San Tomas Aquino Creek Trail Project (Reaches 1 & 2)

Initial Study

Public Draft

June 2020

City of Campbell

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Acronyms and Abbreviations

AASHTO	American Association of State Highway and Transportation Officials
AB	Assembly Bill
ADA	Americans with Disability Act
BAAQMD	Bay Area Air Quality Management District
Bay Area	San Francisco Bay Area
BMP	best management practice
BSA	Biological Study Area
CA	California
CAL FIRE	California Department of Forestry and Fire
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CH2M	CH2M HILL Engineers, Inc
CHRIS	California Historical Resources Information System
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO_2	carbon dioxide
CRHR	California Register of Historic Resources
CRLF	California red-legged frog
CUSD	Campbell Unified School District
CUHSD	Campbell Unified High School District
DPS	Distinct Population Segment
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
Fisheries	National Marine Fisheries Service
FP	fully protected
FR	Federal Register
GHG	greenhouse gas
GIS	geographic information system
Habitat Plan	Santa Clara Valley Habitat Conservation Plan

HMH	HMH Engineers, Inc.
IPaC	Information for Planning and Consultation
LEA	Local Enforcement Agency
MBTA	Migratory Bird Treaty Act
MM	Mitigation Measure
NAHC	Native American Heritage Commission
NOAA Fisheries	National Oceanic and Atmospheric Administration – National Marine Fisheries Service
NRCS	National Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
NWIC	Northwest Information Center
OHWM	ordinary high water mark
PCMP	Post-Closure Maintenance Plan
PM_{10}	particulate matter with aerodynamic diameter equal to or less than 10 microns
$PM_{2.5}$	particulate matter with aerodynamic diameter equal to or less than 2.5 microns
PRC	Public Resources Code
RWQCB	San Francisco Bay Regional Water Quality Control Board
SFDW	San Francisco dusky-footed woodrat
SJW	San José Water Company
SSC	species of special concern
SWPPP	Stormwater Pollution Prevention Plan
TCP	traffic control plan
TCR	Tribal Cultural Resources
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USDA-NRCS	U.S. Department of Agriculture – Natural Resources Conservation Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
Valley Water	Santa Clara Valley Water District
VHFHSZ	Very High Fire Hazard Severity Zone
WDR	Waste Discharge Requirements
WL	watch list
WVSD	West Valley Sanitation District

1. Background Information

1.1 Project Title

San Tomas Aquino Creek Trail Project (Reaches 1 & 2)

1.2 Lead Agency Name and Address

City of Campbell
Public Works Department
70 North First Street
Campbell, CA 95008
www.cityofcampbell.com

1.3 Lead Agency Contact Person and Phone Number

Fred Ho, Senior Civil Engineer
City of Campbell
Public Works Department
Phone: (408) 866-2156
Email: fredh@campbellca.gov
www.cityofcampbell.com

1.4 Project Location

The San Tomas Aquino Creek Trail Project (Reaches 1 & 2) (the project) is located in the western portion of the city of Campbell and the southwest portion of the city of San José; it extends along San Tomas Aquino Creek between Westmont Avenue and West San Tomas Aquino Road (37°27'24.4"N latitude, 121°99'06.6"W longitude) (see Figure 1). The project is located in the southwestern portion of the San José West U.S. Geological Survey (USGS) 7.5-minute quadrangle, (Township 7 South, Range 1 West, Sections 32 and 33, and Township 8 South, Range 1 West, Sections 4 and 5, Mt. Diablo Meridian) (USGS 2015). The Assessor's Parcel Numbers associated with the project are 403-39-001,403-49-047, 403-11-003, 403-07-022, 403-07-023, 403-43-137, 403-07-031, 403-42-044, 403-53-104 through 403-53-108, 404-17-078, 404-17-076, and 404-17-077.

1.5 General Plan Designation

City of Campbell: Open Space

City of San José: Open Space, Parklands, and Habitat (OSPH)

1.6 Zoning

City of Campbell: Public Facilities/Open Space (PF/OS)

City of San José: Single-Family Residence District (R-1-8)

1.7 Project Description

The City of Campbell, in cooperation with the City of San José and the Santa Clara Valley Water District (Valley Water), is proposing to construct the project, a proposed 1.28-mile paved bicycle and pedestrian trail that will follow San Tomas Aquino Creek on top of existing Valley Water levees and creek bank, starting from Westmont Avenue and ending at Margaret Lane (Figure 1). Design drawings for the proposed trail are attached (Appendix A).

Reach 1 will connect Westmont Avenue to McCoy Avenue and includes constructing a new clear-span pedestrian bridge measuring approximately 114 feet long, near the east end of Westmont High School

and the south side of Forest Hill Elementary School. The proposed bridge will be a prefabricated clear-span modified bowstring structure, fabricated with weathering steel. The bridge will be 12 feet wide with a cast-in-place concrete deck. Bridge supports will be cast-in-place seat-type concrete abutments supported on piles. Cast-in-place concrete wingwalls and retaining walls will be used to support the trail approaches on each side of the bridge (Figure 2). East of the new pedestrian bridge, the trail will continue along the top of levee on the northeast side of the creek to McCoy Avenue. The top of levee within these limits will allow for an 8-foot travel width with shoulders of varying width. The trail itself will be asphalt-concrete paved with gravel shoulders.

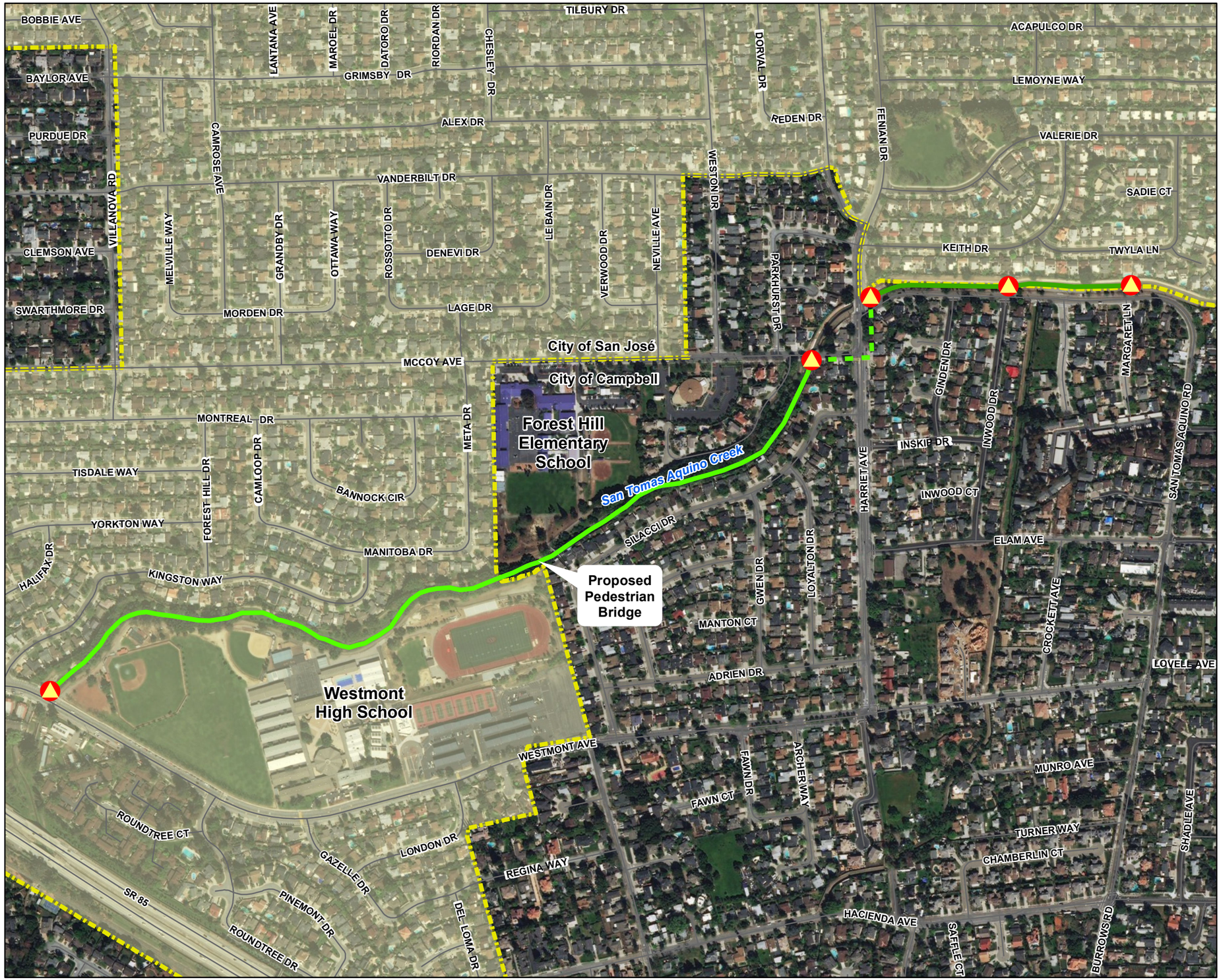
In Reach 2, the trail will parallel West San Tomas Aquino Road for approximately 0.42 mile and be located on City of Campbell and/or Valley Water property on the north side of the road. After a short at-grade crossing of Harriet Avenue, the trail will continue east along the north side of West San Tomas Aquino Road and end at Margaret Lane. The project in this area will include trailheads, safety fencing, centerline striping, and signage. At the intersection of Harriet Avenue and West San Tomas Aquino Road, the trail will conform to new curb ramp improvements completed by the City of Campbell and continue along the southeast side of San Tomas Aquino Creek, parallel to the road. The northerly pavement edge of West San Tomas Aquino Road also will be modified to maintain a consistent roadway width and include new curb and gutter. At this location, the proposed trail will include an asphalt concrete-paved travel width of 12 feet with 2-foot-wide gravel shoulders. The trail will be separated from West San Tomas Aquino Road by a vegetated median, between Harriet Avenue and Margaret Lane, where the trail will terminate. Fencing will be provided on either side of the trail to restrict trail users from entering San Tomas Aquino Creek or crossing West San Tomas Aquino Road.

The proposed project limits are within the cities of Campbell and San José. The trail extents between Westmont Avenue and Forest Hill Elementary School will be within the city of San José, and the trail limits between the elementary school and McCoy Avenue are within the city of Campbell. Along West San Tomas Aquino Road, the trail alignment will straddle the boundary separating Campbell and San José. The proposed trail will meet Americans with Disability Act (ADA) standards, American Association of State Highway and Transportation Officials (AASHTO) “Green Book” (AASHTO 2018), California Department of Transportation (Caltrans) standards, City of Campbell, and City of San José trail design standards. The proposed project also will involve constructing trailheads at Westmont, McCoy, and Harriet Avenues opposite Inwood Drive and at Margaret Lane. Trailheads likely will include decorative concrete pavement, user amenities, and signage.

Much of the proposed project will be constructed within creek rights-of-way owned by Valley Water and follow the top of the Valley Water southwest creek bank levee from Westmont Avenue to a clearing location near existing private homes at approximately 100 feet west of an existing pedestrian bridge. The proposed trail width here will be 8 feet of travel way, as the existing top of levee varies in width from 8 feet to 10 feet. The trail will be asphalt-concrete paved with variable width gravel shoulders. The existing ground surface will be excavated to a depth of approximately 8-inches and filled with aggregate base and topped with asphalt. Due to the existing ground surface level, very little cut and fill is required.

The open, gravel-surfaced area behind the southerly creek bank levee will be rough-graded to facilitate trail construction and future trail and creek maintenance. The existing chain-link fence (which separates the high school property from the creek) will be replaced with new decorative fencing matching the adjacent high school fencing. New fencing also will be installed along the elementary school property line, adjacent to the creek and around the new northerly bridge approach; gates will be provided to allow access from the elementary school to the new bridge and trail and existing neighborhood pedestrian bridge.

The water surface elevation in the creek at this location, based on Federal Emergency Management Agency (FEMA) flood mapping information for the 100-year flood, is between 254 and 255 feet. The proposed bridge elevation will be approximately 4 feet above the 100-year water surface elevation. The freeboard is based on Valley Water design criteria.



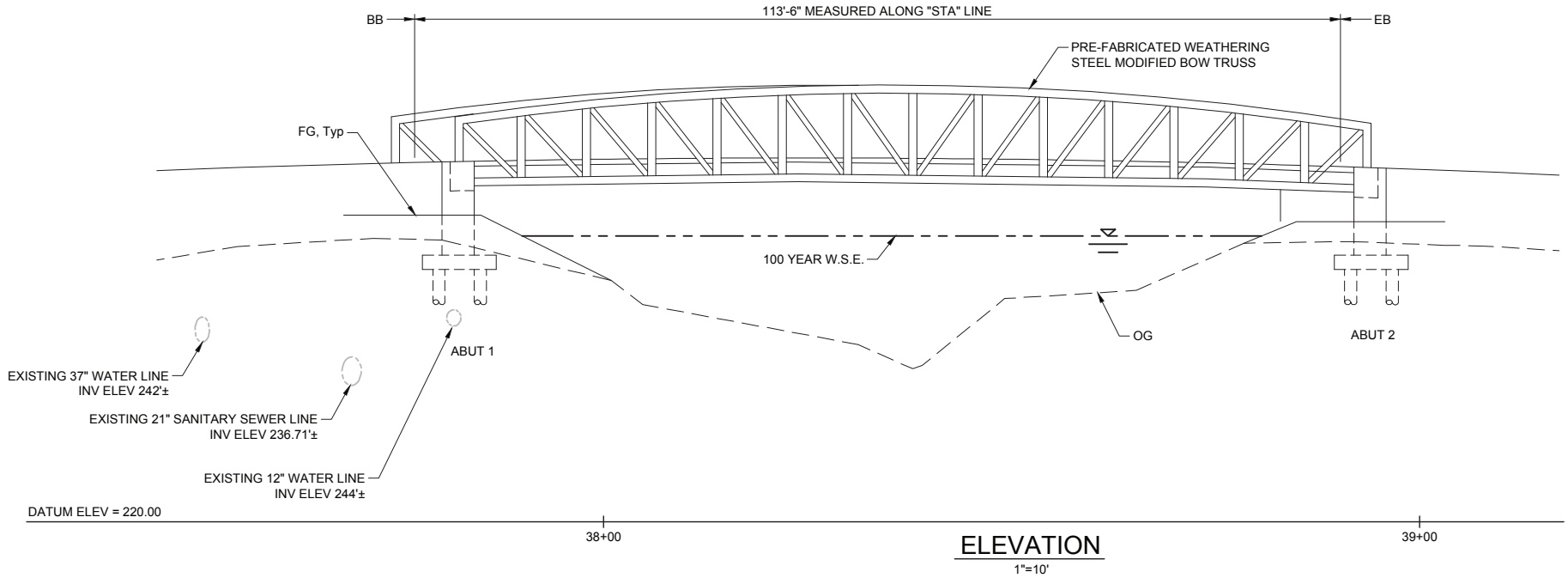
San Tomas Aquino Creek Trail (Reach 1)
San Tomas Aquino Creek Trail (Reach 2)
Reaches 1 & 2 Connection
City of Campbell/City of José Boundary
Proposed Trailhead

N

0 250 500 1,000
Feet

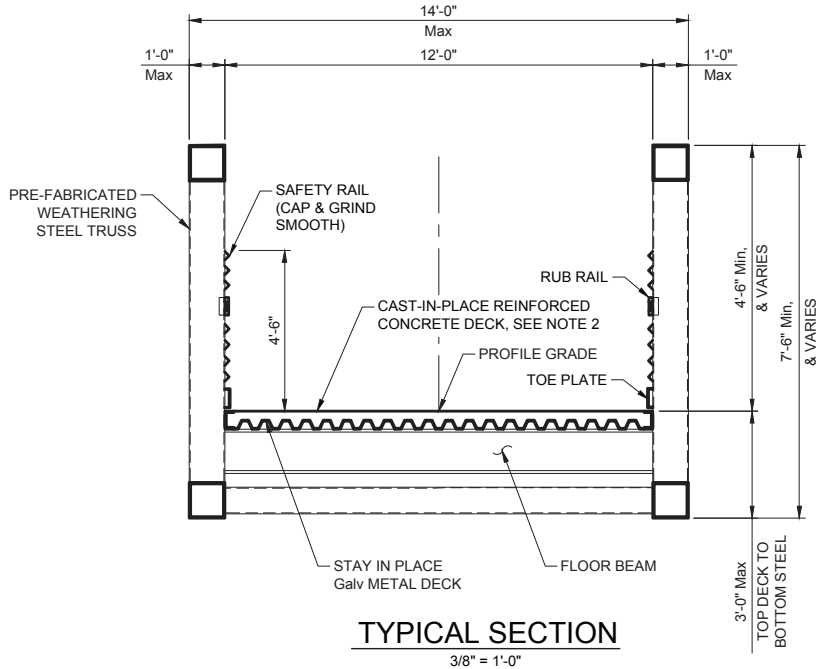
Figure 1
Project Location
San Tomas Aquino Creek Trail
Reaches 1 & 2 Project
City of Campbell
Santa Clara County, California

UNK \\SACFPP01\GROUPS\WBG\DOUGLAS_E\CAMPBELLTRAIL\GIS\MAPFILES\CAMPBELL_STACREEKTRAIL_PROJECTLOCATION_20190926.MXD ED035443 9/26/2019 8:10:10 AM



ELEVATION

1"=10'



TYPICAL SECTION

3/8" = 1'-0"

Figure 2
Bridge Elevation and Cross Section
San Tomas Aquino Creek Trail
Reaches 1 & 2 Project
City of Campbell

Several existing water and sanitary sewer lines are located at the bridge location. The proposed project will involve abandoning 12- and 37-inch potable water lines (owned by the San José Water Company (SJW)) currently located in easements on Valley Water and Westmont High School property. The water lines will be relocated and replaced by an approximately 250-foot-long, 18-inch water line, which will be located south of the proposed trail and bridge alignment on property owned by Westmont High School and Valley Water. The water line will be installed in an approximately 6-foot-deep trench that would be backfilled to the existing grade following construction. Before construction, the water lines will be relocated by SJW as part of the proposed project.

Construction access to the proposed trail site will be from the west via Westmont Avenue, McCoy Avenue, and Summerfield Drive; east via Harriet Avenue; and along West San Tomas Aquino Road. Construction access for the bridge will be from an access road located on Forest Hill Elementary School property, located just north of the proposed bridge site. Construction staging will be located on unused properties owned by Westmont High School and Forest Hill Elementary School. The prefabricated pedestrian bridge will be installed using a crane and require temporarily closing the existing pedestrian bridge; the new bridge likely will be constructed when school is on break or not in session. Construction activities may also include adjusting electrical power vaults and sanitary sewer maintenance holes along the trail to grade. Full project construction is expected to take approximately 12 months.

The new pedestrian bridge will require periodic maintenance such as graffiti removal and deck repair. Because of the very limited nature of these maintenance activities, their impacts are not discussed further.

1.8 Regulatory Permits

This document supports additional permits and discretionary approvals that might be needed to gain full approval for the proposed project. For this project, the following required permits are expected at this time and will be acquired before construction begins:

- **California Department of Fish and Wildlife (CDFW) – Section 1602 Lake or Streambed Alteration Agreement:** This permit is required for potential impacts on the riparian canopy.
- **Santa Clara Valley Habitat Agency – *Santa Clara Valley Habitat Conservation Plan* (Habitat Plan):** A portion of the project is within the Habitat Plan (County of Santa Clara et al. 2012) permit area and is subject to the plan conditions and fees.
- **Valley Water – Encroachment Permit:** A portion of the project will be constructed on Valley Water levees and right-of-way and may require an encroachment permit.

1.9 Responsible Agencies

Responsible Agencies are public agencies that propose to carry out or approve a project for which a Lead Agency is preparing or has prepared an Environmental Impact Report or Negative Declaration and include all public agencies other than the Lead Agency that have discretionary approval power over the project. For this project, the following are Responsible Agencies:

- **CDFW –** As described in Section 1.8, CDFW will consider issuing a Section 1602 Streambed Alteration Agreement for the project.
- **City of San José** – As described in Section 1.8, the City of San José is cooperating in the delivery of the project since a portion of the project will be constructed within the City's jurisdictional boundaries.
- **Valley Water** – As described in Section 1.8, the Valley Water is cooperating in the delivery of the project because it will be constructed on Valley Water levees and right-of-way.
- **Campbell Union High School District and Campbell Union School District** – As described in Section 1.7, both school districts are cooperating in the delivery of the project because construction of the project will require temporary construction easements and right of way acquisition on both Campbell Union High School District's Westmont High School property and Campbell Union School District's Forest Hill Elementary School property.

2. Environmental Determination

2.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project; that is, they would involve at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture Resources	☐	Air Quality
☐	Biological Resources	☐	Cultural Resources	☐	Energy
☐	Geology/Soils	☐	Greenhouse Gas Emissions	☐	Hazards & Hazardous Materials
☐	Hydrology/Water Quality	☐	Land Use/Planning	☐	Mineral Resources
☐	Noise	☐	Population/Housing	☐	Public Services
☐	Recreation	☐	Transportation	☐	Tribal Cultural Resources
☐	Utilities/Service Systems	☐	Wildfire	☐	Mandatory Findings of Significance

2.2 Determination

On the basis of this initial evaluation:

☐ The lead agency finds that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ The lead agency finds that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ The lead agency finds that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ The lead agency finds that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ The lead agency finds that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

3. Evaluation of Environmental Impacts

3.1 Aesthetics

Aesthetics Checklist

	Would the project:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a.	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c.	Substantially degrade the existing visual character or quality public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d.	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

3.1.1 Setting

The project is within an urbanized area of the cities of Campbell and San José, along San Tomas Aquino Creek. Surrounding land uses include residential neighborhoods to the north and south, and public schools adjacent to the proposed project. The project site includes extensive riparian vegetation. The current uses of the project area are for the Valley Water levees, which run along the San Tomas Aquino Creek through the extent of the project.

3.1.2 Impact Analysis

a. Would the project have a substantial adverse effect on a scenic vista?

NO IMPACT. The cities of Campbell and San José have many scenic resources that include the broad sweep of the Santa Clara Valley, the hills and mountains that frame the valley floor, the baylands, and the urban skyline itself, particularly high-rise development. However, the project area is not located within a City of Campbell designated scenic corridor; despite the fact that some may view the area as having scenic qualities (see (c) below); therefore, the project would not have an impact on a scenic vista.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

NO IMPACT. The nearest highway is State Route 85, which is not listed as a state scenic highway in Santa Clara County (Caltrans 2019). In addition, the City of Campbell does not have designated scenic corridors and would not remove visual or scenic resources other than the minimal removal of trees. Therefore, the project would have no impact.

c. Would the project substantially degrade the existing visual character or quality public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

LESS-THAN-SIGNIFICANT IMPACT. The project will construct a bicycle and pedestrian trail along the Valley Water levees, which is consistent with the land use and zoning for both the City of Campbell and the City of San José (see Section 3.11, Land Use and Planning for more information). The proposed project also will install a premanufactured steel-truss bridge with a weathered steel finish to complement the natural environment.

The trail and the new pedestrian bridge will be constructed over 12 months, with the bridge installation, which is anticipated to last 8 weeks, likely to occur during the summer break when Forest Hill Elementary and Westmont High School are not in session. Trail construction will occur on the Valley Water levees where there is no existing public access; further, temporary fencing will be established around the bridge area. Visual impacts associated with construction activities would be contained to the project site and be temporary. Although most of the proposed trail would not be visible to nearby residents, they may have a limited view of certain portions of the project area; however, the trees that line the San Tomas Aquino Creek would generally create a visual barrier. Also, the existing bridge would not be open during the installation of the new pedestrian bridge; this temporary disturbance of the natural setting would only occur for approximately 8 weeks and would not be a substantial adverse impact, because the purpose of the proposed project is to improve the natural setting by providing a trail.

After construction is complete, the area will be restored, including replanting trees removed during construction (see Section 3.4, Biological Resources). The new bridge will change the immediate visual setting and introduce views of San Tomas Aquino Creek to trail users, which would enhance visual interest and appreciation of the creek corridor. The new bridge is expected to be visible from some nearby residences but would blend into the creek corridor and not degrade the existing visual character. No other permanent structures are proposed that would alter the visual character of the area. Impacts to the existing visual character of the site would, therefore, be less than significant.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

NO IMPACT. The project would not involve permanent nor temporary lighting installations; therefore, there would be no impact.

3.2 Agriculture and Forestry Resources

Agriculture and Forestry Resources Checklist

Would the project:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code (PRC) Section 12220(g)), timberland (as defined in PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.2.1 Setting

The project site is located along the San Tomas Aquino Creek corridor but is within both the cities of Campbell and San José; the site is identified on the Santa Clara County Important Farmland 2016 Map as *Urban and Built-Up Land*. *Urban and Built-Up Land* is defined as residential land with a density of at least six units per 10-acre parcel, as well as land used for industrial and commercial purposes, golf courses, landfills, airports, sewage treatment, and water control structures.

The project will be constructed within the San Tomas Aquino Creek corridor, with surrounding residential neighborhoods and open space uses. The project site is designated as “Open Space” by the *City of Campbell General Plan* (City of Campbell 2001), and “Open Space, Parklands and Habitat” by *Envision San José 2040 General Plan* (City of San José 2011).

3.2.2 Impact Analysis

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

NO IMPACT. The project area is designated by the Farmland Mapping and Monitoring Program as urban and built-up land (California Department of Conservation 2019). Therefore, there would be no impact on any agricultural and farming resources.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

NO IMPACT. No portion of the project area is zoned Agriculture, and the proposed project area is not under a Williamson Act contract. Therefore, there would be no impact on any agricultural resources.

c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC section 1220(g)), timberland (as defined in PRC section 4526)?

NO IMPACT. The project area is not zoned for forest land or timberland use. Therefore, there would be no impact on any forest or timber resources.

d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

NO IMPACT. No forest land is present at the project site or in the project vicinity. Therefore, there would be no impact on any forest resources.

e. Would the project involve other changes in the existing environment which, due to their location or nature, could result in the conversion of Farmland to non-agricultural use?

NO IMPACT. The project would not involve other changes that could convert farmland to nonagricultural use. Therefore, there would be no impact on any agricultural and farming resources.

3.3 Air Quality

Air Quality Checklist

	Would the project:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a.	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b.	Result in a cumulatively considerable net increase in any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard ?	☐	☐	☒	☐
c.	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d.	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 Setting

The project area is located in Santa Clara County within the San Francisco Bay Area (Bay Area) air basin. Air pollutants with national air quality standards, known as “criteria air pollutants,” include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and particulate matter. Under federal standards, Santa Clara County is designated as nonattainment for ozone and particulate matter with aerodynamic diameter equal to or less than 2.5 microns ($PM_{2.5}$). Under state standards, Santa Clara County is designated as nonattainment for ozone, particulate matter with aerodynamic diameter equal to or less than 10 microns (PM_{10}), and $PM_{2.5}$. Santa Clara County is designated as attainment/unclassified for all other pollutants.

The Bay Area Air Quality Management District (BAAQMD) is responsible for overseeing the air pollution control strategy for the Bay Area air basin. The BAAQMD adopted the *Final 2017 Clean Air Plan* (2017 Plan) on April 19, 2017. The 2017 Plan serves as an update to the adopted *Bay Area 2010 Clean Air Plan* (BAAQMD 2010) and continues to provide the framework for the Bay Area Air Basin to achieve attainment of the California and national ambient air quality standards. The 2017 Plan provides a regional strategy to protect public health by reducing emissions of ozone precursors, particulate matter, toxic air contaminants, and greenhouse gases (GHGs) (BAAQMD 2017a).

Construction activities could generate air pollutants that degrade air quality and increase local human exposure to air contaminants. The BAAQMD has published and recently updated guidelines for evaluating, measuring, and mitigating a project’s air quality impacts under the California Environmental Quality Act (CEQA) (BAAQMD 2017b).

3.3.2 Impact Analysis

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

LESS-THAN-SIGNIFICANT IMPACT. The project would not result in significant local or regional air quality impacts, because constructing the new bicycle and pedestrian trail and bridge would not generate a significant number of additional vehicle trips within the project area. The project would fulfill the Cities of Campbell’s and San José’s goals for citywide trail systems and would aid in connecting to other nearby trails. The proposed project also would encourage alternative means of transportation for the residents of the surrounding neighborhoods as well.

The 2017 Plan identifies improving pedestrian and bicycle access and facilities as transportation control measures, which are strategies to reduce vehicle trips, vehicle use, vehicle miles traveled,

vehicle idling, or traffic congestion, to reduce motor vehicle emissions. The project would be consistent with the 2017 Plan's goals for reducing vehicle use, given that it would improve pedestrian and bicycle facilities in the area and make nonmotorized travel safer and more accessible. For these reasons, the project would support implementation of the 2017 Plan. The project would be constructed in compliance with BAAQMD regulations, and best management practices (BMPs) would be implemented to reduce criteria pollutants emissions as discussed below. Therefore, any impacts would be less than significant.

b. Would the project result in cumulatively considerable net increase of any criteria pollutant for which to project region is non-attainment under and applicable federal or state ambient air quality standard?

LESS-THAN-SIGNIFICANT IMPACT. Constructing the project would temporarily increase ambient air pollutant concentrations through tailpipe emissions and dust entrainment. Construction activities would temporarily affect local air quality, causing a temporary increase in particulate dust and other emissions, which could result in temporary nuisances to the adjacent residential land uses. Additionally, the bridge would be constructed during the summer months when Forest Hill Elementary School and Westmont High School are not in session to avoid temporary increases in particulate dust and other emissions impacting students. Constructing the project would not require significant grading and, thus, would not result in a significant air quality impact associated with temporary air pollutant generation.

Quantitatively evaluating construction impacts is not required because the project is much smaller than the screening criteria identified in the BAAQMD CEQA guidelines (BAAQMD 2017b). In addition, the project will implement criteria pollutant control measures identified in the BAAQMD CEQA guidelines as Standard Project Conditions. Therefore, impacts would be less than significant.

Standard Project Conditions

Construction emission control measures would include the following:

- All exposed surfaces (for example, parking areas, staging areas, soil piles, graded areas, and unpaved access roads) will be watered twice per day.
- All haul trucks transporting soil, sand, or other loose material offsite will be covered.
- All visible mud or dirt track-out onto adjacent public roads will be removed using wet power vacuum street sweepers at least once a day. Dry power sweepers are prohibited.
- All vehicle speeds on unpaved roads will be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks will be paved as soon as possible.
- Idling times will be minimized either by shutting off equipment when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of the California Code of Regulations [CCR]). Clear signage will be provided for construction workers at access points.
- All construction equipment will be maintained and tuned in accordance with the manufacturer's specifications. All equipment will be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- A publicly visible sign will be posted with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person will respond and take corrective action within 48 hours. The BAAQMD's telephone number will also be visible to ensure compliance with applicable regulations.

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

LESS-THAN-SIGNIFICANT IMPACT. Sensitive receptors in the project vicinity include single-family residences located northeast and east of the project along San Tomas Aquino Creek, specifically along Kingston Way, Manitoba Drive, Summerfield Drive, Silacci Drive, and West San Tomas Aquino Road. Additional sensitive receptors include a local church, Westmont High School, and Forest Hill Elementary School. The closest residential receptors are approximately 170 feet to the north of the of the project site, and the closest schools are approximately 200 feet north and south of the project site.

The project's operational effects would be minimal, because neither the new trail nor the new bike/pedestrian bridge would generate a significant number of additional vehicle trips in the project area. Additionally, the project would not exceed BAAQMD's thresholds for generating criteria air pollutants and ozone precursors. Therefore, the project would not result in significant long-term air quality impacts from increased emissions of air pollutants.

Although residential areas are near the construction site, construction activities would be temporary and limited to a small area where only a few pieces of construction equipment would operate at a time. Long-term exposure to diesel particulate matter would not occur. In addition, during construction, Standard Project Conditions listed above would be implemented as described in the BAAQMD (2017b) CEQA guidelines. These measures would minimize exposure of nearby sensitive receptors to construction-related pollutants. The bridge would be limited to pedestrian and bicycle use, as well as occasional emergency and/or maintenance vehicles. This limited use would not generate harmful emissions that would impact sensitive receptors adjacent to the site. Therefore, project impacts would be less than significant.

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

LESS-THAN-SIGNIFICANT IMPACT. Diesel construction equipment may generate minor odors during construction activity. Construction emissions would be temporary and would not create objectionable odors affecting a substantial number of people. Therefore, odor impacts would be less than significant.

3.4 Biological Resources

Biological Resources Checklist

	Would the project:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c.	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

3.4.1 Methodology

3.4.1.1 Literature and Database Reviews

Literature and database reviews were conducted to investigate the potential presence of sensitive resources, special-status species, and critical habitat(s) within the project area. A species is considered special-status if it meets at least one of the following criteria:

- Species that are listed, proposed for listing, or candidates for listing as threatened or endangered under Federal Endangered Species Act (FESA) (Code of Federal Regulations [CFR] Title 50, 17.11, 76 Federal Register [FR] 66370)
- Species that are listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA) (Fish and Game Code, Sections 2050 et seq., 2062, 2067, and 2068)
- Species listed by CDFW as a species of special concern (SSC), fully protected (FP), or watch list (WL).
- Species listed by California Native Plant Society (CNPS) as 1 or 2 in the current online version of its Inventory of Rare and Endangered Plants of California (CNPS 2019) as they meet the definition of “rare” or “endangered” under CEQA Guidelines Section 15125 (c) and/or Section 15380.

A list of special-status wildlife and plant species with potential to occur was developed by querying the following databases:

- USFWS's Information for Planning and Consultation (IPaC) database was queried to determine which federally- listed species could potentially occur near the project footprint (USFWS 2020).
- The California Natural Diversity Database (CNDDB) Geographic Information System (GIS) database was queried for occurrences of sensitive species within 5 miles of the Biological Study Area (BSA) (CDFW 2020).
- The CNPS rare plant database was queried for the following USGS nine quadrangles that directly surround the Project: Mountain View, Milpitas, Calaveras Reservoir, Cupertino, San José West, San José East, Castle Rock Ridge, Los Gatos, Santa Teresa Hills (CNPS 2020).
- National Oceanic and Atmospheric Administration – National Marine Fisheries Service (NOAA Fisheries) Google Earth tool for California species lists was queried for special-status fish species (NOAA Fisheries 2020).
- The National Wetlands Inventory (NWI) database (USFWS 2019) was queried for wetlands analysis and potential habitat for special-status aquatic species analysis.
- The USGS National Hydrological Dataset (2019) was queried for information on San Tomas Aquino Creek.

Each species was evaluated to determine its potential to occur within the project area. A species was determined to have potential to occur if a nearby occurrence was on record with CNDDB (CDFW 2020), if its known or expected geographic range includes the project limits or vicinity of the project limits, or if its known or expected habitat is represented within or near the project limits.

3.4.1.2 Field Surveys

An HMH Engineers, Inc. arborist conducted a tree inventory in 2019, showing 329 trees within the limit of work (Appendix B) . On August 19, 2019, Jacobs Biologist Scott Lindemann visited the project site to visually assess habitat suitability for special-status species and identify aquatic features within the project area.

Likelihood of Presence for Special-Status Species

Using the information generated from literature reviews and field surveys, the list of special-status species with the potential to occur was further refined to reflect species that may occur within the project area. The likelihood of special-status species occurrence was determined based on natural history parameters, including species' range, habitat, foraging needs, migration routes, and reproductive requirements, using the following general categories:

- *Present* – A reconnaissance-level, focused, or protocol-level survey has documented the occurrence or observation of a species in the project area.
- *Likely to occur (on site)* – The species has a strong likelihood to be found in the project area before or during construction but has not been directly observed to date during project surveys. The likelihood that a species may occur is based on the following considerations: suitable habitat that meets the species' life history requirements is present on or near the project area; migration routes or corridors are near or within the project area; records of sighting are documented on or near the project area; and invasive predators (for example, bullfrogs) are absent. The main assumption is that records of occurrence have been documented within or near the project area, the project area falls within the range of the species, suitable habitat is present, but whether the habitat is currently occupied is undetermined.
- *Potential to occur* – The species could be found in the project area before or during construction but has not been directly observed to date. The likelihood that a species may occur is based on the following conditions: suitable habitat that meets the species' life history requirements is present on or near the project area; migration routes or corridors are near or within the project area; and invasive

predators (for example, bullfrogs) are absent. The main assumption is that the project area falls within the range of the species, suitable habitat is present, but no records of sighting are located within or near the project area, and whether the habitat is currently occupied is undetermined.

- *Unlikely to occur* – The species is not likely to occur in the project area based on the following considerations: lack of suitable habitat and features that are required to satisfy the life history requirements of the species (for example, absence of foraging habitat, lack of reproductive areas, and lack of sheltering areas); presence of barriers to migration/dispersal; presence of predators or invasive species that inhibit survival or occupation (for example, the presence of bullfrogs or invasive fishes); and lack of hibernacula, hibernation areas, or estivation areas on site.
- *Absent* – Suitable habitat does not exist in the project area, the species is restricted to or known to be present only within a specific area outside of the project area, or focused or protocol-level surveys did not detect the species.

Unless otherwise noted, the likelihood of presence and environmental information presented in this section are summarized from Appendix C.

3.4.2 Setting

3.4.2.1 Regional Setting

The project site is in the Central California Coastal Valleys Major Land Resource Unit of Land Resources Region C: the California Subtropical Fruit, Truck, and Specialty Crop Region (USDA-NRCS 2006) and in the Santa Clara Valley subsection of the Central California Coast ecological subregion of California (Miles and Goudey 1997). The climate is hot and subhumid: mean annual temperature is about 56 to 60 degrees Fahrenheit, mean freeze-free period is about 250 to 275 days, and mean annual precipitation is about 12 to 20 inches of rainfall (Miles and Goudey 1997).

This area has been heavily altered by human activity, including urban development. Before the 1900s, most land in the Santa Clara Valley was used for cattle grazing and dry-land farming. In the early 1900s, agriculture was the chief economic activity. As in most California coastal basins, urbanization since the late 1940s resulted in the transfer of agricultural lands to residential and commercial uses; since 1915, the valley population has grown from fewer than 100,000 to more than 1.9 million in 2017.

One aquatic resource is located on site: San Tomas Aquino Creek. This intermittent creek originates in the foothills of the Santa Cruz Mountains and drains a primarily urbanized area of the Santa Clara Valley (Leidy et al. 2005; USGS 2019). This creek also runs parallel to the work area, and the proposed pedestrian bridge will cross it.

3.4.2.2 Natural Communities

The San Tomas Aquino Creek riparian corridor consists of the channelized creek itself and its levees and is surrounded by urban development. As a result of this existing anthropomorphic impacts, additional impacts on the creek are expected to be minimal; for this reason, human impacts are not discussed in this section. Trees have been planted along the creek and roads paralleling the creek and have been left to naturalize. Three habitats were observed within the project area: mixed riparian forest, urban land, and intermittent riverine habitat. Intermittent riverine habitat (aquatic habitat) occurs within the active flow channel of San Tomas Aquino Creek. Mixed riparian forest and aquatic habitat are considered sensitive communities by resource agencies.

Mixed Riparian Forest

This habitat type occurs primarily southeast of McCoy Avenue, and it is dominated by trees planted within the creek corridor following channelization and levy construction. This riparian forest is a mixture of planted native and nonnative trees. Coast live oak (*Quercus agrifolia*) is the most populous tree, making up 262 of the 329 total trees surveyed in the work area (HMH 2019). Other native species documented on site include valley oak (*Q. lobata*), western sycamore (*Platanus racemosa*), elderberry (*Sambucus* spp.),

laurel (*Laurus* spp.), buckeye (*Aesculus* spp.), toyon (*Heteromeles arbutifolia*). Nonnative, ornamental tree and shrub species include holly oak (*Quercus ilex*), eucalyptus (*Eucalyptus* spp.), paper bark melaleuca (*Melaleuca stypheliodes*), evergreen pistacia (*Pistacia lentiscus*), and silk tree (*Albizia julibrissen*). During the August 2019 site visit, the understory was dominated wild oat (*Avena fatua*) and other grasses. Other small shrubs, vines, and forbs were also present, including English Ivy (*Hedera helix*). This riparian habitat is considered sensitive and subject to the regulatory jurisdiction of CDFW.

Urban Land

This habitat type is characterized by urban impervious surfaces and a lack of understory vegetation. It is found in the project area northeast of McCoy Avenue. In this area, the creek is channelized with concrete banks, and the maintenance roads surrounding it are topped with bare gravel. Scattered trees are present between the southern bank of the creek and West San Tomas Aquino Road, but no appreciable understory vegetation is present.

Intermittent Riverine Habitat

San Tomas Aquino Creek in the project area is channelized, and it experiences an intermittent flow regime and, because it drains a primary urban area, likely carries flashy flows following rainfall (Leidy et al. 2005; USGS 2019). The creek was completely dry during the August 2019 site visit. Substrate within the channel has been artificially manipulated and consisted of sand with rip rap. During the August 2019 site visit, practically no vegetation was growing within the stream channel, although historical aerial imagery shows vegetation grows within the channel during some years (Google 2019). At different points along the project area, the bank comprises native soil, sacked concrete slope protection bags, or concrete walls. This aquatic habitat is considered sensitive and subject to the regulatory jurisdiction of CDFW, the San Francisco Bay Regional Water Quality Control Board (RWQCB), and the USACE.

3.4.2.3 Wetlands and Other Waters

The project area spans the channelized San Tomas Aquino Creek, which is jurisdictional under the Clean Water Act. No federally protected wetlands are within the project area, as defined by Section 404 of the Clean Water Act.

3.4.2.4 Special-Status Species

Plants

A literature and database review identified a total of 38 special-status plant species. Of these 38 species, 2 species are unlikely to occur in or near the project site: Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*) and western leatherwood (*Dirca occidentalis*) (Table 1). The project site provides suitable habitat and is within or near the known range of the species. However, the potential for them to occur on site is low for several reasons: (1) no CNDDB occurrences have been recorded within the boundaries of the project, (2) the closest CNDDB occurrences of all of these species are marked as extirpated historical occurrences, (3) this site has a history of significant human disturbance, including ground-disturbing activities that may have removed viable seed sources, and (4) the project site is surrounded by large tracts of urban land, making immigration of new seeds from existing sources unlikely. Therefore, permanent or temporary impacts to these special-status plant species are not expected as a result of project construction. The remaining 36 species are considered to be absent because suitable habitat is not present.

Table 1. Special-Status Plant Species with Potential to Occur near the Project Site

Scientific Name	Common Name	Status[a]			Habitat	Blooming Period	Likelihood of Presence
		Federal	State	CNPS			
Centromadia parryi ssp. *Congdonii*	Congdon's tarplant	-	-	1B.1	Valley and foothill grassland, specifically, alkaline soils, sometimes described as heavy white clay Elevations between 0 and 755 feet	May through October (November)	Unlikely to occur—suitable habitat This species is known to occur on disturbed sites, but the only CNDDB occurrence within 5 miles is an extirpated occurrence from 1908; habitat isolation at project site means low potential.
Dirca occidentalis	Western leatherwood	-	-	1B.2	Broad-leafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, north coast coniferous forest, riparian forest, and riparian woodland; specifically, mesic Elevations between 80 and 1395 feet	Jan through March (April)	Unlikely to occur—suitable habitat One CNDDB occurrence within 5 miles was located 4.7 miles west of the project area in Stevens Creek Reservoir in 2012. Habitat isolation at project site means low potential.

CNPS California Native Plant Society
CNDDB California Natural Diversity Database

Wildlife

Literature and database review identified a total of 19 special-status wildlife species. Of these 19 species, 9 species are unlikely to occur or could occur in or near the project site: Santa Cruz black salamander (*Aneides flavipunctatus niger*), California red-legged frog (CRLF; *Rana draytonii*), burrowing owl (*Athene cunicularia*), Cooper's hawk (*Accipiter cooperii*), Swainson's hawk (*Buteo swainsoni*), American peregrine falcon (*Falco peregrinus anatum*), and San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*) (Table 2; CDFW 2020; USFWS 2020). In addition, two bat species, pallid bat and Townsend's big-eared bat, were included based on professional judgement; these species are discussed in detail in the next subsections. Potentially occurring bird species protected under the Migratory Bird Treaty Act are also discussed. All other species are considered absent due to lack of suitable habitat.

Santa Cruz Black Salamander

The Santa Cruz black salamander (*Aneides flavipunctatus niger*) is an arboreal salamander similar to other plethodontid arboreal salamanders, such as the congener *Aneides lugubris*, the arboreal salamander. Like that salamander, the Santa Cruz black salamander is fully terrestrial and associated with moist areas in a variety of habitat types, including mixed-deciduous woodland, coniferous forests, and coastal grasslands (California Herps 2019).

Suitable habitat is available in the project area in the form of leaves and duff around oak trees, as well as in ground squirrel burrows and other refugia. However, because of habitat isolation, the project site is not ideal habitat. The CNDDB lists 32 occurrences within 5 miles, and the closest occurrence is located 0.8 mile west of the project area (CDFW 2020). This occurrence describes three specimens collected in the mid-1940s. A more recent occurrence, from 2011, is located 4.2 miles southwest of the project area along Saratoga Creek.

California Red-Legged Frog

The CRLF is a large native ranid frog that is experiencing population declines due to habitat loss. The species is federally listed as a threatened species and state listed as an SSC. CRLF are typically found from sea level to elevations of approximately 5,000 feet. Nonbreeding CRLF can occupy both aquatic and upland habitats. Most individuals prefer dense, shrubby or emergent vegetation, closely associated with deep, still, or slow-moving water. For breeding, CRLF require still or slow-moving water bodies, with a long enough hydroperiod to complete metamorphosis from larva into adult stages, which occurs in approximately 20 weeks (USFWS 2010). Some individuals use habitats that are removed from aquatic habitats, seeking cover in ground squirrel burrows, under boulders and logs, and in nonnative grasslands (Tatarian 2008). Upland refugia habitat includes areas up to 295 feet from a stream corridor or breeding pond and natural features such as boulders, rocks, trees, shrubs, and logs. In general, terrestrial areas within the riparian corridor provide important sheltering habitat during stream winter flooding (Tatarian 2008). CRLF movements from one aquatic water body to another typically occur to and from breeding habitats. Radio-tracking in Contra Costa County (Tatarian 2008) and Marin County (Fellers and Kleeman 2007) reveal that distances varied between 300 feet and 1.75 miles, typically in a relatively straight line. While many movements occurred across distances of 330 and 650 feet in open grasslands, other movements taking more than one night were along riparian corridors (Fellers and Kleeman 2007).

When wetted, San Tomas Aquinas Creek is suitable dispersal and/or migration habitat for CRLF. No suitable perennial aquatic habitat exists in or near the project area, but CRLF may use the riparian corridor as a dispersal pathway between suitable habitat. Ground squirrel burrows and other refugia in the project area also represent suitable refugia or stopover habitat. There are 37 CRLF occurrences within 5 miles of the project area (CDFW 2020). The closest occurrence is located 3.0 miles west/southwest of the project area, along Saratoga Creek. This occurrence documents a juvenile CRLF detected along the creek in 1997. While San Tomas Aquino Creek does join Saratoga Creek, they meet only north of U.S. Route 101, in an area with conditions that are likely too saline for CRLF to tolerate; therefore, there is no known aquatic connectivity to existing CRLF occurrences. Also, no CNDDB occurrences are within the San Tomas Aquino watershed (CDFW 2020; USGS 2019).

Table 2. Special-Status Wildlife Species with Potential to Occur near the Project Site

Scientific Name	Common Name	Status[a]			Habitat	Likelihood of Presence
		Federal	State	CDFW		
Aneides flavipunctatus niger	Santa Cruz black salamander	-	-	SSC	Mixed deciduous and coniferous woodlands and coastal grasslands in San Mateo, Santa Cruz, and Santa Clara counties	Unlikely to occur—suitable habitat A total of 32 CNDDB occurrences are within 5 miles. Low potential for occurrence because habitat isolated from all records and migratory corridors.
Rana draytonii	California red-legged frog	T	-	SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation	Unlikely to occur—suitable dispersal or upland habitat while water is present in the creek and refugia present A total of 37 CNDDB occurrences have been recorded within 5 miles. The closest occurrence is located 3.0 miles west/southwest of the project along Saratoga Creek. No CNDDB occurrences are recorded within San Tomas Aquino watershed.
Accipiter cooperii	Cooper's hawk	-	-	WL	Woodland, chiefly of open, interrupted, or marginal type	Potential to occur—suitable habitat is present. This species is known to inhabit marginal, interrupted woodland, and the project site has dense riparian canopy and plentiful bird prey. Two CNDDB occurrences are within 5 miles. The closest occurrence is 2.8 miles northeast.
Athene cunicularia	Burrowing owl	-		SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation	Unlikely to occur—suitable habitat on project site includes ground squirrel burrows, absence of high grass, and nearby sports fields. One CNDDB occurrence is recorded within 5 miles, located 5.0 miles north of the work area in Sunnyvale from 1983.
Buteo swainsoni	Swainson's hawk	-	T	-	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees	Unlikely to occur—low-quality foraging habitat due to lack of expansive grasslands and the extent of nearby impervious cover, although nearby sports fields provide marginal foraging habitat. One CNDDB occurrence is within 5 miles, 4.0 miles north.
Falco peregrinus anatum	American peregrine falcon	D	D	FP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, built structures	Unlikely to occur—very low-quality nesting habitat in the vicinity, but moderate quality foraging habitat due to the presence of birds in the riparian corridor Two CNDDB occurrences are within the USGS quad.

Table 2. Special-Status Wildlife Species with Potential to Occur near the Project Site

Scientific Name	Common Name	Status[a]			Habitat	Likelihood of Presence
		Federal	State	CDFW		
Bombus crotchii	Crotch bumble bee	-	CE	-	Nests underground in scrub grassland habitats, and individuals forage at sages (*Salvia* spp.), lupines (*Lupinus* spp.), medics (*Medicago* spp.), phacelias (*Phacelia* spp.), and milkweeds (*Asclepias* spp.).	Unlikely to occur Recent publications suggest that the project may be outside the current range of the species. There is one CNDDB occurrence within 5 miles.
Bombus occidentalis	Western bumble bee	-	CE	-	Nests in a wide variety of substrates (structures, underground cavities, tree hollows, and burrows), and selects from a wide variety of floral resources during foraging bouts.	Unlikely to occur Recent publications suggest that the project may be outside the current range of the species. There is one CNDDB occurrence within 5 miles.
Antrozous pallidus	Pallid bat	-	-	SSC	Deserts, grasslands, shrublands, woodlands and forests; most common in open, dry habitats with rocky areas for roosting; roosts must protect bats from high temperatures Very sensitive to disturbance of roosting sites	Unlikely to occur No CNDDB occurrences are within 5 miles, but suitable habitat is present in the surrounding areas, and vicinity may be used for foraging.
Corynorhinus townsendii	Townsend's big-eared bat	-	-	SSC	Throughout California in a wide variety of habitats; most common in mesic sites Roosts in the open, hanging from walls and ceilings; roosting sites limiting Extremely sensitive to human disturbance	Unlikely to occur No CNDDB occurrences are within 5 miles, but suitable habitat is in the vicinity, including potential roosting habitat under bridges and foraging habitat.
Neotoma fuscipes annectens	San Francisco dusky-footed woodrat	-	-	SSC	Forest habitats of moderate canopy and moderate to dense understory; may prefer chaparral and redwood habitats.	Potential to occur—suitable habitat present on site Seven CNDDB occurrences are within 5 miles. The closest CNDDB occurrence is 2.5 miles northwest and describes an occurrence along Saratoga Creek.

CDFW California Department of Fish and Wildlife
CNDDB California Natural Diversity Database
FP fully protected
SSC species of special concern
USGS U.S. Geological Survey
WL watch list

Burrowing Owl

Burrowing owl (*Athene cunicularia*) habitats include dry, open rolling hills; grasslands; fallow fields; sparsely vegetated desert scrub with gullies, washes, and arroyos; and edges of human-disturbed lands. The burrowing owl's nesting habitat consists of open areas with mammal burrows. This species has been known to inhabit golf courses, airports, cemeteries, vacant lots, and road embankments--wherever sufficient friable soil is available for a nesting burrow. In addition to burrows, the owls also require perching locations and frequently use fence posts or the top of mounds outside the burrow. Burrowing owls typically use burrows created by other animals, especially burrows constructed by California ground squirrels (*Otospermophilus beecheyi*) (Bates 2006).

Suitable nesting, wintering, and foraging habitat is available for this species in the project area, because little existing understory and plentiful ground squirrel burrows are around. In addition, while the riparian corridor is surrounded by urban development, it is relatively isolated from anthropomorphic disturbance because it is enclosed by a chain-link fence. One CNDDB occurrence is within 5 miles of the project area, located 5.0 miles north of the work area in Sunnyvale (CDFW 2020). This occurrence describes burrowing owl nesting between Patrick Henry Jr. High School and Peterson High School between 1981 to 1983.

Cooper's Hawk

The Cooper's hawk (*Accipiter cooperii*) is a medium-sized raptor in the *Accipiter* genus that specializes in preying on medium-sized birds in woodland habitats. It is commonly found in both continuous forest as well as more isolated, disturbed, and marginal-quality tree stands (CDFW 2020; Cornell University 2019a).

The riparian corridor within the project area represents excellent nesting and foraging habitat for Cooper's hawk because of the presence of trees suitable for nesting and existing avian prey. Two CNDDB occurrences of this species are within 5 miles (CDFW 2020). The closest occurrence, located 2.8 miles northeast of the project area, documents a nesting pair of adults with juveniles in ornamental redwood, pine, and birch trees in a commercial parking lot in 2003.

Swainson's Hawk

The Swainson's hawk (*Buteo swainsoni*) is a summer resident and breeding bird throughout much of the United States west of the Mississippi River. In recent history, breeding Swainson's hawks have been reported extirpated from southern coastal California but continued to breed regularly in the Central Valley (Remsen 1978). Historically, Swainson's hawk probably occurred over perennial grasslands and scrublands associated with riparian areas (Grinnell and Miller 1944). Currently, they forage over agricultural fields, including alfalfa, grain, and row crops (Steinhart 1990). Nesting habitat includes tall sycamores, cottonwoods, and other trees (Grinnell and Miller 1944; Steinhart 1990), located in various habitat types, including urban/suburban areas (England et al. 1995). Swainson's hawk feed on large insects and small mammals (Ryser 1985). In California, they are often observed foraging behind farm equipment as fields are tilled, planted, or harvested (Steinhart 1990).

The work area is generally low-quality Swainson's hawk habitat due to lack of nearby expansive grasslands and the extent of surrounding urban cover, although the sports fields associated with the nearby Westmont High School and Forest Hill Elementary School may provide marginal foraging habitat. Swainson's hawks are not expected to nest in or near the project area. One CNDDB occurrence is within 5 miles of the project area (CDFW 2020). This occurrence is located 4.0 miles north of the work area but represents a historical specimen collection from 1889 and is likely extirpated.

American Peregrine Falcon

The American peregrine falcon breeds in open landscapes with cliffs (or skyscrapers) for nest sites and forages for passerines, which it takes by engaging in high-speed aerial dives. They can be found nesting at elevations up to about 12,000 feet, as well as along rivers and coastlines or in cities, where rock dove populations offer a reliable food supply. In migration and winter, American peregrine falcons can be found in nearly any open habitat, but with a greater likelihood along barrier islands, mudflats, coastlines, lake edges, and mountain chains (Cornell University 2019b). Suitable nesting habitat is not present for

peregrine falcon within or adjacent to the project area. Some potential for the species to occur exists on the project site only as visitor, migrant, or transient, but it is not expected to reside or breed on the site, occur in large numbers, or otherwise make substantial use of the site. Therefore, there would be no impact.

Suitable foraging habitat is available for this species along the riparian corridor because this corridor likely offers a higher density of passerine birds than surrounding areas. Also, marginal-quality nesting habitat is available in tall structures associated with the nearby Westmont High School and Forest Hill Elementary School. Two CNDDB occurrences are within 5 miles of the project area, but these occurrences are confined to USGS 7.5-minute quadrangle level within the CNDDB database, because this species is marked as sensitive due to fears of egg collection for falconry.

San Francisco Dusky-Footed Woodrat

The San Francisco dusky-footed woodrat (SFDW; *Neotoma fuscipes annectens*) is found in hardwood forests, oak, riparian, and shrub habitats. This species is found throughout the San Francisco Bay area and south to Monterey (Hall 1981, as cited in California State University, Stanislaus 2014; Carraway and Verts 1991), generally in forested habitats with moderate canopy, year-round greenery, a brushy understory, and a sufficient supply of suitable nest building materials (CDFW 2008). Evergreen or live oaks or other thick-leaved trees and shrubs are important habitat elements for this species (Kelly 1990; Williams et al. 1992; as cited in California State University, Stanislaus 2014). The SFDW is highly arboreal. The species is a generalist herbivore, and individuals forage on the ground and in bushes and trees, primarily on woody plants such as live oak, maple, alder, coffeeberry, and elderberry; it also consumes fungi, flowers, grasses, and acorns (CDFW 2008). They are nocturnal and active all year long. SFDW builds mounded stick nests that can measure 3 to 8 feet across and as much as 6 feet tall (Santa Cruz Mountains Bioregional Council 2004). Nests typically are placed on the ground in areas of dense brush, against or straddling a log or roots of an adjacent tree. They may also be constructed in crotches or cavities of trees or logs or occasionally higher up in trees, primarily evergreen oaks (California State University, Stanislaus 2014). A well-developed understory at the base of a single evergreen may be suitable for a single individual (CDFW 2008).

The riparian corridor in the project area is suitable habitat for San Francisco dusky-footed woodrat. No woodrat nests were observed during the August 19, 2019, site visit, although a focused woodrat nest survey was not conducted. There are 7 CNDDB occurrences within 5 miles of the project area (CDFW 2020). The closest CNDDB occurrence is located 2.5 miles northwest of the project area and describes a woodrat nest along a recreational trail in the Saratoga Creek riparian corridor, surrounded by urban residential development. This is almost similar habitat as the project site.

Bumble Bee Species (Western and Crotch)

These two species (western bumble bee [*Bombus occidentalis*] and crotch bumble bee [*Bombus crotchii*]) were listed as State Candidate Endangered species in June 2019. Bumble bees are social insects with a colonial hierarchy consisting of a queen and worker class.

The western bumble bee peak flight season begins during late June and extends into mid-September. Mating season occurs during late summer to early fall. They nest in a wide variety of substrates, including constructed structures, underground cavities, hollows within trees, and abandoned mammal burrows. The western bumble bee is not restricted to a subset of floral hosts and selects from a wide variety of floral resources during foraging bouts. Historically, the western bumble bee was one of the most common bee species in the northwest United States; however, since 1998, this species has undergone a drastic decline throughout their Californian range (Xerces Society 2012, Xerces Society et al. 2017, Xerces Society et al. 2018).

The crotch bumble bee peak flight season occurs during July and extends into September. Mating season occurs during late summer to early fall. They nest underground in scrub grassland habitats, and individuals forage at sages (*Salvia* spp.), lupines (*Lupinus* spp.), medics (*Medicago* spp.), phacelias (*Phacelia* spp.), and milkweeds (*Asclepias* spp.). The crotch bumble bee was once a predominant

pollinator of northern California's Central Valley plants, but now it is an uncommon occurrence on the landscape. Populations of the crotch bumble bee have shown a sharp decline in relative abundance and persistence over the past 10 years. Intensive agricultural development and rapid urbanization in the Central Valley have contributed to declining populations by reducing preferred nesting substrate and available floral resources (IUCN 2020).

The historical range of the western bumble bee extends into the project footprint; however, recent studies suggest that populations of this species are largely restricted to high-elevation sites of the Sierra Nevada and the northern coast of California south of the Oregon border (Xerces Society 2012, Xerces Society et al. 2017, Xerces Society et al. 2018). One CNDDB occurrence of western bumble bee is recorded within 5 miles of the project footprint (CDFW 2020). Although the western bumble bee has low abundances, rare occurrences, and limited distribution, this species is liberal with nest and floral preferences. Given the recent presumed range, western bumble bee is not likely to be present in the project footprint.

The crotch bumble bee has a historical range extending into the project area, but a recent report suggests that the current range excludes the project footprint (Xerces Society et al. 2018). One historical CNDDB occurrence of crotch bumble bee is recorded within 5 miles of the project footprint (CDFW 2020). The project footprint habitat does not provide large numbers of the host plants typically used by the crotch bumble bee. Suitable nesting and hibernacula habitat may be present, but given the very low relative abundance and persistence of the crotch bumble bee, nesting occurring in the project footprint is very unlikely. Due to the low abundances of the crotch bumble bee, the lack of preferred scrub-grassland habitat, and low probability of available floral hosts, the probability that crotch bumble bees are present in the project footprint is very low.

Pallid Bat

The pallid bat (*Antrozous pallidus*) is a California SSC. Pallid bats are most commonly found in oak savannah and in open dry habitats with rocky areas, trees, buildings, or bridge structures that are used for roosting (CDFW 2000). They commonly roost in deep crevices in rocky outcroppings, in buildings, under bridges, and in the crevices, hollows, and exfoliating bark of trees. Night roosts often occur in open buildings, porches, garages, highway bridges, and mines. Colonies can range in size from a few individuals to over a hundred (Barbour and Davis 1969). Existing bridges in the project area were inspected for bat signs, and none were found. Pallid bats may forage on the project site year-round or during migration.

Townsend's Big-eared Bat

Townsend's big-eared bat (*Corynorhinus townsendii*) is a California SSC that occurs throughout California in a wide variety of habitats. It roosts in the open, hanging from walls and ceilings and needs sites free from human disturbance. It is most commonly found in moderately moist sites. Townsend's big-eared bat requires caves, mines, tunnels, buildings, or other built structures for roosting (CDFW 2000).

Existing bridges in the project area were inspected for bat signs, and none were found. Townsend's big-eared bat may forage on the project site year-round or during migration, but suitable roosting habitat is not present within or adjacent to the project site.

Special-Status Fish Species

Database review yielded two potential special status fish species: steelhead - central California coast Distinct Population Segment (DPS) *(Oncorhynchus mykiss*) and Delta smelt (*Hypomesus transpacificus*). San Tomas Aquino Creek is an intermittent creek that dries annually during the summer (USGS 2019). While nearby creeks (for example, Los Gatos Creek) support Central California Coast steelhead (*Oncorhynchus mykiss*), a drop structure in the San Tomas Aquino Creek channel represents a downstream barrier to fish passage at Scott Boulevard, 7.0 miles north of the project area. Special-status fish species are not known in San Tomas Aquino Creek upstream of the project area (CDFW 2019; Leidy et al. 2005). Therefore, special-status fish species are considered to be absent from the project area.

Birds Protected Under the Migratory Bird Treaty Act

The San Tomas Aquino Creek riparian corridor within the project area supports suitable nesting and foraging habitat for a variety of bird species.

3.4.2.5 Santa Clara Valley Habitat Conservation Plan

The project site is partially within the Habitat Plan area and is subject to the conditions and fees contained in the Habitat Plan (County of Santa Clara et al. 2012). Specifically, the project site west of the existing pedestrian bridge at Silacci Drive is within the Habitat Plan area, and this area is designated by the Habitat Plan as Willow Riparian Forest and Scrub. The project area is not within any habitat plans wildlife survey zone. The project is within Land Cover Fee Zone B and Land Cover Fee Zone – Agricultural and Valley Floor Land. In addition, San Tomas Aquino Creek is mapped as a Category 1 Stream in the Habitat Plan, with a setback distance of 150 feet.

3.4.2.6 Wildlife Migratory Corridors

The *City of Campbell General Plan* notes that the existing riparian corridors play an important role as a corridor for wildlife movement, and creek corridors provide habitat for a number of mammals, reptiles, amphibians and introduced fish species (City of Campbell 2001).

3.4.2.7 Trees

The City of San José defines an ordinance-size tree as any woody perennial plant characterized by having a main stem or trunk which measures 38 inches or more in circumference at a height of 4.5 feet above natural grade slope (City of San José 2018b).

In 2019, 329 trees were inventoried (HMH 2019; see Appendix B). This tree survey did not inventory trees that were located on land of unknown ownership southeast of the proposed pedestrian bridge location, where utility line realignment may require further tree removal. Of the 329 surveyed trees, 180 were classified as protected trees under the City of Campbell Tree Removal permit, or classified as ordinance sized trees under City of San José's Tree Ordinance (City of Campbell 2001; City of San José 2011; HMH 2019).

A protected tree for the City of Campbell is classified as any tree measuring 12-inches in diameter or greater as measured 4-feet above grade.

A ordinance tree for the City of San José is described as follows:

- **Single trunk—**38 inches or more in circumference at 4.5 feet above ground
- **Multitrunk—**The combined measurements of each trunk circumference, at 4.5 feet above ground, add up to 38 inches or more.

Table 3 lists the tree replacement ratios according to City of San José standards.

Table 3. Tree Replacement Ratios

Circumference of Tree to Be Removed	Type of Tree to Be Removed [1]			Minimum Size of Each Replacement Tree
	Native	Nonnative	Orchard	
38 inches or more	5:1	4:1	3:1	15-gallon
19 to 38 inches	3:1	2:1	None	15-gallon
Less than 19 inches	1:1	1:1	None	15-gallon

Notes:

[1] x:x = tree replacement to tree loss ratio

Note: Trees greater than or equal to 38-inch circumference will not be removed unless a tree removal permit, or equivalent, has been approved for the removal of such trees.

3.4.3 Impact Analysis

a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

LESS-THAN-SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. As described above, the project area supports potential habitat for several special-status species.

Special Status Plants

Two special-status plants, Congdon's tarplant and Western leatherwood, may occur in the project area. The project area includes potentially suitable habitat for these species and, therefore, may result in temporary impacts to them. Implementing the following mitigation measure would result in a less-than-significant impact on these plant species:

Impact BIO-1. Project construction may result in temporary impacts on Congdon's tarplant and Western leatherwood.

MM BIO-1. Preconstruction Rare Plant Survey. A rare plant survey conducted during the blooming period for Congdon's tarplant will be conducted before the start of construction, to identify if any special-status species are present.

If a special-status species is found within the project area, then a buffer would be established for avoidance. The buffer would be established by a qualified biologist and be of a distance that guarantees the continued survival of the plant and its seed bank. Alternately, if the discovered species is covered under the Habitat Plan (that is, Tiburon Indian paintbrush, coyote ceanothus, Mt. Hamilton thistle, Santa Clara Valley dudleya, fragrant fritillary, Loma Prieta hoita, smooth lessingia, Metcalf Canyon jewelflower, and most beautiful jewelflower), then procedures as outlined in the Habitat Plan, Section 6.6.2 (Covered Plant Species), will be followed (County of Santa Clara et al. 2012).

Santa-Cruz Black Salamander

Santa Cruz black salamander has not been recorded in the project reach of San Tomas Aquino Creek, but suitable habitat for this species is present. The project would require work in suitable habitat and, therefore, may result in temporary impacts on the Santa Cruz black salamander.

Impact BIO-2. Project construction may result in temporary impacts on the Santa Cruz black salamander.

MM BIO-2. A qualified biologist will conduct preconstruction surveys for Santa Cruz black salamander within 48 hours prior to the start of construction activities. This survey may be performed concurrently with other required surveys, such as that for nesting birds. If adult Santa Cruz black salamanders are found in any areas planned for disturbance prior to or during project-related construction activities, a qualified biologist (defined as a biologist having prior experience surveying for this species or its congeners) will safely remove the individual salamander from the site and relocate it to a suitable location. If a subterranean nest of plethodontid salamander eggs is encountered within the construction area during project-related construction activities, construction will stop and the CDFW will be notified. Construction can be reinitiated subsequent to CDFW approval. A report summarizing the results of the preconstruction surveys and any protection measures will be submitted to the City of Campbell Planning Department and the City of San José Supervising Environmental Planner.

California Red-Legged Frog

There is low potential for CRLF to use the project area as dispersal and stopover habitat while water is present within the creek. The project would require work along the creek banks and removal of some riparian trees, and therefore may result in temporary impacts on the CRLF. Implementation of the following mitigation measure would result in a less-than-significant impact on the CRLF.

Impact BIO-3. Project construction in the creek banks and vegetation may result in temporary impacts on the California red-legged frog.

MM BIO-3. A qualified biologist will conduct preconstruction surveys for CRLF, which are required within 48 hours prior to the start of construction activities. If a CRLF is encountered within the project work area, construction activities will temporarily halt if safe to do so until the animal has left the area on its own accord. A report summarizing the results of the preconstruction surveys and any protection measures will be submitted to the City of Campbell Planning Department and the City of San José Supervising Environmental Planner.

If water is present within the creek during project activities, fulltime biological monitoring will be conducted. Alternatively, if water is present within the creek during project activities wildlife exclusion fencing will be installed between the work area and suitable aquatic habitat for the species. Fencing will be inspected on a monthly basis.

Burrowing Owls

The project site provides potential nesting, wintering, and foraging habitat for burrowing owls. Although burrowing owls are not known to occur here, it is possible that a nesting population could be established prior to construction. Construction activities occurring near an active burrowing owl nest could result in significant impacts. Implementation of the following mitigation measure, consistent with Habitat Plan Condition 15, will result in a less-than-significant impact on nesting burrowing owls (County of Santa Clara et al. 2012).

Impact BIO-4. Project construction may result in significant adverse impacts to nesting burrowing owls.

MM BIO-4. Prior to any construction activities on or adjacent to the project site, a qualified biologist will conduct preconstruction surveys in all suitable habitat areas. The purpose of the preconstruction surveys is to document the presence or absence of burrowing owls on or adjacent to the project site, particularly in areas within 250 feet of construction activity.

To maximize the likelihood of detecting owls, the preconstruction survey will last a minimum of three hours. The survey will begin one hour before sunrise and continue until two hours after sunrise (three hours total) or begin two hours before sunset and continue until one hour after sunset. A minimum of two surveys will be conducted, unless owls are detected during the first survey (if owls are detected on the first survey, a second survey is not needed). All owls observed will be counted and their locations mapped. Surveys will conclude no more than two calendar days prior to site disturbance, staging, or construction-related activities. Therefore, the qualified biologist must begin surveys no more than four days prior to construction (two days of surveying plus up to two days between surveys and construction). The project applicant may also conduct a preliminary survey up to 14 days before construction, which may count as the first of the two required surveys as long as the second survey concludes no more than two calendar days in advance of construction. Surveys will be conducted as described in Habitat Plan Condition 15 (County of Santa Clara et al. 2012).

If evidence of western burrowing owls is found during the breeding season (February 1st–August 31st), the construction contractor will avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young (occupation includes individuals or family groups foraging on or near the site following fledging). Avoidance will include establishment of a 250-foot nondisturbance buffer zone around nests. Construction may occur outside of the 250-foot nondisturbance buffer zone if additional conditions are met as described in Habitat Plan Condition 15 (County of Santa Clara et al. 2012).

During the nonbreeding season (September 1–January 31), the construction contractor will establish a 250-foot nondisturbance buffer around occupied burrows as determined by a qualified biologist. Construction activities outside of this 250-foot buffer are allowed. Construction activities within the nondisturbance buffer are allowed if additional conditions are met as described in Habitat Plan Condition 15 (County of Santa Clara et al. 2012).

A report summarizing the results of the preconstruction surveys documenting the presence or absence of burrowing owls will be submitted to the City of Campbell Planning Department and the City of San José Supervising Environmental Planner prior to any construction activities.

Birds Protected Under the Migratory Bird Treaty Act and Other Regulation

Mature trees within the project site may provide nesting habitat for migratory birds, including raptors (birds of prey). Nesting birds may occur on the project site as potential nesters during the breeding season. Therefore, construction activities could result in significant impacts. Implementation of the following mitigation measure will result in a less-than-significant impact on special-status birds and migratory birds covered under the Migratory Bird Treaty Act (MBTA).

Impact BIO-5. Project implementation may result in significant adverse impacts to migratory birds covered under the MBTA.

MM BIO-5. Construction activities will be scheduled to avoid the nesting season (February 1st through August 31st, inclusive) if feasible. If construction activities are scheduled to take place outside the nesting season, impacts on nesting birds will be avoided.

If ground-disturbing activities cannot be scheduled to occur between September 1st and January 31st (inclusive) then preconstruction surveys for nesting birds will be conducted by a qualified biologist to ensure that no nests will be disturbed during project construction. If work begins during the early part of the nesting season (February 1st to April 30th, inclusive), a qualified biologist will survey all suitable nesting habitat in the project area for presence of nesting birds. This survey will occur no more than 14 days prior to the start of ground-disturbing activities and will cover an area within a 300-foot buffer of the project area. If work begins during the late part of the nesting season (May 1st to August 31st, inclusive), a qualified biologist will survey all suitable nesting habitat in the project area for presence of nesting birds. This survey will occur no more than 30 days prior to the start of ground-disturbing activities.

During these surveys, the biologist will inspect all potential nesting habitats in and immediately adjacent to the impact areas for nests. If no nesting activity is observed, work may proceed as planned. If nesting birds are identified in areas susceptible to disturbance from construction activities, a qualified biologist will establish an appropriate construction free buffer zone to be maintained for that nest. Factors to be considered include intervening topography, roads,

development, type of work, visual screening from the nest, and nearby noise sources. Buffers will not apply to construction related traffic using existing roads that are not limited to project-specific use (that is, city streets, highways). Consideration will also include timing of nesting (that is, if the birds' nests are found in the project area during actual construction activities).

A report summarizing the results of the preconstruction surveys and subsequent efforts to protect nesting raptors or birds (if found to be present) will be submitted to the City of Campbell Planning Department and the City of San José Supervising Environmental Planner.

Pallid Bat and Townsend's Big-eared Bat

Impact BIO-6. Project implementation may result in significant adverse impacts to pallid bat or Townsend's big-eared bat.

MM BIO-6. A qualified biologist will conduct preconstruction surveys for bats within 30 days prior to the commencement of construction activities. No activities that would result in disturbance to active roosts will proceed prior to the completed surveys. If no active roosts are found, then no further action is warranted.

If a roost is present, the qualified bat biologist will either clear each tree for removal or recommend two-phase removal method (described below). To deter bats from establishing roosts, trees with no suitable roosting habitat, as determined by the qualified biologist, will be cut down and removed before the trees recommended for two-phase removal.

Two-phase removal method:

- In the first day of tree trimming, under the supervision of a qualified biologist, branches and limbs not containing cavities or fissures in which bats could roost, will be cut. The biologist will also ask the personnel removing branches to shake and knock on the tree, attempting to flush roosting bats. Limbs and other tree pieces will be lowered slowly to the ground, to the extent safe and practicable, and inspected by qualified biologist for bats.
    - If bats are observed in roosts during tree work, removal work should be halted within a 100-foot buffer of the bat, and the tree with the roosted bat will be left in place.
    - If any bat found appears to be sick or injured, the qualified biologist, with all of the necessary immunizations, should be available to check for injury or disease and take the bat to a CDFW-approved wildlife rehabilitation facility.
    - Bats taken to the rehabilitation facility will be reported to CDFW within 24 hours.
- On the following day if bats are not observed, under the supervision of the qualified biologist, the remainder of the tree or structure may be removed. Limbs and other parts of the tree with potential bat habitat (cavities or fissures in which bats could roost) will be lowered to the ground slowly, to the extent safe and practicable, and inspected by the biological monitor.
    - If bats are observed in roosts during tree work (for example, bat exits roost while tree is being cut, bat is observed in piece of tree lowered to the ground), the biologist will carefully assess the tree for presence of

bats. Pieces will be left on site overnight in a safe location (away from construction activities and safe from predation to the greatest extent practicable) and resurveyed the following morning.

- If bats are observed in a limb of a tree, repeat above until bat has left roost on its own.
- If any bat found appears to be sick or injured, the qualified biologist, with all of the necessary immunizations, should be available to check for injury or disease and take the bat to a CDFW-approved wildlife rehabilitation facility.
- Bats taken to the rehabilitation facility will be reported to CDFW within 24 hours.

San Francisco Dusky-Footed Woodrat

San Francisco dusky-footed woodrat may be present in the work area. Implementation of the following mitigation measure would result in a less-than-significant impact on woodrats and their homes.

Impact BIO-7. Project construction activities requiring tree removal or staging may result in harm or mortality to woodrats and their homes.

MM BIO-7. Preconstruction Surveys for San Francisco Dusky-Footed Woodrat. Within 14 days prior to the start of construction, a qualified biologist will conduct a survey of the project area footprint and a 30-foot buffer beyond the Project footprint boundaries to determine the location of active and inactive woodrat nests. Any dens detected during the surveys will be recorded and mapped in relation to the construction disturbance footprint. In addition, the biologist will evaluate any signs of current woodrat activity, including the presence of fresh scat, freshly chewed vegetation, and the presence of cobwebs covering nest entrances. Given the highly urban surrounding area, a 10-foot equipment exclusion buffer will be established around active and inactive nests that can be avoided; within such buffers, all vegetation will be retained and nests will remain undisturbed. Nests that cannot be avoided will be slowly dismantled with a qualified biologist present to oversee the dismantling. If sign of woodrats are observed within dismantled nests then the material will be relocated to a nearby location that will be undisturbed by construction activities.

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

*LESS-THAN-SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED***.** Construction of the project would result in disturbances of 1.5 to 2 acres of mixed riparian forest in the form of removing mature trees, pruning additional riparian trees, and removal of understory herbaceous vegetation.

The City of Campbell will obtain a Section 1602 Lake and Streambed Alteration Agreement from CDFW (Fish and Game Code Sections 1600 through 616) to complete construction. Mitigation for tree removal will be developed during the CDFW Section 1602 Lake and Streambed Alteration Agreement permitting process

The anticipated temporary impacts would not be considered significant because the site would be restored upon the end of construction. In addition, invasive species would be removed, and the understory would be planted and hydroseeded with fast-growing native plants local to the watershed. Within the following growing season, the majority of the understory and pruned riparian canopy would

be restored to pre-project conditions. Restoration of the site will be implemented to minimize impacts on the riparian corridor during and after construction to reduce impacts to below a level of significance.

Permanent disturbances to mixed riparian forest in the form of mature tree removal would require additional mitigation measures to reduce impacts to below a level of significance. Mitigation will include but not be limited to an on-site riparian tree mitigation and monitoring plan. Implementation of the following mitigation measure will result in a less-than-significant impact.

Impact BIO-8. Mature tree removal may result in permanent disturbances to mixed riparian forest and shaded riverine aquatic habitat.

MM BIO-8. The project applicant will prepare and implement a riparian tree mitigation and monitoring plan. This plan will outline which native riparian plant species are to be planted on site adjacent to the riparian canopy. Native riparian plant species recommended for the replacement plantings may include, but are not limited to, Fremont's cottonwood, arroyo willow, red willow, coast live oak, and blue elderberry. Plant species used for revegetation will be native to the San Tomas Aquino Creek watershed and grown from local planting stock. The riparian tree mitigation and monitoring plan will be submitted to the City of Campbell Planning Department and the City of San José Supervising Environmental Planner prior to the start of any ground-disturbing activities.

c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

NO IMPACT. Federally protected wetlands, as defined by Section 404 of the Clean Water Act, do not occur at the project site; therefore, there would be no impact. No work will occur within the Ordinary High Water Mark of the creek, and project features will ensure that no sediment enters the creek.

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

LESS-THAN-SIGNIFICANT IMPACT. The project would have short-term disturbance to riparian habitat and to the project area's ecosystem function as a wildlife migratory corridors, during construction. As described in Section 3.10, Hydrology and Water Quality, a Stormwater Pollution Prevention Plan would be implemented before and during construction to avoid impacts on aquatic habitat and water quality. In addition, MMs BIO-2 through BIO-7 would be implemented to avoid impacts on wildlife SSC. As a result, the project would not substantially interfere with the movement of native resident or migratory fish, wildlife species, or native resident or migratory wildlife corridors. Implementation of these mitigation measures would reduce the impacts to a less-than-significant level. Additional permits, including a CDFW Section 1602 Lake or Streambed Alteration Agreement and permits associated with the Habitat Plan (County of Santa Clara et al. 2012), will be obtained as necessary.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

*LESS-THAN-SIGNIFICANT IMPACT***.** A total of 45 trees would be removed as a result of the project; of those 45 trees, 15 are classified as protected trees under the City of Campbell Tree Removal Permit or classified as ordinance-sized trees under City of San José's Tree Ordinance (City of Campbell 2001; City of San José 2011). Two of the 15 trees would be removed from the bank of San Tomas Aquino Creek in the footprint of the proposed pedestrian bridge in Reach 1, and the remaining 13 would be removed in Reach 2. Upland vegetation may be removed from a parcel southeast of the proposed pedestrian bridge where utility line realignment may occur. Trees also

would be removed from an upland area north of San Tomas Aquino Road, between the road and San Tomas Aquino Creek, in Reach 2. Additional tree pruning may occur along the southern and northern bank of San Tomas Aquino Creek in Reach 1. Compliance with the tree removal and replacement guidelines outlined above, including City of Campbell and City of San José general plans, would reduce impacts on the ordinance-size trees to a less-than-significant level (City of Campbell 2001; City of San José 2011; HMH 2019).

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

*LESS-THAN-SIGNIFICANT IMPACT***.** The project area is partially located within the Habitat Plan permit area and is considered a "covered project" under the Habitat Plan (County of Santa Clara et al. 2012). The portion of the project area in the Habitat Plan is in the "Willow Riparian Forest and Scrub" land cover zone under Fee Zone B (Agricultural and Valley Floor Land), as well as in the "Golf Courses/Urban Parts" and "Urban-Suburban" land cover zones.

The project will comply with the Habitat Plan. Specifically, project design features, construction methods, and the mitigation measures listed above are consistent with the following Habitat Plan conditions (County of Santa Clara et al. 2012):

- Condition 1: Avoid Direct Impacts on Protected Plant and Wildlife Species
- Condition 3: Maintain Hydrologic Conditions
- Condition 4: Avoidance and Minimization for In-Stream Projects
- Condition 5: Avoidance and Minimization for In-Stream Operations and Maintenance
- Condition 6: Transportation Projects
- Conditions 15-18: Wildlife Surveys and Avoidance
- Habitat Plan Table 6-2 requirements for avoidance and minimization of aquatic habitat

For compliance with the Habitat Plan, the following project condition would apply.

Standard Project Conditions

- The project is subject to applicable Habitat Plan conditions and fees prior to the start of any ground-disturbing activities. The project applicant will submit a Habitat Plan Reporting Form to the City of San José's Supervising Environmental Planner of the Department of Planning, Building, and Code Enforcement for review and will complete subsequent forms, reports, and/or studies as needed.

With the Standard Project Conditions, mitigation measures, Habitat Plan conditions, and fee payment, the project would have a less-than-significant impact on the Habitat Plan.

3.5 Cultural Resources

Cultural Resources Checklist

Would the project:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☒	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

3.5.1 Setting

The project is within an urbanized area situated within the western portion of the city of Campbell and the southwest portion of the city of San José. A records search to identify previously recorded cultural resources and previously conducted cultural resources investigations within the project area and a 0.25-mile radius search area was completed in June 2019 using the California Historical Resources Information System (CHRIS) at the Northwest Information Center (NWIC) (NWIC File No.: 18-2326).

The CHRIS record search identified one previously recorded cultural resource within the 0.25-mile radius search area. No previously recorded cultural resources are located within the project area, consisting of the footprint for the proposed trail. The previously recorded cultural resource within the search area consists of a historic-period rural property, comprising a main residence, ancillary cottage, and several outbuildings including a barn and garage. The resource sits on two residential parcels within the city of Saratoga and is located approximately 1,200-feet southwest of the western terminus of the project area. The resource was recorded in 2004 and evaluated as not eligible for listing in the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR) (NWIC File No.: 18-2326).

According to the CHRIS records search results, 12 previously conducted cultural resources investigations were completed with the 0.25-mile radius search area. Of the 12 investigations, four of them were located within or partially within the project area. These four investigations were completed between 1977 and 1995, and cover approximately 5 percent of the project area. None of these reports identified cultural resources within the project area. Most reports within the 0.25-mile radius search area are located approximately 1,000 feet southwest of the western terminus project areas and were completed along the State Route 85 and railroad rights-of-way (NWIC File No.: 18-2326).

Supplemental research was also completed through the City of San José Historic Landmark listings; City of Campbell Landmarks, Historic Districts, and Structures of Merit listings; NRHP online database; and information available on the California Office of Historic Preservation website for Santa Clara County, which includes sites listed on the CRHR, California Historical Landmarks, and California Points of Historical Interest. No cultural resources were identified in the project area through reviewing these sources.

The Native American Heritage Commission (NAHC) was contacted on April 12, 2019, requesting a search of its Sacred Lands File for resources of importance to Native Americans in the project area, including sacred sites and traditional cultural properties. No sacred lands or sites within the project area were identified.

The project area is located along the existing levee banks of the San Tomas Aquino Creek, which ultimately stretches 16.5-miles from its headwater on El Sereno Mountain to its confluence with the Guadalupe Slough in the south San Francisco Bay. The portion of the creek in the project area is 1.28 miles extending in a southwest-northeast direction between Westmont Avenue in San José and Margaret Lane in Campbell . Based on a review of historic maps, archival research, and previous investigations, the creek previously was used as the western boundary for Rancho Rinconada de los Gatos and the eastern boundary of Rancho Quito. Rancho Rinconada de los Gatos was granted in 1840 by Mexico Governor Juan Alvarado to José Maria Hernandez and Sebastian Fabian Peralta, and Rancho Quito was granted the following year to José Noriega and José Zenon Fernandez. The 1859 plat map for the Quito Rancho shows an overland trail to Santa Clara paralleling the creek near the western terminus of the project area.

Maps issued by the Government Land Office maps from 1866 depict the creek in the project area following a similar alignment as it currently possesses. The 1899 USGS 15-minute quadrangle topographic map shows the area surrounding the project area as largely undeveloped with a several buildings (likely farmsteads, rural properties, and residences) located along adjacent to the creek. The 1947, 1953, and 1956 USGS 7.5-minute quadrangle topographic maps show the area surrounding the creek in the project area as being used as orchards with a segment of the Southern Pacific Railway running northwest to southeast, approximately 1,000 from the western terminus of the project area. By 1961, the project area environs have been developed with residential subdivisions and civic facilities, such as the Forest Hill Elementary School and Westmont High School. A pedestrian bridge was constructed between 1964 and 1968, located immediately east of Westmont High School and north of Silacci Drive. The creek is primarily concrete-lined with graded, paved, or earthen banks throughout the project area.

3.5.2 Impact Analysis

a. Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

LESS-THAN-SIGNIFICANT IMPACT. The background research completed as part of the project, which included a CHRIS records search and a review of the City of San José Historic Landmark listings; City of Campbell Landmarks, Historic Districts, and Structures of Merit listings; NRHP online database; and information available on the California Office of Historic Preservation did not identify any previously recorded cultural resources within the project area. The creek's current use, largely as an urban channel, is a very common and utilitarian property type within the Bay Area and does not possess a distinctive form or history or represent a significant engineering achievement to be considered a significant historical resource. Therefore, the impact would be less than significant.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

LESS-THAN-SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. The project would be alongside an existing creek, which oftentimes is associated with prehistoric uses; however, no previously recorded archaeological resources are located in the project area. The project area has been subject to previous disturbances (that is, lining of the channel), and much of the surrounding area has been graded and developed without exposing archaeological resources during the past 30 years.

A formal CHRIS records search of previously recorded cultural resources within the project area and a 0.25-mile search radius was completed and did not identify known cultural resources within the project area. Additionally, a Sacred Land File search completed by the NAHC was negative for cultural resources, and the creek is not associated with significant events or people and does not represent a distinctive design or engineering achievement to qualify as a historical resource. While these efforts did not identify historical or archaeological resources within the project area, unidentified resources could be present or encountered during ground-disturbing activities in previously

undisturbed soils (such as from the new bridge pilings or relocation of sewer and water lines), for which the following mitigation would be applied to reduce potential impacts to less than significant.

Impact CUL-1. Unknown prehistoric and historic era archaeological sites and resources may be present and affected during project implementation.

MM CUL-1. To minimize potential impacts on unknown prehistoric and historic era archaeological sites and resources, the project applicant will implement the following measures:

- The design engineer will note on any plans that require ground-disturbing excavation the potential for exposing buried cultural resources.
- The construction contractor will retain a professional archaeologist to provide a preconstruction briefing to supervisory personnel of any excavation contractor to alert them to the possibility of exposing significant prehistoric archaeological resources within the project area. The briefing will include a discussion of any archaeological objects that could be exposed, the need to stop excavation at the discovery, and the procedures to follow regarding discovery protection and notification of the City of Campbell and archaeological team.
- The construction contractor will retain a professional archaeologist on an "on-call" basis during ground-disturbing construction for the project to review, identify, and evaluate cultural resources that may be inadvertently exposed during construction. If previously unidentified cultural resources are discovered during project construction, then the contractor will cease work within 50 feet of the resources and notify the City of Campbell Planning Department immediately. If the find is discovered in San José, then the City of Campbell Planning Department will coordinate with the lead planner for the City of San José. The archaeologist will review and evaluate any discoveries to determine whether they are historical resource(s) or unique archaeological resources under CEQA.
- If the professional archaeologist determines that any cultural resources exposed during construction constitute a historical resource or unique archaeological resource, then the archeologist will notify the City of Campbell Planning Department of the evaluation and recommended mitigation measures to mitigate to a less-than-significant impact. If the find is discovered in San José, then the City of Campbell Planning Department will coordinate with the lead planner for the City of San José regarding the mitigation. Mitigation measures may include avoidance, preservation in place, recordation, additional archaeological testing, and/or data recovery. Any significant cultural resources will be treated only with the approval of the City of Campbell's Director of Planning. The archaeologist will document the resources using California Department of Parks and Recreation Form 523 and file the form with the NWIC of the CHRIS. The archaeologist will submit a report of the findings and methods for curating or protecting the resources to the City of Campbell Planning Department and the City of San José Supervising Environmental Planner for review and approval before resuming work. Further grading or site work within the area of discovery will not be allowed until the preceding steps have been taken.

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

LESS-THAN-SIGNIFICANT IMPACT. No recorded instances of prehistoric or historic human remains are known to be within or adjacent to the project area. In the unlikely event that human remains are discovered during project activities, the following Standard Project Conditions would be implemented.

Standard Project Conditions

- If human remains are discovered during site excavation and grading, then all activity within a 50-foot radius of the find will be stopped. The Santa Clara County Coroner will be notified and will determine whether the remains are of Native American origin or whether an investigation into the cause of death is required. If the remains are determined to be Native American, then the coroner will notify the NAHC immediately. Once the NAHC identifies the most likely descendants, the descendants will make recommendations regarding proper burial, which will be implemented in accordance with Section 15064.5(e) of the CCR.

3.6 Energy

Energy Checklist

Would the project:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation?	☐	☐	☒	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

3.6.1 Setting

Energy consumption is analyzed due to the environmental impacts associated with energy production and usage. Such impacts include depleting nonrenewable resources (such as oil, natural gas, and coal) and emitting pollutants during both the production and consumption phases. The *City of Campbell General Plan* and the City of San José' *Envision San José 2040 General Plan* "Sustainable City" strategy and green building policies both contain objectives and goals regarding energy efficiency and the use of renewable energy technologies.

In addition, the City of San José's Green Vision promotes energy conservation, and most City of Campbell energy sustainability plans, identify strategies for long-term sustainable living within the city limits. The project would not result in a new source of energy consumption; therefore, the City of Campbell's nor the City of San José's strategies for energy efficiency would not necessarily be applicable to project operations.

3.6.2 Impact Analysis

a. Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation?

LESS-THAN-SIGNIFICANT. Project construction will require using nonrenewable energy resources, primarily fossil fuels (oil, gasoline, and diesel) for construction equipment; These nonrenewable energy resources likely will be used efficiently during construction activities. Additionally, the steel bridge would be fabricated off site and transported to the project site for assembly. As described in Section 1-1, Project Description, project construction is anticipated to take approximately 12 months, including the delivery of the bridge structure, and would not create a wasteful, inefficient, or unnecessary consumption of fuel supplies. Once constructed, a negligible amount of energy would be used as fuel for maintenance vehicles and equipment but would not cause a significant increase in energy consumption; therefore, impacts would be less than significant.

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

NO IMPACT. Project construction will comply with the goals and policies established in both the City of Campbell (2001) and the City of San José (2011) general plans. The project would not obstruct a state or local plan for renewable energy or energy efficiency, because the project would construct a new bicycle and pedestrian trail and bridge that would not generate energy within the project area. The project would fulfill the City of Campbell and the City of San José's goals for citywide trail systems and would aid in the connection to other trails nearby. The proposed project would encourage alternative means of transportation for the residents of the surrounding neighborhoods as well, thereby reducing energy consumption. Therefore, there would be no impact.

3.7 Geology and Soils

Geology and Soils Checklist

Would the project:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

3.7.1 Setting

A Preliminary Geotechnical Report was prepared for the project by Parikh Consultants, Inc. (August 26, 2019), and it is attached as Appendix D. Results of the geotechnical study indicate that the site consists of the Quaternary geologic unit Qa.1, which consists of surficial sediments, alluvial gravel, fine-grained silt and gravel and is found where differential represents alluvial fan deposits at base of slopes and upper fan areas. Subsurface soil consists of dense to very dense silty sand, clayey sand, and gravelly sand soil fill of varying thickness (Appendix D).

The project site is within the mapped Santa Clara County Liquefaction Hazard Zone and the California Geological Survey Liquefaction Hazard Zone but is not within the mapped Santa Clara County Landslide Hazard Zone or the California Geological Survey Earthquake-Induced Landslide Hazard Zone (County of Santa Clara 2019). The project site is in an area with a “moderate to very high” liquefaction potential (Appendix D).

3.7.2 Impact Analysis

a. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

NO IMPACT. The project site is not within a State of California Earthquake Fault Zone, a special study zone under the Alquist-Priolo Special Studies Act and is not identified by the County of Santa Clara as being in a County Fault Rupture Hazard Zone, or by the City of San José's fault rupture hazard zone (Parikh Consultants, Inc. 2019; Appendix D). Therefore, there would be no impact.

ii) Strong seismic ground shaking?

LESS-THAN-SIGNIFICANT IMPACT. The project site is expected to be subject to significant seismic events over the life of the project. The project would incorporate standard construction specifications and recommendations, including design features to account for expected earthquake-induced dynamic loads. By following these design specifications, there would be no property loss (for example, the pedestrian bridge) and no associated potential for injury or death of trail users. Therefore, any impact would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

LESS-THAN-SIGNIFICANT IMPACT. The project area is identified as being in the County Liquefaction Hazard Zone (County of Santa Clara 2018), and liquefaction potential is considered moderate to very high (Parikh Consultants, Inc. 2019). The project would include design features in conformance with the latest building codes to avoid or minimize potential damage from ground failure, including liquefaction on the site. By following these codes, there would be no property loss (for example, the pedestrian bridge) and no associated potential for injury or death of trail users. Therefore, any impact would be less than significant.

iv) Landslides?

LESS-THAN-SIGNIFICANT IMPACT. Lateral spreading can develop when liquefaction occurs beneath an open or free face, such as along a creek. Because of the potential for liquefaction in the area, the potential for lateral spreading is considered moderate in the project area. The trail and bridge would be designed to accommodate or minimize the impact of the settlements; there would be no property loss (for example, the pedestrian bridge) and no associated potential for injury or death of trail users. Therefore, the impact would be less than significant.

b. Would the project result in substantial soil erosion or the loss of topsoil?

LESS-THAN-SIGNIFICANT IMPACT. The project would result in top-of-bank excavation on Valley Water levees along San Tomas Aquino Creek, which could erode if exposed to precipitation. The project also includes new bridge abutments, which could be exposed to stream currents that could result in additional erosion if the banks were not protected. Additionally, construction activities would cause ground disturbance to surface areas and involve stockpiling excavated materials. Soil erosion or the loss of topsoil during construction activities would be minimized by implementing erosion-control BMPs (see Section 3.10, Hydrology and Water Quality). Bridge abutments would be designed such that high flows would not result in erosion and downstream sedimentation. These measures would reduce impacts on soil erosion to less than significant.

c. Would the project be located on a geologic unit or soils that is unstable, or that would become unstable as a result of the project, and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

LESS-THAN-SIGNIFICANT IMPACT. The project would not be located on a geologic unit or soils that are unstable or would become unstable as a result of the project, potentially resulting in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. The project would be completed using current construction and engineering techniques to ensure safe construction; therefore, the impact would be less than significant.

d. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

LESS-THAN-SIGNIFICANT IMPACT. The topographic relief in the project vicinity is relatively flat. Creek banks are subject to potential localized slope failure, but due to the existing Valley Water levees and concrete walls in the creek, the project would not change the risk of landslides. The new pedestrian bridge abutments would likely reduce the risk of creek bank slope failure because they would be designed in conformance with the latest building codes and would be built above the top of bank. Therefore, the impact would be less than significant.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

NO IMPACT. No septic tanks or alternative wastewater disposal systems are proposed for this project. Therefore, there would be no impact.

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

LESS-THAN-SIGNIFICANT IMPACT. The project area is located in an area characterized as having Holocene alluvium (Qa) and Holocene gravel alluvium (Qg) deposits, which are considered to have low paleontological sensitivity (California Geological Survey 1991). Paleontological-sensitive formations would not be encountered due to the limited ground disturbance from the project in previously disturbed areas. Therefore, the project would have a less-than-significant impact. In the event that paleontological resources are discovered, the following Standard Project Conditions would be implemented.

Standard Project Conditions

- If a paleontological resource is encountered during excavation and/or grading of the site, then all activity within a 50-foot radius of the find will be stopped, the City of Campbell's Planning Department and San José's Senior Environmental Planner will be notified, and a paleontologist will examine and document the find (through drawings, photographs, and written descriptions) and make appropriate recommendations as to the resource's disposition, mitigation, and/or salvage. A report documenting the significance of the find and any data recovery during monitoring will be submitted to the City of Campbell's Planning Department and San José's Supervising Environmental Planner prior to work in the research area.

3.8 Greenhouse Gas Emissions

Greenhouse Gas Emissions Checklist

Would the project:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a. Generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b. Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?	☐	☐	☒	☐

3.8.1 Setting

GHGs include both naturally occurring and anthropogenic gases that trap heat in the earth's atmosphere. GHGs known to contribute significantly to climate change include carbon dioxide (CO_2), methane, nitrous oxide, hydro-chlorofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

In California, transportation sources compose the largest category of GHG-emitting sources (California Air Resources Board [CARB] 2019a). In 2017, the annual California statewide GHG emissions were 424 million metric tons of CO_2-equivalent (CARB 2019a). The transportation sector accounts for about 40 percent of the statewide GHG emissions inventory. The industrial sector accounts for about 21 percent of the statewide GHG emissions inventory (CARB 2019a). The dominant GHG emitted is CO_2, primarily from fossil fuel combustion (approximately 83 percent of the total inventory) (CARB 2019b).

According to BAAQMD, Bay Area GHG emissions in 2011 were 86.6 million metric tons of CO_2-equivalent, of which about 39.7 percent was from the transportation sector and 14 percent was from electricity use/co-generation. The dominant GHG emitted was CO_2, primarily from fossil fuel combustion (BAAQMD, 2015).

While the City of Campbell does not have specific GHG policies, the City of San José's *Envision San José 2040 General Plan* includes a Greenhouse Gas Reduction Strategy that is consistent with implementation requirements of the Global Warming Solutions Act of 2006 (Assembly Bill [AB]32) (City of San José 2015). The Strategy identifies specific policies incorporated within the general plan that will reduce GHG emissions and provides an analysis of the effectiveness of these policies (City of San José 2015). Additionally, the 2017 Plan provides a regional strategy to protect public health by reducing emissions of GHGs, as well as ozone precursors, particulate matter, and toxic air contaminants (BAAQMD 2017b).

3.8.2 Impact Analysis

a. Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

LESS-THAN-SIGNIFICANT IMPACT. BAAQMD's 2017 thresholds of significance does not identify any GHG emission thresholds for construction activities. Rather, the guidelines suggest evaluating impact significance in relation to meeting GHG reduction strategies. GHG emissions from project construction would be temporary, occurring over approximately 12 months. GHG emissions from construction vehicle tailpipe emissions would be negligible compared with the local and statewide GHG inventory. The minimal GHG emissions during project construction would not contribute substantially to the regional GHG emission inventory or significantly contribute to global climate change. The BAAQMD CEQA Guidelines (BAAQMD 2017a), however, encourage using BMPs to reduce GHG emissions during construction, as applicable. The recommended BMPs are incorporated into this project as Standard Project Conditions, as summarized below.

Standard Project Conditions

The project will implement the following BMPs during construction:

- Use alternative fueled construction vehicles and equipment totaling at least 15 percent of the fleet
- Use at least 10 percent local building materials

Once completed, the trail would not generate GHG emissions in the long-term. Additionally, the trail would encourage pedestrian and bicycle access, which would serve a significant nonmotorized commuter purpose and have an indirect benefit of reducing GHGs by displacing some car trips. Restoring the low-water crossing with natural vegetation also would have incremental GHG benefits from plant respiration. For these reasons, impacts from GHG emissions would be less than significant.

b. Would the project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

LESS-THAN-SIGNIFICANT IMPACT. As described further in Section 3.17, Transportation, the project would encourage alternative forms of transportation, like walking and biking, that would reduce automobile usage and greenhouse gas emissions. Additionally, the *City of Campbell General Plan* Strategy OSP-1.1b and Policy OSP-4.4 encourage the development of pedestrian bikes and routes and give specific reference to the project (Section 3.11.2 provides more information). The BAAQMD established a climate protection program in 2005 to explicitly acknowledge the link between climate change and air quality and has prepared a GHG emissions inventory to support its climate protection activities. Short-term construction GHG emissions would be negligible compared to the state or the BAAQMD GHG inventory and GHG emission goal in 2020.

The GHG Reduction Strategy analyzes goals established in the City of San José's *Envision San José 2040 General Plan* and Green Vision initiative and provides policies, measures, and estimated reductions to meet 2035 emission targets. Multiple General Plan policies regarding bike and pedestrian access are included, including Goal 10 of the Green Vision to provide 100 miles of interconnected trails. The project would, therefore, be supporting the GHG Reduction Strategy and would not conflict with plans, policies, or regulations intended to reduce GHG emissions; therefore, the project would result in a less-than-significant impact.

3.9 Hazards and Hazardous Materials

Hazards and Hazardous Materials Checklist

Would the project:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d. Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. For a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☐	☒

3.9.1 Setting

The project is located on Valley Water levees that line San Tomas Aquino Creek and is adjacent to residences, Westmont High School in San José, and Forest Hill Elementary School in Campbell. No private airstrips are within a 2-mile radius of the project site, and the nearest airport is the Norman Y. Mineta San José International Airport, located approximately 10.8 miles northeast. The nearest fire station is approximately 3 miles northeast on San Tomas Aquino Road, and the nearest hospital, Los Gatos Winchester Center, is approximately 3.6 miles south of the project on Winchester Boulevard.

3.9.2 Impact Analysis

a., b. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

LESS-THAN-SIGNIFICANT IMPACT. An investigation into the Envirostor and GeoTracker databases did not identify contaminated sites within the project area (California Department of Toxic Substances Control 2019). Excavation would be limited to the shallow (8-inch) trail corridor, the concrete piles used for the pedestrian bridge abutments, and the trench needed to install the relocated water line. Any hazardous materials found during construction will be handled in compliance with laws and regulations regarding transport, handling, disposal, and storage. Federal, state, and local reporting requirements will be followed regarding the use of hazardous and nonhazardous materials at the project site. Because of the limited risk and established procedures for any unanticipated discovery of hazardous materials, the impact would be less than significant. .

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

LESS-THAN-SIGNIFICANT IMPACT. The nearest schools, Westmont High School (located in San José) and Forest Hill Elementary School (located in Campbell), are directly adjacent to the project site. Installing the pedestrian bridge likely would emit the most amount of temporary hazardous emissions; however, the pedestrian bridge would be constructed and installed when neither school is in session, and temporary emissions would occur over a few days. The project would not emit hazardous emissions nor handle acutely hazardous materials during construction. For these reasons, there would be a less-than-significant impact.

d. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

NO IMPACT. The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and the project would not be expected to create a significant hazard to the public or environment. An investigation into the EnviroStor and GeoTracker databases did not identify contaminated sites within the project area (California Department of Toxic Substances Control 2019).

Any hazardous materials found during construction would be handled in compliance with laws and regulations regarding transport, handling, disposal, and storage. Federal, state, and local reporting requirements would be followed regarding the use of hazardous and nonhazardous materials at the project site.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

NO IMPACT. The project site is not within an airport land use plan or within 2 miles of a public airport or public use airport. The project would not result in any safety hazard for people residing or working in the project area. Therefore, no impact would result.

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

NO IMPACT. The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, no impact would result.

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

NO IMPACT. Existing conditions would not change with the project. As described further in Section 3.20, the project site is within an urbanized area of Campbell and San José with no associated wildlands. Therefore, no impact would result.

3.10 Hydrology and Water Quality

Hydrology and Water Quality Checklist

Would the project:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements (WDR) or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation onsite or offsite;	☐	☐	☐	☒
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

3.10.1 Setting

The project is within the San Tomas Aquino Creek watershed, which covers approximately 45 square miles, from the forested foothills of the Santa Cruz Mountains and flows north through Campbell and Santa Clara,

Valley Water manages San Tomas Aquino Creek for flood control. Within the project area, Valley Water can perform annual maintenance activities, because there are several access points.

The National Flood Insurance Program provides flood hazard information within the project area. The current mapping of the floodplain shows 100-year floodwaters to be relatively well contained in the San Tomas Aquino Creek channel in and around the project area. Within the project area, San Tomas Aquino Creek is designated as Zone AE, which includes areas that are subject to inundation by a 100-year-flood event and all adjacent floodplain areas that must be kept free of encroachment so that the 1 percent annual chance flood can be carried without substantial increases in flood heights. .

3.10.2 Impact Analysis

a. Would the project violate any water quality standards or waste discharge requirements (WDR) or otherwise substantially degrade surface or ground water quality?

LESS-THAN-SIGNIFICANT IMPACT. Project construction may result in temporary impacts on surface water quality. When soils are disturbed, surface runoff that flows across the site may contain sediments that are conveyed into the creek. To address this concern, the project is subject to

construction-related stormwater permit requirements. The California State Water Resources Control Board has adopted a statewide General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) that applies to projects resulting in 1 or more acre of soil disturbance. For projects disturbing more than 1 acre of soil, a construction Stormwater Pollution Prevention Plan (SWPPP) is required that specifies site management activities to be implemented during site development. These management activities include construction stormwater BMPs, erosion and sedimentation controls, dewatering, runoff controls, and construction equipment maintenance. The San Francisco Bay RWQCB requires a Notice of Intent to be filed before any stormwater is discharged from construction activities and that the SWPPP be implemented and maintained on site. When construction is complete, the project will file a Notice of Termination with the San Francisco Bay RWQCB and City of Campbell, documenting that all SWPPP elements have been implemented.

By complying with existing permits, runoff from the project site would not violate the applicable waste discharge requirements or otherwise contribute to the degradation of stormwater runoff quality. Therefore, any impact would be less than significant.

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

LESS-THAN-SIGNIFICANT IMPACT. Project construction would not substantially deplete groundwater supplies because no groundwater would be used, and no groundwater wells would be affected. Excavation for the new bridge abutments would occur during the dry season along the top of bank and above the slope of the stream bank. Therefore, it is not anticipated that groundwater would be encountered. However, implementation of the SWPPP identified above would avoid and minimize the potential for subsurface seepage of pollutants.

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would:

i) Result in substantial erosion or siltation on- or off-site;

NO IMPACT. No permanent impacts on aquatic resources or other waters would be expected because, permanent structures associated with the bridge would located outside of the OHWM. Water quality BMPs would be employed to further avoid affecting aquatic resources during and after construction. There would be no impact to waters of the United States and aquatic resources.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

LESS-THAN-SIGNIFICANT IMPACT. No significant additional runoff would result from construction, and no runoff in excess of existing conditions would occur as a result of using and maintaining the proposed trail due to the minor change in permeability. Therefore, no substantial alteration to the site or area's existing drainage pattern or substantial increase in the rate or amount of surface runoff would occur, and impacts would be less than significant.

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

LESS-THAN-SIGNIFICANT IMPACT. No significant additional runoff would result from project construction, and no runoff in excess of existing conditions would occur as a result of using and maintaining the proposed trail due to the minor change in permeability. Therefore, the project would not affect the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

d. Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

NO IMPACT. Project construction would occur in areas that have been previously disturbed. After construction is complete, temporary disturbance areas would be returned to their original condition. The project would not alter the overall drainage pattern of the area, alter the course of a stream or river, or substantially increase the amount of surface runoff in a manner which would result in flooding. Therefore, no impact would occur.

e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

NO IMPACT. The project would not discharge into a stormwater system; therefore, there would be no impact.

3.11 Land Use and Planning

Land Use and Planning Checklist

	Would the project:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a.	Physically divide an established community?	☐	☐	☐	☒
b.	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

3.11.1 Setting

The project is located within the cities of Campbell and San José, which are both part of the greater urban San José metro area. Reach 1 of the project between Westmont Avenue and Silacci Drive is located within Campbell's city limits; between Forest Hill Elementary School and McCoy Avenue the project is within the city of Campbell, and as the project transitions into Reach 2 along West San Tomas Aquino Road the trail alignment straddles the cities of Campbell and San José boundary line (see Figure 1). The project footprint has a City of Campbell General Plan designation of Open Space, and a City of San José General Plan designation of Open Space, Parklands, and Habitat. Surrounding land use designations include Open Space (City of Campbell 2001), and Single-Family Residential Neighborhood (City of San José 2012). Zoning designations at the project site include Public Facilities/Open Space (City of Campbell 2019) and Single Family Residential (City of San José 2012). Surrounding land uses for the Campbell include Residential and Institutional, (City of Campbell 2001) and Public/Quasi-Public, Mixed-Use, Residential for San José (City of San José 2013).

3.11.2 Impact Analysis

a. Would the project physically divide an established community?

NO IMPACT. The project is located in an area that is designated for open space and park use and is proposing to construct a pedestrian and bicycle trail on existing Valley Water levees with a new bridge, which would provide connections to other trails and the neighboring cities of Campbell and San José. The project would not divide an established community; therefore, there would be no impact.

b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

LESS-THAN-SIGNIFICANT IMPACT. Lands under the City of Campbell's and the City of San José's General Plan land use designations of Open Space and Open Space, Parklands and Habitat are typically devoted to open space, parks, recreation areas, trails, habitat buffers, nature preserves, and other permanent open space areas. The project would align with the goals and policies established in the *City of Campbell General Plan* to provide "recreational facilities within comfortable walking distance (one-half mile) of all city residents" (City of Campbell 2001), as well as the following strategy and policy:

Strategy OSP-1.1b: Valley Water: Work with the Valley Water to provide public access and improvements to the Groundwater Recharge Facilities in the city and explore the possibility of a multiple-use recreational trail along San Tomas Aquino Creek.

Policy OSP-4.4: Pedestrian and Bike Routes: Provide pedestrian and bike routes that link residential areas to open space, parks and recreational facilities to create a physically connected community.

Additionally, for the portion of the project located in San José, the project would align with the goals and policies established in the *Envision San José 2040 General Plan* to provide recreation opportunities for residents and enhance the livability and social and environmental quality of the city, as well as promote a "safe, livable, and complete neighborhoods where all daily activities can be accomplished within a short walking distance" (City of San José 2011). Therefore, the project is consistent with the City of Campbell (2001) and City of San José (2011) general plans' land use designations, goals, and objectives. Compliance with the applicable land use plan, policies, and regulations would result in a less-than-significant impact.

3.12 Mineral Resources

Mineral Resources Checklist

	Would the project:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b.	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

3.12.1 Setting

The project is not in an area of known mineral resources. Within the vicinity of the project, the City of Campbell does not report mineral resources within city limits. In addition, according to Chapter 3, Environmental Leadership, of the *Envision San José 2040 General Plan*, the Communications Hill Area (Sector EE) is the only area within the San José that is designated by the State Mining and Geology Board as containing mineral deposits of regional significance as a source of construction aggregate materials; no other areas within San José have been identified (City of San José 2011). The project is not within the Communications Hill Area.

3.12.2 Impact Analysis

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

NO IMPACT. The project would not result in the loss of availability of a known mineral because there are no existing or mineral resource recovery activities in or around the project area. No known mineral resources occur; therefore, there would be no impact.

b. Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

NO IMPACT. The project area is not within an established mineral resource zone; therefore, there would be no impact.

3.13 Noise

Noise Resources Checklist

	Would the project result in:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a.	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b.	Generation of excessive ground borne vibration or ground borne noise levels?	☐	☐	☒	☐
c.	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

3.13.1 Setting

The project site is along Valley Water levees on San Tomas Aquino Creek and runs adjacent to Westmont High School and Forest Hill Elementary School. Residences along Kingston Way, Manitoba Drive, Silacci Drive, McCoy Avenue, Harriet Avenue, and West San Tomas Aquino Road are located approximately 50 to 250 feet from project activities.

Noise generated during construction would vary depending on specific construction activities. Construction would be consistent with the City of Campbell's and City of San José's municipal codes; construction would primarily occur during the hours of 8 a.m. to 5 p.m., Monday through Friday, with occasional Saturday work occurring from 9 a.m. to 4 p.m. Project construction would generate noise from the equipment used. Construction would not occur on Sundays, holidays, or outside the timeframes designated by the local municipal code. Most individual pieces of construction equipment would generate noise levels of 80 to 85 A-weighted decibels at 50 feet from the source. The pedestrian bridge would be constructed and installed during school break to avoid disruption to Westmont High School or Forest Hill Elementary School schedules.

3.13.2 Impact Analysis

a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

LESS-THAN-SIGNIFICANT IMPACT. During construction, noise levels may temporarily exceed applicable noise standards. Sensitive receptors are located around the project site and include residences along the San Tomas Aquino Creek on Kingston Way, Silacci Drive, Summerfield Drive, and West San Tomas Aquino Road and schools like Westmont High School and Forest Hill Elementary School. The closest receptors are 50 feet from project activities and the farthest are 150 feet. Most heavy construction activity would occur on the Valley Water levees near these homes, but the heaviest construction would likely occur at the pedestrian bridge, which would be short-term in nature, would be restricted to hours stipulated by the City of Campbell's municipal code, and would be temporary. No excessively noisy construction methods (for example, pile driving) would be used.

City of Campbell Municipal Code Section 18.04.052 stipulates that construction would primarily occur during the hours of 8 a.m. to 5 p.m., Monday through Friday, with occasional Saturday work occurring

from 9 a.m. to 4 p.m. City of San José City Municipal Code Section 20.100.450 stipulates that construction activities occurring within 500 feet of a residence may only occur Monday through Friday, 7:00 a.m. to 7:00 p.m. To accommodate the construction schedule, construction could occur on some Saturdays. The pedestrian bridge would also be constructed when neither Westmont High School nor Forest Hill Elementary School are in session. The following project conditions would be included in the project plans and specifications to reduce noise impacts resulting from weekend construction to less than significant.

Standard Project Conditions

If construction work is conducted on weekends, then residents would be supplied with information (for example, flyers and a posted sign) to contact a construction coordinator to report any noise disturbances. The construction coordinator will respond to neighborhood complaints to reduce noise impacts to the extent feasible. The conditions governing hours of construction would be followed, along with other applicable regulations and measures to reduce impacts from construction noise. Signage will also be included around the project site to inform trail users.

The City of Campbell General Plan strategies and goals regarding noise are centered around development, redevelopment, and industrial-related projects. The City of San José General Plan Policies EC-1.1 through 1.3, listed below, address the City's CEQA noise thresholds and establish community noise levels and land use compatibility policies:

- EC-1.1 states that new development should be located in areas that are appropriate for the proposed uses. Bicycle and pedestrian users of the project would be restricted to use by local residents; therefore, the project would comply with this policy.
- EC-1.2 states that noise impacts should be minimized by limiting noise generation and requiring noise attenuation measures where feasible. The proposed trail and pedestrian bridge would not be an existing use in the area; however, the proposed trail and bridge would not attract new motorized vehicles and, therefore, would not result in an increase in ambient noise conditions. The project would comply with this policy.
- EC-1.3 states that noise generation from new nonresidential land uses should be mitigated to 55 A-weighted decibels when the project is located adjacent to noise-sensitive residential and public/quasipublic land uses (City of San José 2011). Bike and pedestrian use of the trail would not generate substantial noise. Therefore, the project would comply with this policy.

For these reasons, the project would be consistent with the general plan policies of Campbell and San José policies; therefore, impacts would be less than significant.

b. Generation of excessive ground borne vibration or ground borne noise levels?

LESS-THAN-SIGNIFICANT IMPACT. Project construction may temporarily expose persons to ground vibrations above ambient levels. While the City of Campbell does not have specific General Plan policies regarding the generation of vibration that are not specific to industrial neighborhoods, San José General Plan Policy EC-2.3 requires new development to minimize vibration impacts to adjacent uses during demolition and construction (City of San José 2011); however, construction would be temporary, and most activities would occur more than 100 feet away from nearby residences. Further, the project would not involve pile driving or other construction methods that generate excessive vibration. Impacts would be less than significant.

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

NO IMPACT. The project site is not within the vicinity of a private airstrip, airport land use plan, or 2 miles of a public airport or public use airport and would not expose people residing in the project area to excessive noise levels. Therefore, no impact would result.

3.14 Population and Housing

Population and Housing Checklist

Would the project:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.14.1 Setting

The project is located on levees belonging to Valley Water, located alongside San Tomas Aquino Creek. Surrounding the project area are residential and park land uses, as well as Westmont High School and Forest Hill Elementary School.

3.14.2 Impact Analysis

a. Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

NO IMPACT. The project would not construct new homes, businesses, or other infrastructure that would induce population growth in the area. Therefore, there would be no impact.

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

NO IMPACT. The project would not displace existing housing or necessitate constructing replacement housing elsewhere. Therefore, there would be no impact.

3.15 Public Services

Public Services Checklist

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a. Fire protection?	☐	☐	☒	☐
b. Police protection?	☐	☐	☒	☐
c. Schools?	☐	☐	☐	☒
d. Parks?	☐	☐	☐	☒
e. Other public facilities?	☐	☐	☐	☒

3.15.1 Setting

Public services and facilities are provided and maintained by local and County entities, including fire, police, and public works.

3.15.2 Impact Analysis

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services?

a. Fire protection?

LESS-THAN-SIGNIFICANT IMPACT. Construction and operation of the project would not increase the demand for fire protection services in the project area. During construction of the project, emergencies could occur at the project site; however, appropriate notification to local emergency service providers before construction would address impacts that could affect emergency response times such as lane closures. Therefore, there would be a less-than-significant impact.

b. Police protection?

LESS-THAN-SIGNIFICANT IMPACT. The site would be served by the City of Campbell and the City of San José Police Departments. The nearest police department station is the City of Campbell Police Department, approximately 3 miles northeast of the project site. During project implementation, emergencies could occur at the project site but the project would not increase population and is not expected to affect crime rates in the vicinity. Therefore, there would be a less-than-significant impact.

c. Schools?

NO IMPACT. The project would not generate additional population or students during construction or operation; therefore, there would be no impact.

d. Parks?

NO IMPACT. The project would provide recreational access to an existing creek corridor but would not increase the use of existing neighborhood and regional parks or other recreational facilities; therefore, there would be no impact.

e. Other public facilities?

NO IMPACT. The project would not increase population during project construction or operation; therefore, the project would not affect other government services or public facilities and would result in no impact.

3.16 Recreation

Recreation Checklist

		Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a.	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b.	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

3.16.1 Setting

The existing project area is blocked off to public access, with the exception of the existing pedestrian bridge located off Silacci Drive, which is used primarily for parents to access to Forest Hill Elementary School. The nearest park is the San Tomas Park, located 0.14 mile north of the Reaches 1 and 2 project connection.

3.16.2 Impact Analysis

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

LESS-THAN-SIGNIFICANT IMPACT. The project would improve pedestrian and bicycle recreational access of the San Tomas Aquino Area neighborhood with the proposed trail and prefabricated steel truss bridge. The project would continue to provide various trail options for the City of Campbell and would continue to link to the City of San José's citywide trail network and park system and improve access to existing recreation facilities in the area. The project would align with the goals and policies established in the *City of Campbell General Plan* (2001) and the *Envision San José 2040 General Plan*, as described in Section 3.11.1(City of San José 2011).

The nearest park is the San Tomas Park, located 0.14 mile north of the Reaches 1 and 2 project connection. The project would provide new recreation opportunities and, therefore, is unlikely to increase demand on San Tomas Park or other existing parks. The project would create a trail which would provide the surrounding residential areas with access to recreational opportunities and may encourage increased use of existing recreational facilities. However, the project would not result in substantial deterioration of existing recreational facilities. Impacts would therefore be less than significant.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

NO IMPACT. Although the project would provide new bicycle and pedestrian access through the creation of a new recreational trail and installation of a pedestrian bridge, no additional recreation facilities or expansion of recreational facilities are proposed. As described in Section 1.7, the project is located on top of existing Valley Water levees in a residential neighborhood, which would not expand capacity nor necessitate the construction or expansion of recreational facilities. Further, the corridor is not expected to be heavily trafficked. Therefore, there would be no impact.

3.17 Transportation

Transportation Checklist

	Would the Project:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a.	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?	☐	☐	☒	☐
b.	Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☐	☒	☐
c.	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d.	Result in inadequate emergency access?	☐	☐	☐	☒

3.17.1 Setting

The project area is currently not accessible to public use; Valley Water maintenance cars access the project area, with residents accessing the pedestrian bridge via Silacci Drive. Nearby roadways that would have direct access to the project site include Westmont Avenue, McCoy Avenue, Harriet Avenue, and West San Tomas Aquino Road; State Route 85 is the nearest highway located southwest of the project site. .

3.17.2 Impact Analysis

a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?

LESS-THAN-SIGNIFICANT IMPACT. The project is intended to support the goals of the City of Campbell General Plan to “provide a network of bike lanes, routes and paths within its street system to encourage and serve a broad range of bicycle abilities” (City of Campbell 2014). Additionally, the project fulfils the City of Campbell’s Strategy OSP-1.1b and Policy OSP-4.4 (see Section 3.11.2[b]). The project also supports the City of San José’s Envision San José 2040 General Plan to “reduce the automobile commute mode share by 40% by 2040” (City of San José 2011), in addition to Goal 10 of its Green Vision to increase bike and pedestrian trails and on-street bikeways throughout the city.

The project would temporarily use existing roadways via construction equipment and crews to access the project site. Most construction traffic would access the site via State Route 85 and Westmont Avenue, McCoy Avenue (where construction equipment would use an access road on Foothill Elementary School property), Harriet Avenue, and West San Tomas Aquino Road. Construction activities would temporarily generate a negligible amount of additional traffic along roadways in the vicinity of the project site caused by construction workers and materials deliveries. Prior to construction beginning, the contractor would prepare and submit a traffic control plan (TCP) to the City of Campbell and the City of San José for review. The TCP would identify approved routes and timing of construction vehicles in and around the project site. The increase in vehicle trips during construction would be minimal, and local street capacity and circulation would not be affected; therefore, the impact would be less than significant.

b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

LESS-THAN-SIGNIFICANT IMPACT. Construction traffic would not degrade the existing level of service on the roadways in the vicinity of the project. Construction activities would temporarily generate a negligible amount of additional traffic along roadways in the vicinity of the project site caused by construction workers and material deliveries. No construction road closures are expected, and construction would last approximately 12 months, with portions of the project (under Reach 1 and Reach 2) likely finishing earlier. The project is intended to increase pedestrian and bicycle access, which would also result in long-term incremental decreases in in vehicle miles traveled; therefore, the impact would be less than significant.

c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

NO IMPACT. The project would include the installation of a pedestrian bridge, which would be installed at an angle best suited for bike and pedestrian users. While the trail would curve slightly upon approaching the bridge at both ends, the curves would accommodate pedestrian, small maintenance vehicles, and bicycle users. Speeds would be reduced when approaching the bridge in both directions and posted signage would inform users of reduced speeds. Additionally, potential traffic hazards during construction would be addressed by a TCP, to be prepared by the contractor and submitted to the City of Campbell for review and approval prior to construction. Therefore, there would be no impact.

d. Result in inadequate emergency access?

NO IMPACT. Access to the San Tomas Aquino Creek and nearby schools would not change as a result of this project. Emergency vehicles would still be able to access the site and surrounding facilities from Westmont Avenue, McCoy Road, Harriet Avenue, and West San Tomas Aquino Road; therefore, there would be no impact.

3.18 Tribal Cultural Resources

Tribal Cultural Resources Checklist

Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

3.18.1 Setting

Tribal Cultural Resources (TCRs) as defined by Public Resources Code (PRC) Section 21074 are either (1) sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are either on or eligible for inclusion in the CRHR or a local historic register; or (2) a resource that the lead agency, at its discretion and supported by substantial evidence, chooses to treat as a TCR. Additionally, a cultural landscape may also qualify as a TCR if it meets the criteria to be eligible for inclusion in the CRHR and is geographically defined in terms of the size and scope of the landscape. Other historical resources (as described in PRC 21084.1) including unique archaeological resources (as defined in PRC 21083.2(g)), or nonunique archaeological resources (as described in PRC 21083.2(h)) may also be TCRs if they conform to the criteria to be eligible for inclusion in the CRHR.

In addition to the NAHC Sacred Lands File records search requested on April 12, 2019, a request for Native American Tribal contacts was also included. The NAHC responded on April 12, 2019, stating that a review of the Sacred Lands File Search was conducted, and no Native American cultural resources were reported. A list of Native American tribal contacts interested in consulting on development projects was also provided at this time. Each individual and group was contacted on May 13, 2019, in compliance with AB 52 (PRC Section 21080.3.1). No comments have been received; the closing date for requesting participation to consult was June 18, 2019. The City of Campbell also coordinated with the City of San José's Planning, Building, and Code Enforcement department and confirmed that the City of San José has specifically received request from tribal groups to be notified of projects located in San José's Downtown area and within the Coyote Valley area (City of San José pers. comm. 2019). The proposed project is not located within either areas, and therefore standard AB 52 compliance was conducted.

3.18.2 Impact Analysis

a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

LESS-THAN-SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. As described in Section 3.5.2, no listed historical resources, or resources eligible for listing, occur on the project site. However, it is possible that unidentified historical resources that may be considered tribal cultural

resources may be present. Impacts would be less than significant with implementation of MM CUL-1 (see Section 3.5.2).

b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

LESS-THAN-SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Assembly Bill 52 requires lead agencies to conduct formal consultations with California Native American tribes during the CEQA process to identify tribal cultural resources that may be subject to significant impacts by a project. Where a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document must discuss the impact and whether feasible alternatives or mitigation measures could avoid or substantially lessen the impact. This consultation requirement applies only if the tribes have sent written requests for notification of projects to the lead agency. At the time of the preparation of this Initial Study, no tribes have sent written requests for notification of projects to the City of Campbell, and no tribes have sent written requests for notification of projects to the City of San José except for projects located in the Downtown area and within the Coyote Valley area. Due to the distance of the project site from the San José Downtown area and the Coyote Valley area, the project would not have a significant impact on tribal cultural resources.

Although no Native American Tribe has presented evidence for the potential presence of a tribal cultural resource, such resources may be uncovered during construction. Impacts would be less than significant with implementation of MM CUL-1 (see Section 3.5.2).

3.19 Utilities and Service Systems

Utilities and Service Systems Checklist

	Would the Project:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a.	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☒	☐	☐
b.	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☐	☒
c.	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d.	Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e.	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

3.19.1 Setting

The project site is within an urbanized environment within the cities of Campbell and San José where utility infrastructure is in place. As described in Section 1.7, the existing utilities present include sanitary sewer line, two water lines that cross the existing pedestrian bridge, and storm drain outlets.

3.19.2 Impact Analysis

a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

LESS-THAN-SIGNIFICANT WITH MITIGATION INCORPORATED. As described in Section 1.7, the proposed project would abandon portions of the 12-inch and 37-inch potable water lines (owned by SJW) located near the proposed pedestrian bridge. The portions of both lines near the creek and bridge would be replaced by an approximately 250-foot-long, 18-inch water line, which would be located south of the proposed trail and bridge alignment on property owned by Westmont High School and Valley Water. SJW would not expand or adversely affect service as a result of the new waterline, and no other utility relocations would be required. Because the water line relocation is part of the proposed project, the potential impacts of relocating this line are addressed throughout this Initial Study. The water line would be installed in an approximately 6-foot-deep trench that would be backfilled to the existing grade following construction. Before construction, the water lines would be relocated by SJW as part of the proposed project. Therefore, impacts would be less-than-significant by implementing mitigation measures and standard project descriptions described elsewhere in this Initial Study. The project would not expand or adversely affect other utility services like wastewater, electricity, or solid waste disposal.

b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

NO IMPACT. During construction, water would be required primarily for dust suppression and soil compaction. Construction water volumes would be minimal and not require new or expanded entitlements. No water supplies would be needed or made available during operation; therefore, there would be no impact.

c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

NO IMPACT. The project would not affect wastewater treatment facilities. See the discussion under (a) above.

d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

LESS-THAN-SIGNIFICANT IMPACT. The project would generate a small amount of waste during construction. Construction debris would be appropriately disposed of in nearby landfills that have adequate capacity to accept the waste generated from construction. The project would not have solid waste disposal needs after construction. Impacts to local landfills would therefore be less than significant.

e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

LESS-THAN-SIGNIFICANT IMPACT. The project may require disposing of construction debris, but any debris would not be expected to be contaminated. Construction debris would be disposed of consistently with federal, state, and local regulations. Therefore, impacts would, therefore, be less than significant.

3.20 Wildfire

Wildfire Checklist

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c. Require the installation or maintenance of associated infrastructure (such as road, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

3.20.1 Setting

The California Department of Forestry and Fire (CAL FIRE)'s Fire and Resources Assessment Program provides Fire Hazard Severity Zones Maps that identify Very High Fire Hazard Severity Zones (VHFHSZ) in Local, State, or Federal Responsibility Areas. Within these areas, CAL FIRE has designated certain areas as VHFHSZ, or Non-VHFHSZ. The project is within an urbanized environment within the cities of Campbell and San José and is identified by the CAL FIRE as within the City of San José's and Santa Clara County's Local Responsibility Areas as Non-VHFHSZ (CAL FIRE 2019a and 2019b). Because the project is not located in a State responsibility area, nor in an area classified as Very High Fire Hazard Severity Zones, there would be no impact.

3.20.2 Impact Analysis

a. Impair an adopted emergency response plan or emergency evacuation plan?

NO IMPACT. The project is not located in a State responsibility area or in an area classified as very high fire hazard severity zones; therefore, there would be no impact.

b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

NO IMPACT. The project is not located in a State responsibility area or in an area classified as very high fire hazard severity zones; therefore, there would be no impact.

c. Require the installation or maintenance of associated infrastructure (such as road, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

NO IMPACT. The project is not located in a State responsibility area or in an area classified as very high fire hazard severity zones; therefore, there would be no impact.

d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

NO IMPACT. The project is not located in a State responsibility area or in an area classified as very high fire hazard severity zones; therefore, there would be no impact.

3.21 Mandatory Findings of Significance

Mandatory Findings of Significance Checklist

		Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a.	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b.	Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	☐	☐	☒	☐
c.	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects?	☐	☐	☒	☐
d.	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

LESS-THAN-SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. The project would be constructed along San Tomas Aquino Creek within the limits of both Campbell and San José. Minimal tree removal would occur during construction. The construction period would be temporary, and the Standard Project Conditions and mitigation measures would reduce the impacts to a less-than-significant level. The project would not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

b. Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?

LESS-THAN-SIGNIFICANT IMPACT. The project would achieve short-term environmental goals pertaining to land use and recreation (see Sections 3.11 and 3.16). The project would also provide alternative bicycle and transportation options (see Section 3.17) and, therefore, has associated long-term benefits to traffic congestion, air quality, and greenhouse gas impacts. The project would result in a less-than-significant impact.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

LESS-THAN-SIGNIFICANT IMPACT. As indicated throughout this Initial Study, the project would not result in substantial environmental effects on human beings. Standard Project Conditions and mitigation measures are identified in this Initial Study to reduce potential significant impacts related to discovering unknown cultural resources. Compliance with the City of Campbell and City of San José general plans and policies will ensure that the project would not result in impacts that would cause substantial adverse effects on human beings, either directly or indirectly.

d. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects?

LESS-THAN-SIGNIFICANT IMPACT. The project would provide alternative bicycle and transportation options and, therefore, has associated long-term benefits to traffic congestion, air quality, and greenhouse gas impacts. Therefore, the project would result in less-than-significant short- and long-term impacts on aesthetics, air quality, biological resources, cultural resources, energy resources, geology and soils, GHG emissions, hazardous materials, hydrology and water quality, land use, noise, population and housing, public services, recreation, transportation, tribal cultural resources, and utilities and services systems, and would not result in cumulatively considerable environmental impacts.

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Appendix A
Construction Plans for San Tomas Aquino Creek Trail Project (35-Percent Level of Development)

CONSTRUCTION PLANS FOR

SAN TOMAS AQUINO CREEK TRAIL PROJECT

PROJECT NUMBER XX

FEDERAL PROJECT NO. XXXXX

CITY OF CAMPBELL

THE ORCHARD CITY

CITY OF CAMPBELL

Department of Public Works

GENERAL NOTES

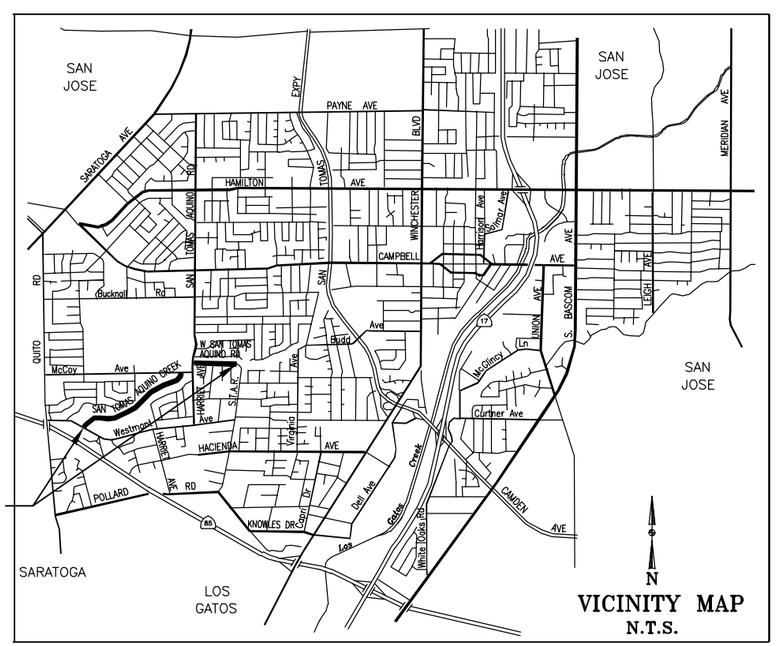
1. ALL WORK SHALL CONFORM TO THESE PLANS, THE SPECIAL PROVISIONS, THE "CITY OF CAMPBELL STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION," DATED JULY 1994 AND OTHER SPECIFICATIONS REFERENCED THEREIN.
2. THE CONTRACTOR AGREES THAT HE/SHE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF THE WORK, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE CITY, ITS OFFICERS, EMPLOYEES AND VOLUNTEERS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH PERFORMANCE OF THE WORK, EXCEPTING LIABILITY ARISING FROM THE NEGLIGENCE OF THE CITY, ITS OFFICERS, EMPLOYEES AND VOLUNTEERS.
3. PRIOR TO CONSTRUCTION, SUBMIT TO THE CITY ENGINEER A DETAILED PROGRESS SCHEDULE SHOWING PRIMARY COMPONENTS OF WORK.
4. STATE LAW REQUIRES CONTRACTOR TO CONTACT UNDERGROUND SERVICE ALERT AT 800-227-2600 AT LEAST 48 HOURS PRIOR TO COMMENCING ANY EXCAVATIONS. FAILURE TO COMPLY MAY RESULT IN SUBSTANTIAL PENALTIES.
5. THE EXISTENCE AND LOCATIONS OF UNDERGROUND STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING FACILITIES EXCEPT AS SHOWN. CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES TO PROTECT ALL SUBSTRUCTURES, WHETHER SHOWN ON THE PLANS OR NOT, MAKE EXPLORATORY EXCAVATIONS, AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO THESE PLANS WHEN NECESSARY.
6. PREPARE, SUBMIT TO THE CITY ENGINEER FOR APPROVAL, AND IMPLEMENT TRAFFIC CONTROL & DETOUR PLANS AS REQUIRED IN THE SPECIAL PROVISIONS.
7. PROVIDE AND MAINTAIN ALL NECESSARY TEMPORARY TRAFFIC CONTROL DEVICES, TO ENSURE SAFE PEDESTRIAN AND VEHICULAR ACCESS THROUGH AND AROUND THE JOB SITE, AND AS DIRECTED BY THE CITY ENGINEER. NOTIFY THE CITY OF CAMPBELL POLICE DEPARTMENT DAILY OF LANE CLOSURES OR DETOURS WITHIN ROADWAYS. PROVIDE A 24-HOUR EMERGENCY RESPONSE TELEPHONE LISTING TO THE CITY ENGINEER.
8. PROVIDE TEMPORARY EROSION, DUST, AND DRAINAGE CONTROL MEASURES DURING CONSTRUCTION. FOLLOW BEST MANAGEMENT PRACTICES AS RECOMMENDED BY SANTA CLARA COUNTY NON-POINT SOURCE POLLUTION CONTROL PROGRAM.
9. TAKE PRECAUTIONARY MEASURES NECESSARY TO PROTECT FROM DAMAGE ALL EXISTING IMPROVEMENTS AND UTILITIES WHICH ARE TO REMAIN IN PLACE. EXPEDITIOUSLY REPAIR IN KIND IMPROVEMENTS AND UTILITIES REMOVED OR DAMAGED BY THE CONTRACTOR'S OPERATIONS.
10. NOTIFY THE CITY ENGINEER IMMEDIATELY OF ANY INCONSISTENCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS. NO DEVIATION FROM THESE PLANS IS PERMITTED WITHOUT WRITTEN APPROVAL OF THE CITY ENGINEER.
11. REMOVE AND DISPOSE OF EXCESS SOIL AND DEBRIS FROM THE SITE. OBTAIN PERMITS AND PAY FEES REQUIRED TO DISPOSE EXCESS MATERIALS.
12. PROTECT, OR RESTORE BY A LICENSED LAND SURVEYOR OR CIVIL ENGINEER, SURVEY MONUMENTS AND BENCHMARKS DAMAGED OR DESTROYED DURING CONSTRUCTION. FILE CORNER RECORD OR RECORD OF SURVEY AS REQUIRED.
13. SUBMIT UPDATED RECORD DRAWINGS AND PROGRESS SCHEDULES TO THE CITY ENGINEER AS A CONDITION OF APPROVAL OF MONTHLY PROGRESS PAYMENTS AND FINAL ACCEPTANCE.
14. REMOVE, PLUG OR RELOCATE EXISTING IRRIGATION LINES WITHIN THE PUBLIC RIGHT-OF-WAY AS DIRECTED BY THE CITY ENGINEER. REMOVE ABANDONED IRRIGATION LINES WITHIN 12 INCHES OF THE GRADING PLANE.
15. GRADE UNIMPROVED AREAS ADJACENT TO NEW CURBS, GUTTERS, AND SIDEWALKS TO CONFORM TO NEW IMPROVEMENTS AND TO PROVIDE FOR SAFETY AND DRAINAGE.
16. NOTE CONSTRUCTION IMMEDIATELY ADJACENT TO TWO SCHOOLD AND THROUGH A RESIDENTIAL NEIGHBORHOOD. SITE SHALLL BE SECURED AT ALL TIMES TO PROTECT PUBLIC.

ELEVATION IN FEET

AGENCY INDEX

SANTA CLARA COUNTY FIRE DEPARTMENT	378-4010
CITY OF CAMPBELL - PUBLIC WORKS	866-2150
CITY OF CAMPBELL - POLICE	866-2170
SBC CALIFORNIA	980-2061
PACIFIC GAS & ELECTRIC	1-800-743-5000
SAN JOSE WATER COMPANY	279-7900
SANTA CLARA VALLEY WATER DISTRICT	265-2600
COMCAST (BETWEEN 7:00AM AND 3:00PM)	918-3245
COMCAST (AFTER NORMAL WORKING HOURS)	1-800-945-2288
WEST VALLEY SANITATION DISTRICT	378-2407
UNITED STATES POSTAL SERVICE	378-0226
GREEN TEAM	283-8500
FOREST HILL ELEMENTARY SCHOOL	408 364-4279
CUPERTINO UNIFIED SCHOOL DISTRICT	408 252-3000
WESTMONT HIGH SCHOOL	408 626-3406
CAMPBELL UNIFIED HIGH SCHOOL DISTRICT	408 371-0960

PROJECT LIMITS



VICINITY MAP
N.T.S.

INDEX OF DRAWINGS

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PLAN AND PROFILE	C-1 - C-12
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ABBREVIATIONS

AB	AGGREGATE BASE	OBJ	OBJECT
AC	ASPHALT CONCRETE	OG	RIGINAL GRADE
ADA	AMERICANS W/ DISABILITIES ACT	PACB	PACIFIC BELL
BC	BEGIN CURVE	PB	PULL BOX
BL	BIKE LANE	PC	POINT ON CURVE
BM	BENCH MARK	PCC	PORTLAND CONCRETE CEMENT
BOW	BACK OF WALK	PL	PROPERTY LINE
BW	BOTTOM OF WALL	PT	POINT ON TANGENT
CATV	CABLE TELEVISION	PG&E	PACIFIC GAS & ELECTRIC
C/G	CURB & GUTTER	PLN	PLAN
CL	CLASS/CENTER LINE/CHAIN LINK	PNT	POINT
CONC	CONCRETE	PRC	POINT OF REVERSE CURVATURE
CR	CURVE RETURN	PS	PAINT STRIPE
DI	DRAINAGE INLET	PLS	PLANTER STRIP
DIP	DUCTILE IRON PIPE	PVC	POINT ON VERTICAL CURVE
DWY	DRIVEWAY	R	RADIUS
EC	END CURVE	R.C.	RELATIVE COMPACTION
EP	EDGE OF PAVEMENT	RCP	REINFORCED CONCRETE PIPE
EX	EXCAVATION	RPM	RAISED PAVEMENT MARKER
(E)	EXISTING	RIM	MANHOLE RIM
FC	FACE OF CURB	SCVWD	SANTA CLARA VALLEY WATER DISTRICT
FG	FINISH GRADE	SDI/SD INLET	STORM DRAIN INLET
FH	FIRE HYDRANT	SDMH	STORM DRAINAGE MANHOLE
FL	FLOW LINE	STD	STANDARD
GB	GRADE BREAK	SJC	CITY OF SAN JOSE
GND	GROUND	SLB	STREET LIGHT BOX
HR	HANDICAPPED RAMP	SSCO	SANITARY SEWER CLEAN OUT
INV	INVERT	SSMH	SANITARY SEWER MANHOLE
IRR	IRRIGATION	STA	STATION
LOL	LAYOUT LINE	STAR	SAN TOMAS AQUINO ROAD
LP	LIGHT POST	S/W, SW	SIDEWALK
LIP	LIP OF GUTTER	TC	TOP OF CURB
MAX	MAXIMUM	TEMP	TEMPORARY
MB	MAILBOX	TL	TELEPHONE LINE
MC	MIDLINE	TW	TOP OF WALL
MH	MANHOLE	TYP	TYPICAL
MIN	MINIMUM	UB	UNKNOWN BOX
MKR	MARKER	WALK	WALKWAY
MOD	MODIFIED	WB	WATER BOX
MON	MONUMENT	WM	WATER METER
NIC	NOT IN CONTRACT	WV	WATER VALVE
		W/	WITH

1-800-227-2600
CALL BEFORE YOU DIG
USA
UNDERGROUND SERVICE ALERT
1-800-227-2600

APPROVALS:

Fredrick Ho, P.E.
Senior Engineer
Date

Amy Olay, P.E.
City Engineer

20' 0' 20'
1" 0' 1"

Todd Capurso
Public Works Director
Date

REGISTERED PROFESSIONAL ENGINEER
CARLA AGUILAR RIVERA
87318
EXP.09/30/19
CIVIL
STATE OF CALIFORNIA

No.	Revision	Date	By	Chkd

Date: MAY 2020
Drawn By: JJH
Designed By: CAR

DRAFT PRELIMINARY DESIGN SUBMITTAL

JACOBS

ELEVATION IN FEET

SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX
COVER SHEET

CITY OF CAMPBELL
CAMPBELL, CALIFORNIA

SCALE:

SHEET:
G-1

SURVEY CONTROL DATA

NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION	LOCATION
1 ▲	1925180.51	6128027.37	264.911	FND 2-1/2" BD W/ PUNCH	CENTERLINE OF KINGSTON WAY, 399'± NORTH* OF WESTMONT AVENUE CENTERLINE
2 ▲	1925430.27	6128760.02	258.945	FND 3/4" BP W/ PUNCH	CENTERLINE INTERSECTION OF KINGSTON WAY AND FOREST HILL DRIVE
3 ▲	1926261.26	6130056.81	246.013	FND 3/4" BP W/ PUNCH	CENTERLINE INTERSECTION OF MONTREAL DRIVE AND META DRIVE
4 ▲	1925456.59	6130589.96	243.984	FND 3/4" OPEN IP	CENTERLINE INTERSECTION OF SILACCI DRIVE AT SOUTHERN KNUCKLE
5 ▲	1926105.34	6131061.53	241.453	FND 2-1/2" BD	CENTERLINE OF SUMMERFIELD DRIVE, 93'± SOUTH-EAST* OF CUL-DE-SAC CENTERPOINT
6 ▲	1925807.89	6131259.58	238.815	FND 3/4" IP W/ N/T	CENTERLINE OF SILACCI DRIVE, 226'± SOUTH-WEST* OF GWEN DRIVE CENTERLINE
7 ▲	1925873.28	6131476.15	237.360	FND 3/4" IP OPEN	CENTERLINE INTERSECTION OF SILACCI DRIVE AND GWEN DRIVE
8 ▲	1926372.32	6131595.18	237.254	FND 2-1/2" BD W/ PUNCH	CENTERLINE OF SUMMERFIELD DRIVE, 212'± SOUTH* OF McCOY AVENUE CENTERLINE
9 ▲	1926266.53	6132035.76	232.993	FND 3/4" IP	CENTERLINE INTERSECTION OF SILACCI DRIVE AND HARRIET AVENUE
10 ▲	1926568.20	6132028.48	232.067	FND 3/4" OPEN IP	CENTERLINE INTERSECTION OF McCOY AVENUE AND HARRIET AVENUE
11 ▲	1927111.79	6132028.25	232.809	FND 1" OPEN IP	CENTERLINE INTERSECTION OF KEITH DRIVE AND HARRIET AVENUE
12 ▲	1926867.02	6132495.00	229.698	FND 1" OPEN IP	CENTERLINE INTERSECTION OF W SAN TOMAS AQUINO ROAD AND GINDEN DRIVE
13 ▲	1926861.12	6132756.48	228.199	FND 1" OPEN IP	CENTERLINE INTERSECTION OF W SAN TOMAS AQUINO ROAD AND INWOOD DRIVE
14 ▲	1927155.50	6132910.21	227.093	FND 3/4" BP W/ PUNCH	CENTERLINE INTERSECTION OF KEITH DRIVE AND TWYLA LANE
15 ▲	1926834.82	6133040.98	226.426	FND 1" IP W/ PLUG	CENTERLINE INTERSECTION OF W SAN TOMAS AQUINO ROAD AND CROCKETT AVENUE
16 ▲	1926623.06	6133692.30	221.080	FND 3/4" IP PLUG/TACK	CENTERLINE OF W SAN TOMAS AQUINO ROAD, 470'± EAST* OF MARGARET LANE CENTERLINE
17 ▲	1927022.77	6133726.54	221.682	FND 3/4" BP W/ PUNCH	CENTERLINE INTERSECTION OF TWYLA LANE AND TWYLA COURT

* MEASURED ALONG CENTERLINE

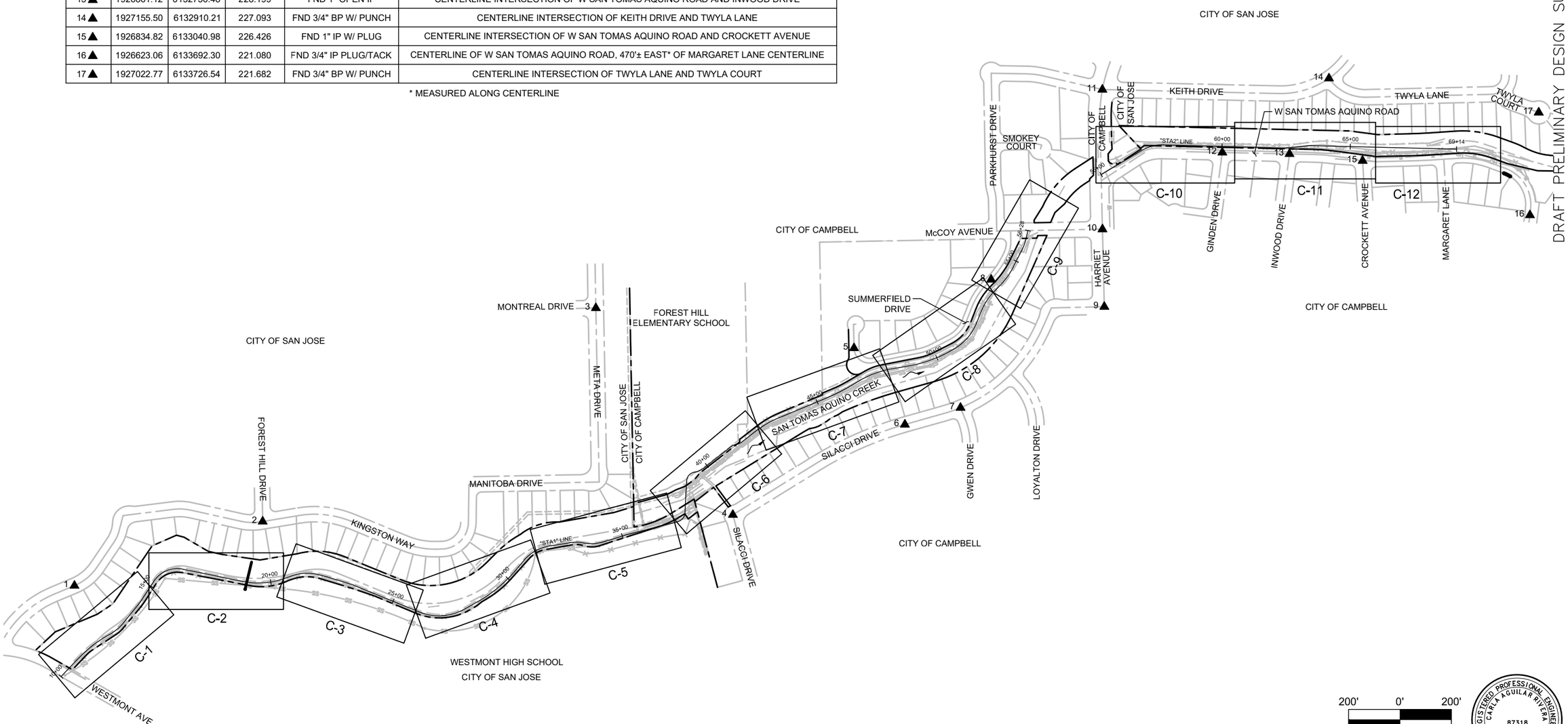
NOTES:

1. COORDINATES ARE BASED ON NAD83 CALIFORNIA STATE PLANES, ZONE III, US FOOT. ELEVATIONS ARE BASED ON NAVD 88.
2. TOPOGRAPHIC SURVEY PROVIDED BY: HMH ENGINEERS
3. SEE SURVEY CONTROL DATA TABLE FOR LOCATION AND DESCRIPTION OF SURVEY CONTROL POINTS.
4. AERIAL SURVEY AND FIELD SURVEY ARE DATED APRIL, 2019.

LEGEND:

SANTA CLARA VALLEY WATER DISTRICT BENCHMARK BM 188, ELEVATION= 263.73 FEET. BRASS DISK ON TOP AND BACK OF SIDEWALK AT THE NORTHWEST CORNER OF WESTMONT AVENUE BRIDGE OVER SAN TOMAS CREEK, 200 FEET EASTERLY OF KINGSTON AVENUE. CITY OF SAN JOSE.

▲ SURVEY CONTROL POINT



KEY MAP AND SURVEY CONTROL

1"=200'

200' 0' 200'
1" 0' 1"

REGISTERED PROFESSIONAL ENGINEER
CARLA AGUILAR RIVERA
87318
EXP.09/30/19
CIVIL
STATE OF CALIFORNIA

No.	Revision	Date	By	Chkd

DRAFT PRELIMINARY DESIGN SUBMITTAL

Date: MAY 2020
Drawn By: JJH
Designed By: CAR

JACOBS

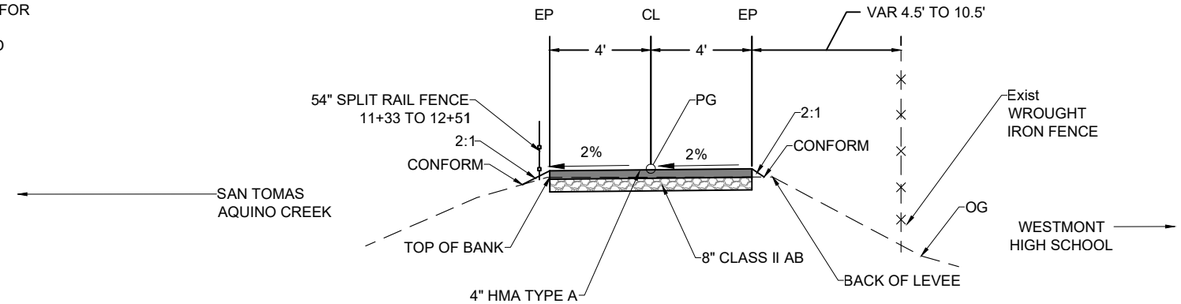
SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX
KEY MAP AND SURVEY CONTROL

CITY OF CAMPBELL
CAMPBELL, CALIFORNIA

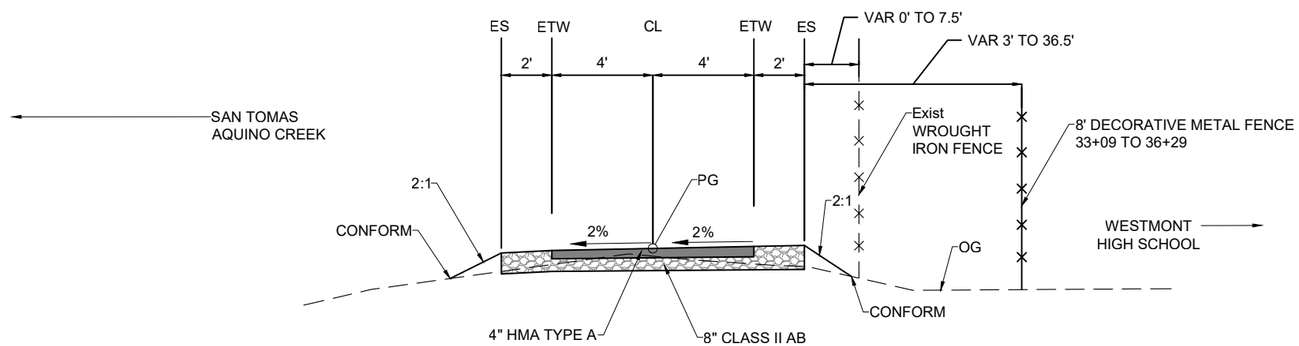
SCALE:
AS SHOWN

SHEET:
G-2

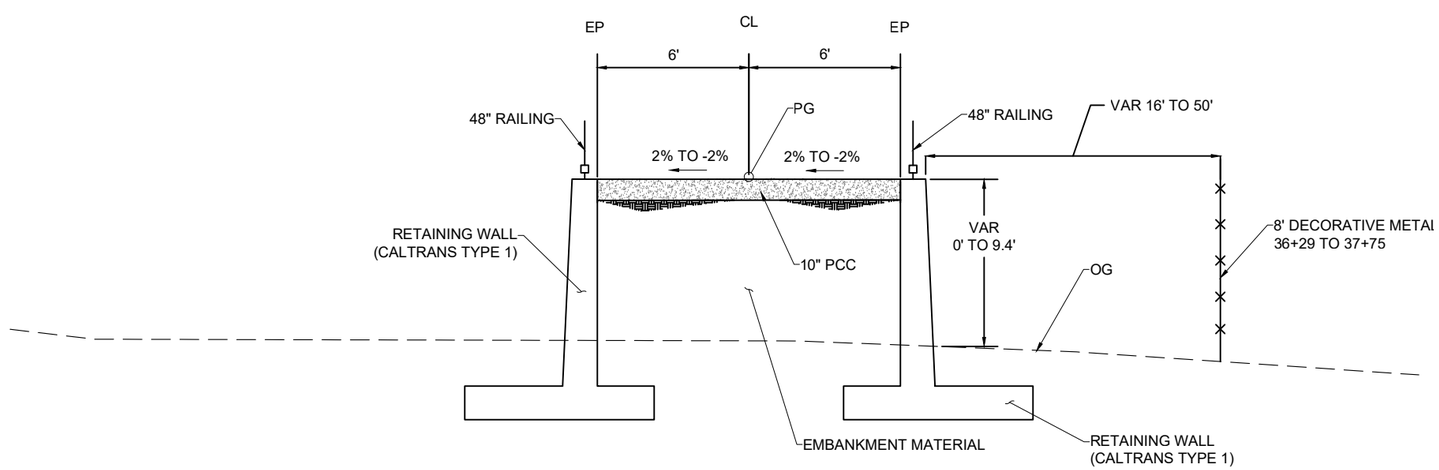
NOTES:
1. SEE SUPERELEVATION DIAGRAM ON C SHEETS FOR CROSS SLOPE TRANSITIONS
2. SEE C SHEETS FOR TRAILHEAD LOCATIONS AND FENCING LIMITS



1 / X-01 TYPICAL SECTION
NTS "STA1" 11+33 TO 28+00



2 / X-01 TYPICAL SECTION
NTS "STA1" 28+00 TO 36+30



3 / X-01 TYPICAL SECTION
NTS "STA1" 36+30 TO 37+75.11

DRAFT PRELIMINARY DESIGN SUBMITTAL

No.	Revision	Date	By	Chkd

Date: MAY 2020
Drawn By: JJH
Designed By: CAR

JACOBS

SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX
TYPICAL CROSS SECTIONS

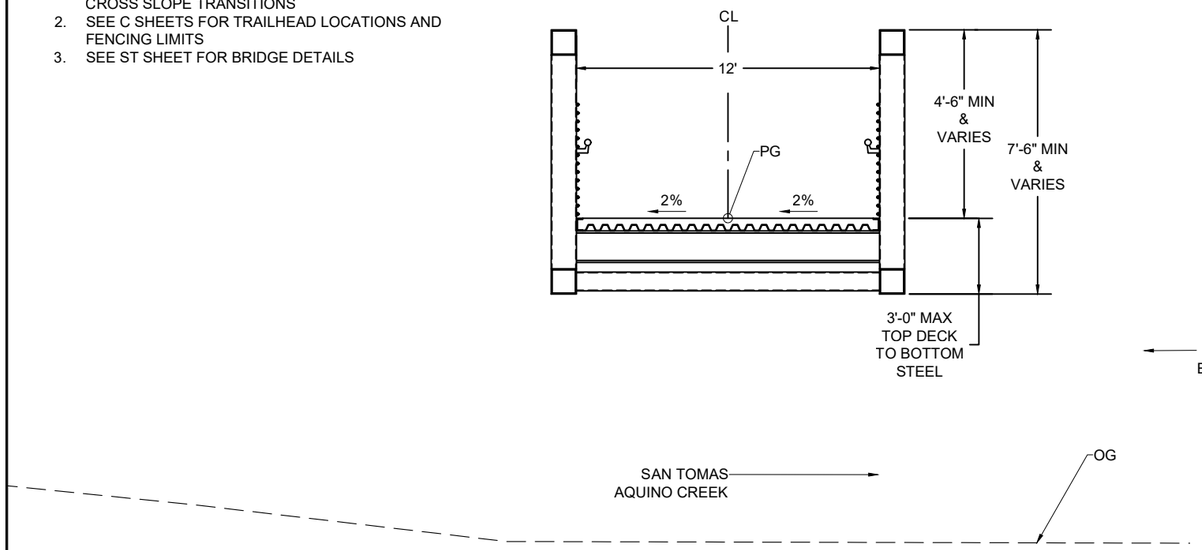
CITY OF CAMPBELL, CAMPBELL, CALIFORNIA

REGIS TERCO PROFESSIONAL ENGINEER
CARLA AGUILAR RIVERA
87318
EXP.09/30/19
CIVIL
STATE OF CALIFORNIA

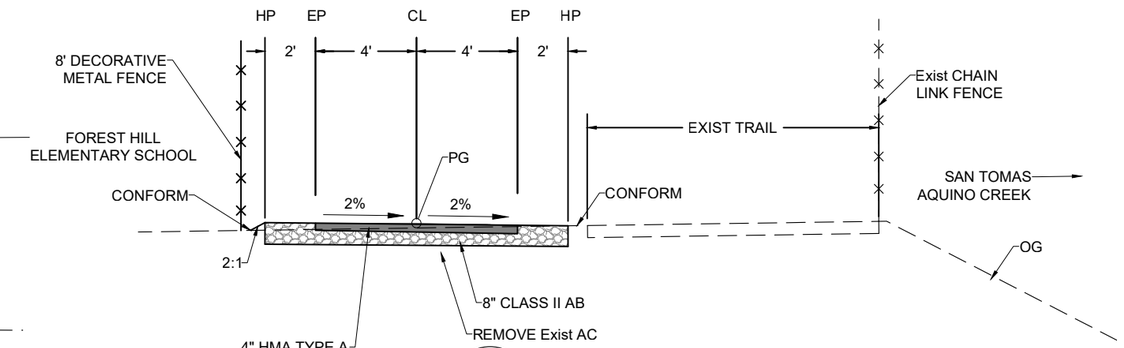
SCALE:

SHEET:
XS-1

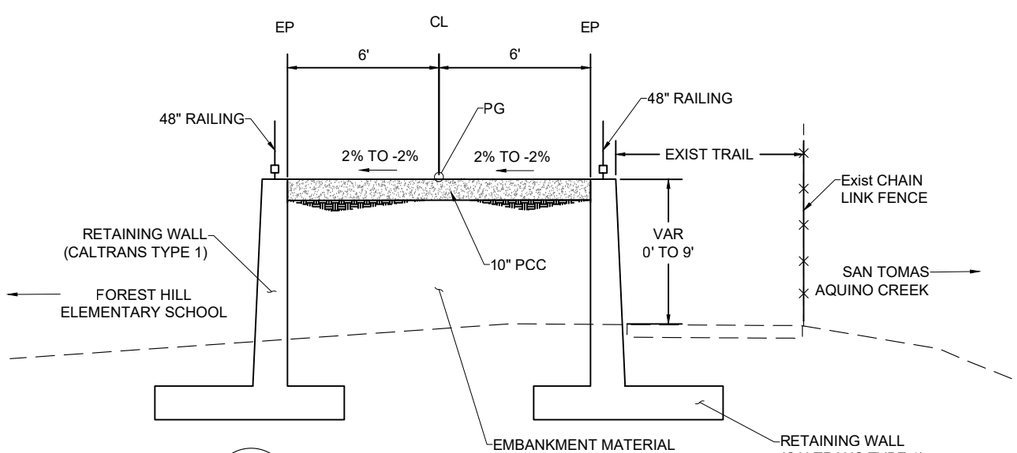
NOTES:
1. SEE SUPERELEVATION DIAGRAM ON C SHEETS FOR CROSS SLOPE TRANSITIONS
2. SEE C SHEETS FOR TRAILHEAD LOCATIONS AND FENCING LIMITS
3. SEE ST SHEET FOR BRIDGE DETAILS



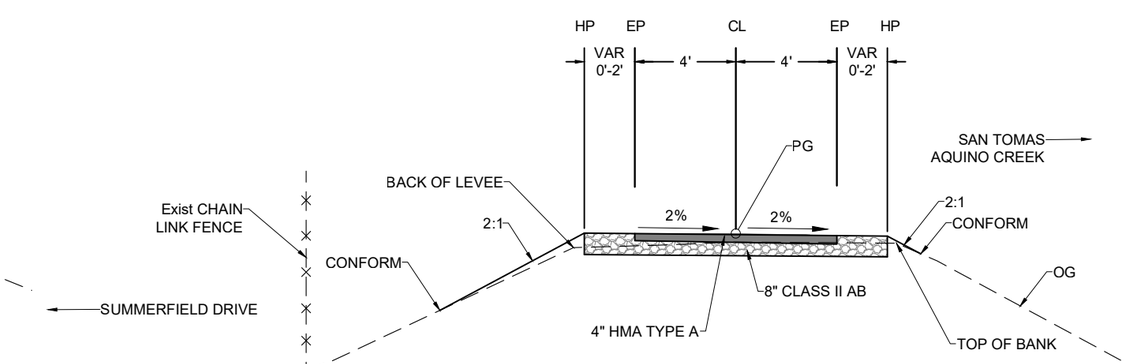
4 / X-02 TYPICAL SECTION
NTS "STA1" 37+75.11 TO 38+88.61



6 / X-02 TYPICAL SECTION
NTS "STA1" 41+00 TO 41+60



5 / X-02 TYPICAL SECTION
NTS "STA1" 38+88.61 TO 41+00



7 / X-02 TYPICAL SECTION
NTS "STA1" 41+60 TO 55+25

REGISTERED PROFESSIONAL ENGINEER
CARLA AGUILAR RIVERA
87318
EXP.09/30/19
CIVIL
STATE OF CALIFORNIA

No.	Revision	Date	By	Chkd

DRAFT PRELIMINARY DESIGN SUBMITTAL

Date: MAY 2020
Drawn By: JJH
Designed By: CAR

JACOBS

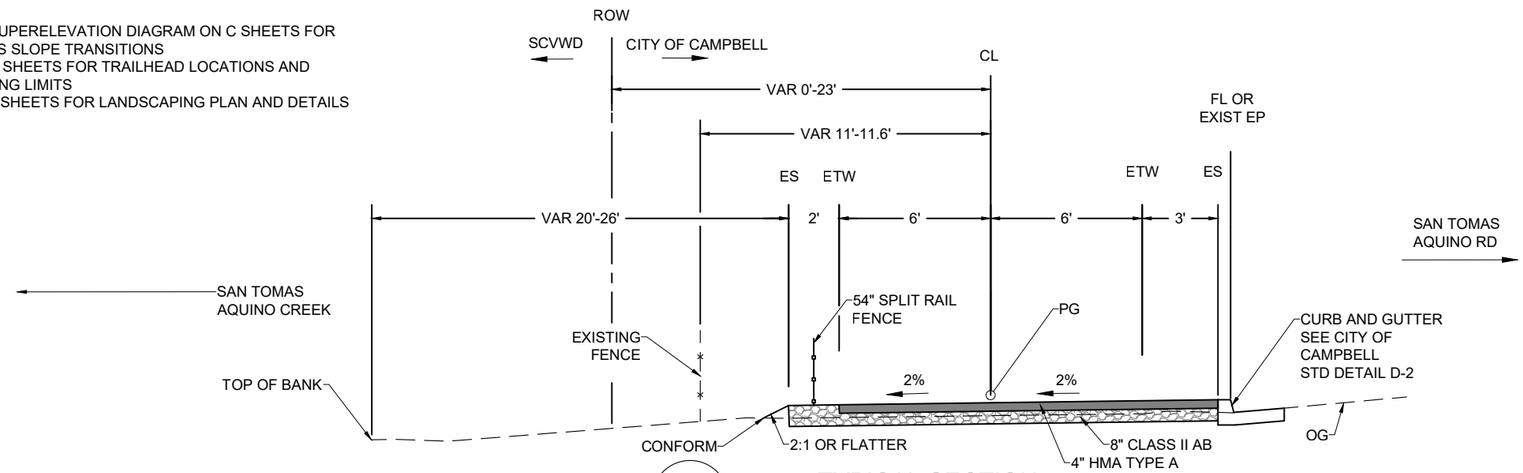
SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX
TYPICAL CROSS SECTIONS

CITY OF CAMPBELL
CAMPBELL, CALIFORNIA

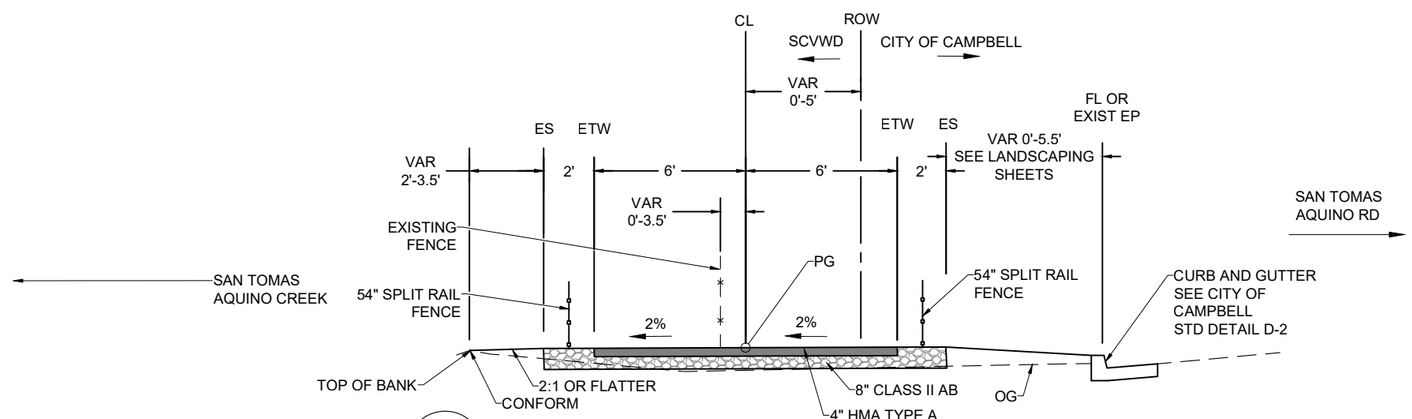
SCALE:

SHEET:
XS-2

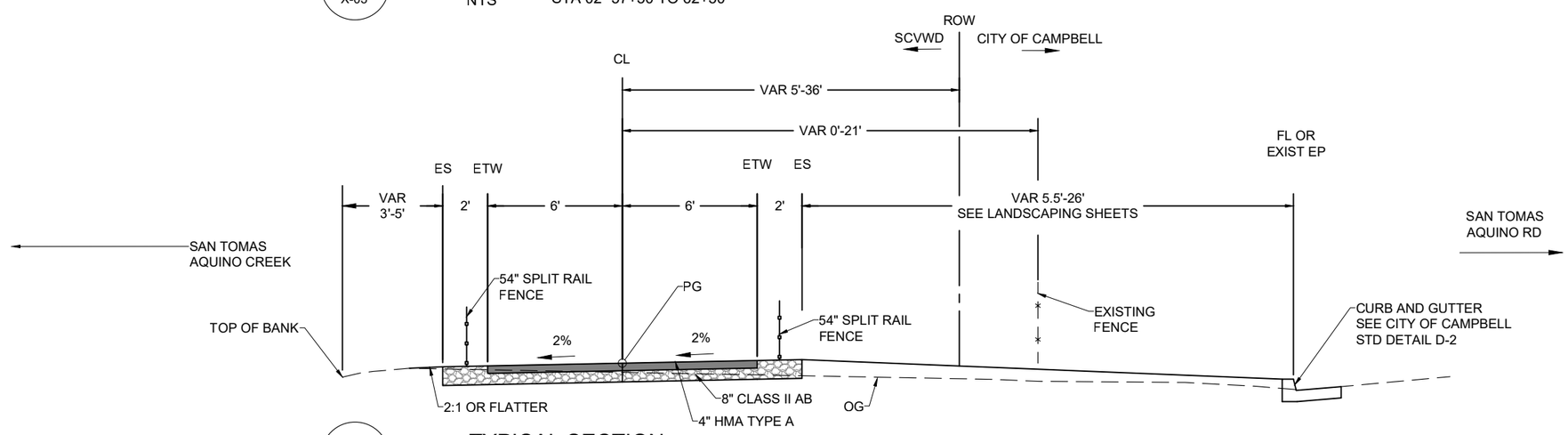
NOTES:
1. SEE SUPERELEVATION DIAGRAM ON C SHEETS FOR CROSS SLOPE TRANSITIONS
2. SEE C SHEETS FOR TRAILHEAD LOCATIONS AND FENCING LIMITS
3. SEE L SHEETS FOR LANDSCAPING PLAN AND DETAILS



8 / X-03 TYPICAL SECTION
NTS "STA 02" 56+43 TO 57+50



9 / X-03 TYPICAL SECTION
NTS "STA 02" 57+50 TO 62+50



10 / X-03 TYPICAL SECTION
NTS "STA 02" 62+50 TO 62+86
"STA 02" 63+14 TO 68+18

DRAFT PRELIMINARY DESIGN SUBMITTAL

No.	Revision	Date	By	Chkd

Date: MAY 2020
Drawn By: JJH
Designed By: CAR

JACOBS

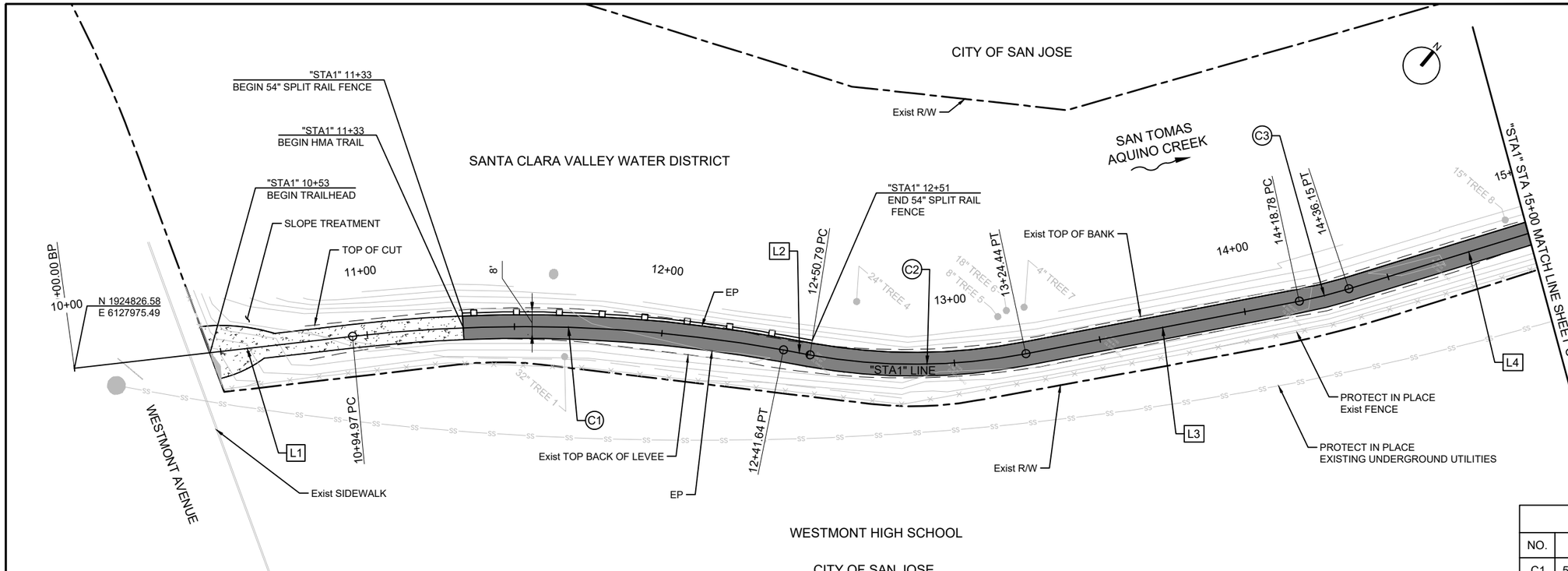
SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX
TYPICAL CROSS SECTIONS

CITY OF CAMPBELL
CAMPBELL, CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
CARLA AGUILAR RIVERA
87318
EXP.09/30/19
CIVIL
STATE OF CALIFORNIA

SCALE:

SHEET:
XS-3



PLAN
1"=20'

LEGEND:

- PCC
- HMA (TYPE A)
- CLASS 2 AB
- 54" SPLIT RAIL FENCE
- 8' DECORATIVE METAL FENCE

NOTES:

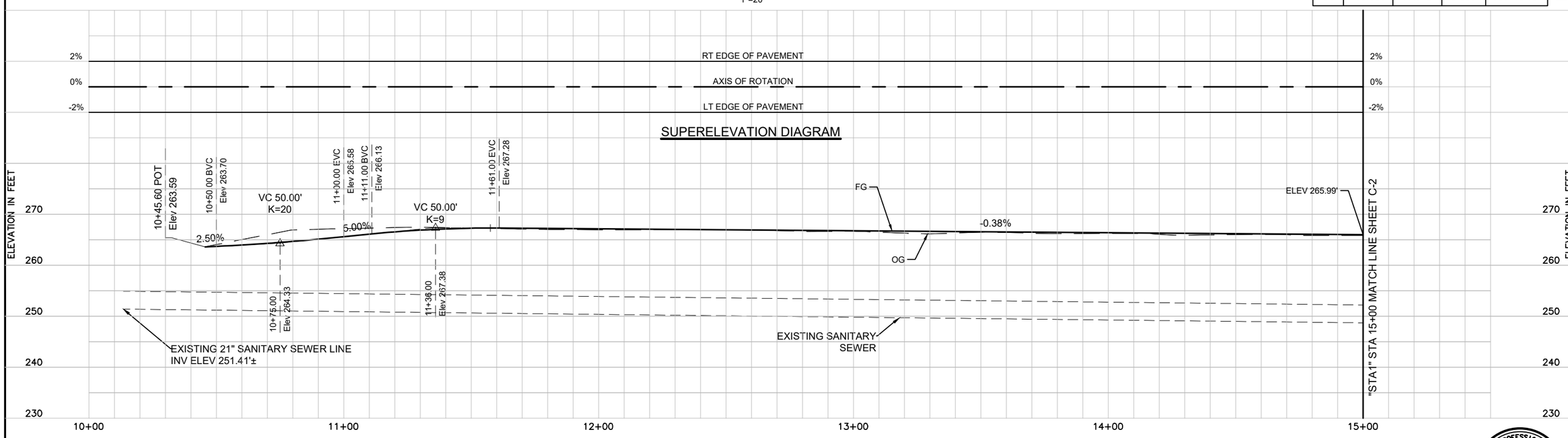
1. SEE LANDSCAPING SHEETS FOR TRAILHEAD DETAILS.
2. CONTRACTOR TO PROTECT ALL UTILITIES IN PLACE UNLESS OTHERWISE NOTED
3. NO GRADING WITHIN CREEK SLOPE SHALL BE PERMITTED
4. POTENTIAL LEVEE REPAIR REQUIRED AT SELECT SEGMENTS OF TRAIL.

Line Table: Alignments

NO.	DISTANCE	BEARING
L1	94.972	N43° 25' 37.13"E
L2	9.148	N60° 14' 01.88"E
L3	94.345	N39° 08' 07.21"E
L4	85.006	N32° 54' 51.54"E

Curve Table: Alignments

NO.	R	L	T	Δ
C1	500.000	146.668	73.864	016°48'25"
C2	200.000	73.648	37.246	021°05'55"
C3	160.000	17.372	8.695	006°13'16"



"STA1" LINE PROFILE
HORIZ: 1"=20'
VERT: 1"=10'

20' 0' 20'
1" 0' 1"

REGISTERED PROFESSIONAL ENGINEER CARLA AGUILAR RIVERA 87318 EXP.09/30/19 CIVIL STATE OF CALIFORNIA

No.	Revision	Date	By	Chkd

DRAFT PRELIMINARY DESIGN SUBMITTAL

Date: AUGUST 2019
Drawn By: JJH
Designed By: CAR

JACOBS

SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX
PLAN AND PROFILE

CITY OF CAMPBELL, THE GREATER GOOD, CAMPBELL, CALIFORNIA

SCALE:
AS SHOWN

SHEET:
C-1

NOTES:

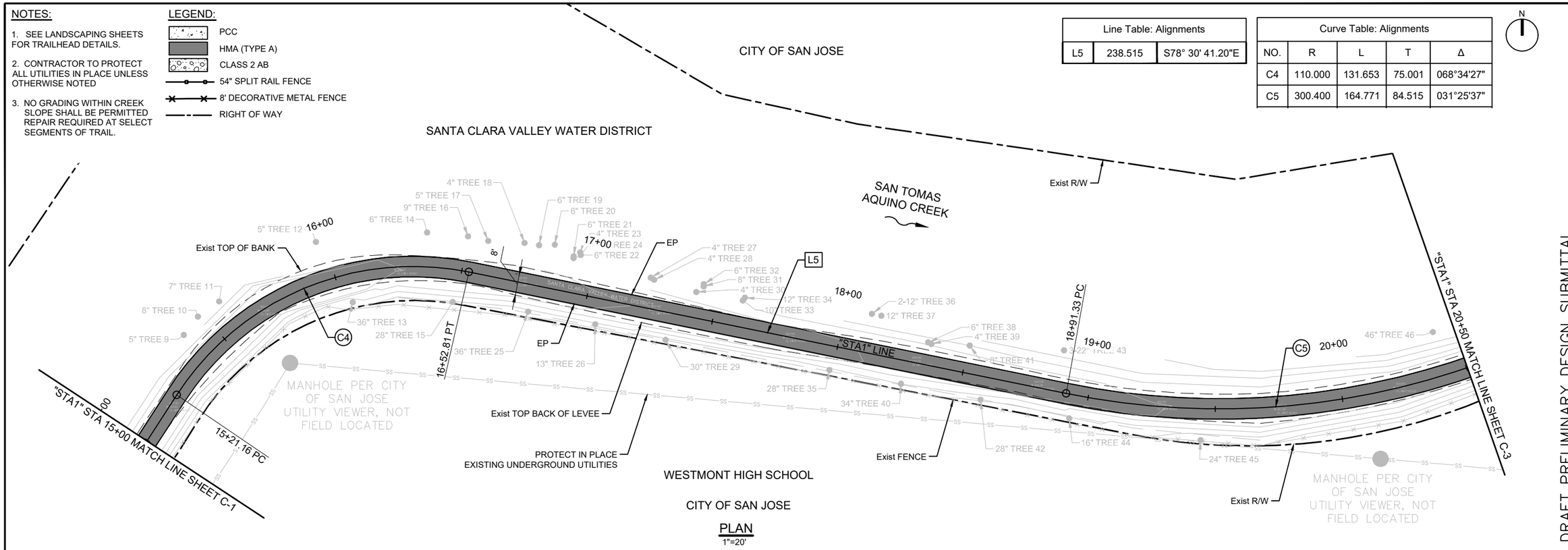
1. SEE LANDSCAPING SHEETS FOR TRAILHEAD DETAILS.
2. CONTRACTOR TO PROTECT ALL UTILITIES IN PLACE UNLESS OTHERWISE NOTED
3. NO GRADING WITHIN CREEK SLOPE SHALL BE PERMITTED REPAIR REQUIRED AT SELECT SEGMENTS OF TRAIL.

LEGEND:

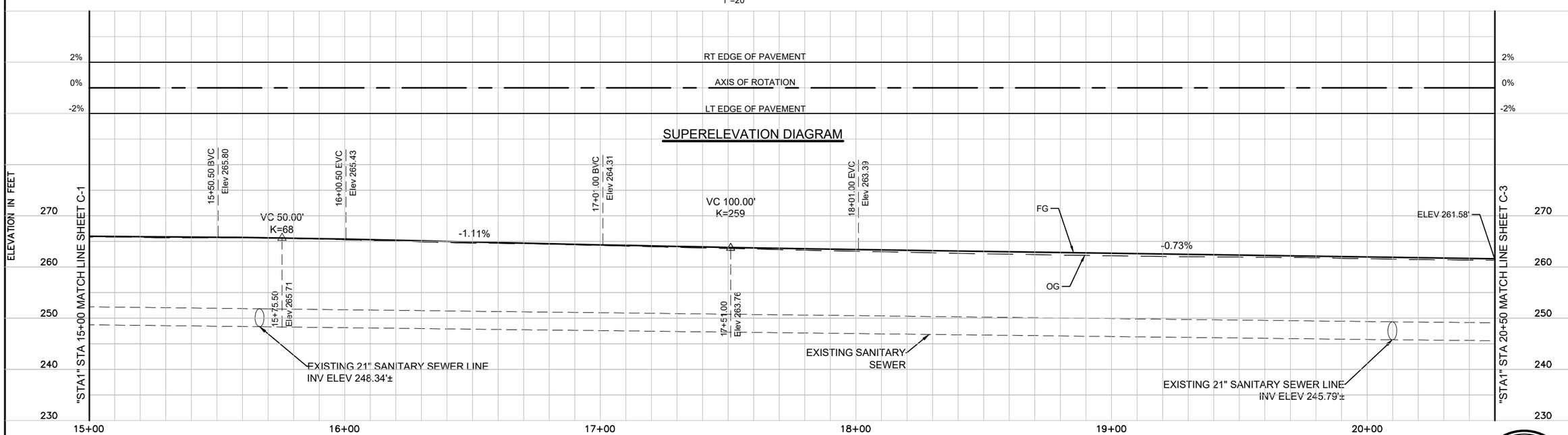
- PCC
- HMA (TYPE A)
- CLASS 2 AB
- 54" SPLIT RAIL FENCE
- 8' DECORATIVE METAL FENCE
- RIGHT OF WAY

Line Table: Alignments		
L5	238.515	S78° 30' 41.20"E

Curve Table: Alignments				
NO.	R	L	T	Δ
C4	110.000	131.653	75.001	068°34'27"
C5	300.400	164.771	84.515	031°25'37"



PLAN
1"=20'



SUPERELEVATION DIAGRAM

"STA1" LINE PROFILE
HORIZ: 1"=20'
VERT: 1"=10'

20' 0' 20'
1" 0' 1"

REGISTERED PROFESSIONAL ENGINEER CARLA AGUILAR RIVERA 87318 EXP.09/30/19 CIVIL STATE OF CALIFORNIA

DRAFT PRELIMINARY DESIGN SUBMITTAL

No.	Revision	Date	By	Chkd

Date: AUGUST 2019
Drawn By: JJH
Designed By: CAR

JACOBS

SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX
PLAN AND PROFILE

CITY OF CAMPBELL
CAMPBELL, CALIFORNIA

SCALE: AS SHOWN

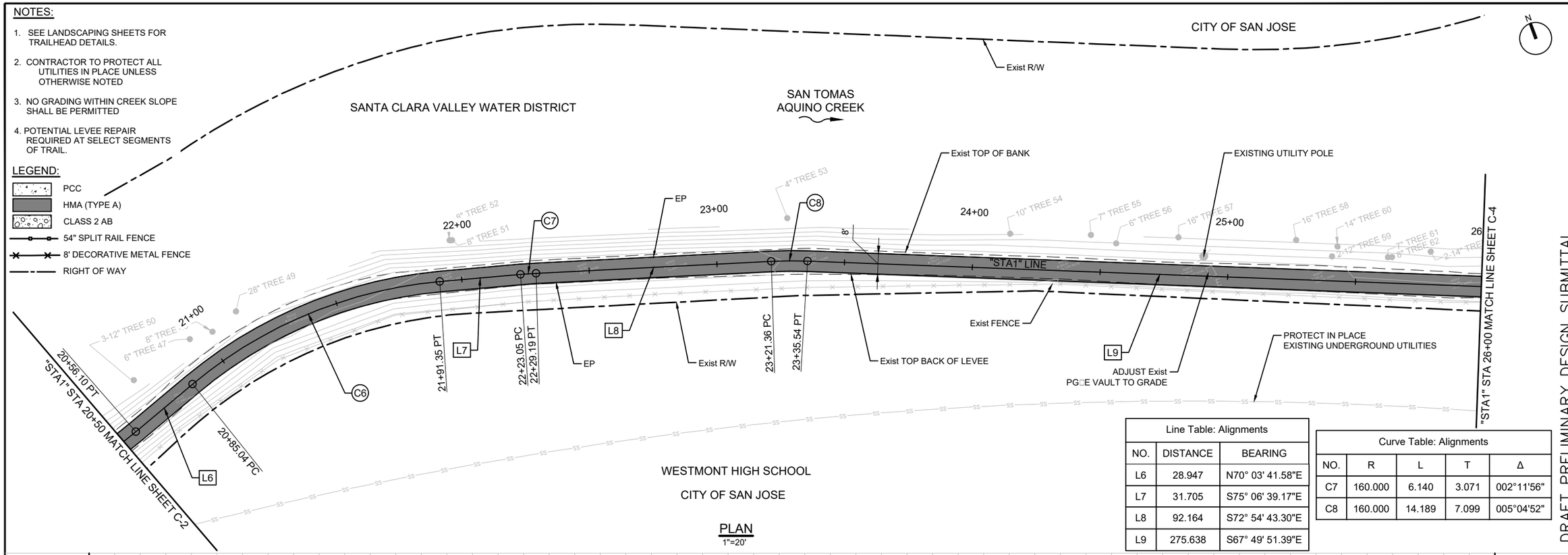
SHEET: C-2

NOTES:

1. SEE LANDSCAPING SHEETS FOR TRAILHEAD DETAILS.
2. CONTRACTOR TO PROTECT ALL UTILITIES IN PLACE UNLESS OTHERWISE NOTED
3. NO GRADING WITHIN CREEK SLOPE SHALL BE PERMITTED
4. POTENTIAL LEVEE REPAIR REQUIRED AT SELECT SEGMENTS OF TRAIL.

LEGEND:

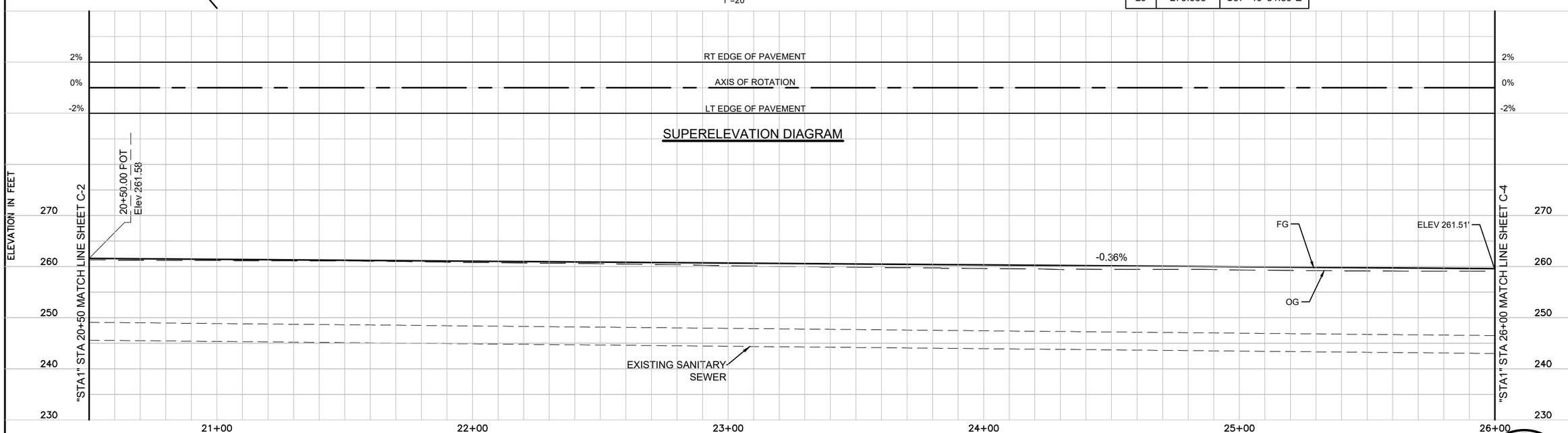
- PCC
- HMA (TYPE A)
- CLASS 2 AB
- 54" SPLIT RAIL FENCE
- 8' DECORATIVE METAL FENCE
- RIGHT OF WAY



PLAN
1"=20'

Line Table: Alignments		
NO.	DISTANCE	BEARING
L6	28.947	N70° 03' 41.58"E
L7	31.705	S75° 06' 39.17"E
L8	92.164	S72° 54' 43.30"E
L9	275.638	S67° 49' 51.39"E

Curve Table: Alignments				
NO.	R	L	T	Δ
C7	160.000	6.140	3.071	002°11'56"
C8	160.000	14.189	7.099	005°04'52"



"STA1" LINE PROFILE
HORIZ: 1"=20'
VERT: 1"=10'

20' 0' 20'
1" 0' 1"

REGISTERED PROFESSIONAL ENGINEER CARLA AGUILAR RIVERA 87318 EXP.09/30/19 CIVIL STATE OF CALIFORNIA

DRAFT PRELIMINARY DESIGN SUBMITTAL

No.	Revision	Date	By	Chkd

Date: AUGUST 2019
Drawn By: JJH
Designed By: CAR

JACOBS

SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX
PLAN AND PROFILE

CITY OF CAMPBELL
CAMPBELL, CALIFORNIA

SCALE: AS SHOWN

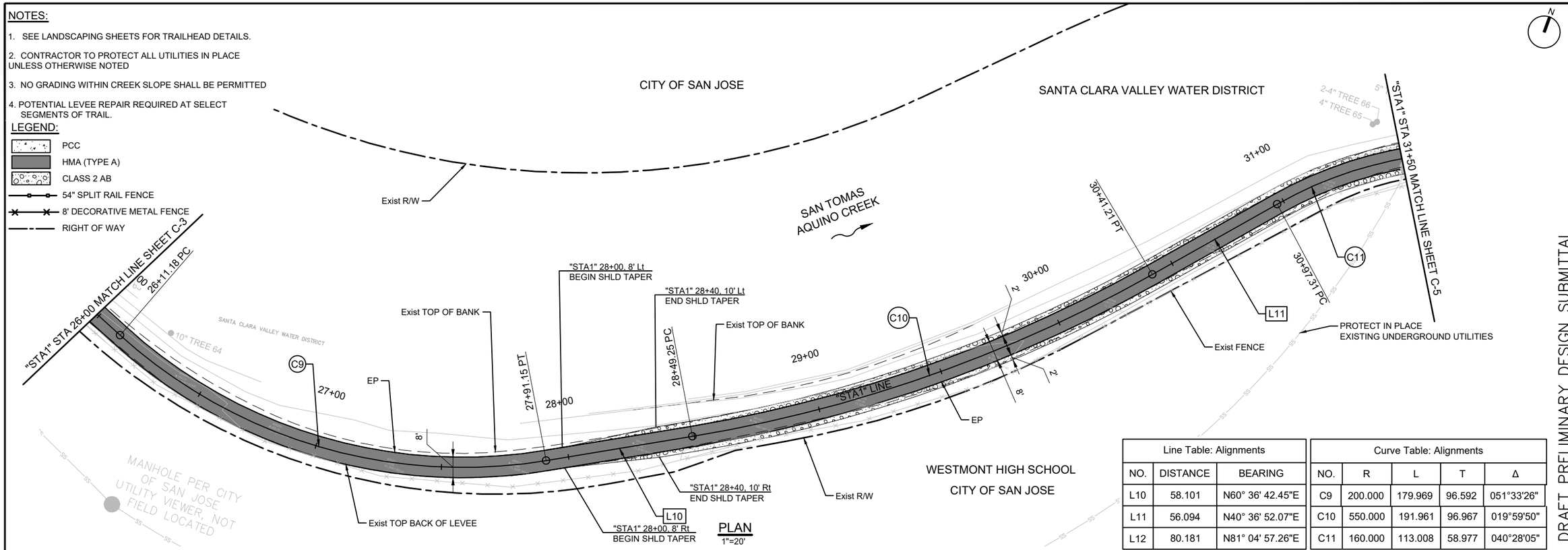
SHEET: C-3

NOTES:

1. SEE LANDSCAPING SHEETS FOR TRAILHEAD DETAILS.
2. CONTRACTOR TO PROTECT ALL UTILITIES IN PLACE UNLESS OTHERWISE NOTED
3. NO GRADING WITHIN CREEK SLOPE SHALL BE PERMITTED
4. POTENTIAL LEVEE REPAIR REQUIRED AT SELECT SEGMENTS OF TRAIL.

LEGEND:

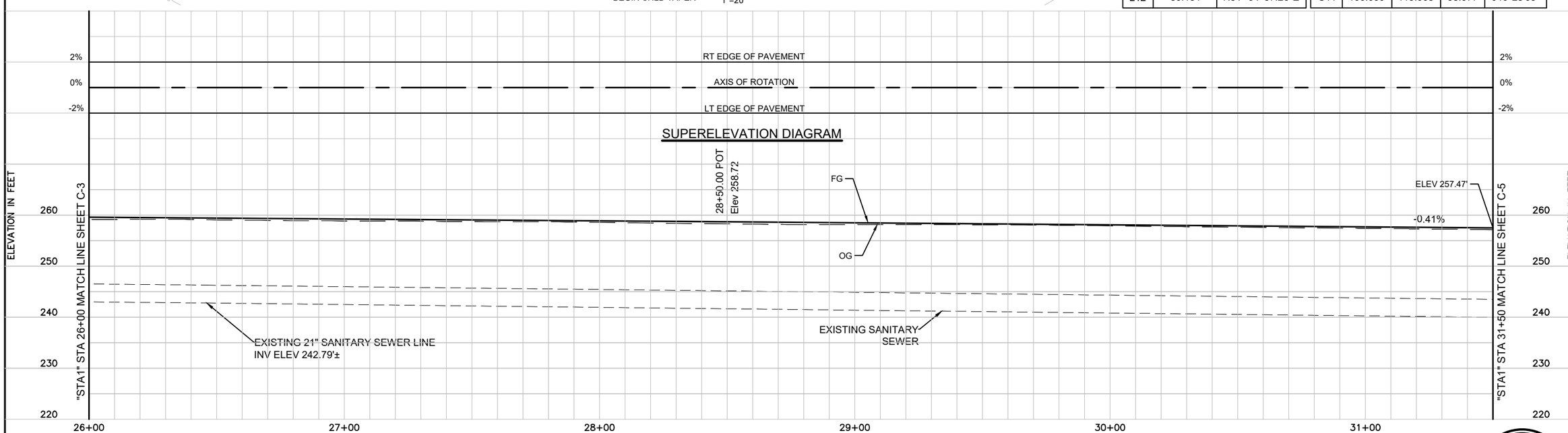
- PCC
- HMA (TYPE A)
- CLASS 2 AB
- 54" SPLIT RAIL FENCE
- 8' DECORATIVE METAL FENCE
- RIGHT OF WAY



PLAN
1"=20'

Line Table: Alignments		
NO.	DISTANCE	BEARING
L10	58.101	N60° 36' 42.45"E
L11	56.094	N40° 36' 52.07"E
L12	80.181	N81° 04' 57.26"E

Curve Table: Alignments				
NO.	R	L	T	Δ
C9	200.000	179.969	96.592	051°33'26"
C10	550.000	191.961	96.967	019°59'50"
C11	160.000	113.008	58.977	040°28'05"



"STA1" LINE PROFILE
HORIZ: 1"=20'
VERT: 1"=10'

20' 0' 20'
1" 0' 1"

REGISTERED PROFESSIONAL ENGINEER CARLA AGUILAR RIVERA 87318 EXP.09/30/19 CIVIL STATE OF CALIFORNIA

No.	Revision	Date	By	Chkd

DRAFT PRELIMINARY DESIGN SUBMITTAL

Date: AUGUST 2019
Drawn By: JJH
Designed By: CAR

JACOBS

SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX
PLAN AND PROFILE

CITY OF CAMPBELL
CAMPBELL, CALIFORNIA

SCALE:
AS SHOWN

SHEET:
C-4

NOTES:

1. SEE LANDSCAPING SHEETS FOR TRAILHEAD DETAILS.
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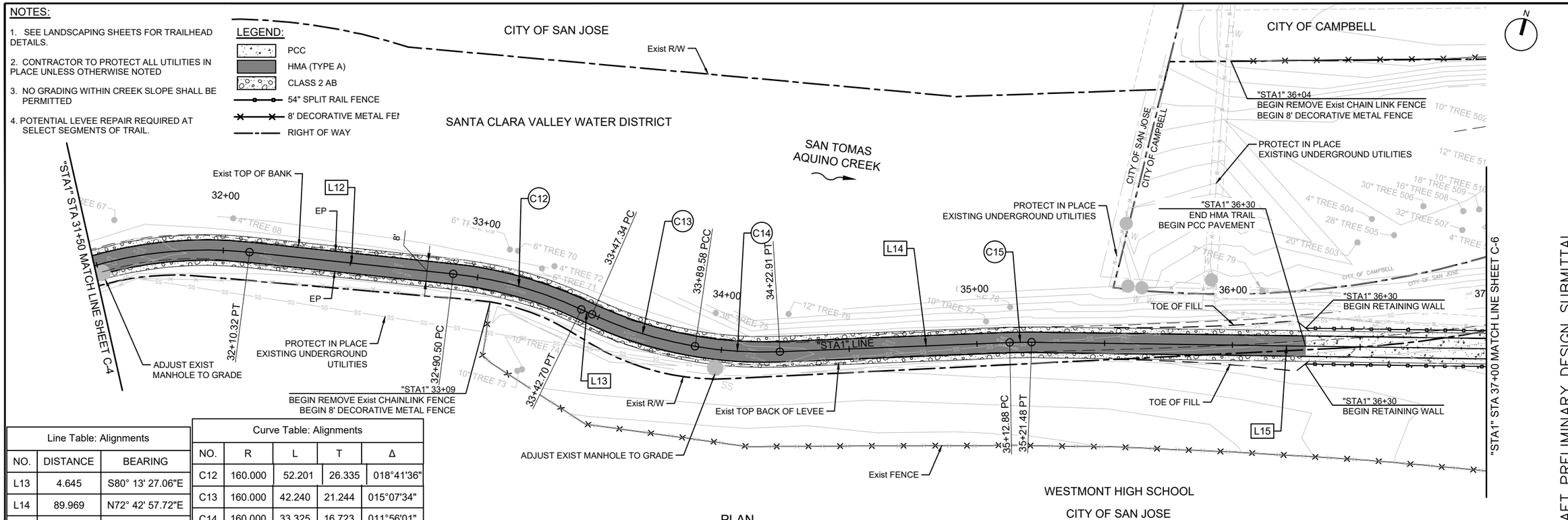
4. POTENTIAL LEVEE REPAIR REQUIRED AT SELECT SEGMENTS OF TRAIL.

LEGEND:

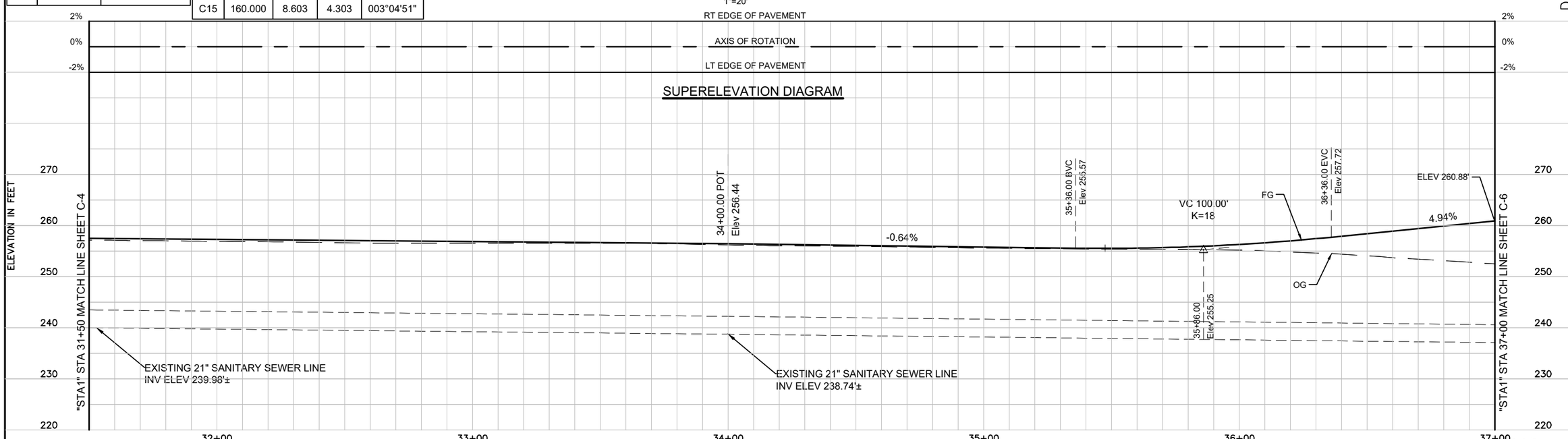
- PCC
- HMA (TYPE A)
- CLASS 2 AB
- 54" SPLIT RAIL FENCE
- 8' DECORATIVE METAL FEN
- RIGHT OF WAY



PLAN
1"=20'

Line Table: Alignments		
NO.	DISTANCE	BEARING
L13	4.645	S80° 13' 27.06"E
L14	89.969	N72° 42' 57.72"E
L15	199.412	N75° 47' 48.69"E

Curve Table: Alignments				
NO.	R	L	T	Δ
C12	160.000	52.201	26.335	018°41'36"
C13	160.000	42.240	21.244	015°07'34"
C14	160.000	33.325	16.723	011°56'01"
C15	160.000	8.603	4.303	003°04'51"



"STA1" LINE PROFILE
HORIZ: 1"=20'
VERT: 1"=10'

20' 0' 20'
1" 0' 1"

REGISTERED PROFESSIONAL ENGINEER
CARL AGUILAR RIVERA
87318
EXP.09/30/19
CIVIL
STATE OF CALIFORNIA

No.	Revision	Date	By	Chkd

DRAFT PRELIMINARY DESIGN SUBMITTAL

Date: AUGUST 2019
Drawn By: JJH
Designed By: CAR

JACOBS

SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX
PLAN AND PROFILE

CITY OF CAMPBELL
CAMPBELL, CALIFORNIA

SCALE:
AS SHOWN

SHEET:
C-5

NOTES:

1. SEE LANDSCAPING SHEETS FOR TRAILHEAD DETAILS.
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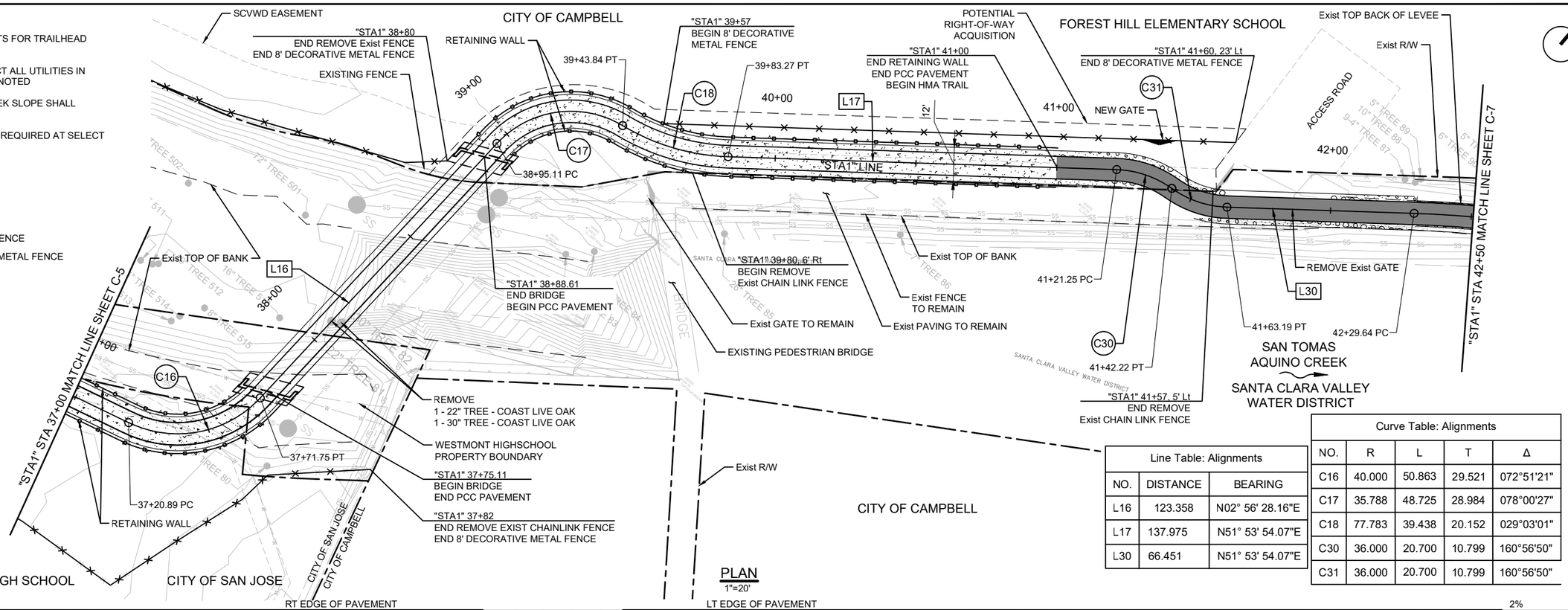
LEGEND:

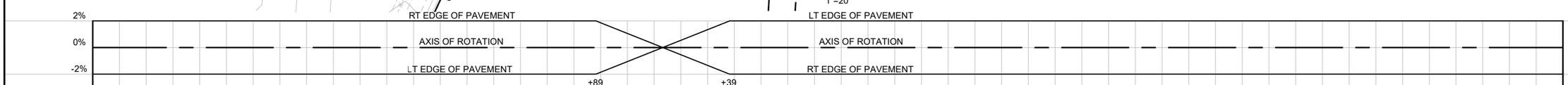
- PCC
- HMA (TYPE A)
- CLASS 2 AB
- 54" SPLIT RAIL FENCE
- 8' DECORATIVE METAL FENCE
- RIGHT OF WAY



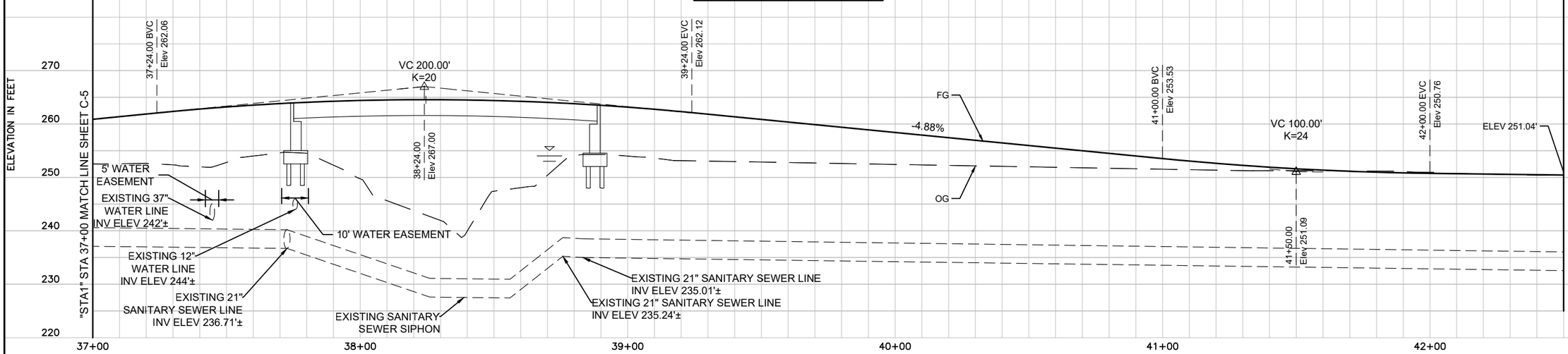
PLAN
1"=20'

Line Table: Alignments		
NO.	DISTANCE	BEARING
L16	123.358	N02° 56' 28.16"E
L17	137.975	N51° 53' 54.07"E
L30	66.451	N51° 53' 54.07"E

Curve Table: Alignments				
NO.	R	L	T	Δ
C16	40.000	50.863	29.521	072°51'21"
C17	35.788	48.725	28.984	078°00'27"
C18	77.783	39.438	20.152	029°03'01"
C30	36.000	20.700	10.799	160°56'50"
C31	36.000	20.700	10.799	160°56'50"



SUPERELEVATION DIAGRAM



"STA1" LINE PROFILE
HORIZ: 1"=20'
VERT: 1"=10'

20' 0' 20'
1" 0' 1"

REGISTERED PROFESSIONAL ENGINEER CARLA AGUILAR RIVERA 87318 EXP.09/30/19 CIVIL STATE OF CALIFORNIA

DRAFT PRELIMINARY DESIGN SUBMITTAL

No.	Revision	Date	By	Chkd

Date: MAY 2020
Drawn By: JJH
Designed By: CAR

JACOBS

SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX
PLAN AND PROFILE

CITY OF CAMPBELL — CAMPBELL, CALIFORNIA

SCALE: AS SHOWN

SHEET: C-6

NOTES:

1. SEE LANDSCAPING SHEETS FOR TRAILHEAD DETAILS.
2. CONTRACTOR TO PROTECT ALL UTILITIES IN PLACE UNLESS OTHERWISE NOTED.
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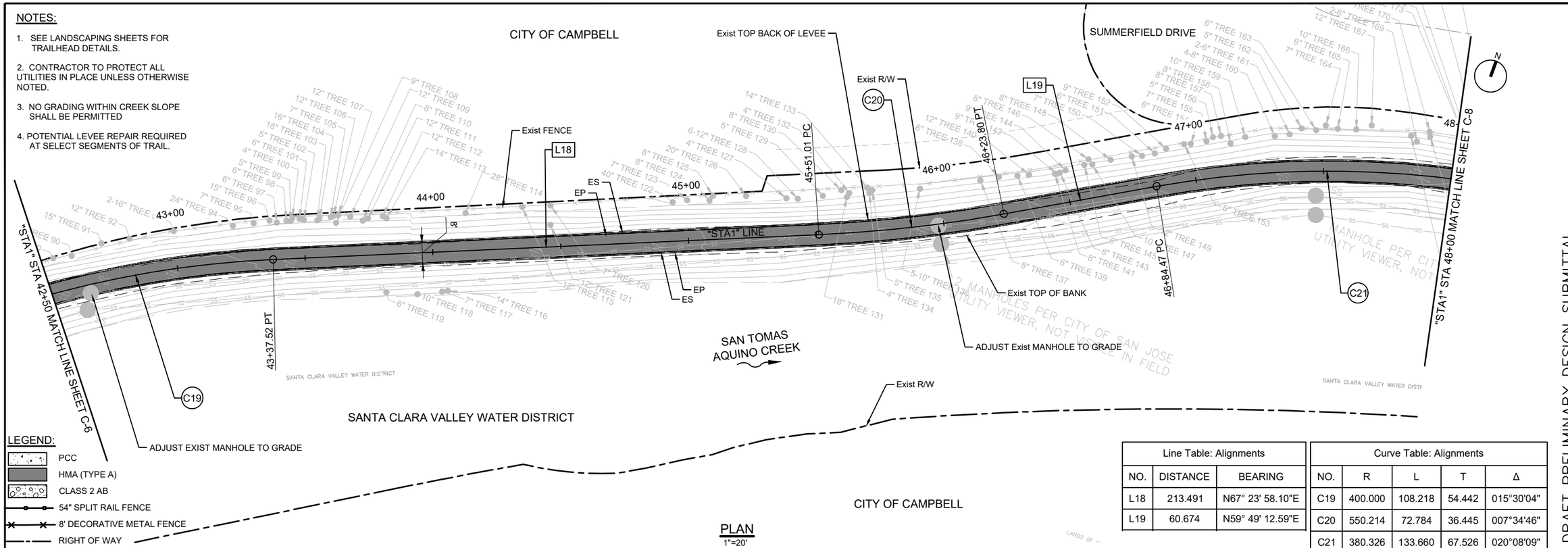
4. POTENTIAL LEVEE REPAIR REQUIRED AT SELECT SEGMENTS OF TRAIL.



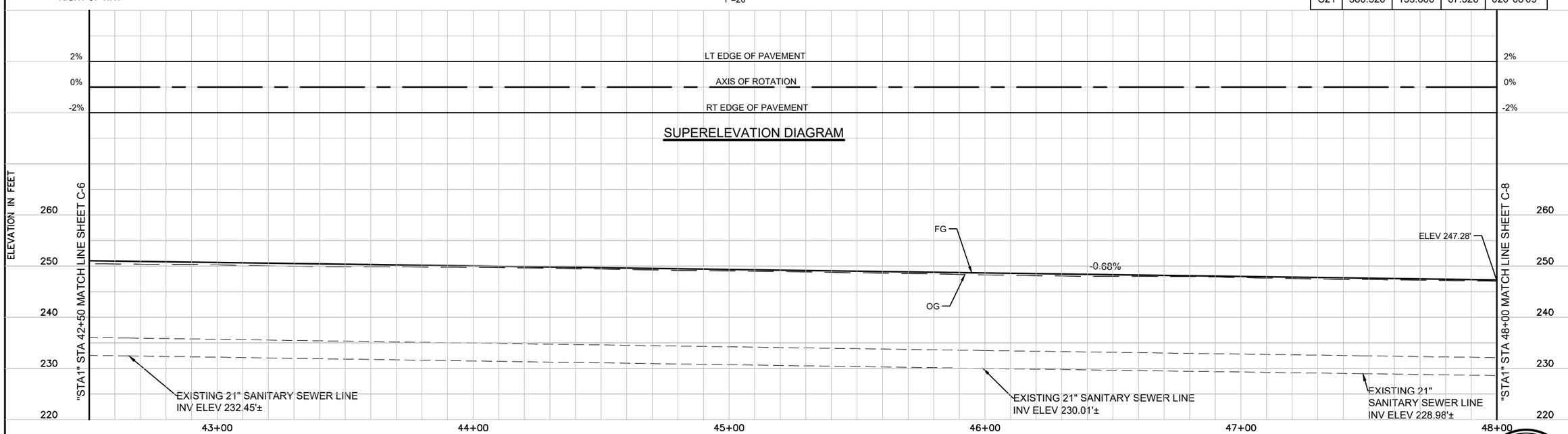
LEGEND:

- PCC
- HMA (TYPE A)
- CLASS 2 AB
- 54" SPLIT RAIL FENCE
- 8' DECORATIVE METAL FENCE
- RIGHT OF WAY

PLAN
1"=20'

Line Table: Alignments		
NO.	DISTANCE	BEARING
L18	213.491	N67° 23' 58.10"E
L19	60.674	N59° 49' 12.59"E

Curve Table: Alignments				
NO.	R	L	T	Δ
C19	400.000	108.218	54.442	015°30'04"
C20	550.214	72.784	36.445	007°34'46"
C21	380.326	133.660	67.526	020°08'09"



"STA1" LINE PROFILE
HORIZ: 1"=20'
VERT: 1"=10'

20' 0' 20'
1" 0' 1"

REGISTERED PROFESSIONAL ENGINEER
CARLA AGUILAR RIVERA
87318
EXP.09/30/19
CIVIL
STATE OF CALIFORNIA

No.	Revision	Date	By	Chkd

Date: AUGUST 2019
Drawn By: JJH
Designed By: CAR

DRAFT PRELIMINARY DESIGN SUBMITTAL

JACOBS

SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX
PLAN AND PROFILE

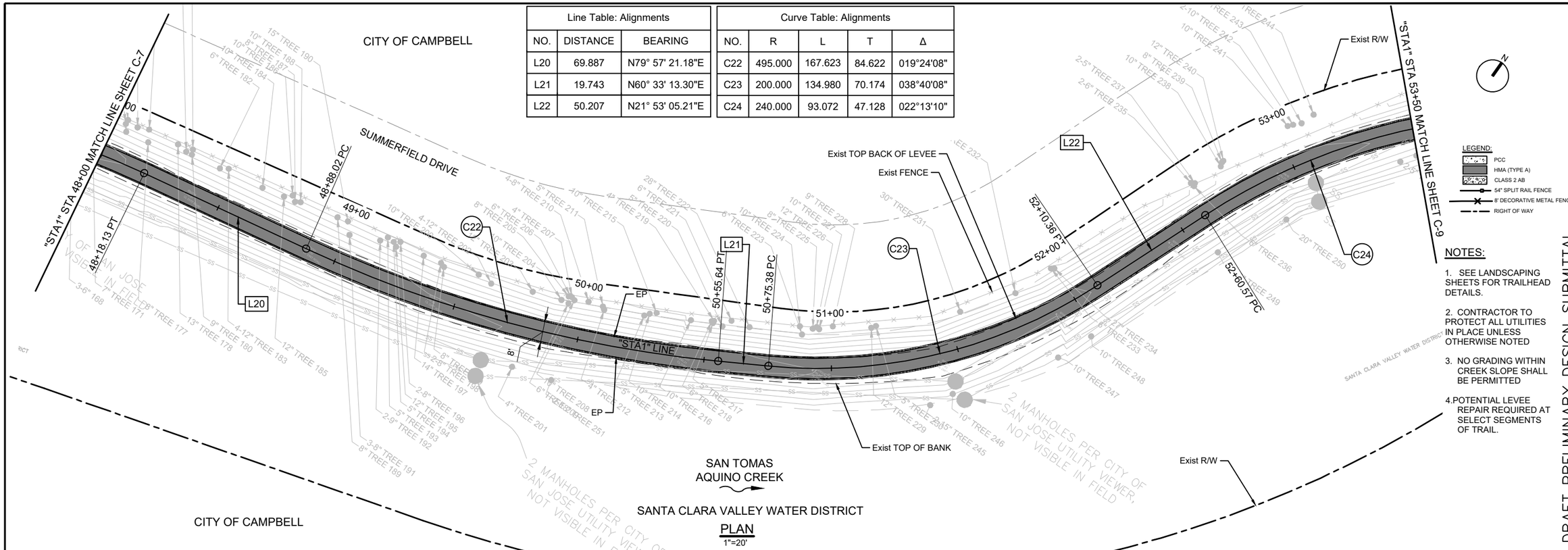
CITY OF CAMPBELL
CAMPBELL, CALIFORNIA

SCALE:
AS SHOWN

SHEET:
C-7

Line Table: Alignments		
NO.	DISTANCE	BEARING
L20	69.887	N79° 57' 21.18"E
L21	19.743	N60° 33' 13.30"E
L22	50.207	N21° 53' 05.21"E

Curve Table: Alignments				
NO.	R	L	T	Δ
C22	495.000	167.623	84.622	019°24'08"
C23	200.000	134.980	70.174	038°40'08"
C24	240.000	93.072	47.128	022°13'10"



PLAN
1"=20'

LEGEND:
- PCC
- HMA (TYPE A)
- CLASS 2 AB
- 54" SPLIT RAIL FENCE
- 8' DECORATIVE METAL FENCE
- RIGHT OF WAY

NOTES:

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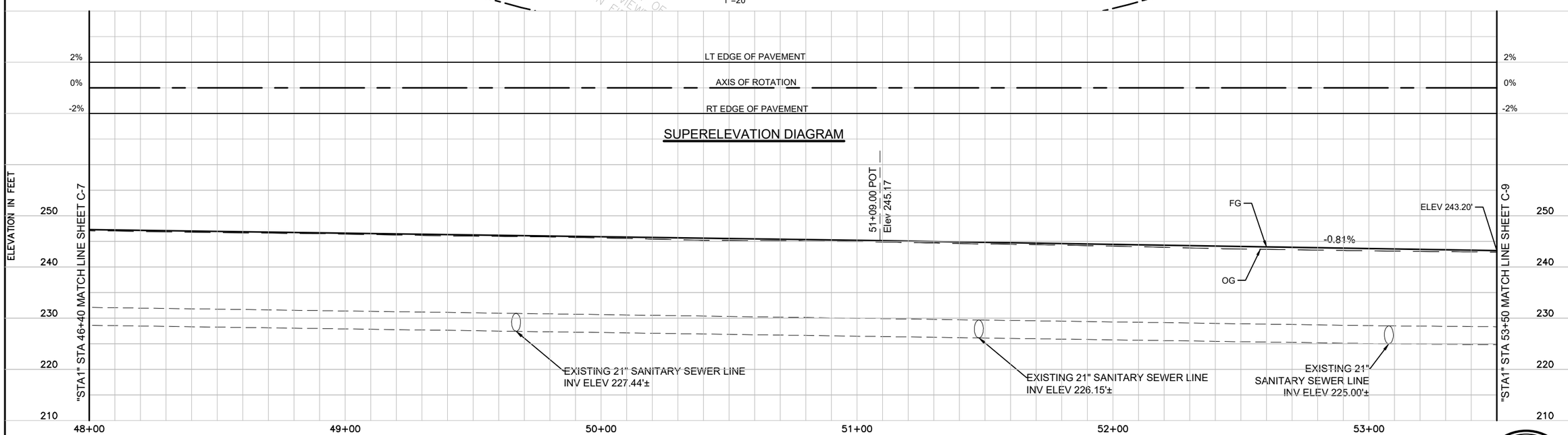


SUPERELEVATION DIAGRAM

"STA1" LINE PROFILE
HORIZ: 1"=20'
VERT: 1"=10'

20' 0' 20'
1" 0' 1"

REGISTERED PROFESSIONAL ENGINEER CARLA AGUILAR RIVERA 87318 EXP.09/30/19 CIVIL STATE OF CALIFORNIA

No.	Revision	Date	By	Chkd

DRAFT PRELIMINARY DESIGN SUBMITTAL

Date: AUGUST 2019
Drawn By: JJH
Designed By: CAR

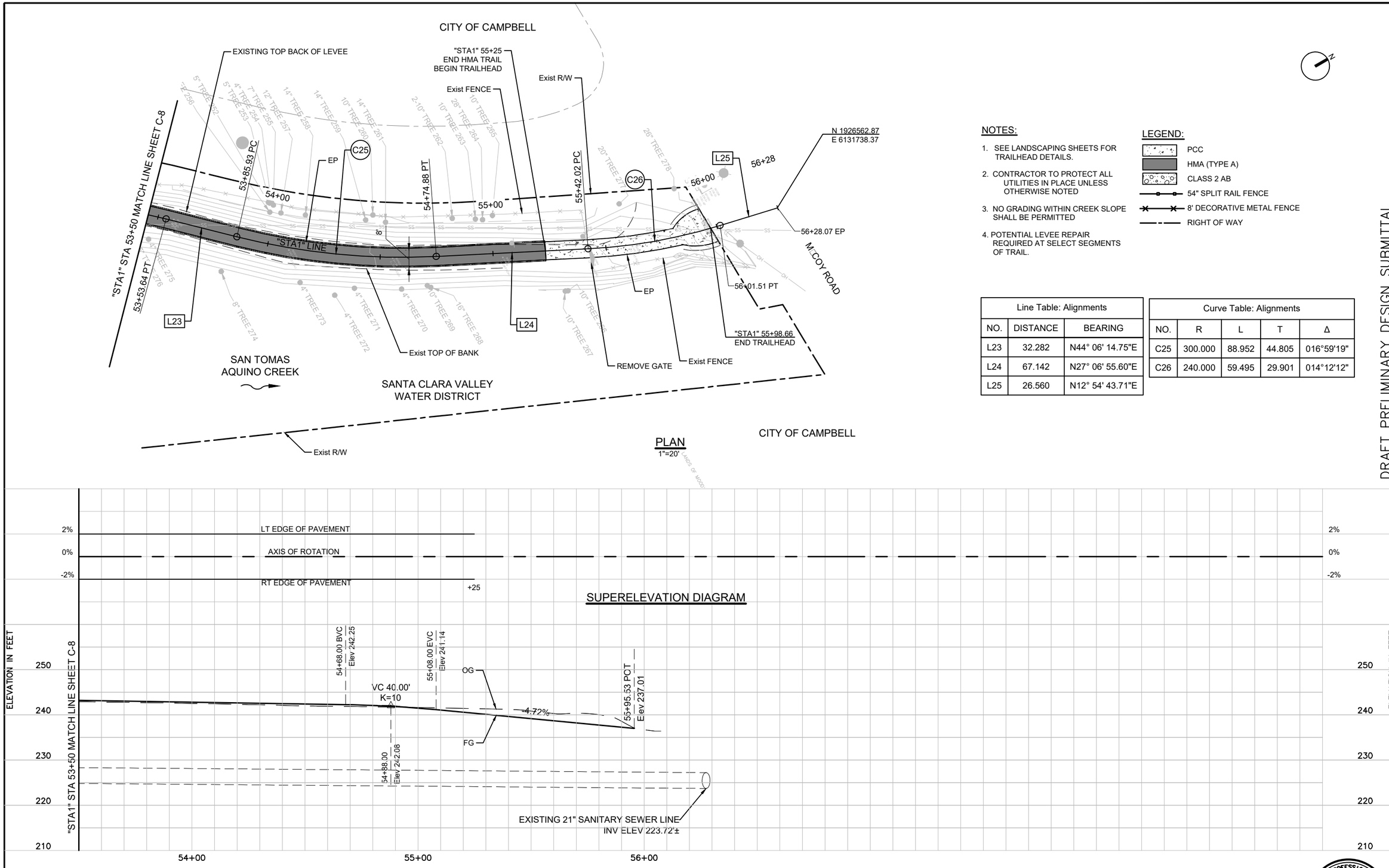
JACOBS

SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX
PLAN AND PROFILE

CITY OF CAMPBELL
CAMPBELL, CALIFORNIA

SCALE:
AS SHOWN

SHEET:
C-8



NOTES:

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LEGEND:

- PCC
- HMA (TYPE A)
- CLASS 2 AB
- 54" SPLIT RAIL FENCE
- 8' DECORATIVE METAL FENCE
- RIGHT OF WAY

Line Table: Alignments		
NO.	DISTANCE	BEARING
L23	32.282	N44° 06' 14.75"E
L24	67.142	N27° 06' 55.60"E
L25	26.560	N12° 54' 43.71"E

Curve Table: Alignments				
NO.	R	L	T	Δ
C25	300.000	88.952	44.805	016°59'19"
C26	240.000	59.495	29.901	014°12'12"

"STA1" LINE PROFILE
HORIZ: 1"=20'
VERT: 1"=10'

20' 0' 20'
1" 0' 1"

REGISTERED PROFESSIONAL ENGINEER
CARLA AGUILAR RIVERA
87318
EXP.09/30/19
CIVIL
STATE OF CALIFORNIA

No.	Revision	Date	By	Chkd

DRAFT PRELIMINARY DESIGN SUBMITTAL

Date: AUGUST 2019
Drawn By: JJH
Designed By: CAR

JACOBS

SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX
PLAN AND PROFILE

CITY OF CAMPBELL
CAMPBELL, CALIFORNIA

SCALE:
AS SHOWN

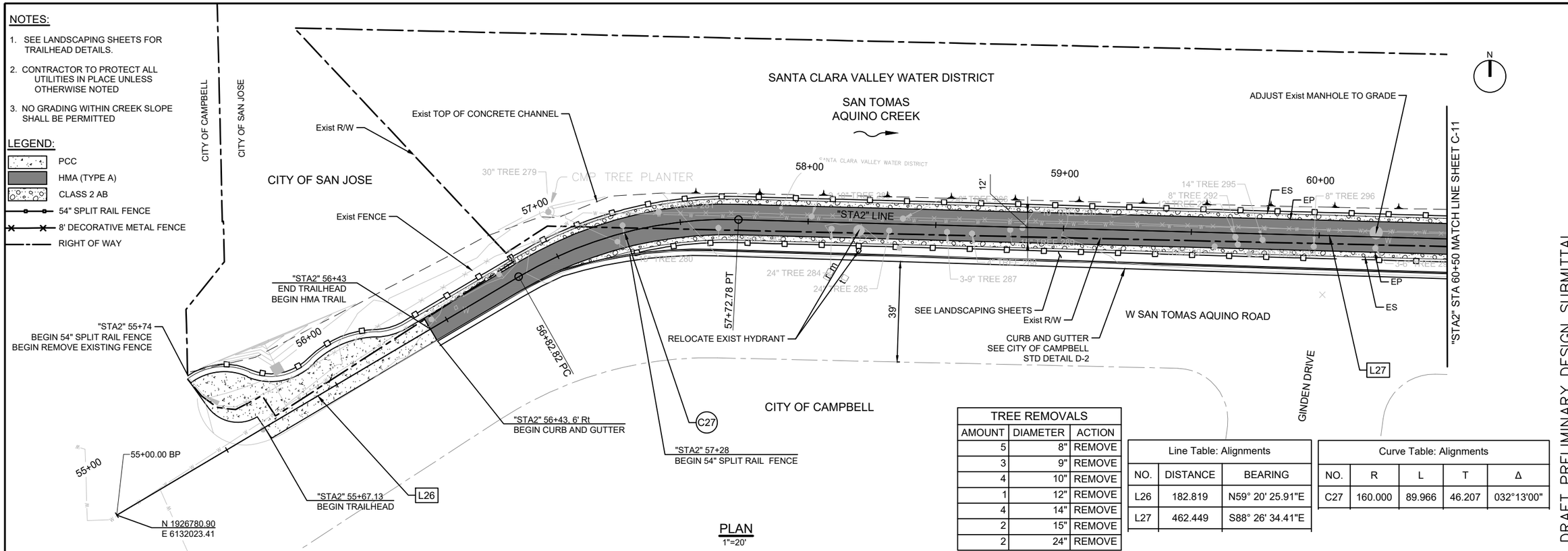
SHEET:
C-9

NOTES:

1. SEE LANDSCAPING SHEETS FOR TRAILHEAD DETAILS.
2. CONTRACTOR TO PROTECT ALL UTILITIES IN PLACE UNLESS OTHERWISE NOTED
3. NO GRADING WITHIN CREEK SLOPE SHALL BE PERMITTED

LEGEND:

- PCC
- HMA (TYPE A)
- CLASS 2 AB
- 54" SPLIT RAIL FENCE
- 8' DECORATIVE METAL FENCE
- RIGHT OF WAY

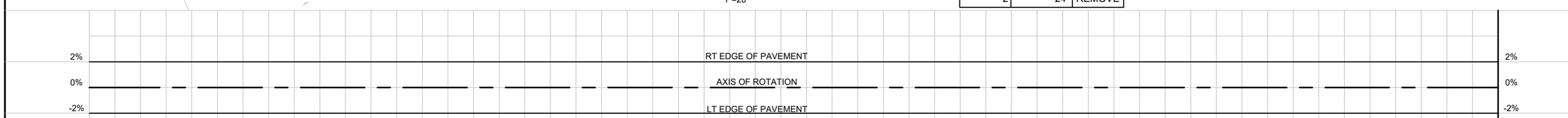


PLAN
1"=20'

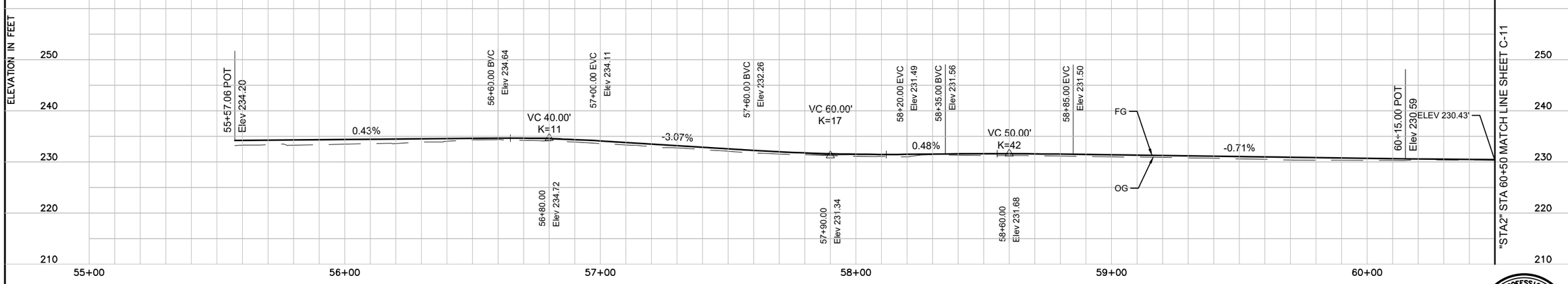
TREE REMOVALS		
AMOUNT	DIAMETER	ACTION
5	8"	REMOVE
3	9"	REMOVE
4	10"	REMOVE
1	12"	REMOVE
4	14"	REMOVE
2	15"	REMOVE
2	24"	REMOVE

Line Table: Alignments		
NO.	DISTANCE	BEARING
L26	182.819	N59° 20' 25.91"E
L27	462.449	S88° 26' 34.41"E

Curve Table: Alignments				
NO.	R	L	T	Δ
C27	160.000	89.966	46.207	032°13'00"



SUPERELEVATION DIAGRAM



"STA2" LINE PROFILE
HORIZ: 1"=20'
VERT: 1"=10'

20' 0' 20'
1" 0' 1"

REGISTERED PROFESSIONAL ENGINEER
CARLA AGUILAR RIVERA
87318
EXP.09/30/19
CIVIL
STATE OF CALIFORNIA

No.	Revision	Date	By	Chkd

Date: AUGUST 2019
Drawn By: JJH
Designed By: CAR

JACOBS

DRAFT PRELIMINARY DESIGN SUBMITTAL

SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX
PLAN AND PROFILE

CITY OF CAMPBELL
CAMPBELL, CALIFORNIA

SCALE:
AS SHOWN

SHEET:
C-10

NOTES:

1. SEE LANDSCAPING SHEETS FOR TRAILHEAD DETAILS.
2. CONTRACTOR TO PROTECT ALL UTILITIES IN PLACE UNLESS OTHERWISE NOTED
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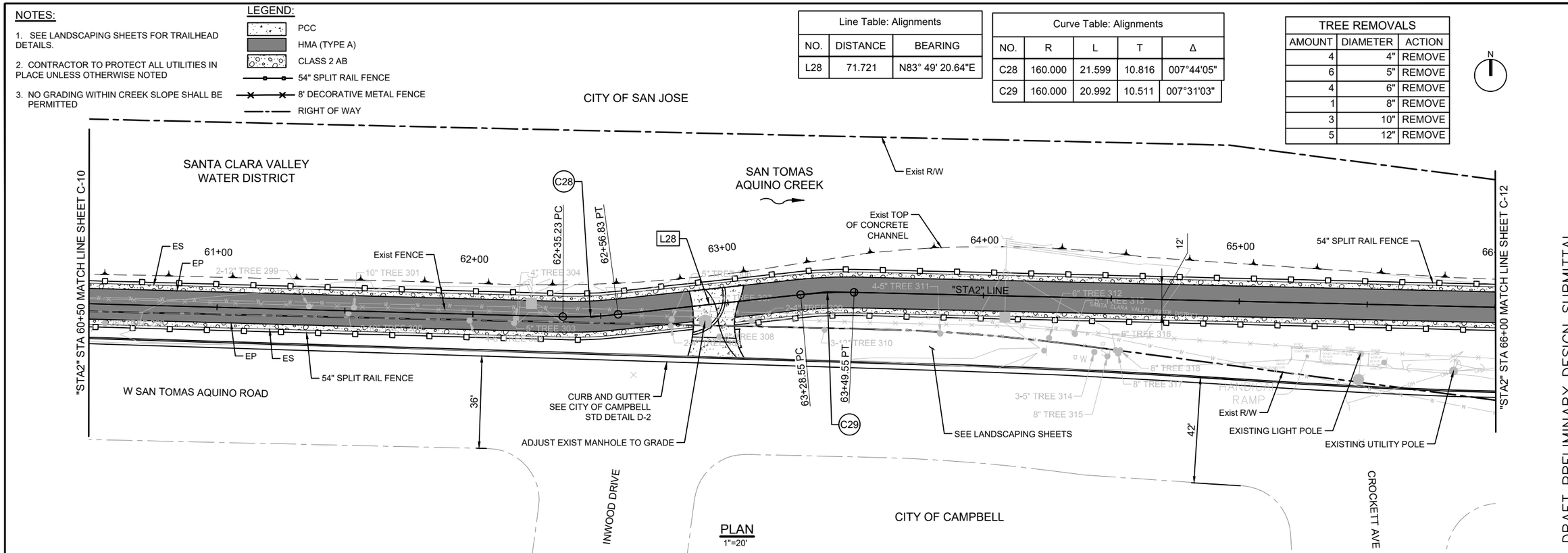
LEGEND:

- PCC
- HMA (TYPE A)
- CLASS 2 AB
- 54" SPLIT RAIL FENCE
- 8' DECORATIVE METAL FENCE
- RIGHT OF WAY

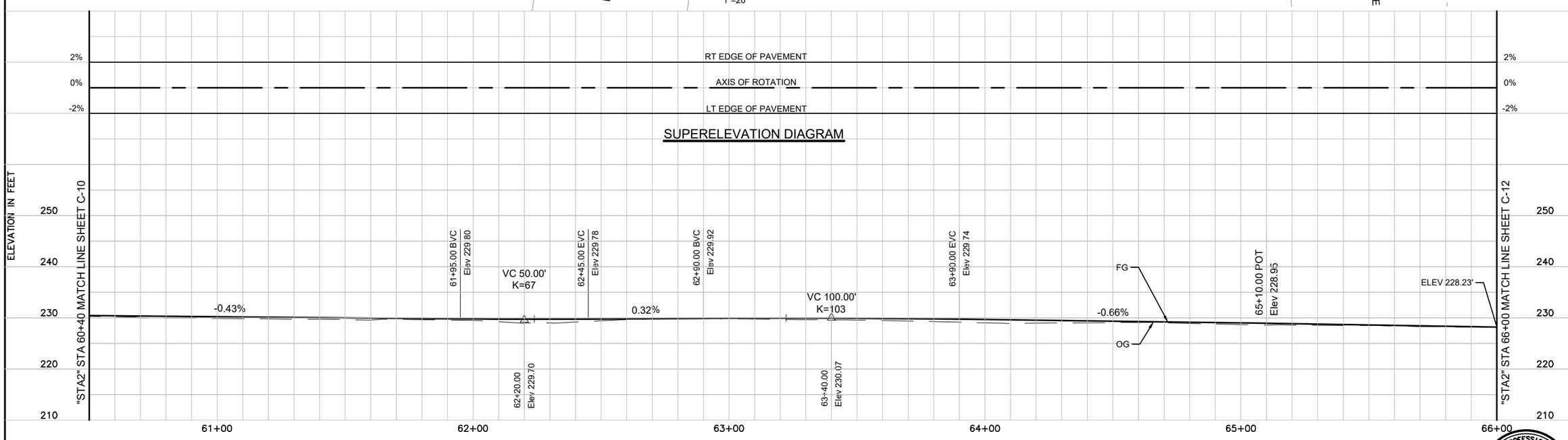
Line Table: Alignments		
NO.	DISTANCE	BEARING
L28	71.721	N83° 49' 20.64"E

Curve Table: Alignments				
NO.	R	L	T	Δ
C28	160.000	21.599	10.816	007°44'05"
C29	160.000	20.992	10.511	007°31'03"

TREE REMOVALS		
AMOUNT	DIAMETER	ACTION
4	4"	REMOVE
6	5"	REMOVE
4	6"	REMOVE
1	8"	REMOVE
3	10"	REMOVE
5	12"	REMOVE



PLAN
1"=20'



SUPERELEVATION DIAGRAM

"STA2" LINE PROFILE
HORIZ: 1"=20'
VERT: 1"=10'

20' 0' 20'
1" 0' 1"

REGISTERED PROFESSIONAL ENGINEER CARLA AGUILAR RIVERA 87318 EXP.09/30/19 CIVIL STATE OF CALIFORNIA

DRAFT PRELIMINARY DESIGN SUBMITTAL

No.	Revision	Date	By	Chkd

Date: AUGUST 2019
Drawn By: JJH
Designed By: CAR

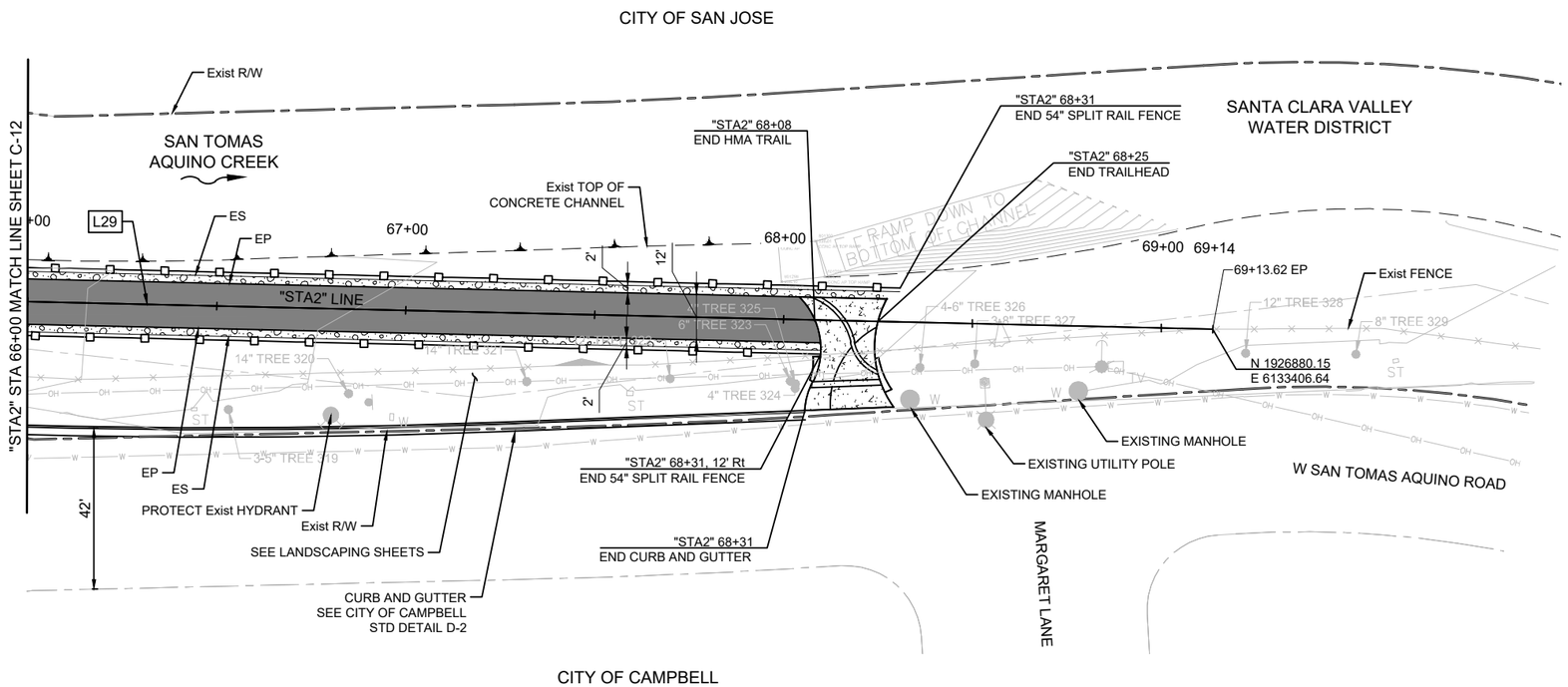
JACOBS

SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX
PLAN AND PROFILE

CITY OF CAMPBELL
CAMPBELL, CALIFORNIA

SCALE: AS SHOWN

SHEET: C-11



PLAN
1"=20'

LEGEND:

- PCC
- HMA (TYPE A)
- CLASS 2 AB
- 54" SPLIT RAIL FENCE
- 8' DECORATIVE METAL FENCE
- RIGHT OF WAY

NOTES:

1. SEE LANDSCAPING SHEETS FOR TRAILHEAD DETAILS.
2. CONTRACTOR TO PROTECT ALL UTILITIES IN PLACE UNLESS OTHERWISE NOTED
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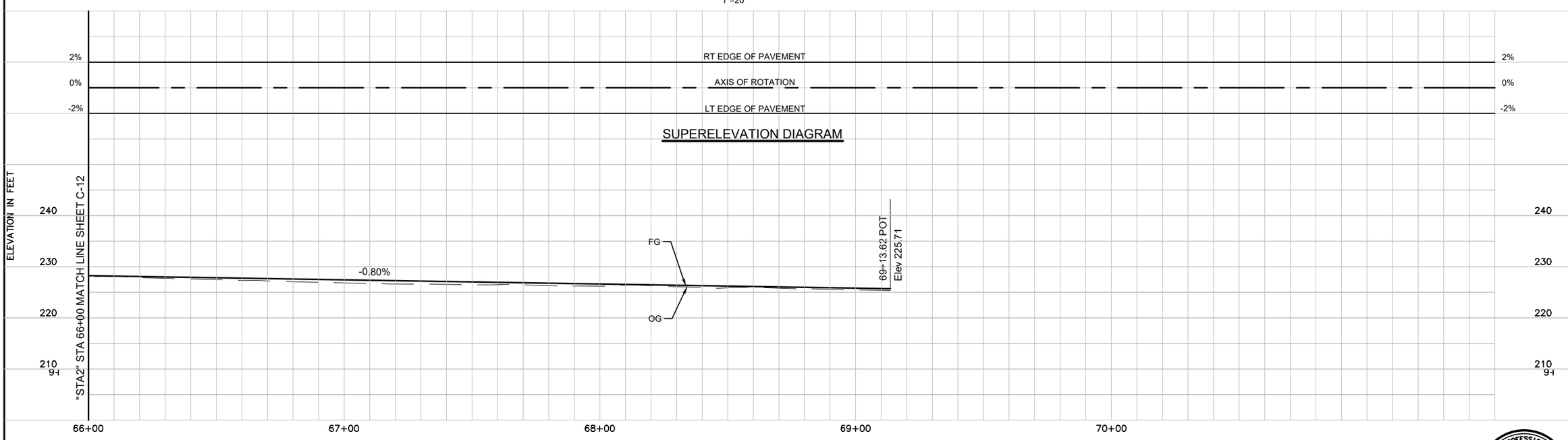
Line Table: Alignments		
NO.	DISTANCE	BEARING
L29	564.072	S88° 39' 36.84"E

TREE REMOVALS		
AMOUNT	DIAMETER	ACTION
2	4"	REMOVE
3	5"	REMOVE
1	6"	REMOVE
2	14"	REMOVE



"STA2" LINE PROFILE
HORIZ: 1"=20'
VERT: 1"=10'

20' 0' 20'
1" 0' 1"

REGISTERED PROFESSIONAL ENGINEER CARLA AGUILAR RIVERA 87318 EXP.09/30/19 CIVIL STATE OF CALIFORNIA

No.	Revision	Date	By	Chkd

DRAFT PRELIMINARY DESIGN SUBMITTAL

Date: AUGUST 2019
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Designed By: CAR

JACOBS

SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX
PLAN AND PROFILE

CITY OF CAMPBELL
CAMPBELL, CALIFORNIA

SCALE:
AS SHOWN

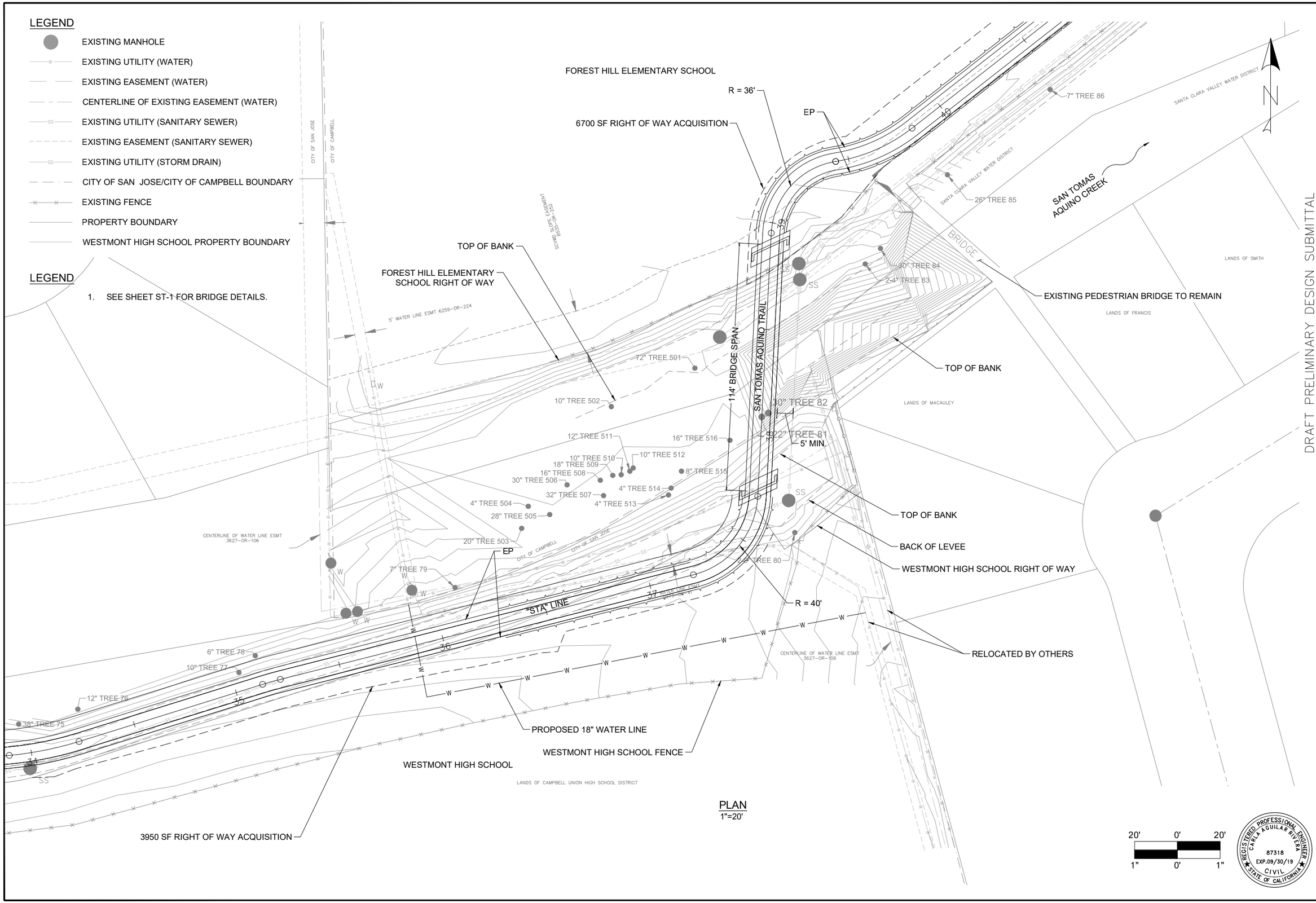
SHEET:
C-12

LEGEND

- EXISTING MANHOLE
- EXISTING UTILITY (WATER)
- EXISTING EASEMENT (WATER)
- CENTERLINE OF EXISTING EASEMENT (WATER)
- EXISTING UTILITY (SANITARY SEWER)
- EXISTING EASEMENT (SANITARY SEWER)
- EXISTING UTILITY (STORM DRAIN)
- CITY OF SAN JOSE/CITY OF CAMPBELL BOUNDARY
- EXISTING FENCE
- PROPERTY BOUNDARY
- WESTMONT HIGH SCHOOL PROPERTY BOUNDARY

LEGEND

1. SEE SHEET ST-1 FOR BRIDGE DETAILS.



PLAN
1"=20'

DRAFT PRELIMINARY DESIGN SUBMITTAL

No.	Revision	Date	By	Chkd

Date: MAY 2020
Drawn By: JJH
Designed By: CAR

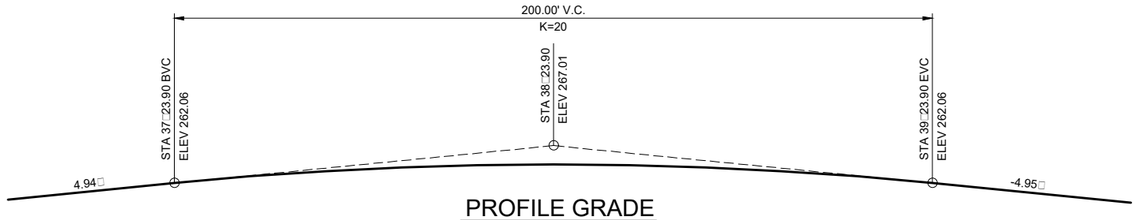
JACOBS

SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX
CONSTRUCTION DETAIL

CITY OF CAMPBELL
CAMPBELL, CALIFORNIA

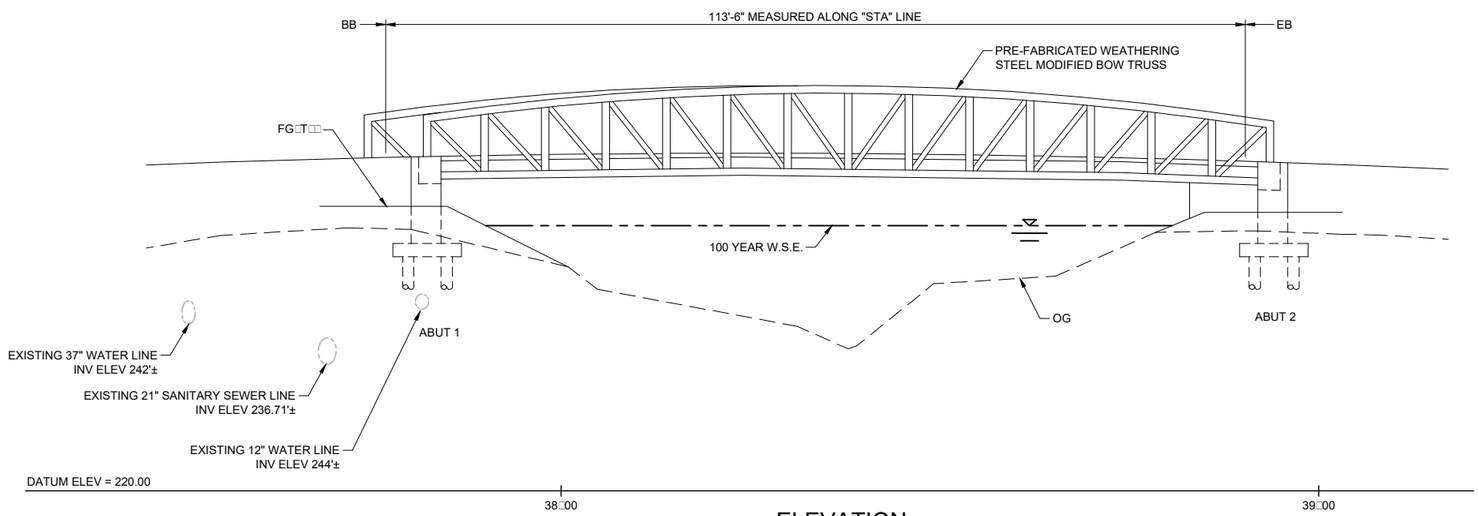
SCALE:

SHEET:
CD-1



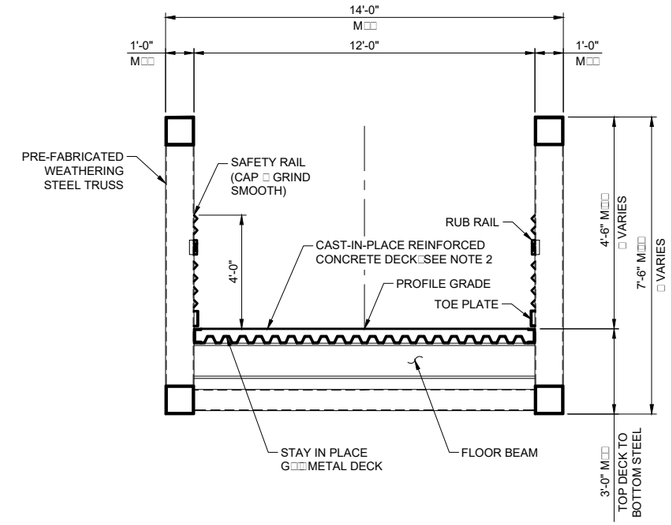
PROFILE GRADE

NO SCALE



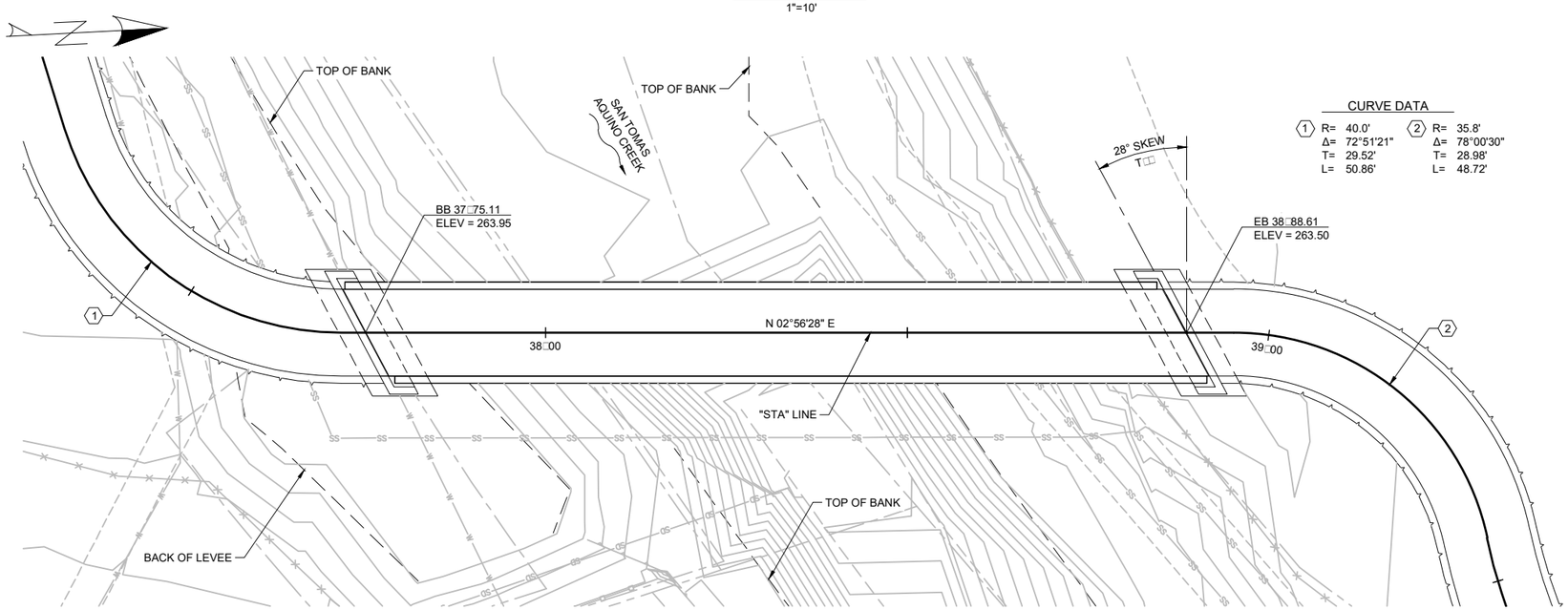
ELEVATION

1"=10'



TYPICAL SECTION

3/8" = 1'-0"



CURVE DATA

	1	2
R=	40.0'	35.8'
Δ=	72°51'21"	78°00'30"
T=	29.52'	28.98'
L=	50.86'	48.72'

10' 0' 10'
1" 0' 1"

PLAN

1"=10'

NOTES□

1. BRIDGE FABRICATOR SHALL DESIGN CAST-IN-PLACE REINFORCED CONCRETE DECK. CALCULATIONS AND SHOP DRAWINGS MUST BE SUBMITTED FOR REVIEW.

No.	Revision	Date	By	Chkd

DRAFT PRELIMINARY DESIGN SUBMITTAL

Date: MAY 2020
Drawn By: KMP
Designed By: RRC

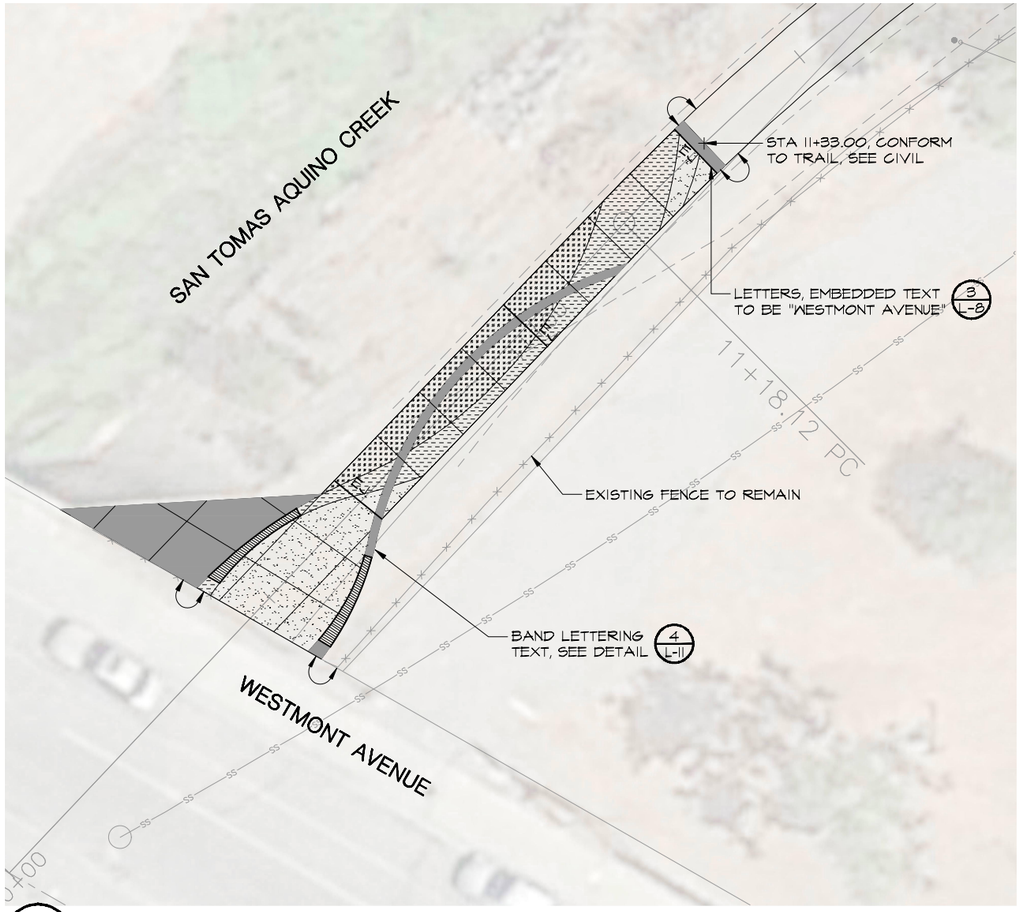
JACOBS®

SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX
BRIDGE GENERAL PLAN

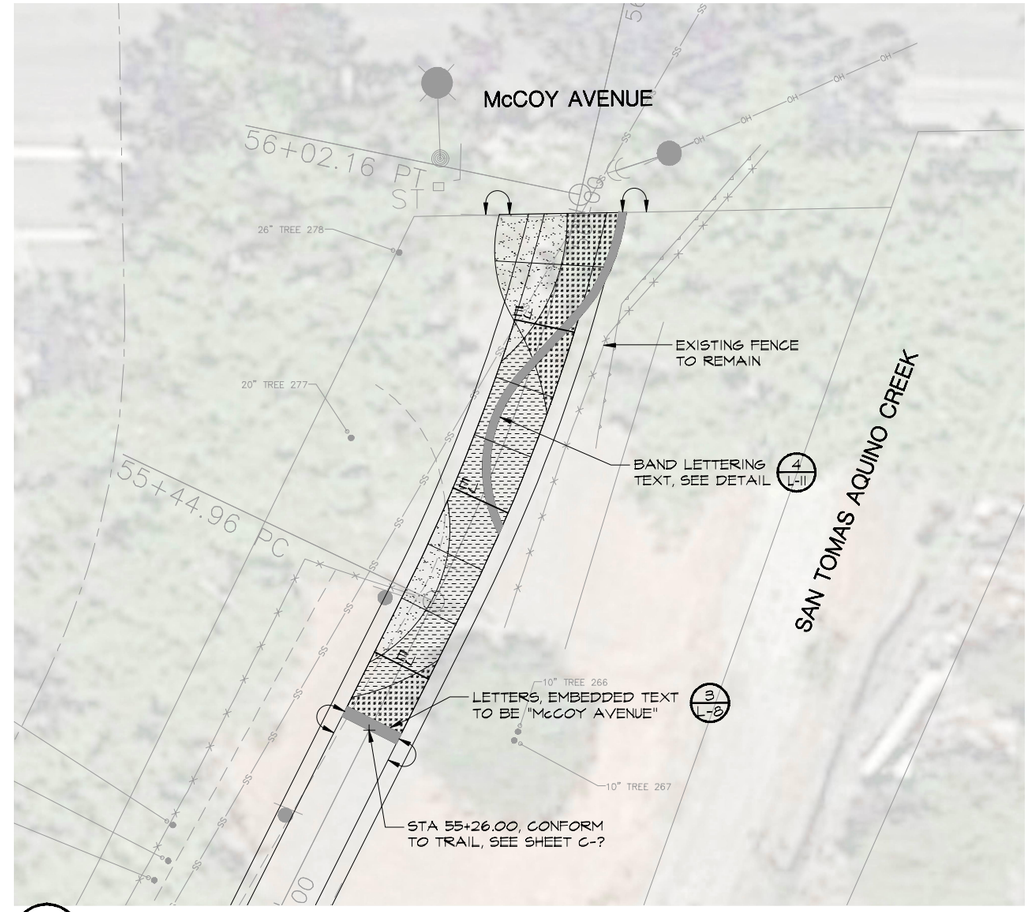
CITY OF CAMPBELL · THE ORIGINAL · CAMPBELL, CALIFORNIA

SCALE:

SHEET:
ST-1



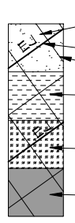
1 / L1 WESTMONT AVENUE TRAILHEAD
PLAN



2 / L2 McCOY AVENUE TRAILHEAD
PLAN

0 5' 10' 20'

SITE CONSTRUCTION LEGEND



- CONCRETE PAVING, TYPE 1, DAVIS COLOR 'CLIFFSIDE BROWN' OR EQUAL (1 / L-8)
- EXPANSION JOINT, TYP.
- SCORE JOINT, TYP. (2 / L-8)
- CONCRETE PAVING, TYPE 2, DAVIS COLOR 'EURO BLUE' OR EQUAL
- CONCRETE PAVING, TYPE 3, DAVIS COLOR 'SILVERSMOKE' OR EQUAL
- CONCRETE PAVING, TYPE 4, DAVIS COLOR 'LIGHT GRAY' OR EQUAL
- SEATWALL (4 / L-8)
- ALIGN
- SPLIT RAIL FENCE, SEE FENCE LAYOUT PLAN, SHEET L-3 (5 / L-8)
- P.A. — PLANTING AREA
- INTERPRETIVE SIGN PANEL (6 / L-8)

SITE CONSTRUCTION NOTES

1. **DIMENSIONS:** ALL WRITTEN DIMENSIONS SUPERSEDE SCALED DIMENSIONS.
2. **EXPANSION JOINTS:** INSTALL EXPANSION JOINTS AS SHOWN ON DRAWINGS, AS WELL AS BETWEEN CONCRETE FLATWORK AND WALLS, CURBS, AND EXISTING FLATWORK OR STRUCTURES.
3. **SLEEVING:** REFER TO IRRIGATION PLAN FOR REQUIREMENTS OF SLEEVING UNDER PAVING.
4. **PROJECT STAKING:** ALL PROPOSED SITE FEATURES SHALL BE STAKED IN FIELD FOR REVIEW BY THE CITY INSPECTOR PRIOR TO CONSTRUCTION. ALL CURVES SHALL BE SMOOTH AND CONTINUOUS WITH CAREFULLY MATCHED TANGENTS.

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No.	Revision	Date	By	Chkd

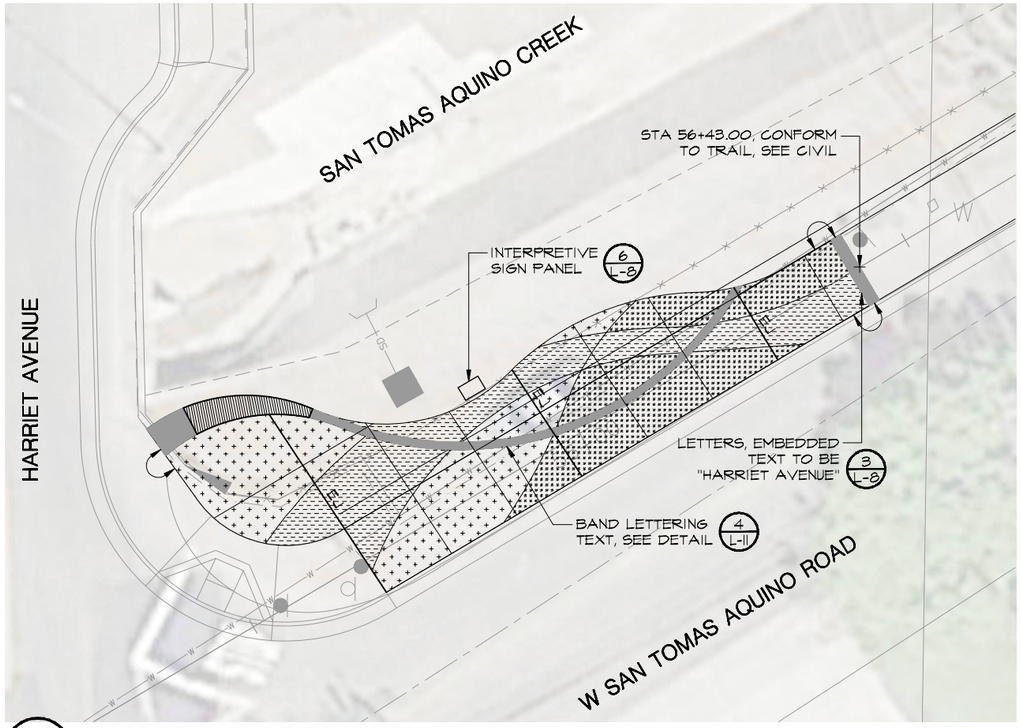
Date: 7/29/2019
Drawn By: GH
Designed By: DR

TRAILHEAD ENLARGEMENTS
SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX

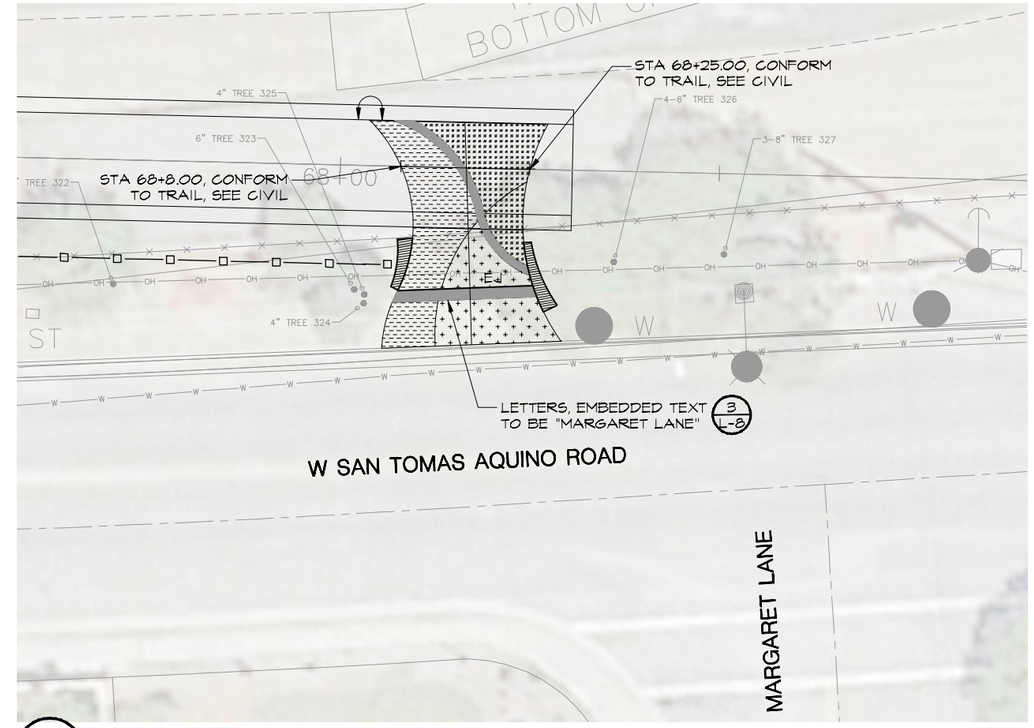
CITY OF CAMPBELL · THE GREAT CITY · CAMPBELL, CALIFORNIA

SCALE: AS SHOWN

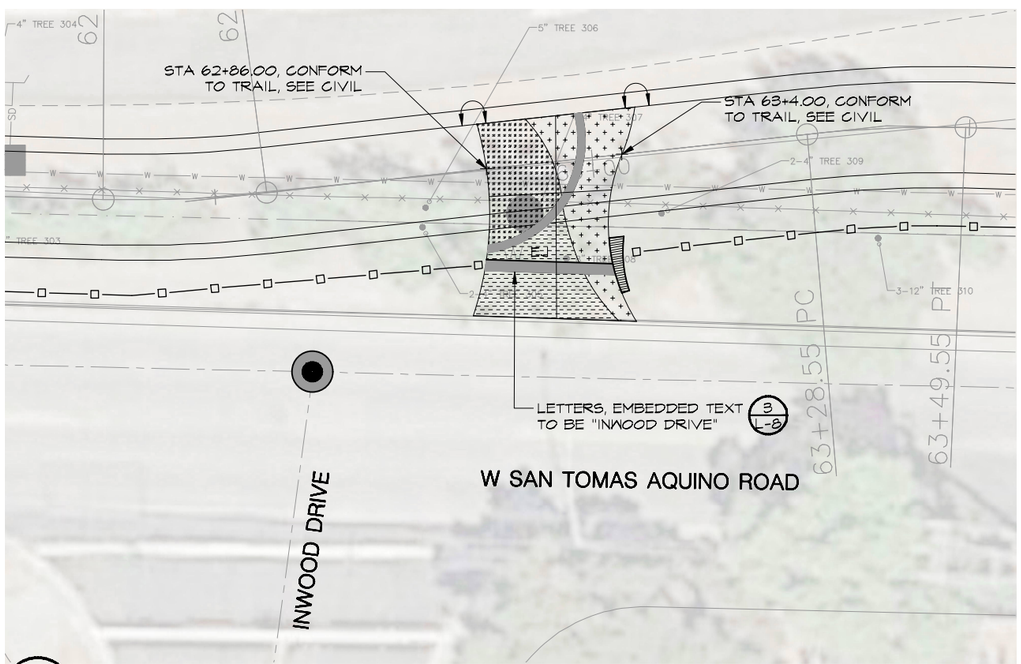
SHEET: L-1



1 L2 HARRIET AVENUE TRAILHEAD
PLAN



3 L2 MARGARET LANE TRAILHEAD
PLAN



2 L2 INWOOD DRIVE TRAILHEAD
PLAN

0 5' 10' 20'

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CITY OF CAMPBELL
CAMPBELL, CALIFORNIA

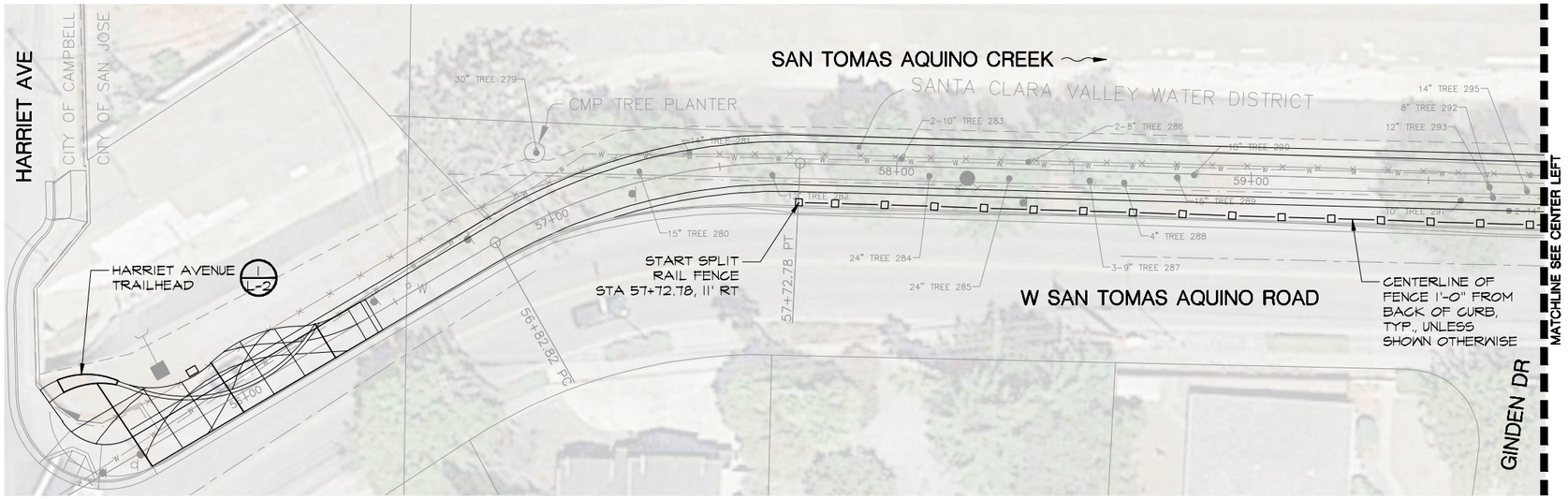
No.	Revision	Date	By	Chkd

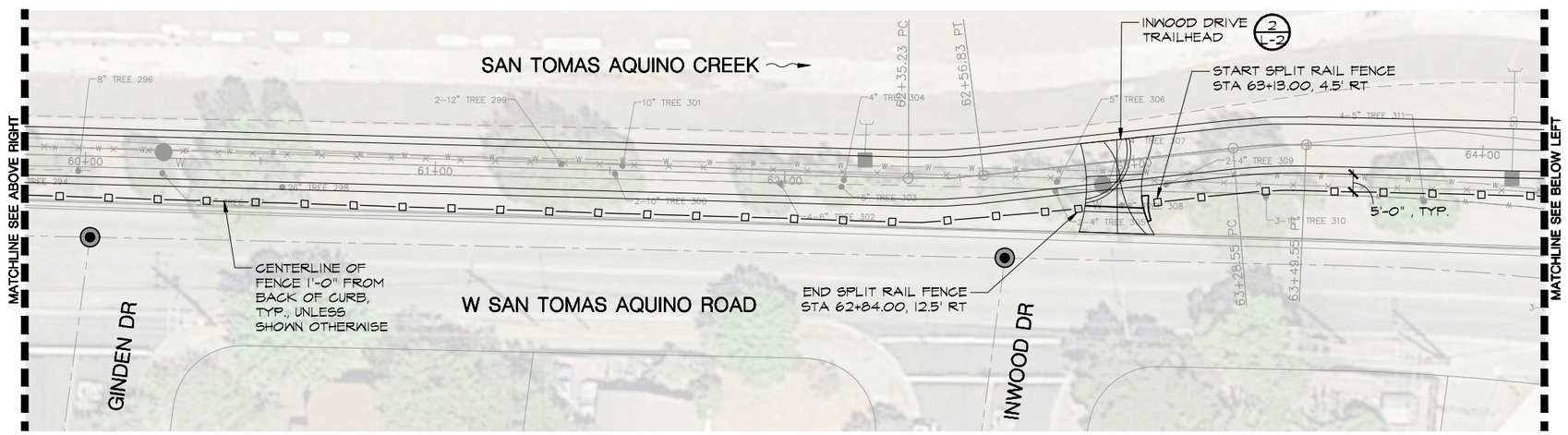
Date: 7/29/2019
Drawn By: GH
Designed By: DR

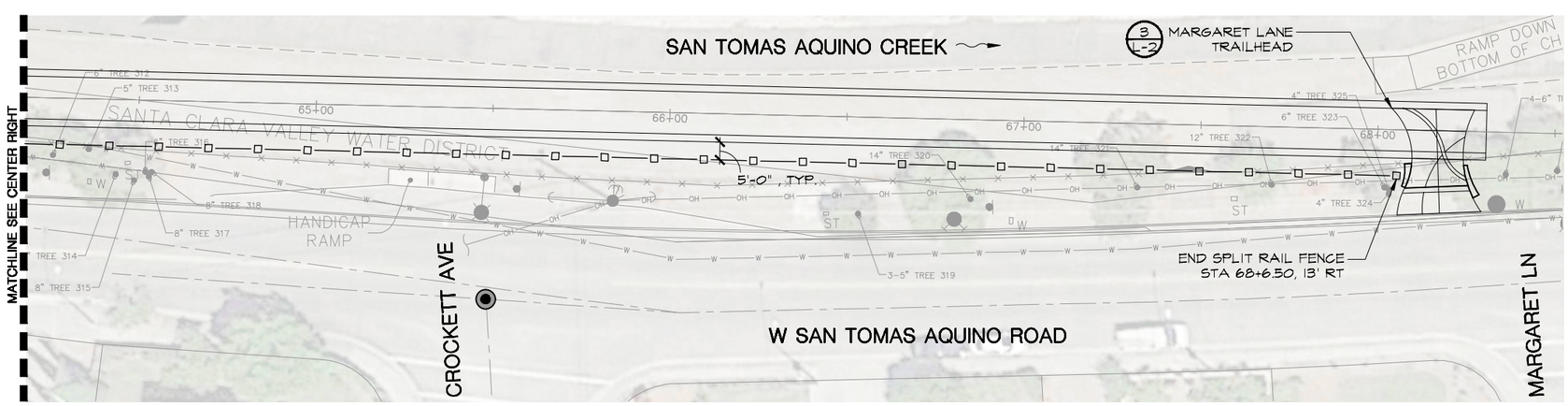
TRAILHEAD ENLARGEMENTS
SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX

SCALE: AS SHOWN

SHEET: L-2







0 10' 20' 40'

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CITY OF CAMPBELL — CAMPBELL, CALIFORNIA

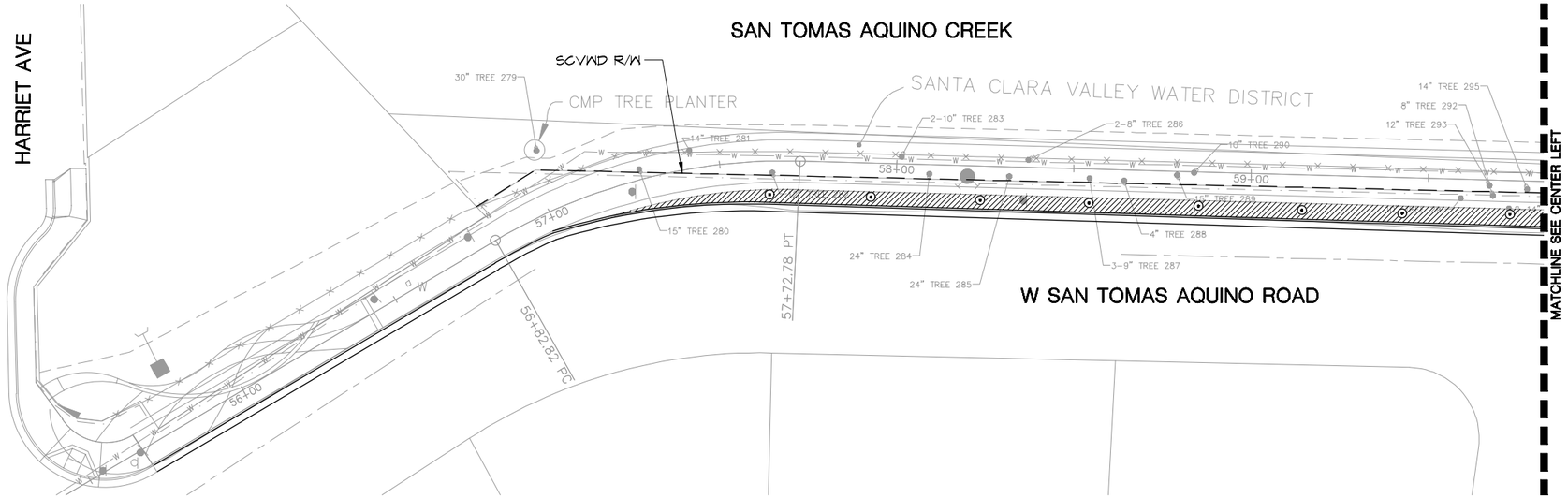
No.	Revision	Date	By	Chkd

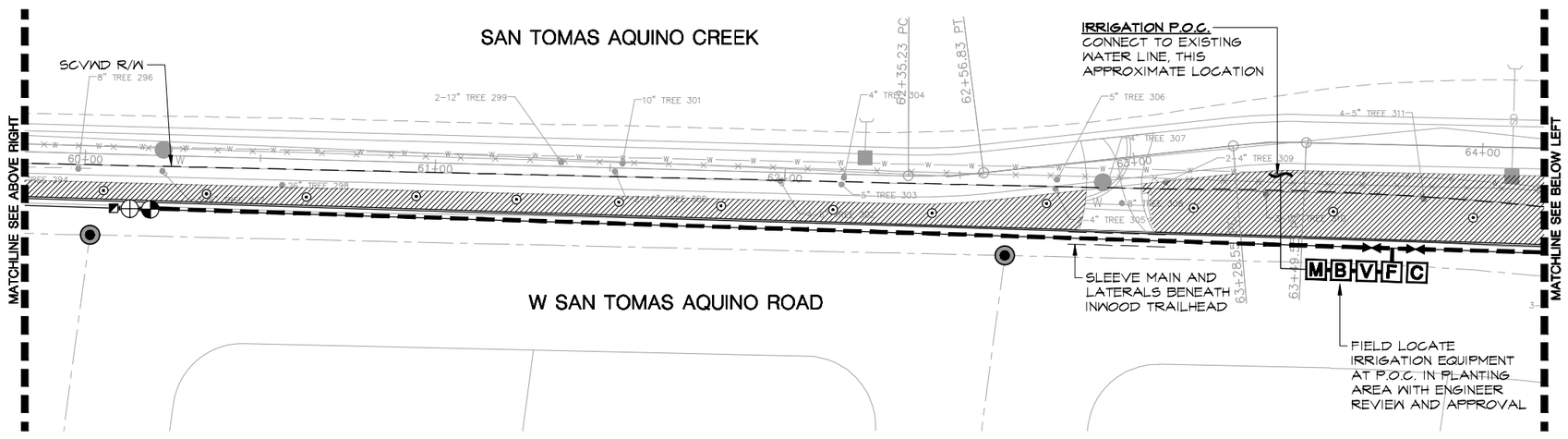
Date: 7/29/2019
Drawn By: GH
Designed By: DR

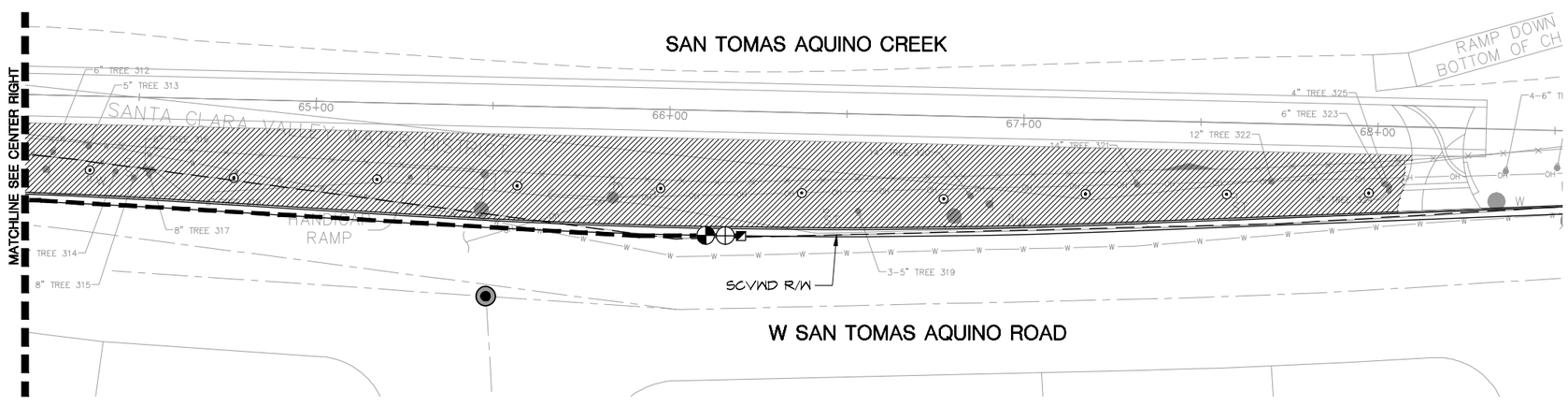
FENCE LAYOUT PLAN
SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX

SCALE: AS SHOWN

SHEET: L-3







SEE SHEET L-5 FOR IRRIGATION NOTES AND LEGEND

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CITY OF CAMPBELL
CAMPBELL, CALIFORNIA

No.	Revision	Date	By	Chkd

Date: 7/29/2019
Drawn By: GH
Designed By: DR

IRRIGATION PLAN
SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX

SCALE: AS SHOWN

SHEET: L-4

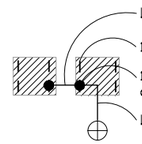
IRRIGATION NOTES

1. **SPECIFICATIONS:** SEE IRRIGATION SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. **VERIFICATION:** SYSTEM DESIGN IS BASED ON **85** P.S.I. AND **( )** G.P.M. AVAILABLE AT DISCHARGE OUTLET OF METER OR OTHER POINT OF CONNECTION. VERIFY SAME AND NOTIFY CITY'S REPRESENTATIVE IF SUCH DATA ADVERSELY AFFECTS THE OPERATION OF THE SYSTEM. SUCH NOTICE SHALL BE MADE IN WRITING AND PRIOR TO COMMENCING ANY IRRIGATION WORK.
3. **UTILITIES:** VERIFY LOCATION OF ALL ON-SITE UTILITIES. RESTORATION OF DAMAGED UTILITIES SHALL BE MADE AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE CITY.
4. **SCHEMATIC:** SYSTEM FEATURES ARE SHOWN SCHEMATICALLY FOR GRAPHIC CLARITY. INSTALL ALL PIPING AND VALVES IN COMMON TRENCHES WHERE FEASIBLE AND INSIDE PLANTING AREAS WHENEVER POSSIBLE. ALL VALVES SHALL BE LOCATED IN GROUNDCOVER OR SHRUB AREAS WHENEVER POSSIBLE.
5. **CODES:** IRRIGATION SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH ALL LOCAL CODES AND MANUFACTURER'S SPECIFICATIONS. NOTIFY CITY'S REPRESENTATIVE BY TELEPHONE AND IN WRITING OF ANY CONFLICTS PRIOR TO INSTALLATION.
6. **SERVICE LINE:** CONTRACTOR SHALL TAP CITY MAIN WATER LINE AND PROVIDE SERVICE LINE TO WATER METER LOCATION AS SHOWN ON PLANS. INSTALLER SHALL REPAIR ALL DAMAGES INCURRED DURING INSTALLATION AND SHALL BE RESPONSIBLE FOR ALL ASSOCIATED FEES AND CHANGES. DEPTH OF PIPE, TRENCHING AND BACKFILLING, AS REQUIRED BY GOVERNING AGENCY.
7. **WATER METER:** CONTRACTOR SHALL PURCHASE AND INSTALL WATER METER AS SHOWN PLANS, INCLUDING ALL ASSOCIATED CONNECTIONS, VAULTS, ETC. INSTALLING PARTY SHALL INCUR ALL FEES ASSOCIATED WITH PURCHASE AND INSTALLATION.
8. **BACKFLOW ASSEMBLY:** CONTRACTOR SHALL CONNECT THE BACKFLOW ASSEMBLY WITH THE WATER METER USING LINE BURIED A MINIMUM OF 18 INCHES.
9. **BACKFLOW DEVICES:** LOCATE ALL BACKFLOW DEVICES IN SHRUB OR GROUNDCOVER AREAS. DEVICES SHALL BE LOCATED WITHIN SHRUB PLANTING AREAS AND IN AN INCONSPICUOUS LOCATION APPROVED PRIOR TO INSTALLATION BY THE CITY'S REPRESENTATIVE.
10. **SLEEVING:** ADEQUATELY SIZE ALL SLEEVES SHOWN ON PLAN. SLEEVES SHALL BE INSTALLED AT THE NECESSARY DEPTHS PRIOR TO PAVEMENT CONSTRUCTION. SLEEVING SHALL EXTEND 1'-0" FROM EDGE OF PAVING INTO LAWN OR PLANTING AREA, AND SHALL HAVE ENDS CLEARLY MARKED ABOVE GRADE.
11. **QUICK COUPLING VALVES:** INSTALL ON TRIPLE SWING JOINT. LOCATE 12 INCHES AWAY FROM EDGE OF WALKS, WALLS, CURBS, AND HEADERBOARDS WITHIN PLANTING AREAS. PROVIDE CITY WITH ONE OPERATING KEY, TWO SETS OF LOCKING COVER KEYS, AND ONE SWIVEL HOSE ELL.
12. **PRESSURE REDUCER:** WHEN NECESSARY, TO BE PLACED UPSTREAM AND ADJACENT TO BACKFLOW DEVICE WHENEVER POSSIBLE.
13. **MAINLINE BREAK:** SHOULD THE EXISTING MAINLINE BREAK OR BE SHUT OFF FOR ANY REASON DURING THE COURSE OF CONSTRUCTION THE CONTRACTOR SHALL HAND WATER ALL TREES, SHRUBS, TURF, AND GROUNDCOVER THAT THE EXISTING IRRIGATION SYSTEM WATERS. CONTINUE TO DO SO UNTIL THE IRRIGATION SYSTEM IS OPERABLE.

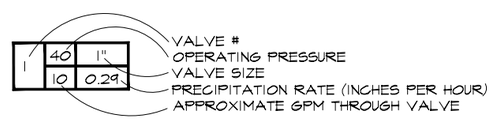
IRRIGATION LEGEND

DRIP IRRIGATION IN SHRUB AREAS, NETAFIM-TLCV-4-18, INSTALLED ON GRADE, UNDERNEATH MULCH LAYER, 0.6 GPH PER EMITTER (5/L-10)

DRIP AREA LAYOUT:



- TREE BUBBLER, TORO 500 SERIES, EACH SYMBOL REPRESENTS 2 BUBBLERS PER TREE (4/L-10)
- REMOTE CONTROL VALVE, GRISWOLD 2000 SERIES, SIZE PER PLAN (5/L-9)
- DRIP CONTROL VALVE ASSEMBLY, LVCZS80100T5-HF, SIZE PER PLAN (6/L-10)
- C — CONTROLLER, RAINMASTER EVOLUTION DX 2 (1/L-9)
- B — BACKFLOW PREVENTER, FEBCO, 825Y, SIZE TBD, IN FREEZE BLANKET AND ENCLOSURE (2/L-9)
- V — MASTER VALVE, SIZE TBD (3/L-9)
- F — FLOW SENSOR, SIZE TBD (4/L-9)
- LATERAL LINE, SCH 40 PVC, SIZE PER PLAN
- MAINLINE, CLASS 315 PVC, SIZE PER PLAN, 18" MINIMAL BURIAL
- SLEEVE, SCH 40 PVC, SIZE AS REQUIRED
- QUICK COUPLING VALVE, RAINBIRD 33 DRC (6/L-9)
- GATE VALVE, NIBCO, CLASS 125, T-113, LINE SIZE, INSTALL IN VALVE BOX (1/L-10)
- DRIP HEADER, SCH 40 PVC, SIZE PER PLAN
  - LATERAL / HEADER CONNECTION
- FLUSH VALVE, TORO, T-FCH-H, INSTALL AT LOW END OF DRIP HEADER LINE
- AIR RELEASE VALVE, TORO, T-YD-500-34, INSTALL AT HIGH END OF DRIP HEADER LINE
- DRIP IRRIGATION INDICATOR, HUNTER, ECO-ID



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San Jose, CA 95110
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No.	Revision	Date	By	Chkd

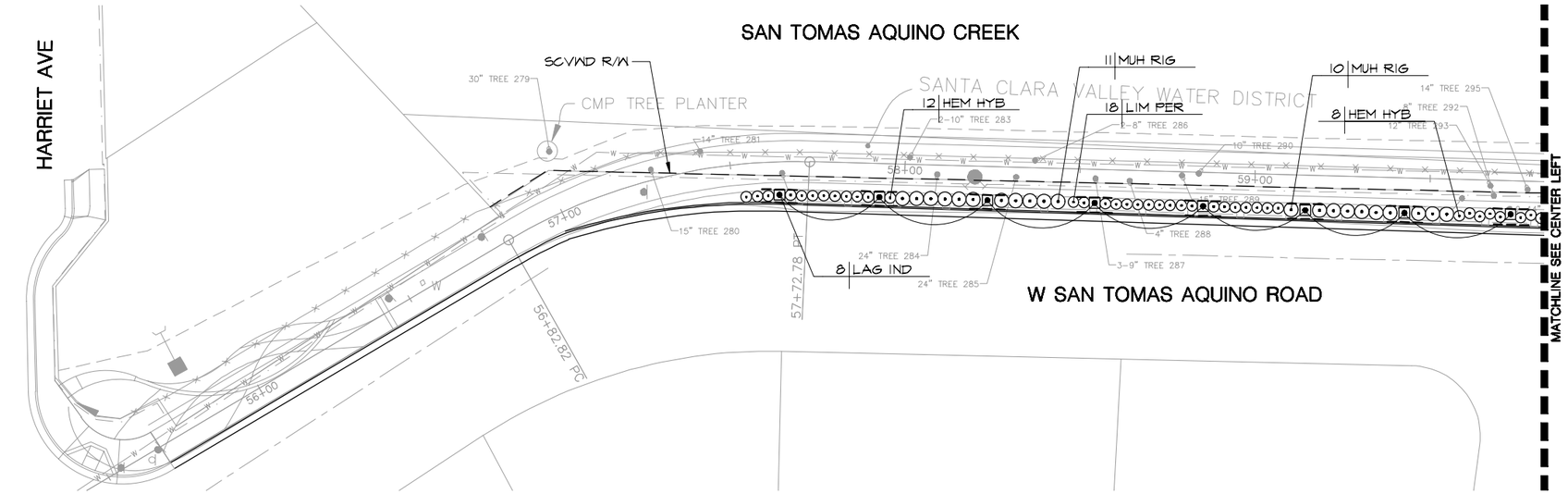
Date: 7/29/2019
Drawn By: GH
Designed By: DR

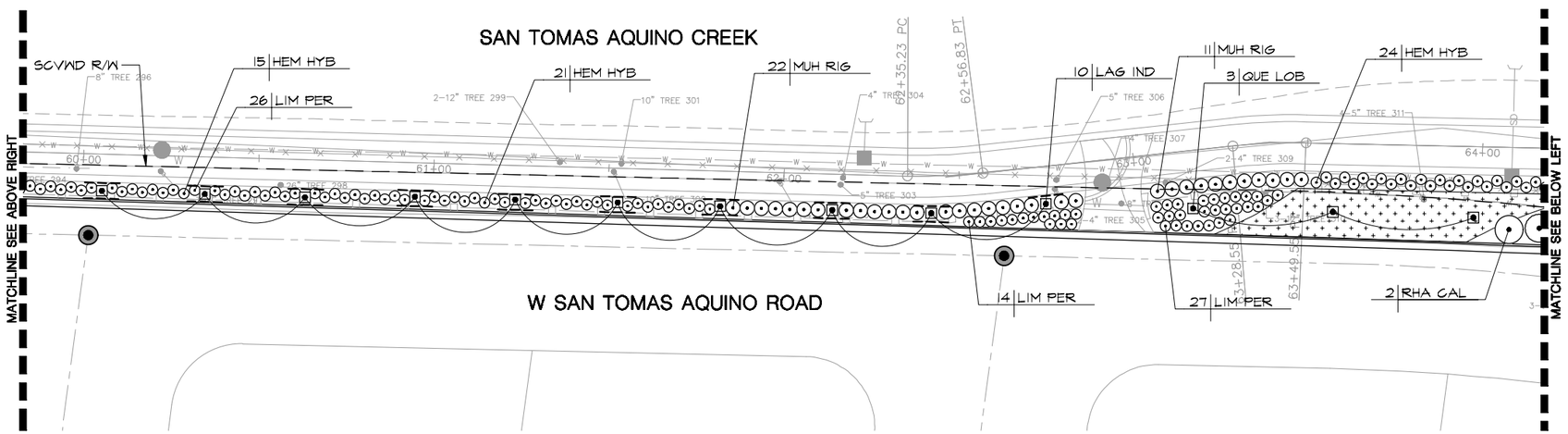
IRRIGATION NOTES AND LEGEND
SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX

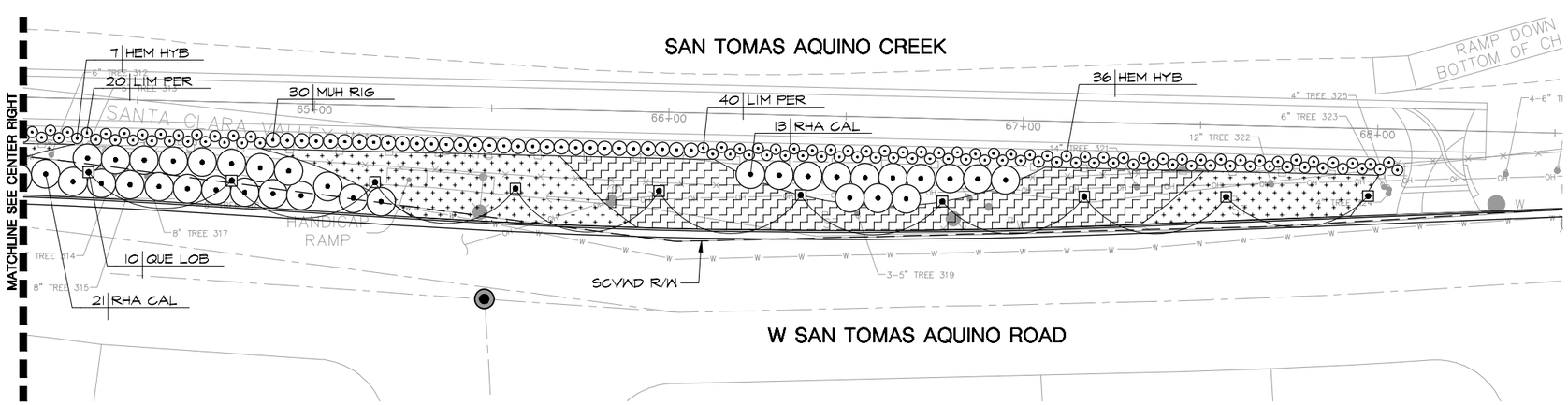
CITY OF CAMPBELL · CAMPBELL, CALIFORNIA

SCALE: AS SHOWN

SHEET: L-5







SEE SHEET L-7 FOR PLANTING NOTES AND LEGEND

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No.	Revision	Date	By	Chkd

Date: 7/29/2019
Drawn By: GH
Designed By: DR

PLANTING PLAN
SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX

CAMPBELL, CALIFORNIA

SCALE: AS SHOWN

SHEET: L-6

PLANT LEGEND

- TREE, 24" BOX SIZE
- SHRUB MASS
- ROOT BARRIER: DEEP ROOT CORP. #SB18. INSTALL FLUSH WITH INSIDE FACE OF CURB OR PAVING IN LOCATIONS INDICATED. SHOWN ON OUTSIDE OF CURB FOR GRAPHIC PURPOSES ONLY.

PLANTING NOTES

1. **MULCH:** INSTALL A UNIFORM THREE INCH COVERING OF MULCH 1-1/2" MAX PARTICLE SIZE, IN ALL AREAS TO BE PLANTED. MULCH SHALL BE "SMALL FIRBARK" AS AVAILABLE FROM LYNGSO GARDEN MATERIALS (650) 364-1730.
2. **EXISTING PLANT MATERIAL:** PROTECT ALL EXISTING PLANT MATERIAL TO REMAIN. REPAIR ANY DAMAGES INCURRED AS A DIRECT RESULT OF THIS CONTRACT TO THE OWNER'S SATISFACTION AT NO ADDITIONAL COST.
3. **GROUNDCOVER:** PROVIDE GROUNDCOVER AT INDICATED ON-CENTER SPACING THROUGHOUT ALL AREAS TO BE PLANTED. GROUNDCOVER SHALL BE PROVIDED UP TO THE WATERING BASIN OF ALL TREES AND SHRUBS.
4. **QUANTITIES:** THE QUANTITIES SHOWN ON THE LABELS ARE NOT TO BE CONSTRUED AS THE COMPLETE AND ACCURATE LIMITS OF THE CONTRACT. FURNISH AND INSTALL ALL PLANTS SHOWN SCHEMATICALLY ON THE DRAWINGS.
5. **TOPSOIL:** ALL PLANTING AREAS TO RECEIVE A SIX INCH LAYER OF IMPORT TOPSOIL PER SPECIFICATIONS.
6. **SOILS TESTING:** SEE SPECIFICATIONS FOR TESTING OF TOPSOIL AND AMENDMENTS. IN ADDITION, CONTRACTOR SHALL SUBMIT A FIVE GALLON SAMPLE OF NATIVE TOPSOIL FROM ANY AREAS PREVIOUSLY COVERED BY PAVING, TO WAYPOINT ANALYTICAL OF ANAHEIM, (714) 282-8777, FOR CONTAMINATION TESTING. TESTING REQUIRES FOUR TO FIVE WEEKS. CONTRACTOR SHALL ALLOW SUFFICIENT TIME FOR TESTING PRIOR TO CONSTRUCTION.

PLANT LIST

ABBREV.	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
TREES				
LAG IND	LAGERSTROEMIA INDICA X FAURIEI 'NATCHEZ'	WHITE CRAPE MYRTLE	24" BOX	AS SHOWN
QUE LOB	QUERCUS LOBATA	VALLEY OAK	24" BOX	AS SHOWN
SHRUBS				
HEM HYB	HEMEROCALLIS HYBRID	DAYLILY	5 GALLON	AS SHOWN
LIM PER	LIMONIUM PEREZII	SEA LAVENDER	5 GALLON	AS SHOWN
MUH RIG	MUHLENBERGIA RIGENS	DEER GRASS	5 GALLON	AS SHOWN
RHA CAL	RHAMNUS CALIFORNICA 'MOUND SAN BRUNO'	COFFEEBERRY	5 GALLON	AS SHOWN
GROUNDCOVERS				
	ARCTOSTAPHYLOS "EMERALD CARPET"	EMERALD CARPET MANZANITA	5 GALLON	5'-0" O.C.
	CEANOTHUS GRISEUS HORIZONTALIS	CARMEL CREEPER	5 GALLON	6'-0" O.C.

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No.	Revision	Date	By	Chkd

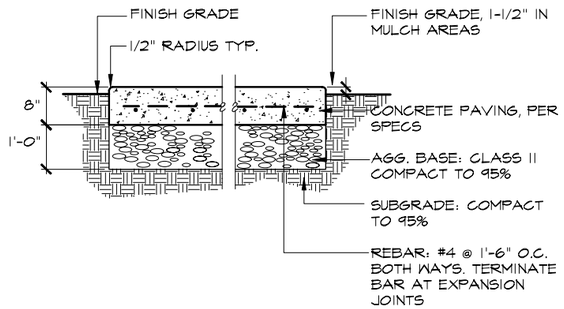
Date: 7/29/2019
Drawn By: GH
Designed By: DR

PLANTING NOTES AND LEGEND
SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX

CITY OF CAMPBELL · THE ORIGINAL CITY · CAMPBELL, CALIFORNIA

SCALE: AS SHOWN

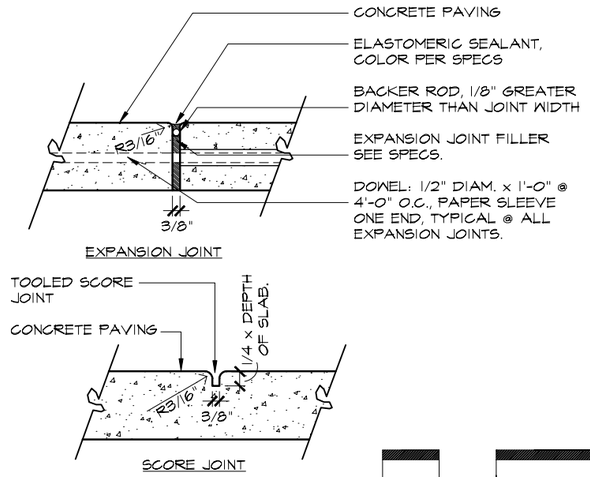
SHEET: L-7



1 / L-8 CONCRETE PAVEMENT
SECTION

0 1/2' 1' 2'

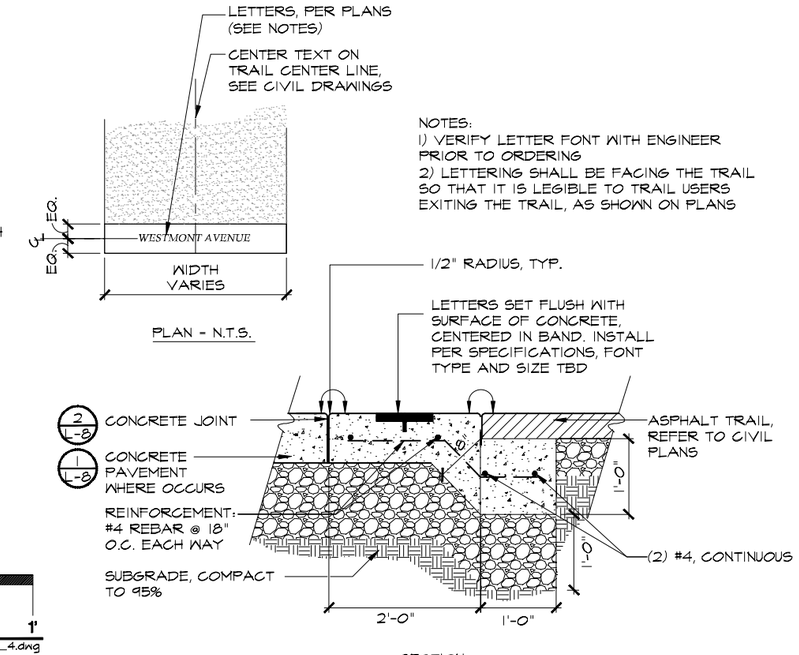
02750 Concrete Pavement 1 12.dwg



2 / L-8 CONCRETE JOINTS
SECTION

0 1/4' 1/2' 1'

02751ConcreteJoints2_4.dwg

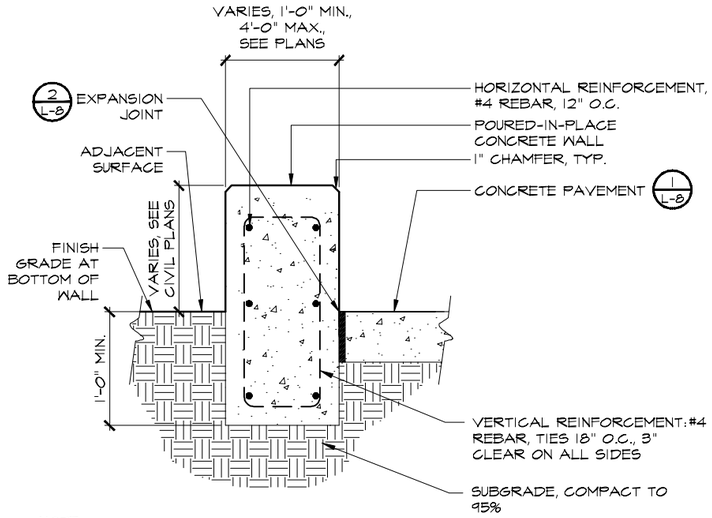


NOTES:
1) VERIFY LETTER FONT WITH ENGINEER PRIOR TO ORDERING
2) LETTERING SHALL BE FACING THE TRAIL SO THAT IT IS LEGIBLE TO TRAIL USERS EXITING THE TRAIL, AS SHOWN ON PLANS

3 / L-8 CONCRETE BAND LETTERING, STREET NAME
SECTION

0 1/2' 1' 2'

08057cb.dwg

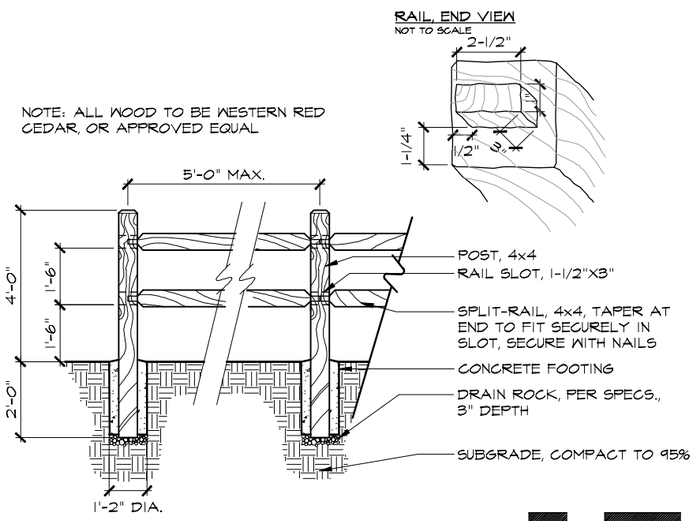


NOTE:
INSTALL SCORE JOINTS IN WALL TO ALIGN WITH JOINTS IN PAVEMENT

4 / L-8 SEATWALL
SECTION

0 1/2' 1' 2'

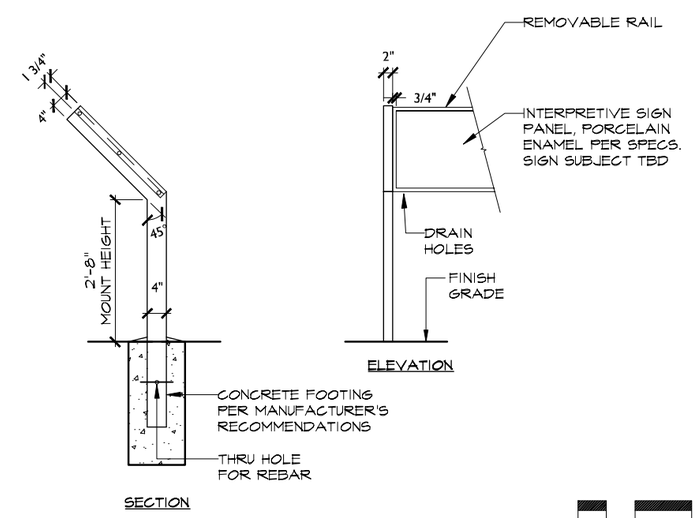
08800 Seatwall 12.dwg



5 / L-8 SPLIT RAIL FENCE
SECTION

0 1' 2' 4'

02820 Split Rail Fence 24.dwg



6 / L-8 INTERPRETIVE SIGN PANEL
SECTION

0 1/2' 1' 2'

18074SignCantilever_16.dwg

30% - NOT FOR CONSTRUCTION

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CITY OF CAMPBELL — THE GREAT OUTDOORS — CAMPBELL, CALIFORNIA

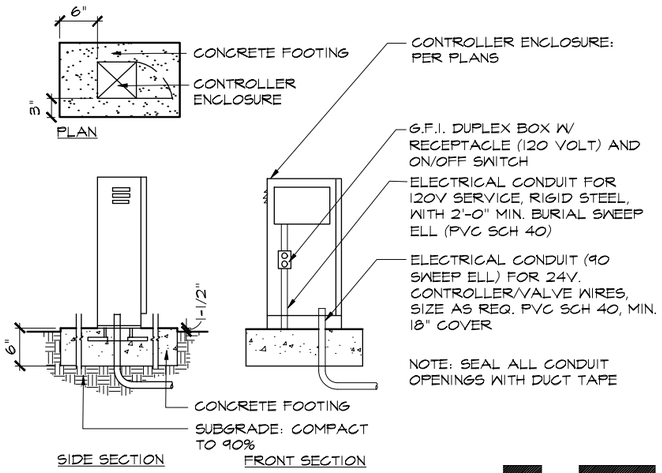
No.	Revision	Date	By	Chkd

Date: 7/29/2019
Drawn By: GH
Designed By: DR

DETAILS
SAN TOMAS AQUINO CREEK TRAIL
PROJECT NO. XX-XX

SCALE: AS SHOWN

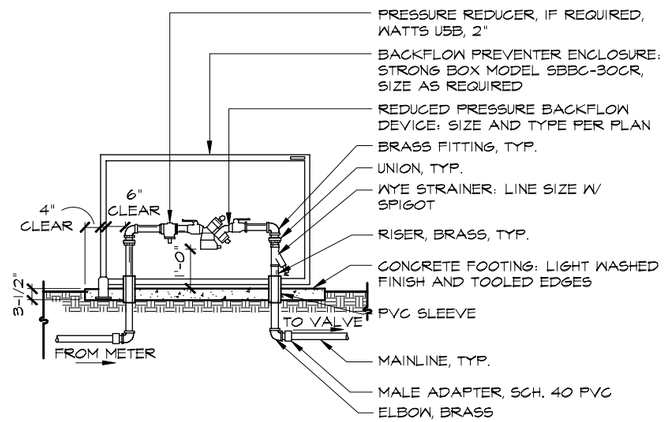
SHEET: L-8



1 / L-9 CONTROLLER SECTION

0 1/2' 1' 2'

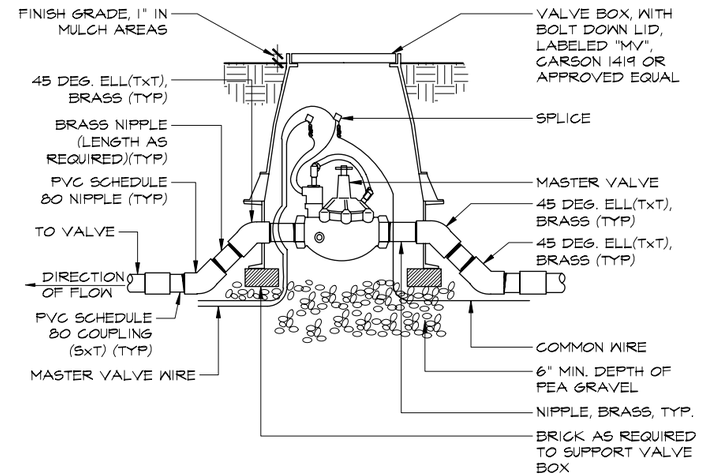
02810 Controller 2 12.dwg



2 / L-9 BACKFLOW PREVENTER SECTION

0 1' 2' 4'

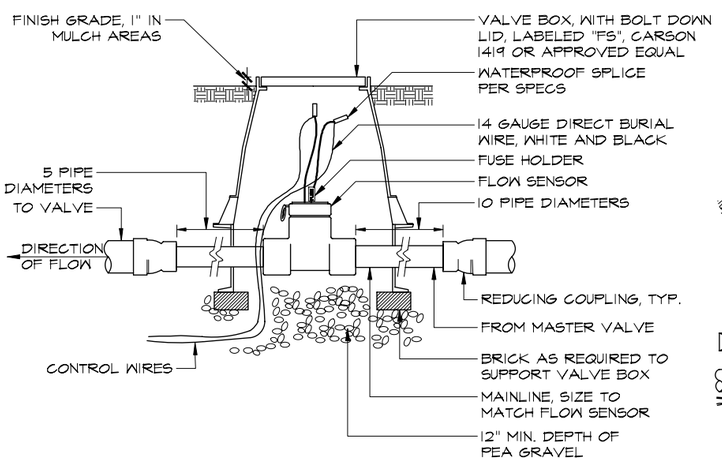
02810 Backflow Preventer 1 24.dwg



3 / L-9 MASTERVALVE SECTION

N.T.S.

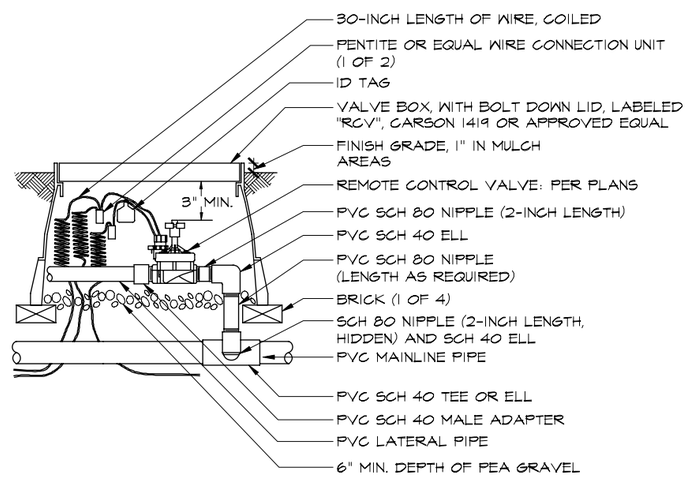
02810 Master Valve 48.dwg



4 / L-9 FLOW SENSOR SECTION

N.T.S.

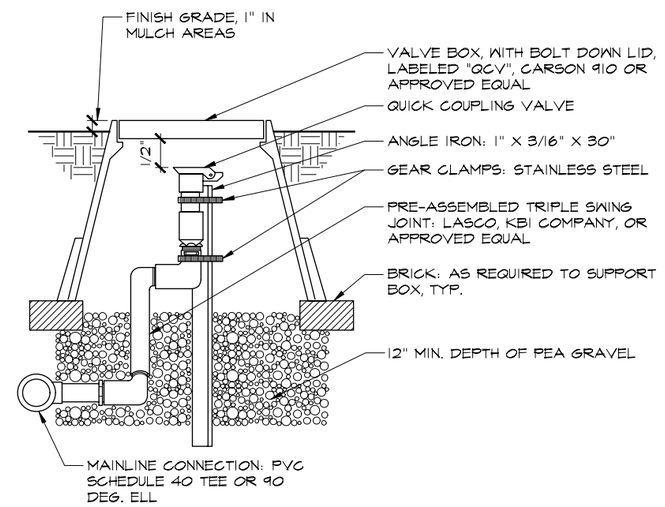
02810 Flow Sensor 48.dwg



5 / L-9 REMOTE CONTROL VALVE SECTION

N.T.S.

02810 Remote Control Valve 1 4.dwg



6 / L-9 QUICK COUPLING VALVE SECTION

N.T.S.

02810 Quick Coupling Valve 4.dwg

30% - NOT FOR CONSTRUCTION

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No.	Revision	Date	By	Chkd

Date: 7/29/2019
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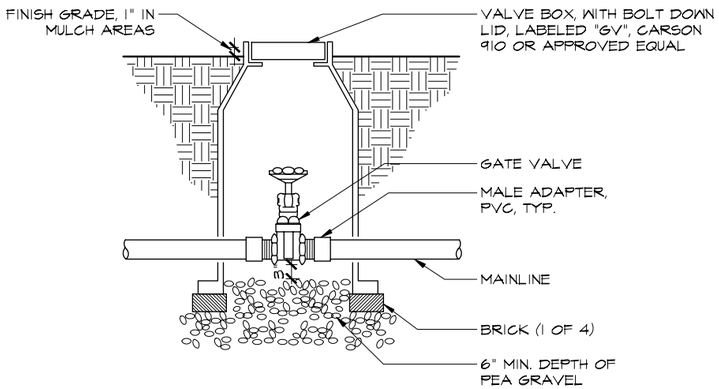
Designed By: DR

SCALE: AS SHOWN

SHEET: L-9

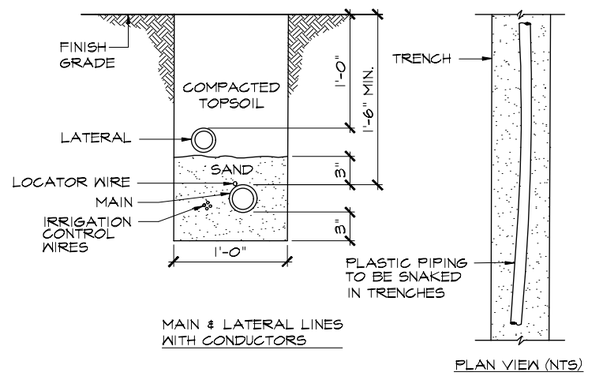


1 L-10 GATE VALVE
SECTION

N.T.S.

02810 Gate Valve 4.dwg

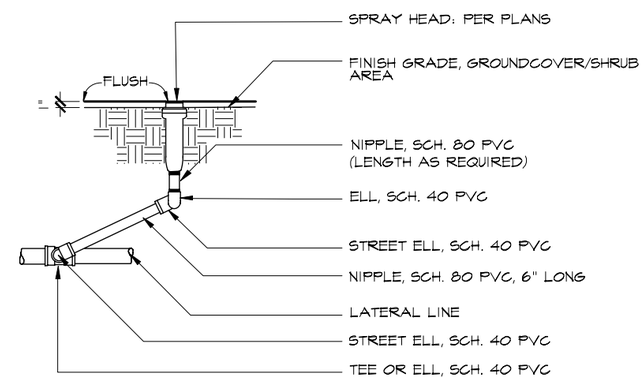
NOTE:
TAPE AND BUNDLE WIRING AT 10'-0" INTERVALS.



2 L-10 TRENCHING
SECTION

0 1/2' 1' 2'

02810 Irrigation Trenching 8.dwg

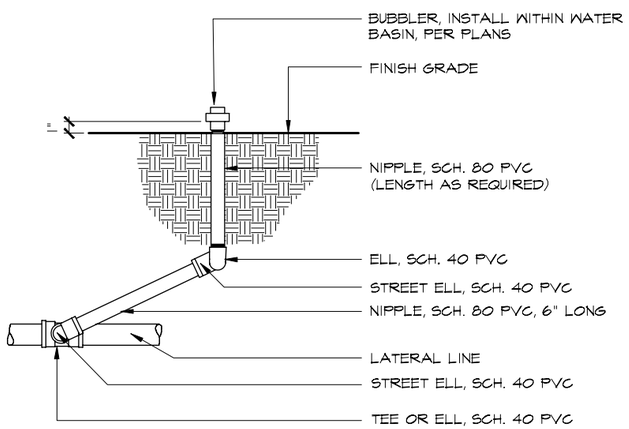


NOTE: ASSEMBLE ENTIRE UNIT AS TRIPLE SWING JOINT. AS AN ALTERNATIVE TO THE ABOVE MATERIALS, "MARLEX" POLYETHYLENE FITTINGS OR A PRE-MANUFACTURED PRODUCT MAY BE SUBSTITUTED.

3 L-10 SPRAY HEAD
SECTION

0 2" 4" 8"

02810 Sprayhead 1 48.dwg



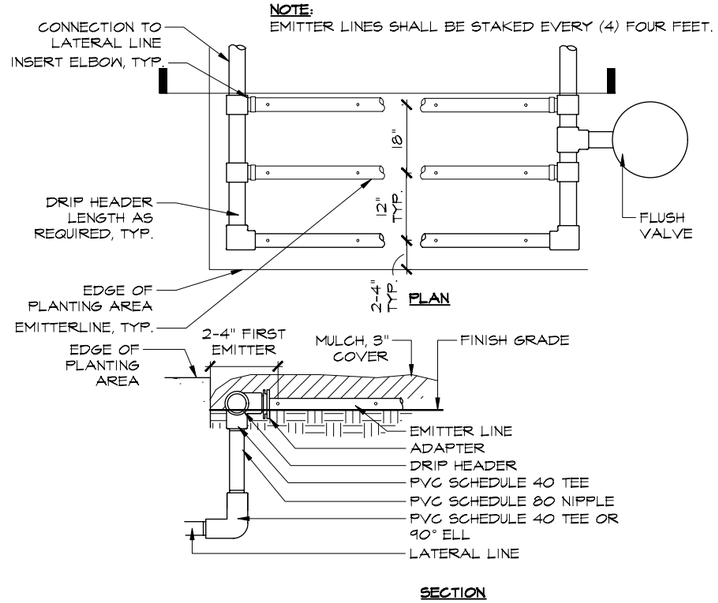
NOTE: ASSEMBLE ENTIRE UNIT AS TRIPLE SWING JOINT

4 L-10 BUBBLER
SECTION

0 1/2' 1' 2'

02810 Bubbler 1 8.dwg

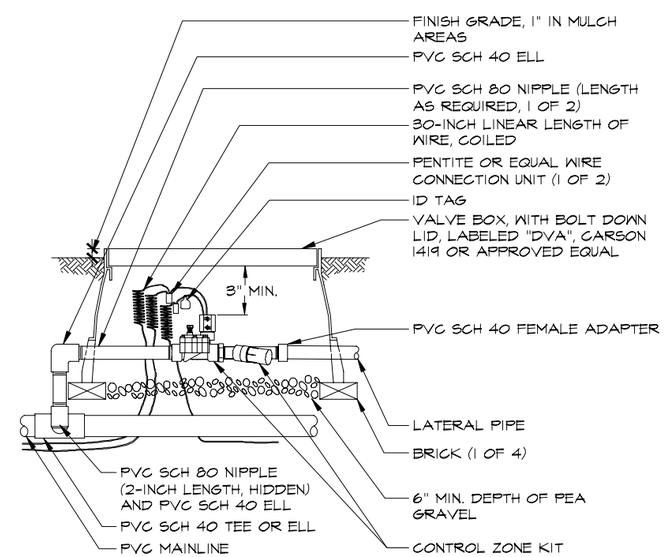
NOTE:
EMITTER LINES SHALL BE STAKED EVERY (4) FOUR FEET.



5 L-10 DRIP LAYOUT
SECTION

N.T.S.

02810 Drip Layout 8.dwg



6 L-10 DRIP CONTROL ZONE ASSEMBLY
SECTION

N.T.S.

02810 Drip Valve 1.dwg

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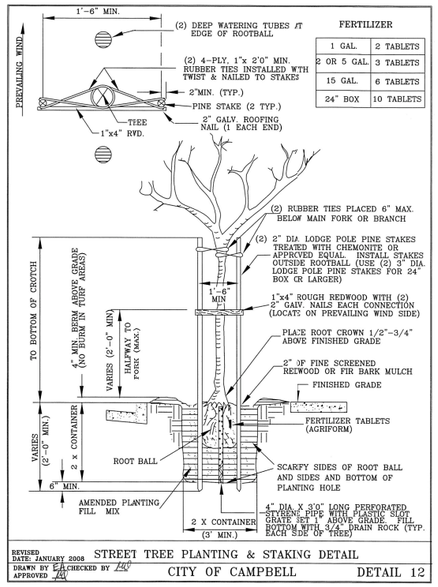
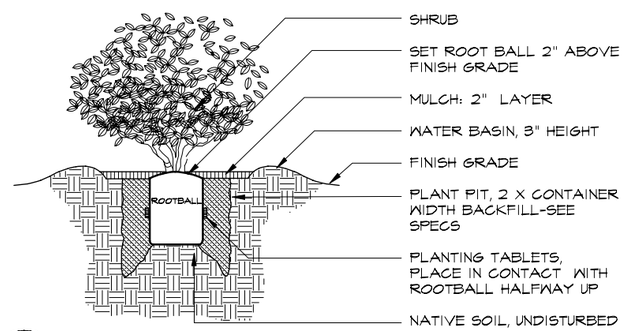
SHEET: L-10



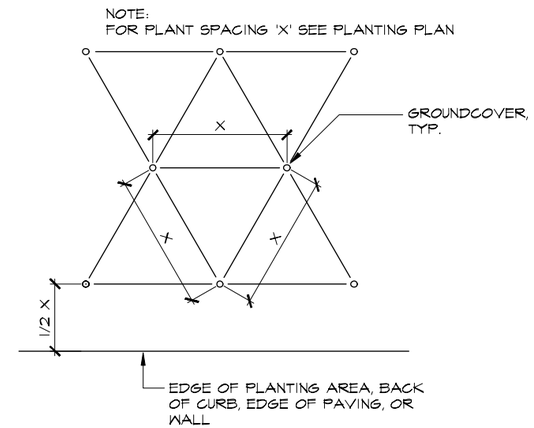
1 / L-11 TREE PLANTING
SECTION



2 / L-11 SHRUB PLANTING
SECTION

N.T.S.

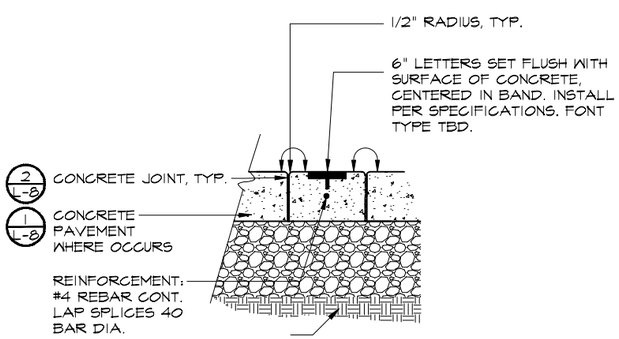
02930 Shrub Planting 48.dwg



3 / L-11 GROUNDCOVER SPACING
PLAN

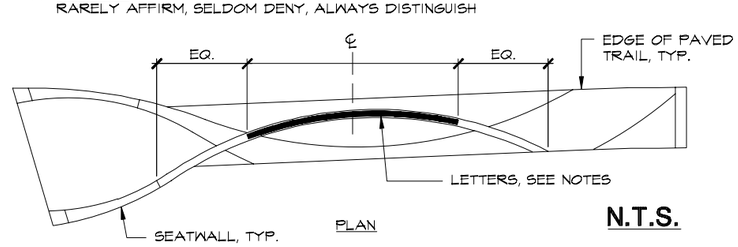
N.T.S.

02930 Groundcover Spacing 48.dwg



SECTION

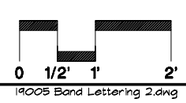
NOTES:
1) VERIFY LETTER FONT WITH ENGINEER PRIOR TO ORDERING
2) LETTERING SHALL READ STARTING AT THE BEGINNING OF THE TRAILHEAD SO THAT IT IS LEGIBLE TO TRAIL USERS ENTERING THE TRAIL
3) BAND LETTERING TEXT:
A. WESTMONT:
THERE IS NOTHING ON THIS EARTH MORE TO BE PRIZED THAN TRUE FRIENDSHIP
B. McCOY:
THE THINGS THAT WE LOVE TELL US WHAT WE ARE
C. HARRIET:
RARELY AFFIRM, SELDOM DENY, ALWAYS DISTINGUISH



PLAN

N.T.S.

4 / L-11 CONCRETE BAND LETTERING, QUOTE
SECTION



19005 Band Lettering 2.dwg

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Designed By: DR

SCALE: AS SHOWN

SHEET: L-11

Appendix B
Arborist Report

ARBORIST REPORT

March 8, 2019
Addendum 1
April 12, 2019
5567.00

PROJECT
San Tomas Aquino Creek Trail: Reach 1&2

PREPARED FOR
Jacobs Engineering Group

PREPARED BY
HMH
1570 Oakland Road
San Jose, CA 95131
William Sowa
ISA Certified Arborist #WE-12270A

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INTRODUCTION AND OVERVIEW

HMH was contracted to complete a survey, assessment and arborist report for trees located within the limit of work illustrated on Exhibit A. The project site encompasses the edge of creek levy for approximately 1.2 miles along San Thomas Aquino Creek. There were 329 trees surveys on both the north and south side of the creek. The first reach started at Westmont Ave and ended at McCoy Avenue. A portion of this reach is in the City of San Jose up to the proposed pedestrian bridge near Silacci Drive. The reminder of the trees are located in the City of Campbell up to McCoy Drive. The second reach was from Harriet Avenue to the first bend of W San Tomas Aquino Road, also located in the City of Campbell. Our scope of services includes locating, measuring DBH, assessing, and photographing the condition of all trees within the limit of work. Disposition and health recommendations are based on current site conditions. Site development/design may affect the preservation suitability.

METHODOLOGY

Our tree survey work is a deliberate and systematic methodology for cataloging trees on site:

1. Identify each tree species.
2. Note each tree's location on a site map.
3. Measure each trunk circumference at 4.5' above grade per ISA standards.
4. Evaluate the health and structure of each tree using the following numerical standard:

   5 *- A healthy, vigorous tree, reasonably free of disease, with good structure and form typical of the species.*

   4 *- A tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.*

   3 *- A tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that may that might be mitigated with care.*

   2 *- A tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.*

   1 *- A tree in severe decline, dieback of scaffold branches and or trunk, mostly epicormic growth; extensive structural defects that cannot be abated.*

   0 - Tree is dead.

SUMMARY OF FINDINGS

HMH conducted a tree inventory of 329 trees located within the limit of work outlined in Exhibit A. 98 of the trees inventoried are classified as protected trees under the City of Campbell Tree Removal permit and ordinance sized trees (numbered 1-82) under City of San Jose's Tree Ordinance.

A protected tree for City of Campbell is:

- Any tree measuring 12-inches in diameter or greater as measured 4-feet above grade.

A ordinance tree for City of San Jose is:

- Single Trunk - 38 inches or more in circumference at 4 ½ feet above ground;
- Multi-trunk - The combined measurements of each trunk circumference, at 4 ½ feet above ground, add up to 38 inches or more

There were a diverse number of trees along the corridor. The Coast Live Oak made up 75% of the trees along the project limits.

Table 1 - Tree Quantity Summary summarizes tree quantities by both species and size. Each species that was inventoried as part of this scope is included. This is a useful tool for analyzing the mixture of trees as part of the project.

Table 2 - Tree Evaluation Summary lists each tree number, botanical name, common name, DBH, circumference, ordinance trees, health rating, preservation suitability, general notes and observations and recommendations.

See Tree Locations Survey Maps
See Table 1 for Tree Quantity Summary
See Table 2 for Tree Evaluation Summary

GENERAL OBSERVATIONS

All the trees located in the creek corridor have been left to naturalize along the edges of the area at the top of the levy. It appears there has been some intermittent maintenance mostly to keep the trees out of the clear area where vehicles travel along the top of bank. This has created poor canopy structure for some of the trees closer to the top of bank and not affected others down the bank closer to the water. Other trees not subject to this maintenance have naturalized along the edge of the levy and have performed with little to no supplemental irrigation or regard for structural issues, over crowding and removal of non-native riparian species. Larger specimens that have had time to develop full mature canopies are performing best and provide the shade, habitat and character for the future trail. This is most apparent in the areas from Westmont Avenue to McCoy Avenue. The area along W San Tomas Aquino Road contains a mix of various species that don't really add much value to the creek environment. However, this is area all concrete channel and does not have any vegetation areas along the creek other than the top of bank. In both areas there are many trees that have grown through and around the chain link fence. The trees have encapsulated the areas and appear to be surviving. Any fence removal and replacement would need additional care or removal of these specimens. There are several Eucalyptus trees in the corridor. Campbell allows for the removal of any eucalyptus with out a tree removal permit per the current tree removal permit form on the city's web site. Depending the scope of improvements between Westmont Avenue to McCoy Avenue many of these trees could remain in their current condition and not adversely effect a trail improvement on levy or top of bank. Without potential right of way improvements some of the trees along W San Tomas Aquino Road would be impacted by a new trail alignment along the south edge of the concrete channel.

As these trees all are currently in a similar condition along the creek edge the observations below are grouped by species. See the Tree Evaluation Summary Table for additional information.

Species: *Quercus agrifolia,* (Coast Live Oak)

Quantity: 262
Observations / Recommendations:
Many of the coast live oak trees have naturalized along the creek corridor. This is the most prominent species of tree and many of them are growing in clusters. This has resulted in tall and leggy growth, crowded canopies and poor branching structure. Most of these are along the north fence line between the proposed bridge crossing and Harriet Ave. Many of the trees that are growing near the chain link have grown into and around the chain link fabric. Many of the trees have encapsulated around the fence and seem to be doing fine. If the fence is removed, then it may cause damage to the tree. It seems that many of these trees will have minimum impacts during construction but case by case there could be some removal if conflicts arise. There are several nice specimens that developed over time that should be protected in place.

Species: *Quercus ilex,* (Holly Oak)

Quantity: 3
Observations / Recommendations:
The Holly oaks are in moderate to good shape. Like many of the other trees growing near the chain link fence one of the trees has grown into and around the fence. The tree has encapsulated around the fence and seem to be doing fine. If the fence is removed, then it may cause damage to the tree.

Species: *Quercus lobata* (Valley Oak)

Quantity: 17
Observations / Recommendations:
Most of the valley oaks are in good shape. Trees 85, 92, 102, 120 are showing signs of decline. Some have been constructed around but appear to be resilient to that activity. These are another good habitat tree along a riparian corridor and measures should be taking to protect the healthy specimens. Some of the trees have the same fence damage as the other oaks mentioned above. Removal of the fence could damage the trees further.

Species: *Platanus racemosa* (Sycamore)

Quantity: 10
Observations / Recommendations:
The Sycamore trees are in good to moderate health and are another valuable species for this corridor. Tree 312 appears to be dead. Tree protection measures for the healthier specimens should be in place and these trees should be retained.

Species: *Eucalyptus sp.* (Eucalyptus)

Quantity: 11
Observations / Recommendations:
There are a number of eucalyptus trees in the riparian corridor. Many of them are in good health and are large specimens that probably originated from near by trees. There are policies in place to allow for the removal of these trees without a tree removal permit. If this a preferred course of action for the project additional inquiry should be conducted with the governing agencies to

confirm. As a non-native tree there less desire to retain these trees. The trees along the school have been cut back long the fence line which has resulted in poor canopy structure.

Species: *Melaleuca stypheliodes* (Paper Bark Melaleuca)

Quantity: 8
Observations / Recommendations:
The melaleuca trees are another non-native tree and are in moderate to poor shape. Many have poor structure, co-dominate branching and area crowded. There is less desire to retain these trees.

Species: *Pistacia lentiscus.* (Evergreen Pistacia)

Quantity: 6
Observations / Recommendations:
The pistacia trees are planted in a row for perhaps the function of creating a screen. The seem out of place with the other plantings in the area and might have been done by an adjacent property owner. They are in moderate shape and suffer from the same issues other trees in this area have. Fence damage, poor structure and crowding. They are a good heat and drought tolerant species.

Species: *Sambucus, Laurus, Aesculus, Heteromeles*

Quantity: 12 total
Observations / Recommendations:
These are small trees and shrubs in the corridors. These are commonly found in and around this plant community and most are in good to moderate shape. The Sambucus is woody and displaying multiple leaders and some are in poor shape. The Sambucus would be candidates for removals if in conflict with the proposed project the others could be protected in place.

Species: *Albizia julibrissen* (Silk Tree)

Quantity: 5
Observations / Recommendations:
The albizia trees are in good to moderate shape. There is damage from the fence and an adjacent gate. Trees 326 and 327 are crowded. These are also non-native and can grow in drought conditions but at a smaller pace then if irrigated. Minimal value as corridor tree.

RECOMMENDATIONS FOR TREE PROTECTION DURING CONSTRUCTION

Site preparation: All existing trees shall be fenced off 10' beyond the outside the drip line (foliar spread) of the tree. Alternatively, where this is not feasible, fence to the drip line of the tree. Where fencing is not possible, the trunk shall be protected straw waddle and orange snow fencing. The fence should be a minimum of six feet high, made of pig wire with steel stakes or any material superior in quality, such as cyclone fencing. Tree protection zone sign shall be affixed to fencing at appropriate intervals as determined by the arborist on site. If the fence is within the drip line of the trees, the foliar fringe shall be raised to offset the chance of limb breakage from construction equipment encroaching within the drip line. All contractors, subcontractors and other personnel shall be warned that encroachment within the fenced area is forbidden without the consent of the certified arborist on the job. This includes, but is not limited to, storage of lumber and other materials, disposal of paints, solvents or other noxious materials, parked cars, grading equipment or other heavy equipment. Penalties, based on the cost of remedial repairs and the evaluation guide published by the international society of arboriculture, shall be assessed for damages to the trees. See tree preservation detail for additional information, including tree protection zone sign.

Grading/excavating: All grading plans that specify grading within the drip line of any tree, or within the distance from the trunk as outlined in the site preparation section above when said distance is outside the drip line, shall first be reviewed by a certified arborist. Provisions for aeration, drainage, pruning, tunneling beneath roots, root pruning or other necessary actions to protect the trees shall be outlined by an arborist. If trenching is necessary within the area as described above, said trenching shall be undertaken by hand labor and dug directly beneath the trunk of the tree. All roots 2 inches or larger shall be tunneled under and other roots shall be cut smoothly to the trunk side of the trench. The trunk side should be draped immediately with two layers of untreated burlap to a depth of 3 feet from the surface. The burlap shall be soaked nightly and left in place until the trench is back filled to the original level. An arborist shall examine the trench prior to back filling to ascertain the number and size of roots cut, so as to suggest the necessary remedial repairs.

Remedial repairs: An arborist shall have the responsibility of observing all ongoing activities that may affect the trees, and prescribing necessary remedial work to ensure the health and stability of the trees. This includes, but is not limited to, all arborist activities brought out in the previous sections. In addition, pruning, as outlined in the "pruning standards" of the western chapter of the International Society of Arboriculture, shall be prescribed as necessary. Fertilizing, aeration, irrigation, pest control and other activities shall be prescribed according to the tree needs, local site requirements, and state agricultural pest control laws. All specifications shall be in writing. For pest control operations, consult the local county agricultural commissioner's office for individuals licensed as pest control advisors or pest control operators.

Final inspection: Upon completion of the project, the arborist shall review all work undertaken that may impact the existing trees. Special attention shall be given to cuts and fills, compacting, drainage, pruning and future remedial work. An arborist should submit a final report in writing outlining the ongoing remedial care following the final inspection.

MAINTENANCE RECOMMENDATIONS FOR TREES TO REMAIN

Regular maintenance, designed to promote plant health and vigor, ensures longevity of existing trees. Regular inspections and the necessary follow-up care of mulching, fertilizing, and pruning, can detect problems and correct them before they become damaging or fatal.

Tree Inspection: Regular inspections of mature trees at least once a year can prevent or reduce the severity of future disease, insect, and environmental problems. During tree inspection, four characteristics of tree vigor should be examined: new leaves or buds, leaf size, twig growth, and absence of crown dieback (gradual death of the upper part of the tree). A reduction in the extension of shoots (new growing parts), such as buds or new leaves, is a fairly reliable cue that the tree's health has recently changed. Growth of the shoots over the past three years may be compared to determine whether there is a reduction in the tree's typical growth pattern. Further signs of poor tree health are trunk decay, crown dieback, or both. These symptoms often indicate problems that began several years before. Loose bark or deformed growths, such as trunk conks (mushrooms), are common signs of stem decay. Any abnormalities found during these inspections, including insect activity and spotted, deformed, discolored, or dead leaves and twigs, should be noted and observed closely.

Mulching: Mulch, or decomposed organic material, placed over the root zone of a tree reduces environmental stress by providing a root environment that is cooler and contains more moisture than the surrounding soil. Mulch can also prevent mechanical damage by keeping machines such as lawn mowers and string trimmers away from the tree's base. Furthermore, mulch reduces competition from surrounding weeds and turf. To be most effective, mulch should be placed 2 to 4 inches deep and cover the entire root system, which may be as far as 2 or 3 times the diameter of the branch spread of the tree. If the area and activities happening around the tree do not permit the entire area to be mulched, it is recommended that as much of the area under the drip line of the tree is mulched as possible. When placing mulch, care should be taken not to cover the actual trunk of the tree. This mulch-free area, 1 to 2 inches wide at the base, is sufficient to avoid moist bark conditions and prevent trunk decay. An organic mulch layer 2 to 4 inches deep of loosely packed shredded leaves, pine straw, peat moss, or composted wood chips is adequate. Plastic should not be used as it interferes with the exchange of gases between soil and air, which inhibits root growth. Thicker mulch layers, 5 to 6 inches deep or greater, may also inhibit gas exchange.

Fertilization: Trees require certain nutrients (essential elements) to function and grow. Urban landscape trees may be growing in soils that do not contain sufficient available nutrients for satisfactory growth and development. In certain situations, it may be necessary to fertilize to improve plant vigor. Fertilizing a tree can improve growth; however, if fertilizer is not applied wisely, it may not benefit the tree at all and may even adversely affect the tree. Mature trees making satisfactory growth may not require fertilization. When considering supplemental fertilizer, it is important to consider nutrients deficiencies and how and when to amend the deficiencies. Soil conditions, especially pH and organic matter content, vary greatly, making the proper selection and use of fertilizer a somewhat complex process. To that end, it is recommended that the soil be tested for nutrient content. A soil testing laboratory and can give advice on application rates, timing, and the best blend of fertilizer for each tree and other landscape plants on site. Mature trees have expansive root systems that extend from 2 to 3 times the size of the leaf canopy. A major portion of actively growing roots is located outside the tree's drip line. Understanding the actual size and extent of a tree's root system before applying fertilizer is paramount to determine quantity, type and rate at which to best apply fertilizer. Always follow manufacturer recommendations for use and application.

Pruning: Pruning is often desirable or necessary to remove dead, diseased, or insect-infested branches and to improve tree structure, enhance vigor, or maintain safety. Because each cut has the potential to change the growth of (or cause damage to) a tree, no branch should be removed without reason. Removing foliage from a tree has two distinct effects on growth: (1) it reduces photosynthesis and, (2) it may reduce overall growth. Pruning should always be performed sparingly. Caution must be taken not to over-prune as a tree may not be able to gather and process enough sunlight to survive. Pruning mature trees may require special equipment, training, and experience. Arborists are equipped to provide a variety of services to assist in performing the job safely and reducing risk of personal injury and property damage *(See also Addendum A - ANSI A300 Part 1 Pruning Standards).*

Removal: There are circumstances when removal is necessary. An arborist can help decide whether or not a tree should be removed. Professionally trained arborists have the skills and equipment to safely and efficiently remove trees. Removal is recommended when a tree: (1) is dead, dying, or considered irreparably hazardous; (2) is causing an obstruction or is crowding and causing harm to other trees and the situation is impossible to correct through pruning; (3) is to be replaced by a more suitable specimen, and; (4) should be removed to allow for construction. Pruning or removing trees, especially large trees, can be dangerous work. It should be performed only by those trained and equipped to work safely in trees.

TERMS AND CONDITIONS

The following terms and conditions apply to all oral and written reports and correspondence pertaining to consultations, inspections and activities of HMH.

1. The scope of any report or other correspondence is limited to the trees and conditions specifically mentioned in those reports and correspondence. HMH assumes no liability for the failure of trees or parts of trees, either inspected or otherwise. HMH assumes no responsibility to report on the condition of any tree or landscape feature not specifically requested by the named client.
2. No tree described in this report was climbed, unless otherwise stated. HMH does not take responsibility for any defects, which could have only been discovered by climbing. A full root collar inspection, consisting of excavating the soil around the tree to uncover the root collar and major buttress roots was not performed unless otherwise stated. HMH does not take responsibility for any root defects, which could only have been discovered by such an inspection.
3. HMH shall not be required to provide further documentation, give testimony, be deposed, or attend court by reason of this appraisal or report unless subsequent contractual arrangements are made, including payment of additional fees for such services as described by HMH or in the schedule of fees or contract.
4. HMH guarantees no warrantee, either expressed or implied, as to the suitability of the information contained in the reports for any reason. It is the responsibility of the client to determine applicability to his/her case.
5. Any report and the values, observations and recommendations expressed therein represent the professional opinion of HMH, and the fee for services is in no manner contingent upon the reporting of a specified value nor upon any particular finding to be reported.
6. Any photographs, diagrams, graphs, sketches or other graphic material included in any report, being intended solely as visual aids, are not necessarily to scale and should not be construed as engineering reports or surveys, unless otherwise noted in the report. Any reproductions of graphic material or the work produced by other persons, is intended solely for clarification and ease of reference. Inclusion of said information does not constitute a representation by HMH as to the sufficiency or accuracy of that information.
7. Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.

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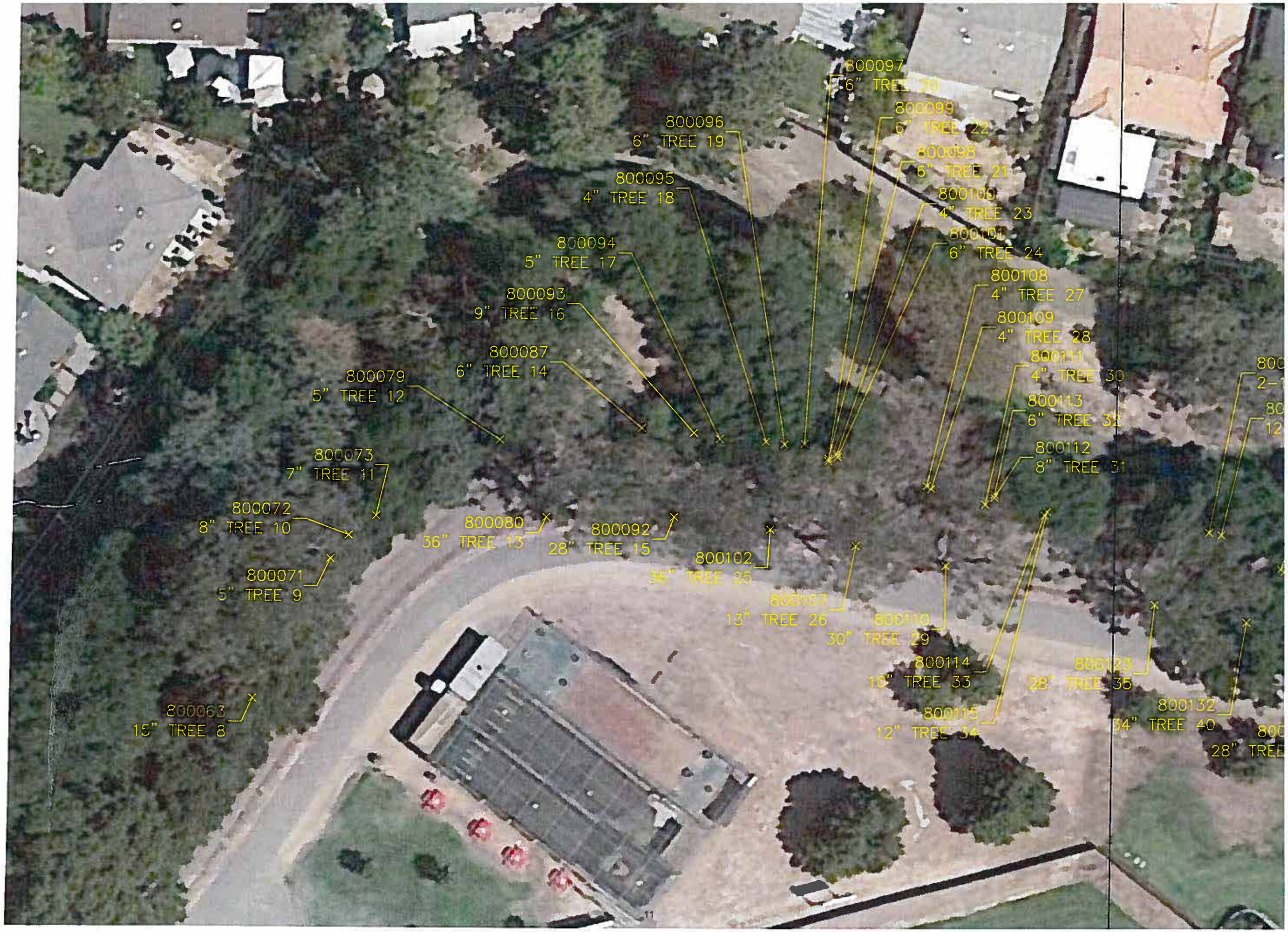
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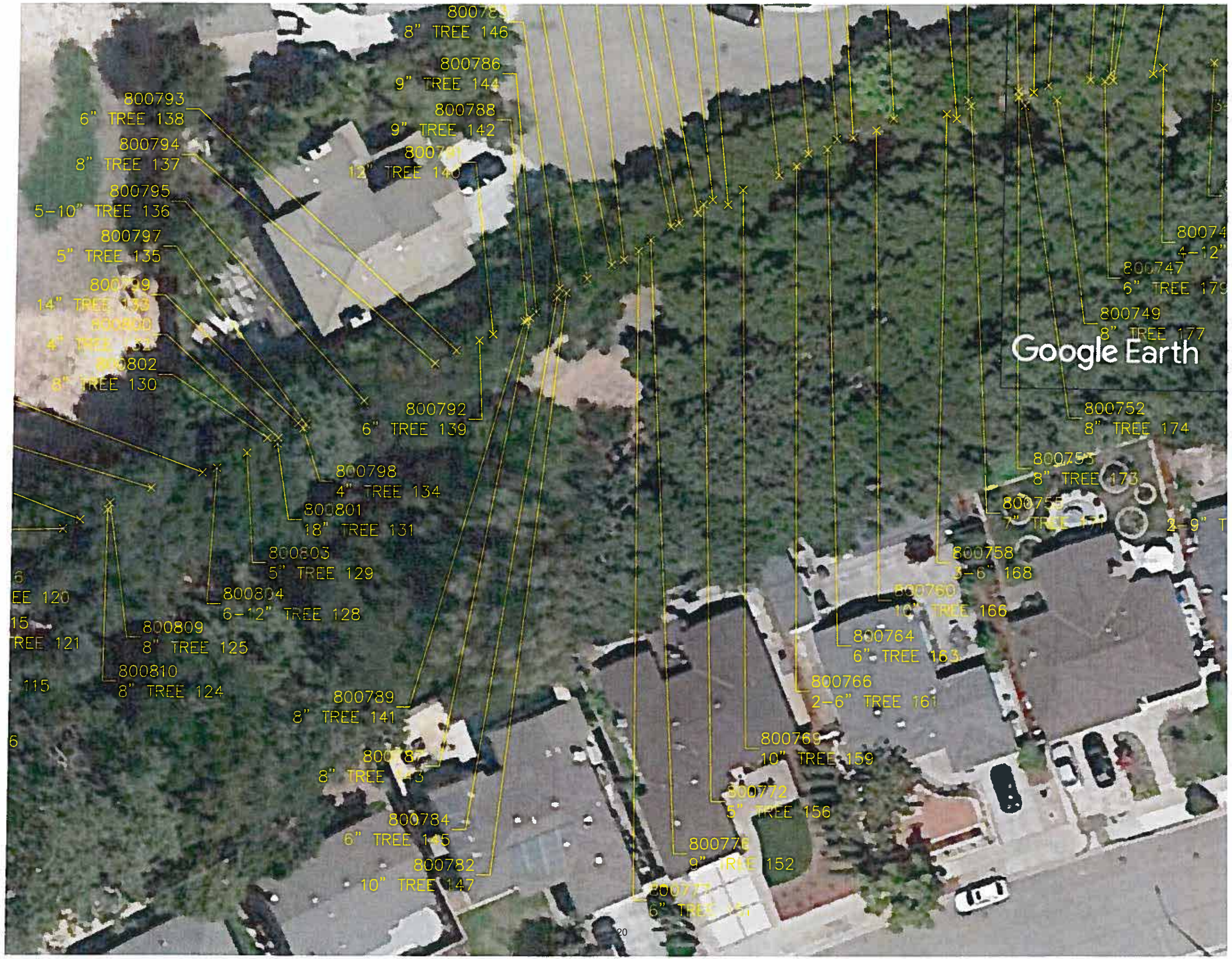
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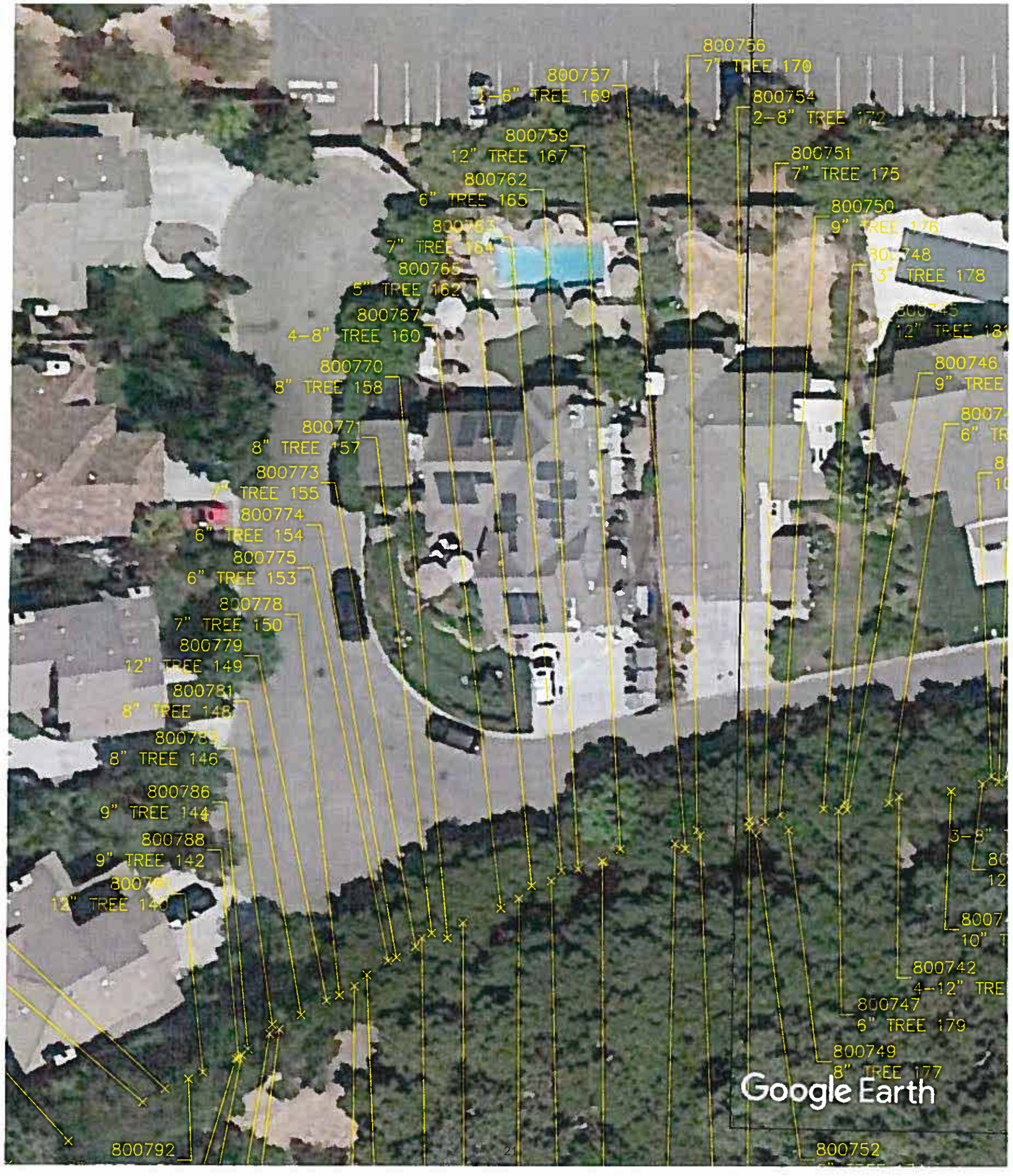
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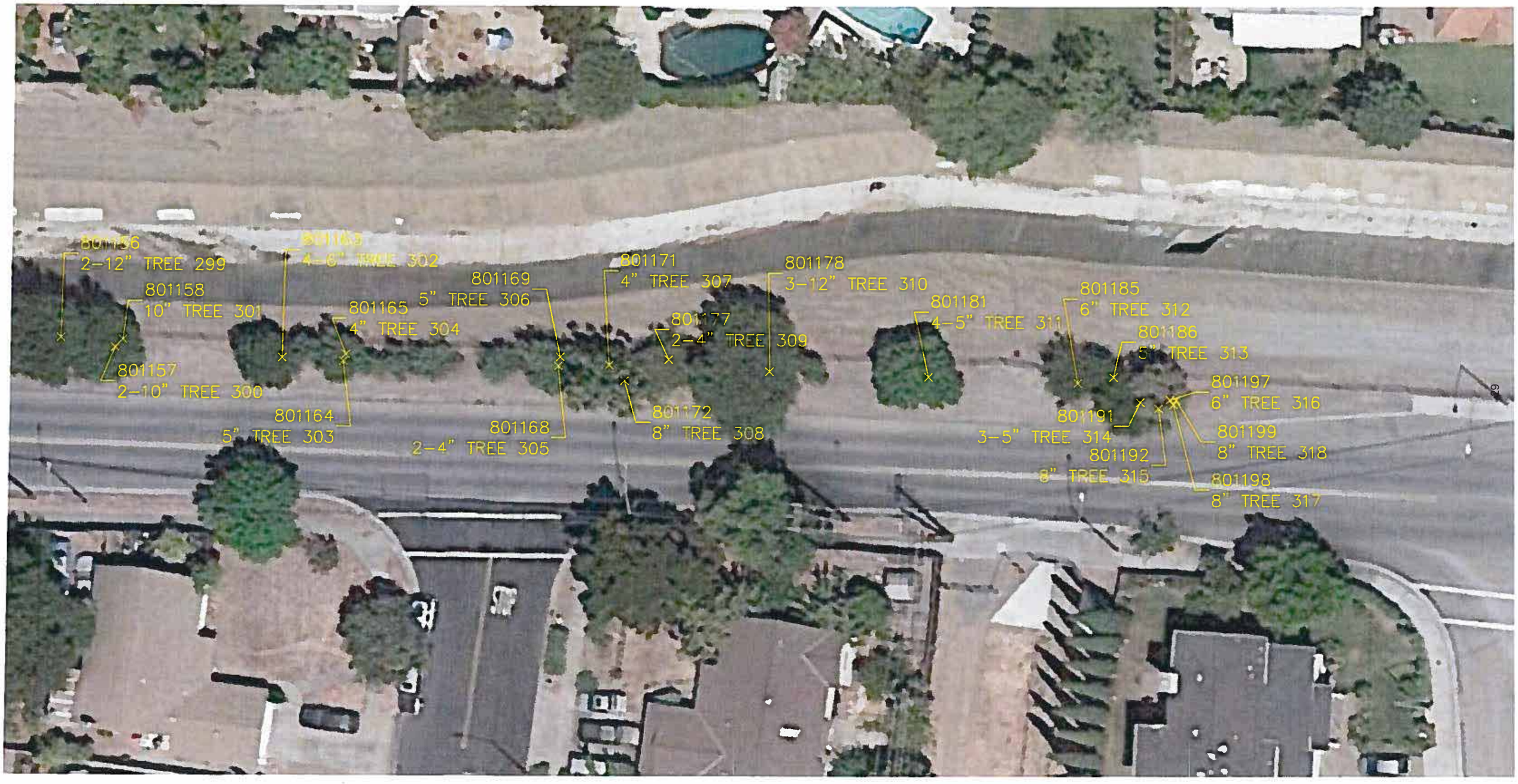
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TABLE 1 - TREE QUANTITY SUMMARY

Tree Quantity by Species		
Species	**Quantity**	**% of Site**
Acacia dealbata	3	1%
Aesculus californica	1	<1%
Albizia julibrissin	5	1%
Eucalyptus spp.	11	3%
Heteromeles abutifolia	2	1%
Juglans nigra	8	2%
Laurus nobilus	2	1%
Melaleuca styphelioides	8	2%
Pistacia lentiscus	6	2%
Platanus racemosa	10	3%
Quercus agrifolia	262	76%
Quercus ilex	3	1%
Quercus lobata	17	5%
Sambucus mexicana	5	1%
Sambucus nigra	2	1%
Total Trees	**345**	**100%**

TREE EVALUATION SUMMARY

Prepared By: William Sowa - ISA Certified Arborist #WE-12270A

DBH MEASUREMENT HEIGHT: City of Campbell 48" - City of San Jose - 54"

Date of Evaluation:

Suitability for Preservation is based on the following

Good - Trees with good health and structural stability that have the potential for longevity at the site.
Moderate - Trees in somewhat declining health and/or exhibits structural defects that cannot be abated with treatment. Trees will require more intense management.
Poor - Trees in poor health or with significant structural defects that cannot be mitigated. Tree is expected to decline, regardless of treatment.

Health Rating

5	A healthy, vigorous tree, reasonably free of disease, with good structure and form typical of the species.
4	A tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.
3	A tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that may that might be mitigated with care.
2	A tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
1	A tree in severe decline, dieback of scaffold branches and or trunk, mostly epicormic growth; extensive structural defects that cannot be abated.
0	Tree is dead.

Abbreviations and Definitions

CD	Codominant branches	Forked branches nearly the same size in diameter, arising from a common junction an lacking a normal branch union.
CDB	Dieback in Crown	Condition where branches in the tree crown die from the tips toward the center.
CR	CR	Tree is bounded closely by one or more of the following: structure, tree,
D	Decline	Tree shows obvious signs of decline, which may be indicative of the presence of multiple biotic and abiotic disorders.
DBH	Diameter at Breast Height	Measurement of tree diameter in inches. Measurement height varies by City and is noted above.
EG	Epicormic Growth	Watersprouting on trunk and main leaders. Typically indicative of tree stress.
EH	Exposed Heartwood	Exposure of the tree's heartwood is typically seen as an open wound that leaves a tree more susceptible to pathogens, disease or infection.
H	Hazardous	A tree that in it's current condition, presents a hazard.
HD	Headed	Poor pruning practice of cutting back branches. Often practiced under utility lines to limit tree height.
IB	Included Bark	Structural defect where bark is included between the branch attachment so the wood can't join. Such defect can have a higher probability of failure.
LC	Low crotch	Multiple central leaders originating below the DBH measurement site.
LN	Leaning Tree	Tree leaning, see notes for severity.
ML	Multiple Leaders	More than one upright primary stem
PT	Phototropism	Tree exhibits phototropic growth habits. Reduced trunk taper, misshapen trunk and canopy growth are examples of this growth habit.
S	Suckers	Shoot arising from the roots.
SD	Structural Defects	Naturally or secondary conditions including cavities, poor branch attachments, cracks, or decayed wood in any part of the tree that may contribute to structural failure.
SE	Severe	Indicates the severity of the following term.
SL	Slight	Indicates the mildness of the following term.
SR	Surface Roots	Roots visible at finished grade.
ST	Stress	Environmental factor inhibiting regular tree growth. Includes drought, salty soils, nitrogen and other nutrient deficiencies in the soil.
WU	Weak Union	Weak union or fork in tree branching structure.

TREE #	BOTANICAL NAME	COMMON NAME	DBH	CIRCUMFERENCE	ORDINANCE / PROTECTED TREE	HEALTH	PRESERVATION SUITABILITY	NOTES
1	*Platanus Racemosa*	Western Sycamore	32.0	100	Y	3	Moderate	SD, CDB
2	*Quercus Agrifolia*	Coast Live Oak	9.0	28		4	Good	CD
3	*Quercus Agrifolia*	Coast Live Oak	9.0	28		4	Good	CD
4	*Platanus Racemosa*	Western Sycamore	24.0	75	Y	3	Moderate	EH, LN, CDB, CD
5	*Quercus Agrifolia*	Coast Live Oak	8.0	25		3	Poor	CR
6	*Platanus Racemosa*	Western Sycamore	18.0	57	Y	3	Moderate	CDB, SD
7	*Platanus Racemosa*	Western Sycamore	4.0	13		3	Moderate	SD
8	*Quercus Agrifolia*	Coast Live Oak	15.0	47	Y	3	Moderate	SD, CDB, IB
9	*Quercus Agrifolia*	Coast Live Oak	5.0	16		3	Moderate	
10	*Quercus Agrifolia*	Coast Live Oak	8.0	25		3	Moderate	
11	*Quercus Agrifolia*	Coast Live Oak	7.0	22		3	Moderate	
12	*Sambucus Nigra*	Elderberry	5.0	16		2	Poor	ML
13	*Eucalyptus Globulus*	Blue Gum	36.0	113	Y	4	Good	SD
14	*Quercus Lobata*	Valley Oak	6.0	19		3	Good	SD
15	*Eucalyptus Globulus*	Blue Gum	28.0	88	Y	3	Moderate	SD, CDB
16	*Quercus Agrifolia*	Coast Live Oak	9.0	28		3	Moderate	SD
17	*Quercus Agrifolia*	Coast Live Oak	5.0	16		3	Moderate	SD
18	*Quercus Agrifolia*	Coast Live Oak	4.0	13		2	Poor	SD, CDB, CR

TREE #	BOTANICAL NAME	COMMON NAME	DBH	CIRCUMFERENCE	ORDINANCE / PROTECTED TREE	HEALTH	PRESERVATION SUITABILITY	NOTES
19	*Quercus Agrifolia*	Coast Live Oak	6.0	19		3	Moderate	SD
20	*Quercus Agrifolia*	Coast Live Oak	6.0	19		2	Poor	CR, SD, CDB
21	*Quercus Agrifolia*	Coast Live Oak	6.0	19		3	Poor	SD
22	*Quercus Agrifolia*	Coast Live Oak	6.0	19		3	Poor	SD
23	*Quercus Agrifolia*	Coast Live Oak	4.0	13		2	Poor	SD, CR
24	*Quercus Agrifolia*	Coast Live Oak	6.0	19		2	Poor	CR, SD
25	*Eucalyptus Globulus*	Blue Gum	36.0	113	Y	4	Good	SD
26	*Eucalyptus Globulus*	Blue Gum	13.0	41		2	Poor	SD, CDB, IB
27	*Quercus Agrifolia*	Coast Live Oak	4.0	13		2	Poor	CR, SD
28	*Aesculus Californica*	California Buckeye	4.0	13		3	Moderate	CDB
29	*Eucalyptus Globulus*	Blue Gum	30.0	94	Y	2	Poor	SD, EH
30	*Laurus Nobilus*	Bay Laurel	4.0	13		3	Moderate	SD, CD
31	*Quercus Agrifolia*	Coast Live Oak	8.0	25		3	Moderate	SD, CD
32	*Quercus Agrifolia*	Coast Live Oak	6.0	19		3	Moderate	SD, CD
33	*Quercus Agrifolia*	Coast Live Oak	10.0	31		3	Moderate	CD, EH
34	*Quercus Agrifolia*	Coast Live Oak	12.0	38	Y	3	Moderate	CD, EH
35	*Eucalyptus Globulus*	Blue Gum	28.0	88	Y	3	Moderate	CD, SD, CDB
36	*Quercus Agrifolia*	Coast Live Oak	12.0	38	Y	3	Poor	LN, CD

TREE #	BOTANICAL NAME	COMMON NAME	DBH	CIRCUMFERENCE	ORDINANCE / PROTECTED TREE	HEALTH	PRESERVATION SUITABILITY	NOTES
37	*Quercus Agrifolia*	Coast Live Oak	12.0	38	Y	3	Good	SD
38	*Quercus Agrifolia*	Coast Live Oak	6.0	19		3	Moderate	CD, SD, CR
39	*Quercus Agrifolia*	Coast Live Oak	4.0	13		2	Poor	CD, SD, CR
40	*Quercus Agrifolia*	Coast Live Oak	34.0	107	Y	3	Good	SD, CD, WU
41	*Quercus Agrifolia*	Coast Live Oak	8.0	25		3	Good	CR
42	*Quercus Agrifolia*	Coast Live Oak	28.0	88	Y	4	Good	SD, CD, WU
43	*Quercus Agrifolia*	Coast Live Oak	22.0	69	Y	4	Good	SD
44	*Quercus Agrifolia*	Coast Live Oak	16.0	50	Y	4	Good	SD
45	*Quercus Agrifolia*	Coast Live Oak	24.0	75	Y	4	Good	WU, SD
46	*Eucalyptus Globulus*	Blue Gum	46.0	144	Y	3	Good	SD, CDB
47	*Quercus Agrifolia*	Coast Live Oak	6.0	19		3	Moderate	SD, CR
48	*Quercus Agrifolia*	Coast Live Oak	8.0	25		3	Poor	LN, SD, CDB
49	*Quercus Agrifolia*	Coast Live Oak	28.0	88	Y	4	Good	LN
50	*Quercus Agrifolia*	Coast Live Oak	12.0	38	Y	4	Good	SD, WU
51	*Quercus Agrifolia*	Coast Live Oak	8.0	25		4	Good	WU
52	*Quercus Agrifolia*	Coast Live Oak	8.0	25		4	Good	WU
53	*Quercus Agrifolia*	Coast Live Oak	4.0	13		3	Poor	SD, LN
54	*Quercus Agrifolia*	Coast Live Oak	10.0	31		4	Good	

TREE #	BOTANICAL NAME	COMMON NAME	DBH	CIRCUMFERENCE	ORDINANCE / PROTECTED TREE	HEALTH	PRESERVATION SUITABILITY	NOTES
55	*Quercus Agrifolia*	Coast Live Oak	7.0	22		3	Moderate	CR
56	*Sambucus Mexicana*	Elderberry	6.0	19		3	Moderate	CDB, ML, CD
57	*Quercus Agrifolia*	Coast Live Oak	16.0	50	Y	3	Moderate	LN,SD, CR
58	*Quercus Agrifolia*	Coast Live Oak	16.0	50	Y	4	Good	SD
59	*Quercus Agrifolia*	Coast Live Oak	12.0	38	Y	3	Moderate	CR
60	*Quercus Agrifolia*	Coast Live Oak	14.0	44	Y	3	Moderate	CR, SD
61	*Quercus Agrifolia*	Coast Live Oak	7.0	22		2	Poor	LN, CD, EH, SD
62	*Quercus Agrifolia*	Coast Live Oak	8.0	25		3	Moderate	CR, SD
63	*Quercus Agrifolia*	Coast Live Oak	14.0	44	Y	3	Good	WU, SD CD
64	*Sambucus Mexicana*	Elderberry	10.0	31		2	Poor	CDB, SD
65	*Sambucus Mexicana*	Elderberry	4.0	13		2	Poor	CDB, SD
66	*Sambucus Mexicana*	Elderberry	4.0	13		3	Poor	CDB, SD
67	*Sambucus Mexicana*	Elderberry	5.0	16		2	Poor	CDB, SD
68	*Quercus Agrifolia*	Coast Live Oak	4.0	13		2	Poor	CR
69	*Quercus Agrifolia*	Coast Live Oak	6.0	19		4	Moderate	
70	*Quercus Agrifolia*	Coast Live Oak	6.0	19		4	Moderate	
71	*Quercus Agrifolia*	Coast Live Oak	6.0	19		4	Moderate	
72	*Quercus Agrifolia*	Coast Live Oak	4.0	13		2	Poor	CR

TREE #	BOTANICAL NAME	COMMON NAME	DBH	CIRCUMFERENCE	ORDINANCE / PROTECTED TREE	HEALTH	PRESERVATION SUITABILITY	NOTES
73	*Quercus Agrifolia*	Coast Live Oak	10.0	31		2	Moderate	CDB, SD, CD
74	*Quercus Agrifolia*	Coast Live Oak	10.0	31		2	Moderate	CDB, SD, CD
75	*Quercus Lobata*	Valley Oak	38.0	119	Y	4	Good	CD, CDB
76	*Quercus Agrifolia*	Coast Live Oak	12.0	38	Y	4	Good	CR, LN, SD
77	*Quercus Agrifolia*	Coast Live Oak	10.0	31		3	Moderate	LN, SD
78	*Quercus Agrifolia*	Coast Live Oak	6.0	19		4	Good	LN, SD, CR
79	*Quercus Agrifolia*	Coast Live Oak	7.0	22		4	Good	LN, CR, SD
80	*Quercus Agrifolia*	Coast Live Oak	8.0	25		4	Good	SD
81	*Quercus Agrifolia*	Coast Live Oak	22.0	69	Y	3	Moderate	SD, CR, IB
82	*Quercus Agrifolia*	Coast Live Oak	30.0	94	Y	4	Good	
83	*Quercus Agrifolia*	Coast Live Oak	4.0	13		3	Moderate	crowded by 84
84	*Quercus lobata*	Valley Oak	30.0	94	Y	5	Good	
85	*Juglans nigra*	Black Walnut	26.0	82	Y	1	Poor	EH,CDB, advanced age
86	*Quercus Lobata*	Valley Oak	7.0	22		4	Good	
87	*Heteromeles Abutifolia*	Toyon	4.0	13		3	Moderate	ML
88	*Quercus Lobata*	Valley Oak	10.0	31		4	Good	
89	*Quercus Agrifolia*	Coast Live Oak	5.0	16		2	Poor	CR, growing into fence
90	*Heteromeles Abutifolia*	Toyon	5.0	16		2	Poor	CDB, growing into fence

TREE #	BOTANICAL NAME	COMMON NAME	DBH	CIRCUMFERENCE	ORDINANCE / PROTECTED TREE	HEALTH	PRESERVATION SUITABILITY	NOTES
91	*Quercus Agrifolia*	Coast Live Oak	15.0	47	Y	2	Moderate	growing into fence
92	*Quercus Agrifolia*	Coast Live Oak	12.0	38	Y	2	Moderate	growing into fence
93	*Quercus Agrifolia*	Coast Live Oak	16.0	50	Y	3	Moderate	
94	*Quercus Agrifolia*	Coast Live Oak	24.0	75	Y	4	Good	
95	*Quercus Lobata*	Valley Oak	7.0	22		2	Poor	CDB, severe crowding
96	*Quercus Agrifolia*	Coast Live Oak	15.0	47	Y	3	Moderate	CR
97	*Quercus Agrifolia*	Coast Live Oak	6.0	19		3	Moderate	CR
98	*Quercus Agrifolia*	Coast Live Oak	6.0	19		3	Moderate	CR
99	*Quercus Agrifolia*	Coast Live Oak	5.0	16		2	Poor	CR
100	*Quercus Agrifolia*	Coast Live Oak	4.0	13		2	Poor	CR, SD, CDB
101	*Quercus Agrifolia*	Coast Live Oak	6.0	19		3	Poor	CR,SD, CDB
102	*Quercus Lobata*	Valley Oak	5.0	16		2	Poor	CR
103	*Quercus Agrifolia*	Coast Live Oak	18.0	57	Y	4	Good	
104	*Quercus Agrifolia*	Coast Live Oak	16.0	50	Y	4	Good	same as 103
105	*Quercus Agrifolia*	Coast Live Oak	7.0	22		3	Poor	CR
106	*Quercus Agrifolia*	Coast Live Oak	12.0	38	Y	2	Poor	SD, growing into fence
107	*Quercus Agrifolia*	Coast Live Oak	12.0	38	Y	2	Poor	SD, growing into fence
108	*Quercus Agrifolia*	Coast Live Oak	9.0	28		4	Moderate	

TREE #	BOTANICAL NAME	COMMON NAME	DBH	CIRCUMFERENCE	ORDINANCE / PROTECTED TREE	HEALTH	PRESERVATION SUITABILITY	NOTES
109	*Quercus Agrifolia*	Coast Live Oak	12.0	38	Y	3	Moderate	
110	*Quercus Agrifolia*	Coast Live Oak	8.0	25		2	Poor	SD, CDB, CR
111	*Quercus Agrifolia*	Coast Live Oak	12.0	38	Y	4	Moderate	
112	*Quercus Agrifolia*	Coast Live Oak	12.0	38	Y	3	Moderate	SD, CDB
113	*Quercus Agrifolia*	Coast Live Oak	14.0	44	Y	4	Good	
114	*Quercus Agrifolia*	Coast Live Oak	28.0	88	Y	4	Good	
115	*Quercus Agrifolia*	Coast Live Oak	12.0	38	Y	3	Moderate	CR, growing into fence
116	*Quercus Agrifolia*	Coast Live Oak	14.0	44	Y	4	Good	
117	*Quercus Agrifolia*	Coast Live Oak	7.0	22		3	Moderate	crowded by 116
118	*Quercus Agrifolia*	Coast Live Oak	10.0	31		3	Good	CR
119	*Quercus Agrifolia*	Coast Live Oak	6.0	19		3	Moderate	CR
120	*Quercus Lobata*	Valley Oak	7.0	22		2	Poor	CR, growing into fence
121	*Quercus Agrifolia*	Coast Live Oak	12.0	38	Y	4	Good	
122	*Quercus Agrifolia*	Coast Live Oak	40.0	126	Y	5	Good	
123	*Quercus Agrifolia*	Coast Live Oak	7.0	22		2	Poor	crowded by 122
124	*Quercus Agrifolia*	Coast Live Oak	8.0	25		3	Poor	crowded by 122
125	*Quercus Agrifolia*	Coast Live Oak	8.0	25		2	Poor	crowded by 122, fence damage
126	*Quercus Agrifolia*	Coast Live Oak	20.0	63	Y	3	Moderate	

TREE #	BOTANICAL NAME	COMMON NAME	DBH	CIRCUMFERENCE	ORDINANCE / PROTECTED TREE	HEALTH	PRESERVATION SUITABILITY	NOTES
127	*Quercus Agrifolia*	Coast Live Oak	4.0	13		2	Poor	CR
128	*Quercus Agrifolia*	Coast Live Oak	12.0	38	Y	4	Good	
129	*Quercus Agrifolia*	Coast Live Oak	5.0	16		2	Poor	CDB
130	*Quercus Agrifolia*	Coast Live Oak	8.00	25.12		3	Moderate	
131	*Platanus Racemosa*	Western Sycamore	18.00	56.52	Y	3	Moderate	
132	*Platanus Racemosa*	Western Sycamore	4.00	12.56		0	Poor	dead
133	*Quercus Agrifolia*	Coast Live Oak	14.00	43.96	Y	3	Moderate	fence damage
134	*Quercus Agrifolia*	Coast Live Oak	4.00	12.56		3	Moderate	CR
135	*Quercus Agrifolia*	Coast Live Oak	5.00	15.70		3	Moderate	CR
136	*Quercus Agrifolia*	Coast Live Oak	10.00	31.40		4	Good	
137	*Quercus Agrifolia*	Coast Live Oak	8.00	25.12		3	Good	CDB
138	*Quercus Agrifolia*	Coast Live Oak	6.00	18.84		3	Moderate	
139	*Quercus Agrifolia*	Coast Live Oak	6.00	18.84		3	Moderate	CR
140	*Quercus Agrifolia*	Coast Live Oak	12.00	37.68	Y	3	Moderate	
141	*Quercus Agrifolia*	Coast Live Oak	8.00	25.12		3	Moderate	SD, CDB
142	*Quercus Agrifolia*	Coast Live Oak	9.00	28.26		2	Moderate	SD, CDB
143	*Quercus Agrifolia*	Coast Live Oak	8.00	25.12		2	Moderate	CR
144	*Quercus Agrifolia*	Coast Live Oak	9.00	28.26		3	Moderate	CR

TREE #	BOTANICAL NAME	COMMON NAME	DBH	CIRCUMFERENCE	ORDINANCE / PROTECTED TREE	HEALTH	PRESERVATION SUITABILITY	NOTES
145	*Quercus Agrifolia*	Coast Live Oak	6.00	18.84		3	Moderate	fence damage
146	*Quercus Agrifolia*	Coast Live Oak	8.00	25.12		4	Moderate	
147	*Quercus Agrifolia*	Coast Live Oak	10.00	31.40		3	Moderate	
148	*Quercus Agrifolia*	Coast Live Oak	8.00	25.12		3	Moderate	CR
149	*Quercus Agrifolia*	Coast Live Oak	12.00	37.68	Y	4	Good	
150	*Quercus Agrifolia*	Coast Live Oak	7.00	21.98		4	Moderate	CR,SD
151	*Quercus Agrifolia*	Coast Live Oak	6.00	18.84		3	Moderate	CR
152	*Quercus Agrifolia*	Coast Live Oak	9.00	28.26		3	Moderate	CR
153	*Quercus Agrifolia*	Coast Live Oak	6.00	18.84		3	Moderate	
154	*Quercus Agrifolia*	Coast Live Oak	6.00	18.84		3	Moderate	CR
155	*Quercus Agrifolia*	Coast Live Oak	7.00	21.98		3	Moderate	CR
156	*Quercus Agrifolia*	Coast Live Oak	5.00	15.70		2	Poor	CR, fence damage
157	*Quercus Agrifolia*	Coast Live Oak	8.00	25.12		3	Moderate	
158	*Quercus Agrifolia*	Coast Live Oak	8.00	25.12		3	Moderate	
159	*Quercus Agrifolia*	Coast Live Oak	10.00	31.40		3	Moderate	
160	*Quercus Agrifolia*	Coast Live Oak	8.00	25.12		4	Good	
161	*Quercus Agrifolia*	Coast Live Oak	6.00	18.84		3	Moderate	crowded by 160
162	*Quercus Agrifolia*	Coast Live Oak	5.00	15.70		3	Moderate	crowded by 160

TREE #	BOTANICAL NAME	COMMON NAME	DBH	CIRCUMFERENCE	ORDINANCE / PROTECTED TREE	HEALTH	PRESERVATION SUITABILITY	NOTES
163	*Quercus Agrifolia*	Coast Live Oak	6.00	18.84		1	Poor	CDB, fungal infection
164	*Quercus Agrifolia*	Coast Live Oak	7.00	21.98		2	Poor	CDB
165	*Quercus Agrifolia*	Coast Live Oak	6.00	18.84		3	Moderate	SD
166	*Quercus Agrifolia*	Coast Live Oak	10.00	31.40		2	Moderate	CDB, SD
167	*Quercus Agrifolia*	Coast Live Oak	12.00	37.68	Y	3	Moderate	fence damage
168	*Quercus Agrifolia*	Coast Live Oak	6.00	18.84		3	Moderate	CDB
169	*Quercus Agrifolia*	Coast Live Oak	6.00	18.84		4	Moderate	SD
170	*Quercus Agrifolia*	Coast Live Oak	7.00	21.98		3	Moderate	LN
171	*Quercus Agrifolia*	Coast Live Oak	7.00	21.98		3	Moderate	CR
172	*Quercus Agrifolia*	Coast Live Oak	8.00	25.12		3	Moderate	fence damage
173	*Quercus Agrifolia*	Coast Live Oak	8.00	25.12		3	Moderate	
174	*Quercus Agrifolia*	Coast Live Oak	8.00	25.12		3	Moderate	
175	*Quercus Agrifolia*	Coast Live Oak	7.00	21.98		3	Poor	
176	*Quercus Agrifolia*	Coast Live Oak	9.00	28.26		3	Poor	fence damage
177	*Juglans nigra*	Black Walnut	8.00	25.12		3	Poor	
178	*Quercus Agrifolia*	Coast Live Oak	13.00	40.82		3	Moderate	
179	*Quercus Agrifolia*	Coast Live Oak	6.00	18.84		3	Moderate	crowded by 150
180	*Quercus Agrifolia*	Coast Live Oak	9.00	28.26		3	Moderate	

TREE #	BOTANICAL NAME	COMMON NAME	DBH	CIRCUMFERENCE	ORDINANCE / PROTECTED TREE	HEALTH	PRESERVATION SUITABILITY	NOTES
181	*Quercus Agrifolia*	Coast Live Oak	12.0	38	Y	3	Moderate	
182	*Quercus Agrifolia*	Coast Live Oak	6.0	19		3	Moderate	crowded by 183
183	*Quercus Agrifolia*	Coast Live Oak	12.0	38	Y	3	Good	fence damage
184	*Quercus Agrifolia*	Coast Live Oak	10.0	31		3	Moderate	
185	*Quercus Agrifolia*	Coast Live Oak	12.0	38	Y	3	Good	
186	*Quercus Agrifolia*	Coast Live Oak	10.0	31		3	Moderate	
187	*Quercus Agrifolia*	Coast Live Oak	8.0	25		3	Moderate	
188	*Quercus Agrifolia*	Coast Live Oak	10.0	31		3	Good	
189	*Quercus Agrifolia*	Coast Live Oak	8.0	25		2	Poor	LN, fence damage
190	*Quercus Agrifolia*	Coast Live Oak	15.0	47	Y	3	Good	
191	*Quercus Agrifolia*	Coast Live Oak	8.0	25		3	Good	
192	*Quercus Agrifolia*	Coast Live Oak	9.0	28		3	Good	
193	*Quercus Agrifolia*	Coast Live Oak	5.0	16		3	Poor	CR
194	*Quercus Agrifolia*	Coast Live Oak	5.0	16		3	Poor	CR
195	*Quercus Agrifolia*	Coast Live Oak	12.0	38	Y	3	Good	
196	*Quercus Agrifolia*	Coast Live Oak	8.0	25		3	Poor	fence damage
197	*Quercus Agrifolia*	Coast Live Oak	14.0	44	Y	3	Good	
198	*Quercus Agrifolia*	Coast Live Oak	8.0	25		3	Moderate	CR

TREE #	BOTANICAL NAME	COMMON NAME	DBH	CIRCUMFERENCE	ORDINANCE / PROTECTED TREE	HEALTH	PRESERVATION SUITABILITY	NOTES
199	*Quercus Agrifolia*	Coast Live Oak	8.0	25		3	Moderate	LN, SD, CR
200	*Quercus Agrifolia*	Coast Live Oak	10.0	31		2	Poor	CDB
201	*Quercus Agrifolia*	Coast Live Oak	4.0	13		3	Moderate	LN, crowded by 202
202	*Quercus Agrifolia*	Coast Live Oak	12.0	38	Y	4	Good	
203	*Quercus Agrifolia*	Coast Live Oak	12.0	38	Y	3	Good	CR
204	*Quercus Agrifolia*	Coast Live Oak	10.0	31		3	Moderate	CR
205	*Quercus Agrifolia*	Coast Live Oak	8.0	25		3	Moderate	CR
206	*Quercus Agrifolia*	Coast Live Oak	6.0	19		2	Poor	CR, fence damage
207	*Quercus Agrifolia*	Coast Live Oak	4.0	13		2	Poor	fence damage
208	*Quercus Agrifolia*	Coast Live Oak	10.0	31		3	Moderate	CR
209	*Quercus Agrifolia*	Coast Live Oak	6.0	19		3	Moderate	CR
210	*Quercus Agrifolia*	Coast Live Oak	8.0	25		3	Moderate	CR, SD, fence damage
211	*Quercus Agrifolia*	Coast Live Oak	5.0	16		2	Poor	CR, LN, SD
212	*Quercus Agrifolia*	Coast Live Oak	4.0	13		2	Poor	CR, LN, SD
213	*Quercus Agrifolia*	Coast Live Oak	5.0	16		3	Poor	IB, LN, CR
214	*Quercus Agrifolia*	Coast Live Oak	10.0	31		3	Moderate	
215	*Quercus Agrifolia*	Coast Live Oak	10.0	31		3	Poor	CR, fence damage
216	*Quercus Agrifolia*	Coast Live Oak	10.0	31		3	Good	CR, CDB

TREE #	BOTANICAL NAME	COMMON NAME	DBH	CIRCUMFERENCE	ORDINANCE / PROTECTED TREE	HEALTH	PRESERVATION SUITABILITY	NOTES
217	*Quercus Agrifolia*	Coast Live Oak	5.0	16		3	Moderate	CR, SD, LN
218	*Quercus Agrifolia*	Coast Live Oak	6.0	19		3	Moderate	CR, SD, LN
219	*Quercus Agrifolia*	Coast Live Oak	4.0	13		3	Moderate	CR, SD, LN
220	*Quercus Agrifolia*	Coast Live Oak	5.0	16		2	Moderate	CR, SD, LN
221	*Quercus Agrifolia*	Coast Live Oak	6.0	19		3	Moderate	CR, SD, LN
222	*Quercus Agrifolia*	Coast Live Oak	28.0	88	Y	4	Good	SD
223	*Quercus Agrifolia*	Coast Live Oak	6.0	19		3	Moderate	LN, SD, CR
224	*Quercus Agrifolia*	Coast Live Oak	10.0	31		3	Moderate	LN, SD, CR
225	*Quercus Agrifolia*	Coast Live Oak	8.0	25		3	Moderate	LN, SD, CR
226	*Quercus Agrifolia*	Coast Live Oak	12.0	38	Y	3	Moderate	LN, SD, CR
227	*Quercus Agrifolia*	Coast Live Oak	10.0	31		3	Moderate	LN, SD, CR
228	*Quercus Agrifolia*	Coast Live Oak	9.0	28		3	Moderate	LN, SD, CR
229	*Quercus Agrifolia*	Coast Live Oak	12.0	38	Y	3	Good	
230	*Quercus Agrifolia*	Coast Live Oak	5.0	16		2	Poor	crowded by 229
231	Eucalyptus spp.	Gum Tree	30.0	94	Y	4	Good	fence damage
232	Quercus Agrifolia	Coast Live Oak	8.0	25		4	Good	CDB
233	Quercus Agrifolia	Coast Live Oak	6.0	19		3	Moderate	crowded by 234
234	Eucalyptus Globulus	Blue Gum	27.0	85	Y	3	Moderate	CDB, poor structure

TREE #	BOTANICAL NAME	COMMON NAME	DBH	CIRCUMFERENCE	ORDINANCE / PROTECTED TREE	HEALTH	PRESERVATION SUITABILITY	NOTES
235	Quercus Agrifolia	Coast Live Oak	6.0	19		3	Moderate	CR, CD
236	Quercus Agrifolia	Coast Live Oak	6.0	19		3	Moderate	CR, CD
237	Quercus Agrifolia	Coast Live Oak	5.0	16		3	Moderate	CR, CD
238	Quercus Agrifolia	Coast Live Oak	10.0	31		3	Moderate	CR
239	Quercus Agrifolia	Coast Live Oak	8.0	25		3	Moderate	CR
240	Quercus Agrifolia	Coast Live Oak	12.0	38	Y	3	Moderate	CR
241	Quercus Agrifolia	Coast Live Oak	10.0	31		3	Moderate	CR
242	Quercus Agrifolia	Coast Live Oak	10.0	31		3	Moderate	CD, CR
243	Quercus Agrifolia	Coast Live Oak	5.0	16		2	Poor	CR
244	Quercus Agrifolia	Coast Live Oak	9.0	28		3	Moderate	CR
245	Eucalyptus spp.	Gum Tree	15.0	47	Y	3	Poor	CDB, SD
246	Quercus Agrifolia	Coast Live Oak	10.0	31		3	Good	CR, SD
247	Quercus Agrifolia	Coast Live Oak	10.0	31		3	Good	LN, SD, CR
248	Quercus Agrifolia	Coast Live Oak	10.0	31		3	Good	LN, SD
249	Laurus Nobilus	Bay Laurel	5.0	16		4	Good	ML
250	Quercus Agrifolia	Coast Live Oak	20.0	63	Y	4	Good	
251	Eucalyptus spp.	Gum Tree	18.0	57	Y	3	Moderate	CDB
252	Quercus Lobata	Valley Oak	5.0	16		3	Moderate	fence damage

TREE #	BOTANICAL NAME	COMMON NAME	DBH	CIRCUMFERENCE	ORDINANCE / PROTECTED TREE	HEALTH	PRESERVATION SUITABILITY	NOTES
253	Quercus Lobata	Valley Oak	5.0	16		2	Poor	fence damage
254	Quercus Lobata	Valley Oak	4.0	13		2	Poor	fence damage
255	Quercus Lobata	Valley Oak	7.0	22		2	Poor	fence damage
256	Quercus Agrifolia	Coast Live Oak	7.0	22		3	Moderate	CR
257	Quercus Agrifolia	Coast Live Oak	12.0	38	Y	3	Moderate	LN, SD, CR
258	Quercus Agrifolia	Coast Live Oak	14.0	44	Y	3	Moderate	CR, SD
259	Quercus Agrifolia	Coast Live Oak	14.0	44	Y	4	Good	
260	Quercus Agrifolia	Coast Live Oak	10.0	31		2	Poor	fence damage
261	Quercus Agrifolia	Coast Live Oak	14.0	44	Y	2	Poor	LN, SD, IB
262	Quercus Agrifolia	Coast Live Oak	10.0	31		4	Good	CR
263	Quercus Agrifolia	Coast Live Oak	10.0	31		3	Good	CR
264	Platanus Racemosa	Western Sycamore	28.0	88	Y	4	Good	
265	Quercus Agrifolia	Coast Live Oak	10.0	31		3	Moderate	fence damage
266	Quercus Agrifolia	Coast Live Oak	10.0	31		3	Good	fence damage
267	Quercus Agrifolia	Coast Live Oak	10.0	31		3	Good	
268	Quercus Lobata	Valley Oak	16.0	50	Y	4	Good	CDB, leaning branch
269	Quercus Lobata	Valley Oak	10.0	31		3	Good	CDB, leaning branch
270	Quercus Lobata	Valley Oak	4.0	13		3	Moderate	CR

TREE #	BOTANICAL NAME	COMMON NAME	DBH	CIRCUMFERENCE	ORDINANCE / PROTECTED TREE	HEALTH	PRESERVATION SUITABILITY	NOTES
271	Quercus Agrifolia	Coast Live Oak	4.0	13		4	Good	
272	Quercus Agrifolia	Coast Live Oak	4.0	13		4	Good	
273	Platanus Racemosa	Western Sycamore	4.0	13		4	Good	CR
274	Sambucus spp.	Elderberry	8.0	25		3	Moderate	ML, LN, CR
275	Quercus Agrifolia	Coast Live Oak	4.0	13		4	Good	crowded by 276
276	Quercus Agrifolia	Coast Live Oak	5.0	16		4	Good	crowded by 275
277	Platanus Racemosa	Western Sycamore	20.0	63	Y	4	Good	
278	Platanus Racemosa	Western Sycamore	26.0	82	Y	5	Good	
279	Quercus Lobata	Valley Oak	30.0	94	Y	4	Moderate	
280	Juglans nigra	Black Walnut	15.0	47	Y	3	Moderate	SDS
281	Juglans nigra	Black Walnut	14.0	44	Y	3	Good	fence damage
282	Quercus Agrifolia	Coast Live Oak	12.0	38	Y	2	Poor	EH, CDB, SD
283	Quercus Ilex	Holly Oak	10.0	31		3	Moderate	fence damage, SD
284	Juglans nigra	Black Walnut	24.0	75	Y	3	Moderate	CDB, SD, WU
285	Juglans nigra	Black Walnut	24.0	75	Y	4	Good	CDB
286	Quercus Agrifolia	Coast Live Oak	8.0	25		2	Poor	CR, fence damage
287	Juglans nigra	Black Walnut	9.0	28		2	Poor	CDB, SD
288	Quercus Agrifolia	Coast Live Oak	4.0	13		3	Moderate	CR, mechanical damage

TREE #	BOTANICAL NAME	COMMON NAME	DBH	CIRCUMFERENCE	ORDINANCE / PROTECTED TREE	HEALTH	PRESERVATION SUITABILITY	NOTES
289	Acacia Dealbata	Silver Wattle	15.0	47	Y	3	Moderate	LN, SD
290	Acacia Dealbata	Silver Wattle	10.0	31		3	Moderate	LN
291	Acacia Dealbata	Silver Wattle	10.0	31		3	Moderate	
292	Quercus Agrifolia	Coast Live Oak	8.0	25		2	Poor	CR, LN
293	Quercus Agrifolia	Coast Live Oak	12.0	38	Y	2	Poor	CR, LN
294	Quercus Agrifolia	Coast Live Oak	14.0	44		4	Good	
295	Quercus Agrifolia	Coast Live Oak	14.0	44	Y	4	Good	
296	Quercus Agrifolia	Coast Live Oak	8.0	25	Y	3	Good	LN, SD
297	Quercus Agrifolia	Coast Live Oak	6.0	19		4	Good	
298	Juglans nigra	Black Walnut	26.0	82	Y	4	Good	
299	Quercus Agrifolia	Coast Live Oak	12.0	38	Y	2	Poor	fence damage
300	Quercus Agrifolia	Coast Live Oak	10.0	31		2	Poor	fence damage
301	Quercus Agrifolia	Coast Live Oak	10.0	31		2	Poor	fence damage, crowded by 300
302	Quercus Agrifolia	Coast Live Oak	6.0	19		3	Moderate	SD, CD, ST
303	Pistacia Lentiscus	Pistache	5.0	16		3	Moderate	CR
304	Pistacia Lentiscus	Pistache	4.0	13		3	Moderate	CR
305	Pistacia Lentiscus	Pistache	4.0	13		3	Moderate	CR
306	Pistacia Lentiscus	Pistache	5.0	16		3	Poor	fence damage, crowded by 305

TREE #	BOTANICAL NAME	COMMON NAME	DBH	CIRCUMFERENCE	ORDINANCE / PROTECTED TREE	HEALTH	PRESERVATION SUITABILITY	NOTES
307	Pistacia Lentiscus	Pistache	4.0	13		3	Moderate	ML, SD, EH, CR
308	Pistacia Lentiscus	Pistache	8.0	25		4	Good	
309	Albizia Julibrissin	Silk Tree	4.0	13		3	Moderate	LN, fence damage
310	Quercus Agrifolia	Coast Live Oak	12.0	38	Y	4	Good	SD
311	Albizia Julibrissin	Silk Tree	5.0	16		4	Good	ML
312	Quercus Agrifolia	Coast Live Oak	6.0	19		3	Moderate	CR
313	Quercus Agrifolia	Coast Live Oak	5.0	16		3	Moderate	CR
314	Quercus Agrifolia	Coast Live Oak	5.0	16		3	Moderate	CR, crowded by 315
315	Quercus Agrifolia	Coast Live Oak	8.0	25		3	Moderate	CR
316	Melaleuca Styphelioides	Prickly Paper Bark	6.0	19		3	Moderate	CD, CR, CDB
317	Melaleuca Styphelioides	Prickly Paper Bark	8.0	25		3	Moderate	CD, CR, CDB
318	Melaleuca Styphelioides	Prickly Paper Bark	8.0	25		2	Poor	CD, CR, CDB
319	Quercus Ilex	Holly Oak	5.0	16		4	Good	
320	Quercus Ilex	Holly Oak	14.0	44	Y	4	Good	pruning scars
321	Albizia Julibrissin	Silk Tree	14.0	44	Y	3	Moderate	mechanical damage from gate
322	Juglans nigra	Black Walnut	12.0	38	Y	2	Poor	SD, CDB, LN
323	Melaleuca Styphelioides	Prickly Paper Bark	6.0	19		2	Poor	LN, CR
324	Melaleuca Styphelioides	Prickly Paper Bark	4.0	13		3	Poor	CD, SD, same as 323

TREE #	BOTANICAL NAME	COMMON NAME	DBH	CIRCUMFERENCE	ORDINANCE / PROTECTED TREE	HEALTH	PRESERVATION SUITABILITY	NOTES
325	Melaleuca Styphelioides	Prickly Paper Bark	4.0	13		2	Poor	CD, SD, same as 323
326	Albizia Julibrissin	Silk Tree	6.0	19		3	Good	crowded by 327
327	Albizia Julibrissin	Silk Tree	8.0	25		4	Good	
328	Melaleuca Styphelioides	Prickly Paper Bark	12.0	38	Y	4	Good	SD, LN
329	Melaleuca Styphelioides	Prickly Paper Bark	8.0	25		3	Good	CDB, ST
501	Quercus Agrifolia	Coast Live Oak	72.0	226	y	3	Good	old tree
502	Quercus Agrifolia	Coast Live Oak	10.0	31		3	Moderate	
503	Quercus Agrifolia	Coast Live Oak	20.0	63	y	3	Moderate	LN
504	Quercus Agrifolia	Coast Live Oak	4.0	13		4	Good	young tree
505	Quercus Agrifolia	Coast Live Oak	28.0	88	y	3	Good	SD
506	Quercus Agrifolia	Coast Live Oak	30.0	94	y	3	Moderate	Limb breaking, SD, CR
507	Quercus Agrifolia	Coast Live Oak	32.0	100	y	3	Moderate	Limb breaking, SD, CR
508	Quercus Agrifolia	Coast Live Oak	16.0	50	y	3	Moderate	Limb breaking, SD, CR
509	Quercus Agrifolia	Coast Live Oak	18.0	57	y	3	Moderate	Limb breaking, SD, CR
510	Quercus Agrifolia	Coast Live Oak	10.0	31		3	Moderate	Limb breaking, SD, CR
511	Quercus Agrifolia	Coast Live Oak	12.0	38	y	3	Moderate	Limb breaking, SD, CR
512	Quercus Agrifolia	Coast Live Oak	10.0	31		3	Moderate	Limb breaking, SD, CR
513	Quercus Agrifolia	Coast Live Oak	4.0	13		3	Moderate	Limb breaking, SD, CR

TREE #	BOTANICAL NAME	COMMON NAME	DBH	CIRCUMFERENCE	ORDINANCE / PROTECTED TREE	HEALTH	PRESERVATION SUITABILITY	NOTES
514	Quercus Agrifolia	Coast Live Oak	4.0	13		3	Moderate	Limb breaking, SD, CR
515	Quercus Agrifolia	Coast Live Oak	8.0	25		3	Moderate	Limb breaking, SD, CR
516	Quercus Agrifolia	Coast Live Oak	16.0	50	y	2	Poor	LN, SD, CR

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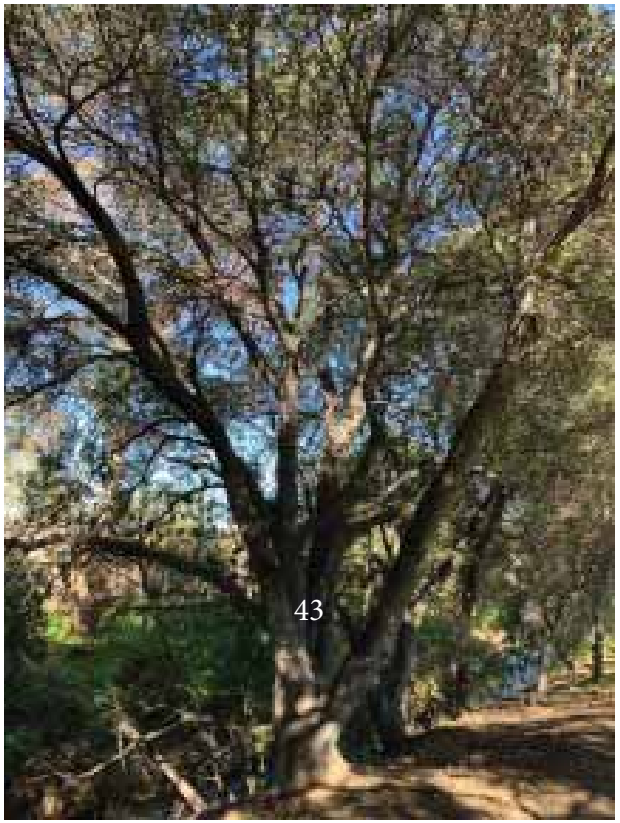
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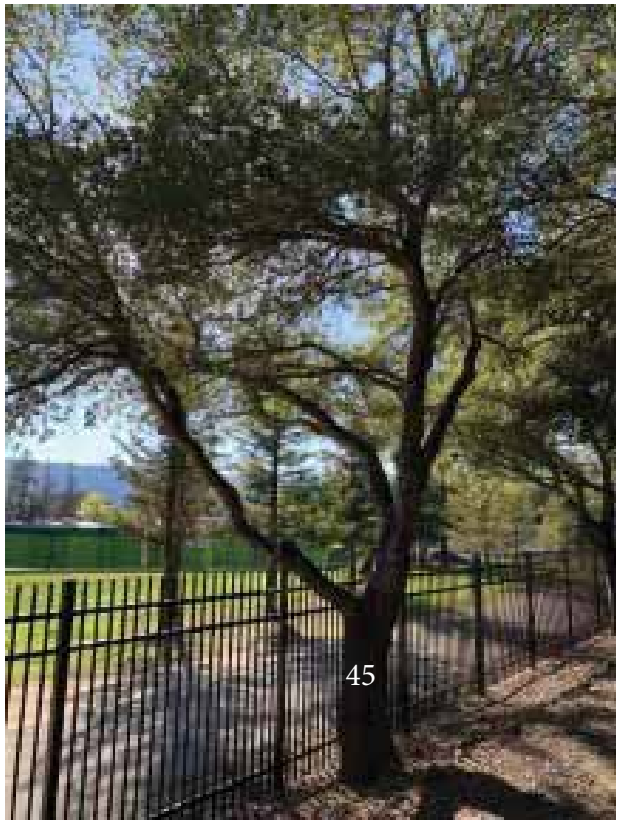
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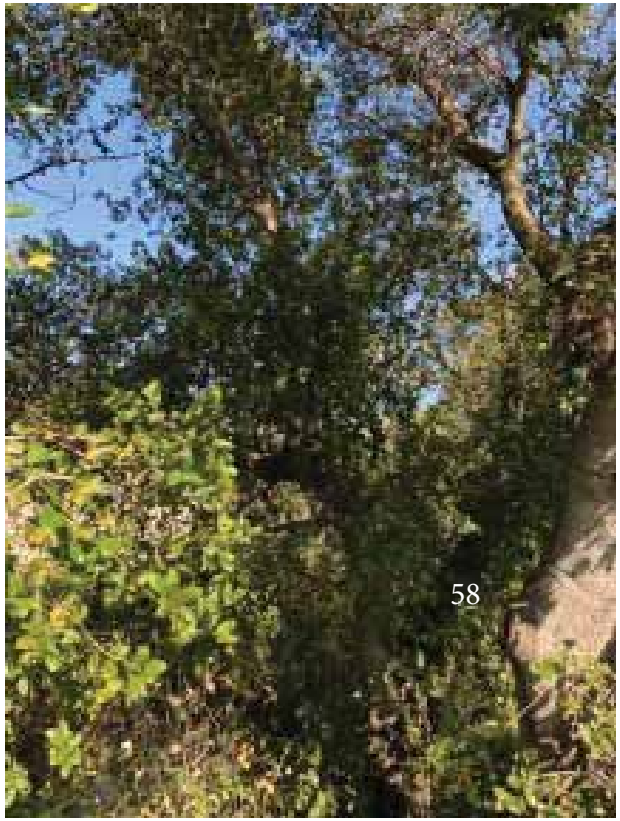
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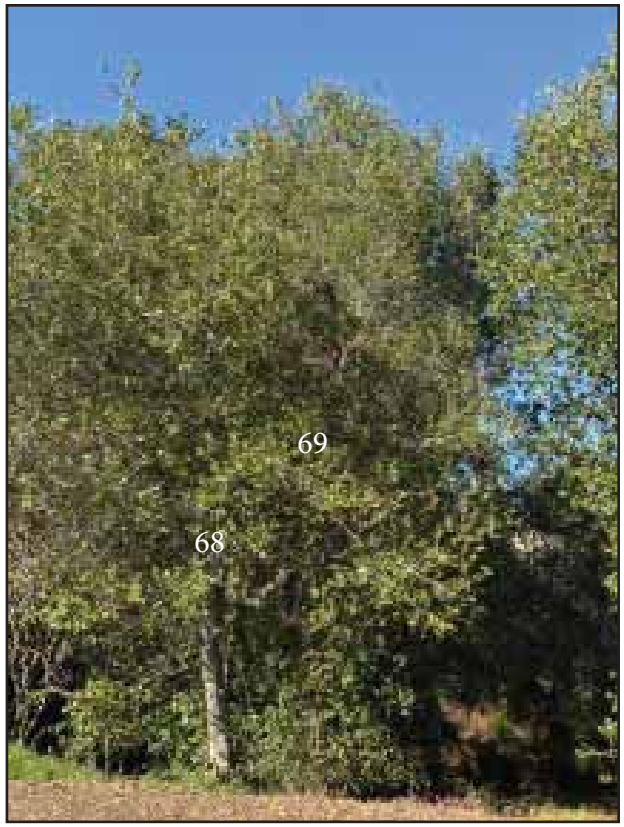
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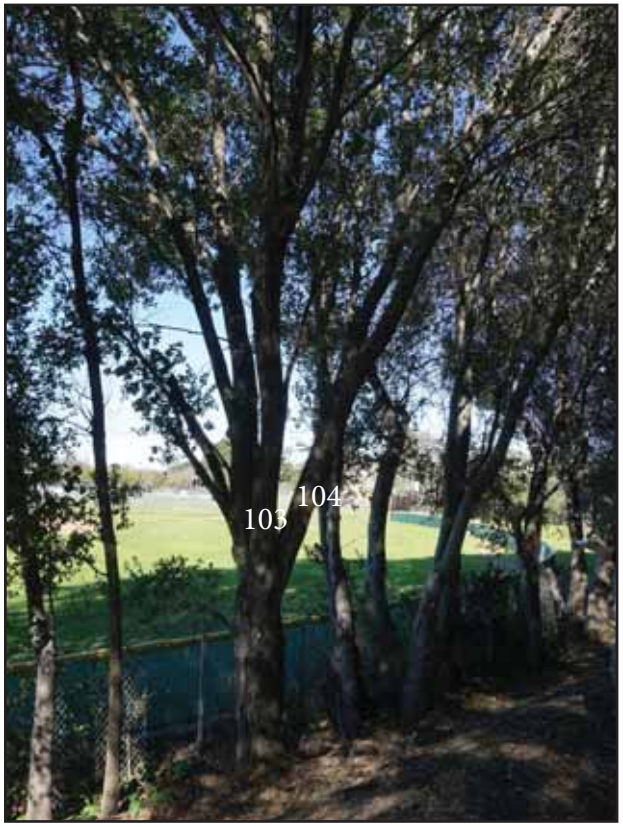
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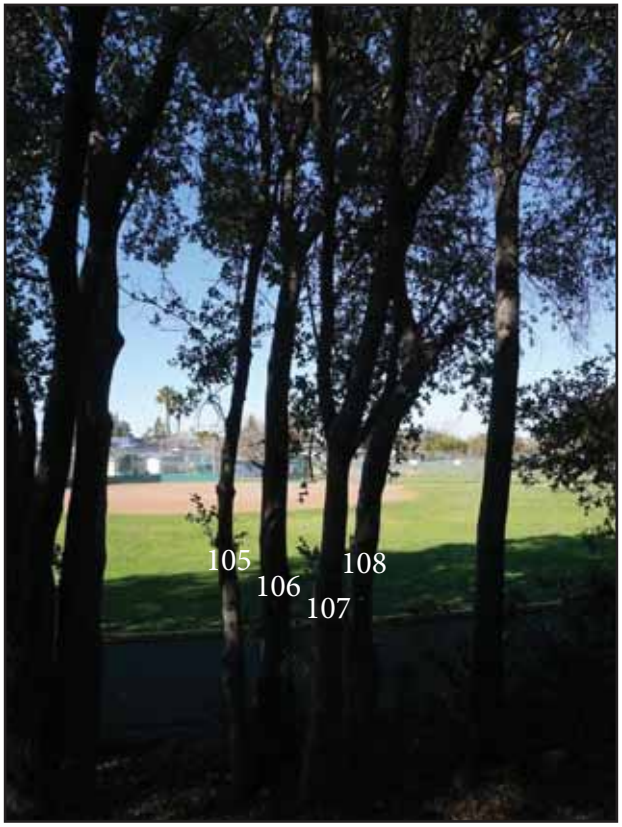
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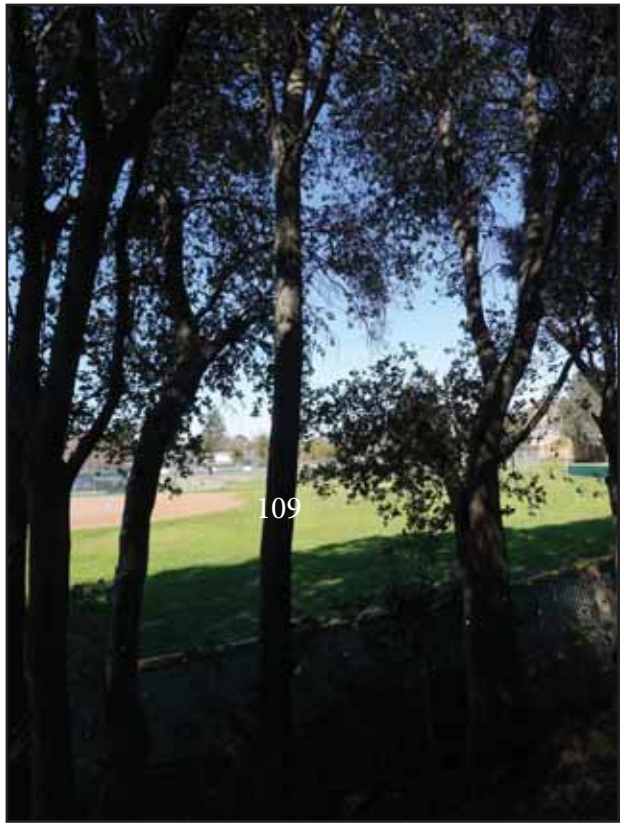
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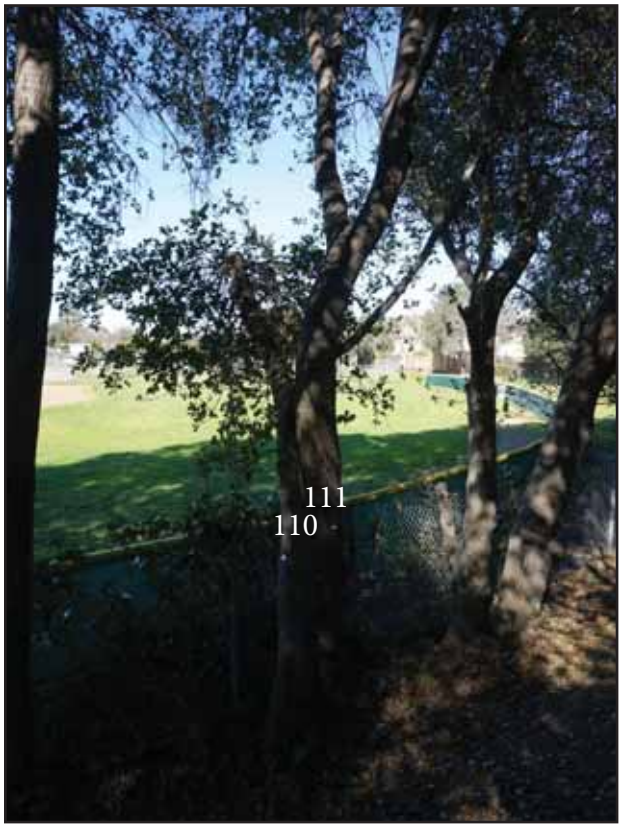
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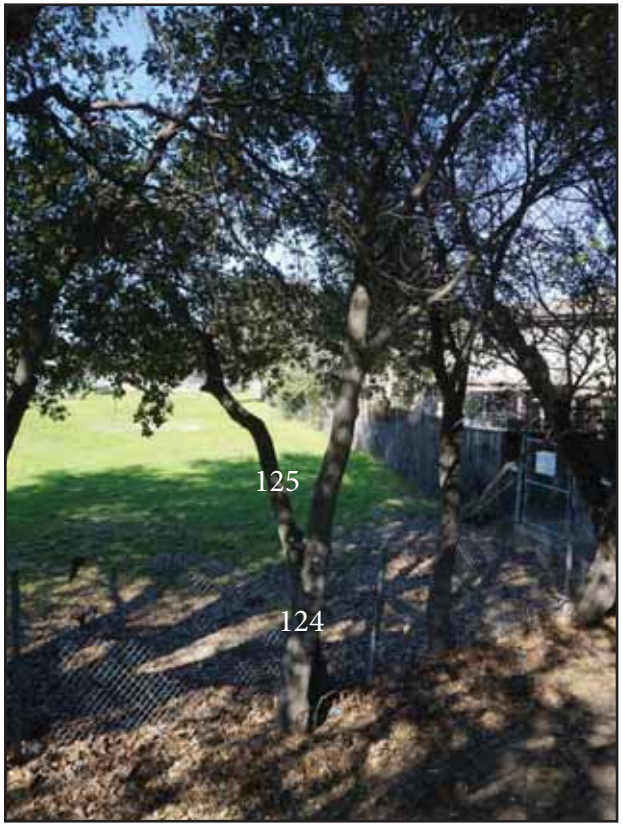
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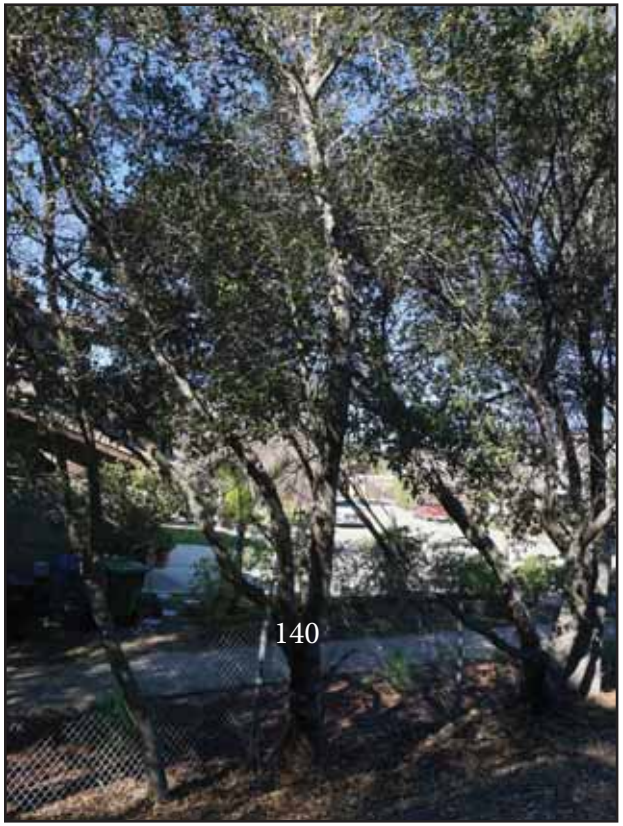
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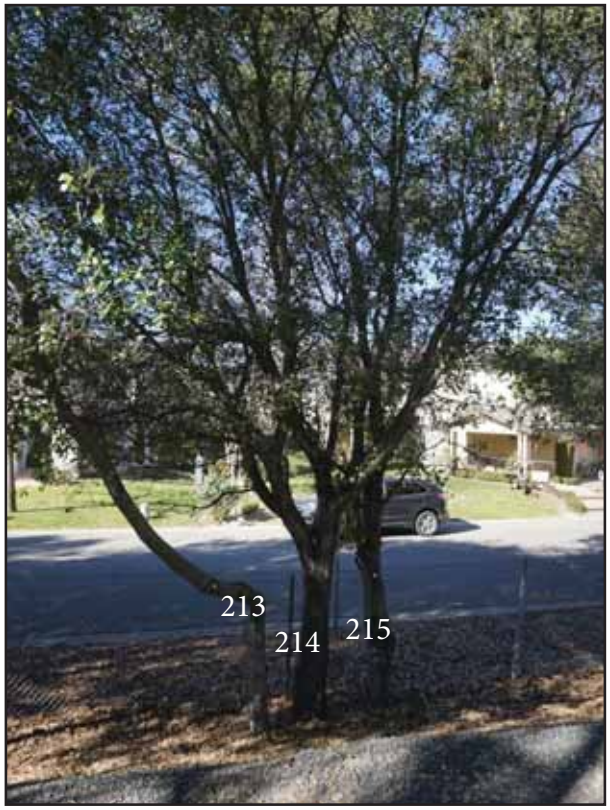
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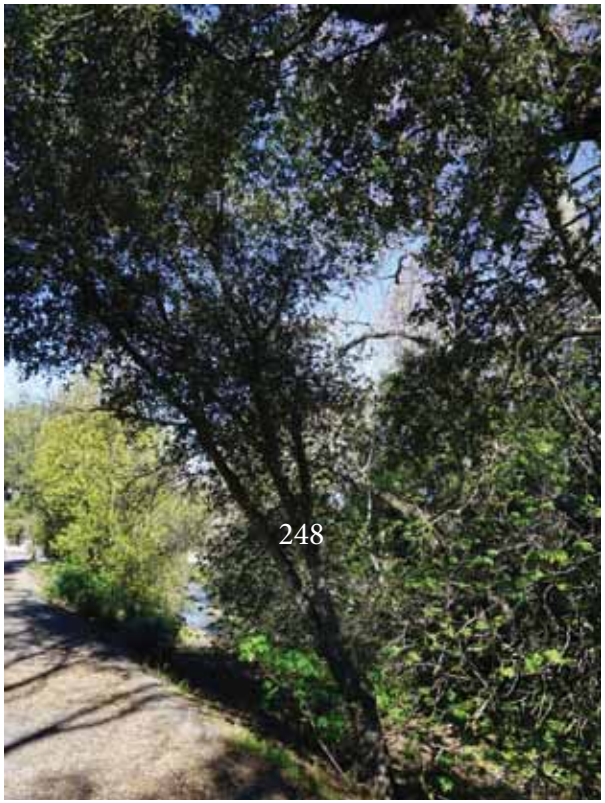
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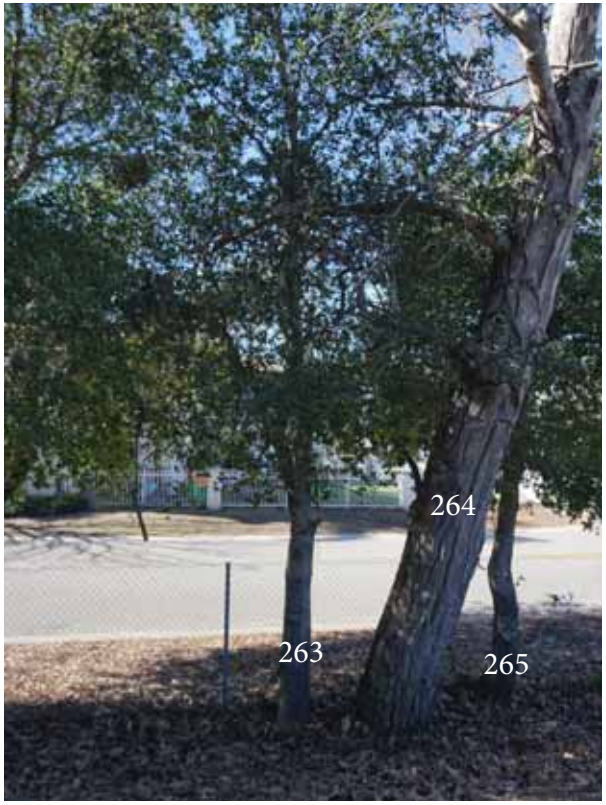
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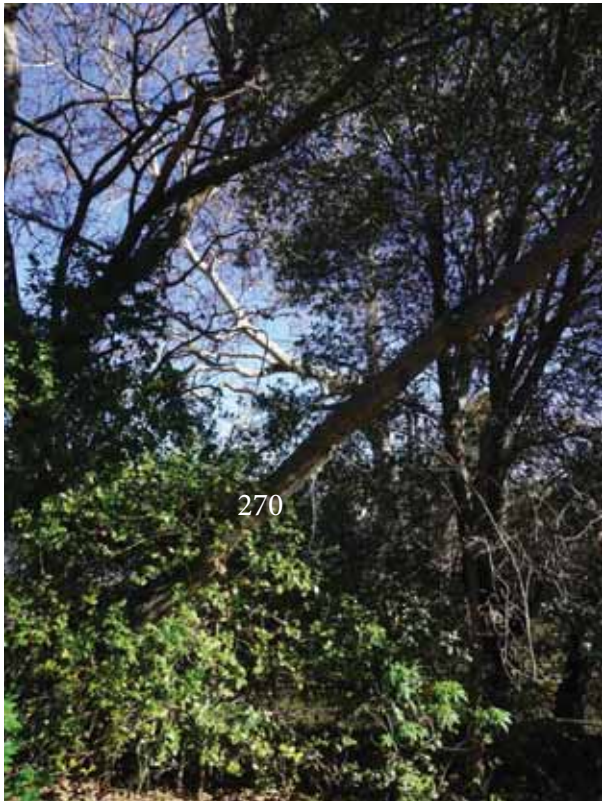
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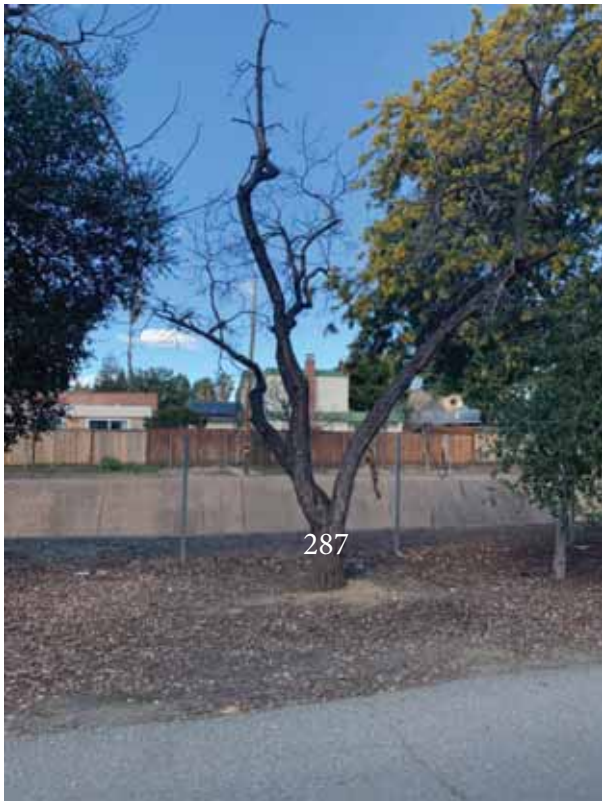
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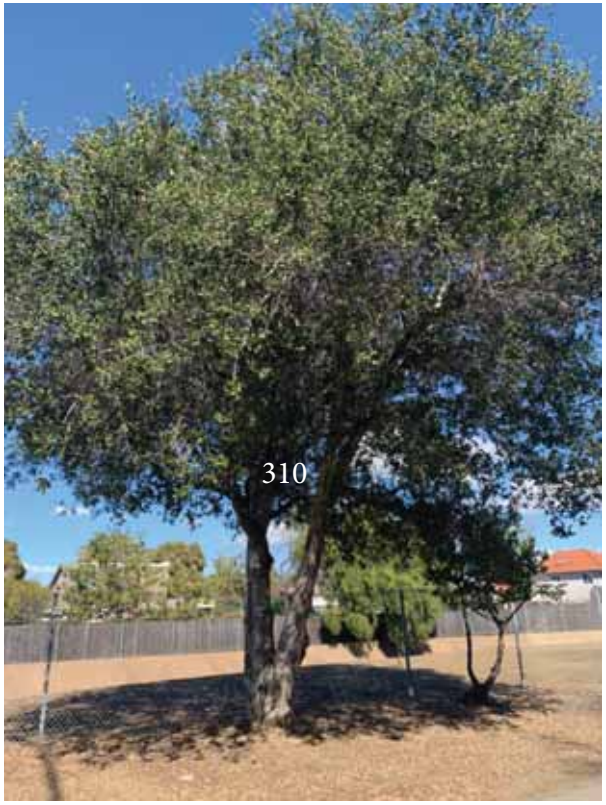
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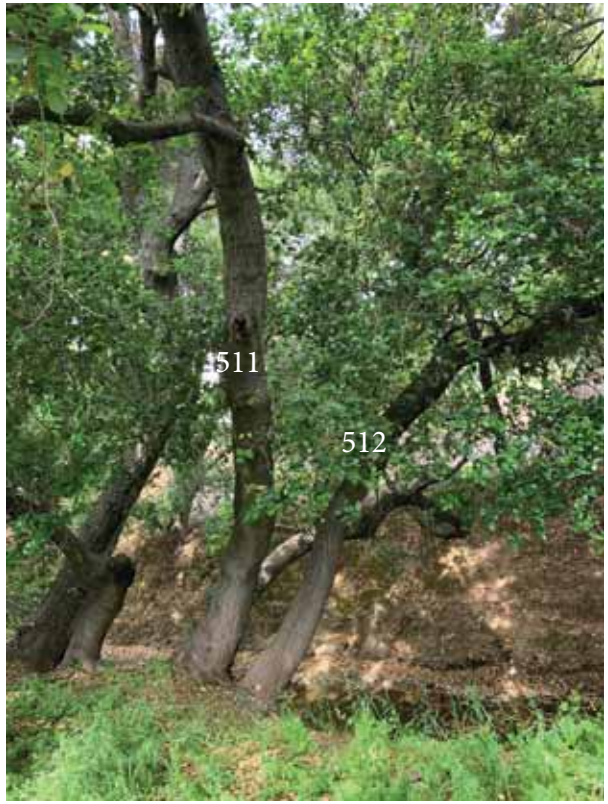
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Appendix C
Special Status Species Tables

APPENDIX C – SPECIAL-STATUS SPECIES TABLES

The special-status species tables have been divided by kingdom into plants (Table C-1) and fish and wildlife (Table C-2). See Section 3.4 for a discussion on the how the likelihood of occurrence was determined.

Table C-1. Special-Status Plant Species Identified in Records Searches

Scientific Name	Common Name	Status[a]			Habitat	Blooming Period	Likelihood of Presence
		Federal	State	CNPS			
Amsinckia lunaris	Bent-flowered fiddleneck	-	-	1B.2	Coastal bluff scrub, cismontane woodland, and valley and foothill grassland. Elevations between 5 and 1,640 feet.	March through June	Absent. Potentially suitable habitat, but no CNDDB occurrences within 5 miles. Often found on serpentine soils and on grasslands, which are absent at this site. Habitat isolation at project site means low potential.
Arctostaphylos silvicola	Bonny Doon manzanita	-	-	1B.2	Closed-cone coniferous forest, chaparral, and lower montane coniferous forest. Specifically, inland marine sands. Elevations between 390 and 1,970 feet.	January through March	Absent. No suitable marine sandy habitat.
Astragalus tener var. *Tener*	Alkali milk-vetch	-	-	1B.2	Playas, valley and foothill grassland (adobe clay), and vernal pools. Specifically, alkaline soils. Elevations between 0 and 195 feet.	March through June	Absent. Outside the elevation that this plant is found.
Atriplex depressa	Brittlescale	-	-	1B.2	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland, and vernal pools. Specifically, alkaline and clay soils. Elevations between 0 and 1,050 feet.	April through October	Absent. No suitable wetland habitat.
Atriplex minuscula	Lesser saltscale	-	-	1B.1	Chenopod scrub, playas, and valley and foothill grassland. Specifically, alkali sink and grassland in sandy, alkaline soils. Elevations between 45 and 655 feet.	May through October	Absent. No suitable alkaline sandy soils.
Balsamorhiza macrolepis	Big-scale balsamroot	-	-	1B.2	Chaparral, cismontane woodland, and valley and foothill grassland. Sometimes, serpentinite. Elevations between 145 and 5,100 feet.	March through June	Absent. No suitable serpentine habitat.
Campanula exigua	Chaparral harebell	-	-	1B.2	Chaparral (rocky soils, usually serpentinite). Elevations between 900 and 4,100 feet.	May through June	Absent. Outside the elevation that this plant is found.
Centromadia parryi ssp. *Congdonii*	Congdon's tarplant	-	-	1B.1	Valley and foothill grassland. Specifically, alkaline soils, sometimes described as heavy white clay. Elevations between 0 and 755 feet.	May through October (November)	Unlikely to occur. Suitable habitat, and this species is known to occur on disturbed sites, but only CNDDB occurrence within 5 miles is an extirpated occurrence from 1908. Isolated habitat.
Chloropyron maritimum ssp. *Palustre*	Point Reyes bird's-beak	-	-	1B.2	Marshes and swamps (coastal salt). Elevations between 0 and 35 feet.	June through October	Absent. Outside the elevation that this plant is found.

Table C-1. Special-Status Plant Species Identified in Records Searches

Scientific Name	Common Name	Status[a]			Habitat	Blooming Period	Likelihood of Presence
		Federal	State	CNPS			
Chorizanthe pungens var. *Hartwegiana*	Ben Lomond spineflower	E	-	1B.1	Lower montane coniferous forest (maritime ponderosa pine sandhills). Elevations between 295 and 2,000 feet.	April through July	Absent. No suitable marine sandy habitat.
Chorizanthe robusta var. *Robusta*	Robust spineflower	E	-	1B.1	Chaparral, cismontane woodland, coastal bluff scrub, and coastal dunes. Specifically, sandy terraces and bluffs or in loose sand. Elevations between 15 and 800 feet.	April through September	Absent. No suitable dune habitat.
Cirsium fontinale var. *Campylon*	Mt. Hamilton fountain thistle	-	-	1B.2	Chaparral, cismontane woodland, and valley and foothill grassland. Specifically, serpentinite seeps. Elevations between 325 and 2,920 feet.	(February) April through October	Absent. No suitable serpentine habitat.
Collinsia multicolor	San Francisco collinsia	-	-	1B.2	Closed-cone coniferous forest and coastal scrub. Sometimes, serpentinite rock. Elevations between 95 and 820 feet.	(February) March through May	Absent. No suitable closed-cone coniferous forest or coastal scrub habitat.
Dirca occidentalis	Western leatherwood	-	-	1B.2	Broad-leafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, north coast coniferous forest, riparian forest, and riparian woodland. Specifically, mesic habitats. Elevations between 80 and 1,395 feet.	January through March (April)	Unlikely to occur. Suitable habitat. One CNDDB occurrence is within 5 miles; it is located 4.7 miles west of the project area in Stevens Creek Reservoir in 2012. Isolated habitat.
Dudleya abramsii ssp. *Setchellii*	Santa Clara Valley dudleya	E	-	1B.1	Cismontane woodland and valley and foothill grassland. Specifically, serpentinite, rocky soils. Elevations between 195 and 1,495 feet.	April through October	Absent. No suitable serpentine habitat.
Eryngium aristulatum var. *Hooveri*	Hoover's button-celery	-	-	1B.1	Vernal pools. Elevations between 5 and 150 feet.	(Jun)Jul(Aug)	Absent. Outside the elevation that this plant is found.
Extriplex joaquinana	San Joaquin spearscale	-	-	1B.2	Chenopod scrub, meadows and seeps, playas, and valley and foothill grassland. Specifically, alkaline soils. Elevations between 0 and 2,740 feet.	April through October	Absent. No suitable wetland habitat.
Fritillaria liliacea	Fragrant fritillary	-	-	1B.2	Cismontane woodland, coastal prairie, coastal scrub, and valley and foothill grassland. Often found on serpentinite. Elevations between 5 and 1,345 feet.	February through April	Absent. No suitable serpentine habitat.
Hoita strobilina	Loma Prieta hoita	-	-	1B.1	Chaparral, cismontane woodland, and riparian woodland. Usually found on serpentinite and mesic habitats. Elevations between 95 and 2,820 feet.	May through July (August through October)	Absent. No suitable serpentine habitat.
Lasthenia conjugens	Contra costa goldfields	E	-	1B.1	Cismontane woodland, playas (alkaline), valley and foothill grassland, and vernal pools. Elevations between 0 and 1,540 feet.	March through June	Absent. No suitable vernal pool habitat.
Lessingia micradenia var. *Glabrata*	Smooth lessingia	-	-	1B.2	Chaparral, cismontane woodland, and valley and foothill grassland. Specifically, serpentinite and often roadsides. Elevations between 390 and 1,380 feet.	(April through June) July	Absent. No suitable serpentine habitat.

Table C-1. Special-Status Plant Species Identified in Records Searches

Scientific Name	Common Name	Status[a]			Habitat	Blooming Period	Likelihood of Presence
		Federal	State	CNPS			
						through November	
Malacothamnus arcuatus	Arcuate bush-mallow	-	-	1B.2	Chaparral and cismontane woodland. Specifically, gravelly alluvium. Elevations between 45 and 1,165 feet.	April through September	Absent. No suitable habitat.
Malacothamnus hallii	Hall's bush-mallow	-	-	1B.2	Chaparral and coastal scrub. Specifically, ultramafic soils. Elevations between 30 and 2,495 feet.	(April) May through September (October)	Absent. No suitable serpentine chaparral habitat.
Monolopia gracilens	Woodland woolythreads	-	-	1B.2	Broad-leafed upland forest (openings), chaparral (openings), cismontane woodland, north coast coniferous forest (openings), and valley and foothill grassland. Specifically, grassy sites, in openings, and sandy to rocky soils. Often seen on serpentine after burns but may have only weak affinity to serpentine. Elevations between 325 and 3,935 feet.	(February) March through July	Absent. No suitable serpentine habitat.
Navarretia prostrata	Prostrate vernal pool navarretia	-	-	1B.1	Coastal scrub, meadows and seeps, valley and foothill grassland (alkaline), and vernal pools. Specifically, mesic habitats. Elevations between 5 and 3,970 feet.	April through July	Absent. No suitable wetland habitat.
Pentachaeta bellidiflora	White-rayed pentachaeta	E	E	1B.1	Cismontane woodland and valley and foothill grassland (often serpentinite). Elevations between 110 and 2,035 feet.	March through May	Absent. No suitable serpentine habitat.
Piperia candida	White-flowered rein orchid	-	-	1B.2	Broad-leafed upland forest, lower montane coniferous forest, and north coast coniferous forest. Sometimes found on serpentinite. Elevations between 95 and 4,300 feet.	(March) May through September	Absent. No suitable coniferous forest habitat.
Plagiobothrys glaber	Hairless popcornflower	-	-	1A	Meadows and seeps (alkaline) and marshes and swamps (coastal salt). Specifically, coastal salt marshes and alkaline meadows. Elevations between 45 and 590 feet.	March through May	Absent. No suitable wetland habitat.
Puccinellia simplex	California alkali grass	-	-	1B.2	Chenopod scrub, meadows and seeps, valley and foothill grassland, and vernal pools. Specifically, alkaline soils in vernally mesic habitats; in sinks, flats, and lake margins. Elevations between 5 and 3,050 feet.	March through May	Absent. No suitable wetland habitat.
Sanicula saxatilis	Rock sanicle	-	Rare	1B.2	Broad-leafed upland forest, chaparral, and valley and foothill grassland. Specifically, rocky soils, scree, talus. Elevations between 2,030 and 3,855 feet.	April and May	Absent. Outside the elevation that this plant is found.
Senecio aphanactis	Chaparral ragwort	-	-	2B.2	Chaparral, cismontane woodland, and coastal scrub. Specifically, drying alkaline flats. Elevations between 45 and 2,625 feet.	January through April (May)	Absent. No suitable alkaline flat habitat. No CNDDB occurrences within 5 miles; one 5.8 miles east of

Table C-1. Special-Status Plant Species Identified in Records Searches

Scientific Name	Common Name	Status[a]			Habitat	Blooming Period	Likelihood of Presence
		Federal	State	CNPS			
							the project site describes an occurrence from 1900.
Streptanthus albidus ssp. *Albidus*	Metcalf canyon jewelflower	E	-	1B.1	Valley and foothill grassland (serpentinite). Elevations between 145 and 2,625 feet.	April through July	Absent. No suitable serpentine habitat.
Streptanthus albidus ssp. *Peramoenus*	Most beautiful jewelflower	-	-	1B.2	Chaparral, cismontane woodland, and valley and foothill grassland. Specifically, serpentinite. Elevations between 310 and 3,280 feet.	(March) April through September (October)	Absent. No suitable serpentine habitat.
Stuckenia filiformis ssp. *Alpina*	Slender-leaved pondweed	-	-	2B.2	Marshes and swamps (assorted shallow freshwater). Elevations between 980 and 7,055 feet.	May through July	Absent. Outside the elevation that this plant is found.
Suaeda californica	California seablite	E	-	1B.1	Marshes and swamps (coastal salt). Elevations between 0 and 50 feet.	July through October	Absent. No suitable wetland habitat.
Trifolium buckwestiorum	Santa Cruz clover	-	-	1B.1	Broad-leafed upland forest, cismontane woodland, and coastal prairie. Specifically, gravelly soils, habitat margins. Elevations between 340 and 2,000 feet.	April through October	Absent. Outside the elevation that this plant is found.
Trifolium hydrophilum	Saline clover	-	-	1B.2	Marshes and swamps, valley and foothill grassland (mesic, alkaline soils), and vernal pools. Elevations between 0 and 985 feet.	April through June	Absent. No suitable wetland habitat.
Tropidocarpum capparideum	Caper-fruited tropidocarpum	-	-	1B.1	Valley and foothill grassland (alkaline hills). Elevations between 0 and 1,495 feet.	March and April	Absent. Outside the known range of this species.

[a]Status:
Federal Designations:
(E) Federally Endangered, (T) Federally Threatened
State Designations:
(E) State Endangered, (T) State Threatened
CNPS California Rare Plant Rank:
(1B) Rare, threatened, or endangered in California and elsewhere; (2) Rare, threatened, or endangered in California, but more common elsewhere
Threat Rank:
•0.1 Seriously threatened in California (more than 80% of occurrences threatened / high degree and immediacy of threat)
•0.2 Fairly threatened in California (20 to 80% occurrences threatened / moderate degree and immediacy of threat)

Sources:
California Natural Diversity Database (CNDDB). 2020. Queried for occurrences within 5 miles of the Project Location. Accessed May 7, 2020. https://www.wildlife.ca.gov/data/cnddb
California Department of Fish and Wildlife (CDFW). 2020. California Natural Diversity Database (CNDDB) BIOS 5 government Edition. Accessed May 7, 2020.
California Native Plant Society (CNPS). 2020. Inventory of Rare and Endangered Plants of California. Accessed May 7, 2020.
United States Fish and Wildlife Service (USFWS). 2020. Information, Planning, and Consultation System (IPAC System). Accessed May 7, 2020.

Acronyms:
CNPS = California Native Plant Society

Table C-2. Special-Status Fish and Wildlife Species Identified in Records Searches

Scientific Name	Common Name	Status[a]			Habitat	Likelihood of Presence
		Federal	State	CDFW		
Amphibians						
Ambystoma californiense	California tiger salamander	T	T	WL	Cismontane woodland, meadow and seep, riparian woodland, valley and foothill grassland, vernal pool, and wetland.	Absent. Not suitable breeding habitat, although plentiful ground squirrel burrows.
Aneides flavipunctatus niger	Santa Cruz black salamander	-	-	SSC	Mixed deciduous and coniferous woodlands and coastal grasslands in San Mateo, Santa Cruz, and Santa Clara Counties.	Unlikely to occur. Suitable habitat, 32 CNDDB occurrences are within 5 miles. Low potential because habitat isolated from all records and migratory corridors.
Dicamptodon ensatus	California giant salamander	-	-	SSC	Known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County and east to Napa County.	Absent. No suitable perennial creek habitat.
Rana boylii	Foothill yellow-legged frog	-	CT	SSC	Partly shaded shallow streams and riffles with a rocky substrate in a variety of habitats.	Absent. Not suitable perennial creek habitat.
Rana draytonii	California red-legged frog	T	-	SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation.	Unlikely to occur. Suitable dispersal or upland habitat while creek is wetted. Refugia present; 37 CNDDB occurrences are within 5 miles. The closest occurrence is located 3.0 miles west-southwest of the project along Saratoga Creek. No CNDDB occurrences are within San Tomas Aquino watershed. Low potential because of habitat isolation and poor-quality habitat.
Birds						
Accipiter cooperii	Cooper's hawk	-	-	WL	Woodland, chiefly of open, interrupted, or marginal type.	Potential to occur. Suitable habitat. Known to inhabit marginal, interrupted woodland, and site has dense riparian canopy and plentiful bird prey. Two CNDDB occurrences are within 5 miles. The closest occurrence is 2.8 miles northeast: a nesting pair of adults with juveniles in ornamental redwood, pine, and birch trees in a commercial parking lot in 2003.
Athene cunicularia	Burrowing owl	-		SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation.	Unlikely to occur. Habitat on project site includes ground squirrel burrows, absence of high grass, and nearby sports fields. One CNDDB occurrence is within 5 miles, located 5.0 miles north of the work area in Sunnyvale from 1983. Lack of extensive grassland in work area and vicinity makes species unlikely to occur.
Buteo swainsoni	Swainson's hawk	-	T	-	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees.	Unlikely to occur. Low-quality foraging habitat due to lack of expansive grasslands and the extent of nearby impervious cover, although nearby sports fields are marginal foraging habitat. One CNDDB occurrence within 5 miles, 4.0 miles north describes specimen collection from 1889.

Table C-2. Special-Status Fish and Wildlife Species Identified in Records Searches

Scientific Name	Common Name	Status[a]			Habitat	Likelihood of Presence
		Federal	State	CDFW		
Coturnicops noveboracensis	Yellow rail	-	-	SSC	Freshwater marsh, meadow, and seep. Summer resident in eastern Sierra Nevada in Mono County.	Absent. No suitable wetland habitat
Falco peregrinus anatum	American peregrine falcon	D	D	FP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, and mounds; also, human-made structures.	Unlikely to occur. Very low-quality nesting. Moderate-quality foraging habitat due to the presence of birds in the riparian corridor. Two CNDDB occurrences are within 5 miles, but these are suppressed to the USGS quad.
Fish						
Hypomesus transpaci	Delta smelt	T	E	-	Aquatic and estuarine habitats. Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait, and San Pablo Bay.	Absent. No suitable aquatic habitat.
Oncorhynchus mykiss irideus pop. 8	Steelhead - central California coast DPS	T	-		Aquatic and riverine habitats. From Russian River south to Soquel Creek and to, but not including, Pajaro River. Also San Francisco and San Pablo Bay Basins.	Absent. A drop structure in the creek channel near Scott Boulevard, 7 miles north, prevents upstream fish access.
Invertebrates						
Callophrys mossii bayensis	San Bruno elfin butterfly	E	-	-	Coastal, mountainous areas with grassy ground cover, mainly near San Bruno Mountain and San Mateo County.	Absent. No CNDDB occurrences within 5 miles and no suitable habitat.
Euphydryas editha bayensis	Bay checkerspot butterfly	T	-	-	Restricted to native grasslands on outcrops of serpentine soil near San Francisco Bay.	Absent. No CNDDB occurrences within 5 miles and no suitable habitat.
Bombus crotchii	Crotch bumble bee	-	CE	-	Nest underground in scrub grassland habitats, and individuals forage at sages (*Salvia* spp.), lupines (*Lupinus* spp.), medics (*Medicago* spp.), phacelias (*Phacelia* spp.), and milkweeds (*Asclepias* spp.).	Unlikely to occur. Recent publications suggest that the project may be outside the current range of the species. One CNDDB occurrence is within 5 miles.
Bombus occidentalis	Western bumble bee	-	CE	-	Nest in a wide variety of substrates (structures, underground cavities, tree hollows, and burrows). Selects from a wide variety of floral resources during foraging bouts.	Unlikely to occur. Recent publications suggest that the project may be outside the current range of the species. One CNDDB occurrence is within 5 miles.
Mammals						
Antrozous pallidus	Pallid bat	-	-	SSC	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Unlikely to occur. No CNDDB occurrences within 5 miles but suitable habitat is present.
Corynorhinus townsendii	Townsend's big-eared bat	-	-	SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open,	Unlikely to occur. No CNDDB occurrences within 5 miles but suitable habitat.

Table C-2. Special-Status Fish and Wildlife Species Identified in Records Searches

Scientific Name	Common Name	Status[a]			Habitat	Likelihood of Presence
		Federal	State	CDFW		
					hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	
Neotoma fuscipes annectens	San Francisco dusky-footed woodrat	-	-	SSC	Forest habitats of moderate canopy and moderate to dense understory. May prefer chaparral and redwood habitats.	Potential to occur. High-quality habitat is present on site. Seven CNDDB occurrences are within 5 miles. The closest CNDDB occurrence is 2.5 miles northwest and describes an occurrence along Saratoga Creek in similar habitat in 2016.
Reptiles						
Anniella pulchra	Northern California legless lizard	-	-	SSC	Sandy or loose loamy soils under sparse vegetation.	Absent. Suitable habitat is present, but the site is outside of the current known range of this species. There is one CNDDB occurrence, located 2.7 miles northeast of the work area, but it is historical from 1949.
Emys marmorata	Western pond turtle	-	-	SSC	Thoroughly aquatic turtle of ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation, below 6000-foot elevation.	Absent. No suitable aquatic habitat.

[a]Status designations are as follows:
Federal Designations:
(E) Federally Endangered, (T) Federally Threatened, (C) Candidate, (CT) Candidate Threatened
State Designations:
(E) State Endangered, (CE) State Candidate Endangered, (T) State Threatened
California Department of Fish and Wildlife (CDFW) Designations:
(SSC) Species of Special Concern, (CFP) California Fully Protected

Sources:
California Natural Diversity Database (CNDDB). 2020. Queried for occurrences within 5 miles of the Project Location. Accessed May 7, 2020. https://www.wildlife.ca.gov/data/cnddb
California Department of Fish and Wildlife (CDFW). 2020. California Natural Diversity Database (CNDDB) BIOS 5 government Edition. Accessed May 7, 2020.
United States Fish and Wildlife Service (USFWS). 2020. Information, Planning, and Consultation System (IPAC System). Accessed May 7, 2020.

Acronyms:
DPS = distinct population segment
USGS = U.S. Geological Survey

Appendix D
Preliminary Geotechnical Evaluation

PRELIMINARY GEOTECHNICAL REPORT
SAN TOMAS AQUINO CREEK TRAIL PROJECT
CITY OF CAMPBELL, CALIFORNIA

For

JACOBS
1737 N 1st Street, Suite #300
San Jose, CA 95112

PARIKH CONSULTANTS, INC.
2360 Qume Drive, Suite A
San Jose, CA 95131

August 26, 2019 Job No. 2019-102-PFR

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Nearby Structure As-Built Log of Test Borings

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V_{s30} Calculation

PRELIMINARY GEOTECHNICAL REPORT
SAN TOMAS AQUINO CREEK TRAIL PROJECT
CITY OF CAMPBELL, CALIFORNIA

1.0 SCOPE OF WORK

This preliminary geotechnical report (PGR) presents the preliminary geotechnical information for the proposed San Tomas Aquino Creek Trail Project (Reaches 1 & 2) in city of Campbell, California. The approximate project location is shown on the Project Location Map, Plate No. 1.

The purpose of this investigation was to evaluate the general soil and groundwater conditions at the project site, to evaluate their engineering properties, and to provide preliminary geotechnical recommendations for the proposed project. The scope of work performed for this investigation included a review of the readily available geologic literature pertaining and the existing available subsurface data near the project site, preliminary engineering analyses, and preparation of this report.

2.0 PROJECT DESCRIPTION

The City of Campbell (City), in cooperation with the City of San Jose (San Jose) and the Santa Clara Valley Water District (SCVWD), is proposing to construct the San Tomas Aquino Creek Trail: Reaches 1 & 2 Project (proposed project). The proposed project is a 1.28-mile paved bicycle and pedestrian trail that would follow the San Tomas Aquino Creek on top of existing SCVWD levees, starting from Westmont Avenue and concluding at Margaret Lane.

Reach 1 would connect Westmont Avenue to McCoy Avenue and would include the construction of a new clear-span pedestrian bridge (POC) approximately 100-150 feet long, near the east end of Westmont High School and the south side of Forest Hill Elementary School. The proposed bridge type is a prefabricated clear-span Modified Bowstring structure, fabricated with weathering steel. The bridge would have a clear width of 12 feet and a cast-in-place concrete deck. Bridge supports would be cast-in-place seat-type concrete abutments supported on piles. Cast-in-place concrete wingwalls and retaining walls would be utilized to support the trail approaches on each side of the bridge. East of the new pedestrian bridge, the trail would continue along the top of levee on the northeast side of the creek to McCoy Avenue. The top of levee within these limits allows for an 8 ft travel width with varying width shoulders. The trail itself will be asphalt-concrete paved with gravel shoulders.

In Reach 2, the trail will parallel West San Tomas Aquino Road for approximately 0.42 miles and be located on City and/or District property on the north side of the road. After a short at-grade crossing of Harriet Avenue, the trail would continue east along the north side of West San Tomas Aquino Road and end at Margaret Lane. A landscaped median will separate the trail from the road, and will include trailheads, safety fencing, centerline striping and signage. At the intersection of Harriet Avenue and West San Tomas Aquino Road the trail would conform to new curb ramp

improvements completed by the City of Campbell and would continue along the southeast side of San Tomas Aquino Creek, parallel to the road. The proposed trail here includes an asphalt-concrete paved travel width of 12 ft with 2 ft wide gravel shoulders. The trail would be separated from West San Tomas Aquino Road by a vegetated median, between Harriet Avenue and Margaret Lane, where the trail would terminate. Fencing will be provided on either side of the trail to restrict trail users from entering San Tomas Aquino Creek or crossing West San Tomas Aquino Road.

The proposed project limits are within the City of Campbell and the City of San Jose. The trail extents between Westmont Avenue and Forest Hill Elementary School are within the City of San Jose and the trail limits between the elementary school and McCoy Avenue are within the City of Campbell. Along West San Tomas Aquino Road, the trail alignment straddles the City of Campbell and City of San Jose boundary line. The proposed trail would meet American with Disability Act (ADA) standards and have a functional classification as a Caltrans Class I Bike Path (see Figure 2). The proposed project also includes the construction of trailheads at Westmont Avenue, McCoy Avenue, Harriet Avenue and Margaret Lane. Trailheads are expected to include decorative concrete pavement, user amenities and signage.

Much of the proposed project would be constructed within creek rights-of-way owned by the SCVWD and would follow the top of the SCVWD southwest creek bank levee from Westmont Avenue to a clearing location near existing private homes at approximately 100 ft west of an existing pedestrian bridge. The proposed trail width here is 8 ft of travel way, as the existing top of levee varies in width from 8 ft to 10 ft. The trail would be asphalt-concrete paved with variable width gravel shoulders.

Rough grading of the open, gravel-surfaced area behind the southerly creek bank levee would be conducted to facilitate trail construction and future maintenance of the trail and the creek. Replacement of the existing chain link fence (which separates the high school property from the creek) with new decorative fencing matching the adjacent high school fencing would be included. New fencing would also be provided along the elementary school property line, adjacent to the creek and around the new northerly bridge approach; gates would be provided to allow access from the elementary school to the new bridge/trail and the existing neighborhood pedestrian bridge.

The water surface elevation in the creek at this location, based on FEMA flood mapping information for the 100-year flood, is between 254 and 255 ft. The proposed bridge elevation is based on 4 ft of freeboard to the bridge soffit above the 100-year water surface elevation. The freeboard is based on SCVWD design criteria.

There are several existing water and sanitary sewer lines at the bridge location. The water lines on the south creek bank would be relocated by the utility owner, prior to bridge construction, as part of the proposed project.

3.0 EXCEPTIONS TO POLICY

Normal procedures were assumed for the construction of the trail and bridge structure throughout our analyses and represent one of the bases of recommendations presented herein. The recommendations of the proposed foundations have followed Caltrans policy and design guidelines.

4.0 FIELD EXPLORATIONS

Field exploration was not performed for this preliminary foundation report. Future field exploration and laboratory test details are discussed in Section 12.

5.0 SITE GEOLOGY AND SUBSURFACE CONDITIONS

5.1 Site Geology

General geologic features pertaining to the project site were evaluated by reference to Geologic map of the Cupertino and San Jose West quadrangles, Santa Clara and Santa Cruz Counties, California, 2007 by Dibblee, T.W., and Minch, J.A. Based on the publication, the project site and its vicinity is generally underlain by the following Quaternary geologic unit:

Qa.1:Surficial Sediments, alluvial gravel, fine-grained, silt and gravel; where differential represnts alluvial fan deposits at base of slopes and upper fan areas.

A portion of the published Geologic Map covering the project site is attached as Plate No. 2.

5.2 Subsurface Conditions

At this time, site specific subsurface data is not available along the project alignment and POC location. We refereed as-built Log of Test Boring (LOTB) of nearby structures from Caltrans database. More Ave Pedestrian Overcrossing and Quito Road Overcrossing over HWY 85 as-built LOTB are the only available subsurface data close to the site. Based on the geology map, these two locations underlain by same geologic unit. The locations of the referenced overcrossing are shown in Plate 1, Project Location Map.

Based on the Quito Road Overcrossing as-built LOTB, the subsurface soil consists of dense to very dense silty sand, clayey sand and gravelly sand with interbedded layer of hard sandy lean clay to the maximum explored depth of 83.5 feet (elevation 197.5 feet). Based on the More Avenue Pedestrian Overcrossing as-built LOTB, the subsurface soil consists of soft to hard silty clay and gravelly clay with interbedded layers of loose to dense silty sand, gravelly sand, clayey gravel and sandy gravel layers to the maximum explored depth of 86 feet (elevation 189 feet). The as-built LOTB sheets are presented in Appendix A.

Due to limitations inherent in geotechnical investigations, it is neither uncommon to encounter unforeseen variations in the soil conditions during construction nor is it practical to determine all such variations during an acceptable program of drilling and sampling for a project of this scope. Such variations, when encountered, generally require additional engineering services to attain a properly constructed project. We, therefore, recommend that a contingency fund be provided to accommodate any additional charges resulting from technical services that may be required during construction.

6.0 GROUNDWATER

Based on the as-built boring data of nearby structures, groundwater was encountered between the depth of 51 feet to 56 feet (between elevation 221 feet and 226 feet) from the surface in October and November, 1989 and June, 1990. Existing surface elevation at proposed POC location is around 250 feet. Groundwater may vary with the passage of time due to seasonal groundwater fluctuation, local irrigation practice, surface and subsurface flows, ground surface run-off, and other factors that may not be present at the time of investigation.

7.0 AS-BUILT FOUNDATION DATA

Currently, there is no existing structures at the site. We referenced nearby structure as-built existing LOTB data, which are listed below.

1. As-Built LOTB for More Ave Pedestrian Overcrossing, Bridge No: 37-523, Dated 01-13-92.
2. As-Built LOTB for Quito Ave Overcrossing, Bridge No: 37-525, Dated 12-14-90.

8.0 SCOUR EVALUATION

It is our understanding that scour evaluation will be performed by others.

9.0 CORROSION EVALUATION

Corrosion Test results are not available at this time at the project site. Corrosion tests should be performed during PS&E phase.

10.0 SEISMIC RECOMMENDATIONS

10.1 Seismic Sources

The project site is located in a seismically active part of central California. Many faults existing in central California are capable of producing earthquakes and may cause strong ground shaking at the site.

Maximum moment magnitudes (MMax) of some of the closest faults in the area are based on the Caltrans ARS Online (v2.3.09) Report. These maximum moment magnitudes represent the largest earthquake a fault is capable of generating and is related to the seismic moment. The earthquake data of the active faults in the project vicinity are summarized below.

TABLE 2 – EARTHQUAKE DATA

Fault (Fault ID)	Maximum Magnitude, M_{Max}	Fault Type	Approx. Distance R_{rup}/R_x (km)*
Cascade fault (153)	6.7	Reverse	2.16/2.82
San Andreas (Santa Cruz Mts) 2011 CFM (158)	8	Strike-Slip	8.53/8.53
Monte Vista-Shannon (154)	6.4	Reverse	1.18/1.18
San Andreas (Peninsula) 2011 CFM (134)	8	Strike-Slip	11.34/7.69
Silver Creek (148)	6.9	Strike-Slip	12.16/12.16

* Distances are based on Caltrans ARS online and only for ground motion estimation purpose. Not recommended to locate faults for site specific studies.
R_{rup} = Closest distance to the fault rupture plane
R_x = Horizontal distance to the fault trace or surface projection of the top of rupture plane

10.2 Seismic Hazards

Faulting

The site is located outside the designated State of California Alquist-Priolo Earthquake Fault Zones for active faulting and no mapped evidence of active or potentially active faulting was found for the site. The potential for fault rupture at the site appears to be low.

Liquefaction

As discussed in section 5.2, site specific subsurface data are not available at the proposed POC location. Based on the Liquefaction Susceptibility Map (Maps of Quaternary Deposits and Liquefaction Susceptibility in the Central San Francisco Bay Region, California, by Robert C. Witter, Keith L. Knudsen, Janet M. Sowers1, Carl M. Wentworth, Richard D. Koehler, and Carolyn E. Randolph, 2006), liquefaction potential is moderate to very high at the proposed POC location. The liquefaction potential should be evaluated based on site specific subsurface data during PS&E phase. Liquefaction Susceptibility Map is attached in Appendix (Plate No. 5).

10.3 Seismic Design Criteria

The recommended design response spectrum for the proposed overcrossing structure was determined using the Caltrans ARS Online tool (V2.3.09). The development of the design ARS curve is based on several input parameters, including site location (longitude/latitude), average shear wave velocity for the top 30m/100 feet (V_{s30m}), and other site parameters, such as fault characteristics and site-to-fault distances.

The design methods incorporate both deterministic and probabilistic seismic hazards to produce the Design Response Spectrum. The controlling spectrum (upper envelope) is adopted for the design response spectrum.

Average shear wave velocities for the top 100 feet of soils at the site were estimated by using established correlations and procedure provided in Caltrans Methodology for Developing Design Response Spectrum for use in Seismic Design Recommendations (2012). As discussed in section 5.2, nearby structure as-built LOTB subsurface data were used for shear wave velocity calculation. Shear wave velocity calculation should be verified based on site specific subsurface data during PS&E phase. Shear wave velocity calculations are attached in Appendix B. The site location and the relevant parameters are summarized as follows.

- Site Location: 37.273854ºN/121.981904ºW (Proposed POC location)
- Calculated V_{S30m} = 290 m/s
- No adjustments were required for basin effect.
- The curve has been modified to account for the proximity of the site to the fault. The spectral accelerations at periods of 1.0 sec. and greater have been increased by 20%. A linear interpolation is used between 0.5 and 1 sec.

- The recommended ARS curve is based on the "Caltrans Online Probabilistic" method.
- Anticipated Peak Ground Acceleration (PGA): 0.714g

The recommended design curve is presented on Plate 4A.

11.0 PRELIMINARY FOUNDATION CONSIDERATION

The project appears feasible with current civil and geotechnical engineering design practice and construction technology. Caltrans standard design (including standard specifications and any special provisions) and construction methods are assumed at this time but detailed studies are needed for final design.

As discussed in Section 5.2, the nearby structures as-built LOTB borings encountered soft to hard clayey soils and loose to very dense sandy soils and gravels. In our opinion, Cast-in-drilled-hole (CIDH) concrete piles are considered to be feasible for the proposed POC location. Due to the presence of groundwater and sandy materials, Caltrans standard slurry displacement method and temporary casing should be anticipated at all times during construction of CIDH piles. Driven pipe piles (Caltrans Alt. W - open end unfilled pipe piles), steel H-piles and driven precast/prestressed concrete driven piles (Caltrans Alt. X) may not be feasible, since very dense sand and gravel layered encountered at shallow depth in nearby structures. Pile type should be verified during PS&E phase based on site specific subsurface data at proposed POC location.

Both axial and lateral pile capacities should be analyzed during design to determine the controlling pile tip elevations with consideration of liquefaction, downdrag forces, etc. A minimum pile spacing of three times the pile diameter, center to center, is recommended. It is our understanding that bridge foundation design will be using the loads from LRFD Service, Strength and Extreme Event limit states.

Foundation recommendations and lateral earth pressure parameters for the retaining wall, planned at trail approaches at each side of the POC, will be provided during PS&E phase.

12.0 ADDITIONAL FIELD WORK AND LABORATORY TESTING

Based on the as-built boring data from nearby structures, the subsurface condition is expected to consist of both granular soils and fine grained soil. As discussed in Section 2, single span is considered at this preliminary stage. We recommend drilling one boring at each abutment. It is expected that the borings will be advanced by hollow stem and/or rotary wash drilling methods.

The proposed exploration locations are subject to change due to physical or utility constraints to access, to improve safety and setup conditions. We also recommend collecting 5-6 R-value samples at shallow depth (0-5 feet) for the pavement design.

Laboratory tests will be performed on selected samples to evaluate the physical and engineering properties of the subsoils. The laboratory tests planned for the study include the following, but not limited to: Moisture Content (California Test Method 226), Unit Weight (ASTM D7263-09), Atterberg Limits (California Test Method 204), Particle Size Analysis (California Test Method 202), Unconfined Compression (ASTM D2166), Corrosivity Testing (California Test Method 643, 417, and 422), and R-value Test (California Test Method 301).

13.0 INVESTIGATION LIMITATIONS

Our services consist of professional opinions and recommendations made in accordance with generally accepted geotechnical engineering principles and practices and are based on our site reconnaissance and the assumption that the subsurface conditions do not deviate from observed conditions. All work done is in accordance with generally accepted geotechnical engineering principles and practices. No warranty, expressed or implied, of merchantability or fitness, is made or intended in connection with our work or by the furnishing of oral or written reports or findings.

The scope of our services did not include any environmental assessment or investigation for the presence or absence of hazardous or toxic materials in structures, soil, surface water, groundwater or air, below or around this site.

Unanticipated soil conditions are commonly encountered and cannot be fully determined by taking soil samples and excavating test borings; different soil conditions may require that additional expenditures be made during construction to attain a properly constructed project. Some contingency fund is thus recommended to accommodate these possible extra costs.

This report has been prepared for the proposed project as described earlier, to assist the engineer in the design of this project. In the event any changes in the design or location of the facilities are planned, or if any variations or undesirable conditions are encountered during construction, our conclusions and recommendations shall not be considered valid unless the changes or variations are reviewed and our recommendations modified or approved by us in writing.

This report is issued with the understanding that it is the designer's responsibility to ensure that the information and recommendations contained herein are incorporated into the project and that necessary steps are also taken to see that the recommendations are carried out in the field.

The findings in this report are valid as of the present date. However, changes in the subsurface conditions can occur with the passage of time, whether they are due to natural processes or to the works of man, on this or adjacent properties. In addition, changes in applicable or appropriate standards occur, whether they result from legislation or from the broadening of knowledge. Accordingly, the findings in this report might be invalidated, wholly or partially, by changes outside of our control.

Respectfully submitted,
PARIKH CONSULTANTS, INC.

Kandeep Saravanapavan, P.E., GE 3040
Senior Project Engineer

Y. David Wang, PhD, P.E. 52911
Senior Engineer