treatment plant locations were evaluated to support long-term expansion of service capacity in this area as development progresses.

3.1.4 Proximity to Electrical Power and Other Utilities

Availability and proximity of electrical power was considered as part of the siting evaluation, as extension of power service may represent a major component of overall project cost.

Both interim treatment plant sites and Site 5 are located near existing overhead power lines, which may reduce the need for new electrical infrastructure. Sites 3 and 4 would likely require additional electrical service extensions to support treatment plant operations.

A storm drain channel located east of all evaluated sites was also identified and will require consideration during site planning to avoid conflicts with treatment facilities, utilities, and access improvements.

3.1.5 Proximity to Existing and Future Users

Proximity to existing and planned wastewater service areas was considered in evaluating potential treatment plant sites, as collection system length and configuration are primary drivers of overall infrastructure cost.

Interim treatment plant sites were evaluated with emphasis on serving a majority of existing users currently reliant on septic systems, as well as anticipated near-term development within the primary and secondary core areas. Locating the interim facility near these areas minimizes collection system expansion required to initiate centralized wastewater service.

Ultimate treatment plant sites were evaluated easterly and southerly to accommodate future system expansion as wastewater service demand increases over time, consistent with anticipated eastward and southward development progression within the service area.

3.1.6 Facility Access and Aesthetics

None of the proposed sites have any outstanding impediments to facility access. Potential opposition related to facility aesthetics is considered unlikely for most sites, given their location within areas of limited adjacent development or existing utility and infrastructure uses. The exception is the interim treatment plant sites, which are located nearer to existing community amenities, including an elementary school, library, and fire station. While siting at these locations remains feasible, additional consideration of site layout, building design, and visual buffering may be required to minimize aesthetic concerns.

Prevailing wind patterns in the project area generally convey winds in an easterly direction. Site assessment therefore considered potential odor impacts by avoiding placement of treatment facilities directly upwind of existing or near-term users where feasible. Where this constraint could not be fully avoided, additional odor control measures would be incorporated during facility design.

3.1.7 Environmental Considerations

Environmental considerations were reviewed at a planning level for purposes of site comparison. In general, terrain and surrounding land characteristics are similar across the evaluated sites, and no obvious environmental constraints were identified that would preclude development of a wastewater treatment facility at any location.

Potential environmental impacts associated with construction and operation of a treatment facility are therefore expected to be generally comparable among the sites and would be further evaluated and addressed during subsequent environmental review and permitting phases.

3.1.8 Topography

Topography within the service area generally slopes in a southeasterly direction, which is favorable for development of a gravity-based wastewater collection system. Utilization of gravity mains is preferred where feasible, as it reduces reliance on lift stations and associated capital, operational, and maintenance costs.

For planning purposes, the interim condition is assumed to require one temporary lift station to convey flows north to the proposed treatment facility. Under the ultimate condition, the collection system is assumed to include two permanent lift stations located at hydraulically favorable downstream locations to maximize tributary service areas, consolidate flows, and reduce the overall extent of trunk sewer infrastructure. Final lift station placement and system configuration will be refined during subsequent phases of collection system planning and design.

3.1.9 Projected Land Use

Projected land use within the service area is defined by the CCP, which identifies the majority of the planning area as currently undeveloped, with existing development consisting primarily of residential uses and a limited number of public facilities.

Future buildout is expected to occur incrementally, beginning within the primary and secondary core areas and expanding south and east over time. Planned development includes a mix of residential land uses at varying densities, supported by limited commercial and industrial uses, with residential development comprising the majority of projected growth.

These projected land use patterns were considered in evaluating treatment plant siting alternatives, particularly with respect to the anticipated timing and location of wastewater service demand.

3.1.10 Ability to Acquire Land

All sites evaluated as part of this siting study are privately owned. Available County owned properties within the planning area were reviewed but were determined to be infeasible due to size constraints and/or location relative to flood zones or adjacent existing residents and developments.

Ability to acquire land for a wastewater treatment facility is expected to vary by site and will depend on future coordination with individual property owners. Land acquisition feasibility was considered at a high level for purposes of comparative site evaluation and will be further assessed during subsequent project phases.

3.2 Engineering Site Ranking Criteria

Table 3-1 presents the five (5) potential wastewater treatment plant sites evaluated as part of this study, along with the engineering ranking criteria used to compare site feasibility. To reflect the phased implementation approach, sites were evaluated separately for interim and ultimate (buildout) conditions.

Each site was ranked relative to the other sites for each criterion, with rankings beginning at one (1) being best and five (5) being worst. The criteria scoring and summation of scores are shown in Table 3-1. The lowest overall score is the most favorable ranking. Individual criterion rankings were then summed to develop overall site scores, which were used to support a comparative evaluation of site suitability under both interim and ultimate conditions.

Table 3-1 Engineering Site Ranking Matrix

Potential WWTP Site	Facility Access	Aesthetics	Environmental Consideration	Proximity				Discharge Location of WWTP				Topography		Projected Land Use	Land Requirements for Treatment Technology	Ability to Acquire Land	Total	Overall Ranking
				Electrical Power	Other Utilities	Existing Users	Future Users	Discharge Drain	Quality	Proximity	Redundancy	Approximate Site Elevation	Elevation Ranking					
Interim Condition																		
Site 1	1	1	1	1	1	3	3	On-Site or San G. River	1	1	1	1745	2	1	1	1	19	2
Site 2	1	1	1	1	1	1	1	On-Site or San G. River	1	1	1	1733	1	1	1	1	13	1
Ultimate Condition																		
Site 3	1	1	2	3	1	1	1	On-Site or San G. River	1	1	1	1645	1	1	1	1	17	2
Site 4	1	1	1	3	1	1	1	On-Site or San G. River	1	1	1	1635	1	1	1	1	16	1
Site 5	1	2	1	1	1	2	3	On-Site or San G. River	1	1	1	1695	3	1	1	1	20	3

SECTION 4 - Recommendations

Based on the site evaluation and comparative ranking, Site 2 is recommended as the preferred location for the interim wastewater treatment facility, and Site 4 is recommended as the preferred location for the ultimate (buildout) facility.

Site 2 is the most favorable interim location due to its proximity to existing users and near-term development within the Core Area, as well as its relatively low elevation, which supports efficient gravity conveyance and minimizes pumping requirements.

Site 4 is the most favorable ultimate location due to its hydraulically favorable position at lower elevation, proximity to the San Gorgonio River corridor for potential effluent discharge and/or additional open acreage for the implementation of infiltration basins, and location within the long-term buildout area. The site also provides advantages from an operational standpoint, including reduced potential for odor impacts to existing development based on prevailing wind direction.

Final treatment plant siting will be subject to further evaluation, including confirmation of feasible discharge alternatives and compliance with applicable California Regional Water Quality Control Board (Region 7) discharge requirements for discharge to the San Gorgonio River.