County of Santa Cruz

COMMUNITY DEVELOPMENT AND INFRASTRUCTURE
701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123
www.sccoplanning.com

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)
INITIAL STUDY/ENVIRONMENTAL CHECKLIST

Date:	Jan. 12, 2023	**Application Number:**	211213
Project Name:	Monterey Glen Subdivision	**Staff Planner:**	Jerry Busch

I. OVERVIEW AND ENVIRONMENTAL DETERMINATION

APPLICANT: Charlie Eadie **APN(s):** 037-211-01

OWNER: Monterey Avenue, LLC **SUPERVISORIAL DISTRICT:** Dist. 1

PROJECT LOCATION: The project is located on the north side of Loraine Lane within the community of Soquel in unincorporated Santa Cruz County (Figure 1). Santa Cruz County is bounded on the north by San Mateo County, on the south by Monterey and San Benito counties, on the east by Santa Clara County, and on the south and west by the Monterey Bay and the Pacific Ocean.

SUMMARY PROJECT DESCRIPTION:

Proposal to subdivide an existing 41,019 square foot parcel into six (6) lots plus a common interest conservation parcel, to construct six dwelling units and install an entrance gate. Requires a tentative map approval, residential development permit, design review, overheight fence approval, environmental review and a roadway/roadside exception to allow a street width of 24' with no sidewalks or on-street parking. The application also includes a request for a 5% Residential Density Bonus in exchange for provision of one moderate-income affordable unit, a request for one concession to allow for priority processing and a request for waivers to development standards to allow for: 1) reduced site width and frontage on Lot 6, 2) reduced lot coverage and floor area ratio on Lots 1 and 6, and 3) to allow a parcel (Lot 6) smaller than 3,500 sq.ft. in area, and 4) to allow semi-detached units with reduced setbacks in the R-1-9 zone district on Lots 1 and 6. The project also includes a request for reduced parking for Lot 6 as allowed for Density Bonus projects.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: *All of the following potential environmental impacts are evaluated in this Initial Study. Categories that are marked have been analyzed in greater detail based on project specific information.*

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

DISCRETIONARY APPROVAL(S) BEING CONSIDERED:

- ☐ General Plan Amendment
- ☒ Land Division
- ☐ Rezoning
- ☒ Development Permit
- ☐ Sewer Connection Permit
- ☐ Coastal Development Permit
- ☐ Grading Permit
- ☐ Riparian Exception
- ☐ LAFCO Annexation
- ☐ Other:

OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED (e.g., permits, financing approval, or participation agreement):

Permit Type/Action	Agency
None Required	N/A

CONSULTATION WITH NATIVE AMERICAN TRIBES: *Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?*

No California Native American tribes traditionally and culturally affiliated with the area of Santa Cruz County have requested consultation pursuant to Public Resources Code section 21080.3.1.

DETERMINATION:

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find 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 or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

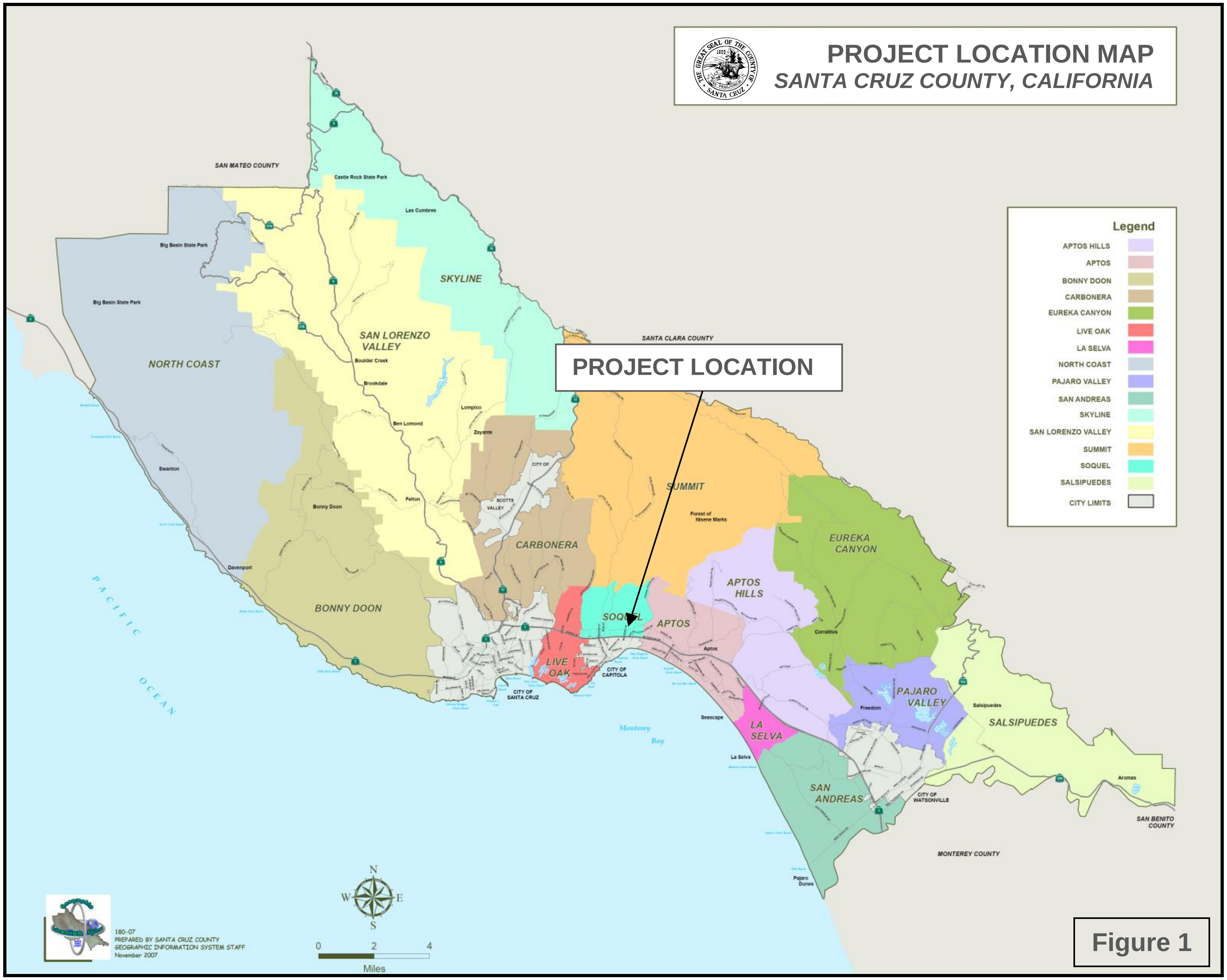
☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find 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.

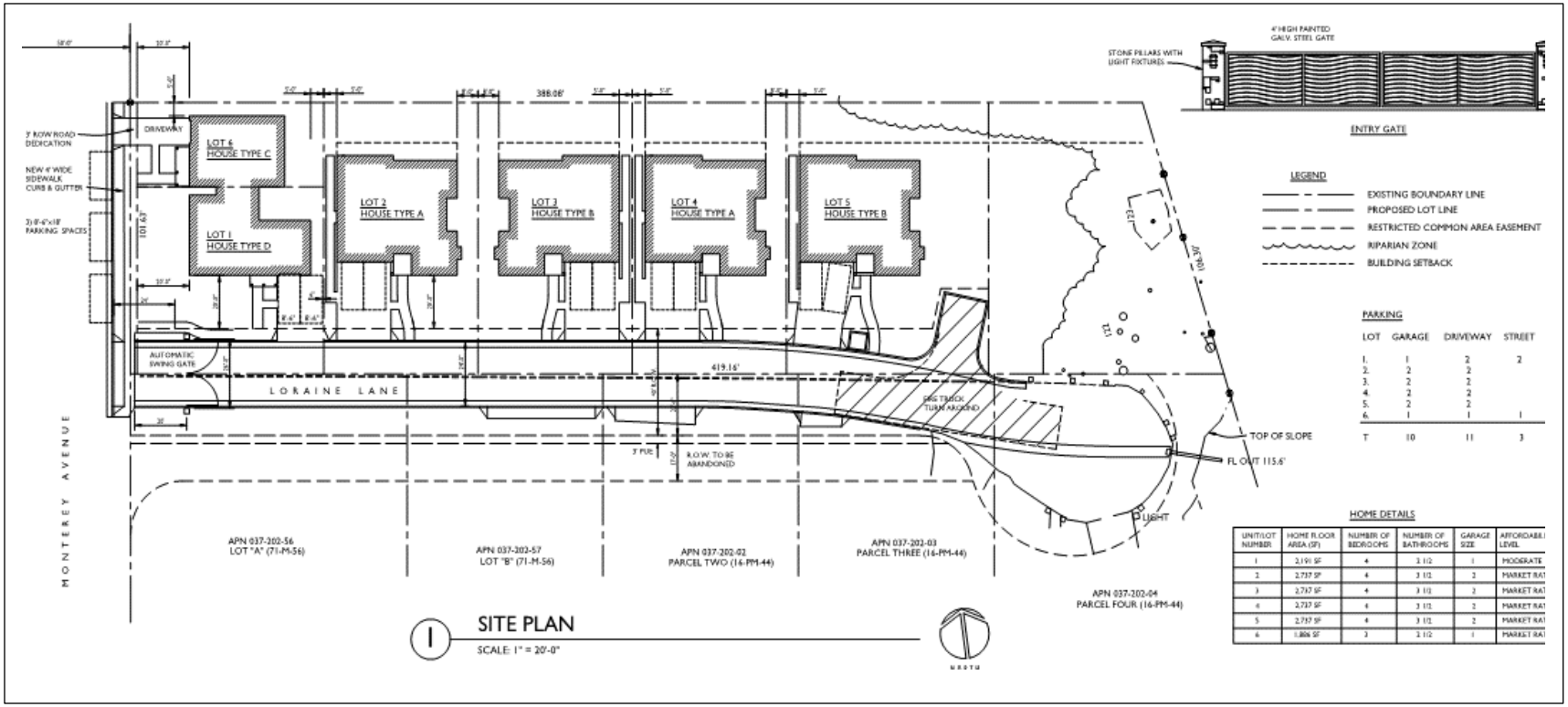
☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to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

MATT JOHNSTON, Environmental Coordinator _____ Date

This page intentionally left blank.


PROJECT LOCATION MAP
SANTA CRUZ COUNTY, CALIFORNIA
PROJECT LOCATION
Legend
APTOS HILLS
APTOS
BONNY DOON
CARBONERA
EUREKA CANYON
LIVE OAK
LA SELVA
NORTH COAST
PAJARO VALLEY
SAN ANDREAS
SKYLINE
SAN LORENZO VALLEY
SUMMIT
SOQUEL
SALSIPUEDES
CITY LIMITS
SAN MATEO COUNTY
SANTA CLARA COUNTY
MONTEREY COUNTY
SAN BENITO COUNTY
NORTH COAST
SAN LORENZO VALLEY
SKYLINE
CARBONERA
SUMMIT
EUREKA CANYON
APTOS HILLS
APTOS
SOQUEL
LIVE OAK
BONNY DOON
LA SELVA
SAN ANDREAS
PAJARO VALLEY
SALSIPUEDES
PACIFIC OCEAN
Monterey Bay
CITY OF SANTA CRUZ
CITY OF CAPITOLA
CITY OF WATSONVILLE
Miles
0
2
4
N
S
E
W
180-07
PREPARED BY SANTA CRUZ COUNTY
GEOGRAPHIC INFORMATION SYSTEM STAFF
November 2007
Figure 1

This page intentionally left blank.



Project Site Plan **Figure 2**

This page intentionally left blank.

II. BACKGROUND INFORMATION

EXISTING SITE CONDITIONS:

Parcel Size (acres):	Approximately 41,019 sq.ft.
Existing Land Use:	Vacant
Vegetation:	Ruderal, mowed vacant lot with four small oak trees: 90% Riparian: 10%

Slope in area affected by project: ☒ 0 - 30% ☐ 31 – 100% ☐ N/A

Nearby Watercourse:	Unnamed, intermittent stream - tributary of Nobel Gulch
Distance To Watercourse:	Watercourse is approximately 10 feet east of the property boundary at the closest point.

ENVIRONMENTAL RESOURCES AND CONSTRAINTS:

Water Supply Watershed:	NA	Fault Zone:	NA
Groundwater Recharge:	NA	Scenic Corridor:	NA
Timber or Mineral:	NA	Historic:	NA
Agricultural Resource:	NA	Archaeology:	NA
Biologically Sensitive Habitat:	Yes	Noise Constraint:	Yes
Fire Hazard:	NA	Electric Power Lines:	NA
Floodplain:	NA	Solar Access:	NA
Erosion:	NA	Solar Orientation:	NA
Landslide:	NA	Hazardous Materials:	NA
Liquefaction:	Low potential	Other:	NA

SERVICES:

Fire Protection:	Central	Drainage District:	Zone 5
School District:	Santa Cruz High, Soquel Union Ele.	Project Access:	Private r.o.w. and public street
Sewage Disposal:	<INSERT>	Water Supply:	<INSERT>

PLANNING POLICIES:

Zone District:	R-1-9	Special Designation:	NA
General Plan:	R-UL	Residential, Urban Low	
Urban Services Line:	☒ Inside	☐ Outside	
Coastal Zone:	☐ Inside	☒ Outside	

ENVIRONMENTAL SETTING AND SURROUNDING LAND USES:

Natural Environment

Santa Cruz County is uniquely situated along the northern end of Monterey Bay approximately 55 miles south of the City of San Francisco along the Central Coast. The Pacific Ocean and

Monterey Bay to the west and south, the mountains inland, and the prime agricultural lands along both the northern and southern coast of the county create limitations on the style and amount of building that can take place. Simultaneously, these natural features create an environment that attracts both visitors and new residents every year. The natural landscape provides the basic features that set Santa Cruz apart from the surrounding counties and require specific accommodations to ensure building is done in a safe, responsible and environmentally respectful manner.

The subject site is within in a residential neighborhood of single-family homes, located about halfway between Soquel Village and Cabrillo College. Parcel sizes in the neighborhood range widely in size from 6,000-8,000 sq.ft. per lot in recent land divisions to 10,0000-20,000 sq.ft. in older parcels. The proposed subdivision would share a right-of-way with Loraine Lane; the opposite side of Loraine Lane is comprised of six single-family dwellings on parcels averaging about 8,500 sq.ft. net site area.

At the eastern end of the subject parcel is approximately 4,137 sq.ft. (0.1 acres) of riparian habitat, bordering an unnamed intermittent stream slightly to the east of the parcel. The riparian community includes a variety of native and nonnative plants, with an overstory of Coast live oak *(Quercus agrifolia*), Western sycamore (Platinus racemose) box elder (Acer negundo) and common elderberry (Sambucus nigra), along the higher edge of the banks.

PROJECT BACKGROUND:

In March of 2018 a Project Review Consultation was completed for the site, indicating that a findings could potentially be made for a rezone from R-1-9 to R-1-6 to facilitate a 4-5 lot land division, based on housing trends in the area and the Santa Cruz County General Plan Sustainability Update. The PRC also noted that the eastern end of the parcel contained a riparian corridor, and that a riparian presite was recommended to establish the riparian buffer requirements and net developable area. In June of 2021, an application was received to rezone the property to R-1-6, create five lots and a common parcel, implement a riparian set-aside and restoration plan and construct five residential units. After discussions with Planning and Housing, the application was revised to delete the request for a rezoning and instead include a request for a Density Bonus pursuant to the provisions of SCCC Chapter 17.12, Residential Density Bonuses and Affordability Incentives. With a Density Bonus the allowable density is calculated based on the highest density allowed by the General Plan rather than the zoning, thereby allowing increased density, which then allows for the development of additional units based upon the provision of onsite affordable units. For the project site the General Plan land use classification is R-UL (Urban Low Density Residential), which allows development within the range of 4.4 – 7.2 units per acre, equating to parcel sizes of between 6,000 to 10,000 square feet. Therefore, pursuant to a request for a Density Bonus, development at an average density of 6,000 sq.ft. per unit is allowed.

DETAILED PROJECT DESCRIPTION:

The proposed project would subdivide parcel into six (6) lots plus a common interest conservation parcel (parcel A). As proposed, the revised project includes a total of six (6) dwelling units, which represents a density bonus of 5% based upon the provision of one additional unit that will be affordable to moderate income households. The resulting density of the project would be approximately 6,836 sq.ft. per unit, consistent with the General Plan as allowed for a Density Bonus application. The gross area and net site area for each parcel are provided in the following table:

Lot Number	Gross Area	Net Site Area *(Gross area minus rights of way)*
1	5,214	3,790
2	6,098	5,078
3	6,098	5,078
4	6,098	5,078
5	7,571	6,006
6	2,358	2,263

Because it is not possible to develop the site in accordance with all site and development standards for the site's R-1-9 zone district and also to create a conservation parcel, the project requires the approval of several waivers to development standards. These include 1) reduced site width and frontage requirements for lot 6, 2) increased lot coverage and floor area allowances on lots 1 and 6, 3) allowing two single-family dwellings to be semi-detached, with a shared wall across one property line with zero setbacks, and 4) allowing a lot smaller than 3,500 sq.ft. Specifically, the requested waivers would result in the following: The minimum frontage and width for lot 6 would be reduced from the R-1-9 standard (60') to 31.63 feet. The allowable FAR on lot 1 would be increased from the zoning standard of 50% to 51.8% and for lot 6 would be increased to 73%, and the maximum lot coverage on lot 6 would be increased from 40% to 46%. Despite the increased FAR on Lot 6, the proposed structure would not visually intrude into the street view.

The proposed parking on five of the six proposed parcels would equal or exceed County standards. However, the project includes a request for reduced parking for lot 6 in accordance with allowed parking standards for Density Bonus projects, to allow for the provision of two spaces for lot 6 where a total of three spaces would be required by County Code. However, under State law, no more than one offstreet space per the proposed structures in this subdivision can be required, due to the affordable components.

The property owners on the south side of Loraine Lane provided a vehicular easement to the applicant to allow the site to be developed, but required the expanded street to maintain the rustic aesthetic of the existing street, with no sidewalks or on-street parking, only a curb, gutter and drainage structures. Street parking, sidewalk, curb and gutter would be provided on the frontage on Monterey Ave. The Transportation Section's permit comments accepted these street specifications. Although no landscaping is proposed within the expanded Loraine Way easement, a landscape plan was submitted to install trees and other vegetation on each parcel out to the curb.

The proposed project would comply with SCCC Ch. 13.11 Design Review, in that the proposed dwellings feature nicely articulated, heterogeneous facades with dormers, projections, trimmed windows and lap siding, in brown, beige and gray earth tone colors with russet reference doors, and all structures would be partially screened with landscaping. The affordable unit on lot 1, would be indistinguishable from the other units and not the smallest dwelling. Photo simulations were provided as shown below.

The Arborist Report (Attachment 3) identified five small oak trees that would be removed to allow construction of the street. One large diameter oak in the riparian habitat is in danger of falling and would be removed for safety reasons. Three additional oaks, also small (4". 4" &

12") diameter are adjacent to the existing street and in poor condition; these will be re-evaluated when the site is staked for grading.

The conservation parcel would permanently preserve a 4,137 sq.ft. area of riparian corridor and would also provide riparian enhancement to a 20-foot-wide riparian buffer and a 10-foot construction setback. The total area of the conservation parcel would be 7,582 sq.ft., making it the largest parcel in the project. The proposed Riparian Enhancement Plan (Attachment 2) would remove invasive vegetation including eucalyptus trees, French broom, periwinkle, Italian thistle and several other plant species, and require the site to be maintained free of identified invasive species in perpetuity. The project conditions of approval would require the Homeowner's Association or Maintenance Agreement to require a qualified biological consultant to maintain the site free of identified invasive species and maintain native vegetation in perpetuity. Native plants including Coast live oak, Western sycamore, box elder, common elderberry, coffee berry, snowberry, flowering current and California rose would be installed and a split rail fence constructed to identify and protect the area.

III. ENVIRONMENTAL REVIEW CHECKLIST

A. AESTHETICS AND VISUAL RESOURCES

Except as provided in Public Resources Code section 21099, would the project:

1.	*Have a substantial adverse effect on a scenic vista?*	☐	☐	☐	☒

Discussion: The project is located in an urban setting near Soquel Village. The project would have no impact any public scenic vistas in the area.

2.	*Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*	☐	☐	☐	☒

Discussion: The project site is not located along a designated state scenic highway, a County-designated scenic road, public viewshed area, scenic corridor, or scenic resource area. Therefore, no impact is anticipated.

3.	*Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from 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?*	☐	☐	☐	☒

Discussion: The project is designed to be consistent with County Code sections that regulate height, bulk, density, setback, landscaping, and design of new structures in the County. The project will require design review under County Code Chapter 13.11 – Site, Architectural and Landscape Design Review, including all applicable design guidelines. Therefore, no impact is anticipated.

4.	*Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*	☐	☐	☒	☐

Discussion: The project would contribute an incremental amount of night lighting to the visual environment. However, the following project conditions will reduce this potential impact to a less than significant level: All exterior lighting on residential parcels shall be directed downward and shielded to prevent offsite glare. No lighting will be allowed in the

conservation parcel. Streetlights will comply with all standards of the County Design Criteria. Therefore, a less than significant impact is anticipated.

B. AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

1.	*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?*	☐	☐	☐	☒

Discussion: The project site does not contain any lands designated as 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. In addition, the project does not contain Farmland of Local Importance. Therefore, no Prime Farmland, Unique Farmland, Farmland of Statewide or Farmland of Local Importance would be converted to a non-agricultural use. No impact would occur from project implementation.

2.	*Conflict with existing zoning for agricultural use, or a Williamson Act contract?*	☐	☐	☐	☒

Discussion: The project site is zoned R-1-9, which is not considered to be an agricultural zone. Additionally, the project site's land is not under a Williamson Act contract. Therefore, the project does not conflict with existing zoning for agricultural use, or a Williamson Act contract. No impact is anticipated.

3.	*Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by*	☐	☐	☐	☒

Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

***Discussion*:** The project is not located near land designated as Timber Resource. Therefore, the project would not affect the resource or access to harvest the resource in the future. The timber resource may only be harvested in accordance with California Department of Forestry timber harvest rules and regulations. Therefore, no impact is anticipated.

4. *Result in the loss of forest land or conversion of forest land to non-forest use?* ☐ ☐ ☐ ☒

***Discussion*:** No forest land occurs on the project site or in the immediate vicinity. See discussion under B-3 above. No impact is anticipated.

5. *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?* ☐ ☐ ☐ ☒

***Discussion*:** The project site and surrounding area does not contain any lands designated as Prime Farmland, Unique Farmland, Farmland of Statewide Importance or Farmland of Local Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. Therefore, no Prime Farmland, Unique Farmland, Farmland of Statewide, or Farmland of Local Importance would be converted to a non-agricultural use. In addition, the project site contains no forest land, and no forest land occurs within miles of the project site. Therefore, no impacts are anticipated.

C. AIR QUALITY

The significance criteria established by the Monterey Bay Air Resources District (MBARD)[1] has been relied upon to make the following determinations. Would the project:

1. *Conflict with or obstruct implementation of the applicable air quality plan?* ☐ ☐ ☒ ☐

***Discussion*:** Santa Cruz County is located within the NCCAB. The NCCAB does not meet state standards for ozone (reactive organic gases [ROGs], nitrogen oxides [NOx]) and fine

[1] Formerly known as the Monterey Bay Unified Air Pollution Control District (MBUAPCD).

particulate matter (PM_{10}). Therefore, the regional pollutants of concern that would be emitted by the project are ozone precursors and PM_{10}.

The primary sources of ROG within the air basin are on- and off-road motor vehicles, petroleum production and marketing, solvent evaporation, and prescribed burning. The primary sources of NOx are on- and off-road motor vehicles, stationary source fuel combustion, and industrial processes. In 2010, daily emissions of ROGs were estimated at 63 tons per day. Of this, area-wide sources represented 49%, mobile sources represented 36%, and stationary sources represented 15%. Daily emissions of NOx were estimated at 54 tons per day with 69% from mobile sources, 22% from stationary sources, and 9% from area-wide sources. In addition, the region is "NOx sensitive," meaning that ozone formation due to local emissions is more limited by the availability of NOx as opposed to the availability of ROGs (MBUAPCD, 2013b).

PM_{10} is the other major pollutant of concern for the NCCAB. In the NCCAB, highest particulate levels and most frequent violations occur in the coastal corridor. In this area, fugitive dust from various geological and man-made sources combines to exceed the standard. The majority of NCCAB exceedances occur at coastal sites, where sea salt is often the main factor causing exceedance. In 2005 daily emissions of PM_{10} were estimated at 102 tons per day. Of this, entrained road dust represented 35% of all PM_{10} emission, windblown dust 20%, agricultural tilling operations 15%, waste burning 17%, construction 4%, and mobile sources, industrial processes, and other sources made up 9% (MBUAPCD, 2008).

Given the modest amount of new traffic (one peak hour trip per dwelling unit, or six total peak hour trips) that would be generated by the project there is no indication that new emissions of ROGs or NOx would exceed MBARD thresholds for these pollutants; and therefore, there would not be a significant contribution to an existing air quality violation. Therefore, a less-than-significant impact is anticipated.

2. *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*	☐	☐	☒	☐

***Discussion*:** The primary pollutants of concern for the NCCAB are ozone and PM_{10}, as those are the pollutants for which the district is in nonattainment. Project construction would have a limited and temporary potential to contribute to existing violations of California air quality standards for ozone and PM_{10} primarily through diesel engine exhaust and fugitive dust. The criteria for assessing cumulative impacts on localized air quality are the same as those for assessing individual project impacts. Projects that do not exceed MBARD's construction or operational thresholds and are consistent with the AQMP would not have cumulatively

considerable impacts on regional air quality (MBARD, 2008). Because the project would not exceed MBARD's thresholds and is consistent with the AQMP, there would not be cumulative impacts on regional air quality. Therefore, a less-than-significant impact is anticipated.

3.	*Expose sensitive receptors to substantial pollutant concentrations?*	☐	☐	☒	☐

Discussion: Where construction activity occurs in proximity to long-term sensitive receptors, a potential could exist for unhealthful exposure of those receptors to diesel exhaust from construction activities. The following sensitive receptors are found in the area:

- Daycare center, 305 Alturas Wy., approx. 533 feet to the southwest.
- Montessori School, 2446 Cabrillo College Dr., approx. 685 feet to the southwest.
- Daycare center, 838 Monterey Ave., approx. 0.3 miles to the southwest.
- Twin Lakes Elementary and Middle Schools, 2701 Cabrillo College Dr., approx. 0.5 miles to the east.
- Cabrillo College, 6500 Soquel Dr., approx. 0.6 miles to the northeast.

The proposed subdivision project would not generate substantial pollutant concentrations. Since only minimal grading is proposed in association with the project and because the site is only 41,019 square feet (0.94 acre) in size, the daily emissions from construction activities would be well below the threshold of significance determined by the MBARD. In addition, emissions from construction activities represent temporary impacts that are typically short in duration. Impacts to sensitive receptors would therefore be less than significant.

4.	*Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*	☐	☐	☒	☐

***Discussion*:** Land uses typically producing objectionable odors include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project does not include any uses that would be associated with objectionable odors. Odor emissions from the proposed project would be limited to odors associated with vehicle and engine exhaust and idling from cars entering, parking, and exiting the facility. The project does not include any known sources of objectionable odors associated with the long-term operations phase.

During construction activities, only short-term, temporary odors from vehicle exhaust and construction equipment engines would occur. California ultralow sulfur diesel fuel with a maximum sulfur content of 15 ppm by weight would be used in all diesel-powered equipment, which minimizes emissions of sulfurous gases (sulfur dioxide, hydrogen sulfide, carbon disulfide, and carbonyl sulfide). As the project site is in a coastal area that contains

coastal breezes off of the Monterey Bay, construction-related odors would disperse and dissipate and would not cause substantial odors at the closest sensitive receptors (located approximately 533-685 feet from the project site). Construction-related odors would be short-term and would cease upon completion. Therefore, no objectionable odors are anticipated from construction activities associated with the project.

The project would not create objectionable odors affecting a substantial number of people; therefore, the project is not expected to result in significant impacts related to objectionable odors during construction or operation. Therefore, a less-than-significant impact is anticipated.

D. BIOLOGICAL RESOURCES

Would the project:

1.	*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 Wildlife, or U.S. Fish and Wildlife Service?*	☐	☒	☐	☐

Discussion: A query was conducted of the California Natural Diversity Database (CNDDB), maintained by the California Department of Fish and Wildlife, and relevant records were found for two sensitive animal species: obscure bumblebee (*Bombus caliginosus)* and Western bumblebee *(Bombus occidentalis).* Both recorded observations were located approximately one mile from the project site. A site review was conducted by Environmental Planner Robert Loveland, who determined that suitable habitat (grassland and woodland/open land mosaic) was not present for either species of bumblebee, so no biotic report was required.

Migratory Bird Treaty Act

Migratory birds are protected under the federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10 including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). All migratory bird species are protected by the MBTA. Any disturbance that causes direct injury, death, nest abandonment, or forced fledging of migratory birds, is restricted under the MBTA. Any removal of active nests during the breeding season or any disturbance that results in the abandonment of nestlings is considered a "take" of the species under federal law.

Sensitive Mammal Species

The dense riparian habitat and mature trees represent potential habitat for dusky-footed woodrats, a state listed species of special concern, and sensitive bat species listed on the Western Bat Working Groups list recognized by the Department of Fish and Wildlife.

Impacts

Although the riparian corridor and buffer on site provide potential nesting habitat for birds of prey and birds listed by the MBTA, no development is proposed in the riparian habitat, nor is any development proposed in the buffer area except for approximately 150 sq.ft. of ruderal (disturbed) vegetation with no potential nesting habitat – lining the fire turnaround. A Riparian Enhancement Plan, including tree planting, is proposed for the riparian buffer area to expand / enhance riparian habitat, potentially increasing breeding activity onsite site by migratory birds.

The arborist assessed 21 trees on the site. Five small diameter oak trees (outside the riparian area) are within the proposed street and necessary to remove. None of these comprise likely nesting habitat for migratory birds. One large-diameter (38-inch) mature eucalyptus trees within the riparian corridor is also proposed for removal due to impacts related to road improvements. This tree is not likely to be used by raptors or owls for nesting due to proximity to the street and nearby residential development; its removal would have a less than significant impact. One large diameter oak in the riparian habitat is in danger of falling and will be removed for safety reasons. Because the oak would otherwise fail naturally, its removal would have a less than significant impact. Three additional oaks, all small (4". 4" & 12") diameter adjacent to the existing street on the site are in poor condition and will be evaluated for removal as soon as the site is staked.

The Riparian Enhancement Plan for the project (Attachment 2) identifies four additional mature eucalyptus trees and seven saplings to be removed. Cumulatively, five mature eucalyptus trees would be removed, comprising potential breeding habitat for raptors and other species protected by the MBTA. Implementation of the mitigation measures listed below during project implementation would result in a less than significant impact on raptors and other species protected by the MBTA. For additional discussions on riparian habitat, see section 2. (below).

Tree removal and riparian habitat restoration activities have the potential to remove or disturb trees or shrubs used by bats for roosting or rearing young, or to disturb wood rat nests or habitat.

To ensure no significant impacts occur to any special status species, the mitigations listed below shall apply to any future development proposed on the subject parcel.

Mitigation Measures

BIO-1: Under the MBTA, nests that contain eggs or unfledged young are not to be disturbed during the breeding season.

• If Project-related construction work is scheduled during the nesting season (typically February 15 to August 30 for small bird species such as passerines; January 15 to September 15 for owls; and February 15 to September 15 for other raptors), a qualified biologist shall conduct two surveys for active nests of such birds within 14 days prior to the beginning of Project construction, with a final survey conducted within 48 hours prior to construction. Appropriate minimum survey radii surrounding the work area are typically the following: i) 250 feet for passerines; ii) 500 feet for small raptors such as accipiters; and iii) 1,000 feet for larger raptors such as buteos. Surveys shall be conducted at the appropriate times of day and during appropriate nesting times.
• If the qualified biologist documents active nests within the Project area or in nearby surrounding areas, a species appropriate buffer between the nest and active construction shall be established. The buffer shall be clearly marked and maintained until the young have fledged and are foraging independently. Prior to construction, the qualified biologist shall conduct baseline monitoring of the nest to characterize "normal" bird behavior and establish a buffer distance which allows the birds to exhibit normal behavior. The qualified biologist shall monitor the nesting birds daily during construction activities and increase the buffer if the birds show signs of unusual or distressed behavior (e.g., defensive flights and vocalizations, standing up from a brooding position, and/or flying away from the nest). If buffer establishment is not possible, the qualified biologist shall have the authority to cease all construction work in the area until the young have fledged, and the nest is not active.
• Tree removal activities shall be limited to the months between August 30 and January15, if feasible. If trees must be removed outside of the time frame above, the protocols described for Project construction in both paragraphs above shall be followed for tree removal.
• If an active nest is identified in or adjacent to the construction zone after construction has started, the buffer measures above will be implemented to ensure construction is not causing disturbance to the nest. (*As revised above, BIO-1 reflects CDFW comments dated 2-14-2023).*

BIO-2: In order to avoid impacts to special status bats, the following mitigation measures shall be implemented:

- Tree removal activities shall be limited to between September 15 and November 1, if feasible.
- A qualified biologist shall conduct surveys for special status bats 3-4 weeks prior to any site disturbance. If active roosts are present in trees to be retained, roosting bats shall be excluded from trees to be removed prior to any disturbance. In trees to be retained, no disturbance zones, set by the biologist based on the particular species present, shall be fenced off around the subject tree to ensure other construction activities do not harm sensitive species.
- The maternity roosting season for bats is March1 – July 3. Tree removal should be scheduled outside of the maternal roosting period if special status bats are present.

Before any trees are removed during the maternal roosting season, a qualified biologist shall perform surveys. If maternal roosts are present, disturbance shall be avoided until roosts are unoccupied. The biologist shall be responsible for ensuring bat roosts are vacated.

BIO-3: In order to avoid any potential impacts to San Francisco dusky footed woodrats, all nests must be avoided if feasible. If a nest must be moved, the following measures shall be implemented:

- 3-4 weeks before any riparian planting or invasive vegetation removal activities are initiated, the work area shall be surveyed by a qualified biologist to identify any woodrat houses. Such surveys shall be conducted both during the initial five-year reporting period and for invasive vegetation control in perpetuity.
- All woodrat houses shall be retained, with a minimum 10-foot buffer around each house that shall be staked and flagged. Workers shall be shown each woodrat nest and provided training on avoidance.
- If an invasive weed is found growing through a house, the stem can be cut off and painted at a level above the top of the house.
- No wood rat houses shall be disturbed without prior approval of the California Department of Fish and Wildlife.

With the mitigation measures described in this section, the impact to sensitive or special status species is anticipated to be less-than-significant.

2. *Have a substantial adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations (e.g., wetland, native grassland, special forests, intertidal zone, etc.) or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*	☐	☒	☐	☐

***Discussion*:** A riparian presite prepared in support of the project determined that riparian habitat occurs on the project site and recommends avoidance and minimization measures for protection of this habitat. An overview of sensitive natural communities in and adjacent to the project area, including discussion of potential project related impacts, is included below. The avoidance and minimization measures in the Riparian Enhancement Plan have been incorporated into the mitigation measures below to reduce project related impacts to less than significant.

Riparian Woodland

A riparian presite (REV211392) was conducted in July of 2021 by Environmental Planner Robert Loveland, who determined that the project site includes approximately 0.1 acres of riparian habitat at the eastern end of the parcel, adjacent to an offsite intermittent stream. The existing riparian woodland is dominated by an overstory of coast live oak (*Quercus agrifolia*), Western sycamore *(Platinus racemose)* and box elder *(Acer negundo)* and common elderberry *(Sambucus nigra)*, along the higher edge of the banks. The shrub layer is dominated by coffeeberry *(Frangula californica),* California blackberry *(Rubus ursinus)*, poison oak *(Toxicodendron diversilobum),* flowering currant *(Ribes sanguinium)* and California wild rose *(Rosa californica).* Riparian woodland is considered a sensitive natural community by the California Department of Fish and Wildlife (CDFW) and is regulated under the California Fish and Game Code section 1600 regarding lake and streambed alteration agreements. The riparian woodland in the project area falls within the CDFW stream zone, which extends laterally to the outer edge of riparian vegetation. In addition, riparian habitat is granted further protections under the County's Sensitive Habitat Protection and Riparian Corridor and Wetlands Protection ordinances (SCCC 16.30 and 16.32).

The proposed project would establish a common area (Parcel A) to provide permanent protection to riparian corridor and buffer areas, so the riparian habitat would be avoided. No riparian exception would be required for project implementation.

Additionally, a riparian enhancement and management plan for Parcel A was prepared by Kathleen Lyons of Biotic Resources Group, dated March 28, 2022 (Attachment 2). This plan has been reviewed and determined to be complete and compliant by the Planning Department Environmental Section). The Riparian Enhancement Plan includes removal of invasive vegetation including blue gum (*Eucalyptus globulus),* French broom *(Genista monspessulana)*, periwinkle *(Vinca major)*, Italian thistle *(Cardus pycnocephalus),* bull thistle *(Cirsium vulgare)* and Himalayan blackberry *(Rubus armeniacus).* Five mature eucalyptus trees and seven saplings would be removed. The restoration plan would establish native trees and shrubs within the western portion of Parcel A and in the eucalyptus tree removal areas. The vegetation planting would include Coast live oak (5), box elder (2) and Western sycamore (1), along with shrubs (29). The restoration plan includes 5-year performance standards for planted areas – or longer if necessary to achieve performance standards. The Riparian Enhancement Plan is exempt from SCCC Ch. 16.32, and does not require a riparian exception.

The Arborist Report (Attachment 3) submitted for the project was accepted by Environmental Planning (REV211390). The purposes of the Arborist Report were primarily to evaluate the health and structure of 21 trees on the site, determine the critical root zone areas of each and recommend a protection / removal plan based on construction impacts or

overall condition. To implement the project, five young oaks and one 38-inch eucalyptus tree would be removed to allow expansion of the existing street. Four additional oaks are declining and possibly impacted by the proposed project. The latter trees are to be further evaluated once the construction staking is established and the arborist can determine whether the trees can be saved or should be removed. The proposed conditions of approval for the project will include a requirement that the project arborist complete this final inspection before construction and their recommendations for protection or removal of these trees be implemented prior to construction. The Arborist Report specifies tree protection measures to ensure that none of the remaining trees are damaged by project construction. The trees to be removed are outside the riparian corridor and do not require a riparian exception.

Impacts

The riparian habitat on the site would be avoided, permanently protected and enhanced. Therefore, project impact would be less than significant.

To ensure that the Riparian Enhancement Plan and Arborist Report are property implemented, shall incorporate the following mitigation measures:

Mitigation Measures

The following mitigation measures, though not necessary to preserve the riparian habitat, will provide extra insurance that the project impacts are less than significant.

BIO-4: Removal of native trees shall be minimized with the following environmental commitments:

- Prior to construction, the Project Applicant and the Project Arborist shall identify the limits of construction so as to maximize native tree and shrub retention. Temporary fencing shall be placed along the limits of construction to avoid unnecessary disturbance to riparian woodland.
- All recommendations of the Arborist Report shall be implemented, including tree protection measures and tree removal as recommended in the report and further refined on a pre-construction site evaluation.

BIO-5: The Project shall enhance the existing riparian woodland by implementing the approved Riparian Enhancement Plan (Attachment 2). Riparian planting shall follow the requirements contained in the Plan, including the following elements:

- Removal of non-native, invasive plants.
- Maintain Parcel "A" free of invasive vegetation (as described in the Riparian Enhancement Plan) in perpetuity.
- Installation of a habitat restoration planting plan.

- Implementation of performance criteria for both plant removal and plant establishment.
- 5-year reporting requirement. Establish photo stations and take annual photographs to support verbal documentation. Submit annual reports with photographic evidence to the County of Santa Cruz Planning Department, Environmental Planning Section, every year for at least five years or longer as necessary to achieve described performance standards.

The riparian corridor and enhancement areas could be potentially affected by a new or additional sources of light that are not adequately deflected or minimized. The following mitigation measures will have been added to ensure that any potential impact will be reduced to a less than significant level:

BIO-6: The following measures shall be implemented to avoid light impacts:

- All attached residential lighting shall be low-intensity, minimal height, downward directed and shielded from lateral light spill.
- All detached lighting shall be low rise and downward directed and shielded from lateral light spill.
- Automatic lighting systems shall shut off automatically at 10 pm unless essential for safety and security.
- Street lighting shall meet all County Design Criteria standards for sensitive locations.

With the mitigation measures described in this section, the impact to sensitive or special status species is anticipated to be less-than-significant.

3.	*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?*	☐	☐	☐	☒

***Discussion*:** There are no mapped or designated federally protected wetlands on or adjacent to the project site. Therefore, no impacts would occur from project implementation.

4.	*Interfere substantially with the movement of any native resident or migratory fish or wildlife species or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*	☐	☐	☐	☒

Discussion: The project does not involve any activities that would interfere with the movements or migrations of fish or wildlife or impede use of a known wildlife nursery site. No impacts would occur from project implementation.

5.	*Conflict with any local policies or ordinances protecting biological resources (such as the Sensitive Habitat Ordinance, Riparian and Wetland Protection Ordinance, and the Significant Tree Protection Ordinance)?*	☐	☐	☒	☐

Discussion:

The project site includes a County-defined riparian corridor. See discussions and mitigation measures specified under D-1 and D-2 above. The project will avoid the riparian corridor and implement a Riparian Enhancement Plan, to insure consistency with the County of Santa Cruz Riparian Corridor and Wetlands Protection Ordinance.

The project is therefore consistent with the County of Santa Cruz Riparian Corridor and Wetlands Protection Ordinance, and impacts from project implementation would be less than significant.

6.	*Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*	☐	☐	☐	☒

Discussion: The project would not conflict with the provisions of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, no impact would occur.

E. CULTURAL RESOURCES

Would the project:

1.	*Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?*	☐	☐	☐	☒

Discussion: The existing site is vacant, therefore there are no structure(s) designated as a historic resource on any federal, state or local inventory. As a result, no impacts to historical resources would occur from project implementation.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
2. *Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?*	☐	☐	☐	☒

Discussion: No archaeological resources have been identified in the project area. Pursuant to SCCC section 16.40.040, if at any time in the preparation for or process of excavating or otherwise disturbing the ground, or any artifact or other evidence of a Native American cultural site which reasonably appears to exceed 100 years of age are discovered, the responsible persons shall immediately cease and desist from all further site excavation and comply with the notification procedures given in SCCC Chapter 16.40.040. Therefore, no impact is anticipated.

3. *Disturb any human remains, including those interred outside of dedicated cemeteries?*	☐	☐	☐	☒

Discussion: No impacts are expected to occur. However, pursuant to section 16.40.040 of the SCCC, and California Health and Safety Code sections 7050.5-7054, if at any time during site preparation, excavation, or other ground disturbance associated with this project, human remains are discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the Sheriff-Coroner and the Planning Director. If the coroner determines that the remains are not of recent origin, a full archaeological report shall be prepared, and representatives of local Native American Indian groups shall be contacted. If it is determined that the remains are Native American, the Native American Heritage Commission will be notified as required by law. The Commission will designate a Most Likely Descendant who will be authorized to provide recommendations for management of the Native American human remains. Pursuant to Public Resources Code section 5097, the descendants shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. Disturbance shall not resume until the significance of the resource is determined and appropriate mitigations to preserve the resource on the site are established. Therefore, no impact is anticipated.

F. ENERGY

Would the project:

1. *Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*	☐	☐	☒	☐

Discussion: The project, like all development, would be responsible for an incremental increase in the consumption of energy resources during site grading and construction, due to use of earth-moving and construction equipment. However, all project construction equipment would be required to comply with the California Air Resources Board (CARB) emissions requirements for construction equipment, which includes measures to reduce fuel-consumption, such as imposing limits on idling and requiring older engines and equipment to be retired, replaced, or repowered. In addition, the project would comply with General Plan policy 8.2.2, which requires all new development to be sited and designed to minimize site disturbance and grading. As a result, impacts associated with the small temporary increase in consumption of fuel during construction are expected to be less than significant.

The project involves site preparation, stormwater system installation, construction of street, curb and gutter, and construction of six dwelling units. No impacts are expected from project implementation. Therefore, the project will not result in wasteful, inefficient, or unnecessary consumption of energy resources, and the project impact is anticipated to be less-than-significant.

2.	*Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*	☐	☐	☐	☒

Discussion: AMBAG's 2040 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) recommends policies that achieve statewide goals established by CARB, the California Transportation Plan 2040, and other transportation-related policies and state senate bills. The SCS element of the MTP targets transportation-related greenhouse gas (GHG) emissions in particular, which can also serve to address energy use by coordinating land use and transportation planning decisions to create a more energy efficient transportation system.

The Santa Cruz County Regional Transportation Commission (SCCRTC) prepares a County-specific regional transportation plan (RTP) in conformance with the latest AMBAG MTP/SCS. The 2040 RTP establishes targets to implement statewide policies at the local level, such as reducing vehicle miles traveled and improving speed consistency to reduce fuel consumption.

In 2013, Santa Cruz County adopted a Climate Action Strategy (CAS) focused on reducing the emission of greenhouse gases, which is dependent on increasing energy efficiency and the use of renewable energy. The strategy intends to reduce energy consumption and greenhouse gas emissions by implementing a number of measures such as reducing vehicle miles traveled through County and regional long-range planning efforts, increasing energy efficiency in new

and existing buildings and facilities, increasing local renewable energy generation, improving the Green Building Program by exceeding minimum state standards, reducing energy use for water supply through water conservation strategies, and providing infrastructure to support zero and low emission vehicles that reduce gasoline and diesel consumption, such as plug in electric and hybrid plug in vehicles.

In addition, the Santa Cruz County General Plan has historically placed a priority on "smart growth" by focusing growth in the urban areas through the creation and maintenance of an urban services line. Objective 2.1 (Urban/Rural Distinction) directs most residential development to the urban areas, limits growth, supports compact development, and helps reduce sprawl. The Circulation Element of the General Plan further establishes a more efficient transportation system through goals that promote the wise use of energy resources, reducing vehicle miles traveled, and transit and active transportation options.

Energy efficiency is a major priority throughout the County's General Plan. Measure C was adopted by the voters of Santa Cruz County in 1990 and explicitly established energy conservation as one of the County's objectives. The initiative was implemented by Objective 5.17 (Energy Conservation) and includes policies that support energy efficiency, conservation, and encourage the development of renewable energy resources. Goal 6 of the Housing Element also promotes energy efficient building code standards for residential structures constructed in the County.

The project will be consistent with the AMBAG 2040 MTP/SCS and the SCCRTC 2040 RTP. The project would also be required to comply with the Santa Cruz County General Plan and any implemented policies and programs established through the CAS. In addition, the project design would be required to comply with CALGreen, the state of California's green building code, to meet all mandatory energy efficiency standards.

California Building Code energy requirements require all-electric construction. Applicable building codes are enforced both on subdivision improvement plans prior to filing the Final Map, and prior to building permit approval. Prior to both Final Map acceptance and building permit approval, plans will be revised to show no gas utilities or infrastructure, only electric power.

Therefore, the project would not conflict with or obstruct any state or local plan for renewable energy or energy efficiency and no impact is anticipated.

G. GEOLOGY AND SOILS

Would the project:

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
1.	*Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*				
A.	*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.*	☐	☐	☒	☐
B.	*Strong seismic ground shaking?*	☐	☐	☒	☐
C.	*Seismic-related ground failure, including liquefaction?*	☐	☐	☒	☐
D.	*Landslides?*	☐	☐	☒	☐

***Discussion (A through D)*:** All of Santa Cruz County is subject to some hazard from earthquakes, and there are several faults within the County. While the San Andreas fault is larger and considered more active, each fault is capable of generating moderate to severe ground shaking from a major earthquake. Consequently, large earthquakes can be expected in the future. The October 17, 1989, Loma Prieta earthquake (magnitude 7.1) was the second largest earthquake in central California history.

The project site is located outside of the limits of the State Alquist-Priolo Special Studies Zone or any County-mapped fault zone (County of Santa Cruz GIS Mapping, California Division of Mines and Geology, 2001). The project site is located about ten miles from the San Andreas fault zone. The project site is likely to be subject to strong seismic shaking during the life of the improvements, though the potential for ground surface rupture is low. The improvements would be designed in accordance with the California Building Code, which should reduce the hazards of seismic shaking and liquefaction. There is no indication that landsliding is a significant hazard at this site. Therefore, impacts related to seismic shaking and landslides are less than significant.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
2. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐

***Discussion*:** Some potential for erosion exists during the construction phase of the project, however, this potential is minimal because the site is relatively flat, the preliminary grading plan indicates only minor grading, and standard erosion controls are a required condition of the project. Prior to approval of a grading or building permit, the project must have an approved stormwater pollution control plan (SCCC Section 7.79.100), which would specify detailed erosion and sedimentation control measures. The plan would include provisions for disturbed areas to be planted with ground cover and to be maintained to minimize surface erosion. Impacts from soil erosion or loss of topsoil would be considered less than significant.

3. 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 on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☒

***Discussion*:** Following a review of mapped information and a field visit to the site, there is no indication that the development site is subject to a significant potential for damage caused by any of these hazards. Therefore, no impact is anticipated.

4. Be located on expansive soil, as defined in section 1803.5.3 of the California Building Code (2016), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒

***Discussion*:** According to the geotechnical report (see approval letter, Attachment 4) for the project (REV211391) there is low potential for expansive soils in the project area, therefore no impact is anticipated

5. Have soils incapable of adequately supporting the use of septic tanks, leach fields, or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

***Discussion*:** No septic systems are proposed. The project would connect to the Santa Cruz County Sanitation District, and the applicant would be required to pay standard sewer connection and service fees that fund sanitation improvements within the district as a Condition of Approval for the project. No impact would occur.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
6. *Directly or indirectly destroy a unique paleontological resource or site of unique geologic feature?*	☐	☐	☐	☒

Discussion: No unique paleontological resources or sites or unique geologic features are known to occur in the vicinity of the project. A query was conducted of the mapping of identified geologic/paleontological resources maintained by the County of Santa Cruz Planning Department, and there are no records of paleontological or geological resources in the vicinity of the project parcel. No direct or indirect impacts are anticipated.

H. GREENHOUSE GAS EMISSIONS

Would the project:

1. *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*	☐	☐	☒	☐

Discussion: The project, like all development, would be responsible for an incremental increase in greenhouse gas (GHG) emissions by usage of fossil fuels during the site grading and construction. In 2013, Santa Cruz County adopted a Climate Action Strategy (CAS) intended to establish specific emission reduction goals and necessary actions to reduce greenhouse gas levels to pre-1990 levels as required under Assembly Bill (AB) 32 legislation. The strategy intends to reduce GHG emissions and energy consumption by implementing measures such as reducing vehicle miles traveled through the County and regional long-range planning efforts and increasing energy efficiency in new and existing buildings and facilities. Implementing the CAS, the MBCP was formed in 2017 to provide carbon-free electricity. All PG&E customers in unincorporated Santa Cruz County were automatically enrolled in the MBCP in 2018. All project construction equipment would be required to comply with the CARB emissions requirements for construction equipment. Further, all new buildings are required to meet the State's CalGreen building code. As a result, impacts associated with the temporary increase in GHG emissions are expected to be less than significant.

2. *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*	☐	☐	☐	☒

Discussion: See the discussion under H-1 above. The project would comply with all applicable plans, policies and regulations related to reducing emissions of greenhouse gasses. No impact is anticipated.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

I. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

1. *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*	☐	☐	☒	☐

Discussion: The project would not create a significant hazard to the public or the environment. No routine transport or disposal of hazardous materials is proposed. However, during construction, fuel would be used at the project site. Best management practices would be used to ensure that no impacts would occur. Impacts are expected to be less than significant.

2. *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?*	☐	☐	☒	☐

Discussion: See discussion under I-1 above. Project impacts would be considered less than significant.

3. *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*	☐	☐	☐	☒

Discussion: The following schools are located in the project vicinity:

- Montessori School, 2446 Cabrillo College Dr., approx. 685 feet to the southwest.
- Daycare center, 838 Monterey Ave., approx. 0.3 miles to the southwest.
- Twin Lakes Elementary and Middle Schools, 2701 Cabrillo College Dr., approx. 0.5 miles to the east.
- Cabrillo College, 6500 Soquel Dr., approx. 0.6 miles to the northeast.

Although fueling of equipment is likely to occur within the staging area, BMPs to contain spills would be implemented. No impacts are anticipated.

4. *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?*	☐	☐	☐	☒

Discussion: The project site is not included on the current list of hazardous sites in Santa Cruz County compiled pursuant to Government Code section 65962.5. No impacts are anticipated from project implementation.

5.	*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?*	☐	☐	☐	☒

Discussion: The project is not located within two miles of a public airport or public use airport. No impact is anticipated.

6.	*Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*	☐	☐	☐	☒

Discussion: The project would not conflict with implementation of the County of Santa Cruz Local Hazard Mitigation Plan 2015-2020 (County of Santa Cruz, 2020). Therefore, no impacts to an adopted emergency response plan or evacuation plan would occur from project implementation.

7.	*Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?*	☐	☐	☐	☒

Discussion: See discussion under Wildfire Question T-2. The project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. No impact would occur.

J. HYDROLOGY, WATER SUPPLY, AND WATER QUALITY

Would the project:

1.	*Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*	☐	☐	☒	☐

Discussion: The project would not discharge runoff either directly or indirectly into a public or private water supply. However, runoff from this project may contain small amounts

of chemicals and other household contaminants, such as pathogens, pesticides, trash, and nutrients. No commercial or industrial activities are proposed that would contribute contaminants. Potential siltation from the project would be addressed through implementation of erosion control BMPs. No water quality standards or waste discharge requirements would be violated and surface or ground water quality would not otherwise be substantially degraded. Impacts would be less than significant.

An unnamed, intermittent stream corridor is located a few feet to the east subject parcel, but is separated from the proposed residential development area by an approximately 7,500 sq.ft. common interest parcel established to maintain and enhance the existing riparian vegetation and riparian buffer area. Although the proposed project has the potential to generate water quality impacts during construction, an erosion control plan and stormwater management plan will be required, consistent with section 16.22.060 of the SCCC and with Department of Public Works standards for stormwater management. The project landscape plan and Riparian Enhancement Plan will provide permanent cover between the developed area and the stream corridor. Impacts are expected to be less than significant.

2.	*Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*	☐	☐	☒	☐

Discussion: The project would obtain water from the Soquel County Water District and would not rely on private well water. Although the project would incrementally increase water demand, the water district has indicated that adequate supplies are available to serve the project (Attachment 5). The project is not located in a mapped groundwater recharge area or water supply watershed and will not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. Impacts would be less than significant.

See Question J-5 for further discussion of sustainable groundwater management.

3.	*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:*	☐	☐	☒	☐
	A. result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
B. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
C. 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. impede or redirect flood flows?	☐	☐	☐	☒

***Discussion*:**

The drainage calculations prepared by Roper engineering, dated March 10, 2022 (Attachment 7) have been reviewed for potential drainage impacts and accepted by the County Department of Public Works stormwater management section staff. The calculations show that the project will result in approximately 20,451 square feet of new impervious area. Due to the low permeability of site soils, stormwater retention is not possible. However, drainage facilities, including biofiltration structures and detention facilities, would adequately control the runoff rate from the property. These mitigations have been included in the proposed drainage design and will be required to be fully met at project implementation. The stormwater management system will capture both on site runoff and off-site runoff captured from contiguous areas to the north. Maintenance of all drainage facilities including the proposed storm drain in Madison Lane will be the responsibility of the property owners and will be included in a recorded storm water facilities maintenance agreement for the project.

The County Department of Public Works stormwater management staff has reviewed the project and determined that the proposed stormwater facilities are adequate to address the increase in drainage associated with the project. project impacts would be there for less than significant.

The project will be conditioned to require erosion control plan to be submitted for review and implemented during project construction. The site is substantially flat and grading minimal. ECP implementation, together with the installation of stormwater management facilities, will prevent any substantial erosion or siltation from leaving the project site. The impact of project implementation with standard erosion control and stormwater management practices will result in a less than significant impact.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
4. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒

***Discussion*:**

Flood Hazards:

According to the Federal Emergency Management Agency (FEMA) National Flood Insurance Rate Map, dated September 29, 2017, no portion of the project site lies within a flood hazard zone, and there would be no impact.

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

***Discussion*:** All County water agencies are experiencing a lack of sustainable water supply due to groundwater overdraft and diminished availability of streamflow. Because of this, coordinated water resource management has been of primary concern to the County and to the various water agencies. As required by state law, each of the County's water agencies serving more than 3,000 connections must update their Urban Water Management Plans (UWMPs) every five years, with the most recent updates completed in 2021.

County staff are working with the water agencies on various integrated regional water management programs to provide for sustainable water supply and protection of the environment. Effective water conservation programs have reduced overall water demand in the past 15 years, despite continuing growth. The Board of Supervisors and other agencies adopted the Santa Cruz Integrated Regional Water Management Plan (IRWMP), updated in 2019, which identifies various strategies and projects to address the current water resource challenges of the region. Other efforts underway or under consideration are stormwater management, groundwater recharge enhancement, increased wastewater reuse, and transfer of water among agencies to provide for more efficient and reliable use.

The County is also working closely with water agencies to implement the Sustainable Groundwater Management Act (SGMA). Groundwater Sustainability Plans (GSPs) will be developed for two basins in Santa Cruz County that are designated as critically over drafted, Santa Cruz Mid-County and Corralitos - Pajaro Valley. These plans will require management actions by all users of each basin to reduce pumping, develop supplemental supplies, and take management actions to achieve groundwater sustainability by 2040.

The project is located in the Santa Cruz Mid County, outside any mapped groundwater recharge areas. In 2016, Soquel Creek Water District (SqCWD), Central Water District (CWD), County, and City of Santa Cruz adopted a Joint Powers Agreement to form the Santa Cruz Mid-County Groundwater Agency for management of the Mid-County Basin under SGMA. The Groundwater Sustainability Plan (GSP) written by the Groundwater Agency was approved by the Dept. Water Resources in 2021. The GSP outlines an approach to reach sustainability by 2040 which relies on project including purified water and an aquifer storage

and recovery project. Projects and management actions included in the plan originated through the SqCWD Community Water Plan and the City of Santa Cruz Water Augmentation Strategy. and has been actively evaluating supplemental supply and demand reduction options.

In addition to the Groundwater Sustainability Plan, Urban Water Management Plans and the Integrated Regional Water Management Plan (IRWMP), the project will comply with SCCC Chapters 13.13 (Water Conservation – Water Efficient Landscaping), 7.69 (Water Conservation) and 7.70 (Water Wells), as well as Chapter 7.71 (Water Systems) section 7.71.130 (Water use measurement and reporting), to ensure that it will not conflict with or obstruct implementation of current water quality control plans or sustainable groundwater management plans such as the Santa Cruz IRWMP and UWMP for the Soquel Creek Water District. Project impacts would be less than significant.

K. LAND USE AND PLANNING

Would the project:

1.	*Physically divide an established community?*	☐	☐	☐	☒

Discussion: The project does not include any element that would physically divide an established community. No impact would occur.

2.	*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?*	☐	☐	☐	☒

Discussion: The project would not cause a significant environmental impact due to a conflict with any land use plan, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. General Plan policy 5.2.3 (Activities Within Riparian Corridors and Wetlands) states: "Development activities, land alterations and vegetation disturbance within riparian corridors and wetlands and required buffers shall be prohibited unless an exception is granted per the Riparian Corridor and Wetlands Protection ordinance". Please see complete discussion under Question D-5. The proposed project would establish a common area (Parcel A) to provide permanent protection to riparian corridor and buffer areas, so the riparian habitat would be avoided. No riparian exception would be required for project implementation. The project is therefore consistent with the General Plan and Santa Cruz County Code and would have no impact related to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. No impacts would occur.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

L. MINERAL RESOURCES

Would the project:

1. 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?	☐	☐	☐	☒

***Discussion*:** The site does not contain any known mineral resources that would be of value to the region and the residents of the state. Therefore, no impact is anticipated from project implementation.

2. 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?	☐	☐	☐	☒

***Discussion*:** The project site is zoned residential, which is not considered to be an Extractive Use Zone (M-3) nor does it have a land use designation with a Quarry Designation Overlay (Q) (County of Santa Cruz 1994). No potentially significant loss of availability of a known mineral resource of locally important mineral resource recovery (extraction) site delineated on a local general plan, specific plan or other land use plan would occur as a result of this project. Therefore, no impact is anticipated.

M. NOISE

Would the project result in:

1. 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?	☐	☒	☐	☐

***Discussion*:**

County of Santa Cruz General Plan

The County of Santa Cruz has not adopted noise thresholds for construction noise. The following applicable y is found in the Public Safety and Noise Element of the Santa Cruz County General Plan (Santa Cruz County 1994).

- Policy 6.9.7 Construction Noise. Require mitigation of construction noise as a condition of future project approvals.

The General Plan also contains the following table, which specifies the maximum allowable noise exposure for stationary noise sources (operational or permanent noise sources) (Table 2).

Table 2: Maximum Allowable Noise Exposure for Stationary Noise Sources[1]

	Daytime[5] (7:00 am to 10:00 pm)	Nighttime[2, 5] (10:00 pm to 7:00 am)
Hourly Leq average hourly noise level, dB[3]	50	45
Maximum Level, dB[3]	70	65
Maximum Level, dB – Impulsive Noise[4]	65	60

Notes:
1 As determined at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards may be applied to the receptor side of noise barriers or other property line noise mitigation measures.
2 Applies only where the receiving land use operates or is occupied during nighttime hours
3 Sound level measurements shall be made with "slow" meter response.
4 Sound level measurements shall be made with "fast" meter response
5 Allowable levels shall be raised to the ambient noise levels where the ambient levels exceed the allowable levels. Allowable levels shall be reduced to 5 dB if the ambient hourly Leq is at least 10 dB lower than the allowable level.
Source: County of Santa Cruz 1994

County of Santa Cruz Code

There are no County of Santa Cruz ordinances that specifically regulate construction or operational noise levels. However, Section 8.30.010 (Curfew—Offensive noise) of the SCCC contains the following language regarding noise impacts:

(A) No person shall make, cause, suffer, or permit to be made any offensive noise.

(B) "Offensive noise" means any noise which is loud, boisterous, irritating, penetrating, or unusual, or that is unreasonably distracting in any other manner such that it is likely to disturb people of ordinary sensitivities in the vicinity of such noise, and includes, but is not limited to, noise made by an individual alone or by a group of people engaged in any business, activity, meeting, gathering, game, dance, or amusement, or by any appliance, contrivance, device, tool, structure, construction, vehicle, ride, machine, implement, or instrument.

(C) The following factors shall be considered when determining whether a violation of the provisions of this section exists:

(1) Loudness (Intensity) of the Sound.

(a) Day and Evening Hours. For purposes of this factor, a noise shall be automatically considered offensive if it occurs between the hours of 8:00 a.m. and 10:00 p.m. and it is:

(i) Clearly discernible at a distance of 150 feet from the property line of the property from which it is broadcast; or

(ii) In excess of 75 decibels at the edge of the property line of the property from which the sound is broadcast, as registered on a sound measuring instrument meeting the American National Standard Institute's Standard S1.4-1971 (or more recent revision thereof) for Type 1 or Type 2 sound level meters, or an instrument which provides equivalent data.

A noise not reaching this intensity of volume may still be found to be offensive depending on consideration of the other factors outlined below.

(b) Night Hours. For purposes of this factor, a noise shall be automatically considered offensive if it occurs between the hours of 10:00 p.m. and 8:00 a.m. and it is:

(i) Clearly discernible at a distance of 100 feet from the property line of the property from which it is broadcast; or

(ii) In excess of 60 decibels at the edge of the property line of the property from which the sound is broadcast, as registered on a sound measuring instrument meeting the American National Standard Institute's Standard S1.4-1971 (or more recent revision thereof) for Type 1 or Type 2 sound level meters, or an instrument which provides equivalent data.

A noise not reaching this intensity of volume may still be found to be offensive depending on consideration of the other factors outlined below.

(2) Pitch (frequency) of the sound, e.g., very low bass or high screech;

(3) Duration of the sound;

(4) Time of day or night;

(5) Necessity of the noise, e.g., garbage collecting, street repair, permitted construction activities;

(6) The level of customary background noise, e.g., residential neighborhood, commercial zoning district, etc.; and

(7) The proximity to any building regularly used for sleeping purposes. [Ord. 5205 § 1, 2015; Ord. 4001 § 1, 1989]

Sensitive Receptors

Some land uses are generally regarded as being more sensitive to noise than others due to the type of population groups or activities involved. Sensitive population groups generally include children and the elderly. Noise sensitive land uses typically include all residential uses (single- and multi-family, mobile homes, dormitories, and similar uses), hospitals, nursing homes, schools, and parks.

The nearest sensitive receptors are residential uses – single-family dwelling units located across the street, approximately 30-60 feet to the south of the project area.

Table 3: Typical Noise Levels for Common Construction Equipment (at 50 feet)

Equipment	L_{max} (dBA)
Air Compressor	80
Backhoe	80
Chain Saw	85
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Saw	90
Crane	83
Dozer	85
Dump Truck	84
Excavator	85
Flat Bed Truck	84
Forklift	75
Generator	82
Grader	85
Hoe-ram	90
Jack Hammer	88
Loader	80
Paver	85
Pick-up Truck	55
Pneumatic Tool	85
Roller	85
Tree Chipper	87
Truck	84

Source: Federal Transit Authority, 2006, 2018.

Impacts

Noise generated during project construction would increase the ambient noise levels in adjacent areas. Construction would be temporary, however, and given the limited duration of this impact it is considered to be less than significant with the incorporation of mitigation measures:

NOI-1 Require that all construction and maintenance equipment powered by gasoline or diesel engines have sound-control devices that are at least as effective as those originally provided by the manufacturer and that all equipment be operated and maintained to minimize noise generation.

NOI-2 Prohibit gasoline or diesel engines from having unmuffled exhaust.

NOI-3 Use noise-reducing enclosures around stationary noise-generating equipment capable of 6 dB attenuation.

With the implementation of these mitigation measures, impacts would be less than significant.

2. Generation of excessive ground borne vibration or ground borne noise levels? ☐ ☐ ☒ ☐

Discussion: The use of construction and grading equipment would potentially generate periodic vibration in the project area. This impact would be temporary and periodic and is not expected to cause damage; therefore, impacts are anticipated to be less-than-significant.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
3. *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?*	☐	☐	☐	☒

***Discussion*:** The project is not in the vicinity of a private airstrip or within two miles of a public airport. Therefore, the project would not expose people residing or working in the project area. No impact is anticipated.

N. POPULATION AND HOUSING

Would the project:

1. *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)?*	☐	☐	☐	☒

***Discussion*:** The project would not induce substantial population growth in an area because the project does not propose any physical or regulatory change that would remove a restriction to or encourage population growth in an area including, but limited to the following: new or extended infrastructure or public facilities; new commercial or industrial facilities; large-scale residential development; accelerated conversion of homes to commercial or multi-family use; or regulatory changes including General Plan amendments, specific plan amendments, zone reclassifications, sewer or water annexations; or LAFCO annexation actions. No impact would occur.

2. *Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*	☐	☐	☐	☒

***Discussion*:** The project would not displace any existing housing. No impact would occur.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

O. PUBLIC SERVICES

Would the project:

1. *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?*	☐	☐	☒	☐
b.	*Police protection?*	☐	☐	☒	☐
c.	*Schools?*	☐	☐	☒	☐
d.	*Parks?*	☐	☐	☒	☐
e.	*Other public facilities; including the maintenance of roads?*	☐	☐	☒	☐

***Discussion (a through e)*:** The project residents would be served by the Central Fire Protection District, the Soquel Union School District, Santa Cruz High School District and nearby Cabrillo College, as well as private schools including Twin Lakes Elementary and Middle Schools, Montessori school and daycare centers in Monterey Ave. and Alturas Way. There are five public parks and a State beach within 0.5 miles of the subject site. While the project represents an incremental contribution to the need for services, the increase would be minimal. Moreover, the project meets all of the standards and requirements identified by the local fire agency or California Department of Forestry, as applicable, and school, park, and transportation fees to be paid by the applicant would be used to offset the incremental increase in demand for school and recreational facilities and public roads. Impacts would be considered less than significant.

P. RECREATION

Would the project:

1.	*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?*	☐	☐	☒	☐

***Discussion*:** The project would not substantially increase the use of existing neighborhood and regional parks or other recreational facilities. Impacts would be considered less than significant.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
2. *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?*	☐	☐	☐	☒

Discussion: The project does not propose the expansion or require the construction of additional recreational facilities. No impact would occur.

Q. TRANSPORTATION

Would the project:

1. *Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*	☐	☐	☒	☐

Discussion:

Senate Bill (SB) 743, signed by Governor Jerry Brown in 2013, changed the way transportation impacts are identified under CEQA. Specifically, the legislation directed the State of California's Office of Planning and Research (OPR) to look at different metrics for identifying transportation impacts. OPR issued its "Technical Advisory on Evaluating Transportation Impacts in CEQA" (December 2018) to assist practitioners in implementing the CEQA Guidelines revisions to use vehicle miles traveled (VMT) as the preferred metric for assessing passenger vehicle related impacts. The CEQA Guidelines were also updated in December 2018, such that vehicle level of service (LOS) will no longer be used as a determinant of significant environmental impacts, and an analysis of Vehicle Miles Traveled (VMT) will be required as of July 2020. A discussion of consistency with the Santa Cruz County General Plan LOS policy is provide below for informational purposes only.

The project would create a small incremental increase in traffic on nearby roads and intersections According to US Census data, the site is within a census tract that averages 4-6 weekday vehicle trips per household each day. The development would contain six houses, expected to generate a total of 24-36 trips per day. According to the County of Santa Cruz SB 743 Implementation Guidelines (2021), Small Projects of less than 110 trips per day are expected to have a less than significant impact. The increase would not cause the LOS at any nearby intersection to drop below LOS D, consistent with General Plan Policy 3.12.1.

The project would entail expansion of an existing 15' dead-end street with no curb, gutter or sidewalk to a 24' pavement width cub and gutter on one side and an automatic swing gate at the entrance. The DPW Transportation division is recommending a roadway/roadside exception to allow a street width of 24' with no sidewalks or on-street parking. A 4' wide sidewalk, curb and gutter and on-street parking would be constructed along the project

frontage at Monterey Ave. The project design would comply with current road requirements, including the regulations under section 13.11.074 of the County Code, "Access, circulation and parking" to prevent potential hazards to motorists, bicyclists, and/or pedestrians. The street design was accepted by Santa Cruz Department of Public Works, partly because the local residents, who are granting an easement to the development, preferred a low-intensity, rural design aesthetic with minimal curb and gutter and no on-street parking. A landscape plan was proposed that will provide tall and broad trees and other landscaping along the street. The project would incorporate standard County guidelines for stormwater management and installation of utilities. The project is therefore consistent with the Circulation Element and Community Design Element County of Santa Cruz General Plan. Therefore, impacts would be less than significant.

2. *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1) (Vehicle Miles Traveled)?*	☐	☐	☒	☐

Discussion: In response to the passage of Senate Bill 743 in 2013 and other climate change strategies, OPR amended the CEQA Guidelines to replace LOS with VMT as the measurement for transportation impacts. The "Technical Advisory on Evaluating Transportation Impacts in CEQA," prepared by OPR (2018) provides recommended thresholds and methodologies for assessing impacts of new developments on VMT. There are also a number of screening criteria recommended by OPR that can be used to determine whether a project will have a less-than-significant impact. The screening criteria include projects that generate less than 110 net new trips, map-based screening, projects within a ½ mile of high quality transit, affordable housing projects, and local serving retail. Since Santa Cruz County has a Regional Transportation Planning Authority and generally conducts transportation planning activities countywide, the county inclusive of the cities is considered a region.

The project consists of six single-family dwellings, expected to generate a total of 24-36 trips per day, which is less than the screening threshold of 110 net new trips and is considered a less-than-significant impact. California Building Code energy requirements require all-electric construction.

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

***Discussion*:**

The proposed development would result in six additional parcels and the construction of six single-family dwellings in a residential neighborhood. The project would take access from Monterey Ave. The proposed entrance turn into Loraine Lane, which includes an entrance gate set back more than 25 feet from the curb on Monterey Ave., was approved by the Central Fire District review. No impacts would occur with project implementation.

4.	*Result in inadequate emergency access?*	☐	☐	☒	☐

***Discussion*:** The project's road access meets County standards and has been approved by the Central Fire District. A temporary lane closure may be required for short periods of time during project construction. A traffic control plan would be prepared. The entrance gate will include a Central Fire District key entry system. The project would not restrict emergency access for police, fire, or other emergency vehicles. Impacts would be less than significant from project implementation.

R. TRIBAL CULTURAL RESOURCES

1.	*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:*				
	A. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical 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 Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

***Discussion*:** Section 21080.3.1(b) of the California Public Resources Code (AB 52) requires a lead agency formally notify a California Native American tribe that is traditionally and culturally affiliated within the geographic area of the discretionary project when formally

requested. As of this writing, no California Native American tribes traditionally and culturally affiliated with the Santa Cruz County region have formally requested a consultation with the County of Santa Cruz (as Lead Agency under CEQA) regarding Tribal Cultural Resources. However, no Tribal Cultural Resources are known to occur in or near the project area. Therefore, no impact to a Tribal Cultural Resource is anticipated from project implementation.

S. UTILITIES AND SERVICE SYSTEMS

Would the project:

1. *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?*	☐	☐	☒	☐

***Discussion*:**

Water

The project would connect to an existing municipal water supply. The Soquel Creek Water District has determined that adequate supplies are available to serve the project (Attachment 5), and no new facilities are required to serve the project. No impact would occur from project implementation.

Wastewater

Municipal wastewater treatment facilities are available and have capacity to serve the project. No new wastewater facilities are required to serve the project. No impact would occur from project implementation.

Stormwater

Application with civil plans and preliminary stormwater report dated March 10, 2022, by Roper Engineering and geotechnical investigation dated July 2020 and letter dated January 21, 2021, by Haro, Kasunich and Associates has been received. The application describes a large development project with almost 20,000 s.f. of impervious area and must meet County Design Criteria (CDC) requirements and provide submittal requirements detailed in Part 3, Appendix D of the CDC.

The County Department of Public Works Stormwater Management staff have reviewed the drainage information and have determined that downstream storm facilities are adequate to handle the increase in drainage associated with the project. Therefore, no additional drainage

facilities would be required for the project. No impacts to downstream storm facilities are expected to occur from the project.

Electric Power

Pacific Gas and Electric Company (PG&E)_provides power to existing and new developments in the Santa Cruz County area. As of 2018, residents and businesses in the County were automatically enrolled in MBCP's community choice energy program, which provides locally controlled, carbon-free electricity delivered on PGE's existing lines.

The proposed site is previously undeveloped and not currently served by electric power. Electric power service will be required to serve the site, including underground utility lines. However, no substantial environmental impacts will result from the additional improvements; impacts will be less than significant.

Natural Gas

The proposed site is previously undeveloped and not currently served by natural gas. Effective January 1, 2023, the Santa Cruz County Code requires all-electric construction within the urban services line. Conditions of approval are proposed that would prohibit gas lines in the proposed Monterey Glen Subdivision. Prior to both Final Map acceptance and building permit approval, plans would be revised to show no gas utilities or infrastructure, only electric power. All current building codes are enforced both on subdivision improvement plans prior to filing the Final Map, and prior to building permit approval.

No environmental impacts will result from the additional utility improvements for water, power; sanitation and stormwater management, therefore, impacts will be less than significant.

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

***Discussion*:** All the main aquifers in this County, the primary sources of the County's potable water, are in some degree of overdraft. Overdraft is manifested in several ways including 1) declining groundwater levels, 2) degradation of water quality, 3) diminished stream base flow, and/or 4) seawater intrusion. Surface water supplies, which are the primary source of supply for the northern third of the County, are inadequate during drought periods and will be further diminished as a result of the need to increase stream baseflows to restore habitat for endangered salmonid populations. In addition to overdraft, the use of water resources is further constrained by various water quality issues.

The Soquel Creek Water District has indicated that adequate water supplies are available to serve the project and has issued a will-serve letter for the project, subject to the payment of fees and charges in effect at the time of service (Attachment 5). The development would also be subject to the water conservation requirements in Chapter 7.69 (Water Conservation) and policies of section 7.18c (Water Conservation) of the General Plan, along with the Water Efficient Landscape regulations of the Soquel Creek Water District. Therefore, existing water supplies would be sufficient to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. Impacts would be less than significant.

3.	*Result in 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?*	☐	☐	☐	☒

***Discussion*:** The County Sanitation District has indicated that adequate capacity in the sewer collection system is available to serve the project and has issued a sewer service availability letter for the project, subject to the payment of fees and charges in effect at the time of service (Attachment 6). Therefore, existing wastewater collection/treatment capacity would be sufficient to serve the project. No impact would occur from project implementation.

4.	*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?*	☐	☐	☒	☐

***Discussion*:** Due to the small incremental increase in solid waste generation by the project during construction and future operation, the impact would be less-than-significant.

5.	*Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*	☐	☐	☐	☒

***Discussion*:** The project would comply with all federal, state, and local statutes and regulations related to solid waste disposal. No impact would occur.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

T. WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

1. *Substantially impair an adopted emergency response plan or emergency evacuation plan?*	☐	☐	☐	☒

Discussion: The project is not located in a State Responsibility Area, a Very High Fire Hazard Severity Zone, or a County-mapped Critical Fire Hazard Area and will not conflict with emergency response or evacuation plans. Therefore, no impact would occur.

2. *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?*	☐	☐	☒	☐

***Discussion*:** The project is not located in a State Responsibility Areas, a Very High Fire Hazard Severity Zone, or a County-mapped Critical Fire Hazard Area. However, the project design incorporates all applicable fire safety code requirements and includes fire protection devices as required by the local fire agency and is unlikely to exacerbate wildfire risks. Impacts would be less than significant.

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

Discussion: The project is not located in a State Responsibility Areas, a Very High Fire Hazard Severity Zone, or a County-mapped Critical Fire Hazard Area. Improvements associated with the project are unlikely to exacerbate wildfire risks. Impacts would be less than significant.

4. *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?*	☐	☐	☒	☐

***Discussion*:** The project is not located within a State Responsibility Areas, a Very High Fire Hazard Severity Zone, or a County-mapped Critical Fire Hazard Area. Downslope and downstream impacts associated with wildfires are unlikely to result from the project.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Regardless, the project design incorporates all applicable fire safety code requirements and includes fire protection devices as required by the local fire agency. Impacts would be less than significant.

U. MANDATORY FINDINGS OF SIGNIFICANCE

1.	*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 community or eliminate important examples of the major periods of California history or prehistory?*	☐	☒	☐	☐

***Discussion*:**

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 were considered in the response to each question in Section III (A through T) of this Initial Study. Resources that have been evaluated as significant would be potentially impacted by the project, particularly riparian habitat and potential nesting habitat for birds protected by the federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711). However, mitigation has been included that clearly reduces these effects to a level below significance. This mitigation includes the following plans, reports and conditions of approval:

- A Riparian Enhancement Plan (Attachment 2) including habitat protection measures and Riparian Enhancement Plan with tree, shrub and understory planting.
- An Arborist Report and follow-up evaluation once the project is staked, to ensure that potential project impacts on mature trees was accurately assessed.
- Tree protection measures and replacement tree planting.
- Pre-construction surveys for protected nesting birds for any tree removal proposed during breeding season from 1 February to 31 August.
- Actions to any protect and preserve nesting birds found onsite.
- Conditions of approval to eliminate or minimize potential lighting impacts.

As a result of this evaluation, there is no substantial evidence that, after mitigation, significant effects associated with this project would result. Therefore, this project has been determined not to meet this Mandatory Finding of Significance. The anticipated impact would be less-than-significant with mitigation incorporated.

2.	*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)?*	☐	☐	☐	☒

***Discussion*:** In addition to project specific impacts, this evaluation considered the project's potential for incremental effects that are cumulatively considerable. The project, a six-unit subdivision in an urban area already developed with a mix of multi- and single-family housing, was determined to have no potentially significant cumulative effects. Therefore, this project has been determined not to meet this Mandatory Finding of Significance. The project is anticipated to have no impact.

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

***Discussion*:** In the evaluation of environmental impacts in this Initial Study, the potential for adverse direct or indirect impacts to human beings were considered in the response to specific questions in Section III (A through T). As a result of this evaluation, there were determined to be potentially significant effects to human beings related to noise. However, mitigation has been included that clearly reduces these effects to a level below significance. As a result of this evaluation, there is no substantial evidence that, after mitigation, there are adverse effects to human beings associated with this project. Therefore, this project has been determined not to meet this Mandatory Finding of Significance. The impact would be considered less-than-significant after the mitigation measures are implemented.

IV. REFERENCES USED IN THE COMPLETION OF THIS INITIAL STUDY

California Department of Conservation, 1980

Farmland Mapping and Monitoring Program Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance Santa Cruz County U.S. Department of Agriculture, Natural Resources Conservation Service, soil surveys for Santa Cruz County, California, August 1980.

California Department of Fish and Wildlife, 2019

California Natural Diversity Database Soquel USGS 7.5 minute quadrangle; queried 12/6/2022.

CalFIRE, 2010

Santa Cruz County-San Mateo County Community Wildfire Protection Plan. May 2010.

Caltrans, 2018

California Public Road Data 2017: Statistical Information Derived from the Highway Performance Monitoring System. Released by the State of California Department of Transportation November 2018.

County of Santa Cruz, 1994

1994 General Plan and Local Coastal Program for the County of Santa Cruz, California. Adopted by the Board of Supervisors on May 24, 1994, and certified by the California Coastal Commission on December 15, 1994.

County of Santa Cruz, 2013

County of Santa Cruz Climate Action Strategy. Approved by the Board of Supervisors on February 26, 2013.

County of Santa Cruz, 2015

County of Santa Cruz Local Hazard Mitigation Plan 2015-2020. Prepared by the County of Santa Cruz Office of Emergency Services.

DOF, 2018

E-5 Population and Housing Estimates for Cities, Counties and the State—January 1, 2011-2018. Released by the State of California Department of Finance May 2018.

Federal Transit Administration, 2006

Transit Noise and Vibration Impact Assessment Manual.

Federal Transit Administration, 2018

Transit Noise and Vibration Impact Assessment Manual. September 2018.

FEMA, 2017

Flood Insurance Rate Map 06087C-0352F Federal Emergency Management Agency. Effective on Sept. 29, 2017.

MBUAPCD, 2008

Monterey Bay Unified Air Pollution Control District (MBUAPCD), CEQA Air Quality Guidelines. Prepared by the MBUAPCD, Adopted October 1995, Revised: February 1997, August 1998, December 1999, September 2000, September 2002, June 2004 and February 2008.

MBUAPCD, 2013a

Monterey Bay Unified Air Pollution Control District, NCCAB (NCCAB) Area Designations and Attainment Status – January 2013. Available online at http://www.mbuapcd.org/mbuapcd/pdf/Planning/Attainment_Status_January_2013_2.pdf

MBUAPCD, 2013b

Triennial Plan Revision 2009-2011. Monterey Bay Unified Air Pollution Control District. Adopted April 17, 2013.

OPR, 2018

"Technical Advisory on Evaluating Transportation Impacts in CEQA." Available online at http://www.opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf.

This page intentionally left blank.

Attachment 1

Mitigation Monitoring and Reporting Program

County of Santa Cruz

COMMUNITY DEVELOPMENT AND INFRASTRUCTURE
701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123

MITIGATION MONITORING AND REPORTING PROGRAM for Application No. 211213

No.	Potential Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Timing of Compliance
BIOTIC RESOURCES					
BIO-1 *(Reflects CDFW comment dated 2-14-23.)*	*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 Wildlife, or U.S. Fish and Wildlife Service?*	Under the MBTA, nests that contain eggs or unfledged young are not to be disturbed during the breeding season. • If Project-related construction work is scheduled during the nesting season (typically February 15 to August 30 for small bird species such as passerines; January 15 to September 15 for owls; and February 15 to September 15 for other raptors), a qualified biologist shall conduct two surveys for active nests of such birds within 14 days prior to the beginning of Project construction, with a final survey conducted within 48 hours prior to construction. Appropriate minimum survey radii surrounding the work area are typically the following: i) 250 feet for passerines; ii) 500 feet for small raptors such as accipiters; and iii) 1,000 feet for larger raptors such as buteos. Surveys shall be conducted at the appropriate times of day and during appropriate nesting times. • If the qualified biologist documents active nests within the Project area or in nearby surrounding areas, a species appropriate buffer between the nest and active construction shall be established. The buffer shall be clearly marked and maintained until the young have fledged and are foraging independently. Prior to construction, the qualified biologist shall conduct baseline monitoring of the nest to characterize "normal" bird behavior and establish a buffer distance which allows the birds to exhibit normal behavior. The qualified biologist shall monitor the nesting birds daily during construction activities and increase the buffer if the birds show signs of unusual or distressed behavior (e.g., defensive flights and vocalizations, standing up from a brooding position, and/or flying away from the nest). If buffer establishment is not possible, the qualified biologist shall have the authority to cease all construction work in the area until the young have fledged, and the nest is no longer active. • Tree removal activities shall be limited to the months between September 15 and January15, if feasible. If trees must be removed outside of the timeframe above, the protocols described for Project construction in both paragraphs above shall be followed for tree removal. • If an active nest is identified in or adjacent to the construction zone after construction has started, the buffer measures above will be implemented to ensure construction is not causing disturbance to the nes.t	Construction Contractor's Manager and a Qualified Biologist	County Environmental Planning Department, County Biologist	3-4 weeks prior to vegetation removal.
BIO-2		In order to avoid impacts to special status bats, the following measures shall be implemented. • Tree removal activities shall be limited to between September 15 and	Construction Contractor's Manager and a	County Environmental Planning	3-4 weeks prior to site disturbance

No.	Potential Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Timing of Compliance
		November 1, if feasible • A qualified biologist shall conduct surveys for special status bats 3-4 weeks prior to site disturbance. If active roosts are present in trees to be retained, roosting bats shall be excluded from trees to be removed prior to any disturbance. In trees to be retained, no disturbance zones, set by the biologist based on the particular species present, shall be fenced off around the subject tree to ensure other construction activities do not harm sensitive species. • The maternity roosting season for bats is March1 – July 3. Tree removal should be scheduled outside of the maternal roosting period if special status bats are present. Before any trees are removed during the maternal roosting season, a qualified biologist shall perform surveys. If maternal roosts are present, disturbance shall be avoided until roosts are unoccupied. The biologist shall be responsible for ensuring bat roosts are vacated.	Qualified Biologist	Department, County Biologist	
BIO-3	*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 Wildlife, or U.S. Fish and Wildlife Service?*	In order to avoid any potential impacts to San Francisco dusky-footed woodrats, all nests must be avoided if feasible. The following mitigation measures shall be observed in conjunction with all vegetation planting and control activities: • 3-4 weeks before any riparian planting or invasive vegetation removal activities are initiated, the work area shall be surveyed by a qualified biologist to identify any woodrat houses. Such surveys shall be conducted both during the initial five-year reporting period and for invasive vegetation control in perpetuity. • All woodrat houses shall be retained, with a minimum 10-foot buffer around each house that shall be staked and flagged. Workers shall be shown each woodrat nest and provided training on avoidance. • If an invasive weed is found growing through a house, the stem can be cut off and painted at a level above the top of the house. • No woodrat houses shall be disturbed without prior approval of the California Department of Fish and Wildlife.	Construction Contractor's Manager and work crew supervisor	County Environmental Planning Department, County Biologist	Three to four weeks before any vegetation removal or riparian planting activities are initiated, in perpetuity.
BIO-4	*Have a substantial adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations (e.g., wetland, native grassland, special forests, intertidal zone, etc.) or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*	Removal of native trees shall be minimized with the following environmental commitments: • Prior to construction, the Project Applicant and the Project Arborist will identify the limits of construction so as to maximize native tree and shrub retention. Temporary fencing will be placed along the limits of construction to avoid unnecessary disturbance to riparian woodland. • All recommendations of the Arborist Report (Attachment 3), will be implemented, including tree protection measures and tree removal as recommended in the report and further refined on a pre-construction site evaluation	Construction Contractor's Manager and Project Arborist.	County Planning Department	After staking and prior to any earth-moving and construction activities
BIO-5		The Project shall enhance the existing riparian woodland by implementing the approved Riparian Enhancement Plan (Attachment 2). Riparian planting shall follow the requirements contained in the Plan, including the following elements: • Removal of non-native, invasive plants.	Construction Contractor's Manager and Biotic Resources Group (Kathleen Lyons or designee)	County Environmental Planning Department, County Biologist	After staking and prior to any earth-moving and construction activities

No.	Potential Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Timing of Compliance
		• Maintain Parcel "A" free of invasive vegetation (as described in the Riparian Enhancement Plan) in perpetuity. • Installation of a habitat restoration planting plan. • Implementation of performance criteria for both plant removal and plant establishment. • Require the Homeowner's Association to maintain the restored area free of invasive vegetation in perpetuity. • 5-year reporting requirement. Establish photo stations and take annual photographs to support verbal documentation. Submit annual reports with photographic evidence to the County of Santa Cruz Planning Department, Environmental Planning Section, every year for at least five years or longer as necessary to achieve described performance standards			
BIO-6	*Have a substantial adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations (e.g., wetland, native grassland, special forests, intertidal zone, etc.) or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*	The following measures shall be implemented to avoid impacts from light pollution: • All attached residential lighting shall be low-intensity, minimal height, downward directed and shielded from lateral light spill. • All detached lighting shall be low rise and downward directed and shielded from lateral light spill. • Automatic lighting systems shall shut off automatically at 10 pm unless essential for safety and security. • Street lighting shall meet all DPW standards for sensitive locations.	Construction Contractor's Manager	County Planning Department	Building permit issuance and inspections.
NOISE					
NOI-1	*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*	Require that all construction and maintenance equipment powered by gasoline or diesel engines have sound-control devices that are at least as effective as those originally provided by the manufacturer and that all equipment be operated and maintained to minimize noise generation.	Construction Contractor's Manager	County Planning Department	All earth-moving and construction activities
NOI-2		Prohibit gasoline or diesel engines from having unmuffled exhaust.	Construction Contractor's Manager	County Planning Department	All earth-moving and construction activities
NOI-3		Use noise-reducing enclosures around stationary noise-generating equipment capable of 6 dB attenuation.	Construction Contractor's Manager	County Planning Department	All earth-moving and construction activities

Attachment 2

Riparian Enhancement Plan

This page intentionally left blank.

MONTEREY GLEN
(MONTEREY AVENUE PARCEL) SOQUEL CA
APN 037-211-01

RIPARIAN ENHANCEMENT PLAN

Biotic Resources Group

Biotic Assessments • Resource Management • Permitting

Biotic Resources Group
Biotic Assessments • Resource Management • Permitting

MONTEREY GLEN
(MONTEREY AVENUE PARCEL) SOQUEL CA
APN 037-211-01

RIPARIAN ENHANCEMENT PLAN

Prepared for:

Eadie Consultants
P.O. Box 1647
Santa Cruz, CA 95061
Attn: Charlie Eadie

Prepared by:

Biotic Resources Group
Kathleen Lyons

Updated March 28, 2022

1.0 INTRODUCTION

This Riparian Enhancement Plan (Plan) identifies methods for the enhancement of the riparian corridor, a 20-foot wide riparian corridor buffer and a 10-foot construction setback (Restoration Area) for the parcel located at the northeast corner of Monterey Avenue and Loraine Lane (APN 037-211-01). The site is located south of Soquel Drive in Soquel. The landowner of the parcel, and subsequent Homeowners Association (HOA), will be responsible for implementing this plan to comply with the County of Santa Cruz's Condition of Approval for the proposed six lot subdivision. Figure 1 shows the location of the parcel subject to this Plan.

The Plan identifies the location and techniques to be used by the landowner (and/or HOA) to enhance the Restoration Area through the removal and control of invasive, non-native plant species and planting of native trees and shrubs. The Plan identifies measures to avoid or minimize impacts to sensitive biological resources within the Restoration Area during subdivision construction and during implementation of Plan activities. The Plan will utilize an adaptive management process, such that the Plan activities may be adapted over time to achieve the biological goals and objectives. Plan actions include the following:

- **Demarcation of Restoration Area:** Install permanent fencing and signs along western and southern edge of Restoration Area concurrent with subdivision construction. Retain Restoration Area as open space in perpetuity.
- **Invasive, Non-native Plant Control:** Implement an integrated pest management approach to remove and control invasive, non-native plant species which degrade the riparian habitat. The HOA shall maintain the Restoration Area free of identified invasive plants and any other invasive vines, trees, or shrubs, in perpetuity.
- **Revegetation and Management:** Revegetation of western 30-feet of the Restoration Area, and areas of eucalyptus tree removal, with native riparian trees and shrubs. Provide maintenance and monitoring of revegetation area for minimum of 5 years.
- **Monitoring:** Implement habitat monitoring protocols designed to evaluate the effectiveness of the Plan actions. Monitor Plan actions for a minimum of 5 years.

1.1 PLAN GOALS AND OBJECTIVES

The Plan includes biological goals and objectives based on the ecology of the sensitive habitat, threats to the habitat, and the potential effects of Plan actions on such resources.

Goal 1: Within Restoration Area, remove occurrences of invasive, non-native trees, maintain and monitor occurrences for 5 years and achieve 5-year performance standards.

Objective 1.1: In Years 1-3, remove all mature eucalyptus trees (5), all eucalyptus saplings (7); cut tree flush with ground surface and apply herbicide to cut stump; dispose of all cut material off-site. Note: See Arborist report regarding tree removal.

Objective 1.2: In Years 1-5, remove all young re-sprouts of eucalyptus; dispose all above ground material off-site.

Objective 1.3: Remove trees between October and March 1, to be outside the bird breeding season.

Objective 1.4: The HOA shall maintain the Restoration Area free of identified invasive plants and any other invasive vines, trees, or shrubs, in perpetuity.

Goal 2: Within Restoration Area, remove occurrences of invasive, non-native shrubs and groundcovers, maintain and monitor occurrences for 5 years and achieve 5-year performance standards.

Objective 2.1: In Years 1-3, remove periwinkle and dracaena from riparian corridor; dispose of all material off-site.

Objective 2.2: In Years 1-5, remove all invasive species if encountered, such as broom and thistles; dispose all above ground material off-site.

Objective 2.3: Retain native understory vegetation, including California blackberry (*Rubus ursinus)* and poison oak (*Toxicodendron diversilobum)*.

Objective 2.4: The HOA shall maintain the Restoration Area free of identified invasive plants and any other invasive vines, trees, or shrubs, in perpetuity.

Goal 3: Within the western portion of the Restoration Area and areas of eucalyptus tree removal in the riparian woodland, install native riparian trees and shrubs, maintain and monitor for 5 years and achieve 5-year performance standards.

Objective 3.1: Engage services of native plant nursery to conduct regional collection of native riparian plant propagules and grow plants for out-planting (1-year lead time).

Objective 3.2: Install grown plants into designated area; maintain and monitor for 5 years and achieve 5-year performance standards.

Goal 4: Monitor and report to Santa Cruz County on an annual basis Plan actions implemented, goals met, performance standards and remedial actions needed.

Objective 4.1: Document dates and areas of plan implementation.

Objective 4.2: Establish a series of permanent photo-stations to document yearly progress of plan actions.

Objective 4.3: Submit annual reports to County Planning Department by December 31 of each monitoring year, for a period or 5 years, or longer, until performance standards are met.

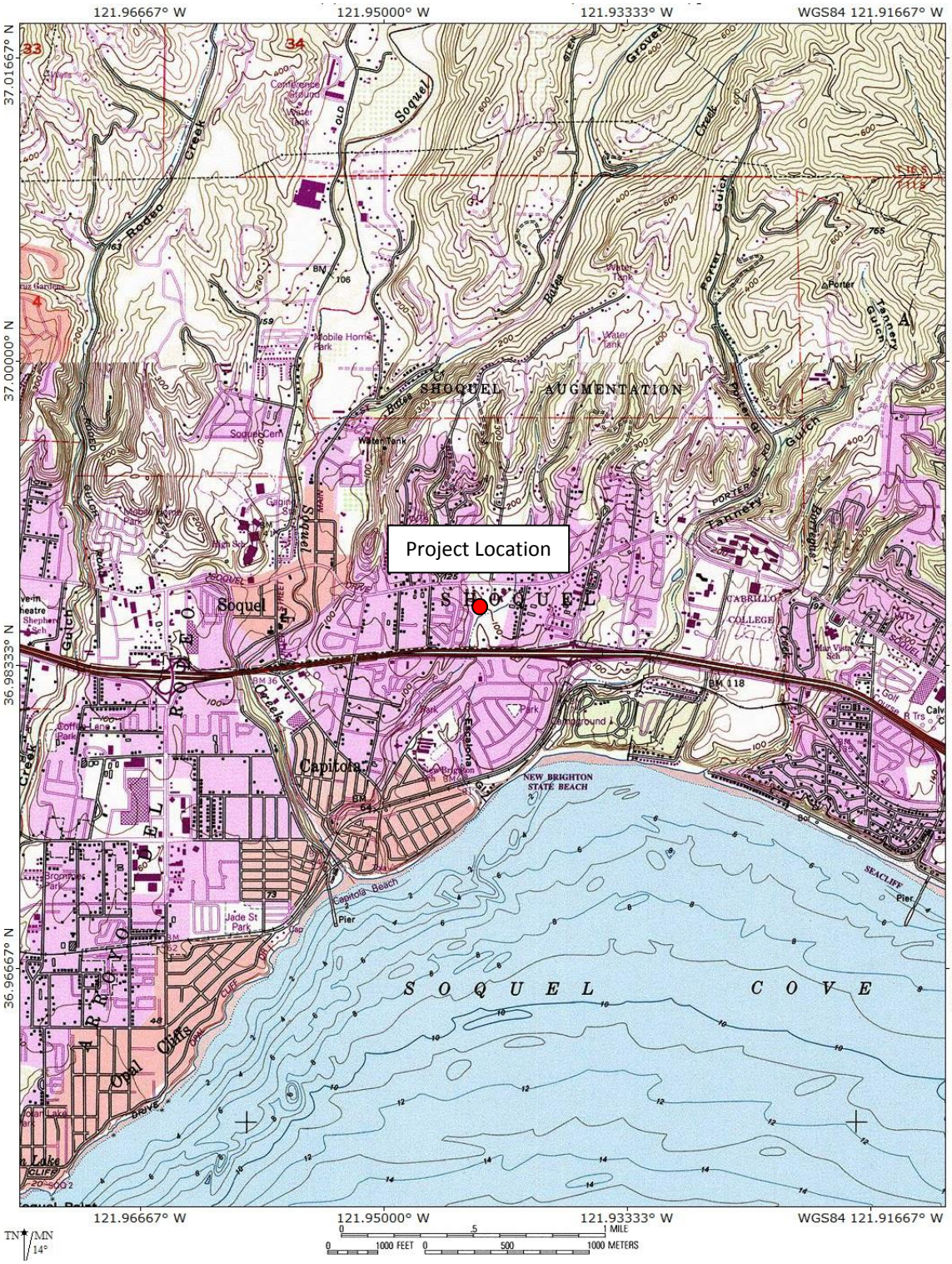


Figure 1. Location of Project on USGS Topographic Map
(USGS Soquel Quadrangle)

1.2 PLAN DEVELOPMENT

1.2.1 Invasive, Non-native Plant Species, Infestation Areas, Threat Rankings, and Control Methods

The occurrence of invasive, non-native plant species within the Restoration Area were identified and mapped during field surveys conducted in June 2020. The infestations were identified as polygons or spot locations onto the projects preliminary grading plan (Roper Engineering, June 2020). The 2020 survey documented seven (7) plant species of management concern.

A species growth pattern, extent within the riparian corridor, effect on native vegetation, and ability to spread into uninfected areas were used to determine which invasive weeds are of management concern. Information on the invasive weed species found on the site and their ranking and threat is described in Section 2.0.

Various weed removal methods were evaluated as to their potential use, such as hand pulling, weed whipping, cutting, and herbicide application. Methods that minimize potential impacts to adjacent native riparian vegetation were also considered. Section 2.0 outlines the recommended invasive weed control techniques. A general yearlong schedule outlining the optimum time for implementing treatment is also provided in this section.

1.2.2 Revegetation of Western edge of Restoration Area

Opportunities for the revegetation of the western portion of the Restoration Area with native riparian trees and shrubs were identified. Areas within the riparian woodland where eucalyptus trees are removed were also identified for revegetation. Methods for plant establishment were developed. Section 3.0 outlines the revegetation of the western portion of the Restoration Area.

1.2.3 Monitoring and Reporting

The Plan outlines implementation of a 5-year monitoring and reporting program. Field monitoring techniques were evaluated for all Plan actions. Metrics for monitoring were developed with yearly performance standards and final Year 5 standards. Reporting requirements to County Planning Department were also determined. Section 4.0 outlines monitoring and reporting requirements.

2.0 INVASIVE, NON-NATIVE PLANT CONTROL AND REMOVAL

The Plan addresses plant species considered to be of significant management concern within the Restoration Area. Some of the plant species found within these areas are listed by the California Department of Food and Agriculture (CDFA) and California Invasive Plant Council (Cal-IPC), as ***noxious weeds*** and ***invasive species.*** Table 1 lists these species and their Cal-IPC invasive rating.

In general, ***noxious weeds*** and ***invasive plants*** are adapted to establish on previously disturbed conditions, such as loose soils exposed by grading or on sites that have experienced a substantial habitat change from previous agriculture, grazing or other activity.

Plants can be annual/biennial species, such as Italian thistle, that grow quickly and produce large amounts of seed. The seeds from annual plants are often easily dispersed by wind or by animals. Perennial plants, such as French broom (*Genista monspessulana)* reproduce by seed. These seeds can persist in the soil for long periods of time. Trees, such as eucalyptus often reproduce by suckers. The growth habitat of the invasive non-native plant species of management concern are listed on Table 1.

Figure 2 shows the baseline condition of invasive weeds within the Restoration Area. These weed occurrences, as well as additional invasive plant species that may be found on site in the future during monitoring, are identified for removal and control as part of this Plan.

Table 1. Invasive, Non-native Plant Species of Management Concern Within the Restoration Area, Monterey Avenue Subdivision

Common Name	*Scientific Name*	Cal-IPC Ranking	Growth Habit
TREES			
Blue Gum Eucalyptus	*Eucalyptus globulus*	Limited	Perennial
SHRUBS			
French broom	*Genista monspessulana*	High	Perennial
GROUNDCOVERS			
Periwinkle	*Vinca major*	High	Perennial
Dracaena	*Dracaena sp.*	-	Perennial
Italian thistle	*Carduus pycnocephalus*	Moderate	Annual
Bull thistle	*Cirsium vulgare*	Moderate	Biennial
Himalaya blackberry	*Rubus armeniacus*	High	Perennial

Polygons of invasive, non-native plants were identified for removal/control within the Restoration Area in June 2020. In fall 2020 the landowner expressed interest in removing all eucalyptus trees. The location of the polygons is depicted on Figure 2.

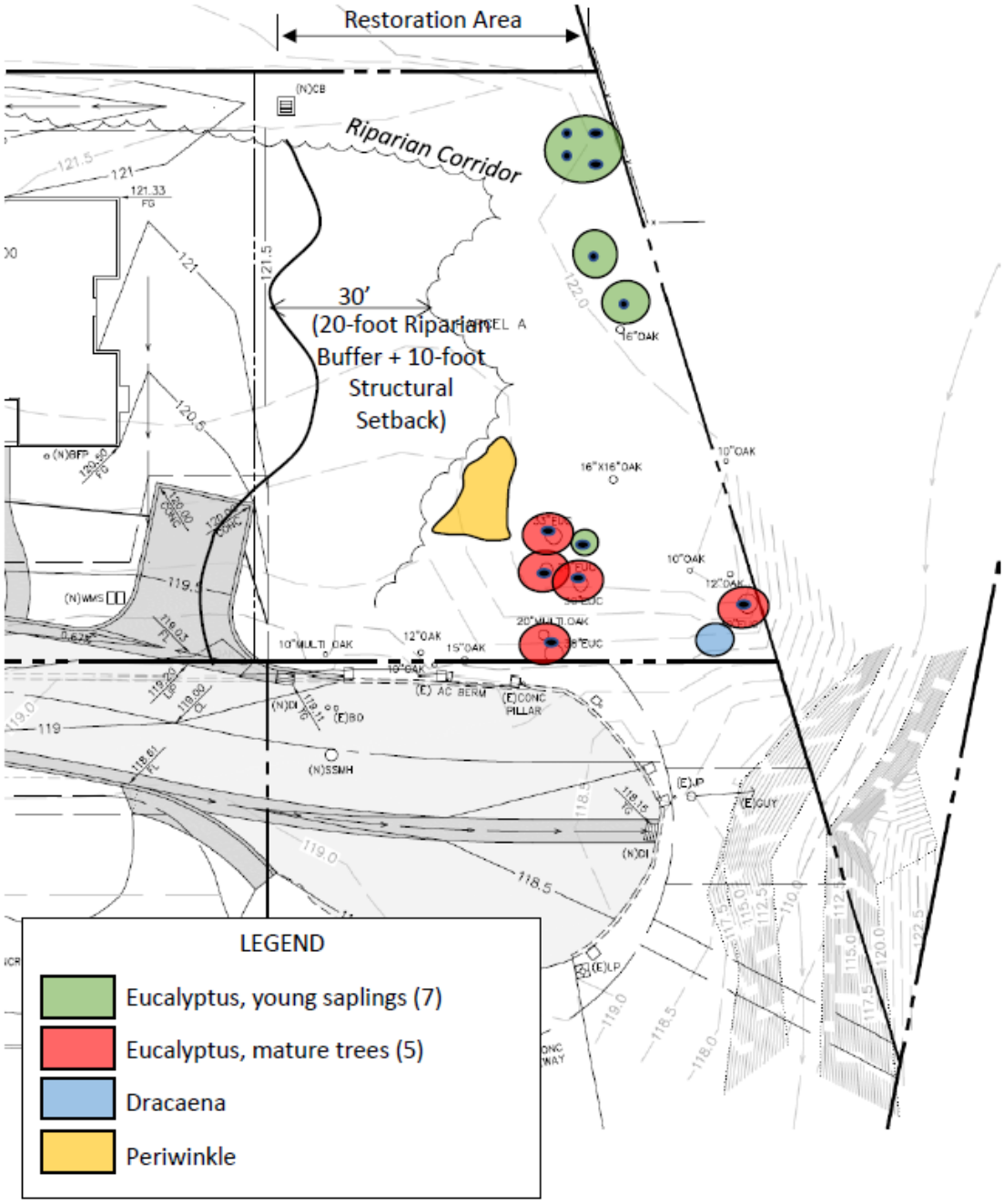


Figure 2. Occurrences of Invasive, Non-native Plant Species for Removal/Control within Restoration Area

(Note: See Arborist Report for tree removal)

2.1 INVASIVE, NON-NATIVE PLANT SPECIES MANAGEMENT

The management of invasive plants within the Restoration Area refers to the removal/control of invasive, non-native plant species that have been considered an immediate and/or significant threat to the sensitive habitat (i.e., riparian woodland). The desired manner for the control of these species is for the landowner (or contractors) to remove the occurrences. Removal of these plants will also reduce weed seeds that can re-infest the area and surrounding areas. This section describes the various management techniques that can be used and identifies the most effective techniques for each species.

As stated in Section 1.1, the goals and objectives for invasive, non-native plant control are:

Goal 1: Within Restoration Area, remove occurrences of invasive, non-native trees, maintain and monitor occurrences for 5 years and achieve 5-year performance standards.

Objective 1.1: In Years 1-3, remove all mature eucalyptus trees (5), all eucalyptus saplings (7); cut trunks flush with ground and apply herbicide to cut stump; dispose of all material off-site.

Objective 1.2: In Years 1-5, remove all young re-sprouts of eucalyptus; dispose all above ground material off-site.

Objective 1.3: Remove trees between October and March 1, to be outside the bird breeding season.

Objective 1.4: The HOA shall maintain the Restoration Area free of identified invasive plants and any other invasive vines, trees, or shrubs, in perpetuity.

Goal 2: Within Restoration Area, remove occurrences of invasive, non-native shrubs and groundcovers, maintain and monitor occurrences for 5 years and achieve 5-year performance standards.

Objective 2.1: In Years 1-3, remove periwinkle and dracaena from riparian corridor; dispose of all material off-site.

Objective 2.2: In Years 1-5, remove all invasive species if encountered, such as broom and thistles; dispose all above ground material off-site.

Objective 2.4: The HOA shall maintain the Restoration Area free of identified invasive plants and any other invasive vines, trees, or shrubs, in perpetuity.

2.1.1 General Guidelines and Specifications

The most effective control techniques must take into account a species growth cycle, its flowering period and seed production/release periods, and its occurrence or level of infestation. Although supervision as to timing, technique and general location for invasive plant management can be provided for personnel performing invasive plant fieldwork, a certain level of field training is required for success.

Field training should include, but not be limited to, the follow skills and abilities:

- The ability to identify the key invasive plant species likely to be encountered. Appendix A depicts photos of the current invasive plant species on the parcel.
- The ability to identify native riparian plant species that may be encountered within the work area and should be retained. Appendix B depicts photos of the native riparian plant species that are to be retained.
- Skill with various types of equipment, details of proper techniques and timing to achieve maximum efficiency and success.

- General guidance to limit harm to sensitive resources (see Section 2.1.3).
- Use of adaptive management strategies. Field personnel should be encouraged to consider new ideas and potential improvements based on monitoring the effectiveness and effects of actions implemented on both the targeted species and the habitat, short and long-term.

The techniques to control specific invasive plants are numerous. The various techniques and methods in this Plan have been tailored specifically for the plant species, conditions and locations, within the riparian corridor and setback area are listed in Table 2. Proper training of field personnel is recommended prior to field work, such that the method and technique is correlated to the biology of the species and the surrounding environmental conditions. Additionally, as biological environments are subject to constant dynamic processes, adjustments to method or technique details may be required.

Table 2. Techniques for Removal of Invasive, Non-native Plant Species

Method #	Technique	Guidelines	Applicable Species
1	Hand-pull	▪ Hand pull – maximize root removal and minimize soil disturbance ▪ Dispose of above-ground biomass off-site ▪ Conduct removal October – March	▪ Young broom plants, with stem less than 0.5-inch diameter ▪ Thistles ▪ Dracaena
2	Cut and Paint with herbicide	▪ Cut stem and paint herbicide to cut stem ▪ Use on woody species capable of stump re-sprouts, other vegetative growth or having rhizomatous stems; minimizes soil disturbance ▪ Requires specific concentrations and usually no surfactant ▪ Use 1” brush or small dabber ▪ Apply to cambium layer only ▪ Apply first treatment within 1 minute of cut ▪ A second treatment may be applied within 2 minutes of first application ▪ Dispose of above-ground biomass off site, particularly flowers and seed pods of eucalyptus and broom; no on-site chipping ▪ Conduct removal October – March	▪ Eucalyptus ▪ Mature broom plants ▪ Periwinkle

2.1.2 Herbicide Guidelines and Restrictions

All herbicide use must follow legal and biological requirements and restrictions for application, cleanup and disposal. Additional considerations include:

- Dye shall be added to herbicide to identify placement
- Herbicide should be new unopened containers and should be mixed on site, at a designated location away from sensitive habitat
- No herbicide shall be used near on in running or standing water
- No herbicide shall be used within 48 hours, before or after a rain event based on the weather forecast
- No herbicide shall be used in proximity to bee colonies or like pollinators

2.1.3 Precautions to Protect Sensitive Biotic Resources

Implementation of some weed management activities has the potential to harm native plant and animal species, if such resources are present in the work area. For example, ground nesting birds can be harmed if they have nests within areas subject to vegetation removal during the bird nesting season. Dens of dusky-footed woodrat can be harmed if weed control activities inadvertently alter these dens. Measures are described in this section on actions to be implemented to avoid impacts to non-target plants and animals. Appendix C presents photos of these habitat features.

2.1.3.1 Measures to Minimize Impacts to Breeding Birds and Woodrat Nests. Within the central coast region, the bird-breeding season is typically between March 1 and August 31. All migratory bird nests are protected under the Federal Migratory Bird Treaty Act. Invasive plant removal will be conducted between October and March, which is outside of the bird breeding season.

The work area should be walked to identify any wood rat houses. Wood rats construct large stick-filled houses that can be several feet tall and wide. All wood rat houses are to be retained, with a minimum 10-foot buffer established around each house. Each den should be flagged and workers notified as to the location of each house. If a weed plant is found to be growing through a house, the stem can be cut and painted at a level above the top of the house. No wood rat houses shall be disturbed without prior written approval from California Department of Fish and Wildlife (CDFW).

2.1.4 Schedule

Removal and control of invasive, non-native plant species will occur in perpetuity. There are performance standards for Years 1-5, or longer, if needed to meet these performance standards. A schedule for Years 1 -5 is depicted on Table 3.

Table 3. Schedule for Removal of Invasive, Non-native Plant Species

Task	September	October –March
Years 1-3: Locate mapped occurrences of eucalyptus, dracaena, and periwinkle as depicted on Figure 2, and others, if detected. Flag any sensitive resources at/near mapped polygons.		
Year 1: Cut eucalyptus; cut stumps flush with ground; apply herbicide to cut stump. Remove cut material from site.		
Years 1-3: Hand pull all broom; cut and paint large broom plants if necessary. Remove pulled and cut material from site. Remove dracaena. Remove and treat periwinkle. Re-treat previously treated areas, as needed.		
Years 4-5: Re-treat previously treated areas, as needed. Maintain area free of invasive plants in perpetuity.		

3.0 REVEGETATION ACTIVITIES

The County has requested revegetation of the 20-foot wide riparian buffer and 10-foot construction setback within the Restoration Area. As per Section 1.1, the goals and objectives for this portion of the Restoration Area are:

> **Goal 3:** Within the western portion of the Restoration Area and areas of eucalyptus tree removal in the riparian woodland, install native riparian trees and shrubs, maintain and monitor for 5 years, and achieve 5-year performance standards.
>
> Objective 3.1: Engage services of native plant nursery to conduct regional collection of native riparian plant propagules and grow plants for out-planting (1-year lead time).
>
> Objective 3.2: Install grown plants into designated area; maintain and monitor for 5 years and achieve 5-year performance standards.

3.1 Revegetation Area

The revegetation area is a 30-foot wide zone measured outward from the riparian woodland dripline as well as areas where mature eucalyptus trees are to be removed. This area is depicted on Figure 3. The 30-foot wide zone area is an existing clearing that supports grasses and forbs. This area measures approximately 2,500 square feet (0.06 acre).

The western edge of the Restoration Area will be demarcated by a permanent fence. This can be split-rail fence, or other fence design; yet the fence should be a minimum of four feet in height. Interpretive signs shall be installed on the fence indicating that the area is a designated habitat restoration and enhancement area and no unauthorized foot or vehicular access is allowed.

3.2 Plant Installation

Native riparian trees and shrubs (container stock) will be used for the revegetation, as listed in Table 4. A conceptual plant layout is presented in Figure 3. The landowner (and/or HOA) will be responsible for contracting with a native plant nursery to do regional collection of plant propagules (i.e., seed/cuttings) and plant propagation. The landowner (and/or HOA) will be responsible for contracting with a landscape contractor for installation of the plantings and designing/installing a temporary drip irrigation system.

Table 4. Plant Palette for Riparian Revegetation Area

Map Code Figure 3	Common Name	Scientific Name	Propagule Size	Approx. Spacing	Number of Plants
	TREES				
QUAG	Coast Live Oak	*Quercus agrifolia*	5 gal.	20’	8
ACNE	Box Elder	*Acer negundo*	5 gal.	20’	2
PLRA	Western Sycamore	*Platanus racemosa*	5 gal.	20’	1
SANI	Common Elderberry	*Sambucus nigra*	5 gal.	15’	4
TOTAL TREES					**15**
	SHRUBS				
FRCA	Coffee Berry	*Frangula californica*	1 gal.	6’	6
SYAL	Snowberry	*Symphoricarpos albus*	1 gal.	6’	10
RISA	Flowering Currant	*Ribes sanguineum*	1 gal.	6’	4
ROCA	California Rose	*Rosa californica*	1 gal.	5’	9
TOTAL SHRUBS					**29**

The typical planting season for container stock is in the fall; however, spring plantings can also occur where there is a reliable irrigation system. The plantings will be irrigated before and after planting.

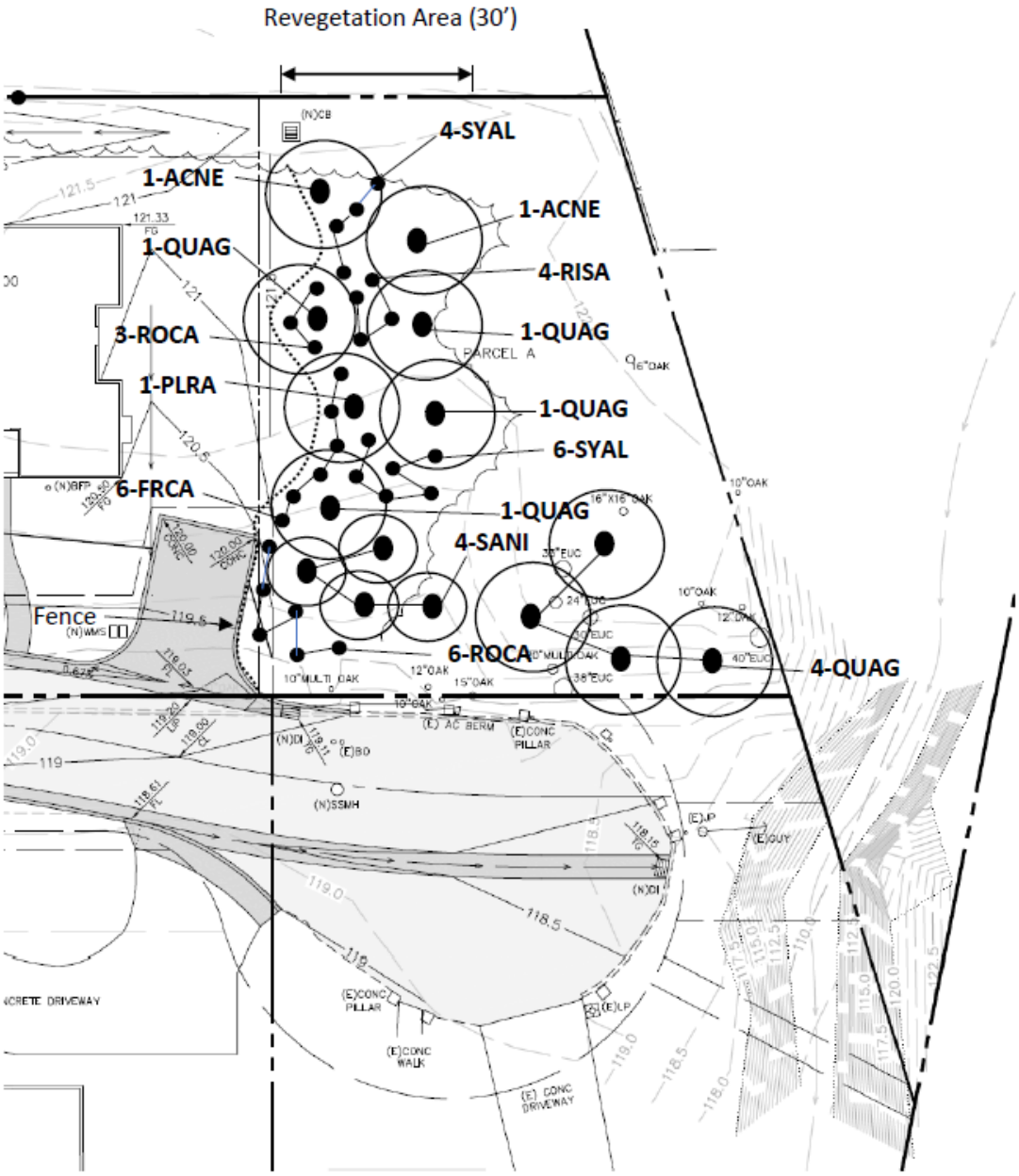


Figure 3. Conceptual Plant Layout Within Revegetation Area

Once plantings are delivered to the site, plant installation can proceed. The planting hole should be excavated to the specified dimensions (see Figure 4) and prepared to receive the plant. A root protector cage should then be installed in the planting hole, as gopher activity is expected and plant losses could occur due to gopher browse. The plant should be carefully removed from its container

in order to avoid any root damage and placed in the planting hole/cage. The planting hole is then to be back filled with the native soil and a water basin constructed. An above-ground foliage protector (i.e., deer browse cage) is to then be fitted over the plant. The final step is to apply a three-inch layer of clean wood chip mulch. Plant installation should follow the typical details presented in Figure 4; however, cage sizes will need to be adjusted to accommodate 5-gallon size plants.

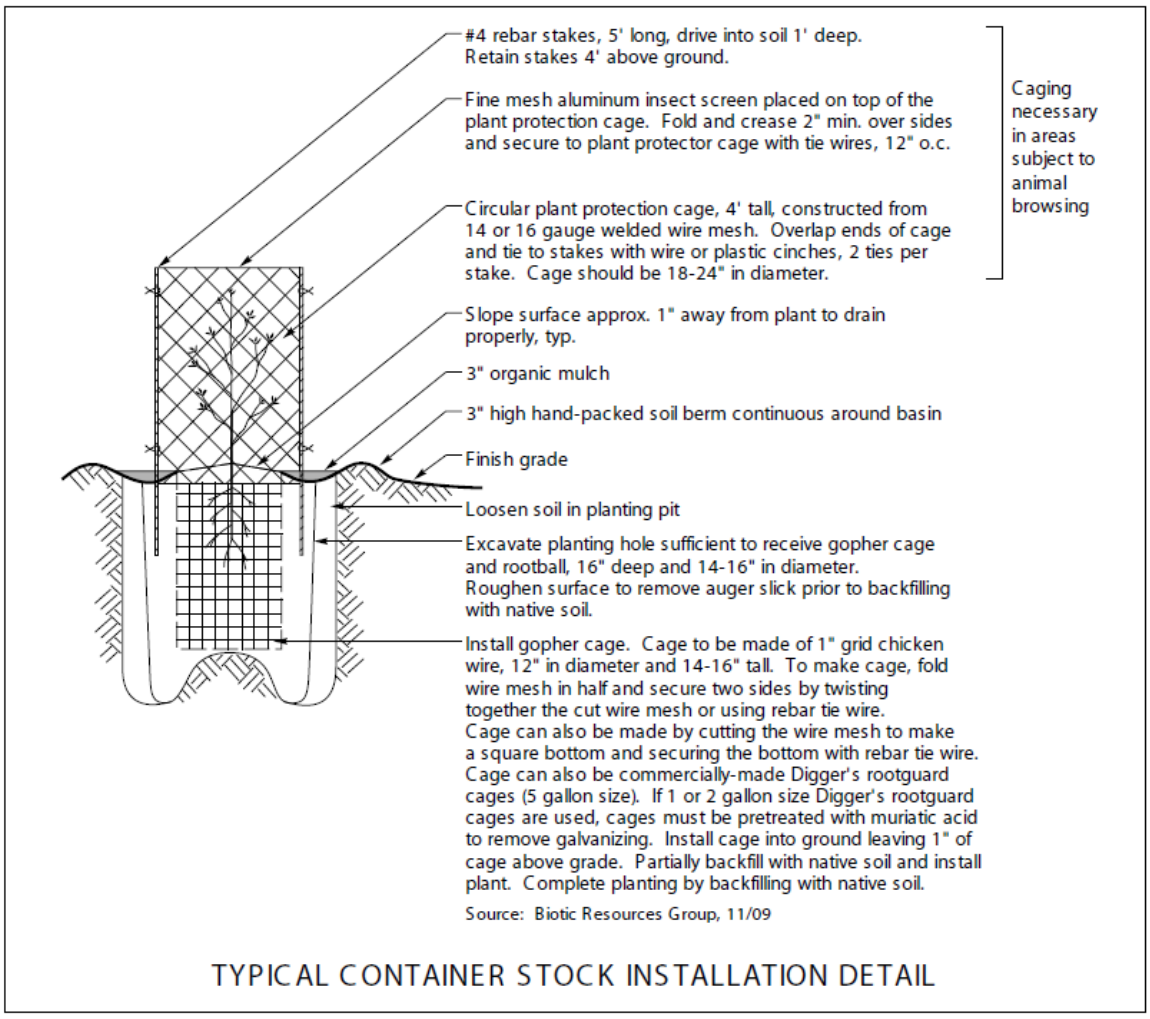


Figure 4. Typical Plant Installation Detail

3.3 Site Maintenance

The plantings will be maintained regularly during a 5-year plant establishment period. Maintenance activities will include supplemental irrigation in Years 1-3, weed control and browse protection. During this period, the landowner will perform maintenance activities approximately 1 time per month. This schedule will ensure that plant survival rates are maximized and desired habitat features are achieved. A maintenance schedule for Years 1 -5 is depicted on Table 5.

Typical maintenance tasks during Years 1-5 will include weeding of planting basins, repair/replace animal protection devices, re-application of mulch, repair of watering basins, check/repair of irrigation system, removal of invasive, non-native plant species, and installation of replacement plants (if needed to meet performance standards).

3.3.1 Supplemental Irrigation. Irrigation can be provided by a landowner-built temporary drip system. Watering must be effectively controlled to minimize plant loss and water waste resulting from over watering. It is the responsibility of the landowner to ensure that the plantings receive sufficient water to promote healthy plant growth. The plantings will be irrigated during the first two growing seasons, 1 time per week between May and October (depending upon weather). In Year 3, irrigation should be reduced to twice a month between May and September. Each watering will be of such a quantity as to provide optimum growth conditions. If drought stress or chlorosis (leaf yellowing) is noted on any of the plantings, the quantity and interval of watering will be increased.

If an unusual drought occurs in other months (i.e., less than 70% of normal rainfall between October and May) such that soil moisture drops to a level where plant survival is compromised, supplemental irrigation will be initiated. Supplemental irrigation will be continued until natural rainfall levels replenish soil moisture.

3.3.2 Weed Control. During Years 1-5, competition from weeds and/or invasive, non-native plant species within the planting basins shall be minimized; basin shall be kept weed-free during the growing season; maximum weed height of 6 inches during non-growing season.

3.3.3 Browse Control. During Years 1-5, actions to minimize browse damage on plantings will be implementing by maintaining browse protection devices (i.e. cages) on selected plants so as to maximize plant survival and desired habitat features. Repair and/or replace cages that have been damaged.

Table 5. Revegetation Area Maintenance Schedule

Task	Winter	Spring	Summer	Fall
Minimum of one year prior to plant installation. Enter into agreement with native plant nursery to collect plant propagules and grow container stock plants.				
Year 0. In late fall, after first soaking rains, install plants within revegetation area, as per conceptual layout and as reviewed by restoration specialist or botanist. Install below and above ground browse protection. Provide irrigation after planting and until natural rains commence.				
Years 1-3: May through September, begin supplemental irrgation. At periodic intervals, check plant growth and health. Remove weeds from planting basins, repair cages, replace mulch, if needed. Check irrigation system.				
Year 4-5: Discontinue supplemental irrigation. At periodic intervals, check plant growth and health. Remove weeds from planting basins, repair cages, replace mulch, if needed.				
Years 2-5: Install replacement plants if any plants die, to achieve 100% survival each year.				

4.0 MONITORING AND REPORTING OF PLAN PROGRESS

4.1 ANNUAL MONITORING, YEARS 1-5

Monitoring of the progress of Plan implementation is required. Monitoring will be conducted to document areas of invasive removal, document survival of installed riparian planting, evaluate the effectiveness of management actions and, over time, provide insight on ways to improve habitat restoration and management actions.

The landowner's botanist, ecologist, or restoration specialist should periodic assess how the invasive plant removal and revegetation is proceeding, and to identify problems or potential problems that may exist, including possible colonization of the site by new weeds and invasive species.

Goal 4: Monitor and report to Santa Cruz County on an annual basis Plan actions implemented, goals met, performance standards and remedial actions needed.

Objective 4.1: Document dates and areas of plan implementation.

Objective 4.2: Establish a series of permanent photo-stations to document yearly progress of plan actions.

Objective 4.3: Submit annual reports to County Planning Department by December 31 of each monitoring year, for a period or 5 years, or longer until performance standards are met.

4.1.1 Inspect Invasive Plant Removal

A qualified botanist, ecologist, or revegetation specialist will inspect the invasive plant removal areas at least once a year, for 5 years (or longer if performance standards are not met). The purpose of the inspection will be to assess how the removal work is progressing, identify problems or potential problems that may exist, and identify any new occurrences of invasive species that warrant control. The progress of invasive non-native plant species removal will be ascertained during the inspections and the invasive plant infestation maps updated/annotated as to the polygons treated, timing, and control techniques used.

4.1.2 Inspect Revegetation

A qualified botanist, ecologist, or revegetation specialist will inspect the revegetation area at least once a year, for 5 years (or longer if performance standards are not met). The purpose of the inspection will be to assess how the revegetation and habitat restoration actions are proceeding, and to identify problems or potential problems that may exist. During the inspection, the biologist will look for plant damage, document compliance with Conditions of Approval, and make recommendations to correct any significant problems or potential problems. The inspection visit will also be used to document the need to change or adjust revegetation plan actions (i.e., altering the maintenance schedule, adding extra weed control visits, increasing or reducing the frequency or amount of irrigation water, etc.). All plantings will be monitored as to dead/alive, height, and health/vigor. During Years 1-3, yearly plant survival should be maintained at 100 percent. In Years 4 and 5, plant survival should be 80%. If plant survival falls below these thresholds in any year, the inspection will document the number of supplemental container stock planting required to be installed.

4.1.3 Photo Documentation

The landowner's botanist, ecologist, or restoration specialist should photograph the Restoration Area to record the progress of invasive plant removal and revegetation. Photo stations should be established in Year 1 that can be used in Years 1-5 to depict the before and after work efforts and

to create a photo record of the progress of the restoration plan. Photo-stations should be established prior to work (Year 1) and photos will be taken from the same vantage point and in the same direction every year.

4.1.4 Success Criteria and Yearly Performance Standards

The final success criteria for the restoration plan are outlined in Table 6. When these criteria are fulfilled, the area will be determined to be progressing toward the habitat type and values that constitute the long-term goals of this project. These final success criteria will be monitored for compliance at the end of the 5-year monitoring period. Final success criteria for the Restoration Area will be documented by monitoring by a qualified botanist, ecologist or revegetation specialist.

Performance standards are established for the Restoration Area. These are measured during Years 1-5 as the areal extent of invasive, non-native plant species. This will be determined by the number and extent of polygons supporting invasive, non-native plant species. Within the revegetation area, survival of installed plantings and overall site maintenance will be monitored.

Remedial measures will be implemented by the landowner if these standards are not achieved in any of the monitoring years. Examples of remedial actions include re-planting failed plants, increasing weeding sessions, supplemental planting, additional control of invasive plant species, and/or modifying the irrigation system.

Table 6. Performance Standards for Years 1-4 and Final Success Criteria for Year 5

	Year 1	Year 2	Year 3	Year 4	Year 5
Restoration Area					
# of Polygons of Invasive Weeds	2	2	2	1	0
Revegetation Area					
Plant Survival (%)	100	100	100	80	80
Maximum Cover of Invasive, Non-native Plant Species (%)	<10	<10	<5	<5	<5
Plant Survival by Vegetative Group (# of plants) - Trees					
Coast Live Oak	8	8	8	6	6
Box Elder	2	2	2	2	2
Western Sycamore	1	1	1	1	1
Common Elderberry	4	4	4	3	3
Total Trees	**15**	**15**	**15**	**12**	**12**
Plant Survival by Vegetative Group (# of plants) - Shrubs					
Coffee Berry	6	6	6	5	5
Snowberry	10	10	10	8	8
Flowering Currant	4	4	4	3	3
California Rose	9	9	9	7	7
Total Shrubs	**29**	**29**	**29**	**23**	**23**

4.2 REPORTING

Annual reports for monitoring Years 1-5 will present data on the mitigation area(s), actions implemented, the attainment of yearly target criteria, progress toward final success criteria, and any remedial actions required. Reports will be prepared by a qualified botanist, ecologist, or revegetation specialist; the landowner will be responsible for submitting the reports to the County Planning Department by December 31 of each monitoring year.

APPENDIX A
INVASIVE, NON-NATIVE PLANT SPECIES

Blue Gum Eucalyptus (*Eucalyptus globulus)*

French Broom (*Genista monspessulana)*

Periwinkle *(Vinca major)*

Italian thistle (*Carduus pycnocephalus)*


Bull Thistle (*Cirsium vulgare)*


Himalaya Berry (*Rubus procerus)*

APPENDIX B
NATIVE PLANT SPECIES

Coast Live Oak (Quercus agrifolia)

Western Sycamore (Platanus racemosa)

Box Elder (*Acer negundo)*

Common Elderberry (*Sambucus nigra)*

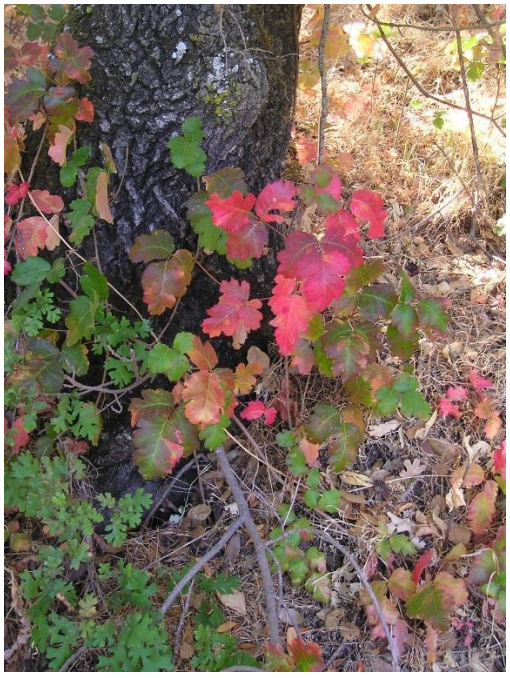
Flowering Currant (*Ribes sanguineum)*

California Rose (*Rosa californica*)

Snowberry (*Symphoricarpos albus)*

Coffee Berry (*Frangula californica)*

California Blackberry (*Rubus ursinus)*



Poison Oak (*Toxicodendron diversilobum)*

APPENDIX C
SENSITIVE RESOURCES

Nesting Birds

Woodrat House

Attachment 3

Arborist Report

This page intentionally left blank.

Maureen Hamb- Certified Arborist WE2280
Professional Consulting Services

TREE RESOURCE EVALUATION
PROJECT IMPACT ANALYSIS

VACANT LAND
LORAINE LANE
APN 037-211-01

AUGUST, 2020

849 Almar Ave. Suite C #319
Santa Cruz, CA 95060
Email: maureen.hamb@yahoo.com

Telephone: 831-763-6919
Mobile: 831-234-7735

ASSIGNMENT/SCOPE OF SERVICES

Development plans for five homes and other improvements are proposed for vacant land located on Loraine Lane off Monterey Avenue (APN 037-211-01). The property owners retained me to evaluate the health, structural stability and suitability of all trees on the site.

I have completed the following scope of services to complete the impact analysis.

- Review site plans prepared by Roper Engineering.
- Locate number and map 21 trees and tree groups growing adjacent to the proposed development.
- Identify trees as to species and measure trunk diameter at 54 inches above grade.
- Visually inspect each tree to evaluate health status, structural integrity and suitability for incorporation into the development project.
- Rate each tree as “good”, “fair”, or “poor” based on overall condition and species tolerances.
- Determine the Critical Root Zone areas based on trunk diameter and tree condition.
- Prepare a protection plan and provide recommendations for tree removal/retention based on construction impacts or overall condition.

SUMMARY

I have completed a visual assessment of 21 individual trees and tree groups growing on undeveloped property located off Loraine Lane. Young coast live oaks are growing behind the curb of the existing narrow roadway. A cluster of eucalyptus and oaks are concentrated at the east end of the site where the roadway ends. A healthy group of coast live oaks are growing at the northern property boundary.

The development plans have been reviewed and impacts to the trees have been analyzed. The attached inventory includes specific impacts and recommendations for protecting the trees.

Tree removal will be necessary to develop the property as proposed. Five young oaks and one 38-inch eucalyptus are in conflict with the road improvements that will be a component of the project.

The removal of an additional eucalyptus has been recommended for risk management. The tree is leaning, and it appears that the root structure is no longer able to support the tree.

Recently, a tree removal project was completed for the Soquel Creek Water District on an adjacent property located at 5738 Soquel Drive. A component of that project was a restoration/tree replacement plan. A number of young coast live oaks and big leaf maple have been planted at the edge of the Loraine Lane development site where the two properties are joined. The replacement trees are healthy and have been provided irrigation and are caged to prevent damage from browsing.

This area can be utilized to add replacement trees that may be required by County of Santa Cruz as a result of the recommended tree removal. Expanding this existing planting area will enhance the recently planted young trees and long-term forest restoration.

TREE INVENTORY OVERVIEW

To complete the inventory and assessment of trees on this project site, I made two site visits in May and June of this year. The tree locations are documented on the attached site plan and correspond with the data in the inventory spreadsheet. The inventory includes the following information for the trees on this undeveloped site:

Tree Number
Tree locations are documented on the attached site plan prepared by Roper Engineering.

Tree Species
The inventory indicates the "common" name for each tree. The botanical names of the trees in the project boundaries are listed here:

- Coast live oak (*Quercus agrifolia*)
- Eucalyptus (*Eucalyptus globulus*)

Trunk Diameter
The diameter of each trunk/trunks was measured at a point 54 inches above natural grade (DBH) using a diameter tape. The Significant Tree Protection ordinance in Santa Cruz County seeks to preserve significant (20 inches and greater in trunk diameter) trees and forests communities and to protect and enhance the County's natural beauty, property values, and tourist industry (Section 16.34.010).

Tree Health
The trees were visually inspected to evaluate health status and structural integrity. This type of assessment includes an evaluation of the biology and mechanics of each tree based on the visual analysis procedures developed by Claus Mattheck published in The Body Language of Trees. The health and structure of the tree is then rated as "good", "fair", or "poor" in the attached inventory.

The biological assessment determines health status and includes an evaluation of the following:

- Vitality of the leaves, bark and twigs
- Presence of fungi or decay
- Percentage and size of dead branching
- Status of old wounds or cavities.

Healthy trees rated as "good" display dense full canopies with dark green foliage. Dead branching is limited to small twigs and branches less than one inch in diameter. No evidence of disease, significant decay or inspect activity is visible. Vigorous, health trees are much better able to tolerate site alteration and invasive construction impacts than less vigorous trees of the same species.

Trees in "fair" health have 10-30% foliar dieback, small areas of dead branching greater than one inch in diameter and minor evidence of disease, decay or insect activity.

Trees in "poor" health display greater than 30% foliar dieback, dead branches greater than two inches in diameter and/or areas of decay, disease or insect activity.

Tree Structure
The mechanical assessment determines the structural integrity of the tree and includes an evaluation of the following:

Trees with "good" structure are well rooted with visible taper in the lower trunk leading to buttress root development. These qualities indicate that the tree is solidly rooted in its growing site. No significant structural defects such as codominant stems (two stems of similar size that emerge from the same point on the trunk), weakly attached branches, cavities or decay are present.

Trees with "fair" structural integrity may have defects such as poor taper in the trunk, inadequate root development or growing site limitations. They may have multiple trunks, included bark (where bark turns inward at an attachment point), or suppressed canopies. Small areas of decay or evidence of small limb loss may be present in these trees. The condition of these trees can be improved using common maintenance procedures.

Poorly structured trees display one or more serious structural defects that may lead to the failure of branches, trunk or the whole tree due to uprooting. Trees in this condition may have had root loss due to decay or site conditions. The supporting trunk or large stems could be compromised by decay or structural defect (large codominant stems with included bark).

Trees in this condition represent a risk. In some situations, maintenance including cable support systems, props or severe pruning can reduce, but not eliminate the potential hazard.

Trees that contain dead branching, decayed areas or other structural defects that cannot be mitigated are not suitable for preservation on developed sites and should not be retained in areas where improvements are proposed.

Tree health and tree structure are evaluated separately. A "healthy" tree can be weakly structured and represent a risk; a well-structured tree can be "unhealthy" or in poor vigor.

Impact Rating
Trees rated as having low impact potential are outside the development area, but require the protection provided by exclusionary fencing.

Trees rated as having a moderate impact potential are within 10 to 15 feet of excavation, grade changes or demolition activities. Fencing in combination with straw bale barricades are recommended to protect these trees.

Trees rated as having a high impact potential have excavation, grade changes or other site alterations proposed within the Critical Root Zone. Trees in these areas may be subjected to alternative construction methods or special treatments (manual grading or special construction methods) and require fencing and straw bale barricades to create a defined exclusion zone. Monitoring of all activities adjacent to, or within, the CRZ will be required.

In some circumstances using alternative methods cannot reduce impacts and tree removal becomes necessary. Excavation that removes structural roots can destabilize the tree and lead to failure.

Critical Root Zone (CRZ)
The **"Critical Root Zone"** is the optimum rooting area around a single tree or group of trees in which no grading or construction activity should occur. The zone should be large enough to retain sufficient root and crown area to maintain tree health and stability. The size of this zone depends on a number of factors (Matheny, Clark & Harris 1999)

This optimum area is based on the British Standards Institute (BS5837:1991 and BS 5837:2005). This method is based on ranges in tree diameter, tree age and vigor.

The CRZ does not always represent a radius around the tree. When necessary the area can be offset or shaped in a manner that accepts tree canopy constraints or existing conditions.

Comments/Recommendations
Recommendations for tree removal/retention are listed here.

PROJECT DESCRIPTION

The project includes the development of five housing units on undeveloped land. Each parcel will be accessed by driveways from by an improved and widened roadway.

OBSERVATIONS

Site Description
The site is an undeveloped property bordering a narrow paved roadway. Several existing residences are to the south of the site. The roadway is a cul-de-sac at the east end of the property. The bulk of the site is an open grass area with trees at the perimeter.

Tree Description
Coast live oak is the dominant species on this site, large eucalyptus are growing at the east end of the property amongst the oaks.

Young oaks are growing along the existing roadway. In general, they are in fair condition with multiple trunks.

The oaks growing amongst the eucalyptus at the end of the road are in decline. The younger trees have thinning canopies and are absent of new growth. It is likely the suppressive conditions created by the large eucalyptus has caused this level of decline.

A healthy grove of coast live oaks (pictured at left) are growing on the northern property boundary.

One more dead oak is growing between two large eucalyptus is significantly decayed and is leaning to the west. One of the eucalyptus trees is also leaning in this direction, it appears the root plate is coming out of the ground. These trees are not stable and could fail.

The other large eucalyptus appear to be stable. Eucalyptus as a species can be prone to branch and whole tree failure. I did not observe any significant defects in these trees that could indicate potential failure points.

Construction Impacts
The impacts to trees on this site have been rated from low to high. Trees #1-#5 are within the widened roadway and removal is required. Trees #6-#9 are in decline and may be affected by road improvements. The impacts to these trees will be reviewed after the site staking is in place and a comprehensive analysis can be completed.

Tree #12, a 38" eucalyptus is growing at the edge of the existing curb and roadway. There is evidence of root development that has damaged the existing curb and road surface. To complete the roadway improvements the roots of this tree would be significantly impacted. I have recommended the removal of this tree due to impacts.

CONCLUSION

The housing project proposed for this vacant site can be completed with the removal of five small diameter coast live trees and one "significant" eucalyptus. Additional tree removal has been suggested due to condition and risk of failure.

Other trees will be retained and protected by exclusionary fencing and straw bale barricades.

Any questions regarding the trees on this site or the content of this report can be directed to my office.

Respectfully submitted,
Maureen Hamb- Certified Arborist WE2280

Tree #	Species	Diameter @ 54"	Health	Structure	Impacts: High Moderate Low	Critical Root Zone Radius in feet	Comments
1	coast live oak	11	good	fair	high	6	Growing behind the curb of existing road/Remove due to impacts for road improvements
2	coast live oak	multi 1 to 4	good	fair	high	5	growing behind the curb of existing road/Remove due to impacts for road improvements
3	coast live oak	multi 1 to 4	good	fair	high	5	growing behind the curb of existing road/Remove due to impacts for road improvements
4	coast live oak	multi 2 to 5	good	fair	high	5	growing behind the curb of existing road/Remove due to impacts for road improvements
5	coast live oak	9.8	fair	fair	high	4	growing behind the curb of existing road/Remove due to impacts for road improvements
6	coast live oak	9.4	poor	poor	high	4	Tree in declining condition/May be impacted by road improvements. Re-evaluate after staking in place
7	coast live oak	multi	poor	poor	high	5	Tree in declining condition/May be impacted by road improvements. Re-evaluate after staking in place

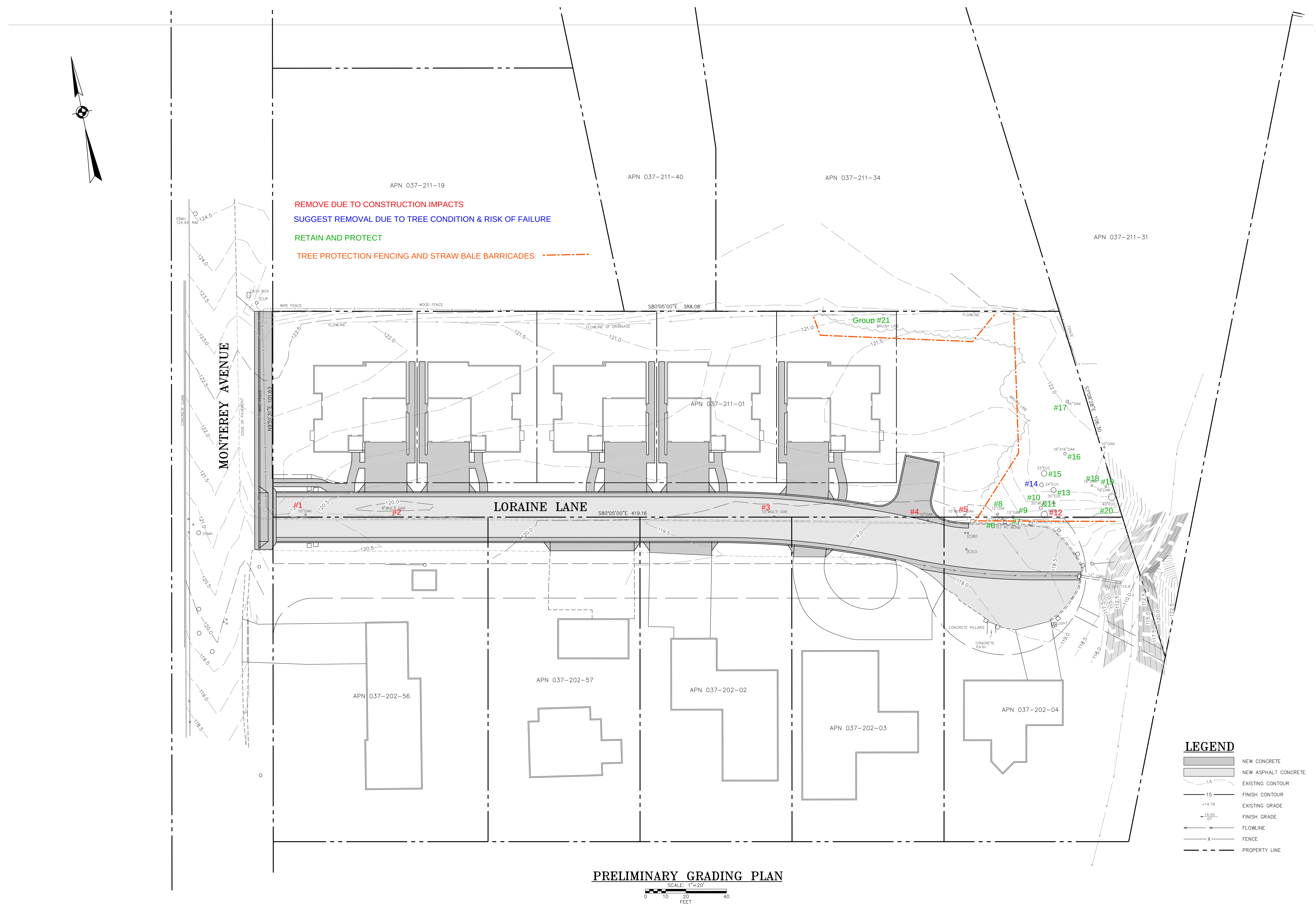
Highlighted Cells Indicate Significant Tree

Tree #	Species	Diameter @ 54"	Health	Structure	Impacts: High Moderate Low	Critical Root Zone Radius in feet	Comments
8	coast live oak	12.2	poor	poor	high	12	Tree in declining condition/May be impacted by road improvements. Re-evaluate after staking in place
9	coast live oak	4	poor	poor	high	4	Tree in declining condition/May be impacted by road improvements. Re-evaluate after staking in place
10	coast live oak	13.7	poor	poor	moderate	13	Tree in declining condition
11	coast live oak	multi	poor	poor	moderate	8	Tree in declining condition
12	eucalyptus	38	fair	fair	high	28	Growing just behind existing curb, root development has damaged curb and roadway/Remove due to impacts related to road improvements
13	eucalyptus	28.5	fair	fair	moderate	21	No significant structural defects/Retain and protect
14	eucalyptus	22.8	fair	poor	moderate	17	The main trunk is leaning, root zone covered in debris. Appears that the root plate is lifting/Recommend removal due to instability and risk of failure

Highlighted Cells Indicate Significant Tree

Tree #	Species	Diameter @ 54"	Health	Structure	Impacts: High Moderate Low	Critical Root Zone Radius in feet	Comments
15	eucalyptus	32.6	fair	fair	low	24	No significant structural defects/Retain and protect
16	coast live oak	double 15 & 16.5	fair	fair	low	15	Leaning structure, large foliar canopy touches the ground/Retain and protect
17	coast live oak	17.3	fair	poor	low	8	Areas of decay, thinning canopy/Retain and protect
18	coast live oak	9.4	fair	poor	low	4	Thin canopy/Retain and protect
19	coast live oak	11.5	fair	poor	low	6	Thin canopy/Retain and protect
20	eucalyptus	40	fair	fair	low	30	Large tree, no significant structural defects/Retain and protect
21	coast live oak	varies	good	fair	low	15	Grove of healthy trees with broad and spreading canopies/Retain and protect

Highlighted Cells Indicate Significant Tree



REMOVE DUE TO CONSTRUCTION IMPACTS
SUGGEST REMOVAL DUE TO TREE CONDITION & RISK OF FAILURE
RETAIN AND PROTECT
TREE PROTECTION FENCING AND STRAW BALE BARRICADES
APN 037-211-19
APN 037-211-40
APN 037-211-34
APN 037-211-31
APN 037-211-01
APN 037-202-56
APN 037-202-57
APN 037-202-02
APN 037-202-03
APN 037-202-04
MONTEREY AVENUE
LORAINE LANE
S80°05'00"E 388.08
S80°05'00"E 419.16
N9°51'31"E 101.63
Group #21
#1
#2
#3
#4
#5
#6
#7
#8
#9
#10
#11
#12
#13
#14
#15
#16
#17
#18
#19
#20
LEGEND
NEW CONCRETE
NEW ASPHALT CONCRETE
EXISTING CONTOUR
FINISH CONTOUR
EXISTING GRADE
FINISH GRADE
FLOWLINE
FENCE
PROPERTY LINE
PRELIMINARY GRADING PLAN
SCALE: 1"=20'
0 10 20 40
FEET

ROPER ENGINEERING

CIVIL ENGINEERING & LAND SURVEYING

64 PENNY LANE, SUITE A WATSONVILLE, CA 95076

(831) 724-5300 jeff@roperengineering.com

UNLESS SIGNED BY THE ENGINEER, THIS PLAN IS FOR REFERENCE ONLY. THE SIGNED PLAN IS THE ONLY PLAN TO BE USED FOR CONSTRUCTION.

TRACT NO. ____

SUBDIVION NAME

MONTEREY AVENUE SOQUEL APN 037-211-01

PRELIMINARY GRADING PLAN

SCALE:	AS NOTED
DESIGNED BY:	JR
DRAWN BY:	JR
DATE:	JUNE 9, 2020
REVISED:	
JOB NO.:	19010

SHEET

T2

OF — SHEETS

Attachment 4

Soils Report Acceptance Letter

COUNTY OF SANTA CRUZ

PLANNING DEPARTMENT
701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123

28 April 2022

0 Monterey Ave., LLC
c/o Daron Madinger <daronmadinger@gmail.com>
347 Massol Avenue, Apt. 202
Los Gatos CA 95030

Subject: Review of the Geotechnical Investigation Report for Residential Construction Five Lot Subdivision at 0 Monterey Avenue, Soquel, CA/APN 037-211-01 dated 7 July 2020 by Haro, Kasunich and Associates – Project No. SC11772

Project Site: Monterey Avenue and Loraine Lane
APN 037-221-01
Application No. REV211391

Dear Applicant:

The Planning Department has accepted the project site geotechnical investigation report. The following items shall be required:

1. All project design and construction shall comply with the recommendations of the report;

2. Final plans shall reference the report by title, author and date. Final Plans should also include a statement that the project shall conform to the report's recommendations; and

3. After plans are prepared that are acceptable to all reviewing agencies, please submit a completed Soils (Geotechnical) Engineer Plan Review Form to Environmental Planning. The Consultants Plan Review Form (Form PLG-300) is available on the Planning Department's web page. The author of the soils report shall sign and stamp the completed form. Please note that the plan review form must reference the final plan set by last revision date.

Electronic copies of all forms required to be completed by the Geotechnical Engineer may be found on our website: www.sccoplanning.com, under "Environmental", "Geology & Soils", and "Assistance & Forms".

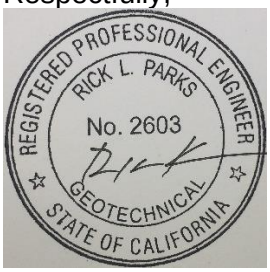
After building permit issuance the soils engineer *must remain involved with the project* during construction. Please review the Notice to Permits Holders (attached).

Our acceptance of the reports is limited to their technical content. Other project issues such as zoning, fire safety, septic or sewer approval, etc. may require resolution by other agencies.

Please note that this determination may be appealed within 14 calendar days of the date of service. Additional information regarding the appeals process may be found online at: http://www.sccoplanning.com/html/devrev/plnappeal_bldg.htm

If we can be of any further assistance, please contact the undersigned at:
rick.parks@santacruzcounty.us or 831.454.3168

Respectfully,



Rick Parks, GE 2603
Civil Engineer – Environmental Planning Section
County of Santa Cruz Planning Department

Cc: Environmental Planning, Attn: Robert Loveland
Planning Department, Attn: Jerry Busch
Haro, Kasunich and Associates, Attn: Robert Hasseler, GE
Applicant's Agent: Charles Eadie <charlie@eadieconsultants.com>

Attachments: Notice to Permit Holders

NOTICE TO PERMIT HOLDERS WHEN A SOILS REPORT HAS BEEN PREPARED, REVIEWED AND ACCEPTED FOR THE PROJECT

After issuance of the building permit, the County requires your soils engineer to be involved during construction. Several letters or reports are required to be submitted to the County at various times during construction. They are as follows:

1. **When a project has engineered fills and / or grading**, a letter from your soils engineer must be submitted to the Environmental Planning section of the Planning Department prior to foundations being excavated. This letter must state that the grading has been completed in conformance with the recommendations of the soils report. Compaction reports or a summary thereof must be submitted.

2. **Prior to placing concrete for foundations**, a letter from the soils engineer must be submitted to the building inspector and to Environmental Planning stating that the soils engineer has observed the foundation excavation and that it meets the recommendations of the soils report.

3. **At the completion of construction,** a *Soils (Geotechnical) Engineer Final Inspection Form* from your soils engineer is required to be submitted to Environmental Planning that includes copies of all observations and the tests the soils engineer has made during construction and is stamped and signed, certifying that the project was constructed in conformance with the recommendations of the soils report.

If the *Final Inspection Form* identifies any portions of the project that were not observed by the soils engineer, you may be required to perform destructive testing in order for your permit to obtain a final inspection. The soils engineer then must complete and initial an *Exceptions Addendum Form* that certifies that the features not observed will not pose a life safety risk to occupants.

Attachment 5

Soquel Creek Water District Acceptance Letter

SOQUEL CREEK WATER DISTRICT

Mail: P.O. Box 1550 • Capitola, CA 95010 • Office: 5180 Soquel Drive, Soquel, CA 95073

Tel.831.475.8500 • Fax.831.475.4291 • www.soquelcreekwater.org

January 19, 2022

Daron Madinger
347 Massol Ave, Apt 202
Los Gatos, CA 95030

SUBJECT: Conditional Water Service Application for 6 Home Subdivision Residential Development at "0" Monterey Ave, Soquel, APN 037-211-01

Dear Daron Madinger:

In response to the subject application, Soquel Creek Water District (SqCWD) has approved your request for a Conditional Will Serve Letter for the proposed 6 unit subdivision (2 single family homes - 0.05 acre lots, 4 single family homes - 0.140 acre lots) to be located at "0" Monterey Ave, Soquel, so that you may proceed through the appropriate land use planning entity. This letter is effective as of January 19, 2022. Your previous application for a 5 unit subdivision (3 single family homes– 0.140 acre lots, 1 single family home – 0.166 acre lot, and 1 single family home – 0.348 acre lot) was approved at the regular Board meeting at June 1, 2021. The new propose project results in a lower expected water demand than the previous proposal so the revision was approved at a Staff level.

This letter is specifically granted for the project as proposed in regard to uses and densities. Changes to the project that result in a change in use or an increase in water demand will require an application for a modification of this Will Serve Letter. Changes in ownership will also require modification of the Will Serve Letter. This conditional approval of water service for your project is valid for two years from the date of this Letter. A 1-year extension of the Conditional Will Serve may be requested using the attached 1-Year Extension Request Form. To be considered for a Conditional Will Serve Extension you must demonstrate that your development permit application with the appropriate land use planning agency is valid. Complete details of the terms and conditions of the Conditional Will Serve can be found in the "Water Demand Offset (WDO) Program Applicant Agreement" that you signed during your application process.

After you have received a tentative map or building permit from the land use planning agency, you will be required to meet all applicable SqCWD requirements defined in the attached Requirements Checklist before your application can be considered for final Board approval. If you meet all the applicable requirements (*including possible future requirements that arise prior to development approval of your project*), and final Board approval is granted, you will be issued an Unconditional Will Serve Letter, which would secure your water service. This present indication to serve is intended to acknowledge that, under existing conditions, water service would be available on the condition that the developer agrees to meet all of the requirements without cost to the District.

The Board of Directors of the SqCWD reserves the right to adopt additional policies to mitigate the impact of new development on the local groundwater basins, which are currently the District's only source of supply. The subject project would be subject to any applicable conditions of service that the District may adopt prior to granting water service.

As new policies and/or requirements are developed, the information will be made available by the SqCWD.

Sincerely,
SOQUEL CREEK WATER DISTRICT

Taj A. Dufour, P.E.
Engineering Manager/Chief Engineer

Attachment: Requirements Checklist for APN 037-211-01

Enclosures:

1. Overview of the SqCWD Water Use Efficiency Requirements for Tier II Single Family Residential, Multi-Family Residential, Commercial, Industrial & Public Development
2. Indoor Water Use Efficiency Checklist
3. Landscape Project Application Submittal Requirements Package
4. 1-Year Extension Request Form

Attachment 6

County of Santa Cruz Sanitation District Will-Serve Letter

SANTA CRUZ COUNTY SANITATION DISTRICT

701 OCEAN STREET, SUITE 410 · SANTA CRUZ, CA · 95060-4073
(831) 454-2160 · FAX (831) 454-2089 · TDD: (831) 454-2123 · WWW.SCCSD.US
MATT MACHADO, DISTRICT ENGINEER

SEPTEMBER 26, 2022

EADIE CONSULTANTS
PO BOX 1647
SANTA CRUZ, CA 95061

SUBJECT: SEWER AVAILABILITY AND DISTRICT'S CONDITIONS OF SERVICE FOR THE FOLLOWING PROPOSED DEVELOPMENT
APN: 037-211-01
PARCEL ADDRESS: 0 MONTEREY AVE, SOQUEL CA 95062
PROJECT DESCRIPTION: SIX NEW SINGLE-FAMILY DWELLINGS

Dear Mr. Eadie and Mr. Madinger,

The Santa Cruz County Sanitation District (District) has received your inquiry regarding sewer service availability for the subject parcel(s). Sewer service is available at for the subject development, currently no address assigned. Previously issued availability letter was for five new single-family dwellings and this current request is for six single-family dwellings.

No downstream capacity problem or other issue is known at this time. However, downstream sewer requirements will again be studied at time of Planning Permit review, at which time the District reserves the right to add or modify downstream sewer requirements.

This notice is valid for one year from the date of this letter. If, after this time frame, this project has not yet received approval from the Planning Department, then this determination of availability will be considered to have expired. If that occurs or is likely to occur prior to an upcoming submittal or public hearing, please call us ahead of time for a new letter. At that time, we can evaluate the then proposed use, improvements, and downstream capacity, and provide a new letter.

Also, for your reference, we have attached a list of common items required during the review of sanitation projects. Thank you for your inquiry. If you have any questions, please call Forrest Revere at (831) 454-2160.

Yours truly,

MATT MACHADO
District Engineer

By: DocuSigned by:
528D647137C44D4...
Ashleigh Trujillo
Sanitation Engineer

FR/arg:22-072.docx

Attachment 7

Preliminary Stormwater Management Report

Roper Engineering
Civil Engineering & Land Surveying

48 Mann Avenue – Corralitos, CA 95076-1114
(831) 724-5300 phone
jeff@roperengineering.com e-mail

Jeff A. Roper
Civil Engineer & Land Surveyor
RCE 41081
PLS 5180

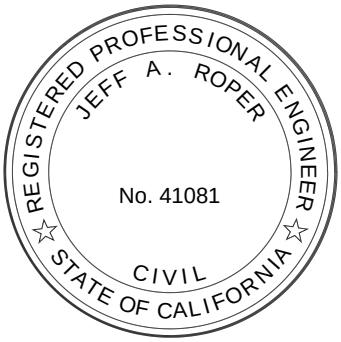
PRELIMINARY STORMWATER MANAGEMENT REPORT

For

Tract No. 1612
Monterey Glen

Monterey Avenue
Soquel, CA 95073

APN 037-211-01
Job No. 19010
March 10, 2022



Project Description
This project consists of a 6 lot subdivision and the construction of 6 new residences and road widening.

Existing Site Conditions
The existing site conditions are represented on the Civil Plans attached. The development site is vacant with Loraine Lane along the southern boundary and Monterey along the west boundary.

Upstream Runoff
The project site will receive upstream runoff from the area to the north. See sheet D1 attached. The upstream runon will be intercepted by a landscaped swale and directed to the existing drainage swale on the east end of the property and bypassing the detention system.

Drainage Mitigation
This project is located in Zone 5 Flood Control District. A detention system is proposed for stormwater mitigation, see civil plans. Drainage map and calculations are attached to this report. Due to the low permeability of onsite soils, onsite retention in not feasible.

A bioswale is proposed in the landscape strip along Monterey Avenue to treat the street widening. S perforated pipe subdrain is provided due to the low permeability of the onsite soils.

Biofiltration is provided for the new impervious surfaces including new homes, driveway, walks and Loraine Lane widening. A 6’ x 6’ Filterra Bioscape Vault is provide to fileter storm water runoff. See attached Filterra Details.

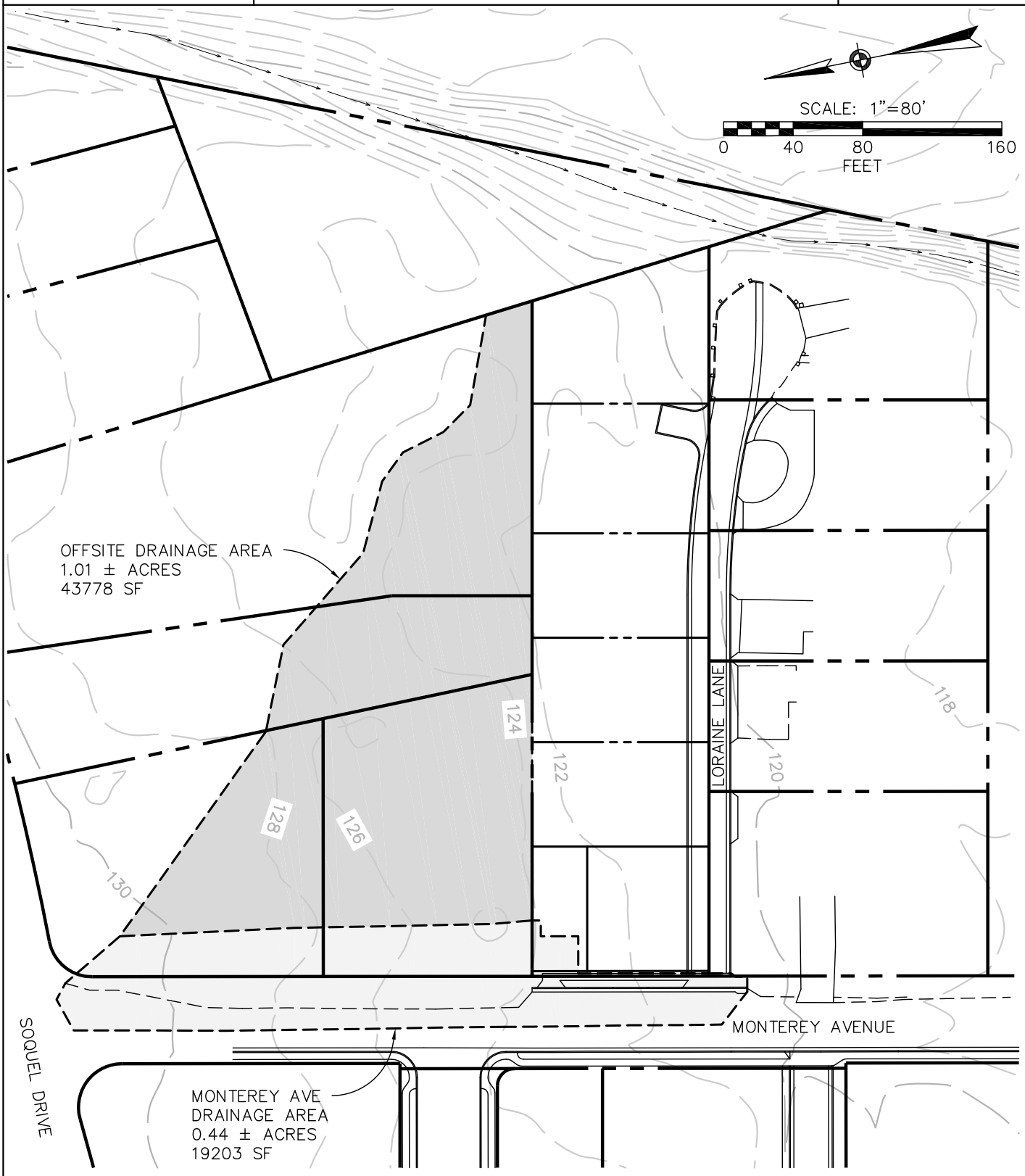
The north half of Loraine Lane will be constructed new and is included in the new impervious surface mitigation. The south half and cul-de-sac of Lorraine Lane is considered a repair of existing pavement and driveways and therefore not included in the impervious surface mitigation.

Downstream Runoff
Runoff from the project will flow to the existing drainage swale at the east side of the property. Runoff from the Monterey Avenue widening will drain into a new drainage inlet at the end of the new curb and gutter and then to the existing storm drain in Monterey Avenue.

Drainage Observations
Based upon testimony from the neighboring property owners, ponding occurs along Loraine Lane, especially at the cul-de-sac at the end of the road. Drainage will be improved with the reconstruction of Loraine Lane along with new storm drains and curb & gutter. The existing 12” CMP culvert empties into the existing drainage swale without an energy dissipater causing erosion. A new storm drain outfall will be constructed with energy dissipation at the outlet.

Detail of the outlet will be provided with the final improvement plans and coordinated with the Planning Department with the Riparian Permit. A road maintenance agreement along with a homeowners association will be created that will be responsible for maintenance of the stormwater mitigation systems and the stormwater outfall.

CLIENT: MONTEREY GLEN	**ROPER ENGINEERING** CIVIL ENGINEERING & LAND SURVEYING 48 MANN AVENUE CORRALITOS, CA 95076 (831) 724-5300	JOB NO.: 19010
LOCATION: MONTEREY AVE		DATE: MAR. 7, 2022
DRAINAGE CALCS		SHEET: D1 OF 2

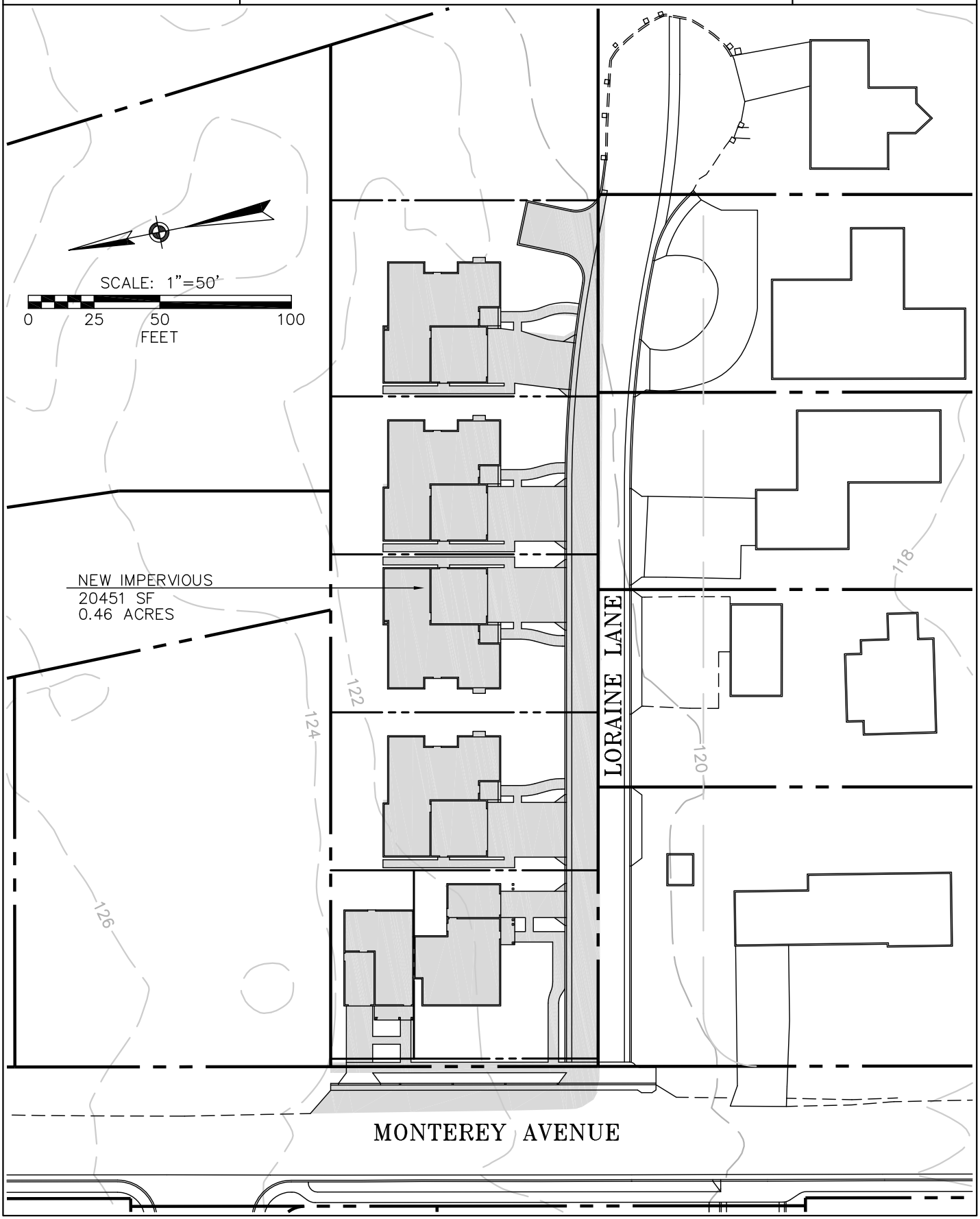


MONTEREY AVENUE GUTTER DRAINAGE CALCS

Q = CIA
= 0.5(2.1)0.44
= 0.46 CFS

P60 = 1.5
I = 2.1 IN/HR
C = 0.5 SINGLE FAMILY RESIDENTIAL

CLIENT: MONTEREY GLEN	ROPER ENGINEERING CIVIL ENGINEERING & LAND SURVEYING 48 MANN AVENUE CORRALITOS, CA 95076 (831) 724-5300	JOB NO.: 19010
LOCATION: MONTEREY AVE		DATE: MAR. 7, 2022
DRAINAGE CALCS		SHEET: D2 OF 2



PROJECT: Tract No. 1612 Monterey Glen **Calc by:** JR **Date:** 3/8/2022

RUNOFF DETENTION BY THE MODIFIED RATIONAL METHOD

Data Entry: PRESS TAB & ENTER DESIGN VALUES SS Ver: 1.0

Site Location P60 Isopleth:	1.50		Fig. SWM-2 in County Design Criteria
Rational Coefficients Cpre:	0.35		See note # 2
Cpost:	0.90		See note # 2
Impervious Area:	20451	ft^2	See note # 2 and # 4

STRUCTURE DIMENSIONS FOR DETENTION

948 ft^3 storage volume calculated

100 % void space assumed

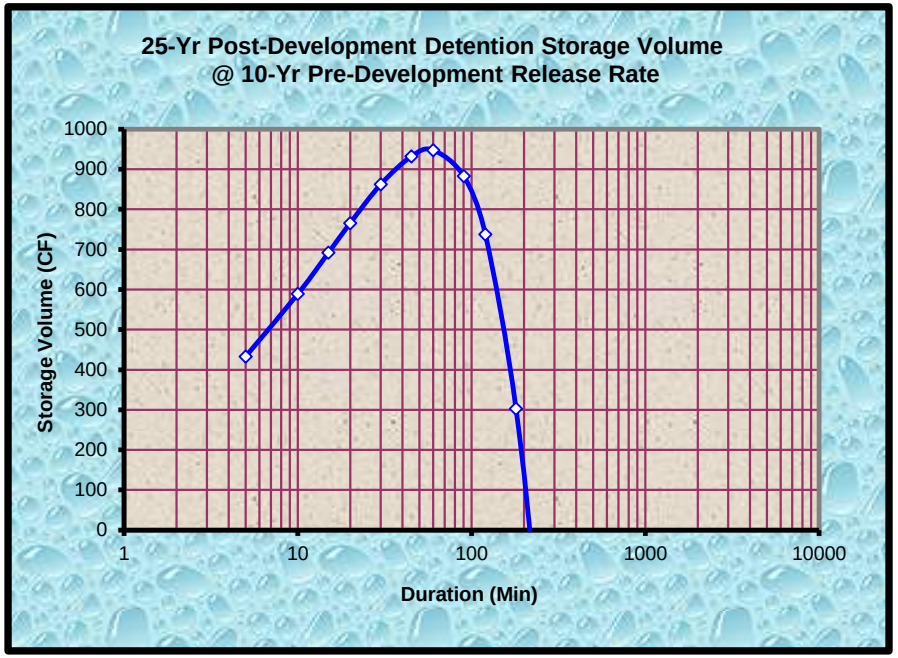
948 ft^3 excavated volume needed

Structure	Length	Width*	Depth*
Ratios	192.00	2.22	2.22
Dimen. (ft)	**192.10**	**2.22**	**2.22**

*For pipe, use the square root of the sectional area

25 - YEAR DESIGN STORM / DETENTION @ 15 MIN.

Storm Duration (min)	25 - Year Intensity (in/hr)	10 - Yr. Release Qpre (cfs)	25 - Year Qpost (cfs)	Detention Rate To Storage (cfs)	Specified Storage Volume (cf)
1440	0.31	0.043	0.131	-0.163	-17646
1200	0.33	0.046	0.142	-0.153	-13755
960	0.37	0.051	0.156	-0.139	-9990
720	0.41	0.057	0.176	-0.119	-6400
480	0.49	0.068	0.209	-0.085	-3077
360	0.55	0.077	0.236	-0.058	-1574
240	0.66	0.091	0.281	-0.014	-251
180	0.74	0.103	0.317	0.022	303
120	0.88	0.122	0.377	0.082	737
90	1.00	0.138	0.426	0.131	883
60	1.19	0.164	0.505	0.211	**948**
45	1.34	0.185	0.571	0.276	932
30	1.59	0.220	0.678	0.383	862
20	1.89	0.261	0.805	0.510	766
15	2.13	**0.295**	0.910	0.615	692
10	2.54	0.350	1.080	0.785	589
5	3.40	0.470	**1.449**	1.154	433



Notes & Limitations on Use:

1) The modified rational method, and therefore the standard calculations are applicable in watersheds up to 20 acres in size.
2) Required detention volume determinations shall be based on all net new impervious area both on and off-site, resulting from the proposed project. Pervious areas shall not be included in detention volume sizing; an exception may be made for incidental pervious areas less than 10% of the total area.
3) Gravel packed detention chambers shall specify on the plans, aggregate that is washed, angular, and uniformly graded (of single size), assuring void space not less than 35%.
4) A map showing boundaries of both regulated impervious areas and actual drainage areas routed to the hydraulic control structure of the detention facility is to be provided, clearly distinguishing between the two areas, and noting the square footage.
5) The EPA defines a class V injection well as any bored, drilled, or driven shaft, or dug hole that is deeper than its widest surface dimension, or an improved sinkhole, or a subsurface fluid distribution system. Such storm water drainage wells are "authorized by rule". For more information on these rules, contact the EPA. A web site link is provided from the County DPW Stormwater Management web page.
6) Refer to the County of Santa Cruz Design Criteria, for complete method criteria.

Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Tuesday, Mar 8 2022

Gutter Flow in Monterey Avenue

Gutter

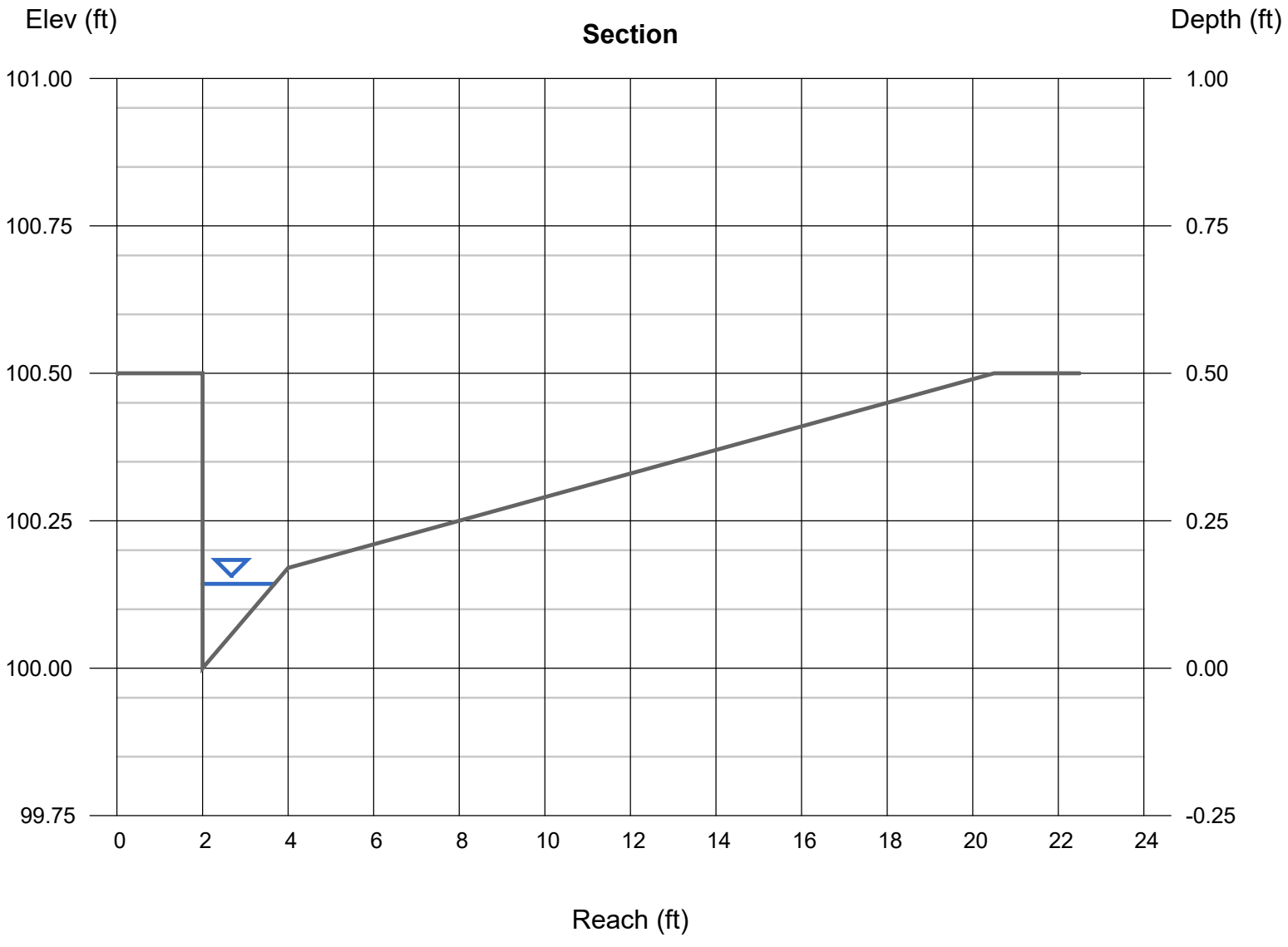
Cross Sl, Sx (ft/ft)	= 0.020
Cross Sl, Sw (ft/ft)	= 0.085
Gutter Width (ft)	= 2.00
Invert Elev (ft)	= 100.00
Slope (%)	= 2.30
N-Value	= 0.012

Calculations

Compute by:	Known Q
Known Q (cfs)	= 0.46

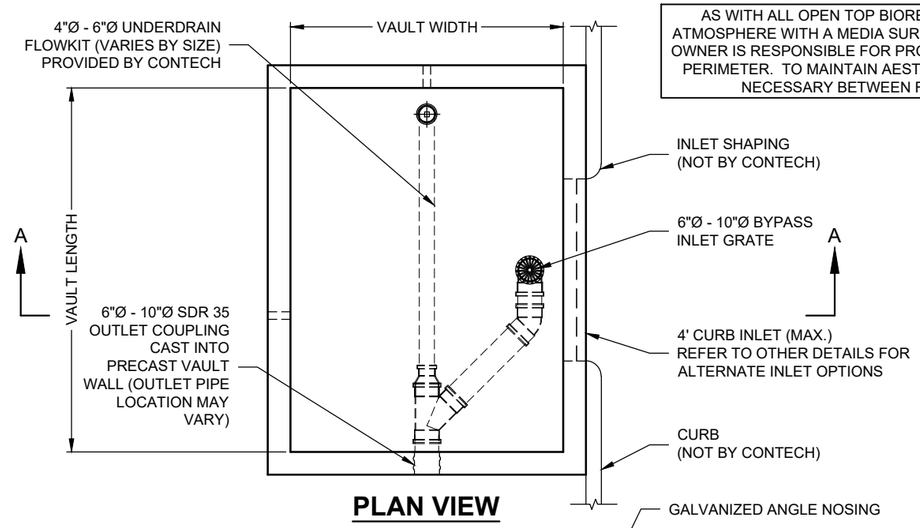
Highlighted

Depth (ft)	= 0.14
Q (cfs)	= 0.460
Area (sqft)	= 0.12
Velocity (ft/s)	= 3.82
Wetted Perim (ft)	= 1.83
Crit Depth, Yc (ft)	= 0.22
Spread Width (ft)	= 1.68
EGL (ft)	= 0.37

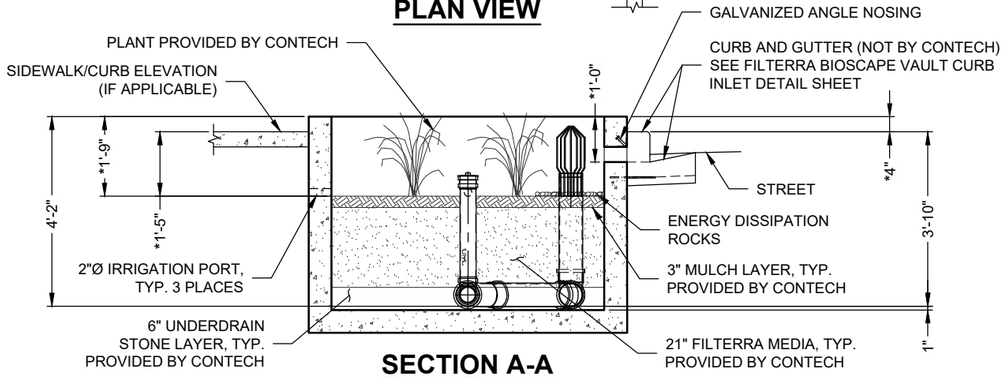


DIMENSIONS PRECEDED BY " * " ARE CRITICAL AND MAY NOT BE MODIFIED WITHOUT CONSULTING CONTECH

AS WITH ALL OPEN TOP BIORETENTION SYSTEMS, FILTERRA BIOSCAPE IS OPEN TO THE ATMOSPHERE WITH A MEDIA SURFACE RECESSED BELOW FINISHED GRADE. CONTRACTOR OR OWNER IS RESPONSIBLE FOR PROVIDING ANY REQUIRED SAFETY MEASURES AROUND SYSTEM PERIMETER. TO MAINTAIN AESTHETICS, REMOVAL OF HEAVY STORMWATER DEBRIS MAY BE NECESSARY BETWEEN REGULAR FILTERRA SYSTEM MAINTENANCE EVENTS.

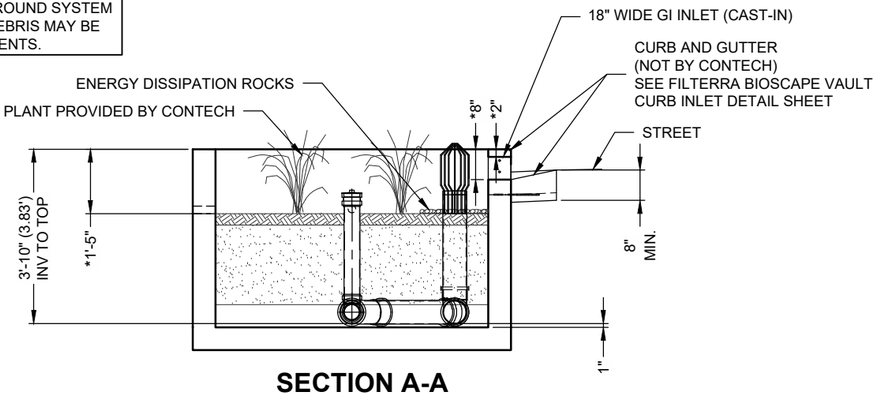


PLAN VIEW



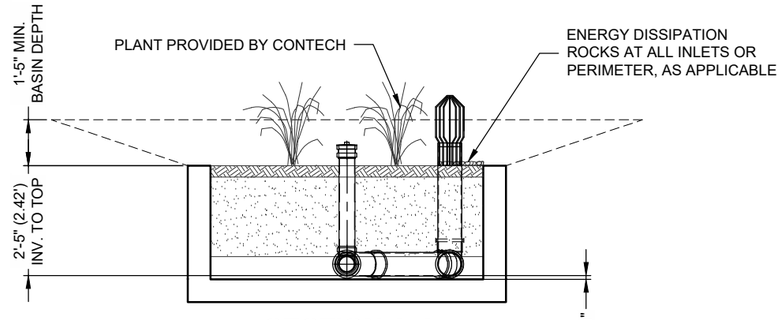
SECTION A-A

(SLOTTED THROAT INLET - TOP EXTENDS 4" ABOVE CURB FOR ADJACENT SIDEWALKS)



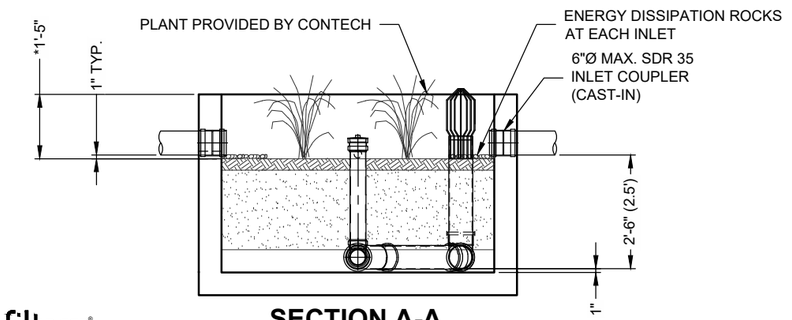
SECTION A-A

GREEN INFRASTRUCTURE INLET - TOP FLUSH WITH TOP OF CURB, NOT INTENDED FOR SIDEWALK APPLICATIONS



SECTION A-A

BASIN - CURB INLET OR PIPE INLETS OPTIONAL



SECTION A-A

PIPE INLET

INTERNAL PIPE CONFIGURATION MAY VARY DEPENDING ON VAULT SIZE.

FTBSVIB CONFIGURATION

(OPTIONS: BASIN "-B", GREEN INFRASTRUCTURE INLET "-I", PIPE INLET "-P", SLOTTED THROAT INLET "-T")

MEDIA BAY SIZE	VAULT SIZE (L x W)	LONG SIDE INLET DESIGNATION	SHORT SIDE INLET DESIGNATION	AVAILABILITY	MAX. OUTLET / BYPASS PIPE DIA.	MAX. BYPASS FLOW (CFS)	UNDERDRAIN PIPE DIA. (PERF)	MIN. NO. OF INLET PIPES (-P ONLY)
4 x 4	4 x 4	FTBSVIB0404	FTBSVIB0404	ALL	6" SDR 35	1.42	4" SDR 35	1
6 x 4	6 x 4	FTBSVIB0604	FTBSVIB0406	N/A CA	8" SDR 35	1.89	4" SDR 35	1
6.5 x 4	6.5 x 4	FTBSVIB06504	FTBSVIB04065	CA ONLY	8" SDR 35	1.89	4" SDR 35	1
7.83 x 4.5	7.83 x 4.5	FTBSVIB078045	FTBSVIB045078	DE,MD,NJ,PA,VA.WV ONLY	8" SDR 35	1.89	4" SDR 35	1
8 x 4	8 x 4	FTBSVIB0804	FTBSVIB0408	N/A DE,MD,NJ,PA,VA,WV	8" SDR 35	1.89	4" SDR 35	1
6 x 6	6 x 6	FTBSVIB0606	FTBSVIB0606	ALL	8" SDR 35	1.89	4" SDR 35	1
8 x 6	8 x 6	FTBSVIB0806	FTBSVIB0608	ALL	10" SDR 35	2.37	4" SDR 35	1
10 x 6	10 x 6	FTBSVIB1006	FTBSVIB0610	ALL	10" SDR 35	2.37	6" SDR 35	2
12 x 6	12 x 6	FTBSVIB1206	FTBSVIB0612	ALL	10" SDR 35	2.37	6" SDR 35	2
13 x 7	13 x 7	FTBSVIB1307	FTBSVIB0713	ALL	10" SDR 35	2.37	6" SDR 35	2
14 x 8	14 x 8	FTBSVIB1408†	N/A	ALL	10" SDR 35	2.37	6" SDR 35	3
16 x 8	16 x 8	FTBSVIB1608†	N/A	N/A OR, WA	10" SDR 35	2.37	6" SDR 35	3
15 x 9	15 x 9	FTBSVIB1509†	N/A	OR, WA ONLY	10" SDR 35	2.37	6" SDR 35	3
18 x 8	18 x 8	FTBSVIB1808†	N/A	CALL CONTECH	10" SDR 35	2.37	6" SDR 35	3
20 x 8	20 x 8	FTBSVIB2008†	N/A	CALL CONTECH	10" SDR 35	2.37	6" SDR 35	4
22 x 8	22 x 8	FTBSVIB2208†	N/A	CALL CONTECH	10" SDR 35	2.37	6" SDR 35	4

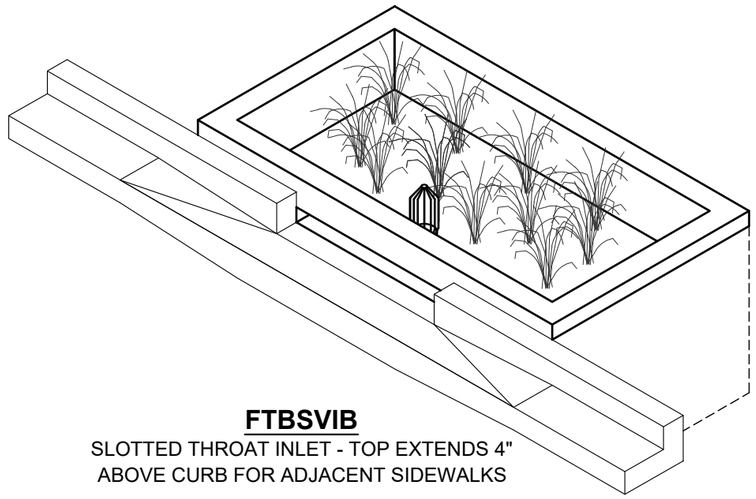
†UTILIZES (2) CURB OPENINGS WITH MIN 1' SPACING

N/A = NOT AVAILABLE

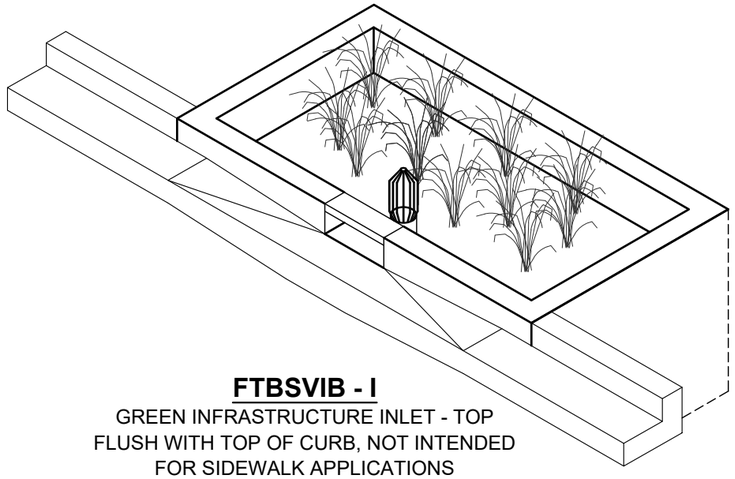
filterra®

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

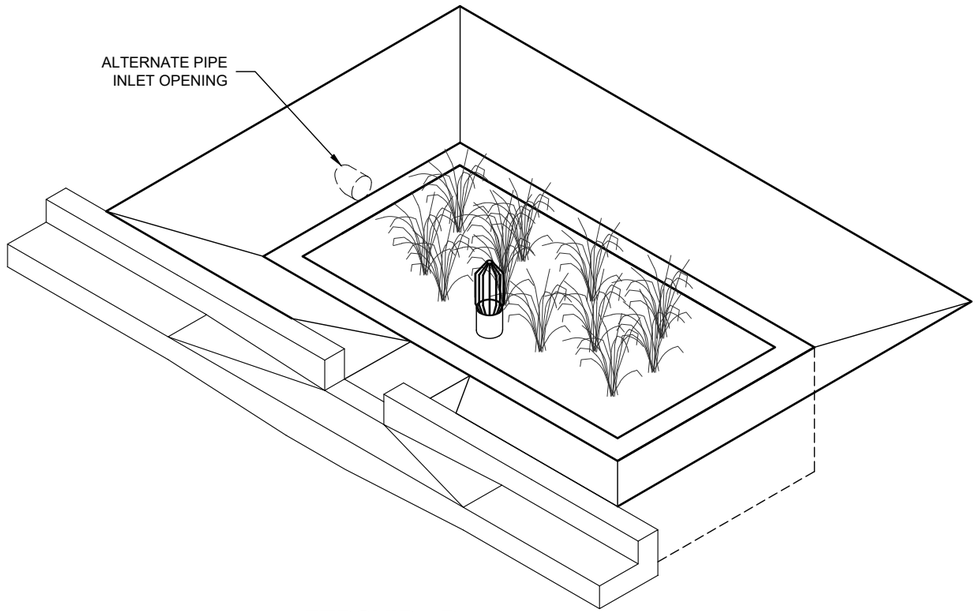
FILTERRA BIOSCAPE VAULT INTERNAL BYPASS (FTBSVIB) CONFIGURATION DETAIL



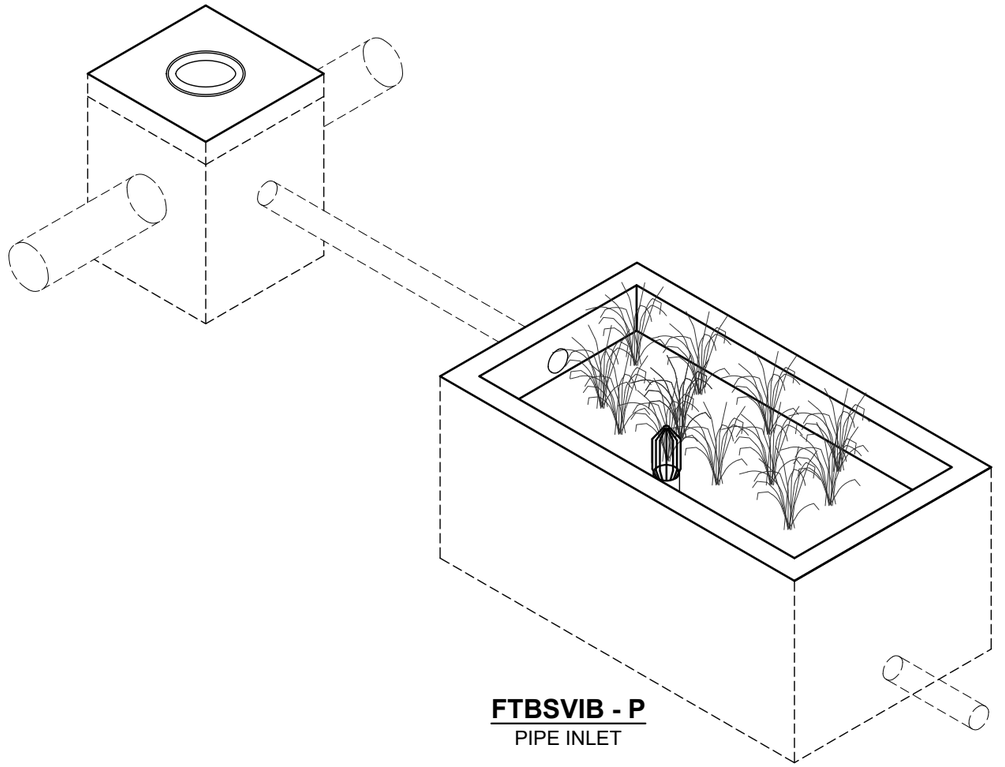
FTBSVIB
SLOTTED THROAT INLET - TOP EXTENDS 4" ABOVE CURB FOR ADJACENT SIDEWALKS



FTBSVIB - I
GREEN INFRASTRUCTURE INLET - TOP FLUSH WITH TOP OF CURB, NOT INTENDED FOR SIDEWALK APPLICATIONS



FTBSVIB - B
BASIN - CURB INLET OR PIPE INLET OPTIONAL



FTBSVIB - P
PIPE INLET

filterra®

CONTECH®
ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

FILTERRA BIOSCAPE VAULT INTERNAL BYPASS (FTBSVIB) SITE LAYOUTS