Appendix B: Biological Resources Report and Update

100 and 200 Manabe Ow Road
Watsonville, CA

Biological Resources Report



Prepared for:
City of Watsonville
Community Development Department
Planning Division
250 Main Street
Watsonville, California 95076

Prepared by:
MIG
2055 Junction Avenue, Suite 205
San José, CA 95134
(650) 400-5767

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1 Introduction

This report provides an evaluation of biological resources that may be impacted by the proposed construction of (1) a logistics distribution center at 100 Manabe Ow Road; and (2) a two-story industrial structure at 200 Manabe Ow Road in Watsonville, Santa Cruz County, California. It identifies sensitive biological resources with the potential to be impacted by the project, and recommended measures to avoid significant impacts defined by the California Environmental Quality Act (CEQA).

The report will be used during project planning and to support the CEQA documentation. The report includes the following sections:

- Section 2 Project Location and Description: provides an overview of the activities proposed under the project.
- Section 3 Regulatory Setting: provides a brief explanation of the federal, state, and local regulations that pertain to the project.
- Section 4 Methods: explains the approach used for the evaluation, including field work and literature review.
- Section 5 Environmental Setting: provides a description of the environmental conditions in the project area, including vegetation communities and associated wildlife habitats present.
- Section 6 Special-status Species and Sensitive Habitats: describes special-status plant and animal species, and sensitive communities that are known to occur or that could potentially occur in the project area.
- Section 7 Biological Impact Assessment: provides an evaluation of the potential impacts to biological resources that may occur as a result of the project; and responses to the CEQA Guidelines Appendix G questions related to biological resources; and provides recommendations to avoid or minimize impacts to biological resources, as needed, to ensure that the project remains in compliance with all applicable federal, state, and local regulatory requirements and avoids significant impacts under CEQA.

2 Project Location and Description

The project areas are located at 100 and 200 Manabe Ow Road (APN 018-711-33/34 and APN 018-711-33, respectively) adjacent to Slough Road West and Ohlone Parkway in Watsonville, Santa Cruz County, California (Appendix A, Figures 1 and 2). They are on the Watsonville West USGS quadrangle. The project areas are located within an urbanized area and are within the Manabe-Ow Business Park Specific Plan.

200 Manabe Ow Road. The proposed project in the 200 Manabe Ow Road project area includes the construction of a two-story industrial structure totaling 156,961 square feet, with a 9,582-square-foot mezzanine for office space, security fencing, a screen wall, landscaping, parking areas, site lighting, and stormwater detention basins. The proposed structure also includes a partial glass façade on one side of the building. The proposed warehouse would operate as a 24-hour distribution facility, Monday through Friday. Operations include multiple shifts of warehouse, delivery, and office employees. The site would be accessed via two driveways on Slough Road West. Site plans and an artistic rendering are included in Appendix B.

100 Manabe Ow Road. The proposed project in the 100 Manabe Ow Road project area includes the construction of a two-story logistics/distribution center totaling 170,328 square feet of warehouse space with 10,000 square feet of office space, security fencing, parking and trailer stalls, stormwater detention basins, and landscaping. The proposed structure also includes a partial glass façade on one side of the building. The site would be accessed via four driveways on Slough Road West and Ohlone Parkway. Site plans and an artistic rendering are included in Appendix B.

3 Regulatory Setting

Biological resources in California are protected under federal, state, and local laws. The laws that may pertain to the biological resources affected by the project are described in this section.

3.1 Federal

3.1.1 Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973, as amended, provides the regulatory framework for the protection of plant and animal species (and their associated critical habitats), which are formally listed, proposed for listing, or candidates for listing as endangered or threatened under FESA. FESA has the following four primary components: (1) provisions for listing species, (2) requirements for consultation with the United States Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries), (3) prohibitions against "taking" (i.e., harassing, harming, hunting, shooting, wounding, killing, trapping, capturing, or collecting, or attempting to engage in any such conduct) of listed species, and (4) provisions for permits that allow incidental "take". FESA also discusses recovery plans and the designation of critical habitat for listed species.

Both the USFWS and NOAA Fisheries share the responsibility for administration of FESA. Section 7 requires federal agencies, in consultation with, and with the assistance of the USFWS or NOAA Fisheries, as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in

the destruction or adverse modification of critical habitat for these species. Non-federal agencies and private entities can seek authorization for take of federally listed species under Section 10 of FESA, which requires the preparation of an HCP.

3.1.2 U.S. Migratory Bird Treaty Act

The U.S. Migratory Bird Treaty Act (MBTA; 16 USC §§ 703 et seq., Title 50 Code of Federal Regulations [CFR] Part 10) states it is "unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill; attempt to take, capture or kill; possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export any migratory bird, any part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or in part, of any such bird or any part, nest or egg thereof…" In short, under MBTA it is illegal to disturb a nest that is in active use, since this could result in killing a bird, destroying a nest, or destroying an egg. The USFWS enforces MBTA. The MBTA does not protect some birds that are non-native or human-introduced or that belong to families that are not covered by any of the conventions implemented by MBTA.

3.1.3 Clean Water Act

The Clean Water Act (CWA) is the primary federal law regulating water quality. The implementation of the CWA is the responsibility of the U.S. Environmental Protection Agency (EPA). However, the EPA depends on other agencies, such as the individual states and the U.S. Army Corps of Engineers (USACE), to assist in implementing the CWA. The objective of the CWA is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Section 404 and 401 of the CWA apply to activities that would impact waters of the U.S. The USACE enforces Section 404 of the CWA, and the California State Water Resources Control Board enforces Section 401.

Section 404

As part of its mandate under Section 404 of the CWA, the EPA regulates the discharge of dredged or fill material into "waters of the United States" (U.S.). "Waters of the U.S." include territorial seas, tidal waters, and non-tidal waters in addition to wetlands and drainages that support wetland vegetation, exhibit ponding or scouring, show obvious signs of channeling, or have discernible banks and high-water marks. Wetlands are defined as those areas "that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3(b)). The discharge of dredged or fill material into waters of the U.S. is prohibited under the CWA except when it is in compliance

with Section 404 of the CWA. Enforcement authority for Section 404 was given to the USACE, which it accomplishes under its regulatory branch. The EPA has veto authority over the USACE's administration of the Section 404 program and may override a USACE decision with respect to permitting.

Substantial impacts to waters of the U.S. may require an Individual Permit. Projects that only minimally affect waters of the U.S. may meet the conditions of one of the existing Nationwide Permits, provided that such permits' other respective conditions are satisfied. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions (see below).

Section 401

Any applicant for a federal permit to impact waters of the U.S. under Section 404 of the CWA, including Nationwide Permits where pre-construction notification is required, must also provide to the USACE a certification or waiver from the State of California. The "401 Certification" is provided by the State Water Resources Control Board through the local Regional Water Quality Control Board (RWQCB).

The RWQCB issues and enforces permits for discharge of treated water, landfills, stormwater runoff, filling of any surface waters or wetlands, dredging, agricultural activities and wastewater recycling. The RWQCB recommends the "401 Certification" application be made at the same time that any applications are provided to other agencies, such as the USACE, USFWS, or NOAA Fisheries. The application is not final until completion of environmental review under CEQA. The application to the RWQCB is similar to the pre-construction notification that is required by the USACE. It must include a description of the habitat that is being impacted, a description of how the impact is proposed to be minimized and proposed mitigation measures with goals, schedules, and performance standards. Mitigation must include a replacement of functions and values, and replacement of wetland at a minimum ratio of 2:1, or twice as many acres of wetlands provided as are removed. The RWQCB looks for mitigation that is on site and in-kind, with functions and values as good as or better than the water-based habitat that is being removed.

3.2 State

3.2.1 California Environmental Quality Act (CEQA)

CEQA (Public Resources Code Sections 21000 et. seq.) requires public agencies to review activities which may affect the quality of the environment so that consideration is given to preventing damage to the environment. When a lead agency issues a permit for development that could affect the environment, it must disclose the potential environmental effects of the project. This is done with an "Initial Study and Negative Declaration" (or Mitigated Negative

Declaration) or with an “Environmental Impact Report”. Certain classes of projects are exempt from detailed analysis under CEQA if they meet specific criteria and are eligible for a Categorical Exemption.

CEQA Guidelines Section 15380 defines endangered, threatened, and rare species for purposes of CEQA and clarifies that CEQA review extends to other species that are not formally listed under the state or federal Endangered Species acts but that meet specified criteria. The state maintains a list of sensitive, or “special-status”, biological resources, including those listed by the state or federal government or the California Native Plant Society (CNPS) as endangered, threatened, rare or of special concern due to declining populations. During CEQA analysis for a proposed project, the California Natural Diversity Data Base (CNDDB) is usually consulted. CNDDB relies on information provided by the California Department of Fish and Wildlife (CDFW), USFWS, and CNPS, among others. Under CEQA, the lists kept by these, and any other widely recognized organizations are considered when determining the impact of a project.

3.2.1 California Endangered Species Act

The California Endangered Species Act (CESA; Fish and Game Code 2050 et seq.) generally parallels FESA. It establishes the policy of the State to conserve, protect, restore, and enhance threatened or endangered species and their habitats. Section 2080 of the California Fish and Game Code prohibits the take, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or by the regulations. “Take” is defined in Section 86 of the California Fish and Game Code as to “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” This definition differs from the definition of “take” under FESA. CESA is administered by CDFW. CESA allows for take incidental to otherwise lawful projects but mandates that State lead agencies consult with the CDFW to ensure that a project would not jeopardize the continued existence of threatened or endangered species.

3.2.2 California Fish and Game Code Sections 1600-1607

Sections 1600-1607 of the California Fish and Game Code require that a Notification of Lake or Streambed Alteration application be submitted to CDFW for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.” CDFW reviews the proposed actions in the application and, if necessary, prepares a Lake or Streambed Alteration Agreement (LSAA or SAA), that includes measures to protect affected fish and wildlife resources.

3.2.3 Native Plant Protection Act

The Native Plant Protection Act (NPPA) was created in 1977 with the intent to preserve, protect, and enhance rare and endangered plants in California (California Fish and Game Code sections 1900 to 1913). The NPPA is administered by CDFW, which has the authority to designate native plants as endangered or rare and to protect them from "take." CDFW maintains a list of plant species that have been officially classified as endangered, threatened, or rare. These special-status plants have special protection under California law and projects that directly impact them may not qualify for a categorical exemption under CEQA guidelines.

3.2.4 Fully Protected Species and Species of Special Concern

The classification of California fully protected (CFP) species was the CDFW's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under CESA and/or FESA. The Fish and Game Code sections (§5515 for fish, §5050 for amphibian and reptiles, §3511 for birds, §4700 for mammals) deal with CFP species and state that these species "…may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species" (CDFW Fish and Game Commission 1998). "Take" of these species may be authorized for necessary scientific research. This language makes the CFP designation the strongest and most restrictive regarding the "take" of these species. In 2003, the code sections dealing with CFP species were amended to allow the CDFW to authorize take resulting from recovery activities for state-listed species.

California species of special concern (CSSC) are broadly defined as animals not listed under FESA or CESA, but which are nonetheless of concern to CDFW because they are declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist. This designation is intended to result in special consideration for these animals by CDFW, land managers, consulting biologists, and others, and is intended to focus attention on the species to help avert the need for costly listing under FESA and CESA, and cumbersome recovery efforts that might ultimately be required. This designation also is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, and focus research and management attention on them. Although these species generally have no special legal status, they are given special consideration under CEQA during project review.

3.2.5 California Migratory Bird Protection Act

Fish & Game Code section 3513 states that federal authorization of take or possession is no longer lawful under the state Fish & Game Code if the federal rules or regulations are

inconsistent with state law. The California Migratory Bird Protection Act (MBPA) was passed in September 2019 to provide a level of protection to migratory birds in California consistent with the U.S. MBTA before it was altered by Executive Order in 2017.

3.2.6 Nesting Birds

Nesting birds, including raptors, are protected under California Fish and Game Code Section 3503, which reads, “It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.” In addition, under California Fish and Game Code Section 3503.5, “it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto”. Passerines and non-passerine land birds are further protected under California Fish and Game Code 3513. As such, CDFW typically recommends surveys for nesting birds that could potentially be directly (e.g., actual removal of trees/vegetation) or indirectly (e.g., noise disturbance) impacted by project-related activities. Disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “take” by CDFW.

3.2.7 Non-Game Mammals

Sections 4150-4155 of the California Fish and Game Code protects non-game mammals, including bats. Section 4150 states “A mammal occurring naturally in California that is not a game mammal, fully protected mammal, or fur-bearing mammal is a nongame mammal. A non-game mammal may not be taken or possessed except as provided in this code or in accordance with regulations adopted by the commission”. The non-game mammals that may be taken or possessed are primarily those that cause crop or property damage. Bats are classified as a non-game mammal and are protected under California Fish and Game Code, in addition to being protected if they are a listed species (e.g., CSSC, CFP, state or federal threatened, or state or federal endangered).

3.2.8 Sensitive Vegetation Communities

Sensitive vegetation communities are natural communities and habitats that are either unique in constituent components, of relatively limited distribution in the region, or are of particularly high wildlife value. These communities may or may not necessarily contain special-status species. Sensitive natural communities are usually identified in local or regional plans, policies, or regulations, or by the CDFW (i.e., CNDDB) or the USFWS. The CNDDB identifies a number of natural communities as rare, which are given the highest inventory priority (Holland 1986; CDFW 2022). Impacts to sensitive natural communities and habitats must be considered and evaluated under CEQA (CCR: Title 14, Div. 6, Chap. 3, Appendix G).

3.2.9 Porter-Cologne Water Quality Control Act

The intent of the Porter-Cologne Water Quality Control Act (Porter-Cologne) is to protect water quality and the beneficial uses of water, and it applies to both surface and ground water. Under this law, the State Water Resources Control Board develops statewide water quality plans, and the RWQCBs develop basin plans, which identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of both statewide and basin plans. Waters regulated under Porter-Cologne, referred to as "waters of the State," include isolated waters that are not regulated by the USACE. Projects that require a USACE permit, or fall under other federal jurisdiction, and have the potential to impact waters of the State are required to comply with the terms of the Water Quality Certification Program. If a proposed project does not require a federal license or permit, any person discharging, or proposing to discharge, waste (e.g., soil) to waters of the State must file a Notice of Intent (NOI) or a Report of Waste Discharge and receive either waste discharge requirements (WDRs) or a waiver to WDRs before beginning the discharge.

3.2.10 State and Local Requirements to Control Construction-Phase and Post-Construction Water Quality Impacts

Construction Phase. The CWA has nationally regulated the discharge of pollutants to the waters of the U.S. from any point source since 1972. In 1987, amendments to the CWA added Section 402(p), which established a framework for regulating nonpoint source storm water discharges under the National Pollutant Discharge Elimination System (NPDES). The NPDES is a permitting system for the discharge of any pollutant (except for dredge or fill material) into waters of the U.S. In California, this permit program is administered by the RWQCBs. The NPDES General Construction Permit requirements apply to clearing, grading, and disturbances to the ground such as excavation. Construction activities on one or more acres are subject to a series of permitting requirements contained in the NPDES General Construction Permit. This permit requires the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes Best Management Practices (BMPs) to be implemented during project construction. The project sponsor is also required to submit a Notice of Intent (NOI) with the State Water Resources Control Board Division of Water Quality. The NOI includes general information on the types of construction activities that would occur on the site.

Post-Construction Phase. In Watsonville, development projects that create and/or replace more than 2,500 square feet of impervious surface must also comply with the *California Regional Water Quality Control Board, Central Coast Region, Central Coast Post-Construction Stormwater Requirements (PCRs)* (Resolution R3-2013-0032). This resolution requires that all projects implement BMPs and incorporate Low Impact Development practices into the design that prevents stormwater runoff pollution, promotes infiltration, and holds/slows down the volume of water coming from a site. To meet these permit and policy requirements, projects

must incorporate the use of green roofs, pervious surfaces, tree planters, bioretention and/or detention basins, among other methods.

3.3 Local

3.3.1 Watsonville Municipal Code

The following provisions of the Watsonville Municipal Code help to minimize adverse effects to biological resources as a result of development in Watsonville:

Chapter 7-11, Street Trees. it is unlawful to plant, trim, or remove any street tree without procuring a permit from the Director of Public Works.

Chapter 7-13, Preservation of Historical Trees. the City's Recreation Department and the Recreation and Parks Commission are authorized to recommend to the City Council that certain trees be "designated" and preserved for their special character, historical value, or aesthetic interest. The Recreation Department maintains a record of designated trees. Any permit application for work that would impact a designated tree is forwarded to the Recreation Department and the Recreation and Parks Commission for review.

3.3.2 Watsonville 2005 General Plan

The Watsonville 2005 General Plan includes policies that are relevant to the protection of biological resources and applicable to the proposed projects. The policies are identified in Chapter 9, Environmental Resource Management, of the General Plan and are listed below (Accessed March 2002 at https://www.cityofwatsonville.org/160/2005-General-Plan).

Policy 9.B Natural Resource Protection. The City shall designate land necessary for the preservation of natural resources and to avoid conflicts with urban land uses.

- 9.B.6 Environmental Review – The City shall conduct an appropriate environmental review process and require that proposed projects adjacent to surrounding, or containing, wetlands be subject to a site-specific analysis which will determine the appropriate size and configuration of areas to buffer wetlands from urban development.

Policy 9.D Water Quality. The City shall provide for the protection of water quality to meet all beneficial uses, including domestic, agricultural, industrial, recreational, and ecological uses.

- 9.D.5 Wetland Protection – Where drainage from developments involves discharge into sloughs or wetlands, grease, sediment traps, or other protection measures shall be required. Mitigation monitoring shall be required and enforced by the City to ensure performance as appropriate.

Policy 9.E Soil conservation. The City shall prevent degradation of local soil resources through erosion control improvement and grading guidelines.

- 9.E.1 Vegetation – The City shall require that removal of vegetation from a site be limited to the area required for building, and that all exposed soils be provided with new vegetation prior to project completion.
- 9.E.3 Wetland Protection – The City shall require that new construction on slopes leading toward sloughs and wetlands, maintain an undisturbed protective buffer between all cut and fill slopes and the riparian zone.
- 9.E.4 Sediment Containment – The City shall require that all topsoil stored on-site during construction be contained to prevent escape of sediment from the site.

Policy 9.F Wildlife Habitat Protection. The City shall designate for open space and environmental management those areas rich in wildlife species and fragile in ecological makeup. These habitat zones shall be made part of the greenbelt where appropriate.

- 9.F.1 Habitat Protection – Impacts to important wildlife habitat areas shall be identified as part of the City's development review and environmental review processes, and appropriate mitigations shall be considered. Mitigation measures to be considered include designation of sensitive areas as open space, restriction of new development on lands that provide important wildlife habitat, setback requirements, habitat conservation plans, and habitat mitigation banking. Lands within the urban limit line that provide important wildlife habitat include, but are not limited to the following:
    a. Riparian Corridors
    b. Freshwater Marshes and Sloughs
    c. Woodlands and Steep Slopes
- 9.F.4 Fish and Game Consultation – The City shall refer development proposals to the California Department of Fish and Game for its recommendations on conservation measures for native plant communities, riparian vegetation, wildlife habitat, and wetland preservation.

4 Methods

This section describes the methods used to complete the biological resources report. Methods include a database and literature review, field survey, an assessment of plant communities and wildlife habitats and corridors, an assessment of sensitive habitats and aquatic features, and a habitat evaluation for special-status species.

4.1 Background Review

Available background information pertaining to the biological resources on and near the project was reviewed prior to conducting field surveys. Information was compiled and subsequently compared against site conditions during field surveys. The following sources were consulted:

- CNDDB record search for the eight quadrangles[1] including and surrounding the project areas: *Watsonville East*, *Mt. Madonna*, *Prunedale*, *Watsonville West*, *Laurel*, *Loma Prieta, Moss Landing,* and *Soquel* (CNDDB 2022).
- CNPS Rare Plant Program *Inventory of Rare and Endangered Plants of California* record eight-quadrangle search, including: *Watsonville East*, *Mt. Madonna*, *Prunedale*, *Watsonville West*, *Laurel*, *Loma Prieta, Moss Landing,* and *Soquel* (CNPS 2022).
- CDFW CNDDB for natural communities of special concern that occur within the project region (CNDDB 2022).
- USFWS Information for Planning and Consultation (IPaC) tool (USFWS 2022).
- Other relevant scientific literature, technical databases, resource agency reports, and Federal Register notices and other information published by USFWS and NMFS to assess the current distribution of special-status plants and animals in the project vicinity.

4.2 Field Surveys

Field surveys of the project area were conducted by MIG senior biologist David Gallagher, M.S. on March 10, 2022. (Appendix A, Figure 2). The surveys were conducted to provide a project-specific impact assessment for the development of the site as described in the project description (see Section 2 above). Specifically, surveys were conducted to (1) assess existing biotic habitats and plant and animal communities in the project area; (2) assess the project area for its potential to support special-status species and their habitats; and (3) identify potential jurisdictional habitats (e.g., waters of the U.S./state), and other sensitive biological resources.

4.2.1 Sensitive Habitats and Aquatic Features

All plant communities observed in the project area were evaluated to determine if they are considered sensitive. Sensitive natural communities are communities that are especially diverse; regionally uncommon; or of special concern to local, state, and federal agencies. Elimination or substantial degradation of these communities would constitute a significant impact under CEQA.

The project area was also inspected for the presence of wetlands, drainages, streams, coastal waterways, and other aquatic features, including those that support stream-dependent (i.e.,

[1] Usually, one quadrangle is surrounded by eight others, for a total of nine quadrangles, but because of its coastal location, Watsonville West is surrounded by seven others (there is not a quadrangle over open water in Monterey Bay).

riparian) plant species that could be subject to jurisdiction by the USACE, RWQCB, and/or CDFW. Wetlands are defined for regulatory purposes in the 33 CFR 328.3 and 40 CFR 230.3 as “areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.” To be considered subject to federal jurisdiction, a wetland must be located within the project area and normally exhibit positive indicators for hydrophytic vegetation, hydric soil, and wetland hydrology.

4.2.2 Special-Status Species Habitat Evaluation

During the field survey, Mr. Gallagher evaluated the suitability of the habitat to support special-status species documented in the project area. For the purposes of this assessment, special-status species include those plants and animals listed, proposed for listing or candidates for listing as threatened or endangered by the USFWS or NOAA Fisheries under FESA, those listed or proposed for listing as rare, threatened or endangered by the CDFW under CESA, animals designated as CFP or CSSC by CDFW, birds protected by USFWS under the MBTA and/or by CDFW under Fish and Game Code Sections 3503 and 3513, and plants listed as Rank 1A, 1B, 2, 3 and 4 in the CNPS Inventory.

The potential occurrence of special-status plant and animal species in the project area was initially evaluated by developing a list of special-status species that are known to or have the potential to occur in the vicinity of the project area based on an eight-quad search of current database records (e.g., CNDDB and CNPS Electronic Inventory records) and review of the USFWS list of federal endangered and threatened species (i.e., IPaC). The potential for occurrence of those species included on the eight-quad list was then evaluated based on the habitat requirements of each species relative to the habitat conditions documented in the project area. If there are no documented occurrences within five miles of the project area, if there is clearly no suitable habitat present, and if the project area is clearly outside of the expected range of the species, these species were eliminated from consideration and are not discussed further. All remaining species were then evaluated for the potential to occur on or in the immediate vicinity of the project area according to the following criteria:

> *Not Expected:* CNDDB or other documents do not record the occurrence of the species within or reasonably near the project area within the last 10 years, and/or no components of suitable habitat are present within or adjacent to the project area.
>
> *Low Potential:* The CNDDB or other documents may or may not record the occurrence of the species within a 5-mile radius of the project area. However, few components of suitable habitat are present within or adjacent to the project area.
>
> *Moderate Potential*. Species does not meet all terms of High or Low category. For example: CNDDB or other reputable documents may record the occurrence of the

species near but beyond a 5-mile radius of the project area, or some of the components representing suitable habitat are present within or adjacent to the project area, but the habitat is substantially degraded or fragmented.

High Potential: The CNDDB or other reputable documents record the occurrence of the species off-site, but within a 5-mile radius of the project area and within the last 10 years. All or most of the components representing suitable habitat are present within the project area.

Present or Assumed Present. Species was observed on the project area, or recent species records (within 5 years) from literature or other sources are known within the project area.

5 Existing Land Uses, Natural Communities, and Habitats

5.1 General Project Area Description

The 100 and 200 Manabe Ow Road project areas (13.4 acres and 11.6 acres, respectively) are within the Manabe-Ow Business Park Specific Plan and are located in the *Watsonville West*, California 7.5-minute USGS quadrangle (Appendix A, Figure 2). The project areas are located within an urban area, including residential and commercial development, approximately 1 mile west of the Watsonville downtown area. Agricultural lands are also nearby to the south and west. The project areas are bordered by Highway 1 to the west, railroad tracks to the south, Slough Road West to the north and Ohlone Parkway to the east. Watsonville Slough is just north of Slough Road West and borders a section of the 200 Manabe Ow Road project area. The project area is mainly flat with elevations ranging from approximately 15 feet to 18 feet North American Vertical Datum of 1988 (NAVD88) (Google Inc. 2022). As recently as 2015 the project areas were used for agriculture (Google Inc. 2022).

The climate at the project areas is coastal Mediterranean, with most rain falling in the winter and spring. Mild cool temperatures are common in the winter and mild to cool temperatures are common in the summer due to the presence of fog. Climate conditions in the area include a 30-year average of approximately 22 inches of annual precipitation with an average temperature range from 47ºF to 68ºF (PRISM Climate Group 2022).

The National Resource Conservation Service (NRCS) maps two soil types within the project areas (NRCS 2022a) (Appendix A, Figure 3): (1) Clear Lake clay, drained, 0 to 1 percent

slopes, MLRA[2] 14; and (2) Conejo clay loam, 0 to 2 percent slopes, cool, MLRA 14. The Clear Lake clay series is found in alluvial basins. The water table depth is 36 to 72 inches and has slow permeability. The Conejo clay loam series is found in alluvial fans and plains. The water table depth is 60 inches and has moderate permeability. The Clear Lake clay soil type is classified as a hydric soil in Santa Cruz County on the National Hydric Soils List (NRCS 2022b).

The U.S. Fish and Wildlife Service's National Wetlands Inventory (NWI) maps Watsonville Slough as a permanently flooded, perennial riverine feature with a streambed (R2UBHx) (NWI 2022).

5.2 Existing Land Uses, Vegetation Communities, and Habitats

The project areas are located within the Central Coast Subregion of the Central Western Californian Region, both of which are contained within the larger California Floristic Province (Baldwin et al. 2012). Where applicable, vegetation communities were mapped using CDFW's Vegetation Classification and Mapping Program's (VegCAMP) currently accepted list of vegetation alliances and associations (CDFW 2022). The reconnaissance-level field survey identified three vegetation communities, habitats, and land cover types in the project area: (1) developed; (2) *Wild Oats and Annual Brome Grassland* (*Avena* spp. – *Bromus* spp. Semi-natural Alliance), and (3) *Cattail Marsh* (*Typha* spp. Alliance). Existing land cover types, vegetation communities, and habitats in the project areas are summarized in Table 1, and their distribution is depicted in Appendix A, Figure 4.

[2] Major Land Resource Area

Table 1. Summary of Existing Land Cover Types, Vegetation Communities, and Habitats in the Project Areas.

Land Cover Types, Vegetation Communities, and Habitats	Area (acres)
100 Manabe Ow Road	
Developed	13.4
200 Manabe Ow Road	
Wild Oats and Annual Brome Grassland	11.4
Cattail Marsh	0.19
Project Areas Total	25.0

5.2.1 Developed

The entire 100 Manabe Ow Road project area was mapped as developed due to sparse vegetation cover, and recent grading and disking of the site. Most areas within this land cover type were devoid of vegetation, but there were areas with sparse non-native herbaceous species growing (Appendix C, Photo 1) (see section 5.2.2 for a list of species observed). Without frequent grading or disking, the developed land cover in the Manabe 100 Ow project area will likely revert to the *Wild Oats and Annual Brome Grassland* vegetation community found in the adjacent 200 Manabe Ow project area.

Due to the scarcity of vegetation, developed land cover provides relatively low-quality habitat for wildlife species. However, a wide variety of wildlife, including the wildlife described in Section 5.2.2 and 5.2.3, may move through developed areas en route to other habitats, especially since the developed areas are near Watsonville Slough and its riparian corridor (see Section 5.2.3 below). The wildlife most often associated with developed areas are those that are tolerant of human disturbance, including introduced species such as the house sparrow (*Passer domesticus*), European starling (*Sturnus vulgaris*), rock pigeon (*Columba livia*), house mouse (*Mus musculus*), and Norway rat (*Rattus norvegicus*). Several common native species are also able to use this habitat, including raccoon (*Procyon lotor*), Anna's hummingbird (*Calypte anna*), dark-eyed junco (*Junco hyemalis*), house finch (*Haemorhous mexicanus*), and California towhee (*Melozone crissalis*).

5.2.2 *Wild Oats and Annual Brome Grassland* (*Avena* spp. – *Bromus* spp. Semi-natural Alliance)

Wild Oats and Annual Brome Grassland is an annual grassland dominated by non-native grasses. Both native and non-native herbaceous annuals are also present (Appendix C, Photo 2). Dominant species observed included non-native grasses such as wild oats (*Avena* sp.), ripgut brome (*Bromus diandrus*), and Italian rye grass (*Festuca perennis*). The dominant non-native herbaceous species observed included bristly ox-tongue (*Helminthotheca echioides*),

filarees (*Erodium* spp.), wild radish (*Raphanus sativus*), rose clover (*Trifolium hirtum*), English plantain (*Plantago lanceolata*), cutleaf geranium (*Geranium dissectum*), Italian thistle (*Carduus pycnocephalus*), vetch (*Vicia* spp.) and bur clover (*Medicago polymorpha).* The native shrub Coyote brush (*Baccharis pilularis*) was observed growing near the train tracks along the southern boundary of the site. A few native Arroyo willow (*Salix lasiolepis*) and non-native silver wattle (*Acacia dealbata*) shrubs were scattered throughout the grassland, likely due to a high groundwater table. Common native forbs observed included common yarrow (*Achillea millefolium*), annual lupine (*Lupinus bicolor*), and Arroyo lupine (*Lupinus succulentus*). The highly invasive non-native species pampass grass (*Cortaderia jubata*) ice plant (*Carpobrotus* sp.), and French broom (*Genista monspessulana*) were also observed.

The grassland may support ground-nesting birds, such as the western meadowlark (*Sturnella neglecta*). Additional bird species that nest in nearby riparian or developed habitats and forage in grassland areas during the nesting season include western bluebird (*Sialia mexicana*), black phoebe (*Sayornis nigricans*), American kestrel (*Falco sparverius*), and cliff swallow (*Petrochelidon pyrrhonota*). Further, raptors, such as red-tailed hawks (*Buteo jamaicensis*), and white-tailed kites (*Elanus leucurus*) forage for small mammals within grassland habitats. Numerous additional avian species may also forage in the grassland within the project area during spring and fall migration, including Canada goose (*Branta canadensis*). Avian species observed during the field visit included red-tailed hawk, western meadowlark, Canada goose, and Anna's hummingbird.

The grassland habitat within the study area provides abundant refugia for reptiles. Several reptile species may occur in the annual grassland habitats, including the western fence lizard (*Sceloporus occidentalis*), gopher snake (*Pituophis catenifer*), northern Pacific rattlesnake (*Crotalus oreganus oreganus*), and coast garter snake (*Thamnophis elegans terrestris*). Several burrows observed during the site visit, likely made by California ground squirrel (*Otospermophilus beecheyi*), provide refuges for these reptile species, as well as for common amphibians such as the western toad (*Anaxyrus boreas*) and Pacific treefrog (*Pseudacris regilla*).

5.2.3 *Cattail Marsh* (*Typha* spp. Alliance)

The *Cattail Marsh* is perennial freshwater marsh that occurs in a stormwater drainage channel along the western edge of the 200 Manabe Ow Road project area. The channel is confluent with Watsonville Slough (Appendix C, Photo 3). Based on aerial photography, the drainage was likely constructed between 1963 and 1975 (UCSB 2022). At the time of the site visit, water was present in the ditch and was ponded up to a depth of approximately 1 foot. The vegetation was dominated by the native common cattail (*Typha latifolia*). Other species observed included the native broadfruit bur reed (*Sparganium eurycarpum*) and Arroyo willow. The non-native curly dock (*Rumex crispus*) was also observed. According to the City, the drainage ditch is mowed quarterly to reduce vegetation build-up. During the site visit, last year's growth was present

throughout the channel, suggesting the ditch had not been mowed since last year. Therefore, vegetation conditions may vary depending on the time of year.

The perennial freshwater marsh may provide habitat for a diverse suite of wetland-associated wildlife species, including common amphibians such as the Pacific chorus frog, western toad. The federally listed (threatened) California red-legged frog (*Rana draytonii*) may breed in the marsh (see section 6.2.2), and reptiles such as the coast garter snake and aquatic garter snake (*Thamnophis atratus*) may forage and disperse through the marsh. However, the relatively small size and uncertain ponding depth of the perennial freshwater marsh may preclude the presence of waterbirds such as ducks, gulls, and terns. Similarly, passerine birds associated with more extensive wetlands, such as the marsh wren (*Cistothorus palustris)* and common yellowthroat (*Geothlypis trichas*) are not expected to nest here. Terrestrial bird species that occur in adjacent habitats, such as house finches, black phoebes, and sparrows, will forage occasionally in the freshwater wetland vegetation. Mammals that may use the marsh and adjacent grassland include striped skunk (*Mephitis mephitis*), opossum (*Didelphis virginiana*), and racoon (*Procyon lotor*).

Because the perennial freshwater marsh is confluent with Watsonville Slough, native fishes may be present depending on water depth and flow rate, including California roach (*Hesperoleucus symmetricus*), Sacramento pikeminnow (*Ptychocheilus grandis*), Sacramento blackfish (*Orthodon microlepidotus*), three-spined stickleback (*Gasterosteus aculeatus*) as well as non-native fishes, including Western mosquitofish (*Gambusia affinis*), which were observed in the *Cattail Marsh* in the project area during the site visit.

The Watsonville Slough watershed drains 14 square miles from the hills of southern Santa Cruz County into the Pajaro River and Monterey Bay. One of the last remaining large coastal freshwater ecosystems in California, the Watsonville Slough includes approximately 800 acres of freshwater marsh, seasonal wetland, estuarine, and riparian habitat with six major slough branches, including Watsonville Slough, Harkins Slough, Gallighan Slough, Hanson Slough, the main branch of the Struve Slough, and the western branch of Struve Slough (Hager et al. 2004) (Appendix C, Photo 4).

6 Special-Status Species and Sensitive Habitats

CEQA requires assessment of the effects of a project on species that are “threatened, rare, or endangered”; such species are typically described as “special-status species”. Impacts on these species are regulated by federal and state laws described under the Regulatory Setting above.

6.1 Special-Status Plants

The CNPS Inventory (2022) and CNDDB (2022) identify 70 special-status plant species as potentially occurring in the nine 7.5-minute quadrangles containing and/or surrounding the

project area. All but one of the 70 potentially occurring special-status plant species were determined to be absent from the project area for at least one of the following reasons: (1) a lack of specific habitat (e.g., estuarine marsh) and/or edaphic requirements (e.g., serpentine soils) for the species in question, (2) the geographic range of the species does not overlap the project areas, (3) the species is known to be extirpated from the site vicinity, and/or (4) the habitats within the project areas are too degraded to reasonably expect any special-status species to occur due to the long history (at least 75 years based on aerial imagery) of agricultural use of the site (UCSB 2022). Plowing, tilling, and other land disturbance associated with agriculture at the site has likely eliminated most soil seed banks of native plants.

However, based on suitable grassland habitat, hydric clay soils, and documented nearby locations, Santa Cruz tarplant (*Holocarpha macradenia*) has a moderate potential to occur within the 200 Manabe Ow Road project area. There was no suitable habitat for Santa Cruz tarplant in the 100 Manabe 100 Ow Road project area due to the lack of grassland habitat and hydric soils. Santa Cruz tarplant is discussed in detail below and summarized in Table 2.

Santa Cruz Tarplant. Santa Cruz tarplant is annual herb in the sunflower family (Asteraceae) that occurs in coastal prairie grassland, usually on clay soils and is endemic to California. The blooming period for this species extends from June to October. Santa Cruz tarplant is listed as endangered under the California Endangered Species Act, as a threatened species under the federal Endangered Species Act, and has a CRPR rank of 1B.1, which means it is rare throughout its range and populations have declined significantly over the last century, and it is considered severely threatened. This species is seriously threatened by urbanization, agriculture, non-native plants, and lack of appropriate ecological disturbance. There are nine documented occurrences of Santa Cruz tarplant form the last 20 years, mainly from Santa Cruz County and Monterey County.

The closest documented occurrence to the project areas is from 2015 on Tarplant Hill off Ohlone Parkway, approximately 0.5 mile from the project areas (CNPS 2022). Because of the proximity of this documented occurrence, Santa Cruz tarplant fruits could be dispersed to the project areas by common animals that would be expected to use the project areas, including striped skunks, opossums, racoons, and other small mammals, including small birds (USFWS 2002). Additionally, the clay soils are mapped as hydric (see Section 5.1). Such seasonally saturated soils are a characteristic of Santa Cruz tarplant habitat (USFWS 2002). During the site visit, several areas within the 200 Manabe Ow Road project area exhibited evidence of recent ponding, including water-stained leaves, supporting the hydric soil classification (Appendix C, Photo 5).

Given that small populations of Santa Cruz tarplant may facilitate greater gene flow, the conservation of existing populations, even small populations, may be essential for preserving its genetic resources and ensuring its persistence in the County. Gene flow often occurs through

pollen movement between populations, and likely occurs over short distances. Most native insect pollinators of Santa Cruz tarplant generally travel less than 0.3 mile at one time (USFWS 2002).

6.2 Special-Status Animals

Based on a review of the USFWS and CNDDB databases, the biologist's knowledge of sensitive species, and an assessment of the types of habitats within the project area, it was determined that one wildlife species could potentially occur within or near the project areas. This determination was made due to the presence of essential habitat requirements for the species, the presence of known occurrences within 5 miles of the project areas, and/or the project areas location within the species' known range of distribution. The legal status and likelihood of occurrence of special-status animal species in the project areas are presented in Table 2 and discussed in greater detail below.

Special-status species that are not expected to occur in the project areas because they lack suitable habitat, are outside the known range of the species, and/or are isolated from the nearest known extant populations by development or otherwise unsuitable habitat were excluded from the analysis.

Animal species not expected to occur in the project areas for these reasons include Monterey Hitch (*Lavinia exilicauda harengus*), monarch butterfly (*Danaus plexippus*), California giant salamander (*Dicamptodon ensatus)*, California tiger salamander (*Ambystoma californiense*), foothill yellow-legged frog (*Rana boylii*), Santa Cruz long-toed salamander (*Ambystoma macrodactylum croceum*), black legless lizard (*Anniella pulchra nigra*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), short-eared owl (*Asio flammeus*), and long-eared owl (*Asio otus*).

Table 2. Special-Status Species with Potential to Occur in the Project Areas

Common Name	Regulatory Status	Likelihood of Occurrence in the 100 Manabe Ow Road Project Area	Likelihood of Occurrence in the 200 Manabe Ow Road Project Area
Plants			
Santa Cruz Tarplant	FT, SE, CRPR 1B.1	Not Expected	Moderate Potential
Fish			
Pacific Lamprey	CSSC	Not Expected	Not Expected
Tidewater Goby	FE	Not Expected	Not Expected
South-central California Coast Steelhead DPS	FT	Not Expected	Not Expected
Amphibians and Reptiles			
California red-legged Frog	FT, CSSC	Not Expected	High Potential
Western Pond Turtle	CSSC	Not Expected	High Potential
Mammals			
San Francisco dusky-footed woodrat	CSSC	Not Expected	Not Expected
Birds			
American Peregrine Falcon	FP	Not Expected (nesting); may forage in the area	Not Expected (nesting); may forage in the area
Burrowing Owl	CSSC	Not Expected (nesting); may forage in the area	Moderate; (breeding and roosting)
Northern harrier	CSSC (nesting)	Not Expected (nesting); may forage in the area	Not Expected (nesting); may forage in the area
Tricolored Blackbird	ST (nesting)	Not Expected (nesting); may forage in the area	Not Expected (nesting); may forage in the area
White-tailed Kite	FP	Not Expected (nesting); may forage in the area	Not Expected (nesting); may forage in the area
Yellow Warbler	CSSC (nesting)	Not Expected (nesting); may forage in the area	Not Expected (nesting); may forage in the area

Key to Status Abbreviations: Federally Listed as Endangered (FE); Federally Listed as Threatened (FT); Federal Candidate for Listing (FC), Federal Species of Concern (FSC), State Listed as Endangered (SE); State Listed as Threatened (ST); State Candidate for Listing (SC); State Fully Protected (FP); California Species of Special Concern (CSSC)
CRPR = California Native Plant Society Rare Plant Rank
1B = Plants that are rare, threatened, or endangered in California and elsewhere
2B = Plants rare, threatened, or endangered in California but more common elsewhere
3 = Plants about which information is needed-a review list
4 = A watch list of plants of limited distribution
0.1: Seriously endangered in California
0.2: Fairly endangered in California
0.3: Not very endangered in California

6.2.1 Special-Status Fish

Pacific Lamprey (*Entosphenus tridentatus*). Federal Listing Status: None; State Listing Status: California Species of Special Concern. Pacific Lamprey is an anadromous species that, like steelhead, migrates into freshwater to spawn, and juveniles return to the ocean to mature. Pacific lamprey was historically abundant along the West Coast of North America, however, their abundance declined, and distribution contracted throughout Oregon, Washington, Idaho, and California. In California, Pacific lamprey occur from high elevation streams of the Sierras, the Sacramento River, and from coastal salmon and steelhead streams, including the Pajaro River watershed (Goodman and Reid 2012). Spawning habitat is similar to that for steelhead, but adult migration times for lamprey tend to occur somewhat later (March to May) than the peak of the steelhead adult migration (January to March).

Even though the Watsonville Slough watershed does support suitable spawning habitat for Pacific lamprey, only small numbers of Pacific lamprey may find their way into Watsonville Slough from the Pajaro River. This species is not expected to occur in substantial numbers in the section of Watsonville Slough and the *Cattail Marsh* adjacent to the project areas (Goodman and Reid 2012).

South-central California Coast Steelhead (*Oncorhynchus mykiss irideus*). Federal Listing Status: Threatened; State Listing Status: None. The South-Central California Coast (CCC) steelhead Distinct Population Segment (DPS) was listed as threatened on August 18, 1997 (NMFS 1997), and the threatened status was reaffirmed on January 5, 2006 (NMFS 2006). Critical habitat was designated for the CCC steelhead DPS on September 2, 2005 (NMFS 2005), and a final recovery plan was published in October 2013. Critical habitat for the Central California Coast steelhead DPS was designated on September 2, 2005 (NMFS 2006). Like CCC coho salmon, steelhead populations in many areas have declined due to degradation of spawning habitat, introduction of barriers to upstream migration, over-harvesting by recreational fisheries, reduction in winter flows due to damming, and reduction of spring flows due to water diversions (NMFS 1997). In addition, non-native fish species, such as striped bass (*Morone saxatilis*), common carp (*Cyprinus carpio*), and white catfish (*Ameiurus catus*), may pose risks to native steelhead populations through predation, competition, and habitat modification. Increasing predation pressure at river mouths and in the ocean from the growing California sea lion population is also posing significant risk to CCC steelhead.

Steelhead are found along the entire Pacific Coast of the United States. The CCC steelhead DPS includes all naturally spawned populations of steelhead in coastal streams from the Pajaro River (at the boundary between Santa Cruz and Monterey counties) south to Arroyo Grande Creek (San Luis Obispo County). Steelhead enter the rivers and streams during winter and spring, when storms produce sufficient runoff to breach the sandbars at the rivers' mouths and provide fish passage to upstream spawning and rearing habitats. Steelhead in the CCC DPS are winter-spawning steelhead, maturing in the ocean and spawning shortly after entering

freshwater. Winter steelhead enter rivers and streams in the late fall and winter months when higher flows and associated lower water temperatures occur. Adult female steelhead prepare a redd (or nest) in a gravel-bottomed, fast-flowing, well-oxygenated rivers and streams. Preferred streams typically support dense canopy cover that provides shade, woody debris, and organic matter, and are usually free of rooted or aquatic vegetation. The length of the incubation period is dependent on water temperature. Fry emerge from the gravel, and rear along the stream margins, moving gradually into pools and riffles as they grow larger. Young juveniles feed primarily on aquatic invertebrate drift.

In California, juveniles usually live in freshwater for 1 to 3 years (Shapovalov and Taft 1954; Barnhart 1986; Busby et al. 1996) then smolt and migrate to the sea. Because of this multi-year rearing period, steelhead can only spawn in tributaries that maintain suitable temperature and other water quality parameters year-round. Most downstream smolt migration takes place between February and June, with peak timing of steelhead smolt outmigration in Central California occurring from March to May (Barnhart 1986; Fukushima and Lesh 1998).

The Pajaro River serves as a migration pathway for adult steelhead migrating to spawning and nursery habitat in the upper watershed and for steelhead smolts (1- to 2-year-old juveniles) returning to the ocean. Historically, the Watsonville Slough watershed did not support suitable spawning habitat for steelhead and there are no documented occurrences of steelhead spawning in the Watsonville Slough watershed. While small numbers of steelhead may find their way into Watsonville Slough from the Pajaro River they are not expected to occur in substantial numbers in the section of Watsonville Slough adjacent to the project areas and are not expected to occur in the *Cattail Marsh* in the 200 Manabe Ow Road project area.

Tidewater Goby (*Eucyclogobius newberryi*). Federal Listing Status: Endangered; State Listing Status: None. The tidewater goby was listed as endangered on March 7, 1994 (USFWS 1994) and critical habitat was designated on November 20, 2000 (USFWS 2000). The tidewater goby is endemic to California, where it is found primarily in waters of lagoons, estuaries, and marshes along the coast. Tidewater goby is generally absent from areas where the coastline is steep, and streams do not form lagoons or estuaries. This species generally occur along the bottom of brackish, shallow lagoons and lower stream reaches where the water is still, but not stagnant (USFWS 2005). Tidewater gobies prefer a sandy substrate for breeding, but they can be found on rocky, mud, and silt substrates as well. Favorable habitat includes shallow open water with emergent vegetation. Aquatic vegetation is important for protection and presumably feeding, while open water is important to breeding where spawning may occur year-round, but it is less frequent in December through March. The lagoons in which tidewater gobies are found range in size from a few square yards of surface area to about 2,000 acres. However, most lagoons are much smaller, ranging from approximately 1.25 to 12.5 acres (USFWS 2005). Tidewater gobies often migrate upstream into tributaries, as far as 0.5 mile from the estuary.

However, in the Santa Ynez River, Santa Barbara County, tidewater gobies are often collected 3 to 5 miles upstream of tidal lagoons (USFWS 2005).

Tidewater gobies are found in the lower reaches of the Pajaro River and in Watsonville Slough but are not expected to occur in the section of Watsonville Slough adjacent to the project areas due to the lack of brackish habitat (USFWS 2005).

6.2.2 Special-Status Amphibians

California Red-legged Frog *(Rana draytonii)*. Federal status: Threatened; State status: Species of Special Concern. The California red-legged frog was federally listed as threatened in June 1996 (USFWS 1996) based largely on a significant range reduction and continued threats to surviving populations. Critical habitat was most recently designated in March 2010 (USFWS 2010). Designated critical habitat is not present in the project area. The historical distribution of the California red-legged frog extended from the city of Redding in the Central Valley and Point Reyes National Seashore along the coast, south to Baja California, Mexico. The species' current distribution includes isolated locations in the Sierra Nevada and the San Francisco Bay Area, and along the central coast (USFWS 2002a).

The California red-legged frog inhabits freshwater pools, streams, and ponds throughout the Central California Coast Range and isolated portions of the western slope of the Sierra Nevada (Fellers 2005). Its preferred breeding habitat consists of deep perennial pools with emergent vegetation for attaching egg clusters (Fellers 2005), as well as shallow benches to act as nurseries for juveniles (Jennings and Hayes 1994). However, red-legged frogs will also breed in small, shallow pools as well as intermittent streams. Non-breeding frogs may be found adjacent to streams and ponds and may travel up to two miles from their breeding locations across a variety of upland habitats to other suitable non-breeding habitats (Bulger et al. 2003; Fellers and Kleeman 2007). However, the distance moved is highly site-dependent and is influenced by the local landscape (Fellers and Kleeman 2007). California red-legged frogs generally disperse during the wet season from mid-October to mid-April.

The Manabe-Ow Business Park Specific Plan Draft Master Environmental Impact Report (MEIR) identified the 200 Manabe Ow Road project area as an active agricultural field with no habitat value for red-legged frog, and the drainage channel was not identified as an aquatic feature (RBF Consulting 2010). Site conditions have changed significantly since the preparation of the MEIR in 2010 and there is currently suitable habitat for California red-legged frog in the 200 Manabe Ow Road project area. Additionally, California red-legged frog is well documented from the marsh complex formed by the confluence of Watsonville, Struve, and Hanson Sloughs (CNDDB 2022), approximately 0.3 mile downstream of the project areas.

The section of Watsonville Slough adjacent to the project areas and the *Cattail Marsh* provide suitable foraging and dispersal habitat. At the time of the site visit, the *Cattail Marsh* does not

provide high quality breeding habitat due to low water levels. However, the *Cattail Marsh* may provide potential breeding habitat for red-legged frog (i.e., a slow-moving stream with emergent vegetation for egg mass attachment) in years with higher water levels (red-legged frogs are known to breed in 1 foot of water with dense vegetation cover). Additionally, the grassland habitat in the 200 Manabe Ow Road project area provides upland dispersal and refugia habitat (i.e., low density of small mammal burrows). However, the developed land cover in the 100 Manabe Ow Road project area does not provide suitable upland dispersal and foraging habitat. According to the City, the *Cattail Marsh* and adjacent upland areas are regularly mowed (see Section 5.2.3). Regular mowing of the *Cattail Marsh* may substantially reduce the habitat value for California red-legged frog, but they still could potentially make use of the marsh habitat. At the time of the site visit, the *Cattail Marsh* provides suitable foraging, dispersal, and potential breeding habitat for California red-legged frog. Therefore, due the presence of suitable habitat in the 200 Manabe Ow Road project area, as observed during the site visit, there is a high potential for California red-legged frog to be present in the *Cattail Marsh* and the adjacent upland areas.

6.2.3 Special-Status Reptiles

Western Pond Turtle (*Actinemys marmorata*). Federal status: None; State status: Species of Special Concern. The western pond turtle occurs in ponds, streams, and other wetland habitats in the Pacific slope drainages of California (Bury and Germano 2008). Ponds or slack-water pools with suitable basking sites (such as logs) are an important habitat component for this species, and western pond turtles do not occur commonly along high-gradient streams. Females lay eggs in upland habitats, in clay or silty soils in unshaded areas. Juveniles occur in shallow aquatic habitats with emergent vegetation and ample invertebrate prey. Nesting habitat is typically found within 600 feet of aquatic habitat (Jennings and Hayes 1994), but if no suitable nesting habitat can be found close by, adults may travel overland considerable distances to nest.

The Manabe-Ow Business Park Specific Plan MEIR identified the 200 Manabe Ow Road project area has an active agricultural field with no habitat value for western pond turtle, and the drainage channel was not identified as an aquatic feature (RBF Consulting 2010). Site conditions have changed significantly since the preparation of the MEIR in 2010 and there is currently suitable habitat for western pond turtle in the 200 Manabe Ow Road project area. The developed land cover in the 100 Manabe Ow Road project area does not provide suitable upland habitat for western pond turtle.

There are documented occurrences for western pond turtle from the Pajaro River, Struve Slough, and the lower reach of Watsonville Slough with the most recent occurrences from 2007 (CNDDB 2022). The Watsonville Slough adjacent to the project areas as well as the *Cattail Marsh* within the 200 Manabe Ow Road project area provide suitable aquatic habitat for western pond turtle (i.e., perennial slow-moving stream with substantial emergent vegetation and

basking sites). The grassland habitat in the 200 Manabe Ow Road project area provides potential upland breeding habitat (i.e., presence of silty clay soils). Therefore, due the presence of suitable habitat in the 200 Manabe Ow Road project area, as observed during the site visit, there is a high potential for western pond turtle to be present in the *Cattail Marsh* and the adjacent upland areas.

6.2.4 Special-status Mammals

San Francisco Dusky-footed Woodrat (*Neotoma fuscipes annectens*). Federal status: None; State status: Species of Special Concern. The San Francisco dusky-footed woodrat occurs in a variety of woodland and scrub habitats throughout San Mateo County and the adjacent Central Coast Range, south to the Pajaro River in Monterey County (Hall 1981, Zeiner et al. 1990). San Francisco dusky-footed woodrats prefer riparian and oak woodland forests with dense understory cover, or thick chaparral habitat, and build large, complex houses of sticks and other woody debris, which may be maintained by a series of occupants for several generations (Carraway and Verts 1991; Lee and Tietje 2005). Also, they will often build these stick houses in the canopy of trees. Woodrats also use human-made structures, and can nest in electrical boxes, sheds, pipes, abandoned vehicles, wooden pallets, and portable storage containers. The breeding season for dusky-footed woodrat begins in February and sometimes continues through September, with females bearing a single brood of one to four young per year (Carraway and Verts 1991).

There is no suitable habitat for dusky-footed woodrat within the project areas, including along the *Cattail Marsh*, and no woodrat houses were observed during the field survey. However, San Francisco dusky-footed woodrat could occur in the riparian habitat along the section of Watsonville Slough adjacent to the project areas. Since the riparian habitat along the Watsonville Slough is at least 80 feet away from the project areas, project activities are not expected to impact San Francisco dusky-footed woodrat.

6.2.5 Bat Colonies

Bats tend to forage and roost near freshwater sources. Both the Watsonville Slough and the *Cattail Marsh* provide a seasonal source of freshwater within and adjacent to the project areas. Cavities within trees, culverts, buildings, and other structures may provide suitable day and maternity roost habitat for many species of bats.

Roost sites play a critical role in mating, hibernation, rearing young, conserving energy, and protection from adverse weather and predators. Selection of roost sites is influenced by distribution and abundance of food resources, risks of predation, as well as the physical attributes of the roost itself. Roost selection is paramount to the success of a species and the removal of roost habitat could adversely impact the survivorship of a species (Kunz 1982).

Depending upon species, maternity roosts can host from a few to thousands of reproductive female bats that congregate during spring and summer months to give birth and nurse their young. In California, maternity roosts may remain active from April through August. As a potentially uncommon and limited resource, maternity roosts may be the limiting resource for a local population of bats, and thus may be essential to the survival of a local bat population. Maternity roosts tend to have sensitivity to disturbance, with documented instances of abandonment even during the presence of flightless young. As bats have a low reproductive rate of typically one pup per year, negative impacts to maternity roosts can have profound impacts on a local population of bats (Szewczak 2013).

Disturbance of roosting habitat of any bat species would be considered significant under CEQA guidelines. No suitable tree cavities or other roosting habitat was observed within the project areas or 50 feet of the project areas. However, roosting bats could be present in the riparian habitat along the section of Watsonville Slough adjacent to the project areas. Since the riparian habitat along the Watsonville Slough is at least 80 feet away from the project areas, project activities are not expected to impact roosting bats.

6.2.6 Special-status Birds

American Peregrine Falcon (*Falco peregrinus anatum*). Federal Listing Status: None; State Listing Status: Fully Protected. The American peregrine falcon occurs throughout much of the world and is known as one of the fastest flying birds of prey. Peregrine falcons prey almost entirely on birds, which they kill while in flight. These falcons nest on ledges and caves on steep cliffs, as well as on human-made structures such as buildings, bridges, and electrical transmission towers. In California, they are known to nest along the entire California coastline, , and the Cascade Ranges and Sierra Nevada.

A severe decline in populations of the widespread North American subspecies *anatum* began in the late 1940s. This decline was attributed to the accumulation of DDE, a metabolite of the organochlorine pesticide DDT, in aquatic food chains. When concentrated in the bodies of predatory birds such as the peregrine falcon, this contaminant led to reproductive effects, such as the thinning of eggshells. The American peregrine falcon was listed as endangered by the USFWS in 1970 (USFWS 1970) and by the State of California in 1971. Recovery efforts included the banning of DDT in North America, and captive breeding programs to help bolster populations. The USFWS removed the American peregrine falcon from the endangered species list in 1999 (USFWS 1999), and it was removed from the state endangered species list in 2009.

There is no suitable nesting habitat within or adjacent to the project areas. However, peregrines nesting elsewhere in the project region, as well as migrants and wintering birds, may occasionally forage in the project areas. Peregrine falcons have been observed along the Watsonville Slough near the project areas (Cornell Lab of Ornithology 2022).

Burrowing Owl (*Athene cunicularia*). Federal Listing Status: None; State Listing Status: Species of Special Concern. Burrowing owls occur year-round in Santa Cruz County, using open, agricultural or grassland areas with active small mammal burrows, which they use for nesting and roosting. Typical burrowing owl habitat is treeless with minimal shrub cover, woody plant encroachment, and low density and foliage height diversity. In the San Francisco Bay Area, burrowing owls are chiefly associated with burrows of California ground squirrels, whose burrows provide nesting and roosting cavities. In the absence of ground squirrel populations, habitats soon become unsuitable for occupancy by owls (Plumpton and Lutz 1993).

The burrowing owl nesting season as recognized by the CDFW runs from February 1 through August 31. After nesting is completed, adult owls may remain in their nesting burrows or in nearby burrows, or they may migrate and over-winter elsewhere (Gorman et al. 2003). Young birds disperse across the landscape from 0.1 mile to 35 miles from their natal burrows (Rosier et al. 2006). Philopatry (the tendency for individuals to breed at or near their place of birth), site tenacity (the tendency for individuals to breed at or near their prior nest location), and nest burrow reuse have been well documented for burrowing owls (Plumpton and Lutz 1993a), and burrowing owls may return to a nesting site and attempt to nest even after the site has been developed.

There are several documented occurrences within 1 mile of the project areas (Cornell Lab of Ornithology 2022). There is potential breeding habitat within the 200 Manabe Ow Road project site due to the presence of small mammal burrows and the grassland habitat within the project area, and adjacent areas provide suitable foraging habitat for burrowing owl. Due to nearby documented occurrences and the presence of small mammal burrows, there is a moderate potential for borrowing owl to be present in the 200 Manabe Ow Road project area.

Northern Harrier (*Circus cyaneus*). Federal Listing Status: None; State Listing Status: Species of Special Concern (Nesting). The northern harrier nests in marshes and grasslands with tall vegetation and sufficient moisture to inhibit accessibility of nest sites to predators. This species forages primarily on small mammals and birds in a variety of open grassland, ruderal, and agricultural habitats. Northern harriers forage in a variety of open habitats, especially during the nonbreeding season. The species is widespread as a forager in grasslands, extensive wetlands, and agricultural areas in the project region during migration and winter. Northern harriers are not expected to nest on the project areas due to a lack of suitable habitat. However, harriers may nest in nearby marsh habitats along the Watsonville slough downstream of the project areas and forage in the project areas.

Tricolored Blackbird (*Agelaius tricolor*). Federal Listing Status: None; State Listing Status: Threatened (Nesting Colony). Tricolored blackbird was listed as a threatened species by the California Fish and Game Commission on April 19, 2018. Tricolored blackbirds are found primarily in the Central Valley and in the central and southern coastal areas of California. The

tricolored blackbird is highly colonial in its nesting habits, and forms dense nesting colonies that, in some parts of the Central Valley, may consist of up to tens of thousands of pairs. Suitable tricolored blackbird nesting habitat includes flooded stands of tall and dense, thorny, or spiny vegetation dominated by cattails (*Typha* spp.) or bulrushes (*Schoenoplectus* spp.), and willows (*Salix* spp.), but also will nest in dense stands of blackberry bushes (*Rubus* spp.) and wild rose (*Rosa* spp.) bushes, as well as thistles (*Cirsium* and *Centaurea* spp.) and nettles (*Urtica* spp.), usually near extensive open areas such as marshes, grassland, or agricultural land that provide foraging habitat. Nesting colonies are usually located near fresh water. Tricolored blackbirds form large, often multi-species flocks during the nonbreeding period and range more widely than during the nesting season. Preferred foraging habitats include crops such as rice, alfalfa, irrigated pastures, and ripening or cut grain fields (e.g., oats, wheat, silage), as well as annual grasslands, cattle feedlots, and dairies (Shuford and Gardali 2008). These blackbirds also forage in remnant native habitats, including wet and dry vernal pools and other seasonal wetlands, riparian scrub habitats, and open marsh borders.

Even though the *Cattail Marsh* in the 200 Wanabe Ow Road project area consists of dense stands of cattails, the small size of the marsh likely precludes nesting tri-colored blackbirds. Tricolored blackbirds are well documented from the marsh complex formed by the confluence of Watsonville, Struve, and Hanson sloughs, approximately 0.3 mile from the project areas (CNDDB 2022, Cornell Lab of Ornithology 2022). Therefore, tricolored blackbirds may forage in the grassland and *Cattail Marsh* in the 200 Manabe Ow Road project area and/or migrate through both project areas but are not expected to nest in the project areas.

White-tailed Kite (*Elanus leucurus*). Federal Listing Status: None; State Listing Status: Fully Protected. In California, white-tailed kites can be found in the Central Valley and along the coast in grasslands, agricultural fields, cismontane woodlands, and other open habitats (Zeiner et al. 1990a, Dunk 1995, Erichsen et al. 1996). White-tailed kites are year-round residents of the state, establishing nesting territories that encompass open areas with healthy prey populations and snags, shrubs, trees, or other substrates for nesting (Dunk 1995). Nonbreeding birds typically remain in the same area over the winter, although some movements do occur (Polite 1990). The presence of white-tailed kites is closely tied to the presence of prey species, particularly voles, and prey base may be the most important factor in determining habitat quality for white-tailed kites (Dunk and Cooper 1994, Skonieczny and Dunk 1997). Although the species recovered after population declines during the early 20th century, its populations may be exhibiting new declines because of recent increases in habitat loss and disturbance (Dunk 1995, Erichsen et al. 1996).

White-tailed kites are common residents in the vicinity of the project areas where open grassland and agricultural habitats are present (Cornell Lab of Ornithology 2022). There is no suitable nesting habitat within the project areas, but there may be suitable nesting habitat in the riparian corridor along Watsonville Slough adjacent to the project areas. Since the riparian

habitat along the Watsonville Slough is at least 80 feet away from the project area, project activities are not expected to impact nesting kites. However, the grassland habitat within the 200 Manabe Ow Road project area provides potential foraging opportunities for this species and two individuals were observed in the 200 Manabe Ow Road project area in 2019 (Cornell Lab of Ornithology 2022).

Yellow Warbler (*Setophaga petechia*). Federal Listing Status: None; State Listing Status: Species of Special Concern. In California, the yellow warbler occupies wooded riparian habitats (Heath 2008). This species prefers riparian corridors with an overstory of mature cottonwoods and sycamores, a midstory of box elder and willow, and a substantial shrub understory (Bousman 2007), particularly in areas with more open space adjacent to the riparian habitat. Yellow warblers construct open-cup nests in upright forks of shrubs or trees in dense willow thickets or other dense vegetation (Lowther et al. 1999).

The yellow warbler is an un-common to rare breeder in wooded riparian habitats, occurring primarily in association with alders and willows, in Santa Cruz County. Riparian woodlands in the County provide suitable nesting and foraging habitat for this species, but the species is scarce and local, being particularly scarce as a breeder on the immediate coast (Shuford and Gardali 2008). Nevertheless, it is possible that yellow warblers may breed in the riparian habitat along Watsonville Slough adjacent to the project areas, but they are not expected to nest in the project areas. Otherwise, this species is a commonly observed migrant along the Watsonville Slough near the project areas (Cornell Lab of Ornithology 2022).

6.2.7 Nesting Birds

Nesting birds may occur in trees, shrubs, understory vegetation, and shallow scrapes on bare ground in and around the project areas. All migratory bird species are protected under California Fish and Game Code.

6.3 Sensitive and Regulated Plant Communities and Habitats

Natural communities have been considered part of the Natural Heritage Conservation triad, along with plants and animals of conservation significance since the state inception of the Natural Heritage Program in 1979. CDFW determines the level of rarity and imperilment of vegetation types; and tracks sensitive communities in its Rarefind database (CNDDB 2022). Global rankings (G) of natural communities reflect the overall condition (rarity and endangerment) of a habitat throughout its range, whereas state (S) rankings reflect the condition of a habitat within California. Natural communities are defined using NatureServe's standard heritage program methodology as follows (CDFG 2007):

- G1/S1: Less than 6 viable occurrences or less than 2,000 acres.
- G2/S2: Between 6 and 20 occurrences or 2,000 to 10,000 acres.

- G3/S3: Between 21 and 100 occurrences or 10,000 to 50,000 acres.
- G4/S4: The community is apparently secure, but factors and threats exist to cause some concern.
- G5/S4: The community is demonstrably secure to ineradicable due to being common throughout the world (for global rank) or the state of California (for state rank).

State rankings are further described by the following threat code extensions:

- S1.1: Very threatened.
- S1.2: Threatened.
- S1.3: No current threats known.

In addition to tracking sensitive natural communities, CDFW also ranks vegetation alliances, defined by repeating patterns of plants across a landscape that reflect climate, soil, water, disturbance, and other environmental factors (Sawyer et al. 1995). If an alliance is marked G1-G3, all the vegetation associations within it will also be of high priority (CDFG 2007). CDFW provides the Vegetation Classification and Mapping Program's (VegCAMP) currently accepted list of vegetation alliances and associations (CDFW 2022).

Natural Communities of Special Concern. There is one CDFW classified sensitive natural community within the project areas. The *Cattail Marsh* within the 200 Manabe Ow Road project area is classified as Coastal and Valley Freshwater Marsh.

- **Coastal and Valley Freshwater Marsh**. Coastal and Valley Freshwater Marsh is a wetland plant community found in seasonally or permanently flooded areas along streams, lakes, ponds, and springs. If the marsh is within a riverine system that drains into estuarine habitats, the marsh may be brackish at the end closest to the estuary end and entirely freshwater farther up the channel. Typical species include cattails (*Typha* spp.), bulrush (*Scirpus* spp.), and sedges (*Cyperus* spp., *Carex* spp., and *Eleocharis* spp.).

Sensitive Vegetation Alliances. There are no CDFW classified sensitive plant communities within the project areas.

CDFW Stream/Riparian Habitat. As described above under Regulatory Setting, the California Fish and Game Code includes regulations governing the use of, or impacts to, many of the state's fish, wildlife, and sensitive habitats, including the bed and banks of rivers, lakes, and streams. The *Cattail Marsh* in the 200 Manabe Ow Road project area and its associated riparian habitat up to the top of bank is subject to CDFW jurisdiction under Section 1600 et seq. of State Fish and Game Code (Appendix A, Figure 4).

Critical Habitat/Essential Fish Habitat (EFH). There is no designated critical habitat or EFH within the project areas. However, critical habitat for several species and EFH is located within 5 miles of the project areas (Appendix A, Figure 5).

- **Santa Cruz Tarplant**. Critical habitat for Santa Cruz tarplant is located approximately 150 feet north of the project areas on the north side of Watsonville Slough (Unit I) and approximately 2.3 miles northeast of the project areas along Elkhorn Road (Unit K).
- **California Red-legged Frog**. Critical habitat for California red-legged frog is located approximately 0.23 miles northwest of the project areas, including Watsonville Slough, Harkins Slough, and Struve Slough (Unit SCZ-2).
- **South-Central California Coast Steelhead DPS.** Critical habitat for steelhead includes the Pajaro River and Lagoon, but does not include Watsonville, Harkins, or Struve sloughs. The confluence of the Pajaro River and Watsonville Slough is approximately 5 miles downstream of the project areas.
- **Tidewater Goby**. Critical habitat for tidewater goby includes the lower reach of the Pajaro River and lagoon, as well as the lowermost 1.2 miles of Watsonville Slough south of West Beach Road (Unit SC-8), approximately 4 miles from the project areas. Watsonville Slough north of West Beach Road, including the Harkins and Struve Sloughs are not designated as critical habitat.
- **EFH**. All tidally influenced areas of the Pajaro River, and Watsonville Slough are designated as EFH for species federally managed under fisheries management plans (FMPs) (Pacific Fisheries Management Council 1998, 2011, 2012). Only the lowermost portion of Watsonville Slough is tidally influenced, approximately 4 miles downstream of the project areas.

Waters of the U.S./State. The *Cattail Marsh* meets the definition of waters of the U.S./state and any impacts to verified waters of the U.S./state within the project area would be subject to jurisdiction by the USACE and RWQCB. Waters of the state generally extend to the top of the bank (Appendix A, Figure 4).

6.4 Wildlife Corridors

Wildlife corridors are segments of land that provide a link between these different habitats while also providing cover. Development that fragments natural habitats (i.e., breaks them into smaller, disjunct pieces) can have a twofold impact on wildlife: first, as habitat patches become smaller, they are unable to support as many individuals (patch size); and second, the area between habitat patches may be unsuitable for wildlife species to traverse (connectivity).

Due to habitat fragmentation in the project region, the vegetation communities along streams and other aquatic features often function as environmental corridors that allow animals to move among habitat patches. Since the drainage channel within the 200 Manabe Ow Road project area is confluent with Watsonville Slough, the channel, and adjacent upland areas likely function

as a wildlife movement corridor that provides movement and refugia for wildlife found in the Watsonville Slough corridor. Since the developed and grassland areas of the project areas are in an urban setting and are not adjacent to or connect open space areas, these areas likely function as an isolated wildlife corridor that provides movement and refugia for wildlife that are commonly found in developed areas.

7 Biological Impact Assessment

This section describes potential impacts to sensitive biological resources—including special-status plants and animals, and waters of the U.S. and the state—that may occur as a result of implementing the projects.

The CEQA Guidelines define which impacts are considered significant. The Act defines “significant effect on the environment” as “a substantial adverse change in the physical conditions which exist in the area affected by the proposed project.” Potential impacts to biological resources were determined in accordance with Appendix G of the CEQA Guidelines. Impacts would be considered potentially significant if the proposed project will:

A. "have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service".
B. "have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service".
C. "have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means”.
D. "interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites".
E. "conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance".
F. "conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan".

Direct take of a federally or state listed species is considered a significant impact. Per Section 3(18) of FESA, the term take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Temporary and/or permanent habitat loss is not considered a significant impact to sensitive species (other than for listed or candidate species under the FESA and CESA), unless a significant percentage of total suitable

habitat throughout the species' range is degraded or somehow made unsuitable, or areas supporting a large proportion of the species' population are substantially and adversely impacted. Potential impacts to nesting bird species and bat colonies would be considered significant due to their protection under California Fish and Game Code.

7.1 Impacts to Special-Status Plant Species – Less than Significant with Mitigation

Santa Cruz tarplant,has the potential to occur within the *Wild Oats and Annual Brome Grassland* in the 200 Manabe Ow Road project area. If present, project development may affect special-status plants due to disturbance or destruction of individuals or suitable habitat. Direct impacts could include grading or filling areas supporting these species, trampling, or crushing of plants, and soil compaction. Indirect impacts could include increased mobilization of dust onto plants, which can affect their photosynthesis and respiration, or changes to hydrology supporting these plants due to grading or construction in nearby habitats.

Conservation of a state and federally listed species is important because even the smallest of populations contribute to preserving the genetic resources for the species and ensuring its persistence in the County and state. For Santa Cruz tarplant, extirpation of any individuals located within the project area could negatively impact the species' genetic resources and would be considered significant under CEQA. Implementation of the following mitigation measures will reduce impacts on special-status plants to a less than significant level.

Mitigation Measure BIO-1a. Pre-Activity Focused Survey for Santa Cruz Tarplant. Prior to initial ground disturbance in grassland and wetland habitats, and during the appropriate blooming period (June to October), a focused survey for Santa Cruz tarplant will be conducted by a qualified plant ecologist within suitable habitat in the project footprint and a 50-foot buffer around the project footprint, where feasible. The purpose of the survey will be to assess the presence or absence of Santa Cruz tarplant. If Santa Cruz tarplant is not found in the impact area or the identified buffer, then no further mitigation will be warranted. If Santa Cruz tarplant is found in the impact area, then Mitigation Measures BIO-1b will be implemented. The results of the survey will be documented.

A qualified plant ecologist is an individual who has a degree in biological sciences or related resource management with a minimum of two seasonal years post-degree experience conducting surveys for special-status plant species that may be present within the project areas. During or following academic training, the qualified plant ecologist will have achieved a high level of professional experience and knowledge in biological sciences and special-status species identification, ecology, and habitat requirements.

Mitigation Measure BIO-1b. Avoidance Buffers. To the extent feasible, and in consultation with a qualified plant ecologist, the project proponent will construct the project to avoid impacts on all populations of special-status plant species within the project site or within the identified

buffer of the impact area, to the extent feasible. Avoided special-status plant populations will be protected by establishing and observing the identified buffer between plant populations and the impact area. All such populations located in the impact area or the identified buffer, and their associated designated avoidance areas, will be clearly depicted on any construction plans. In addition, prior to initial ground disturbance or vegetation removal, the limits of the identified buffer around special-status plants to be avoided will be flagged or fenced. The flagging will be maintained intact and in good condition throughout project-related construction activities.

If avoidance is not feasible, then CDFW and/or USFWS will be consulted to determine the appropriate mitigation measures, which may include salvage and relocation of individual plants and/or off-site preservation, enhancement, and management of occupied habitat for the species.

7.2 Impacts to California Red-legged Frog and Western Pond Turtle– Less than Significant with Mitigation

California red-legged frog and western pond turtle may be present in the *Cattail Marsh* and adjacent upland areas within the *Wild Oats and Annual Brome Grassland* in the 200 Manabe Ow Road project area. The *Cattail Marsh* is outside of the project footprint and will not be directly impacted by the proposed project. However, project activities would result in the permanent loss of potential California red-legged frog and western pond turtle upland refugia and breeding habitat, respectively, due to the conversion of the grassland to developed land cover. Project activities could also potentially result in the loss of individuals (e.g., during construction activities) if they were present in the *Wild Oats and Annual Brome Grassland* or if they moved into the project area from the *Cattail Marsh* during construction activities. Due to the rarity of both species, project-related impacts on individual California red-legged frogs and western pond turtle would be significant under CEQA. For example,

- project activities may result in the injury or mortality of individuals as a result of worker foot traffic or equipment use.
- disturbance from project activities may disrupt foraging and dispersal behavior of both species.
- seasonal movements may be temporarily affected during project activities because of disturbance, and substrate vibrations may cause individuals to move out of refugia, exposing them to a greater risk of predation or desiccation.
- petrochemicals, hydraulic fluids, and solvents that are spilled or leaked from construction vehicles or equipment may kill individuals, although BMPs to control releases of such chemicals make this unlikely.
- increases in human concentration and activity in the vicinity of suitable habitat may result in an increase in native and non-native predators that would be attracted to trash left at

the work site and that would prey opportunistically on California red-legged frog and western pond turtle.

- movement of project personnel within the site, and between on-site and off-site areas, could also spread pathogens such as chytrid fungus, which can impair the health of amphibians.

The proposed project will result in the loss of approximately 11.4 acres of potential California red-legged frog and western pond turtle upland refugia and breeding habitat, respectively. However, the impact of the loss of habitat is not significant in the project region due to the presence of nearby higher quality habitat in the Watsonville Slough corridor, including the 25-acre Manabe Restoration Project site and other nearby open space areas, including the 589-acre Watsonville Slough Ecological Reserve and 4,000 acres of designated Critical Habitat for red-legged frog. Furthermore, the long history of agricultural use within the 200 Manabe Ow Road project area, low density of small mammal burrows, regular mowing of the *Cattail Marsh* and adjacent areas, and other human disturbance (e.g., homeless encampments) reduces the habitat value for California red-legged frog and western pond turtle.

Consistent with the current impact analysis, the 2010 MEIR did not identify loss of habitat as a significant impact to California red-legged frog and western pond turtle within the planning area The MEIR also concluded that the Manabe-Ow Business Park Specific Plan would not result in cumulative impacts to California red-legged frog or western pond turtle (RBF Consulting 2010).

Furthermore, habitat restoration for California-red-legged frog and other wildlife is included in the Manabe-Ow Business Park Specific Plan, which includes the restoration of 25 acres of the Watsonville Slough known as the Manabe Restoration Project. The restoration project was completed in 2012 with support from the Resource Conservation District of Santa Cruz County (RCD) and created/restored high quality aquatic and upland habitat for California red-legged frog and western pond turtle, approximately 0.37 miles northeast from the 200 Manabe Ow Road project area.

Site conditions have changed since the preparation of the MEIR in 2010 and there is currently potential for impacts to red-legged frog and western pond turtle during construction. However, the implementation of Mitigation Measures BIO-2a through BIO-2j will reduce project impacts and avoid take of California red-legged frog and western pond turtle that may be present within the 200 Manabe Ow Road project area. With the implementation of these measures the impacts to these species will be less than significant.

Mitigation Measure BIO-2a. Conduct Preconstruction Survey. No more than 24 hours prior to the date of initial ground disturbance, a pre-construction survey for California red-legged frog and western pond turtle will be conducted within the impact area by a qualified biologist. The survey will consist of walking the limits of impact to ascertain the possible presence of the species. The qualified biologist will investigate all potential areas that could be used by

California red-legged frog and western pond turtle for feeding, sheltering, movement, and other essential behaviors.

A qualified biologist is an individual who shall have a degree in biological sciences or related resource management with a minimum of two seasonal years post-degree experience conducting surveys for each amphibian and reptile special-status species that may be present within the project areas. During or following academic training, the qualified biologist shall have achieved a high level of professional experience and knowledge in biological sciences and special-status species identification, ecology, and habitat requirements. Additionally, the qualified biologist must be permitted or authorized to handle and relocate California red-legged frog and western pond turtle.

Mitigation Measure BIO-2b. Worker Environmental Awareness Program. All construction personnel will participate in a worker environmental awareness program. These personnel will be informed about the possible presence of all special-status species and habitats associated with the species identified here to be potentially present in the parcel and that unlawful take of the animal or destruction of its habitat is a violation of law. Prior to construction activities, a qualified biologist will instruct all construction personnel about (1) the description and status of the species; (2) the importance of their associated habitats; (3) a list of measures being taken to reduce impacts on these species during project construction and implementation; and (4) measures to be followed if special-status species are encountered during construction activities. A fact sheet conveying this information will be prepared for distribution to the construction crew and anyone else who enters the project site.

Mitigation Measure BIO-2c. Install Wildlife Exclusion Barrier. Prior to any ground disturbance in the work area, a temporary wildlife exclusion barrier will be installed along the limits of disturbance. A qualified biologist will inspect the area prior to installation of the barrier. The barrier will be designed to allow the California red-legged frog and western pond turtle to leave the work area and prevent them from entering the work area. The fence will remain in place until all development activities have been completed. This barrier will be inspected daily and maintained and repaired as necessary to ensure that it is functional and is not a hazard to California red-legged frogs on the outer side of the barrier.

Mitigation Measure BIO-2d. Vegetation Removal. All vegetation within the work area will be cut to four inches in height by a high-wheel mower or weed-whip just prior to the initiation of grading to remove cover that might be used by California red-legged frogs and/or western pond turtles. A qualified biologist authorized to handle California red-legged frogs and/or western pond turtles will walk with the mower/whip to monitor for species during the vegetation removal.

Mitigation Measure BIO-2e. Construction Monitoring. A qualified biologist or biological monitor will be onsite during all project activities that may result in take of any special-status species. The qualified biologist will be given the authority to freely communicate verbally, by

telephone, electronic mail, or in writing at any time with construction personnel, any other person(s) at the project site, otherwise associated with the project, and regulatory agencies (e.g., USFWS or CDFW). The qualified biologist or biological monitor will have oversight over implementation of all the mitigation measures and will have the authority and responsibility to stop project activities if they determine any of the measures are not being fulfilled.

A biological monitor is an individual who shall have academic and professional experience in biological sciences and related resource management activities as it pertains to this project, experience with construction-level biological monitoring, be able to recognize species that may be present within the project area and be familiar with the habits and behavior of those species.

Mitigation Measure BIO-2f. Relocation of California Red-legged Frog and Western Pond Turtle. If a red-legged frog or western pond turtle is found during project activities, work will stop until a qualified biologist that is permitted to handle California red-legged frog or authorized to handle western pond turtle relocates the animal from the impact area before groundwork starts again. Only a qualified biologist will capture, handle, and move California red-legged frog and western pond turtle. The qualified biologist will monitor any relocated frog or turtle until it is determined that it is not imperiled by predators or other dangers. See Mitigation Measure BIO-2a for the definition of a qualified biologist.

Mitigation Measure BIO-2g. Daytime Restriction. No work will be performed during nighttime hours. If construction is necessary at dawn or dusk, lights will be directed away from Watsonville Slough and the *Cattail Marsh* habitats.

Mitigation Measure BIO-2h. Food and Trash. To eliminate an attraction for the predators of the California red-legged frog and western pond turtle, all food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in solid, closed containers (trash cans) and removed at the end of each working day from the entire construction site. Dogs or other pets will not be allowed on site during construction.

Mitigation Measure BIO-2i. Steep-walled Holes and Trenches. To prevent inadvertent entrapment of the California red-legged frog or western pond turtle, a qualified biologist, biological monitor, and/or construction foreman/manager will ensure that all excavated, steep-walled holes or trenches more than one foot deep are completely covered at the close of each working day by plywood or similar materials or provided with one or more escape ramps constructed of earth fill or wooden planks and inspected by a qualified biologist. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals by a qualified biologist and/or construction foreman/manager. If at any time a trapped California red-legged frog or western pond turtle is discovered by a qualified biologist or anyone else, the steps in Mitigation Measure BIO-2f Relocation of California red-legged frog and Western Pond Turtle will be followed.

Mitigation Measure BIO-2j. Prohibition of Plastic Mono-filament Netting. To prevent trapping California red-legged frogs or other species at the project site, erosion control materials containing plastic mono-filament netting or similar material will not be used, even if it is labeled as biodegradable. Acceptable substitutes include coconut coir matting, straw/coconut finer erosion blanket, straw wattles wrapped in burlap, coir logs, and/or tackifier.

7.3 Impacts to Burrowing Owl – Less than Significant with Mitigation

The *Wild Oats and Annual Brome Grassland* in the 200 Manabe Ow Road project area contains small mammal burrows that provide potential nesting, wintering, and foraging habitat for burrowing owls. If active burrowing owl nests are present in the project area at the time of construction, construction-related disturbance could result in injury or mortality of an owl. In addition, construction-related disturbance could lead to the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Even if burrowing owls are not breeding on the site, construction could result in injury or mortality of an owl if an occupied burrow is filled or compacted during construction.

The proposed project will result in the loss of approximately 11.4 acres of potential burrowing owl habitat. However, the impact of the loss of habitat is not significant in the project region due to the presence of permanently protected higher quality habitat in nearby open space areas, including the 589-acre Watsonville Slough Ecological Reserve. Furthermore, the low density of small mammal burrows, regular mowing of the *Cattail Marsh* and adjacent areas, and other human disturbance (e.g., homeless encampments) reduces the habitat value for burrowing owl.

Mitigation Measure BIO-3a: Conduct Pre-construction Surveys for Burrowing Owls. Pre-construction surveys for burrowing owls will be conducted prior to the initiation of all project activities within suitable burrowing owl nesting and roosting habitat (i.e., *Wild Oats and Annual Brome Grassland* in the 200 Manabe Ow Road project area). Pre-construction surveys will be completed in conformance with the CDFW's 2012 guidelines (CDFG 2012), which include the following:

- At least 2 weeks prior to the onset of vegetation mowing/removal or ground disturbing activities, an initial habitat assessment will be conducted by a qualified biologist to determine if suitable burrowing owl habitat is present. During the habitat assessment, the biologist will survey the entire activity area for burrows that could be used by burrowing owls for nesting and roosting, and signs of use (e.g., feathers, pellets, whitewash).
- The survey shall also include all areas within 250 feet of the site, as access allows.
- If no suitable burrowing owl habitat is present, no additional surveys will be required.

- If suitable burrows and signs of activity are found, an additional survey shall be conducted within the 24-hour period prior to the initiation of project activities in any given area.
- The results of the surveys will be documented.

If burrowing owls are observed during the surveys, then Mitigation Measure BIO-3b will be implemented.

A qualified biologist is an individual who has a degree in biological sciences or related resource management with a minimum of two seasonal years post-degree experience conducting surveys for burrowing owl. During or following academic training, the qualified biologist will have achieved a high level of professional experience and knowledge in biological sciences and special-status species identification, ecology, and habitat requirements.

Mitigation Measure BIO-3b: Implement Buffer Zones for Burrowing Owls. If burrowing owls are present during the nonbreeding season (September 1 to January 31), a 150-foot buffer zone will be maintained around the occupied burrow(s), if feasible relative to property lines. If maintaining such a buffer is not feasible, then the buffer must be great enough to avoid injury or mortality of individual owls. During the breeding season (February 1 to August 31), a 250-foot buffer, within which no newly initiated project-related activities will be permissible, will be maintained between project activities and occupied burrows. Owls present between February 1 and August 31 will be assumed to be nesting, and the 250-foot protected area will remain in effect until August 31. If monitoring indicates that the owls are no longer nesting or the young owls are foraging independently, the buffer may be reduced, or the owls may be relocated prior to August 31, as determined by a qualified biologist. Relocation of owls will be completed by a qualified biologist using one-way doors, which should be installed in all burrows within the impact area and left in-place for at least two nights. These one-way doors will then be removed and the burrows back-filled immediately prior to vegetation mowing/removal or grading.

7.4 Impacts to American Peregrine Falcon, Northern Harrier, Tricolored Blackbird, White-tailed Kite, and Yellow Warbler – Less than Significant Impact

American peregrine falcon, northern harrier, tricolored blackbird, white-tailed kite, and yellow warbler are seen regularly in the project region and may fly through or forage in the project site. However, these species are unlikely to nest in the project areas or adjacent areas because of the lack of suitable nesting habitat. All five species would only be temporarily displaced by construction noise and can forage in areas surrounding the project. Therefore, impacts to American peregrine falcon, northern harrier, tricolored blackbird, white-tailed Kite, and yellow warbler will be less than significant. In the unlikely event that any of these species nest in the project areas, compliance with Mitigation Measure BIO-4 (See Section 7.5) would reduce project impacts on these species to less than significant.

7.5 Impacts to Nesting Birds – Less than Significant Impact with Mitigation

All migratory bird species and their nests are protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. Project activities must comply with the provisions of the MBTA and California Fish and Game Code (i.e., avoid take of protected nesting birds). Project-related impacts to nesting birds would be considered significant under CEQA.

Construction disturbance during the avian breeding season (February 1 through September 15, for most species) could result in the incidental loss of eggs or nestlings, either directly through the destruction or disturbance of active nests or indirectly by causing the abandonment of nests. In addition, noise and increased construction activity could temporarily alter foraging behavior, potentially resulting in the abandonment of nest sites. However, with the implementation of Mitigation Measure BIO-4 below, impacts to nesting birds will be less than significant.

Mitigation Measure BIO-4: Pre-Construction/Pre-Disturbance Survey for Nesting Birds for 100 and 200 Manabe Ow Road Project Areas.

Avoidance. To the extent feasible, construction activities should be scheduled to avoid the nesting season. If construction activities are scheduled to take place outside the nesting season, all impacts to nesting birds protected under the MBTA and California Fish and Game Code would be avoided. The nesting season for most birds in Santa Cruz County extends from February 1 through September 15.

Pre-Construction Surveys. To avoid impacts to nesting birds and violation of state and federal laws pertaining to birds, all construction-related activities (including but not limited to mobilization and staging, clearing, grubbing, vegetation removal, fence installation, demolition, and grading) should occur outside the avian nesting season (that is, prior to February 1 or after September 15). If construction and construction noise occurs within the avian nesting season (from February 1 to September 15), all suitable habitats located within the project's area of disturbance, including staging and storage areas plus a 250-foot (passerines) and 1,000-foot (raptor nests) buffer around these areas shall be thoroughly surveyed, as feasible, for the presence of active nests. The surveys will be conducted by a qualified biologist no more than 5 days before commencement of any vegetation trimming, site disturbance activities and equipment mobilization. If project activities are delayed by more than 5 days, an additional nesting bird survey shall be performed. Active nesting is present if a bird is building a nest, sitting in a nest, a nest has eggs or chicks in it, or adults are observed carrying food to the nest. The results of the surveys shall be documented.

If pre-construction nesting bird surveys result in the location of active nests, no site disturbance and mobilization of heavy equipment (including but not limited to equipment staging, fence installation, clearing, grubbing, vegetation removal, fence installation, demolition, and grading), shall take place within 250 feet of non-raptor nests and 1,000 feet of raptor nests, unless

smaller buffers are determined by a qualified biologist. The buffer shall remain in place until the chicks have fledged. Monitoring will ensure compliance with MBTA and relevant California Fish and Game Code requirements. Monitoring dates and findings shall be documented.

7.6 Impacts from Bird Collisions – Less than Significant Impact with Mitigation

Both projects propose two-story buildings with a partial glass façade on one side of the building. Glass windows and facades have the potential to cause injury or mortality to birds when birds collide with these surfaces. Birds do not perceive glass as an obstruction in the same way that humans do. As a result, they may collide with glass walls or windows if the glass reflects the sky or nearby vegetation and is not perceived as an obstruction, when transparent glass appears to be a clear pathway, or when vegetation behind transparent glass (such as behind glass railings) appears unobstructed.

The *Cattail Marsh* attracts a variety of urban-adapted and riparian bird species. Additionally, the Watsonville Slough riparian corridor provides high quality habitat for a variety of bird species, which could travel through both project areas en route to the riparian corridor. Based on a review of the building renderings in the site plans (Appendix B), at least half of one side of the proposed buildings would be composed of glass and the project would incorporate landscaping with trees, grasses, and shrubs around the buildings. While this landscaping is minimal and would not have a high habitat value to birds, it would attract birds in the area and increase bird activity around the buildings. Therefore, following construction of the projects, birds using the on-site landscaping and flying between landscaped areas on the site and the *Cattail Marsh* and the Watsonville Slough riparian corridor may collide with the buildings, resulting in the death of migratory species. Special-status bird species are not expected to make use of the landscaping in the project areas.

The most common bird strike zone is from the ground to 60 feet, and then again at 500 feet for skyscrapers (SF Planning Department 2011). The proposed buildings would be glazed from grade level or just above grade level to approximately 25 feet above grade. Glazing starts to be a hazard to birds at about 24 square feet in size, and both buildings have expanses of glass that exceed that size. The site plans do not detail the type of glass that is proposed for the buildings, so it is unknown if the glass is made with patterns or has light reflectance values that may be more visible to birds and thereby reduce the likelihood of collision with the glass. There are no adopted City of Watsonville bird-safe standards.

Since the buildings are surrounding by landscaping and are adjacent to habitats that attract a variety of birds there could be a cumulatively significant loss of birds over time and in addition to bird loss from other similar buildings planned in the project area. The cumulative impact is potentially significant under CEQA. However, with the implementation of Mitigation Measure BIO-5 would minimize the loss of birds by window strike.

Mitigation Measure BIO-5: Standards for Bird Safe Buildings. The 100 Manabe Ow Road and 200 Manabe Ow Road projects shall implement the following bird-safe design considerations:

- Use glazing or window coatings/markings that reduce bird strike hazard caused by transparency, reflectance, black hole, or passage effect, etc., such as Guardian Bird1st etch glass or similar. See recommendations by the American Bird Conservatory at https://abcbirds.org/.
- Minimize plants or landscaped areas behind glass.
- Minimize concentrations of plantings adjacent to glass facades.

7.7 Impacts to Sensitive Communities – No Impact

Sensitive vegetation communities include riparian habitat or other sensitive natural communities identified in local or regional plans, policies, or regulations, or designated by the USFWS and CDFW. The *Cattail Marsh* (Coastal and Valley Freshwater Marsh) within the 200 Manabe Ow Road project area is classified as a sensitive community. Since the *Cattail Marsh* is subject to regulatory jurisdiction of the USACE, RWQCB, and CDFW, potential impacts to the marsh are discussed below in Section 7.8.

7.8 Impacts to Jurisdictional Waters – Less than Significant

The *Cattail Marsh* is subject to the regulatory jurisdiction of the USACE, RWQCB and CDFW, and will require CWA 401/404 and LSAA permits, if impacted. The proposed project does not directly impact the *Cattail Marsh*. However, the proposed projects include the creation of impervious surfaces due to the construction of buildings and paved roads and parking areas, which will result in an increase in stormwater runoff into stream habitat, including the *Cattail Marsh* and Watsonville Slough. Runoff may contain harmful pollutants like trash, chemicals, and dirt/sediment which may adversely affect water quality and wildlife. Construction activities could cause the degradation of surface or ground water quality in the *Cattail Marsh* and Watsonville Slough due to erosion and transport of fine sediments or unintentional release of contaminants. Therefore, project-related impacts to stream habitat would be considered significant under CEQA.

Construction projects in California causing land disturbances that are equal to 1.0 acre or greater must comply with State requirements to control the discharge of stormwater pollutants under National Pollutant Discharge Elimination System (NPDES)/Construction General Permit. Prior to the start of construction/demolition, a Notice of Intent must be filed with the State Water Board describing the project. A Storm Water Pollution Prevention Plan (SWPPP) must be developed and maintained during the project, and it must include the use of BMPs to protect water quality until the site is stabilized. Standard permit conditions under the NPDES/Construction General Permit require that the applicant use various measures including,

among other measures, on-site sediment control best management practices, damp street sweeping, temporary cover of disturbed land surfaces to control erosion during construction, and utilization of stabilized construction entrances and/or wash racks.

A stormwater management plan will be developed to ensure that, during rain events, construction activities do not increase the levels of erosion and sedimentation. This plan will include the use of erosion-control materials (e.g., baffles, fiber rolls, or hay bales; temporary containment berms) and erosion-control measures such as straw application or hydroseeding with native grasses on disturbed slopes; and floating sediment booms and/or curtains to minimize any impacts that may occur due to increased mobilization of sediments. Suitable erosion control, sediment control, source control, treatment control, material management, and non-stormwater management best management practices will be implemented.

The following list of BMPs will protect biological resources:

- Work areas that are temporarily impacted will be restored with respect to pre-existing contours and conditions, to the extent feasible, upon completion of work. Restoration work including re-vegetation and soil stabilization will be evaluated upon completion of work and performed, as needed.
- Store, handle, and dispose of construction materials and wastes properly, so as to prevent their contact with stormwater.
- Control and prevent the discharge of all potential pollutants, including solid wastes, paints, concrete, petroleum products, chemicals, wash water or sediment and non-stormwater discharges to storm drains and water courses.
- Avoid cleaning, fueling, or maintaining vehicles on site, except in a designated area in which run-off is contained and treated.
- Perform clearing and earth moving activities during dry weather to the maximum extent practical.
- Remove spoils promptly and avoid stockpiling of fill materials when rain is forecast. Cover soil stockpiles and other materials with a tarp or other waterproof material during qualifying rain events.
- Trash and construction related solid wastes must be deposited into a covered receptacle to prevent contamination and dispersal by wind.
- In the event of rain, all grading work is to cease immediately.
- Implement an erosion control plan during the wet season (October 15 through April 15), including, at a minimum, the following:
    - All paved areas will be kept clear of earth material and debris
    - Inlet protection will be installed at open inlets to prevent sediment from entering the storm drain system.

    - Straw rolls will be placed at the toe of slopes, and along the down slope perimeter of the project area.
    - To prevent trapping of animals, plastic mono-filament netting (erosion control matting), rolled erosion control products or similar material will not be used at the project site.
- Implement an approved accidental spill plan to describe what actions will be taken in the event of a spill. The plan will incorporate preventative measures to be implemented, such as vehicle and equipment staging, cleaning, maintenance, and refueling; and contaminant (including fuel) management and storage. In the event of a contaminant spill, work at the site will immediately cease until the contractor has contained and mitigated the spill. The contractor will immediately prevent further contamination and notify appropriate authorities (such as the City or other permitting agencies) and mitigate damage. Adequate spill containment materials, such as oil diapers and hydrocarbon cleanup kits, shall always be available on site. Containers for storage, transportation, and disposal of contaminated absorbent materials will be provided in the project site.

In addition to construction-phase requirements, new and redevelopment projects in many California counties, including Santa Cruz County, that create and/or replace more than 2,500 square feet of impervious surface must also comply with the *California Regional Water Quality Control Board, Central Coast Region, Central Coast Post-Construction Stormwater Requirements (PCRs)* (Resolution R3-2013-0032). The resolution requires that projects implement BMPs and incorporate Low Impact Development practices into the design that prevent stormwater runoff pollution, promote infiltration, and hold/slow down the volume of stormwater runoff from a site. To meet these permit and policy requirements, projects must incorporate the use of green roofs, pervious surfaces, bioretention and/or detention basins, among other on-site treatment controls.

During the construction phase, compliance with the requirements to control the discharge of stormwater pollutants under the NPDES Construction General Permit and PCRs will reduce impacts to stream habitat to a less than significant level. Both projects incorporate stormwater detention basins to manage stormwater runoff (Appendix B).

7.9 Impacts to Wildlife Movement– Less than Significant Impact

Construction activities could temporarily restrict some wildlife species from moving between suitable habitat patches. Noise and disturbance associated with construction activities could cause a temporary reduction in habitat connectivity through the site for species that commonly use habitats in the project area. Furthermore, construction fencing and/or wildlife exclusion fencing could substantially reduce habitat connectivity through the site. However, wildlife would still be able to move through the Watsonville Slough and the *Cattail Marsh* habitats adjacent to the site. Because project construction will not occur at night when many mammals, reptiles, and amphibians are active, use of these habitats by dispersing nocturnal animals would not be

diminished during construction. Therefore, impacts to wildlife movement from construction activities are expected to be less than significant

Once construction activities are complete, the developed land cover (e.g., parking areas and buildings) would restrict wildlife movement through the sites compared to existing conditions. However, wildlife would still be able to move through the project areas by using the riparian corridor of Watsonville Slough. Wildlife movement in the *Cattail Marsh* would be similar to pre-project conditions. Numerous animals likely breed within and around the project areas, but no particularly important wildlife nursery areas are present in the project areas or would be impacted by the projects. Therefore, wildlife dispersal through the project areas after completion of the projects is a less than significant impact.

7.10 Impacts due to Conflicts with Local Policies – No Impact

The proposed projects due not conflict with local policies, including the Watsonville Municipal Code and the Watsonville 2005 General Plan.

7.11 Impact due to Conflicts with an Adopted Habitat Conservation Plan – No Impact

The proposed project does not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan, as they are not located in a conservation plan area. The project areas are not included in the Coastal Zone and are not subject to Coastal Land Use Plan and policies.

8 Summary of Mitigation Measures

Table 3 summarizes the mitigation measures for the 100 Manabe Ow Road and 200 Manabe Ow Road project areas.

Table 3. Summary of Mitigation Measures for the 100 and 200 Manabe Ow Project Areas

Mitigation Measure	100 Manabe Ow Road Project Area	200 Manabe Ow Road Project Area
Mitigation Measures BIO-1a and BIO-1b (measures to minimize impacts to Santa Cruz tarplant)	No	Yes
Mitigation Measures BIO-2a to BIO-2j (measures to minimize impacts to California red-legged frog and western pond turtle)	No	Yes
Mitigation Measure BIO-3a and BIO-3b (measures to minimize impacts to burrowing owl)	No	Yes
Mitigation Measure BIO-4 (measure to protect nesting birds)	Yes	Yes
Mitigation Measure BIO-5 (measure to minimize bird collisions with glass facades on buildings)	Yes	Yes

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[USFWS] U.S. Fish and Wildlife Service. 2022. IPaC Information for Planning and Conservation. Accessed March 2022 from https://ecos.fws.gov/ipac/t69.

Zeiner, D.C., W.F. Laudenslayer Jr., K.E. Mayer, and M. White, editors. 1990. California's Wildlife. Volume III: Mammals. California Department of Fish and Game, Sacramento, California.

Appendix A Figures

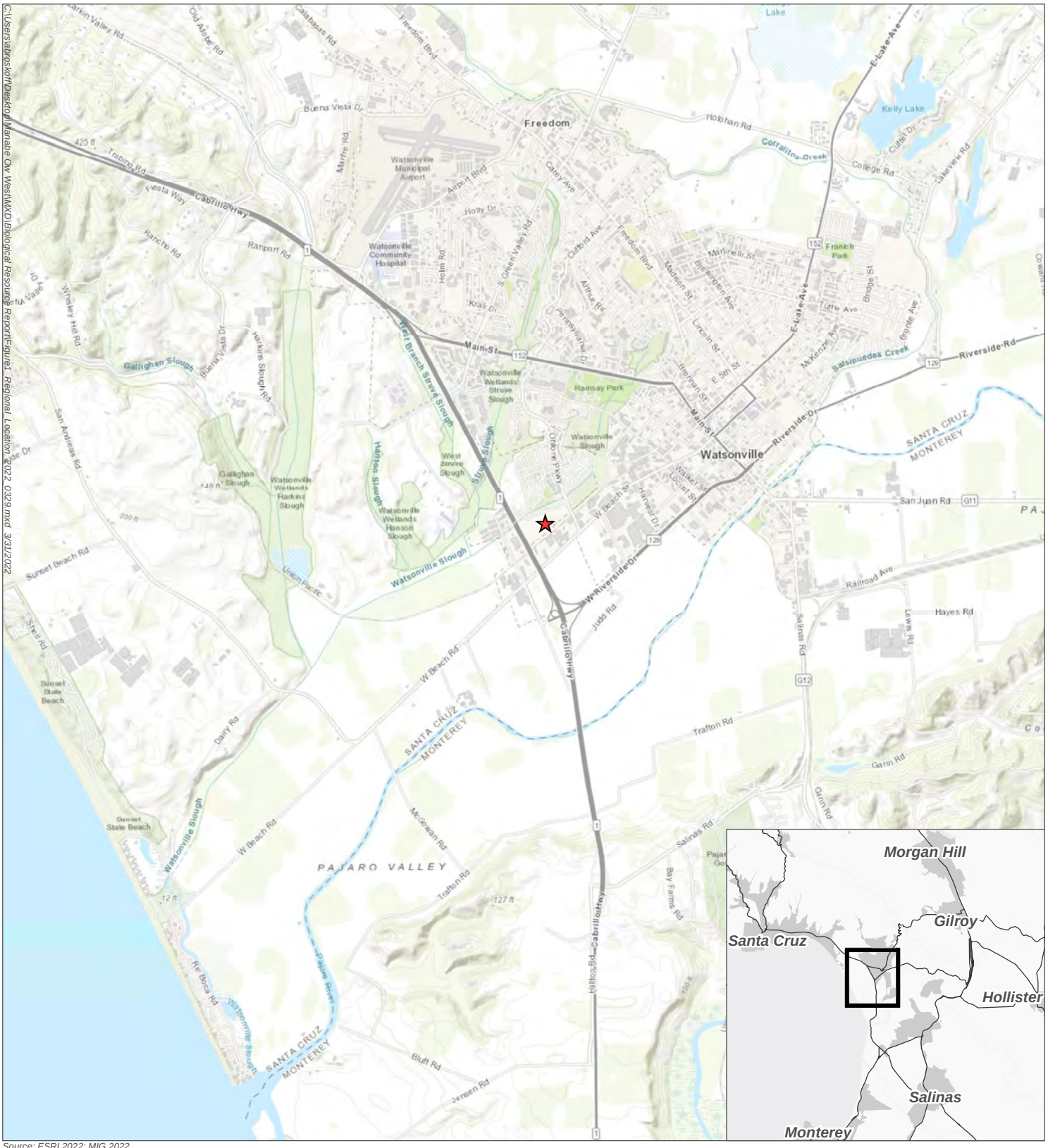


Figure 1 Regional Location Map

100 and 200 Manabe Ow Road Biological Resources Report



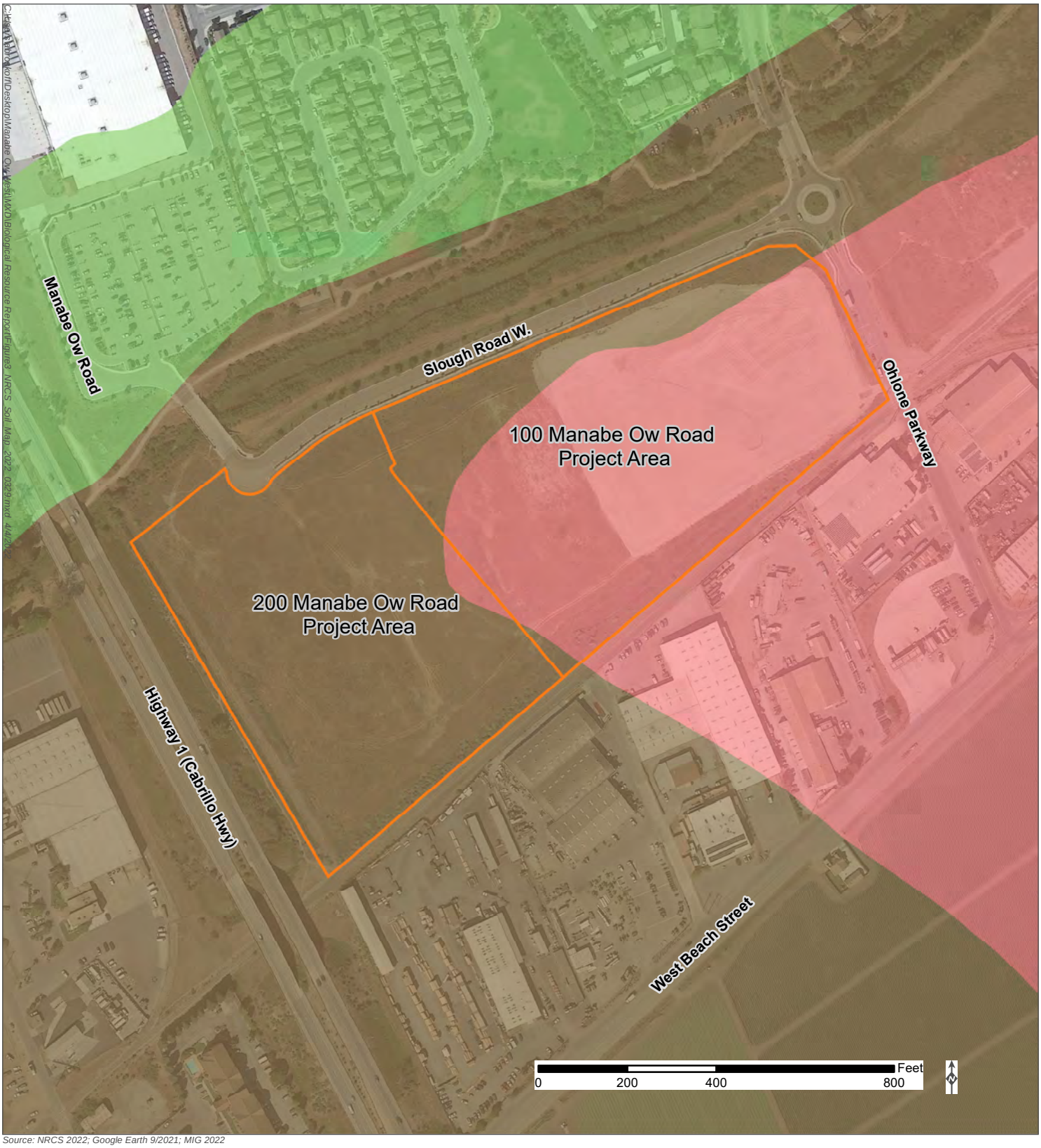
Source: Google Earth 9/2021; MIG 2022

0 200 400 800 Feet

Project Area

Figure 2 Project Area Map

100 and 200 Manabe Ow Road Biological Resources Report



Source: NRCS 2022; Google Earth 9/2021; MIG 2022

Project Area

NRCS Soils

- Clear Lake clay, drained, 0 to 1 percent slopes, MLRA
- Conejo clay loam, 0 to 2 percent slopes, cool, MLRA 14
- Watsonville loam, 2 to 15 percent slopes

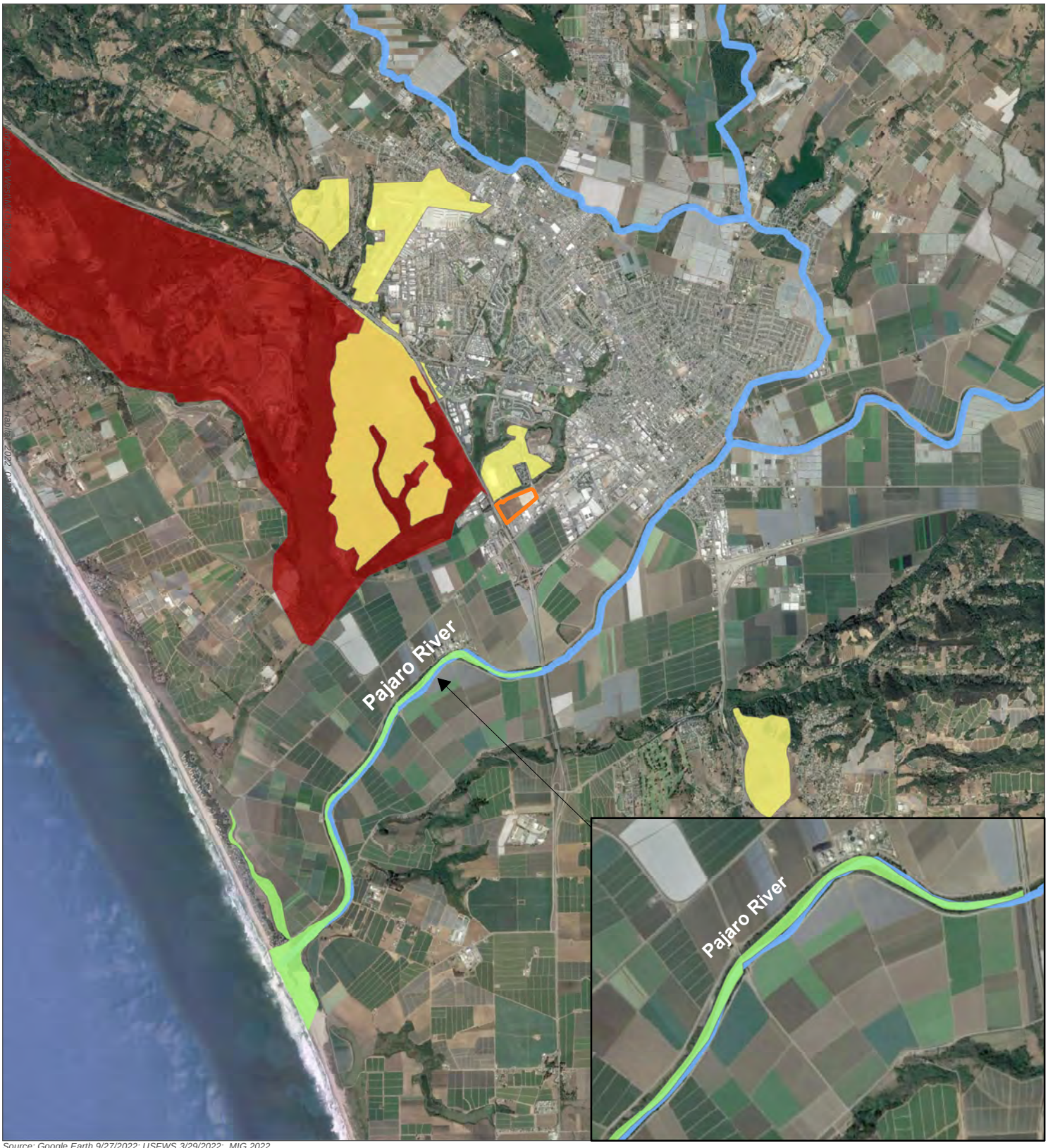
Figure 3 NRCS Soil Map

100 and 200 Manabe Ow Road Biological Resources Report



Figure 4 Existing Land Uses, Vegetation Communities, and Habitats

100 and 200 Manabe Ow Road Biological Resources Report



Source: Google Earth 9/27/2022; USFWS 3/29/2022; MIG 2022

Study Area
California Red-Legged Frog Critical Habitat
Santa Cruz Tarplant Critical Habitat
South-Central California Coast Steelhead DPS Critical Habitat
Tidewater Goby Critical Habitat

0 0.75 1.5 3 Miles

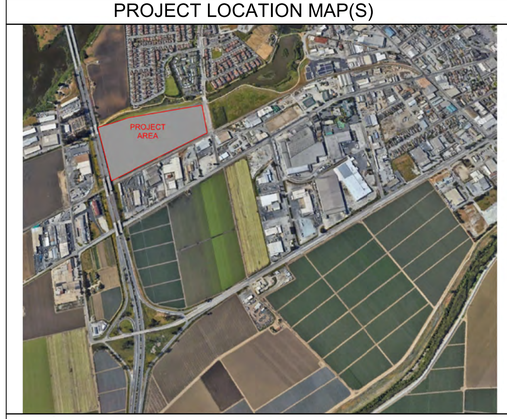
Figure 5 Critical Habitat

Appendix B Site Plans



GBxMB AT *WATSONVILLE, CA 95706*

PROJECT LOCATION MAP(S)



PROJECT INFORMATION

ASSESSOR'S PARCEL NUMBER:	**018-711-33**
ZONING:	**MANABE OW SPECIFIC PLAN IL -INDUSTRIAL**
LEGAL DESCRIPTION:	**REFER TO TITLE SHEET**
PROJECT DESCRIPTION:	± 11.5 AC OF THE TOTAL SITE WILL BE DEVELOPED FOR A NEW DISTRIBUTION FACILITY. THE BUILDING IS ±156,200 SF. THERE WILL BE A ±7,950 SF MEZZANINE FOR THE OFFICE. NEW LANDSCAPING, NEW PARKING, NEW SITE LIGHTING, NEW STORM WATER DETENTION. 9' TALL SECURITY FENCING WILL BE PLACED AROUND THE TRUCK COURT.
CURRENT LAND USE:	**VACANT COMMERCIAL LAND LOCATED IN THE MANABE OW SPECIFIC PLAN AREA. SITE IS DESIGNATED AS BUSINESS PARK WITH INDUSTRIAL USE.**
PROPOSED LAND USE:	**INDUSTRIAL USE WAREHOUSE AND DISTRIBUTION**
LANDSCAPE AREA:	**108,681 SQ.FT.** **91,836 SQ.FT. / 502,351.6 SQ.FT = 21%**

SITE SUMMARY:

GROSS SITE AREA:	**+/- 502,351.6 SQ.FT. (11.5 ACRES)**
DETENTION AREA:	**+/- 59,000 SQ.FT. (@ 8.5%)**
DRIVE AISLE AREA:	**+/- 492,284.7 SQ.FT.**

FAR CALCULATION:

BUILDING FOOTPRINT:	**+/- 147,379 SQ.FT. (@25.8%)**
MEZZANINE:	**+/- 9,582 SQ.FT.**
TOTAL BUILDING AREA:	**+/- 156,961 SQ.FT.**
	FAR = G/B
	FAR = 502,351.6 / 158,026
	FAR = .31

BUILDING SUMMARY:

BUILDING TYPE: TYPE IIIB FULLY SPRINKLERED ESFR	
BUILDING OCCUPANCY: PRIMARY S-2 ACCESSORY S-1, B, A	
UNLIMITED BUILDING AREA PER CBC 507	

PARKING SUMMARY:

AUTO STALLS REQUIRED:	
OFFICE: **0 TO 20,000 SQUARE FEET FLOOR AREA, 1 SPACE FOR EACH 300 SF FLOOR AREA, PLUS 1 SPACE FOR EACH 500 SF FLOOR AREA IN EXCESS OF 20,000 SQUARE FEET = 53 STALLS**	
WAREHOUSE: **5 SPACES, PLUS 1 SPACE FOR EACH EMPLOYEE ON THE SHIFT WITH THE MAXIMUM NUMBER OF PERSONNEL = 40 STALLS**	
TOTAL REQUIRED = 93 STALLS	
TRUCK DOCKS PROVIDED:	**20 STALLS**
TRAILER STALL PROVIDED:	**33 TRAILERS**
TRAILER BAY:	**2 STALLS**
GRADE DOORS:	**6**
AUTO STALLS PROVIDED:	**93 STALLS @ .7/1000**
BICYCLE STALLS PROVIDED: RACKS	**REQUIRED: 9 PROVIDED: 10**
LONG TERM LOCKERS	**REQUIRED: 9 PROVIDED: 10**
ADA STALLS:	**REQUIRED: 7 PROVIDED: 8**
EV STALLS:	**REQUIRED: 10 PROVIDED: 10**
CLEAN AIR/VANPOOL/EV STALLS:	**REQUIRED: 16 PROVIDED: 16**

LEGAL DESCRIPTION

PARCEL 1:
SITUATE IN THE CITY OF WATSONVILLE, COUNTY OF SANTA CRUZ, STATE OF CALIFORNIA AND

BEING A PORTION OF THE LANDS CONVEYED TO OW FAMILY-OHLONE PARKWAY, LLC , A CALIFORNIA LIMITED LIABILITY COMPANY, BY GRANT DEED RECORDED OCTOBER 13, 2015 AT 11:28 AM IN DOCUMENT NO. 2015-0041365 OFFICIAL RECORDS OF SANTA CRUZ COUNTY, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE NORTHWESTERN BOUNDARY OF THE LANDS CONVEYED TO THE SANTA CRUZ COUNTY REGIONAL TRANSPORTATION COMMISSION BY QUITCLAIM DEED RECORDED OCTOBER 12, 2012 AT 8:36 AM IN DOCUMENT NO. 2012-0050154 OFFICIAL RECORDS OF SANTA CRUZ COUNTY FROM WHICH THE INTERSECTION OF SAID NORTHWESTERN BOUNDARY WITH THE EASTERN BOUNDARY OF CALIFORNIA STATE HIGHWAY ROUTE NO. 1 AS SHOWN ON THAT CERTAIN MAP ENTITLED "RECORD OF SURVEY - MANABE WETLANDS RESTORATION PROJECT" FILED FOR RECORD MAY 22, 2015 IN VOLUME 123 OF MAPS, PAGE 21, SANTA CRUZ COUNTY RECORDS BEARS SOUTH 51° 10' 29" WEST 455.11 FEET DISTANT; THENCE FROM SAID POINT OF BEGINNING AND LEAVING SAID NORTHWESTERN BOUNDARY OF THE SANTA CRUZ COUNTY REGIONAL TRANSPORTATION COMMISSION NORTH 29° 28' 42" WEST 766.89 FEET TO THE SOUTHERN BOUNDARY OF MANABE OW ROAD, A CITY STREET 78 FEET WIDE, AS CONVEYED TO THE CITY OF WATSONVILLE, A MUNICIPAL CORPORATION BY GRANT DEED RECORDED SEPTEMBER 1, 2016 AT 7:47 AM IN DOCUMENT NO. 2016- 0032795 OFFICIAL RECORDS OF SANTA CRUZ COUNTY; THENCE ALONG SAID SOUTHERN BOUNDARY THEREOF SOUTH 53° 27' 55" WEST 90.14 FEET TO A POINT OF CURVATURE; THENCE ALONG A TANGENT CURVE TO THE LEFT WITH A RADIUS OF 31.00 FEET, THROUGH A CENTRAL ANGLE OF 26° 55' 45" AND AN ARC LENGTH OF 14.57 FEET TO A POINT OF REVERSE CURVATURE; THENCE ALONG A TANGENT CURVE TO THE RIGHT WITH A RADIUS OF 52.00 FEET, THROUGH A CENTRAL ANGLE OF 152° 53' 17" AND AN ARC LENGTH OF 138.76 FEET TO THE END OF SAID CURVE; THENCE NORTH 36°
36' 52" WEST 4.47 FEET TO THE SOUTHERN BOUNDARY OF THE LANDS CONVEYED TO THE CITY OF WATSONVILLE, A MUNICIPAL CORPORATION, BY GRANT DEED RECORDED JANUARY 30, 2012 AT 8:07 AM IN DOCUMENT NO. 2012-0004808 OFFICIAL RECORDS OF SANTA CRUZ COUNTY; THENCE LEAVING SAID MANABE OW ROAD AND ALONG THE LAST SAID SOUTHERN BOUNDARY CONVEYED TO THE CITY OF WATSONVILLE THEREOF SOUTH 53° 27' 55" WEST 268.38 FEET TO THE INTERSECTION WITH THE AFOREMENTIONED EASTERN BOUNDARY OF CALIFORNIA STATE HIGHWAY ROUTE NO. 1; THENCE LEAVING THE LANDS OF THE CITY OF WATSONVILLE AND ALONG SAID EASTERN BOUNDARY THEREOF SOUTH 29° 28' 42" EAST 808.19 FEET AND SOUTH 24° 48' 19" EAST 56.38 FEET TO THE HEREINABOVE SAID NORTHWESTERN BOUNDARY OF THE LANDS CONVEYED TO THE SANTA CRUZ COUNTY REGIONAL TRANSPORTATION COMMISSION; THENCE LEAVING CALIFORNIA STATE HIGHWAY ROUTE NO. 1 AND ALONG SAID NORTHWESTERN BOUNDARY THEREOF NORTH 51° 10' 29" EAST 455.11 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION.

THIS LEGAL DESCRIPTION IS MADE PURSUANT TO THAT CERTAIN CERTIFICATE OF COMPLIANCE RECORDED JULY 24, 2018, AS INSTRUMENT NO. 2018-022647 OF OFFICIAL RECORDS.

PARCEL 2:

SITUATE IN THE CITY OF WATSONVILLE, COUNTY OF SANTA CRUZ, STATE OF CALIFORNIA AND

BEING A PORTION OF THE LANDS CONVEYED TO OW FAMILY-OHLONE PARKWAY, LLC , A CALIFORNIA LIMITED LIABILITY COMPANY, BY GRANT DEED RECORDED OCTOBER 13, 2015 AT 11:28 AM IN DOCUMENT NO. 2015-0041365 OFFICIAL RECORDS OF SANTA CRUZ COUNTY, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

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THIS LEGAL DESCRIPTION IS MADE PURSUANT TO THAT CERTAIN CERTIFICATE OF COMPLIANCE RECORDED JULY 24, 2018, AS INSTRUMENT NO. 2018-022648 OF OFFICIAL RECORDS.

PARCEL 3:

SITUATE IN THE CITY OF WATSONVILLE, COUNTY OF SANTA CRUZ, STATE OF CALIFORNIA AND

BEING A PORTION OF THE LANDS CONVEYED TO OW FAMILY-OHLONE PARKWAY, LLC , A CALIFORNIA LIMITED LIABILITY COMPANY, BY GRANT DEED RECORDED OCTOBER 13, 2015 AT 11:28 AM IN DOCUMENT NO. HYPERLINK "https://docs.clarityfirst.com/meta/index?m=ff1877e0-016d-4b55-bc91-a8998e85a21a&q=q7WmzVDH640n1ptZJogyYeyptH4GTjjaHRy9FkwhuuKqo%3d&h=9b9e526b-1058-47ef-90d4-a4e10995cff1"2015-0041365 OFFICIAL RECORDS OF SANTA CRUZ COUNTY, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE NORTHWESTERN BOUNDARY OF THE LANDS CONVEYED TO THE SANTA CRUZ COUNTY REGIONAL TRANSPORTATION COMMISSION BY QUITCLAIM DEED RECORDED OCTOBER 12, 2012 AT 8:36 AM IN DOCUMENT NO. 2012-0050154 OFFICIAL RECORDS OF SANTA CRUZ COUNTY FROM WHICH THE INTERSECTION OF SAID NORTHWESTERN BOUNDARY WITH THE EASTERN BOUNDARY OF CALIFORNIA STATE HIGHWAY ROUTE NO. 1 AS SHOWN ON THAT CERTAIN MAP ENTITLED "RECORD OF SURVEY - MANABE WETLANDS RESTORATION PROJECT" FILED FOR RECORD MAY 22, 2015 IN HYPERLINK "https://docs.clarityfirst.com/meta/index?m=ff1877e0-016d-4b55-bc91-a8998e85a21a&q=q7WmzVDH640n1ptZJogvtlAWUrdIWNfpCcfvbJL0%3d&h=90327197-b699-4a7f-9edc-c72eb77b9565"2012-0050154 OFFICIAL RECORDS OF SANTA CRUZ COUNTY FROM WHICH THE INTERSECTION OF SAID NORTHWESTERN BOUNDARY WITH THE EASTERN BOUNDARY OF CALIFORNIA STATE HIGHWAY ROUTE NO. 1 AS SHOWN ON THAT CERTAIN MAP ENTITLED "RECORD OF SURVEY - MANABE WETLANDS RESTORATION PROJECT" FILED FOR RECORD MAY 22, 2015 IN HYPERLINK "https://docs.clarityfirst.com/meta/index?m=ff1877e0-016d-4b55-bc91-a8998e85a21a&q=q7WmzVDH640n1ptZJogybiCj38y6oejjouFPRIZ3XE%3d&h=428b5998-34c7-422e-837a-416ad648abf7"VOLUME 123 OF MAPS, PAGE 21, SANTA CRUZ COUNTY RECORDS BEARS SOUTH 51° 10' 29" WEST 925.48 FEET DISTANT; THENCE FROM SAID POINT OF BEGINNING AND LEAVING SAID NORTHWESTERN BOUNDARY OF THE SANTA CRUZ COUNTY REGIONAL TRANSPORTATION COMMISSION NORTH 21° 38' 53" WEST 641.87 FEET TO THE SOUTHERN BOUNDARY OF MANABE OW ROAD, A CITY STREET 78 FEET WIDE, AS CONVEYED TO THE CITY OF WATSONVILLE, A MUNICIPAL CORPORATION BY GRANT DEED RECORDED SEPTEMBER 1, 2016 AT 7:47 AM IN DOCUMENT NO. HYPERLINK "https://docs.clarityfirst.com/meta/index?m=ff1877e0-016d-4b55-bc91-a8998e85a21a&q=q7WmzVDH640n1ptZUogvdpT8uccyptvd0SrE7Ik2RDLf%3d&h=d513f7a6-b843-4a54-ab5b-f8e2ddd87c04"2016- HYPERLINK "https://docs.clarityfirst.com/meta/index?m=ff1877e0-016d-4b55-bc91-a8998e85a21a&q=q7WmzVDH640n1ptZJogvdpT8uccyptvd0SrE7Ik2RDL%3d&h=d513f7a6-b843-4a54-ab5b-f8e2ddd87c04"0032795 OFFICIAL RECORDS OF SANTA CRUZ COUNTY; THENCE ALONG SAID SOUTHERN BOUNDARY THEREOF NORTH 68° 21' 07" EAST 632.96 FEET TO A POINT OF CURVATURE; THENCE ALONG A NON-TANGENT CURVE TO THE RIGHT WITH A RADIAL BEARING OF SOUTH 12° 47' 23" EAST, A RADIUS OF
55.50 FEET, THROUGH A CENTRAL ANGLE OF 37° 09' 23" AND AN ARC LENGTH OF 35.99 FEET TO THE END OF SAID CURVE; THENCE LEAVING SAID CURVE SOUTH 65° 38' 00" EAST 5.34 TO THE WESTERN BOUNDARY OF OHLONE PARKWAY, A CITY STREET 110 FEET WIDE) AS SHOWN ON THE ABOVE SAID RECORD OF SURVEY MAP; THENCE LEAVING MANABE OW ROAD AND ALONG SAID WESTERN BOUNDARY OF OHLONE PARKWAY SOUTH 22° 12' 23" EAST 414.00 FEET TO THE INTERSECTION WITH THE HEREINABOVE DESCRIBED NORTHWESTERN BOUNDARY OF THE LANDS CONVEYED TO THE SANTA CRUZ COUNTY REGIONAL TRANSPORTATION COMMISSION; THENCE ALONG SAID NORTHWESTERN BOUNDARY THEREOF SOUTH 51° 10' 29" WEST 703.47 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION.

THIS LEGAL DESCRIPTION IS MADE PURSUANT TO THAT CERTAIN CERTIFICATE OF COMPLIANCE RECORDED JULY 24, 2018, AS INSTRUMENT NO. 2018-022649 OF OFFICIAL RECORDS.

PROJECT TEAM

ARCHITECT OF RECORD
RYAN A+E, INC.
4275 EXECUTIVE SQUARE, SUITE 370
LA JOLLA, CA
PHONE: (858) 812-7910
LORI JOHNSON
Lori.Johnson@RyanCompanies.com

CIVIL ENGINEER
BOWMAN & WILLIAMS CIVIL ENGINEERS AND LAND SURVEYORS
3949 RESEARCH PARK COURT, SUITE 100
SOQUEL, CA 95073
PHONE: (831) 426-3560
JOEL RICCA
Joel@bowmanandwilliams.com

LANDSCAPE ARCHITECT
SSA LANDSCAPE ARCHITECTS, INC.
303 POTRERO ST., SUITE 40-C
SANTA CRUZ, CA 95060
PHONE: (831) 459-0455
CHRISTIAN HARRIS
christian@ssala.com

ELECTRICAL
KRAEMER CONSULTING ENGINEERS, P.L.L.C.
2050 WEST WHISPERING WIND DR., SUITE 158
PHOENIX, AZ 85085
PHONE: (602) 285-1669
JAMES JONES, JR.
jj@kraemereng.com

OWNER
LONE OAK-WATSONVILLE, L.L.C
6250 NORTH RIVER ROAD
ROSEMONT, IL 60018
(847) 430-9766
PEHR PETERSON
PAPeterson@reyesholdings.com

DESIGN/BUILDER
RYAN COMPANIES US, INC.
4275 EXECUTIVE SQUARE, SUITE 370
LA JOLLA, CA
PHONE: (858) 812-7910
MICHAEL BEADLE
Michael.Beadle@RyanCcompanies.com

PROJECT MANAGER
RYAN COMPANIES US, INC.
533 SOUTH THIRD STREET, SUITE 100
MINNEAPOLIS, MN 55415
PHONE: (612) 492-4679
MARK SHEFCHIK
Mark.Shefchik@RyanCompanies.com

RYAN

RYAN A+E, INC.
4275 Executive Square, Suite 370
La Jolla, CA 92037
858-812-7910 tel
858-812-7930 fax

WWW.RYANCOMPANIES.COM

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CONSULTANTS

SSA LANDSCAPE ARCHITECTS creating better places

BOWMAN & WILLIAMS CONSULTING CIVIL ENGINEERS & LAND SURVEYORS

Kraemer Consulting Engineers, PLLC.
Mechanical and Electrical Engineers
2050 West Whispering Wind Dr. - Suite 158
Phoenix, Arizona 85085-2864
(602) 285-1669
(602) 285-8450 - fax
JOB #

PROJECT INFORMATION

Lone Oak-Watsonville, L.L.C.

WATSONVILLE, CA 95076

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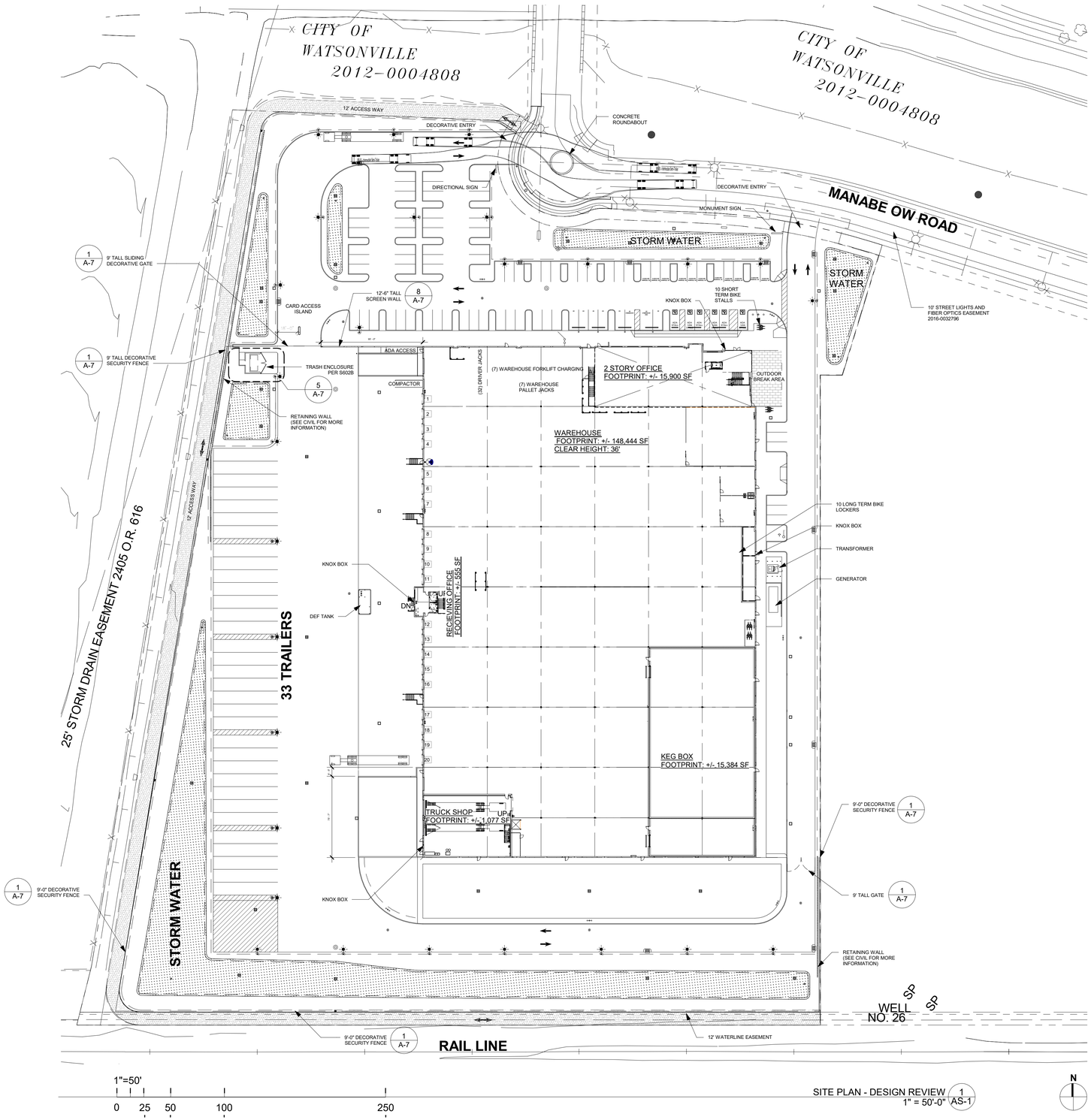
DRAWN BY	CHECKED BY
Author	Checker
JOB NO.	**DATE**
701-048	2022-07-15

1	07-27-21	DESIGN REVIEW SUBMITTAL
2	09-30-21	DESIGN REVIEW RESUBMITTAL
3	01-14-22	DESIGN REVIEW RESUBMITTAL
4	04-18-22	DESIGN REVIEW RESUBMITTAL
5	07-15-22	DESIGN REVIEW RESUBMITTAL

DESIGN REVIEW RESUBMITTAL
2022.07.15

TITLE SHEET

G-1



PROJECT INFORMATION

ASSESSOR'S PARCEL NUMBER:	**018-711-33**
ZONING:	**MANABE OW SPECIFIC PLAN IL -INDUSTRIAL**
LEGAL DESCRIPTION:	**REFER TO TITLE SHEET**
PROJECT DESCRIPTION:	± 11.5 AC OF THE TOTAL SITE WILL BE DEVELOPED FOR A NEW DISTRIBUTION FACILITY. THE BUILDING IS ±156,200 SF. THERE WILL BE A ±7,950 SF MEZZANINE FOR THE OFFICE. NEW LANDSCAPING, NEW PARKING, NEW SITE LIGHTING, NEW STORM WATER DETENTION. 9'-0" TALL SECURITY FENCING WILL BE PLACED AROUND THE TRUCK COURT.
CURRENT LAND USE:	**VACANT COMMERCIAL LAND LOCATED IN THE MANABE OW SPECIFIC PLAN AREA. SITE IS DESIGNATED AS BUSINESS PARK WITH INDUSTRIAL USE.**
PROPOSED LAND USE:	**INDUSTRIAL USE WAREHOUSE AND DISTRIBUTION**
LANDSCAPE AREA:	**103,334 SQ.FT.** **103,334 SQ.FT. / 502,351.6 SQ.FT = 21%**

SITE SUMMARY:

GROSS SITE AREA:	**+/- 502,351.6 SQ.FT. (11.5 ACRES)**
DETENTION AREA:	**+/- 59,000 SQ.FT. (@ 8.5%)**
DRIVE AISLE AREA:	**+/- 492,284.7 SQ.FT.**

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BUILDING FOOTPRINT:	**+/- 147,379 SQ.FT. (@25.8%)**
MEZZANINE:	**+/- 9,582 SQ.FT.**
TOTAL BUILDING AREA:	**+/- 156,961 SQ.FT.**
	FAR = G/B
	FAR = 502,351.6 / 158,026
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BUILDING TYPE:	**TYPE IIIB FULLY SPRINKLERED ESFR**
BUILDING OCCUPANCY:	**PRIMARY S-2 ACCESSORY S-1, B, A**
	UNLIMITED BUILDING AREA PER CBC 507

PARKING SUMMARY:

AUTO STALLS REQUIRED:

OFFICE:
0 TO 20,000 SQUARE FEET FLOOR AREA, 1 SPACE FOR EACH 300 SF FLOOR AREA, PLUS 1 SPACE FOR EACH 500 SF FLOOR AREA IN EXCESS OF 20,000 SQUARE FEET = 53 STALLS

WAREHOUSE:
5 SPACES, PLUS 1 SPACE FOR EACH EMPLOYEE ON THE SHIFT WITH THE MAXIMUM NUMBER OF PERSONNEL = 40 STALLS

TOTAL REQUIRED = 93 STALLS

TRUCK DOCKS PROVIDED:		**20 STALLS**
TRAILER STALL PROVIDED:		**33 TRAILERS**
TRAILER BAY:		**2 STALLS**
GRADE DOORS:		**6**
AUTO STALLS PROVIDED:		**93 STALLS @ .7/1000**
BICYCLE STALLS PROVIDED: RACKS	**REQUIRED: 9**	**PROVIDED: 10**
LONG TERM LOCKERS	**REQUIRED: 9**	**PROVIDED: 10**
ADA STALLS:	**REQUIRED: 7**	**PROVIDED: 8**
EV STALLS:	**REQUIRED: 10**	**PROVIDED: 10**
CLEAN AIR/VANPOOL/EV STALLS:	**REQUIRED: 16**	**PROVIDED: 16**

EMPLOYEE SCHEDULE:

DELIVERY - GROUP A	**8**	**MONDAY THRU FRIDAY**	**4:00AM TO 1:00PM**
DELIVERY - GROUP B	**8**	**MONDAY THRU FRIDAY**	**5:30AM TO 2:30PM**
DELIVERY - GROUP C	**8**	**MONDAY THRU FRIDAY**	**7:00AM TO 4:00PM**
WAREHOUSE - DAY	**6**	**MONDAY THRU FRIDAY**	**5:00AM TO 2:00PM**
WAREHOUSE - SWING	**3**	**MONDAY THRU FRIDAY**	**11:00AM TO 8:00PM**
WAREHOUSE - NIGHT	**15**	**SUNDAY THRU THURSDAY**	**6:00PM TO 4:00AM**
SALES	**25**	**N/A**	**N/A**
ADMIN	**2**	**MONDAY THRU FRIDAY**	**8:00AM TO 5:00PM**

GENERAL NOTES:

1. ALL GATES WILL REQUIRE THE INSTALLATION OF KNOX OVERRIDE SWITCHES.
2. EMERGENCY RESPONDER RADIO COVERAGE SYSTEM WILL BE REQUIRED.
3. ALL FIRE HYDRANTS WILL BE PRIVATE HYDRANTS AND WILL BE PAINTED SAFETY RED AND MAINTAINED IN ACCORDANCE WITH NFPA 20 & 24.
4. CLASS I STANDPIPES SHALL BE INSTALLED.
5. NO TRUCK WASHING WILL BE PERFORMED ON SITE, NO SEWER ALLOWED IN TRUCK AREA.

RYAN

RYAN A+E, INC.
4275 Executive Square, Suite 370
La Jolla, CA 92037
858-812-7910 tel
858-812-7930 fax

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7502 E. Monterosa Mesa Dr. - Suite 156
Phoenix, Arizona 85020-2864
(602) 285-1669
(602) 285-94450 - fax
JOB #

PROJECT INFORMATION

Lone Oak-Watsonville, L.L.C.

WATSONVILLE, CA 95076

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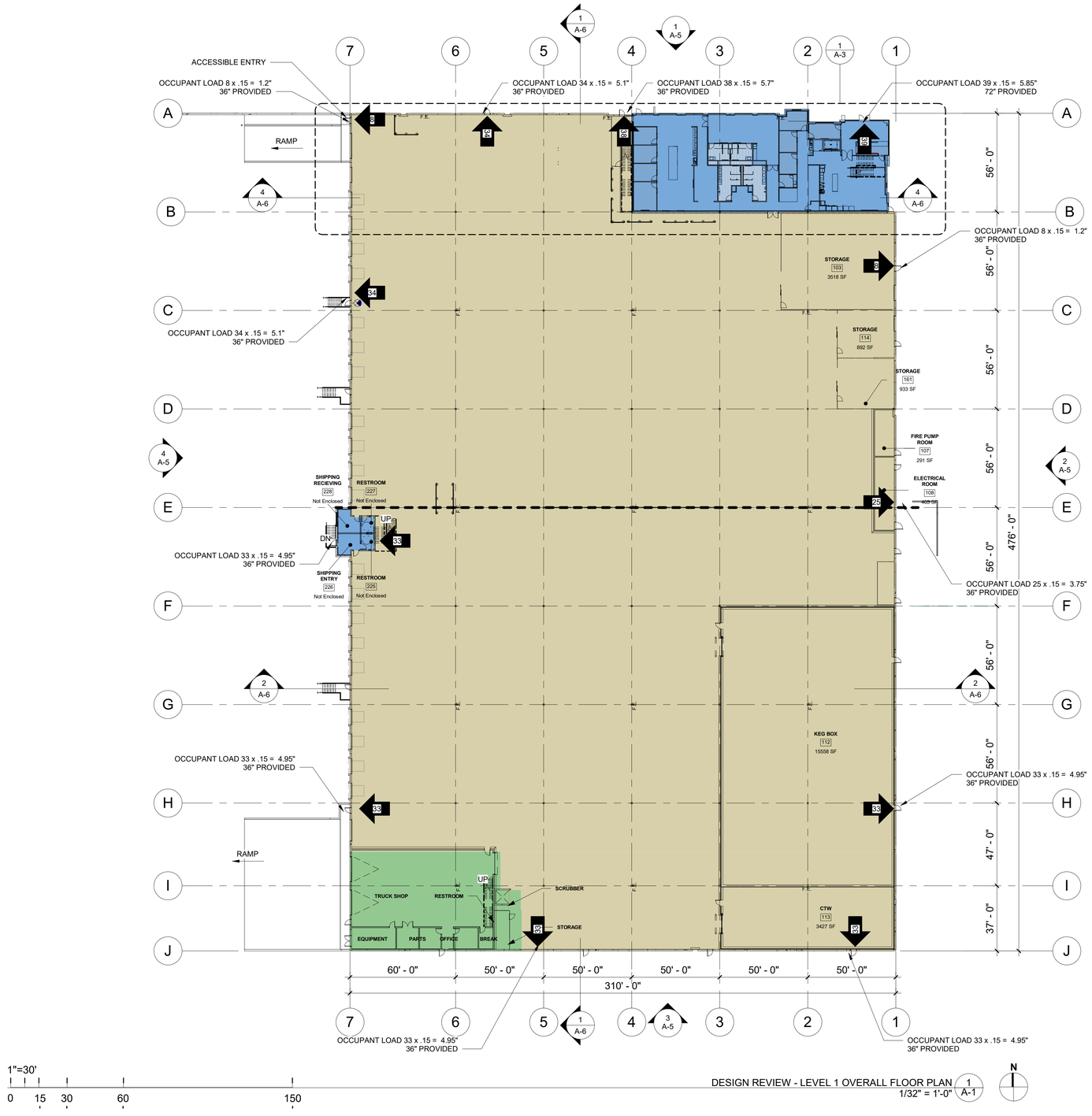
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JOB NO. 701-048	**DATE** 2022-07-15

1	07-27-21	DESIGN REVIEW SUBMITTAL
2	09-30-21	DESIGN REVIEW RESUBMITTAL
3	01-14-22	DESIGN REVIEW RESUBMITTAL
4	04-18-22	DESIGN REVIEW RESUBMITTAL
5	07-15-22	DESIGN REVIEW RESUBMITTAL

DESIGN REVIEW RESUBMITTAL
2022.07.15

SITE PLAN

AS-1



OCCUPANCY

OCCUPANCY		FLOOR AREA
	BUSINESS AREAS (B)	150 GROSS
	ASSEMBLY (A-2)(A-3) NO FIXED SEATING - CONCENTRATED (CHAIRS)	7 NET
	- STANDING SPACE	5 NET
	- UNCONCENTRATED	15 NET
	ASSEMBLY (A-5) NO FIXED SEATING	15 NET
	STORAGE (ACCESSORY) (S-1)	500 GROSS
	STORAGE (S-2)	500 GROSS
	CIRCULATION	N.O.
	VERTICAL CIRCULATION	N.O.

TRAVEL DISTANCE

EXIT ACCESS TRAVEL DISTANCE PER:

WITH SPRINKLERS:

OCCUPANCY		MAX. TRAVEL DISTANCE
BUSINESS AREAS	(B)	300'
ASSEMBLY: NO FIXED SEATING (A-2)		250'
STORAGE: ACCESSORY	(S-1)	400'
STORAGE	(S-2)	400'
UTILITY / MISC. SERVICES	(U-1)	400'

EGRESS

- 1 — NUMBER OF OCCUPANTS EXITING FROM ANOTHER LEVEL
- 50 — COMBINED NUMBER OF OCCUPANTS EXITING FROM SMALLER SPACE INTO LARGER SPACE
- 50 — NUMBER OF OCCUPANTS EXITING FROM SPACE
- 50 — NUMBER OF OCCUPANTS UTILIZING EXITING FROM SPACE
- INDICATES EGRESS PATH
- INDICATES EGRESS EXIT

OCCUPANCY LOAD 1ST FLOOR

Rm. No.	Name	Occupancy Type	Area	S.F. Per Person	Persons
103	STORAGE		3518 SF		
106	RE-PACK		Not Placed		
107	FIRE PUMP ROOM		291 SF		
108	ELECTRICAL ROOM		463 SF		
112	KEG BOX		15558 SF		
113	CTW		3427 SF		
114	STORAGE		892 SF		
115	DRAFT		Not Placed		
116	TRUCK SHOP		4523 SF		
117	STORAGE		192 SF		
118	WAREHOUSE		Not Placed		
118	WAREHOUSE		114836 SF		
119	RESTROOM 01		68 SF		
120	WOMEN'S RESTROOM		Not Placed		
120	RESTROOM 02		68 SF		
121	SHIPPING & RECEIVING OFFICE		303 SF		
122	DRIVERS OFFICE		Not Placed		
127	WAREHOUSE	S-1	Not Placed	500	
139	FIRE RISER ROOM		Not Placed	100	
140	ELECTRICAL ROOM		Not Placed	100	
141	DRAFT	S-2	Not Placed	500	
142	RE-PACK	S-2	Not Placed	500	
153	ELEVATOR		Not Placed		
153	ELEVATOR		55 SF		
154	MECH.		Not Placed		
154	PANEL ROOM		29 SF		
155	MECH ROOM		Not Placed		
155	DRAFT		Not Placed		
156	FUTURE OFFICE		Not Placed		
156	BIKE LOCKER		Not Placed		
156	BIKE LOCKER		238 SF		
157	SCRUBBER		64 SF		
158	WAREHOUSE		Not Placed		
160	ELEVATOR		Not Placed		
160	ELEVATOR		55 SF		
161	STORAGE		933 SF		
162	SHIPPING & RECEIVING OFFICE		454 SF		
250	SCRUBBER	B	121534 SF	100	1215
					1215

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RYAN A+E, INC.
4275 Executive Square, Suite 370
La Jolla, CA 92037
858-812-7910 tel
858-812-7930 fax

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(602) 285-1669
(602) 285-94450 - fax
JOB #

PROJECT INFORMATION

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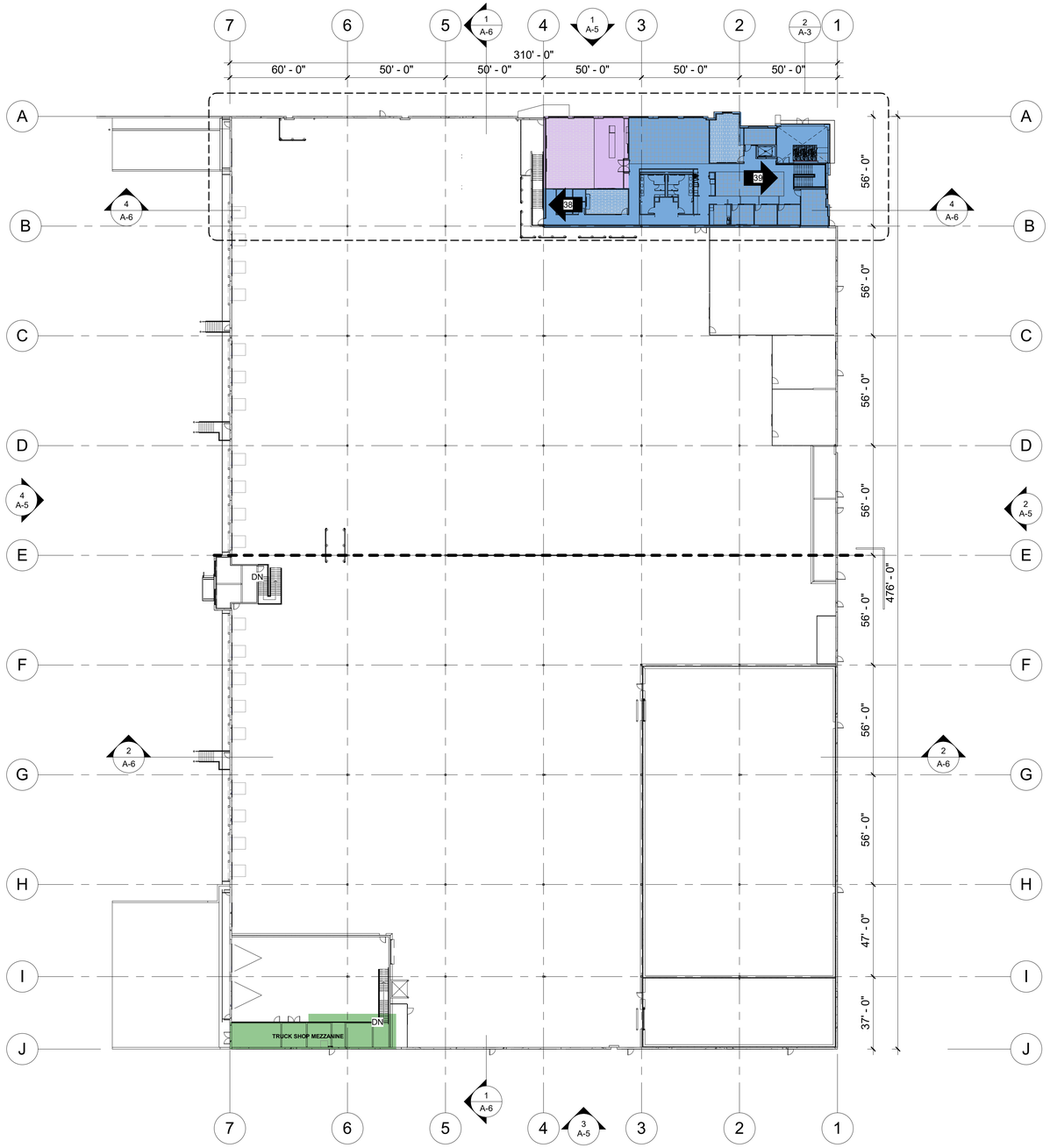
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2022.07.15

FLOOR PLAN

A-1



1"=30'

0 15 30 60 150

DESIGN REVIEW - MEZZANINE PLAN 1 A-2
1/32" = 1'-0"

N

OCCUPANCY

OCCUPANCY	FLOOR AREA
BUSINESS AREAS (B)	150 GROSS
ASSEMBLY (A-2)(A-3) NO FIXED SEATING - CONCENTRATED (CHAIRS)	7 NET
- STANDING SPACE	5 NET
- UNCONCENTRATED	15 NET
ASSEMBLY (A-5) NO FIXED SEATING	15 NET
STORAGE (ACCESSORY) (S-1)	500 GROSS
STORAGE (S-2)	500 GROSS
CIRCULATION	N.O.
VERTICAL CIRCULATION	N.O.

TRAVEL DISTANCE

EXIT ACCESS TRAVEL DISTANCE PER:

WITH SPRINKLERS:

OCCUPANCY		MAX. TRAVEL DISTANCE
BUSINESS AREAS	(B)	300'
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STORAGE	(S-2)	400'
UTILITY / MISC. SERVICES	(U-1)	400'

EGRESS

1 NUMBER OF OCCUPANTS EXITING FROM ANOTHER LEVEL

50 COMBINED NUMBER OF OCCUPANTS EXITING FROM SMALLER SPACE INTO LARGER SPACE

50 NUMBER OF OCCUPANTS EXITING FROM SPACE

50 NUMBER OF OCCUPANTS UTILIZING EXITING FROM SPACE

INDICATES EGRESS PATH

INDICATES EGRESS EXIT

Occupancy Tabulation Per 2003 IBC Table 1004.12 MEZZ LEVEL

Rm. No.	Name	Room Occupancy	Occupancy Type	Area	S.F. Per Person	Persons
250	SCRUBBER	Business Areas	B	121534 SF	100	1215
						1215

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La Jolla, CA 92037
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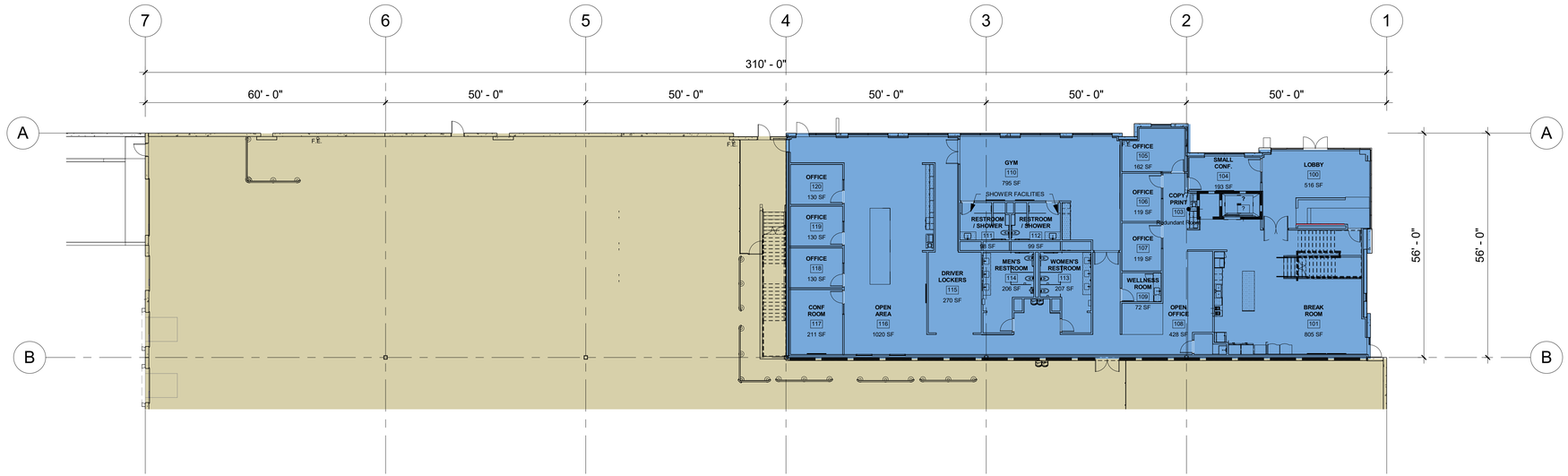
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MEZZANINE PLAN

A-2

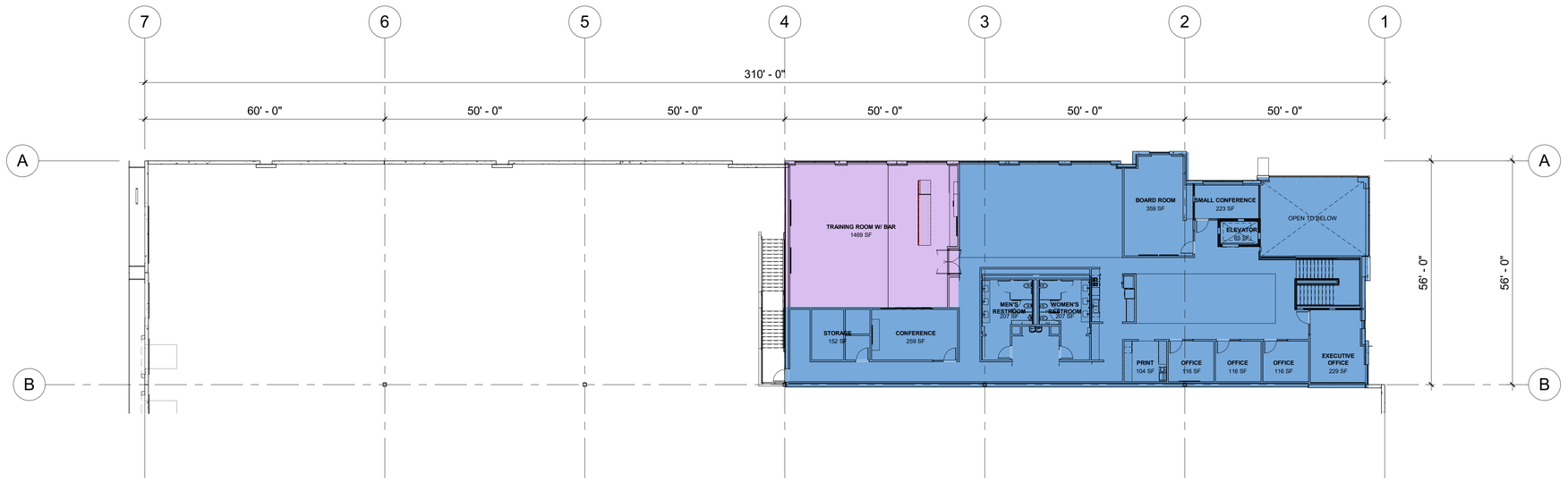


1/16"=1'-0"

0 8' 16' 32 64

DESIGN REVIEW - LEVEL 1 ENLARGED PLAN 1 / A-3
1/16" = 1'-0"

N



1/16"=1'-0"

0 8' 16' 32 64

DESIGN REVIEW - MEZZANINE ENLARGED PLAN 2 / A-3
1/16" = 1'-0"

N

OCCUPANCY

OCCUPANCY	FLOOR AREA
BUSINESS AREAS (B)	150 GROSS
ASSEMBLY (A-2)(A-3) NO FIXED SEATING - CONCENTRATED (CHAIRS)	7 NET
- STANDING SPACE	5 NET
- UNCONCENTRATED	15 NET
ASSEMBLY (A-5) NO FIXED SEATING	15 NET
STORAGE (ACCESSORY) (S-1)	500 GROSS
STORAGE (S-2)	500 GROSS
CIRCULATION	N.O.
VERTICAL CIRCULATION	N.O.

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Phoenix, Arizona 85283-2864
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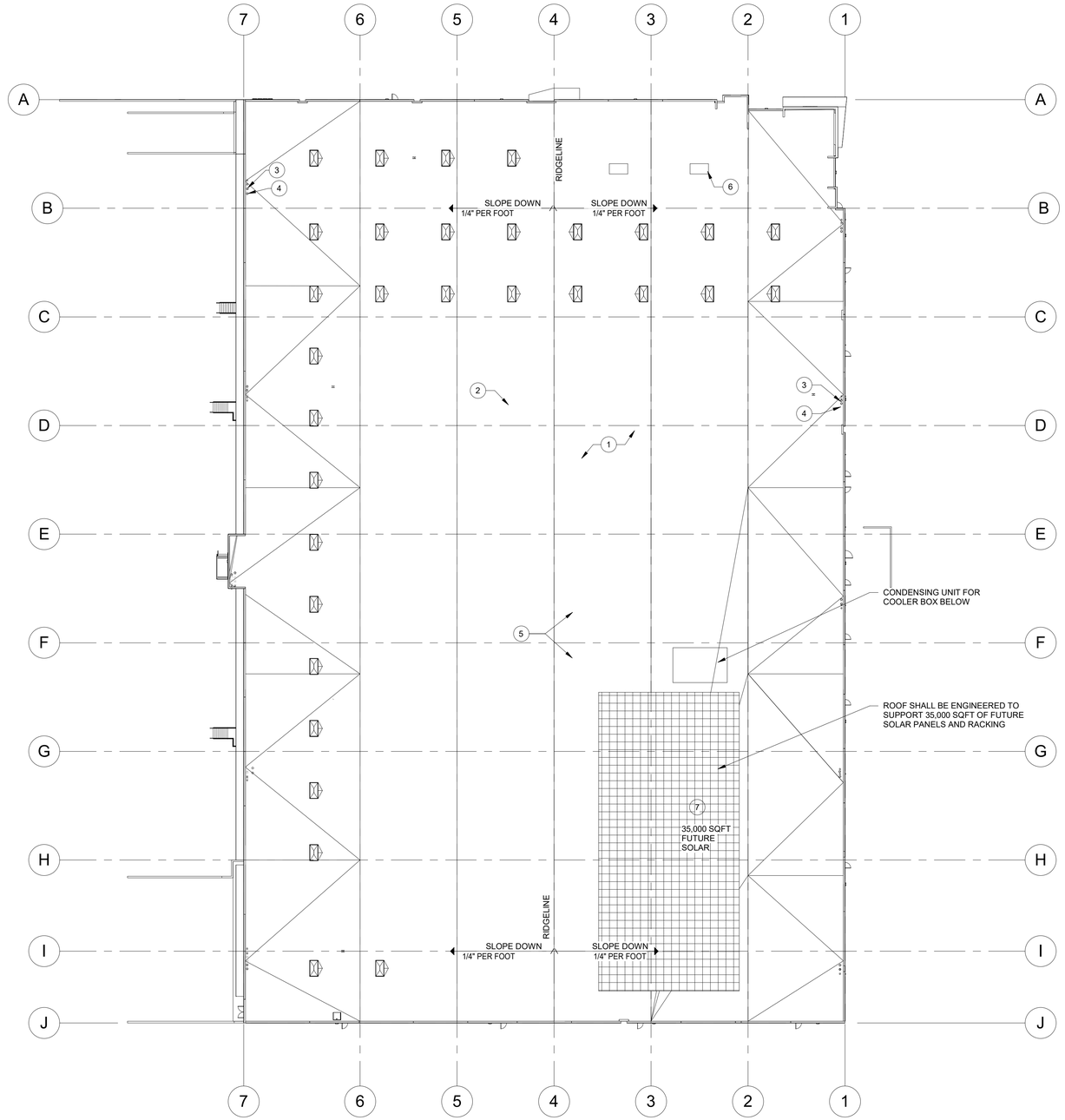
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ENLARGED FLOOR PLANS

A-3



1"=30'

0 15 30 60 150

DESIGN REVIEW - ROOF PLAN (1 / A-4)
1/32" = 1'-0"

N

GENERAL NOTES

1. REFER TO STRUCTURAL DRAWINGS FOR SLAB ON GRADE CONSTRUCTION, CONTROL AND ISOLATION JOINTS.
2. COORDINATE UNDERGROUND AND UNDER SLAB UTILITIES WITH RELEVANT TRADES PRIOR TO SLAB POUR. COORDINATE ALL SLEEVES THROUGH/UNDER FOOTING AND FOUNDATION W/ STRUCTURAL ENGINEER.
3. ALL WALLS TO ROOF DECK TO BE CONSTRUCTED TO ACCOMMODATE DEFLECTION OF ROOF STRUCTURE.
4. REFER TO STRUCTURAL ENGINEERING DRAWINGS FOR ADDITIONAL INFORMATION PERTAINING TO STRUCTURAL COMPONENT SIZES, LOCATIONS, CONFIGURATIONS, AND CAPACITIES.
5. STAIR SUPPLIER SHALL BE RESONSIBLE FOR CODE COMPLIANCE AND STRUCTURAL INTEGRITY FOR ALL MATERIALS FURNISHED.
6. PROVIDE FIRE EXTINGUISHERS OF SIZE AND TYPE AND LOCATION AS REQUIRED BY THE FIRE MARSHALL.
7. ROOFING SYSTEM TO BE 60-MIL TPO MECHANICALLY FASTENED ROOFING SYSTEM OVER 1/2" RETRO-FIT BOARD AND 2 LAYERS OF 2½" POLY ISO INSULATION (R-30).
8. ALL EQUIPMENT SHOWN FOR REFERENCE ONLY. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR EXACT EQUIPMENT, SIZE AND LOCATION.

DIMENSIONS:

1. SUBCONTRACTOR TO VERIFY DIMENSIONS AND CONDITIONS SHOWN ON THESE DRAWINGS ANY OMISSIONS, DISCREPANCIES, OR CONFLICTS MUST BE REPORTED TO THE DESIGN BUILD IMMEDIATELY.
2. DIMENSIONS ARE AT 3'-0" ABOVE FINISHED FLOOR AND FROM FACE OF FINISHED PARTITION UNLESS NOTED OTHERWISE.
3. DRAWINGS SHOULD NOT BE SCALED - DIMENSIONS GOVERN. LARGE SCALE DRAWINGS GOVERN OVER SMALL SCALE DRAWINGS.
4. DIMENSIONS AT EXTERIOR WALLS ARE TAKEN TO EXTERIOR FACE OF CONCRETE WALL OR TO EXTERIOR SIDE OF SHEATHING UNLESS NOTED OTHERWISE.
5. DIMENSIONS AT INTERIOR WALLS ARE TAKEN TO FACE OF GYP UNLESS NOTED OTHERWISE.

ROOF PLAN KEYNOTES

1. SINGLE PLY ROOF WITH REFLECTIVE MEMBRANE
2. 4'-0" x 8'-0" SKYLIGHT
3. PRIMARY ROOF DRAIN
4. SECONDARY ROOF DRAIN
5. TAPERED INSULATION CRICKET
6. MECHANICAL UNIT
7. APPX LOCATION OF FUTURE SOLAR PANELS

ADDITIONAL NOTES PER ROOF PLAN

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858-812-7910 tel
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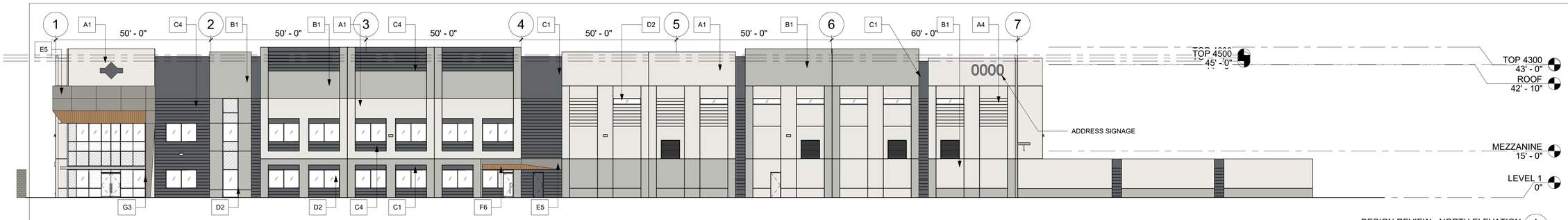
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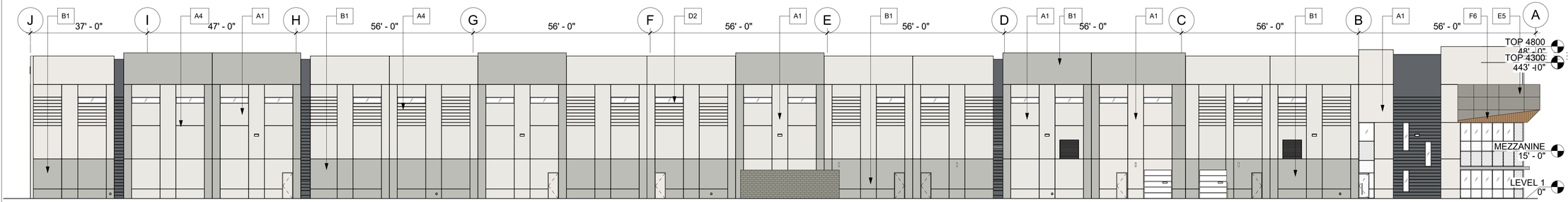
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ROOF PLAN

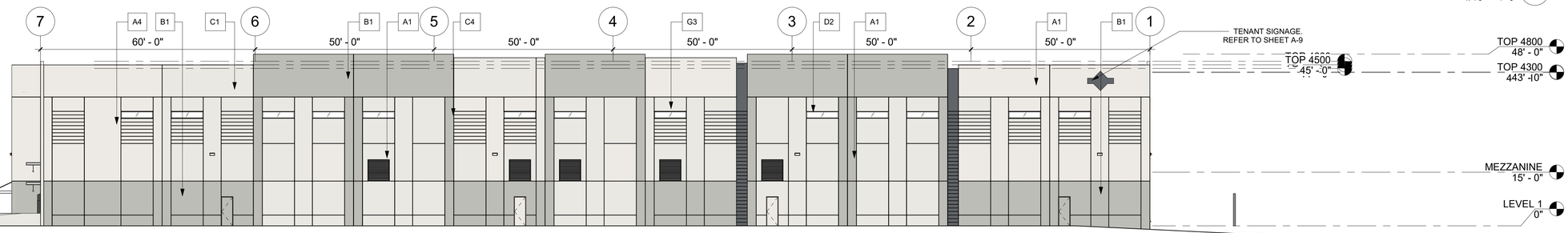
A-4



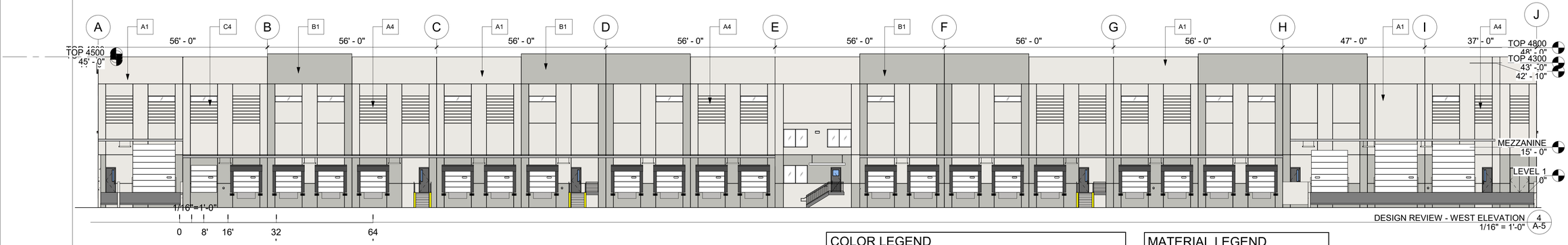
DESIGN REVIEW - NORTH ELEVATION 1/16" = 1'-0" (1 / A-5)



DESIGN REVIEW - EAST ELEVATION 1/16" = 1'-0" (2 / A-5)



DESIGN REVIEW - SOUTH ELEVATION 1/16" = 1'-0" (3 / A-5)



DESIGN REVIEW - WEST ELEVATION 1/16" = 1'-0" (4 / A-5)

COLOR LEGEND

A	PT-1 SHERWIN WILLIAMS SNOWBOUND MATTE 7004	
B	PT-2 SHERWIN WILLIAMS ARGOS MATTE 7065	
C	PT-3 SHERWIN WILLIAMS WEB GRAY MATTE 7075	
D	KAWNEER CLEAR ANODIZED ALUMINUM	
E	ALPOLIC METAL COMPOSITE MATERIAL AZZ QUARTZ ZINC	
F	ALPOLIC TIMBER SERIES TEAK 4-QBB-30 LRV N/A	
G	VITRO GLASS SOLAR BAN 60 SOLARGRAY + CLEAR	

MATERIAL LEGEND

1	TILT-UP CONCRETE
2	ALUMINUM STOREFRONT
3	1" INSULATED GLAZING
4	3/4" 'V' REVEAL
5	ALUMINUM COMPOSITE PANEL METAL FINISH
6	ALUMINUM COMPOSITE PANEL WOOD FINISH

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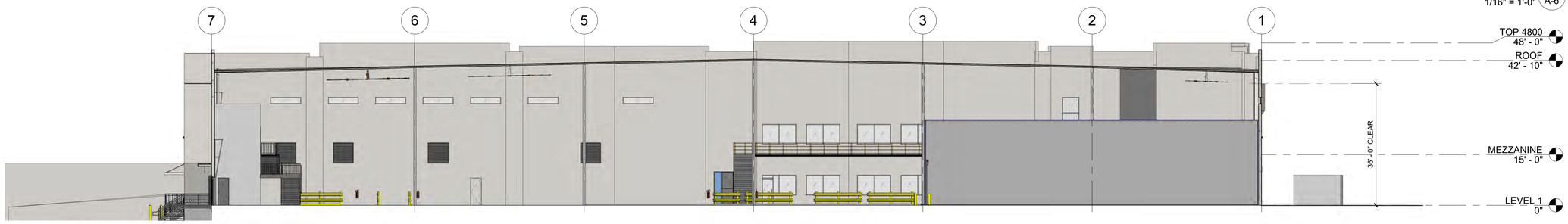
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EXTERIOR ELEVATIONS

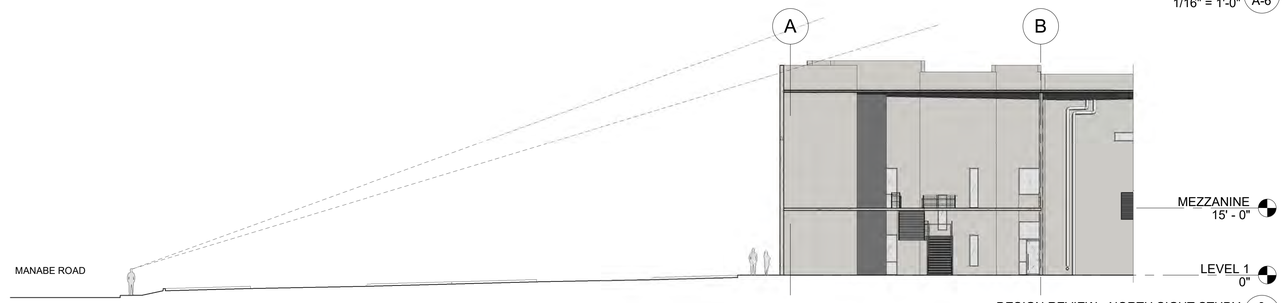
A-5



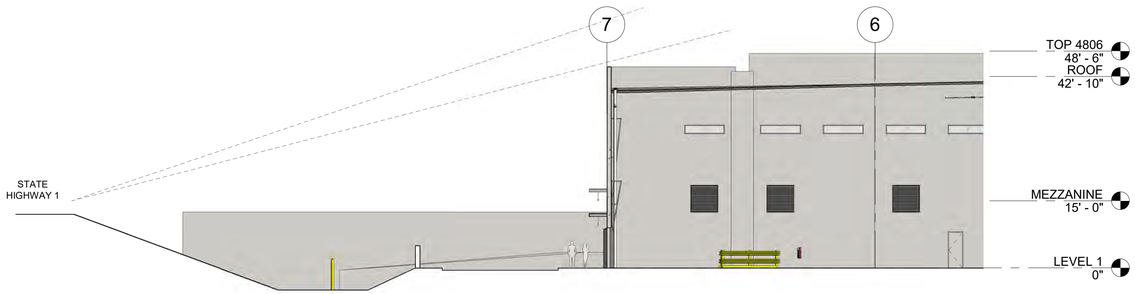
DESIGN REVIEW - N/S BUILDING SECTION (1 / A-6)
1/16" = 1'-0"



DESIGN REVIEW - E/W BUILDING SECTION (2 / A-6)
1/16" = 1'-0"



DESIGN REVIEW - NORTH SIGHT STUDY (3 / A-6)
1/16" = 1'-0"



DESIGN REVIEW - WEST SITE STUDY (4 / A-6)
1/16" = 1'-0"

1/16"=1'-0"

0 8' 16' 32 64

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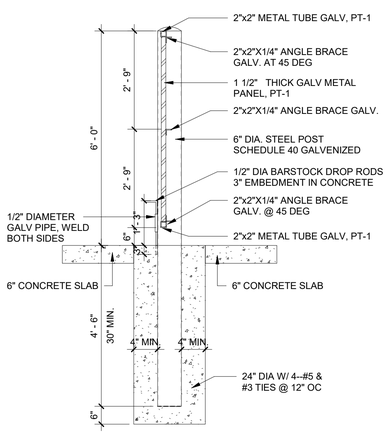
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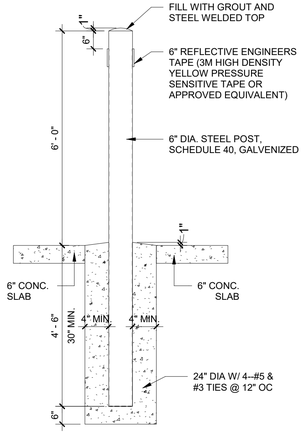
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BUILDING SECTIONS

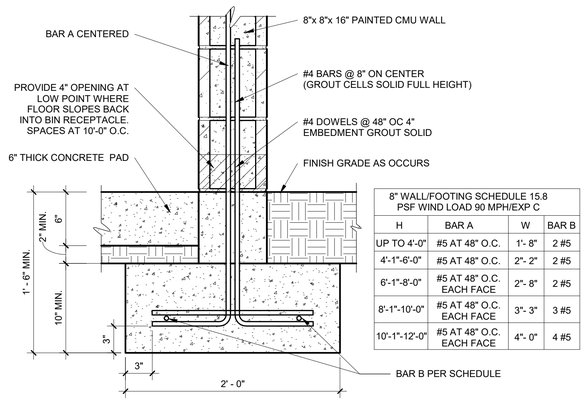
A-6



TRASH ENCLOSURE GATE DETAIL 4 A-7
1/2" = 1'-0"



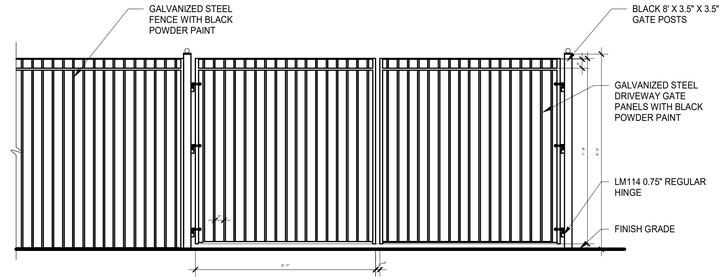
TRASH ENCLOSURE BOLLARD DETAIL 3 A-7
1/2" = 1'-0"



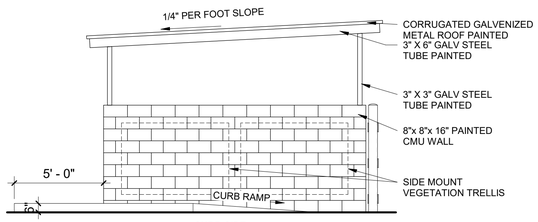
8" WALL/FOOTING SCHEDULE 15.8 PSF WIND LOAD 90 MPH/EXP C

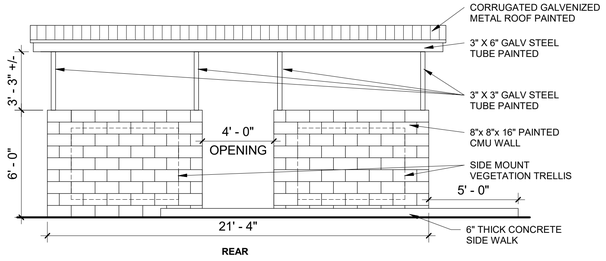
H	BAR A	W	BAR B
UP TO 4'-0"	#5 AT 48" O.C.	1'- 8"	2 #5
4'-1"-6'-0"	#5 AT 48" O.C.	2'- 2"	2 #5
6'-1"-8'-0"	#5 AT 48" O.C. EACH FACE	2'- 8"	2 #5
8'-1"-10'-0"	#5 AT 48" O.C. EACH FACE	3'- 3"	3 #5
10'-1"-12'-0"	#5 AT 48" O.C. EACH FACE	4'- 0"	4 #5

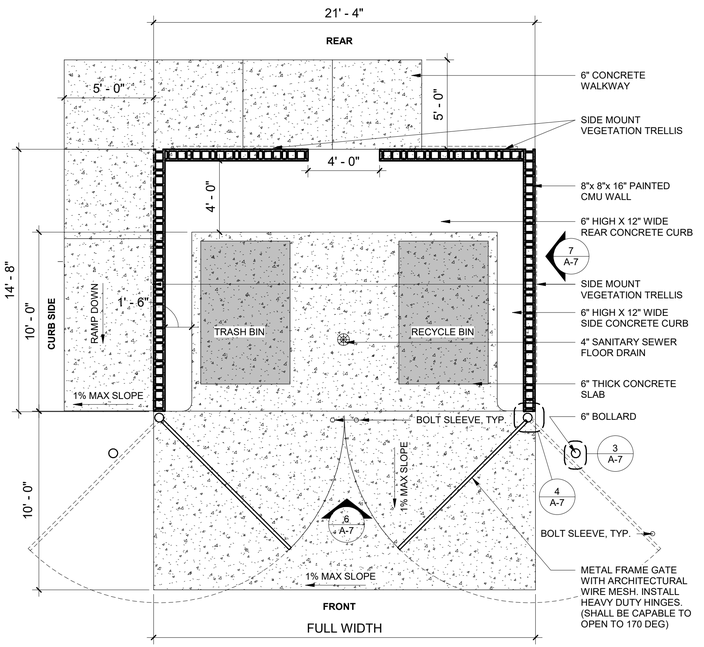
TRASH ENCLOSURE CMU WALL DETAIL 2 A-7
1 1/2" = 1'-0"



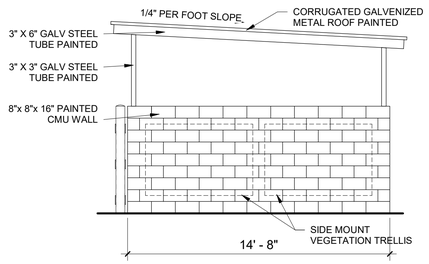
DECORATIVE FENCE/GATE 1 A-7
N.T.S.



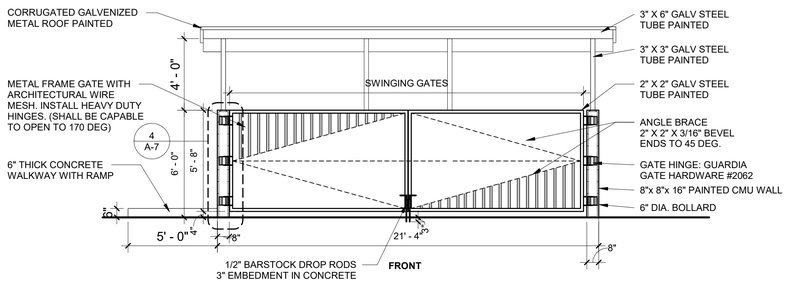




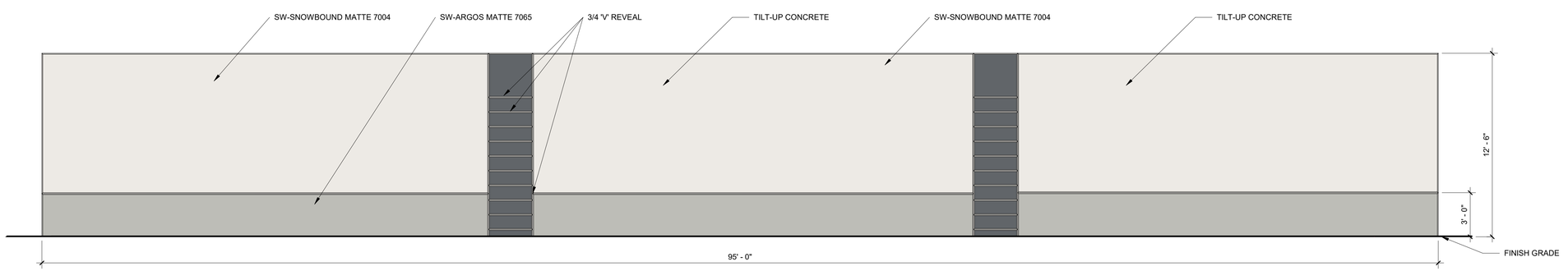
TRASH ENCLOSURE ENLARGED PLAN 5 A-7
1/4" = 1'-0"



TRASH ENCLOSURE SIDE ELEVATIONS 7 A-7
1/4" = 1'-0"



TRASH ENCLOSURE FRONT/REAR ELEVATIONS 6 A-7
1/4" = 1'-0"



SCREEN WALL 8 A-7
1/4" = 1'-0"

RYAN A+E, INC.
4275 Executive Square, Suite 370
La Jolla, CA 92037
858-812-7910 tel
858-812-7930 fax

WWW.RYANCOMPANIES.COM

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CONSULTANTS

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Kraemer Consulting Engineers, PLLC.
Mechanical and Electrical Engineers
7502 E. Monterosa Mesa Drive - Suite 156
Phoenix, Arizona 85020-2864
(602) 285-1669
(602) 285-94450 - fax
JOB #

PROJECT INFORMATION

Lone Oak-Watsonville, L.L.C.

WATSONVILLE, CA 95076

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Author	Checker
JOB NO.	**DATE**
701-048	2022-07-15

2	09-30-21	DESIGN REVIEW RESUBMITTAL
3	01-14-22	DESIGN REVIEW RESUBMITTAL

DESIGN REVIEW RESUBMITTAL
2022.07.15

TRASH ENCLOSURE, SCREEN WALLS, AND FENCES

A-7



NORTH-EAST CORNER BUILDING PERPECTIVE 1 A-8



SOUTH-WEST CORNER BUILDING PERPECTIVE 2 A-8



NORTH BUILDING PERPECTIVE 3 A-8

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Phoenix, Arizona 85020-2864
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DESIGN REVIEW RESUBMITTAL
2022.07.15

BUILDING 3D VIEWS

A-8



40.0 SQFT

FABRICATE (1) NON-ILLUMINATED WALL SIGN.
.080 ALUMINUM FACE WITH 2" RETURNS.
RAIL-MOUNTED FLUSH WITH WALL SURFACE.
PRINTED VINYL GRAPHICS.
RETURNS PAINTED BLACK.

MOUNTED ON TOP OF NORTH AND SOUTH ELEVATION PANEL,
CENTERED VERTICALLY AT BETWEEN CONCRETE PANEL JOINTS.



EXAMPLE SIGNAGE FOR REFERENCE ON EXISTING BUILDING

BUILDING SIGNAGE 1
1" = 1'-0" A-9



30.0 SQFT

FABRICATE (1) DOUBLE-FACED NON-ILLUMINATED MONUMENT SIGN.
.080 ALUMINUM FACE WITH 2" RETURNS.
STUD MOUNTED TO EXISTING MONUMENT.
PRINTED VINYL GRAPHICS.
RETURNS PAINTED BLACK.



EXAMPLE MONUMENT SIGNAGE FOR REFERENCE ON AN EXISTING BUILDING



1.4 SQFT

FABRICATE (1) SET OF ADDRESS NUMBERS.
.5" ACRYLIC PAINTED SATIN BLACK.
STUD MOUNTED TO EXISTING MONUMENT
ON STREET SIDE.

MONUMENT SIGNAGE 2
1" = 1'-0" A-9

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La Jolla, CA 92037
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Phoenix, Arizona 85050-2864
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DESIGN REVIEW RESUBMITTAL
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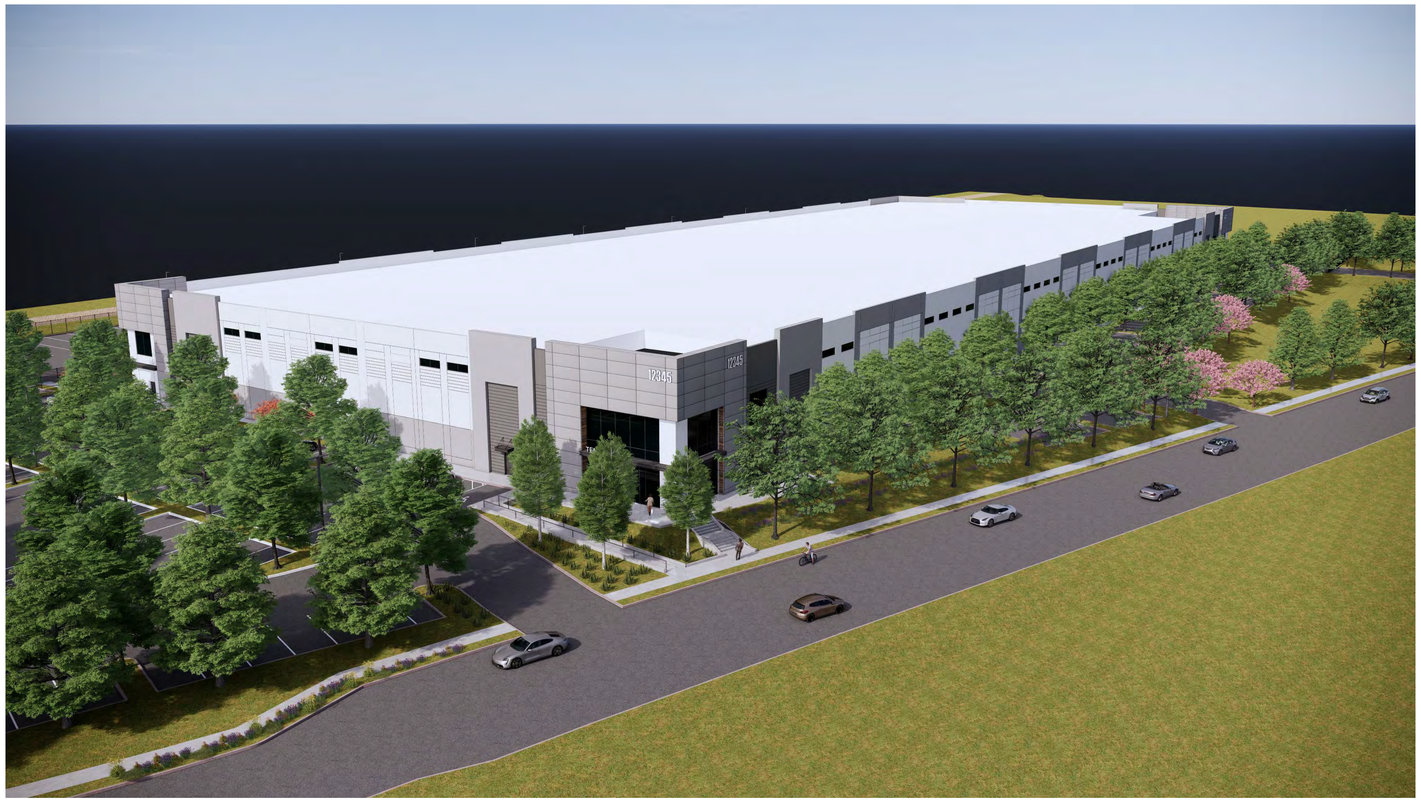
EXAMPLE SIGNAGE

A-9

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SHEET INDEX

TOTAL SHEETS: 41

ARCHITECTURAL

A0.1	TITLE SHEET
A0.1a	PERSPECTIVE VIEWS
A1.1	SITE PLAN
A1.1a	SITE PLAN - VEHICLE ACCESS
A1.1b	SITE PLAN - PEDESTRIAN ACCESS
A2.1	FIRST FLOOR PLAN
A3.1	ROOF PLAN
A4.1	EXTERIOR ELEVATIONS
A5.0	BUILDING & SITE SECTIONS

ARCHITECTURAL SHEET COUNT: 9

CIVIL

C0.0	COVER SHEET
C0.1	EXISTING CONDITIONS MAP - BOUNDARIES AND EASEMENTS
C1.1	EXISTING CONDITIONS MAP - TOPOGRAPHY
C1.2	PRELIMINARY DEMOLITION PLAN
C2.1	PRELIMINARY SITE PLAN
C2.3	PRELIMINARY STREET IMPROVEMENT PLANS
C3.1	PRELIMINARY GRADING PLAN
C3.2	PRELIMINARY CROSS SECTIONS
C4.0	PRELIMINARY DRAINAGE PLAN
C5.0	PRELIMINARY UTILITY PLAN
C6.0	PHASE 1 PRELIMINARY STORMWATER POLLUTION PREVENTION PLAN
C6.1	PHASE 2 PRELIMINARY STORMWATER POLLUTION PREVENTION PLAN
C6.2	PHASE 1 PRELIMINARY SEDIMENT TRAPS SIZING & DETAILS
C6.3	PRELIMINARY EROSION CONTROL DETAILS
C7.1	STANDARD DETAILS
C7.2	STANDARD DETAILS
C7.3	STANDARD LID DETAILS
C7.4	STANDARD LID DETAILS
C7.5	STANDARD LID DETAILS

CIVIL SHEET COUNT: 19

ELECTRICAL

P1	PRELIMINARY PHOTOMETRIC PLAN

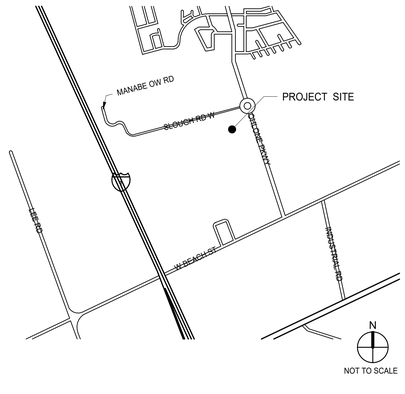
ELECTRICAL SHEET COUNT: 1

LANDSCAPE

L0	RECOMMENDED PLANT LIST, NOTES AND DETAILS
L1	PRELIMINARY LANDSCAPE PLAN
L2	PRELIMINARY LANDSCAPE PLAN
L3	PRELIMINARY LANDSCAPE PLAN
L4	PRELIMINARY LANDSCAPE PLAN

LANDSCAPE SHEET COUNT: 5

VICINITY MAP



OWNER

CA VENTURES

CA VENTURES
2303 MAIN STREET
SUITE 1300
IRVINE, CA 92614

PRIMARY CONTACT: WILLAIM LU
PH: (872) 259-1838
EMAIL: wlu@ca-ventures.com
ALTERNATE CONTACT: GEORGE ATALLA
PH:
EMAIL: gatalla@ca-ventures.com

OWNER'S CONSULTANTS

CIVIL ENGINEER

BOWMAN & WILLIAMS
3949 RESEARCH PARK COURT
SUITE 100
SOQUEL, CA 95073

PRIMARY CONTACT: JOEL RICCA
PH: (831) 566-4616
EMAIL: joel@bowmanandwilliams.com
ALTERNATE CONTACT:
PH:
EMAIL:

GEOTECHNICAL ENGINEER

CORNERSTONE EARTH GROUP
1259 OAKMEAD PARKWAY
SUNNYVALE, CA 94085

PRIMARY CONTACT: MATTHEW SCHAFFER
PH: (408) 245-4600
EMAIL:
ALTERNATE CONTACT:
PH:
EMAIL:

ARCHITECT

WARE MALCOMB

4683 CHABOT DR #300
PLEASANTON, CA 94588
P 925.244.9620
F 925.244.9621

PRIMARY CONTACT: YANG ZHANG
PH: (925) 480-6155
EMAIL: yzhang@waremalcomb.com
ALTERNATE CONTACT:
PH:
EMAIL:

ARCHITECT'S CONSULTANTS

LANDSCAPE ARCHITECT

RW STOVER & ASSOCIATES, INC
1620 NORTH MAIN STREET
SUITE 4
WALNUTCREEK, CA 94596

PRIMARY CONTACT: RICK STOVER
PH: (925)933-2583
EMAIL: RSTOVER@RWSLA.COM
ALTERNATE CONTACT:
PH:
EMAIL:

PROJECT INFORMATION

ZONING:	IP - INDUSTRIAL PARK
LAND USE:	INDUSTRIAL
GENERAL PLAN:	MANABE OW SPECIFIC PLAN
APNs:	018-711-34, 018-711-35
PARCEL AREA:	13.4 ACRES 584,140 SF
PROPOSED BUILDING AREA:	175,760 SF
FAR:	0.3 SF
BUILDING HEIGHT:	43' - 0"
CONSTRUCTION TYPE:	TBD
PROJECT DISCRIPTION:	

THE PROPOSED PROJECTS IS A +/-175,760 SQUARE FOOT COLD, DARK SHELL WAREHOUSE BUILDING SITUATED ON 13.4 ACRES WITHIN THE MANABE OW SPECIFIC PLAN AREA.

ANTICIPATED FUTURE TENANT WILL BE FOR WAREHOUSE USE, AND THE PARKING COUNTS REFLECT THE REQUIREMENTS FOR SUCH USE.

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INTERIORS BUILDING MEASUREMENT
4683 Chabot Dr, Suite #300
Pleasanton, CA 94588
P 925.244.9620

CA

OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA 95076

TITLE SHEET

DATE	REMARKS
12/13/2021	Preliminary Planning
05/23/2022	Planning Submittal #2

PA/PM:	Y. Zhang
DRAWN BY.:	S.K.
JOB NO.:	SNR21-0142-00

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NORTHEAST CORNER VIEW
SCALE: N.T.S. (1)



OHLONE PARKWAY DRIVEWAY VIEW
SCALE: N.T.S. (3)



SOUTHEAST CORNER VIEW
SCALE: N.T.S. (2)

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PERSPECTIVE VIEWS

DATE	REMARKS
05/23/2022	Planning Submittal #2

PA/PM:	Approver
DRAWN BY.:	Author
JOB NO.:	SNR21-0142-00

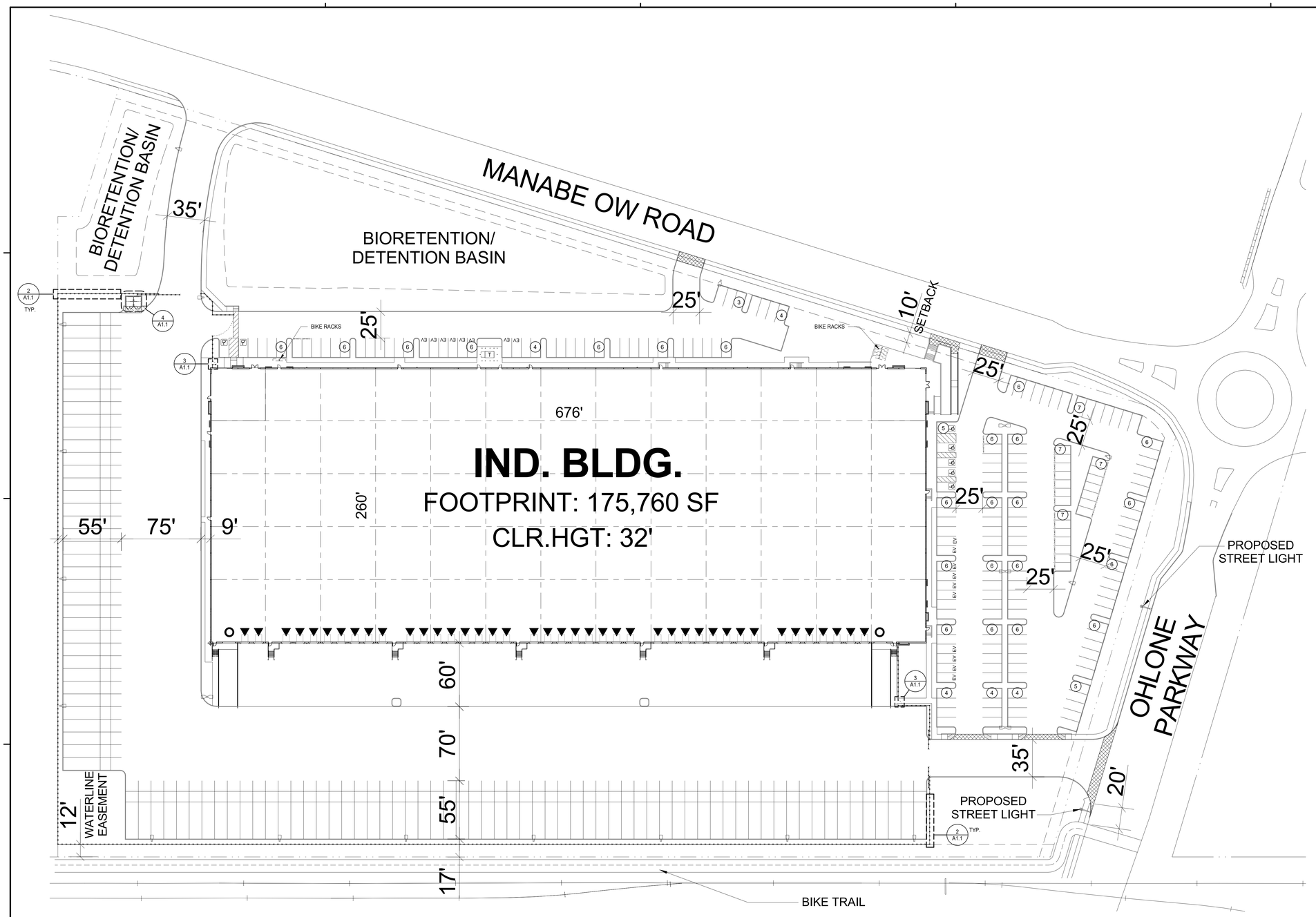
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SITE PLAN
SCALE: 1" = 40'-0"

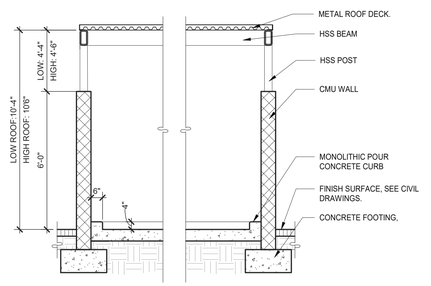
SITE DATA

ZONING:	IP - INDUSTRIAL PARK MANABE OW SPECIFIC PLAN
OVERALL SITE AREA:	
GROSS:	13.41 ACRES 584,140 SF
DETENTION:	40,236 SF
NET:	12.5 ACRES 543,904 SF
BUILDING FOOTPRINT:	175,760 SF
COVERAGE:	30% GROSS (32.2% NET)
PARKING REQUIRED:	
WAREHOUSE (5+1/EMPLOYEE):	166 STALLS (MAX 161 EMPLOYEES)
OFFICE (1/300 SF):	34 STALLS
PARKING PROVIDED:	
STANDARD (9'X19')	171 STALLS
ACCESSIBLE	7 STALLS
CLEAN AIR/EV/VANPOOL	22 STALLS
(FUTURE CHARGING*	18 STALLS)
TOTAL:	200 STALLS
TRAILER PARKING	99 STALLS
BIKE PARKING(5%)	10 STALLS

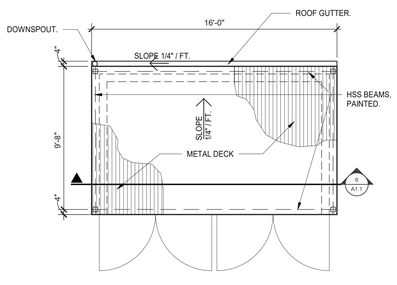
*NOTE: FUTURE CHARGING STALLS LISTED AS SUBSET OF CLEAN AIR DESIGNATED STALLS, NOT INCLUDED IN TOTAL. QUANTITY PROVIDED REFLECTS CGBSC 2019 REQUIREMENTS.

SITE LEGEND

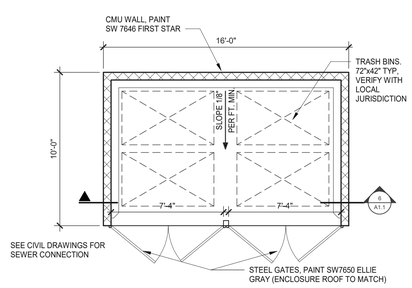
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- PROPERTY LINE.
- FENCING.
- POLE MOUNTED SITE LIGHTING FIXTURE.
- POLE MOUNTED STREET LIGHTING FIXTURE (CITY STD S-501).
- TRANSFORMER WITH CONCRETE PAD. (PROVIDE PROTECTION BOLLARDS PER LOCAL UTILITY OR PUBLIC WORK STANDARDS)
- FIRE LANE (HATCHED)
- DECORATIVE CONCRETE PAVING
- PARKING STALL COUNT TOTAL
- DOCK HIGH TRUCK DOOR
- GRADE LEVEL TRUCK DOOR



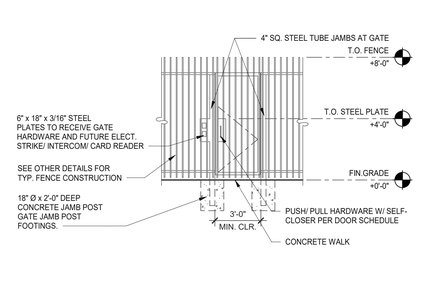
TRASH ENCLOSURE SECTION
SCALE: 3/8" = 1'-0" (6)



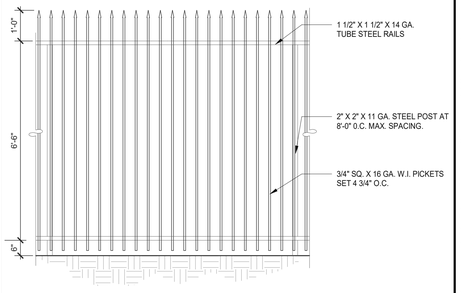
TRASH ENCLOSURE ROOF PLAN
SCALE: 1/4" = 1'-0" (5)



TRASH ENCLOSURE PLAN
SCALE: 1/4" = 1'-0" (4)



WROUGHT IRON GATE
SCALE: 1/4" = 1'-0" (3)



WROUGHT IRON FENCE
SCALE: 1/2" = 1'-0" (2)

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100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA 95076

SITE PLAN

DATE	REMARKS
12/13/2021	Preliminary Planning
05/23/2022	Planning Submittal #2

PA/PM:	Y. Zhang
DRAWN BY.:	Z.P.
JOB NO.:	SNR21-0142-00

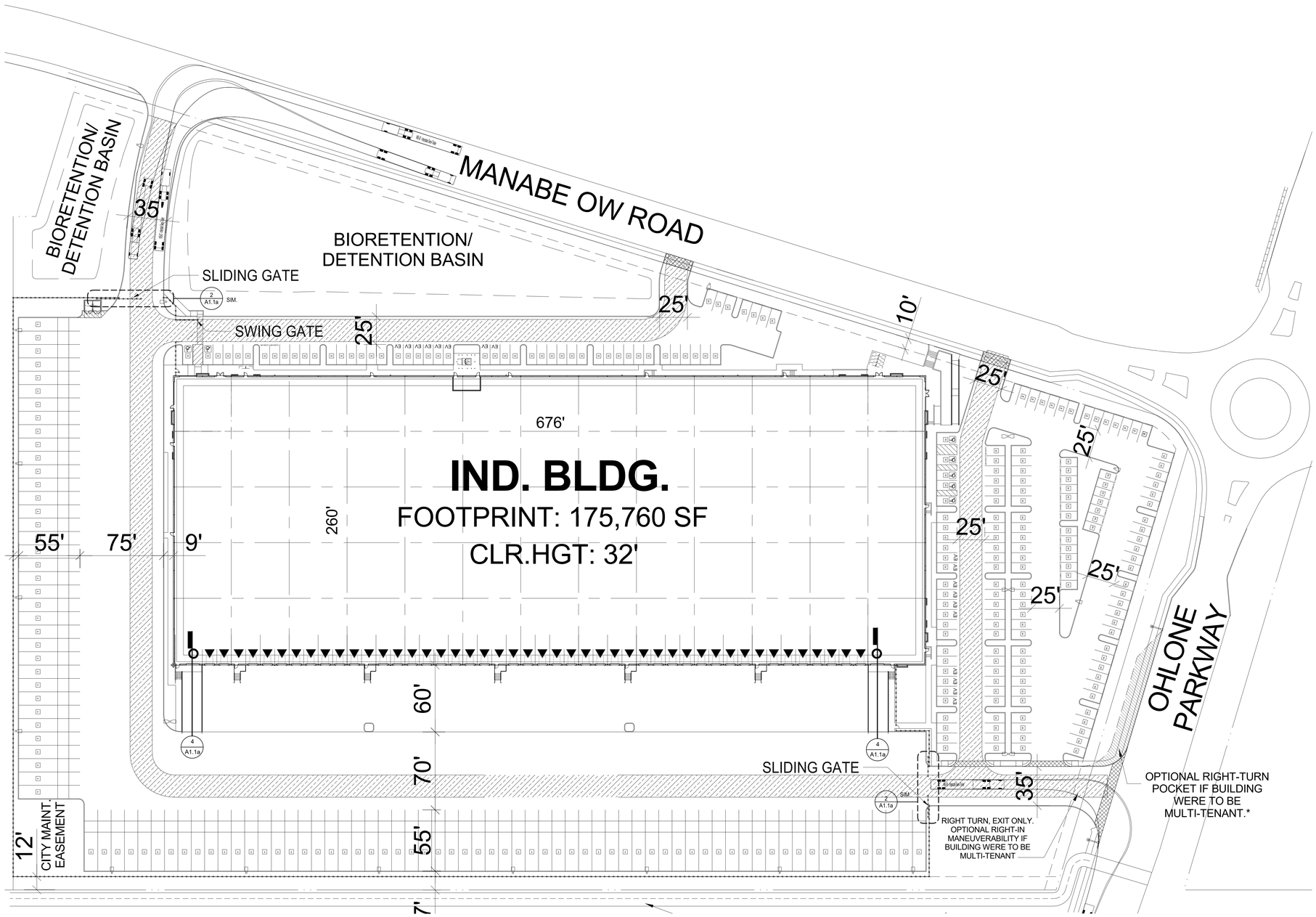
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0 20' 40' 80' 200'

SITE PLAN - VEHICLE ACCESS

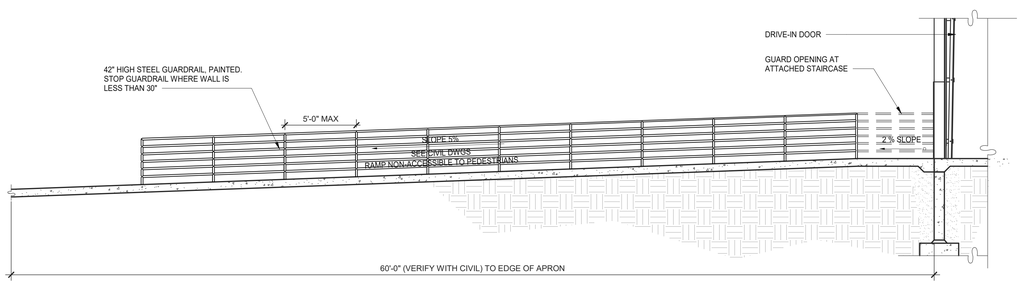
SCALE: 1" = 40'-0"

1

N

SITE LEGEND

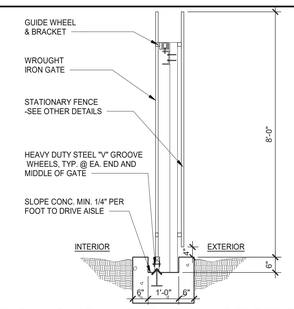
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- T — TRANSFORMER WITH CONCRETE PAD. (PROVIDE PROTECTION BOLLARDS PER LOCAL UTILITY OR PUBLIC WORK STANDARDS)
- FIRE LANE (HATCHED)
- DECORATIVE CONCRETE PAVING
- 1 — PARKING STALL COUNT TOTAL
- DOCK HIGH TRUCK DOOR
- GRADE LEVEL TRUCK DOOR



DOCK RAMP SECTION

SCALE: 1/4" = 1'-0"

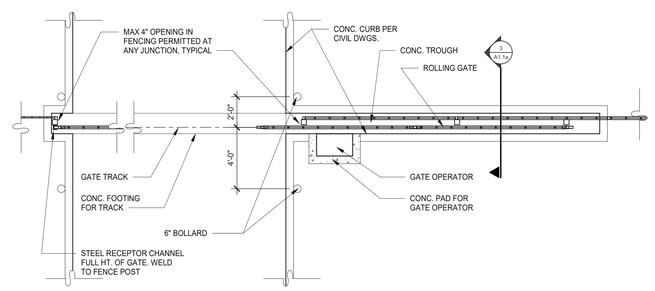
4



WROUGHT IRON SLIDING GATE - SECTION

SCALE: 1/2" = 1'-0"

3



WROUGHT IRON SLIDING GATE - PLAN

SCALE: 1/4" = 1'-0"

2

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P: 925.244.6620

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WATSONVILLE, CALIFORNIA 95076

SITE PLAN - VEHICLE ACCESS

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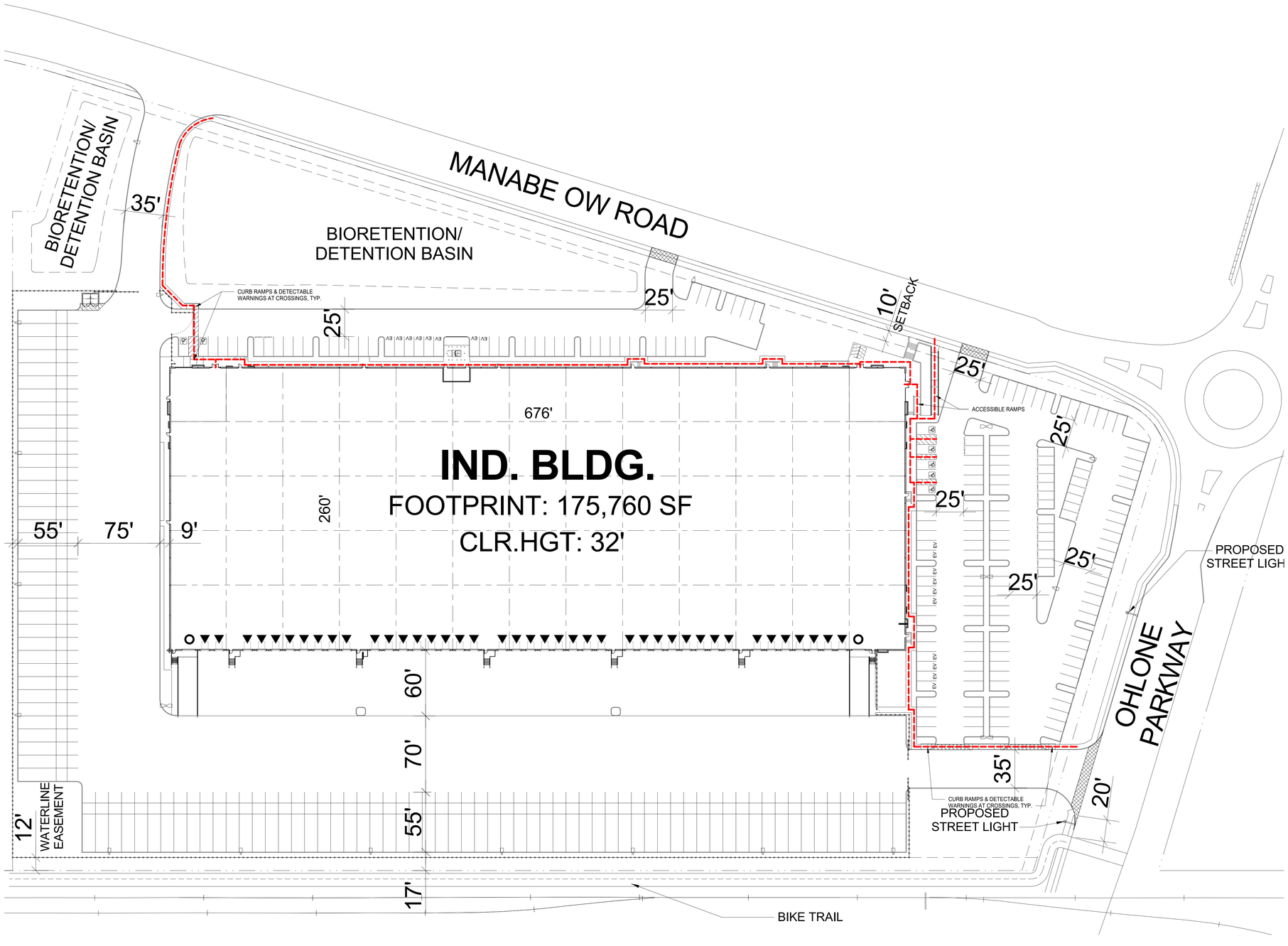
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DRAWN BY.:	Z.P.
JOB NO.:	SNR21-0142-00

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- FIRE LANE (HATCHED)
- DECORATIVE CONCRETE PAVING
- (1) — PARKING STALL COUNT TOTAL
- DOCK HIGH TRUCK DOOR
- GRADE LEVEL TRUCK DOOR

1"=40'
0 20' 40' 80' 200'

SITE PLAN
SCALE: 1" = 40'-0"

N

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ARCHITECTURE CIVIL ENGINEERING
PLANNING LANDSCAPE
INTERIORS BUILDING MEASUREMENT
4888 Chabot Dr. Suite #300
Pleasanton, CA 94588
P: 925.244.8500
F: 925.244.8520

OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA 95076

SITE PLAN - PEDESTRIAN ACCESS

DATE	REMARKS
12/13/2021	Preliminary Planning
05/23/2022	Planning Submittal #2

PA/PM:	Y. Zhang
DRAWN BY.:	Z.P.
JOB NO.:	SNR21-0142-00

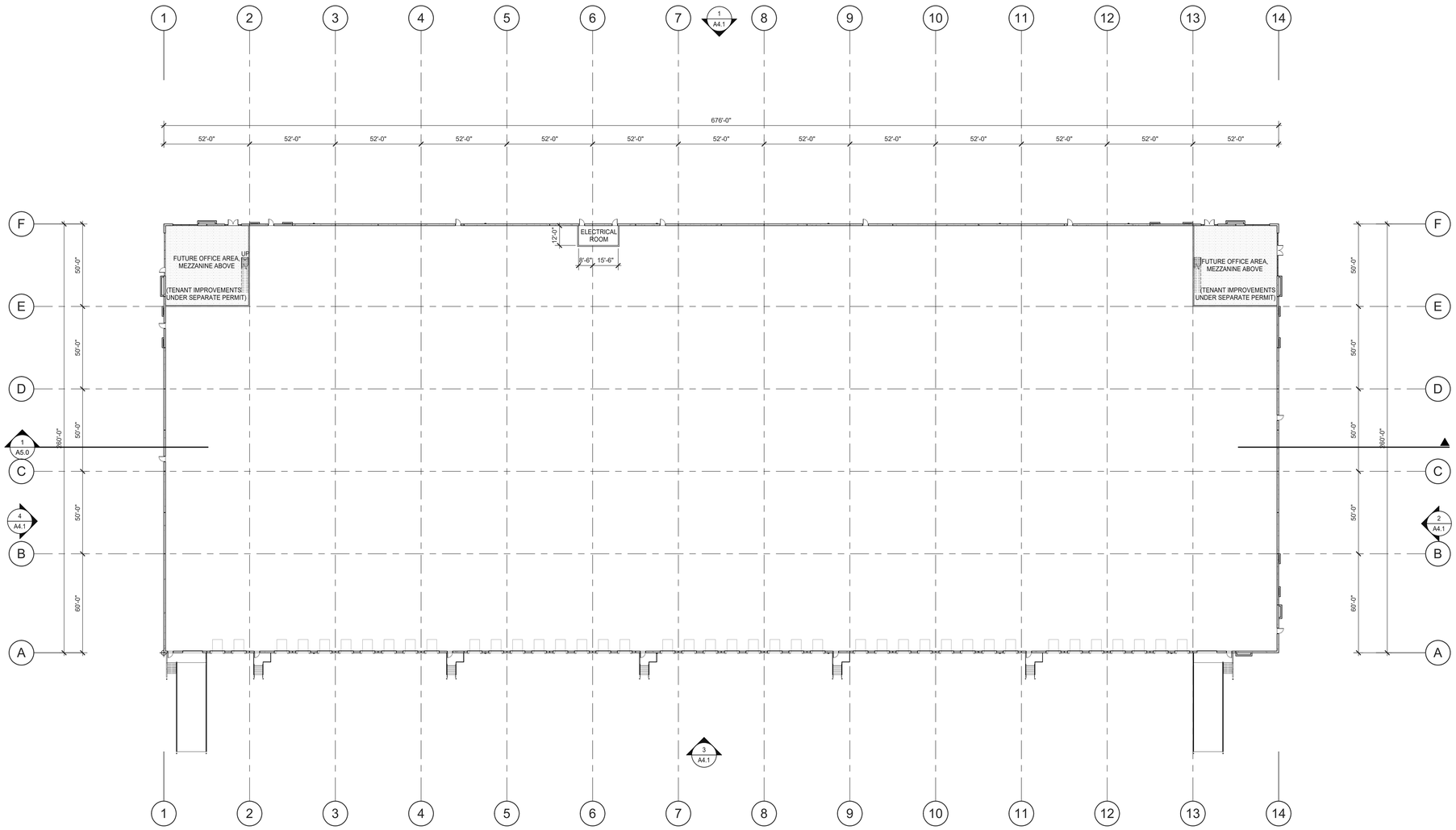
SHEET
A1.1b

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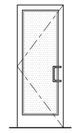
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KEYNOTES:

SEE SHEET A0.2 FOR GENERAL NOTES

DOOR TYPES



SF1 3'-0" x 8'-0"
CLEAR ANOD. ALUM. STOREFRONT
DOOR W/TEMPERED GLAZING
(NARROW STILE)

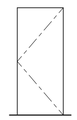
SF2 6'-0" x 8'-0" (PAIR)
CLEAR ANOD. ALUM. STOREFRONT
DOOR W/TEMPERED GLAZING
(NARROW STILE)

FRAME: MANUFACTURER

HARDWARE:

2 SETS	PIVOT SET
2 SETS	INTER PIVOT
1 EA	MORTISE CYLINDER
2 SETS	OFFSET PULL
2 EA	OH CLOSER
1 EA	THRESHOLD
1 EA	DECAL

NOTE: WEATHERSEAL BY DOOR MANUFACTURER



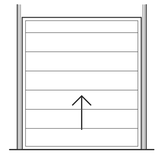
F1 3'-0" x 7'-0"
PAINTED INSULATED
HOLLOW METAL DOOR

F1* 4'-0" x 7'-0"
PAINTED INSULATED
HOLLOW METAL DOOR

FRAME: PAINTED HOLLOW METAL

HARDWARE:

3 EA	HINGES
1 EA	EXIT DEVICE
1 EA	CYLINDER
1 EA	CLOSER
1 EA	PERIMETER SEAL
1 EA	BOTTOM DRIP
1 EA	THRESHOLD
1 EA	LOCK GUARD
1 EA	HVY DUTY FLOOR STOP



SD1 9'-0" x 10'-0"
DOCK HIGH SECTIONAL VERTICAL
LIFT OVERHEAD DOOR W/ FACTORY
PAINTED FINISH.

SD2 12'-0" x 14'-0"
SECTIONAL VERTICAL LIFT
OVERHEAD DOOR W/ FACTORY
PAINTED FINISH

HARDWARE:

1 EA	SLIDE BOLT
1 EA	PAD LOCK

1/8"=1'-0"
0 4' 8' 16' 32'

FLOOR PLAN
SCALE: 1" = 30'-0"

N

WARE MALCOMB
4683 Chabot Dr, Suite #300
Pleasanton, CA 94588
P 925.244.9620
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OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA 95076

FIRST FLOOR PLAN

DATE	REMARKS
12/13/2021	Preliminary Planning
05/22/2022	Planning Submittal #2

PA/PM:	Y. Zhang
DRAWN BY.:	S.K.
JOB NO.:	SNR21-0142-00

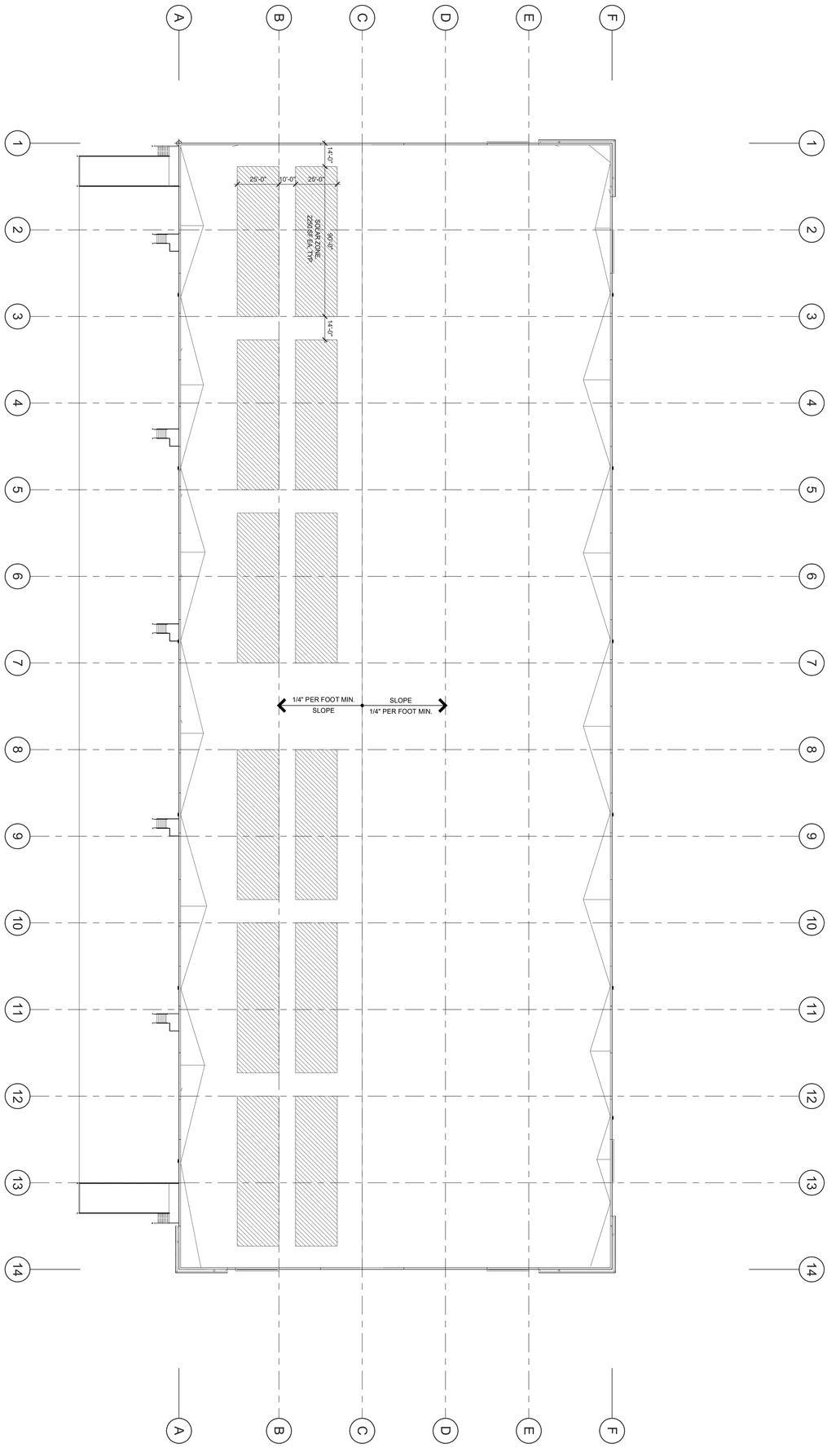
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C:_Revit\60142_A_JDurkeeWM.rvt



ROOF PLAN

SCALE: 1" = 30'-0"

N

FUTURE SOLAR:

ROOF AREA:	175,760	S.F.
SOLAR ZONE:	1	S.F.
ROOF AREA LESS SKYLIGHT:	175,760	S.F.
15% OF ROOF AREA (LESS SKYLIGHTS):	26,364	S.F.
TOTAL AREA FOR FUTURE SOLAR REQUIRED:	26,364	S.F.*
TOTAL AREA FOR FUTURE SOLAR PROVIDED:	27,000	S.F.

* CEC SECTION 110.10(B)4 DOES NOT REQUIRE THE INCLUSION OF ANY COLLATERAL LOADS FOR FUTURE SOLAR ENERGY SYSTEMS.

KEYNOTES:

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SHEET A3.1

PAP/PM: Y. Zhang

DRAWN BY: S.K.

JOB NO.: SNR21-0142-00

ROOF PLAN

DATE	REMARKS
12/13/2021	Preliminary Planning
05/23/2022	Planning Submittal #2

OHLONE PARKWAY INDUSTRIAL

100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA 95076

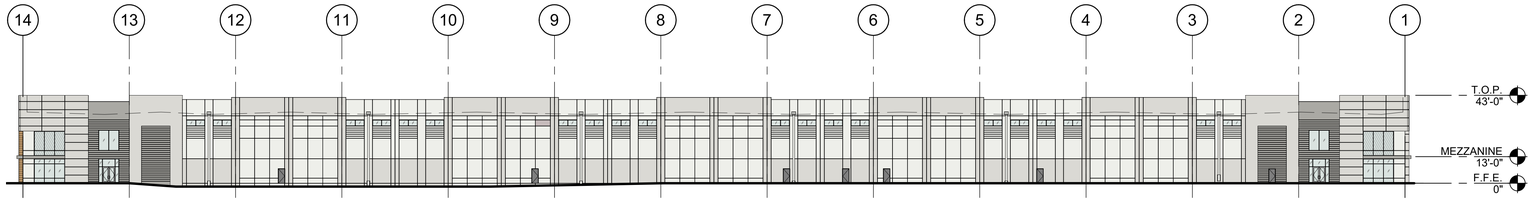
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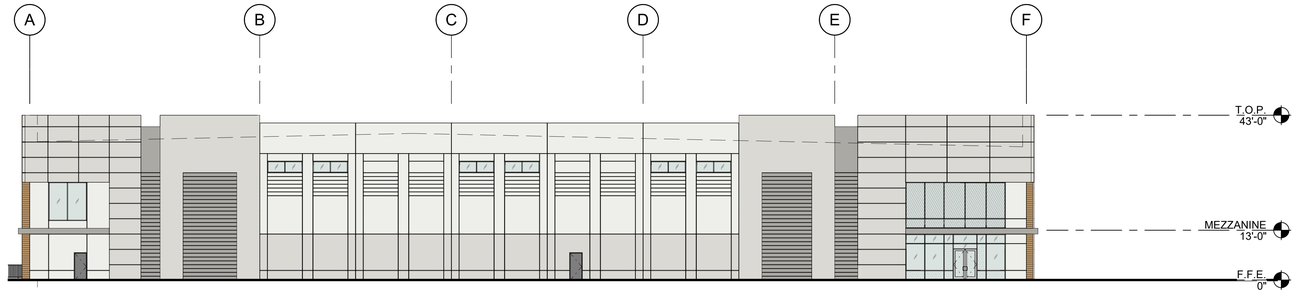
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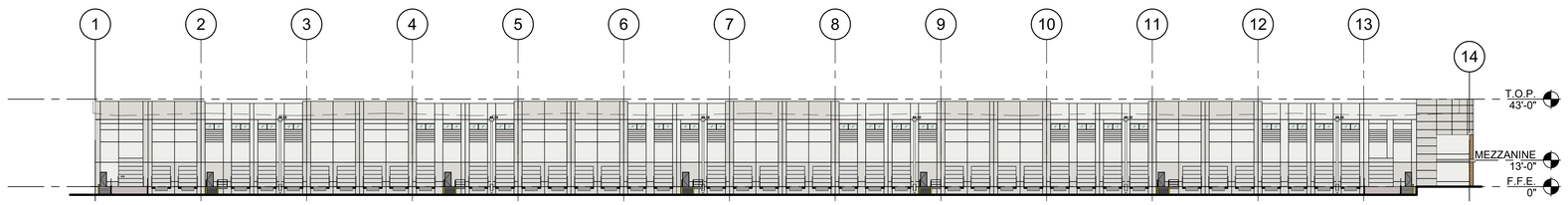
NORTH ELEVATION 1

SCALE: 1" = 30'-0"



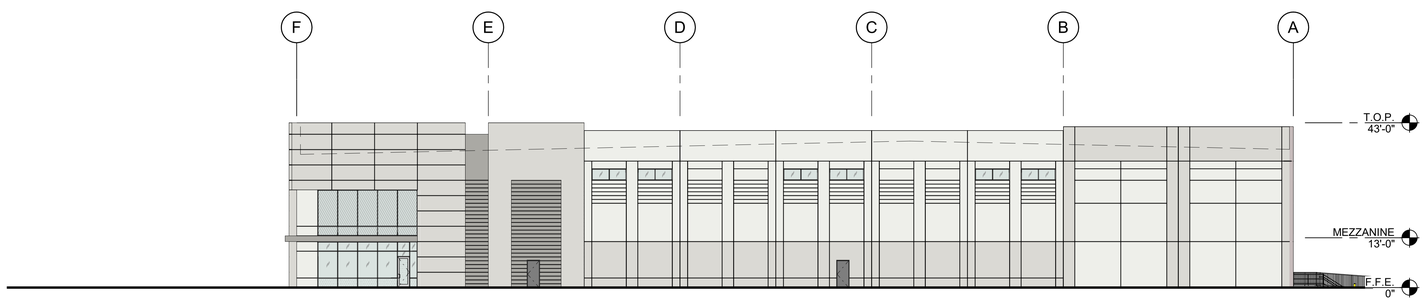
EAST ELEVATION 2

SCALE: 1/16" = 1'-0"



SOUTH ELEVATION 3

SCALE: 1" = 30'-0"



WEST ELEVATION 4

SCALE: 1/16" = 1'-0"

KEYNOTES:

LEGEND

MATERIALS:

- EXTERIOR PAINTED ALUMINUM COMPOSITE METAL PANEL OVER METAL STUD WALL
- EXTERIOR WOOD SCREEN OVER METAL STUD WALL
- METAL CANOPY, PAINTED

GLASS:

- VISION GLASS
- SPANDREL GLASS
- TEMPERED GLASS

COLORS:

PROVIDE 6'-0" WIDE PAINT COLOR MOCK-UP FULL HEIGHT OF BUILDING FOR OWNER/ARCHITECT REVIEW.

- BASE COLOR: SW 7006 EXTRA WHITE
- ACCENT COLOR: SW 7646 FIRST STAR
- ACCENT COLOR: SW 7650 ELLIE GRAY

ALL GLASS USED ON THE ENVELOPE OF THE BUILDING TO BE:
XXXXXXX
U FACTOR = 0.28 AND SHGC = 0.28
GLASS WIND LOAD RESISTANCE CALCULATIONS ARE UNDER SEPARATE PERMIT

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P 925.249.9520

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WATSONVILLE, CALIFORNIA 95076

EXTERIOR ELEVATIONS

DATE	REMARKS
12/13/2021	Preliminary Planning
05/23/2022	Planning Submittal #2

PA/PM:	Y. Zhang
DRAWN BY.:	S.K./Z.P.
JOB NO.:	SNR21-0142-00

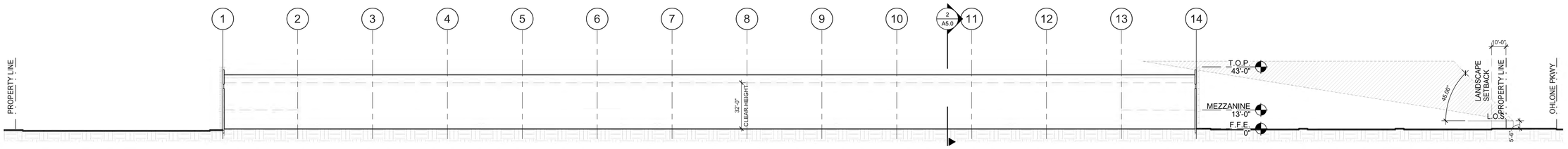
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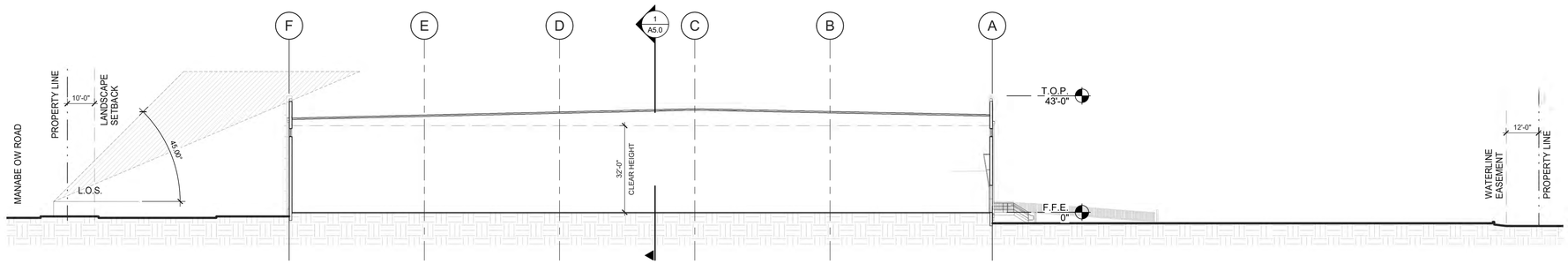
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BUILDING CROSS SECTION 1

SCALE: 1" = 30'-0"



BUILDING CROSS SECTION 2

SCALE: 1" = 20'-0"

KEYNOTES: -

SEE SHEET A0.2 FOR GENERAL NOTES

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4683 Chabot Dr. Suite #300
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P 925.249.9520

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WATSONVILLE, CALIFORNIA 95076

BUILDING & SITE SECTIONS

DATE	REMARKS
12/13/2021	Preliminary Planning
05/23/2022	Planning Submittal #2

PA/PM:	Y. ZHANG
DRAWN BY.:	Z.P.
JOB NO.:	SNR21-0142-00

SHEET
A5.0

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DESIGN REVIEW - CIVIL IMPROVEMENT PLANS
OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD

APN 018-711-34 (PART) AND 018-711-35 WATSONVILLE, CALIFORNIA

THE INTENT OF THESE IMPROVEMENT PLANS IS TO SHOW:

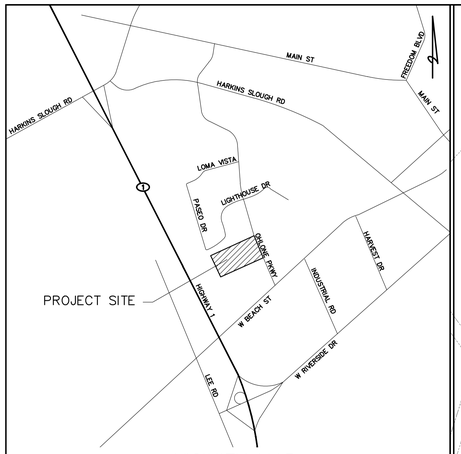
1. THE DESIGN FOR REVIEW BY THE CITY OF WATSONVILLE.
2. TO ACCOMPANY PLANS BY WARE MALCOMB.

NOTES ON TOPOGRAPHIC INFORMATION

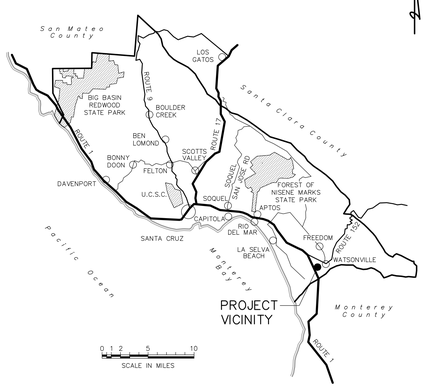
1. ALL SURVEY INFORMATION HAS BEEN PROVIDED BY MID COAST ENGINEERS, CIVIL ENGINEERS AND LAND SURVEYORS, WATSONVILLE CA, (831) 724-2580. THEIR JOB NO. 2014323, DATED 12/30/20.
2. THE TOPOGRAPHIC BASE MAP WAS FROM AN AERIAL SURVEY. PRIOR TO FINAL DESIGN THE EXISTING UTILITY AND SITE IMPROVEMENT CONFORMS SHOULD BE SURVEYED TO CONFIRM A HIGHER LEVEL OF ACCURACY.
3. THE LOCATIONS OF EXISTING UTILITIES AS SHOWN ON THE PLANS WERE OBTAINED FROM UTILITY COMPANIES AND MAY NOT REPRESENT TRUE LOCATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND DEPTH OF THESE UTILITIES PRIOR TO CONSTRUCTION, AND TO NOTIFY THE PROJECT ENGINEER IN CASE OF CONFLICT.
4. CALL U.S.A. (UNDERGROUND SERVICE ALERT) (800) 642-2444 BEFORE ANY EXCAVATION.

CONDITIONS OF APPROVAL

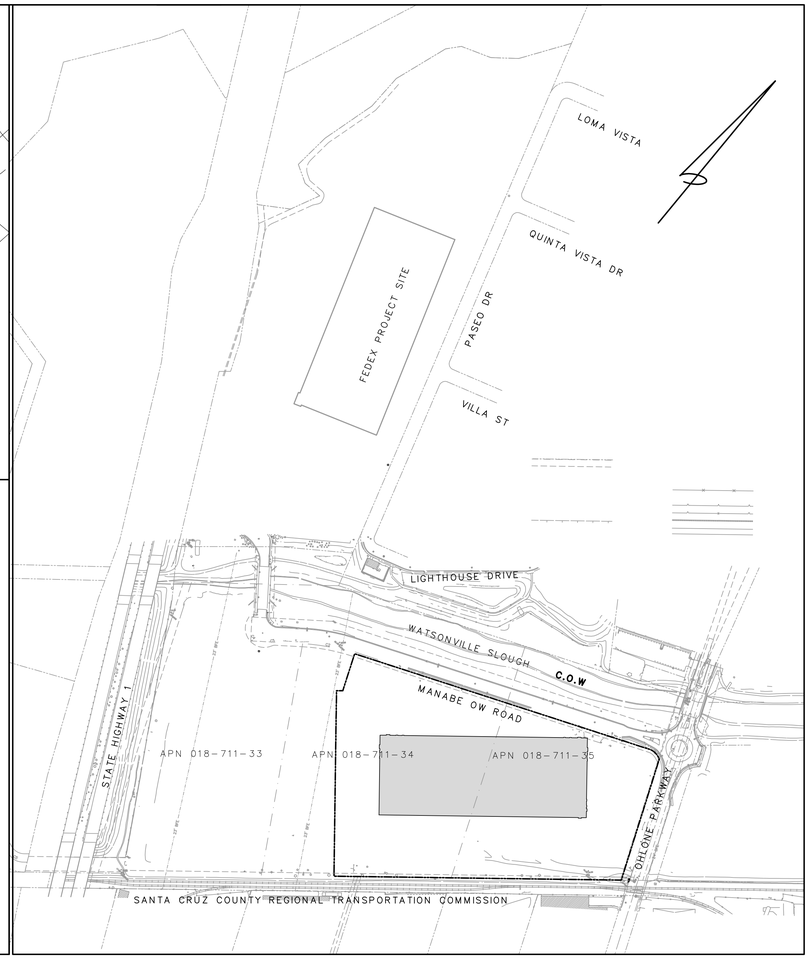
1. UTILITIES RELATED TO NEW CONSTRUCTION SHALL BE INSTALLED UNDERGROUND. NEW CONSTRUCTION THAT ABUT A PUBLIC STREET, PLACE, OR WAY THAT CONTAIN EXISTING OVERHEAD UTILITIES SHALL RELOCATE SUCH EXISTING OVERHEAD UTILITIES UNDERGROUND, EXCEPT AS MAY OTHERWISE BE EXEMPTED BY WMC CHAPTER 7-16.
2. THE PROPERTY LIES WITHIN THE FEMA 100-YEAR FLOOD ZONE, SO THE BUILDING MUST BE DESIGNED SUCH THAT ITS FINISH FLOOR IS AT LEAST 1' ABOVE THE 24' BASE FLOOD ELEVATION AND A FEMA ELEVATION CERTIFICATE SUBMITTED. IF NOT, IT MUST BE FLOOD-PROOFED IN COMPLIANCE WITH THE CITY'S MUNI CODE (WMC) TITLE 9, CHAPTER 2, FLOODPLAIN MANAGEMENT.
3. INDUSTRIAL ZONED PARCELS AND THOSE ADDING <500 SF OF FLOOR AREA ARE REQUIRED TO PAY STREET IMPROVEMENT AND UNDERGROUND UTILITY IN-LIEU FEES.
4. LANDSCAPE & IRRIGATION DESIGNS SHALL COMPLY W/THE CALIFORNIA MODEL WATER EFFICIENT LANDSCAPE ORDINANCE.
5. WIDEN THE EXISTING 10' WATERLINE EASEMENT ALONG THE PROPERTY'S SOUTH PROPERTY LINE TO A MINIMUM OF 12' (FINAL WIDTH SUBJECT TO EXISTING 12" CIP WATER MAIN POTHOLING RESULTS AND CITY APPROVAL) AND AMEND THE EASEMENT ALIGNMENT TO CONTAIN ITS WIDENING AROUND THE EXISTING RR CROSSING SIGNAL POLE AND GATE ARM IN A NEW RECORDED GRANT OF EASEMENT IN FAVOR OF THE CITY.
6. ANY GRADING PERFORMED BEYOND THE PROPERTY BOUNDARY, AS SHOWN AT ITS WEST PROPERTY LINE ON SHT. C3.1, WILL REQUIRE AN AGREEMENT WITH THE ABUTTING PROPERTY OWNER.
7. PROVIDE A SWPPP APPROVED BY THE CRWQCB.
8. APPLICANT IS REQUIRED TO WORK WITH PG&E TO REMOVE THE TWO (2) ELECTRICAL SERVICE POLES IN THE SW CORNER OF THE PROPERTY AND GET A COUNTY-APPROVED WELL DRILLER (SEE ATTACHMENT 2 FOR LIST) TO SUBMIT A COUNTY WELL PERMIT FOR DESTRUCTION OF "PVWMA WELL NO. 26" ON THEIR BEHALF AND PROCESS IT THROUGH THE COUNTY OF SANTA CRUZ EHS.
9. PROVIDE A "FINAL" PROJECT GEOTECHNICAL INVESTIGATION.
10. PRIOR TO BUILDING PERMIT FINAL, ANY EXISTING WATER AND SEWER LATERAL STUB OUTS THAT WILL NOT BE UTILIZED FOR THIS DEVELOPMENT SHALL BE REMOVED AT THE MAIN.



VICINITY MAP



LOCATION MAP



SITE PLAN
SCALE: 1"=200'

ABBREVIATIONS

AC	ASPHALT CONCRETE
AP	ANGLE POINT
BC	BEGIN CURVE
BW	BACK OF WALK
BS	BOTTOM OF STEP
B.P.R.N.	BUSINESS PARK ROAD NORTH
B.P.R.S.	BUSINESS PARK ROAD SOUTH
CB	CATCH BASIN
CL	CENTERLINE
C.O.W.	CITY OF WATSONVILLE
DTL	DETAIL
DS	DOWNSPOUT
EC	END CURVE
ELEV	ELEVATION
(E), EX	EXISTING
FD	FIRE DEPARTMENT
FG	FINISHED GRADE
FL	FLOWLINE
FS	FIRE SERVICE
FT	FEET
FW	FACE OF WALL
HP	HIGH POINT
INV	INVERT
LF	LINEAR FEET
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
O.H.W.L.	ORDINARY HIGH WATER LEVEL
(P), P	PROPOSED
PERF	PERFORATED
PVMT	PAVEMENT
R=	RADIUS
RIM	RIM ELEVATION
RT	RIGHT
S=	SLOPE
SCWD	SANTA CRUZ WATER DEPARTMENT
SD	STORM DRAIN
SDCO	STORM DRAIN CLEANOUT
SLV	IRRIGATION SLEEVE
SSCO	SANITARY SEWER CLEANOUT
STA	STATION
S.R.W.	SLOUGH ROAD WEST
TC	TOP OF CURB
TG	TOP OF GRAVEL
TP	TOP OF PAVEMENT
TS	TOP OF STEP
TW	TOP OF WALL
TYP	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
WS	WATER SERVICE

LEGEND

FINISH GRADE SPOT ELEVATION	384.60 TP
(P) CATCH BASIN	
(P) CONC PAVEMENT	
(P) FIRE LANE ASPHALT PAVEMENT	
(P) ASPHALT PAVEMENT	
(P) LANDSCAPED AREAS	
(P) BIO-RETENTION AREAS	
(P) CONTOUR	474
(P) STORM DRAIN	SD
(P) PERFORATED PIPE	
(E) SEWER	SS
(P) SEWER	SS
(E) ELECTRICAL	E
(E) GAS	G
(E) WATER LINE	W
(P) WATER LINE	W
(P) FIRE WATER LINE	FW
(P) BOUNDARY LINE	

SHEET INDEX

C0.0	COVER SHEET
C1.0	EXISTING CONDITIONS MAP – BOUNDARIES AND EASEMENTS
C1.1	EXISTING CONDITIONS MAP – TOPOGRAPHY
C1.2	PRELIMINARY DEMOLITION PLAN
C2.1	PRELIMINARY SITE PLAN
C2.3	PRELIMINARY STREET IMPROVEMENT PLANS
C3.1	PRELIMINARY GRADING PLAN
C3.2	PRELIMINARY CROSS SECTIONS
C4.0	PRELIMINARY DRAINAGE PLAN
C5.0	PRELIMINARY UTILITY PLAN
C6.0	PHASE 1 PRELIMINARY STORMWATER POLLUTION PREVENTION PLAN
C6.1	PHASE 2 PRELIMINARY STORMWATER POLLUTION PREVENTION PLAN
C6.2	PHASE 1 PRELIMINARY SEDIMENT TRAPS SIZING & DETAILS
C6.3	PRELIMINARY EROSION CONTROL DETAILS
C7.1	STANDARD DETAILS
C7.2	STANDARD DETAILS
C7.3	STANDARD LID DETAILS
C7.4	STANDARD LID DETAILS
C7.5	STANDARD LID DETAILS

811 Know what's below. Call before you dig.

REGISTERED PROFESSIONAL ENGINEER JOEL FRANCIS RICCA No. 53588 STATE OF CALIFORNIA

PRELIMINARY
FOR DESIGN REVIEW ONLY

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APN 018-711-34 (PART) & -35

REVISED
MAY 23, 2022 2ND SUBMITTAL

BOWMAN & WILLIAMS
CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS
3949 RESEARCH PARK COURT, SUITE 100
SOQUEL, CA 95073-2094
(831) 426-3560

COVER SHEET

OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA

SCALE AS SHOWN	DRAWN	JOB NO. 28595	SHEET C0.0
DATE DECEMBER 13, 2021	CHECKED	INDEX PAJARO 2	OF 19
DESIGN	DWG NAME	FILE NO. 28595	

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ARCHITECTURE CIVIL ENGINEERING
PLANNING SURVEYING
INTERIORS BUILDING MEASUREMENT
4683 Chabot Dr. Suite #200
Pleasanton, CA 94588
P (925) 244-6600

CIENT LOGO

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100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA 95076

CIVIL COVER SHEET

REMARKS
2ND SUBMITTAL

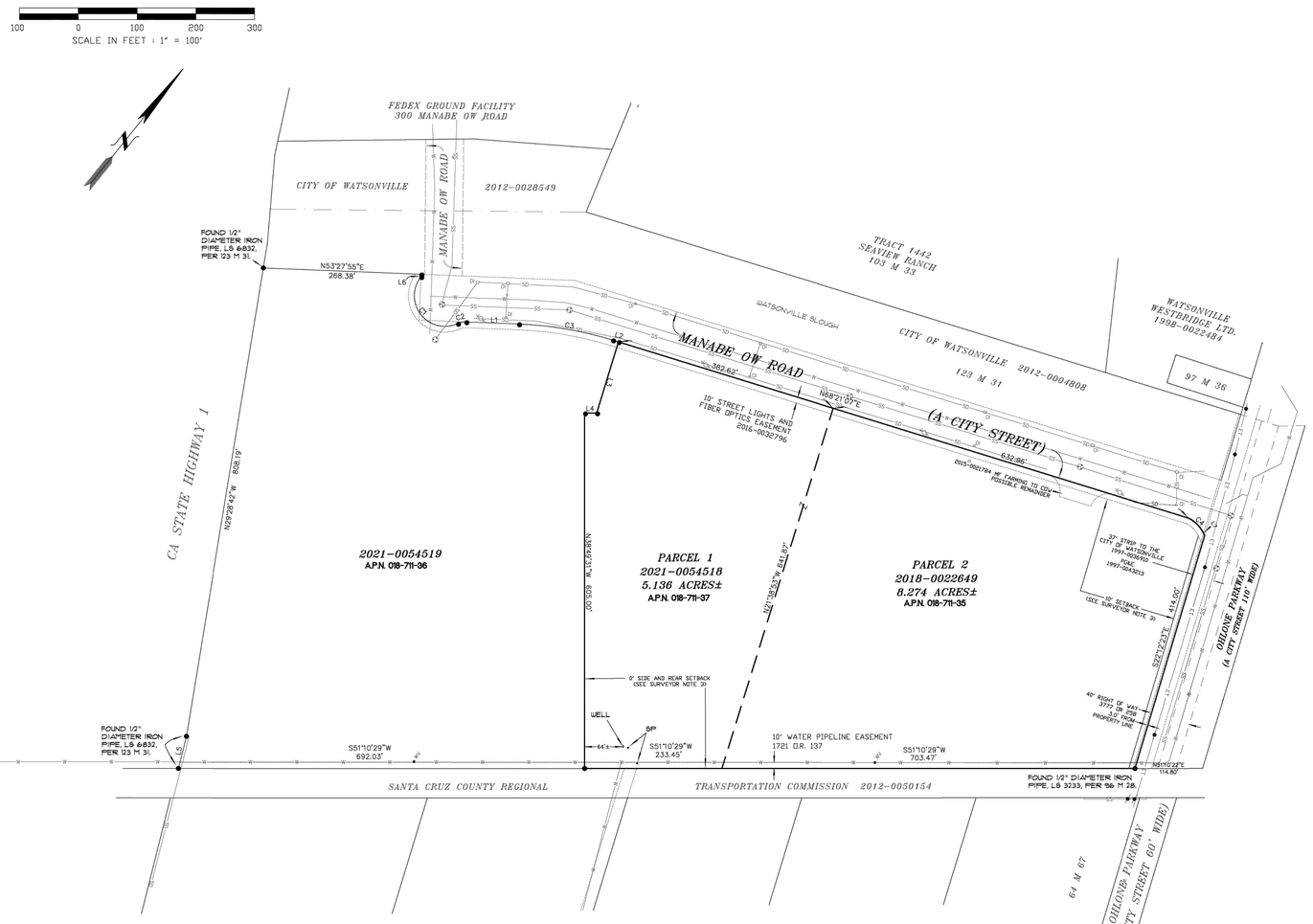
DATE
MAY 23, 2022

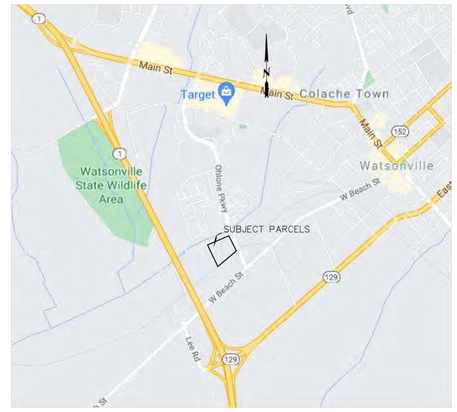
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DRAWN BY.:	
JOB NO.:	SNR21-0142-00

SHEET
C0.0

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VICINITY MAP
NO SCALE

SUMMARY TABLE

EXISTING PARCEL	OWNERSHIP	LAND USE	EXISTING LOT AREA:	PROPOSED LOT AREA:
Parcel 1 (Doc #2021-0054518) A.P.N.: 018-711-07	CA/FSRE WATSONVILLE INDUSTRIAL, LLC.	INDUSTRIAL; BUSINESS PARK DISTRICT (MANABE-OW SPECIFIC PLAN)	5.14± Acres 223,898.4± Sq. ft.	13.41± Acres 584,139.6± Sq. ft.
Parcel 2 (Doc #2018-0022649) A.P.N.: 018-711-35	CA/FSRE WATSONVILLE INDUSTRIAL, LLC.	INDUSTRIAL; BUSINESS PARK DISTRICT (MANABE-OW SPECIFIC PLAN)	8.27± Acres 360,241.2± Sq. ft.	

WATER MANAGEMENT AGENCY: PAJARO VALLEY WATER MANAGEMENT AGENCY DIVISION A
FIRE DISTRICT: CITY OF WATSONVILLE

OWNER – REPRESENTATIVE CONTACT INFORMATION

GEORGE ATALLA
DEVELOPMENT MANAGER 2030
MAIN STREET, STE 1300
IRVINE, CA 92614
PHONE (M): 760-964-4411
GAtalla@ca-ventures.com

LEGEND

- ● 1/2" PIPE WITH PLASTIC CAP, STAMPED L.S. 6832 PER XXX UNLESS SHOWN OTHERWISE
- SUBJECT BOUNDARY
- LOT LINE TO BE ABANDONED
- ADJOINER BOUNDARY
- FORMER BOUNDARY
- CENTERLINE
- EASEMENT / RIGHT OF WAY

DISTANCES ARE IN FEET AND DECIMALS THEREOF. BASIS OF BEARINGS IS NAD 1983 (2007.00), CCS ZONE 3, PER CITY OF WATSONVILLE CONTROL SURVEY 115 M 7. DISTANCES SHOWN ARE GROUND BASED.

DI DROP INLET
SP SIGNAL POLE
WV WATER VALVE

FIRE HYDRANT
WATER VALVE
MANHOLE
JOINT UTILITY POLE

CURVE TABLE

NUM	DELTA	ARC	RADIUS	CHORD BEARING
C1	152°53'30"	138.76'	52.00'	S77°01'12"E
C2	26°55'45"	14.57'	31.00'	S40°00'02"W
C3	14°53'18"	162.93'	627.00'	S60°54'28"W
C4	37°09'23"	35.99'	55.50'	N84°12'41"W

LINE TABLE

NUM	BEARING	DISTANCE
L1	S53°27'55"W	90.14'
L2	S68°21'07"W	10.15'
L3	N21°52'14"W	126.75'
L4	N51°10'29"E	20.50'
L5	S24°48'19"E	56.38'
L6	N36°36'52"W	4.47'
L7	N65°38'00"W	5.34'

SURVEYOR NOTES

1. PARCEL 1 AND PARCEL 2 HAVE ACCESS TO OHLONE PARKWAY AND MANABE OW ROAD, BOTH PUBLIC RIGHTS OF WAYS.
2. 10' STREET-SIDE SETBACK PER DOCUMENT ENTITLED "CITY OF WATSONVILLE MANABE-OW BUSINESS PARK, FINAL SPECIFIC PLAN," DATED DECEMBER 2010 (SEE SECTION 3.2.1 TABLE 3-2: BP DISTRICT DEVELOPMENT STANDARDS).
3. 0' REAR AND SIDE SETBACK PER DOCUMENT ENTITLED "CITY OF WATSONVILLE MANABE-OW BUSINESS PARK, FINAL SPECIFIC PLAN," DATED DECEMBER 2010 (SEE SECTION 3.2.1 TABLE 3-2: BP DISTRICT DEVELOPMENT STANDARDS).
4. UTILITY LINES ARE PER WATSONVILLE CITY GIS AND ARE APPROXIMATE. NO USA SURVEY WAS PERFORMED. UTILITIES MAY EXIST NOT SHOWN HEREON.

PROFESSIONAL LAND SURVEYOR JOSEPH S. NIELSEN No. 6832 03/05/2022 STATE OF CALIFORNIA

LOT MERGER
TENTATIVE MAP (PP 2202-2883)

LANDS OF
CA/FSRE WATSONVILLE INDUSTRIAL, LLC
A DELAWARE LIMITED LIABILITY COMPANY

CITY OF WATSONVILLE SANTA CRUZ COUNTY CALIFORNIA

PREPARED BY:

MID COAST ENGINEERS
CIVIL ENGINEERS AND LAND SURVEYORS
70 PENNY LANE, SUITE A, WATSONVILLE, CA 95076
(831) 724-2580

JOB NO. 2198LM SHEET: 1 OF 1
01/18/2022

Know what's below. Call before you dig.

REGISTERED PROFESSIONAL ENGINEER JOEL FRANCIS RICCA No. 53588 STATE OF CALIFORNIA

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APN 018-711-34 (PART) & -35

REVISED	
MAY 23, 2022	2ND SUBMITTAL

BOWMAN & WILLIAMS
CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS
3949 RESEARCH PARK COURT, SUITE 100
SOQUEL, CA 95073-2094
(831) 426-3560

BOUNDARIES AND EASEMENTS

OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA

SCALE	1" = 100'	DRAWN		JOB NO.	28595	SHEET
DATE	DECEMBER 13, 2021	CHECKED		INDEX	PAJARO 2	C1.0
DESIGN		DWG NAME		FILE NO.	28595	OF 19

WARE MALCOMB
ARCHITECTURE PLANNING INTERIORS
CIVIL ENGINEERING BRANDING BUILDING MEASUREMENT
4683 Chabot Dr. Suite #320
Pleasanton, CA 94588
P 925.244.9826

CIENT LOGO

BOUNDARIES AND EASEMENTS

REMARKS	DATE
2ND SUBMITTAL	MAY 23, 2022

PA/PM:	
DRAWN BY.:	
JOB NO.:	SNR21-0142-00

SHEET
C1.0

CAUTION: IF THIS SHEET IS NOT 30"x42" IT IS A REDUCED PRINT

NOTES ON TOPOGRAPHIC INFORMATION

1. ALL SURVEY INFORMATION HAS BEEN PROVIDED BY MID COAST ENGINEERS, CIVIL ENGINEERS AND LAND SURVEYORS, WATSONVILLE CA, (831) 724–2580. THEIR JOB NO. 20143Z3, DATED 12/30/20.

2. THE TOPOGRAPHIC BASE MAP WAS FROM AN AERIAL SURVEY. PRIOR TO FINAL DESIGN THE EXISTING UTILITY AND SITE IMPROVEMENT CONFORMS SHOULD BE SURVEYED TO CONFIRM A HIGHER LEVEL OF ACCURACY.

3. THE LOCATIONS OF EXISTING UTILITIES AS SHOWN ON THE PLANS WERE OBTAINED FROM UTILITY COMPANIES AND MAY NOT REPRESENT TRUE LOCATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND DEPTH OF THESE UTILITIES PRIOR TO CONSTRUCTION, AND TO NOTIFY THE PROJECT ENGINEER IN CASE OF CONFLICT.

4. CALL U.S.A. (UNDERGROUND SERVICE ALERT) (800) 642–2444 BEFORE ANY EXCAVATION.

LEGEND

SUBJECT BOUNDARY
ADJOINER BOUNDARY
INDEX CONTOUR
DASH ICONTOUR
DEP. ICONTOUR
DASH DEP. ICONTOUR
CONTOUR
DASH CONTOUR
DEP. CONTOUR
DASH DEP. CONTOUR
CONTOUR INTERVAL EQUALS ONE FOOT.

SANITARY SEWER MAIN (SS)
STORM DRAIN LINE (SD)
WATER LINE (W)
ELECTRIC AND TELEPHONE (ET)
LANE STRIPE
FENCE
DASHED FENCE
RETAINING WALL
RETAINING WALL W/FENCE
BLOCK WALL
PIPE
STATE HWY.

GUARDRAIL
RAILROAD
PILES,ROCKS
TRENCH
CULVERT
WATER
POOL,SPA
VEGETATION,ORCHARD
BRUSH
EDGE OF ASPHALT,RAMPS
CURB & GUTTER,DRIVEWAY,SIDEWALK
GUTTER
CONCRETE
DIRT ROAD,TRAIL

NUM	BEARING	DISTANCE
L31	N88°29'39"E	63.14'
L32	S79°13'45"E	42.92'
L33	S80°55'22"E	48.67'
L34	S62°54'59"E	51.01'
L35	S88°17'16"E	61.27'
L36	N86°55'04"E	48.08'
L37	N22°12'23"W	6.09'
L38	S67°47'37"W	5.00'
L39	N22°12'23"W	375.19'
L40	N29°29'06"E	6.37'
L41	N22°12'23"W	76.98'

SYMBOLS

POST
1 POST SIGN
2 POST SIGN
WATER VALVE
DROP INLET
CATCH BASIN
FIRE HYDRANT
MANHOLE
POWERPOLE
DIRECTIONAL POWERPOLE
GUY ANCHOR
STREET LIGHT
STREET LIGHT W/ARM
RAIL ROAD SIGNAL

ABBREVIATIONS

ASPH ASPHALT
CONC CONCRETE
DI DROP INLET
JP JOINT UTILITY POLE
SDMH STORM DRAIN MANHOLE
SSMH SANITARY SEWER MANHOLE
SP SIGNAL POLE
WV WATER VALVE

GRAPHIC SCALE

100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

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REGISTERED PROFESSIONAL ENGINEER JOEL FRANCIS ATIGA No. 53588 STATE OF CALIFORNIA

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APN 018–711–34 (PART) & –35

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MAY 23, 2022 2ND SUBMITTAL	

BOWMAN & WILLIAMS
CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS
3949 RESEARCH PARK COURT, SUITE 100
SOQUEL, CA 95073–2094
(831) 426–3560

EXISTING CONDITIONS MAP
TOPOGRAPHY
OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA

SCALE 1" = 100'	DRAWN	JOB NO. 28595	SHEET C1.1
DATE DECEMBER 13, 2021	CHECKED	INDEX PAJARO 2	
DESIGN	DWG NAME	FILE NO. 28595	OF 19

PA/PM:	
DRAWN BY.:	
JOB NO.:	SNR21-0142-00

SHEET
C1.1

WARE MALCOMB
ARCHITECTURE CIVIL ENGINEERING
PLANNING LANDSCAPE
INTERIORS BUILDING MEASUREMENT
4683 Chabot Dr. Suite #200
Pleasanton, CA 94588
P (925) 244-6600

CIENT LOGO

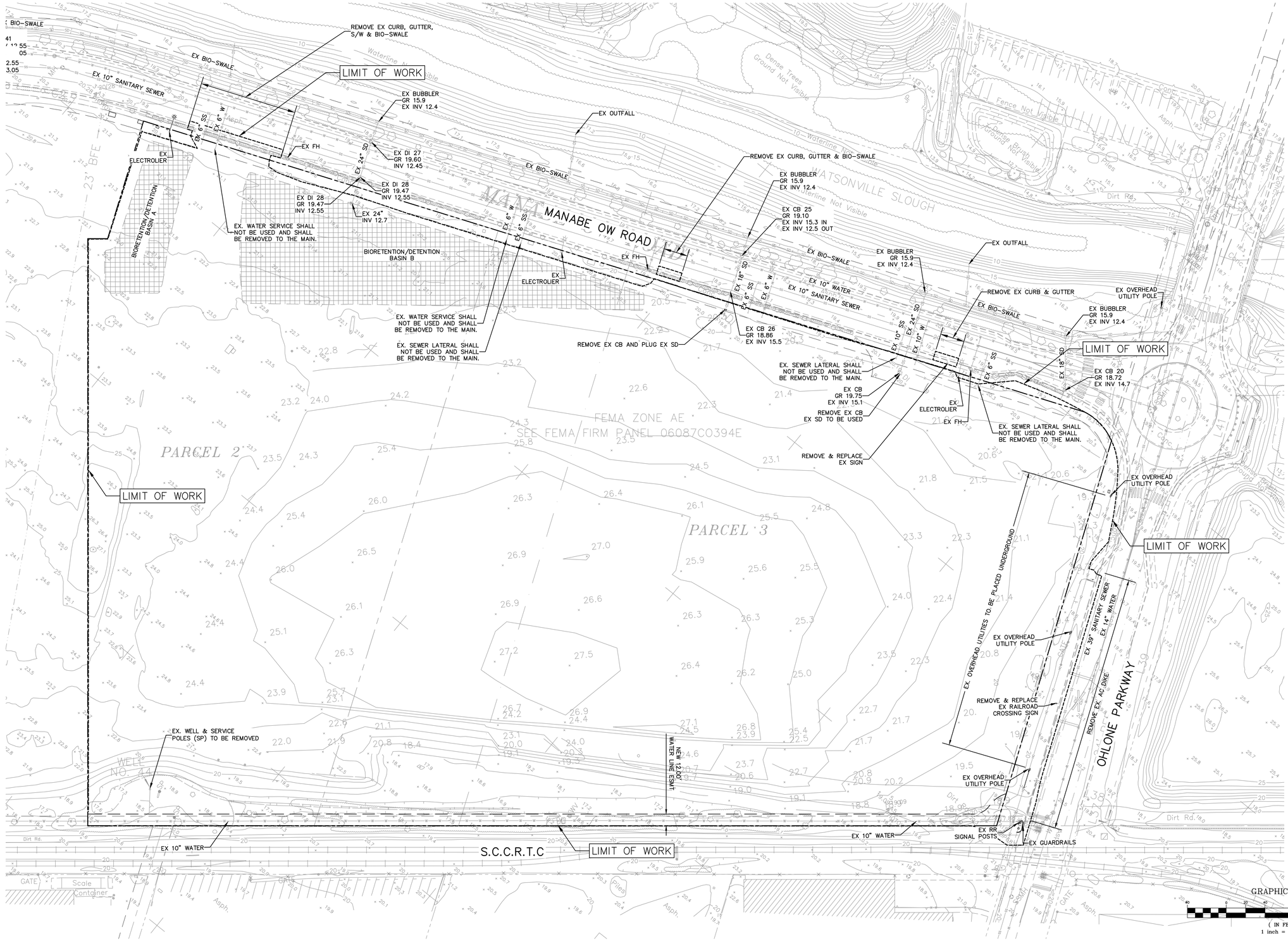
OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA 95076

EXISTING CONDITIONS MAP
TOPOGRAPHY

REMARKS	DATE
2ND SUBMITTAL	MAY 23, 2022

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CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS
3949 RESEARCH PARK COURT, SUITE 100
SOQUEL, CA 95073-2094
(831) 426-3560

PRELIMINARY DEMOLITION PLAN

OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA

SCALE 1" = 40'	DRAWN	JOB NO. 28595	SHEET
DATE DECEMBER 13, 2021	CHECKED	INDEX PAJARO 2	C1.2
DESIGN	DWG NAME	FILE NO. 28595	OF 19

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ARCHITECTURE CIVIL ENGINEERING PLANNING LANDSCAPE ARCHITECTURE INTERIORS BUILDING MEASUREMENT
4683 Chabot Dr. Suite #300
Pleasanton, CA 94588
P 925.249.3520

CIENT LOGO

PRELIMINARY DEMOLITION PLAN

DATE	REMARKS
MAY 23, 2022	2ND SUBMITTAL

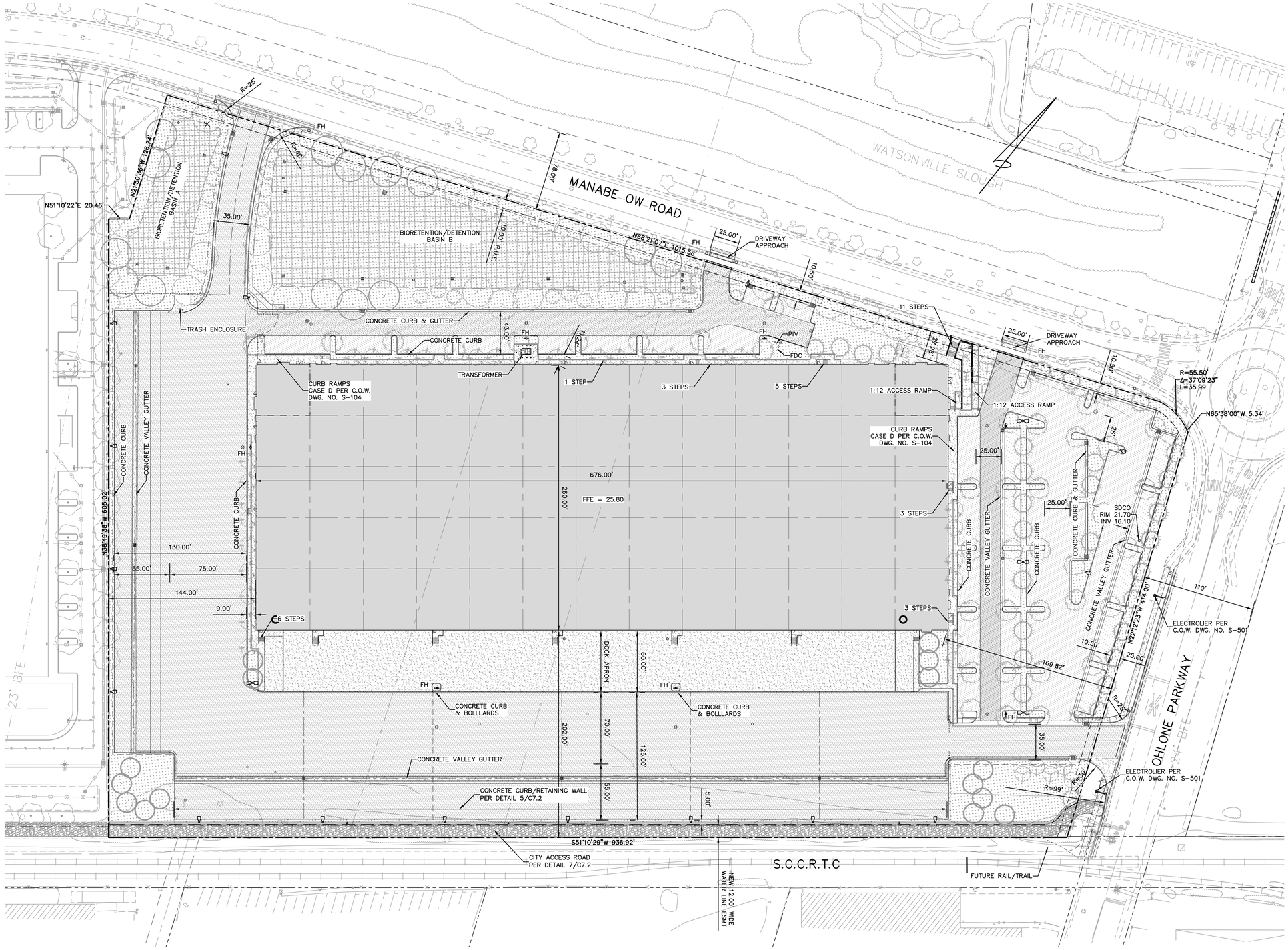
OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA 95076

PA/PM:	
DRAWN BY.:	
JOB NO.:	SNR21-0142-00

SHEET
C1.2

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NOTES:

1. FOR ASPHALT CONCRETE (AC) PAVEMENT TYPICAL SECTION SEE DETAIL 1/C7.1.
2. FOR CONCRETE CURB AND GUTTER SEE DETAIL 2/C7.2.
3. FOR CONCRETE CURB SEE DETAIL 3/C7.2
4. FOR CONCRETE SIDEWALK SEE DETAIL 1/C7.2
5. FOR VALLEY GUTTER SEE CONCRETE CROSS GUTTER C.O.W. DWG. NO. S-103
6. SEE SHEET C7.4 FOR STREET BIO-SWALE DETAILS.
7. SEE SHEET C7.5 FOR ON-SITE BIO-RETENTION DETAILS
8. HEAVY DUTY CONCRETE PAVEMENT INCLUDES #4 REINF. BARS @ 18" GRID SPACING
9. MEDIUM DUTY CONCRETE PAVEMENT INCLUDES 6X6 WWF.
10. CONCRETE PAVEMENT CONSTRUCTION JOINTS SHALL HAVE PNA – DIAMOND DOWEL'LOAD TRANSFER PLATES. MAXIMUM DISTANCE BETWEEN SAW CUTS IS 15'-0"EACH WAY. THE POURS SHALL BE NO MORE THAN 75' LONG CONTINUOUS.
11. FOR WORK IN THE CITY R/W SEE SHEETS C7.1 – C7.4 FOR CITY STANDARD DETAILS.
12. NEW 12' WIDE WATERLINE EASEMENT IS SUBJECT TO EXISTING 12" CIP WATER MAIN POTHOLING RESULTS AND CITY APPROVAL.
13. COMPLY WITH PAVEMENT CUTOFF RECOMMENDATIONS PER GEOTECHNICAL INVESTIGATION SEC. 10.4 AND SEC. 9.4 RECOMMENDATIONS FOR EXTERIOR CONCRETE FLATWORK DESIGN AND ISOLATION FROM ADJACENT IMPROVEMENTS.

PVMT TYPE	A.C. (MIN. THICK)	A.B. (MIN. THICK)
AUTOMOBILE PARKING	3.0"	9.0"
AUTO. DRIVE AISLES	3.0"	9.0"
FIRE/TRUCK ACCESS LANES	4.0"	14.5"
HEAVY DUTY CONCRETE PAVEMENT	8.0" (SEE NOTE 7.)	6.0"
MEDIUM DUTY CONCRETE PAVEMENT	6.5" (SEE NOTE 8.)	6.0"

NOTES:

1. THICKNESSES CITED ARE FOR UN-TREATED SUBGRADE
2. PCC CONCRETE FLEXURAL STRENGTH > 550 PSI W/MIN. 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI, AND TO INCLUDE EXPANSION & CONTROL JOINTS PER GEOTECHNICAL INVESTIGATION SEC. 10.2, PAGE 38.
3. REFERENCE IS MADE TO THE GEOTECHNICAL INVESTIGATION "COMPACTION REQUIREMENTS" SEC. 6.9 FOR SUBGRADE PREPARATION.

LEGEND

- (P) CONC PAVEMENT
- (P) FIRE LANE ASPHALT PAVEMENT
- (P) ASPHALT PAVEMENT
- (P) LANDSCAPED AREAS
- (P) BIO-RETENTION AREAS

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

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APN 018-711-34 (PART) & -35

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	MAY 23, 2022 2ND SUBMITTAL

BOWMAN & WILLIAMS
CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS
3949 RESEARCH PARK COURT, SUITE 100
SOQUEL, CA 95073-2094
(831) 426-3560

PRELIMINARY SITE PLAN

OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA

SCALE 1" = 40'	DRAWN	JOB NO. 28595	SHEET C2.1
DATE DECEMBER 13, 2021	CHECKED	INDEX PAJARO 2	OF 19
DESIGN	DWG NAME	FILE NO. 28595	

WARE MALCOMB
ARCHITECTURE CIVIL ENGINEERING PLANNING LANDSCAPE ARCHITECTURE INTERIORS BUILDING MEASUREMENT
4683 Chabot Dr. Suite #308 Pleasanton, CA 94588 P 925.249.9525

CIENT LOGO

PRELIMINARY SITE PLAN
DATE MAY 23, 2022
REMARKS 2ND SUBMITTAL

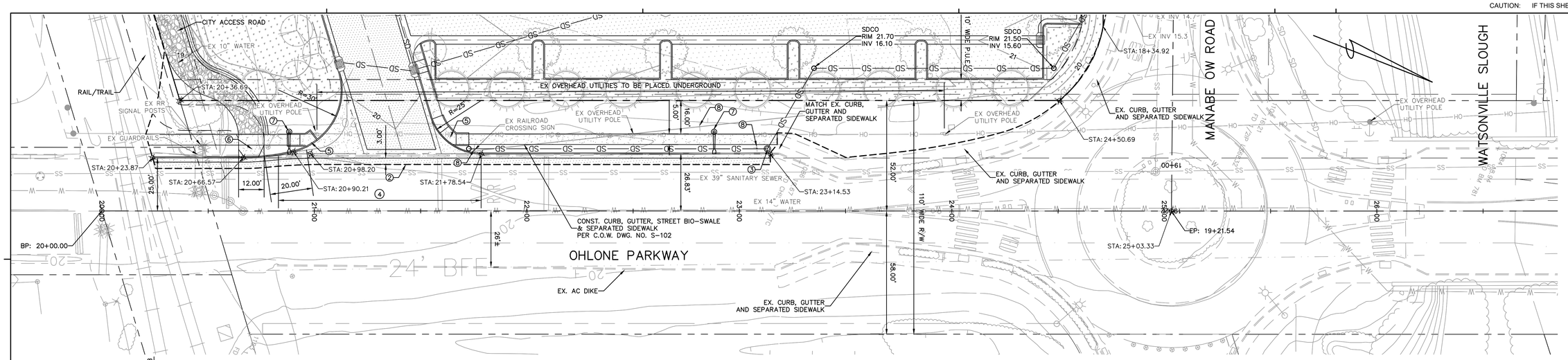
OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA 95076

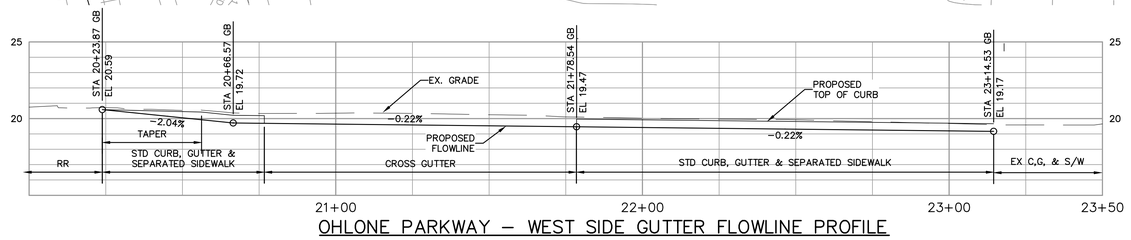
PA/PM:	
DRAWN BY.:	
JOB NO.:	SNR21-0142-00

SHEET C2.1

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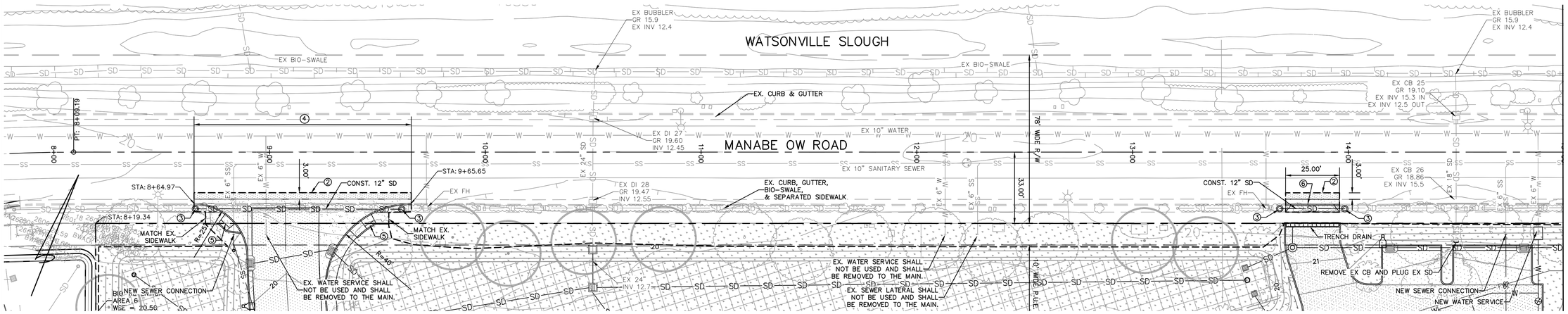
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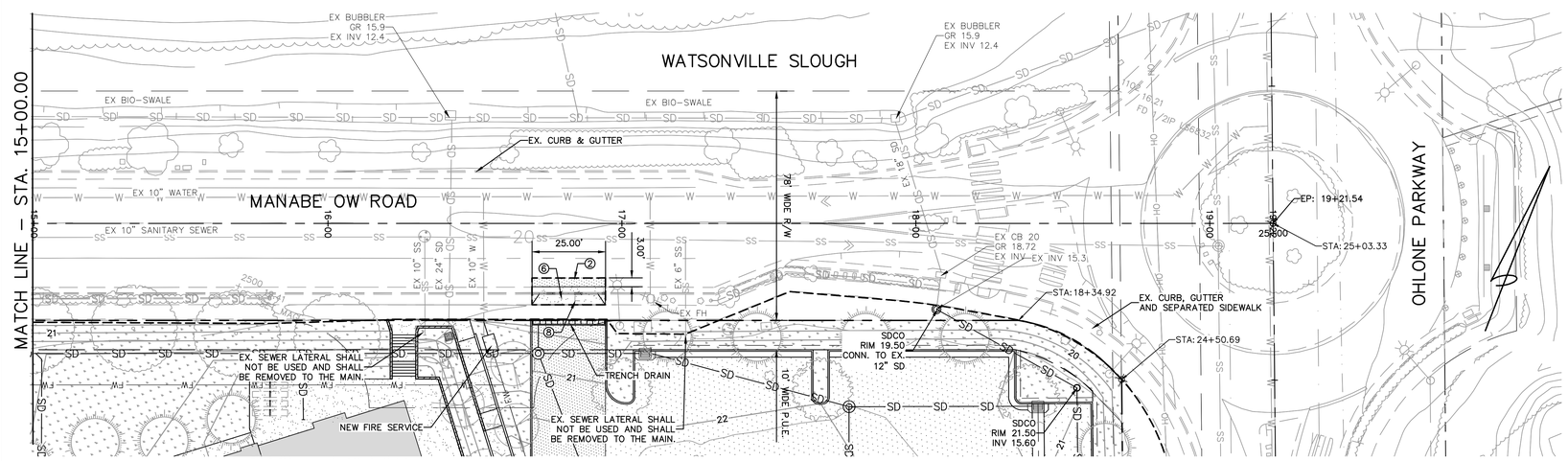




OHLONE PARKWAY – WEST SIDE GUTTER FLOWLINE PROFILE

SCALE: 1" = 20' H., 1" = 4' V.





SITE PLAN NOTES:

1. BEFORE PROJECT COMPLETION, REPLACE ANY CRACKED AND/OR BROKEN CITY CURB, GUTTER, AND SIDEWALK ALONG THE PROJECT FRONTAGE OF MANABE OW ROAD AND OHLONE PARKWAY AT THE SATISFACTION OF THE CITY.
2. SAWCUT EX PAVEMENT TO PRODUCE A STRAIGHT VERTICAL EDGE AGAINST WHICH TO ABUT NEW PAVEMENT.
3. CONSTRUCT OVERFLOW STRUCTURE PER C.O.W. DWG. NO. LID-003.
4. CONSTRUCT 4' WIDE CROSS GUTTER PER C.O.W. DWG. NO. S-103.
5. CURB RAMPS SHALL BE CASE C PER C.O.W. DWG. NO. S-104.
6. DRIVEWAY APPROACHES SHALL BE TYPE "A" WITH A 5' WIDE SIDEWALK (EXISTING) AND 4' WIDE DRIVEWAY APPROACH PER C.O.W. DWG. NO. S-105.
7. ELECTROLIER SHALL BE PER C.O.W. DWG. NO. S-501.
8. REMOVE AND REPLACE EX. SIGN

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

1 inch = 20 ft.

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APN 018-711-34 (PART) & -35

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WARE MALCOMB
ARCHITECTURE CIVIL ENGINEERING
PLANNING LANDSCAPE
INTERIORS BUILDING MEASUREMENT
4883 Chabot Dr. Suite #300
Pleasanton, CA 94588
P 925.249.9529

CIENT LOGO

PRELIMINARY STREET IMPROVEMENT PLANS

REMARKS	DATE
2ND SUBMITTAL	MAY 23, 2022

REVISED	
MAY 23, 2022 2ND SUBMITTAL	

PA/PM:	
DRAWN BY.:	
JOB NO.:	SNR21-0142-00

BOWMAN & WILLIAMS
CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS
3949 RESEARCH PARK COURT, SUITE 100
SOQUEL, CA 95073-2094
(831) 426-3560

PRELIMINARY STREET IMPROVEMENT PLANS

OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA

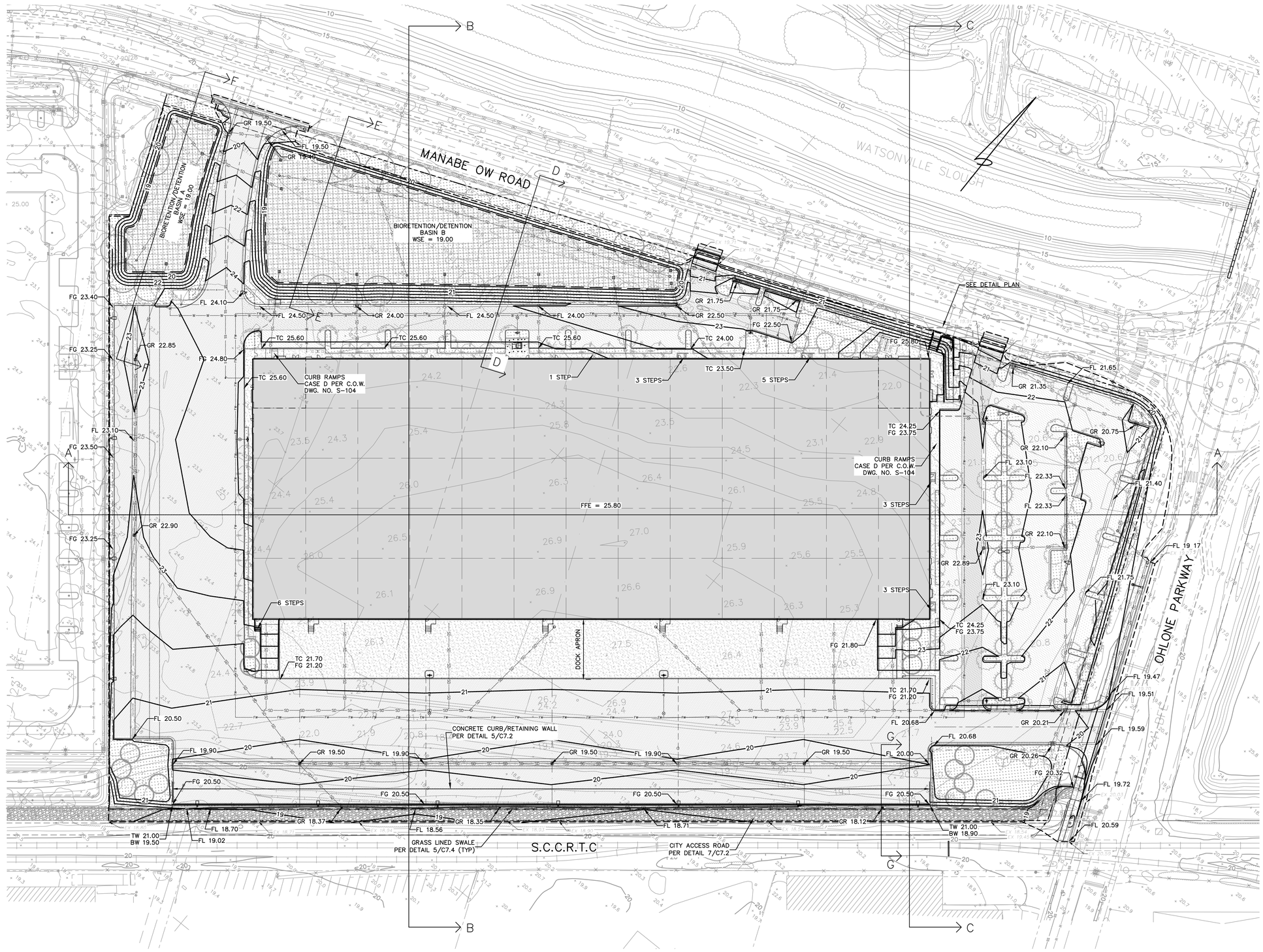
SCALE 1" = 20'	DRAWN	JOB NO. 28595	SHEET C2.2
DATE DECEMBER 13, 2021	CHECKED	INDEX PAJARO 2	OF 19
DESIGN	DWG NAME	FILE NO. 28595	

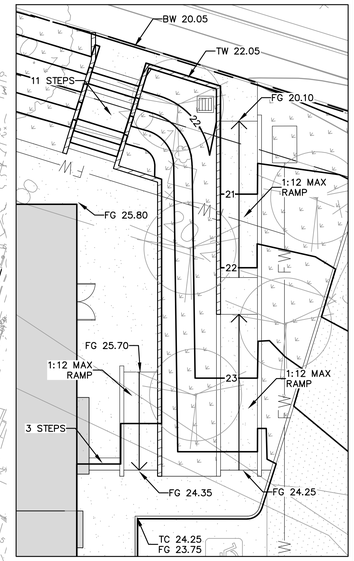
SHEET

C2.2

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DETAIL PLAN
SCALE: 1" = 10'

NOTES:

1. SEE SHEET C7.5 FOR STREET BIO-SWALE DETAILS.
2. SEE SHEET C7.5 FOR ON-SITE BIO-RETENTION DETAILS.
3. SEE SHEET C7.2 FOR RETAINING WALL DETAILS.
4. REFERENCE IS MADE TO THE GEOTECHNICAL INVESTIGATION FOR THE PROPOSED OHLONE PARKWAY INDUSTRIAL FACILITY, OHLONE PARKWAY AND MANABE OW ROAD WASTONVILLE, CA PREPARED FOR CA VENTURES BY CORNERSTONE EARTH GROUP PROJECT NO. 1309-2-1, DATED MAY 5, 2022, FOR SITE CLEARING & PREPARATION, COMPACTION, WET SOIL STABILIZATION, DEWATERING & SHORING REQUIREMENTS
5. THE PAVING AREAS SHALL MEET THE FOLLOWING SLOPE REQUIREMENTS:
   a. DOCK APRONS = MINIMUM OF 1% AND MAXIMUM OF 1.5% (STRAIGHT AWAY FROM BUILDING).
   b. TRUCK AREAS = MINIMUM OF 1% AND MAXIMUM 5%.
   c. CAR AREAS = MINIMUM OF 1% AND MAXIMUM 6% (MUST MEET ALL ADA REQUIREMENTS).
   d. CANOPY SLABS = MINIMUM OF 1% AND MAXIMUM OF 1.5% (STRAIGHT AWAY FROM BUILDING).
   e. ALL HARD
6. ALL GRADED SLOPES SHALL BE 3:1 MAXIMUM.

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

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REGISTERED PROFESSIONAL ENGINEER JOEL FRANCIS ATOCA No. 53588 STATE OF CALIFORNIA

PRELIMINARY
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APN 018-711-34 (PART) & -35

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	MAY 23, 2022 2ND SUBMITTAL

BOWMAN & WILLIAMS
CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS
3949 RESEARCH PARK COURT, SUITE 100
SOQUEL, CA 95073-2094
(831) 426-3560

PRELIMINARY GRADING PLAN

OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA

SCALE 1" = 40'	DRAWN	JOB NO. 28595	SHEET C3.1
DATE DECEMBER 13, 2021	CHECKED	INDEX PAJARO 2	OF 19
DESIGN	DWG NAME	FILE NO. 28595	

WARE MALCOMB
ARCHITECTURE CIVIL ENGINEERING PLANNING LANDSCAPE ARCHITECTURE INTERIORS BUILDING MEASUREMENT
4683 Chabot Dr. Suite #300 Pleasanton, CA 94588 P 925.249.9520

CIENT LOGO

OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA 95076

PRELIMINARY GRADING PLAN

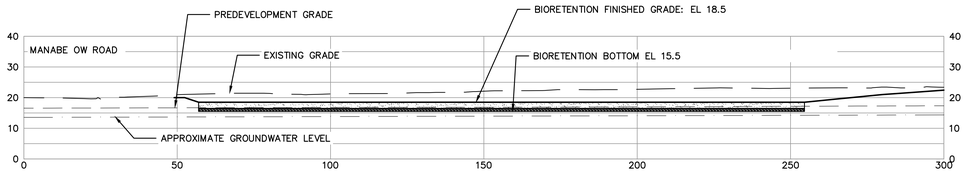
DATE	REMARKS
MAY 23, 2022	2ND SUBMITTAL

PA/PM:	
DRAWN BY.:	
JOB NO.:	SNR21-0142-00

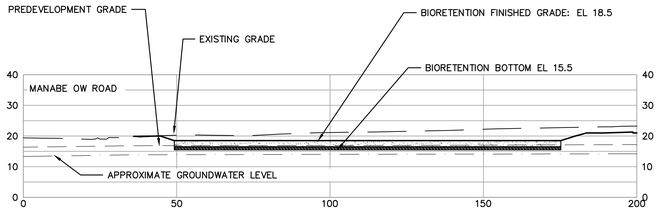
SHEET
C3.1

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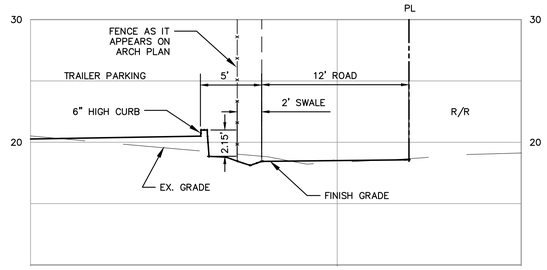
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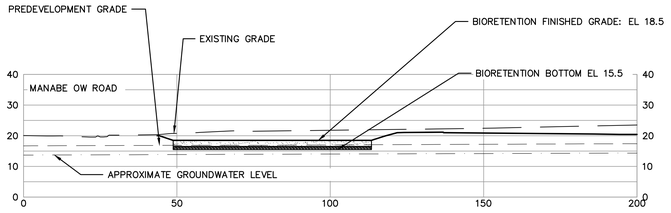
SECTION F – F
SCALE: 1" = 20'



SECTION E – E
SCALE: 1" = 20'



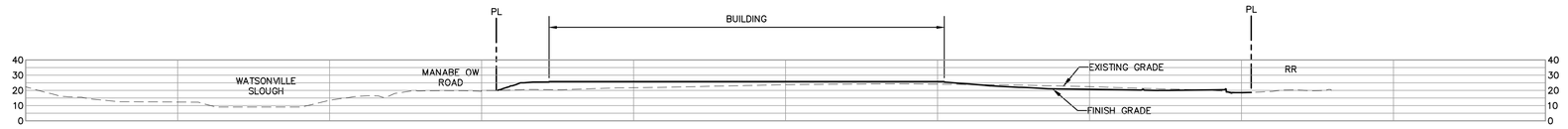
SECTION G – G
SCALE: 1" = 10'



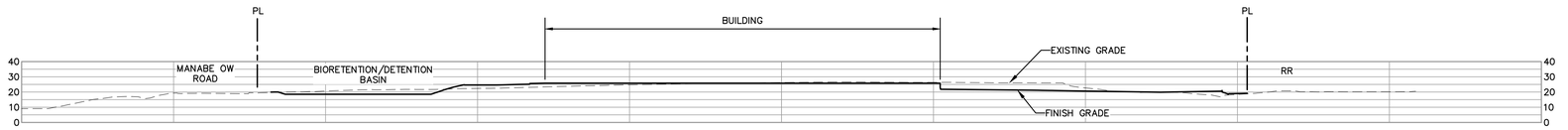
SECTION D – D
SCALE: 1" = 20'

NOTES:

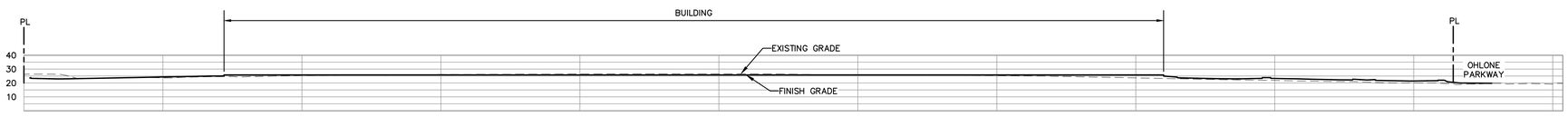
1. PREDEVELOPMENT ELEVATIONS SHOWN HEREON ARE FROM THE AERIAL SURVEY FOR THE MANABE–OW BUSINESS MASTER PLAN & FINAL IMPROVEMENTS PLANS, APPLICATION NO. PP2013–14, BW JOB 24735, DATED SEPTEMBER 6, 2013 (CONVERTED TO NAVD88 DATUM)
2. GROUNDWATER LEVELS SHOWN HEREON ARE SET AT 3 FEET BELOW THE NATIVE SOIL LEVEL, AS DESCRIBED IN THE GEOTECHNICAL INVESTIGATION FOR THE OHLONE PARKWAY INDUSTRIAL FACILITY, PREPARED BY CORNERSTONE EARTH GROUP, DATED MAY 5, 2022, PROJECT 1309–2–1.



SECTION C – C
SCALE: 1" = 40'



SECTION B – B
SCALE: 1" = 40'



SECTION A – A
SCALE: 1" = 40'

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~~MARCH 23, 2022~~ 2ND SUBMITTAL	~~PHOTOGRAPHY~~

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SOQUEL, CA 95073–2094
(831) 426–3560

PRELIMINARY CROSS SECTIONS

OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA

SCALE AS SHOWN	DRAWN
DATE DECEMBER 13, 2021	CHECKED
DESIGN	DWG NAME
JOB NO. 28595	
INDEX PAJARO 2	
FILE NO. 28595	
SHEET C3.2 OF 19	

WARE MALCOMB
ARCHITECTURE CIVIL ENGINEERING
PLANNING SURVEYING
INTERIORS BUILDING MEASUREMENT
4683 Chabot Dr. Suite #300
Pleasanton, CA 94588
P 925.249.3520

CIENT LOGO

PRELIMINARY CROSS SECTIONS

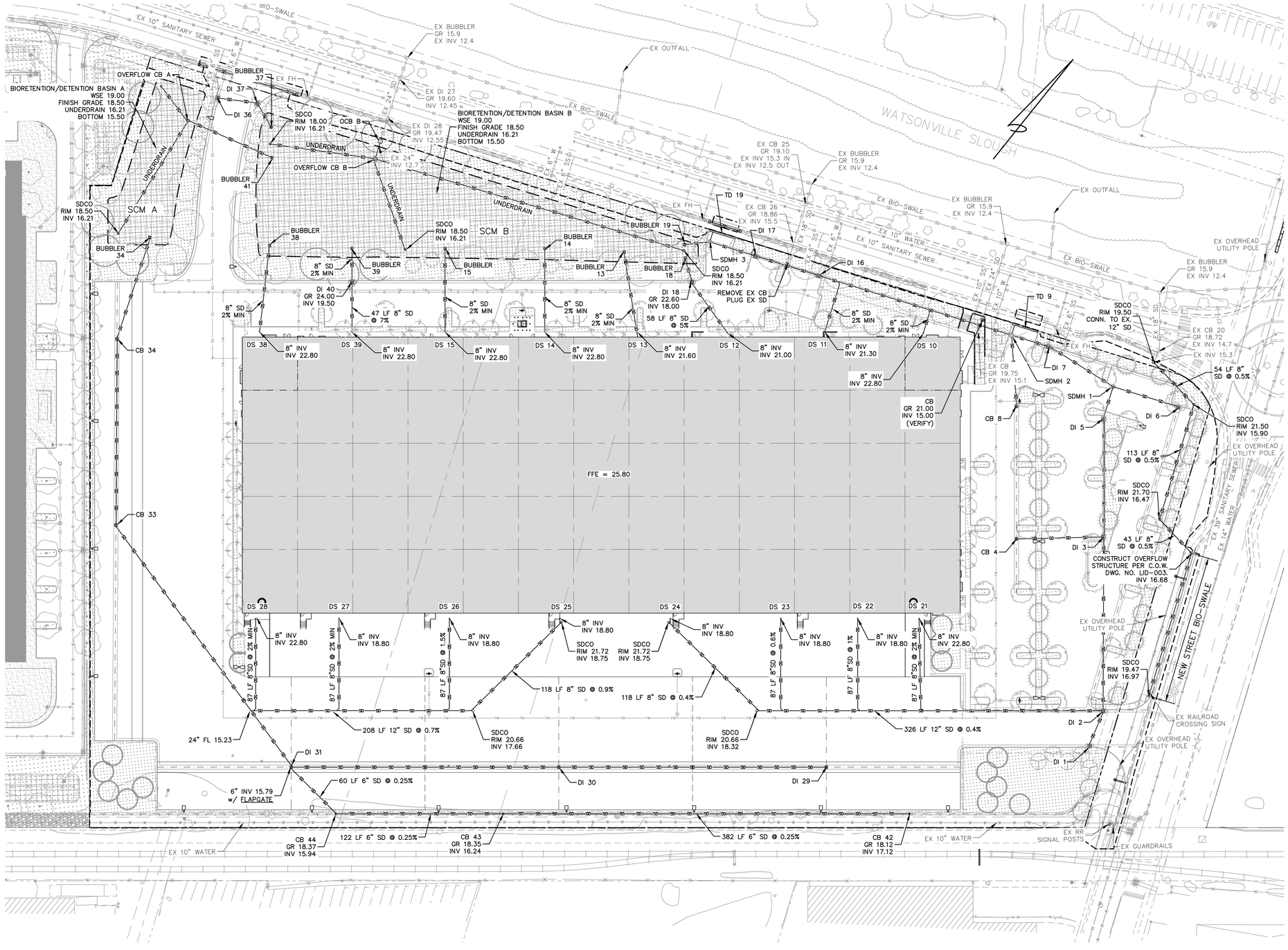
DATE	REMARKS
MAY 23, 2022	2ND SUBMITTAL

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DRAWN BY.:	
JOB NO.:	SNR21-0142-00

SHEET
C3.2

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DRAINAGE STRUCTURE	LENGTH (FT)	DIA. (IN)		SLOPE %	GR/RIM	INV IN	INV OUT
DI 1					20.26		18.70
	35	6	PVC	0.40			
DI 2					20.21	18.56	17.56
	163	18	PVC	0.40			
DI 3					22.25	16.90	16.90
DI 4					22.89		20.39
	82	12	PVC	3.76			
DI 3					22.25	17.31	16.90
	112	18	PVC	0.39			
DI 5					22.75	16.46	16.46
	32	18	PVC	0.41			
SDMH 1					21.96	16.33	16.33
CB 6					20.75		17.75
	65	6	PVC	0.35			
SDMH 1					21.96	17.52	16.33
	63	18	PVC	0.40			
CB 7					21.35	16.08	16.08
	72	18	PVC	0.40			
SDMH 2					20.60	15.79	15.79
CB 8					21.35		18.35
	36	6	PVC	3.06			
SDMH 2					20.60	17.25	15.79
TD 9					19.67		18.00
	10	6	PVC	1.40			
SDMH 2					20.36	17.86	15.79
	190	18	PVC	0.40			
DI 16					21.75	15.03	15.03
	62	18	PVC	0.40			
DI 17					21.75	14.78	14.78
	45	18	PVC	0.40			
SDMH 3					20.40	14.60	14.60
TD 19					19.56		17.89
	10	6	PVC	12.30			
SDMH 3					20.40	16.66	14.60
	24	18	PVC	0.42			
BUBBLER 19					18.50	14.50	14.50
CB 29					19.90		16.50
	126	18	PVC	0.30			
CB 30					19.90	16.12	15.62
	126	24	PVC	0.30			
CB 31					19.90	15.24	15.24
	281	24	PVC	0.30			
CB 33					22.90	14.40	14.40
	175	24	PVC	0.30			
CB 33					22.90	13.88	13.88
	100	24	PVC	0.30			
BUBBLER 34					18.50	13.58	
OVERFLOW CB A					19.00		13.28
	92	24	PVC	0.30			
BUBBLER 41					18.50	13.00	
DI 36					19.50	14.66	14.66
	40	12	PVC	0.83			
DI 37					19.40	14.33	14.33
	24	12	PVC	1.38			
BUBBLER 37					18.50	14.00	
OVERFLOW CB B					19.00	12.70	12.70
	13	24	PVC	0.77			
OCB B					20.00	12.60	12.60
	21	24	PVC	0.24			
EX DI 28					19.47	12.55	12.55
	40	24	PVC	0.25			
EX DI 27					19.60	12.45	12.45
	21	24	PVC	0.24			
EX BUBBLER					15.90	12.40	
EX 26					18.86		15.50
	40	18	PVC	0.50			
EX 25					19.10	15.30	12.50
	20	18	PVC	0.50			
EX BUBBLER					15.90	12.40	
EX 20					18.72	14.70	14.70
	20	18	PVC	11.50			
EX BUBBLER					15.90	12.40	

NOTES:

1. SEE SHEET C7.4 FOR STREET BIO-SWALE DETAILS.
2. FOR BUBBLER STRUCTURE SEE DETAIL 4/C7.5
3. FOR OVERFLOW STRUCTURE SEE DETAIL 3/C7.5
4. FOR OCB SEE DETAIL 5/C7.5
5. FOR BIO-RETENTION SEE DETAIL 1/7.5
6. FOR DI SEE DWG. NO. S-204 ON SHEET C7.4
7. FOR CB SEE DETAIL 3 ON SHEET C7.4
8. FOR SDCO SEE DETAIL 2 ON SHEET C7.4
9. FOR SDMH SEE DWG. NO. S-202 ON SHEET C7.1
10. ALL DRAINAGE INLETS SHALL BE MARKED PER STORM DRAIN MARKER INSTALLATION DWG. NO. S-207 ON SHEET C7.1
11. OUTLET CONTROL BOX 1 SHALL HAVE A WEIR AND ORIFICE FLOW CONTROL PLATE PER DETAIL 5/C7.5.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

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APN 018-711-34 (PART) & -35

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	MAY 23, 2022 2ND SUBMITTAL

BOWMAN & WILLIAMS
CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS
3949 RESEARCH PARK COURT, SUITE 100
SOQUEL, CA 95073-2094
(831) 426-3560

PRELIMINARY DRAINAGE PLAN

OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA

SCALE 1" = 40'	DRAWN
DATE DECEMBER 13, 2021	CHECKED
DESIGN	DWG NAME
JOB NO. 28595	SHEET C4.0
INDEX PAJARO 2	OF 19
FILE NO. 28595	

WARE MALCOMB
ARCHITECTURE CIVIL ENGINEERING PLANNING LANDSCAPE ARCHITECTURE INTERIORS BUILDING MEASUREMENT
4683 Chabot Dr. Suite #300 Pleasanton, CA 94588 P 925.249.9520

CIENT LOGO

PRELIMINARY DRAINAGE PLAN

REMARKS
2ND SUBMITTAL

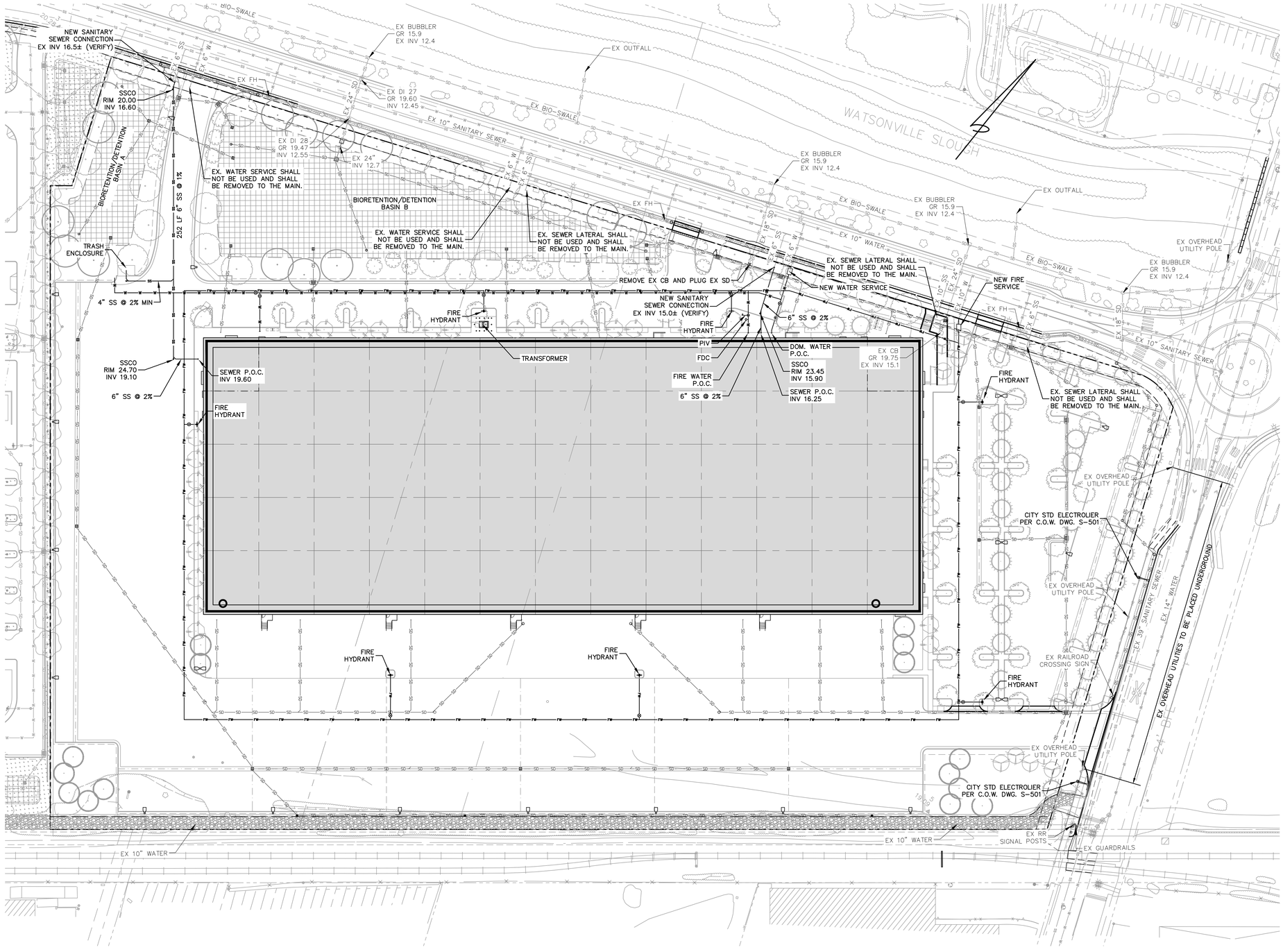
DATE MAY 23, 2022

PA/PM:	
DRAWN BY.:	
JOB NO.:	SNR21-0142-00

SHEET C4.0

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NOTES:

1. FOR WATER, SANITARY SEWER & STORM SEWER PIPING SEE DWG. NO. S-201 ON SHEET C7.1.
2. FOR STANDARD MANHOLE SEE DWG. NO. S-202 ON SHEET C7.1.
3. FOR SEWER LATERAL SEE DWG. NO. S-208a ON SHEET C7.2.
4. FOR STANDARD TRENCH BACKFILL SECTION SEE DWG. NO. S-401 ON SHEET C7.2. WHERE TRENCHES PASS INTO BUILDING AND PAVEMENT AREAS, INCLUDE A PLUG OF LOW-PERMEABILITY CLAY SOIL, SAND-CEMENT SLURRY, OR LEAN CONCRETE.
5. PRIOR TO BUILDING PERMIT ISSUANCE, APPLICANT SHALL PAY SEWER CONNECTION FEE (WMC §6- 3.523).
   a. CONNECTION FEES AND CHARGES SHALL BE IN ACCORDANCE WITH A SCHEDULE ESTABLISHED BY RESOLUTION OF THE COUNCIL. CONNECTION FEES SHALL BE IN EFFECT FOR ALL NEW CONNECTIONS TO A PUBLIC SANITARY SEWER MAIN.
   b. NEW CONSTRUCTION. ALL NEWLY CONSTRUCTED RESIDENTIAL OR COMMERCIAL UNITS SHALL PAY THE APPROPRIATE SANITARY SEWER CONNECTION FEES AS SET FORTH BY COUNCIL RESOLUTION PRIOR TO RECEIVING AN OCCUPANCY PERMIT. ALL NEWLY CONSTRUCTED INDUSTRIAL FACILITIES SHALL, PRIOR TO RECEIVING AN OCCUPANCY PERMIT, ACQUIRE BY PURCHASE OR LEASE SUFFICIENT POTW CAPACITY IN AN AMOUNT EQUAL TO NOT LESS THAN ITS ESTIMATED PEAK MONTHLY DISCHARGE.
6. IF ANY TRUCK OR VEHICLE WASHING WILL BE PERFORMED ON SITE, A TRUCK WASH STATION APPROVED BY THE CITY WILL BE REQUIRED ON SITE.
7. ANY WASTEWATER PRETREATMENT DEVICE AT THIS FACILITY MUST BE APPROVED BY SOURCE CONTROL BEFORE INSTALLATION.
8. PRIOR TO BUILDING PERMIT FINAL, COMPLIANT BACKFLOW PREVENTION DEVICES SHALL BE PROVIDED FOR ALL NEW FIRE AND WATER SERVICE CONNECTIONS.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

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REGISTERED PROFESSIONAL ENGINEER JOEL FRANCIS RICCA No. 53588 STATE OF CALIFORNIA

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APN 018-711-34 (PART) & -35

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MAY 23, 2022 2ND SUBMITTAL	

BOWMAN & WILLIAMS
CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS
3949 RESEARCH PARK COURT, SUITE 100
SOQUEL, CA 95073-2094
(831) 426-3560

PRELIMINARY UTILITY PLAN

OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA

SCALE 1" = 40'	DRAWN	JOB NO. 28595	SHEET C5.0
DATE DECEMBER 13, 2021	CHECKED	INDEX PAJARO 2	OF 19
DESIGN	DWG NAME	FILE NO. 28595	

WARE MALCOMB
ARCHITECTURE CIVIL ENGINEERING
PLANNING LANDSCAPE ARCHITECTURE
INTERIORS BUILDING MEASUREMENT
4683 Chabot Dr. Suite #308
Pleasanton, CA 94588
P 925.244.9525

CIENT LOGO

OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA 95076

PRELIMINARY UTILITY PLAN

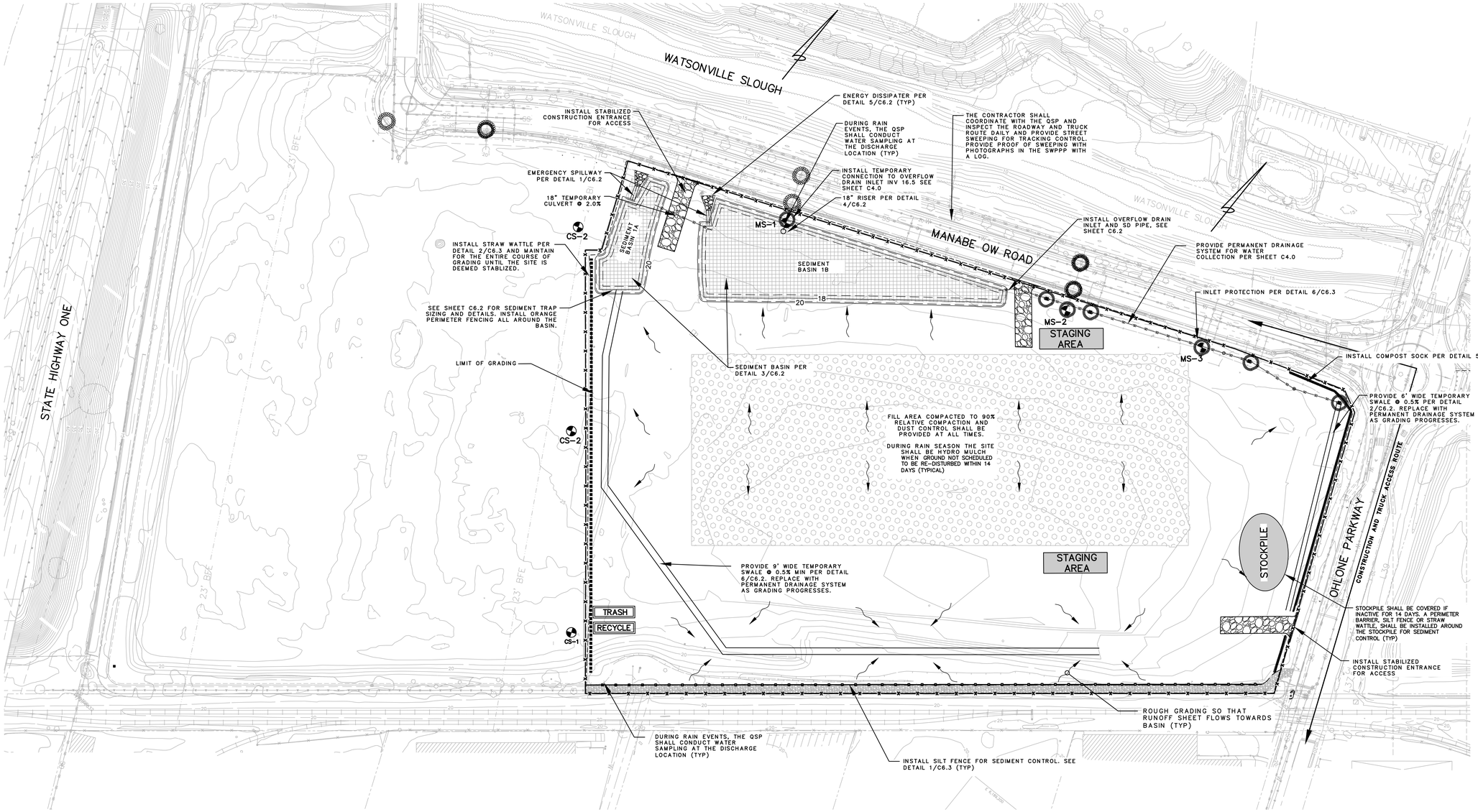
REMARKS	DATE
2ND SUBMITTAL	MAY 23, 2022

PA/PM:	
DRAWN BY.:	
JOB NO.:	SNR21-0142-00

SHEET
C5.0

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LEGEND

- STRAW WATTLE/FIBER ROLL
- INLET PROTECTION DEVICE
- FILTREXX COMPOST SOCK
- PROPERTY LINE
- GRADING LIMITS
- CONTROL OR UPSTREAM (UNCONTAMINATED) SAMPLING LOCATION FOR NON-VISIBLE POLLUTANTS IN THE EVENT OF A SPILL OR UNPLANNED DISCHARGE. — CS-1
- SITE GRADING & EXCAVATION
- CONSTRUCTION ENTRANCE & EXIT
- BUILDING PAD
- POLLUTANT MONITORING SAMPLING LOCATION FOR NON-VISIBLE POLLUTANTS IN THE EVEN OF A SPILL OR UNPLANNED DISCHARGE. ALSO SERVES AS TURBIDITY AND PH TESTING LOCATION. — MS-1

PHASE 1 OPERATIONS

1. MAINTAIN PERIMETER SEDIMENT AND EROSION CONTROL MEASURES.
2. CONSTRUCT AND/OR PROVIDE ADDITIONAL BMPS FOR DISTURBED AREAS NOT UNDER CONSTRUCTION.
3. STABILIZE DISTURBED GROUND NOT SCHEDULED TO BE RE-DISTURBED WITHIN 14 DAYS.
4. USE SOIL BINDER OR HYDRO MULCH AS TEMPORARY BMP TO STABILIZE DISTURBED SOILS PRIOR TO OCCASIONAL LIGHT STORM EVENTS.
5. THE QSP SHALL MONITOR AND EVALUATE THE SOIL CONDITION AT THE PROJECT SITE AND DIRECT THE CONTRACTOR TO INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES AS NEEDED TO PREVENT FURTHER EROSION.
6. ALL DISTURBED AREAS NOT TO BE RE-DISTURBED SHALL BE HYDROSEEDED WITH NATIVE MIX AND MULCH PER THE CITY OF WATSONVILLE MIX ON SHEET 6.3
7. PROVIDE WASTE MANAGEMENT BMPS.
8. EARTHWORK INVOLVING >1,000 CY SHALL BE SUPERVISED BY THE PROJECT SOILS ENGINEER.

GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)
1 inch = 60 ft.

811 Know what's below. Call before you dig.

REGISTERED PROFESSIONAL ENGINEER — JOEL FRANCIS RICCA — No. 53698 — CIVIL — STATE OF CALIFORNIA

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APN 018-711-34 (PART) & -35

REVISED	
MAY 23, 2022	2ND SUBMITTAL

BOWMAN & WILLIAMS
CONSULTING CIVIL ENGINEERS
AND LAND SURVEYORS
3949 RESEARCH PARK COURT, SUITE 100
SOQUEL, CA 95073-2094
(831) 426-3560

PHASE 1 PRELIMINARY STORMWATER POLLUTION PREVENTION PLAN
OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA

SCALE 1" = 60'	DRAWN	JOB NO. 28595	SHEET
DATE DECEMBER 13, 2021	CHECKED	INDEX PAJARO 2	C6.0
DESIGN	DWG NAME	FILE NO. 28595	OF 19

WARE MALCOMB
ARCHITECTURE CIVIL ENGINEERING
PLANNING BRANDING
INTERIORS BUILDING MEASUREMENT
4683 Chabot Dr. Suite #300
Pleasanton, CA 94588
P 925.244.9620

CIENT LOGO

OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA 95076

PHASE 1 PRELIMINARY STORMWATER POLLUTION PREVENTION PLAN

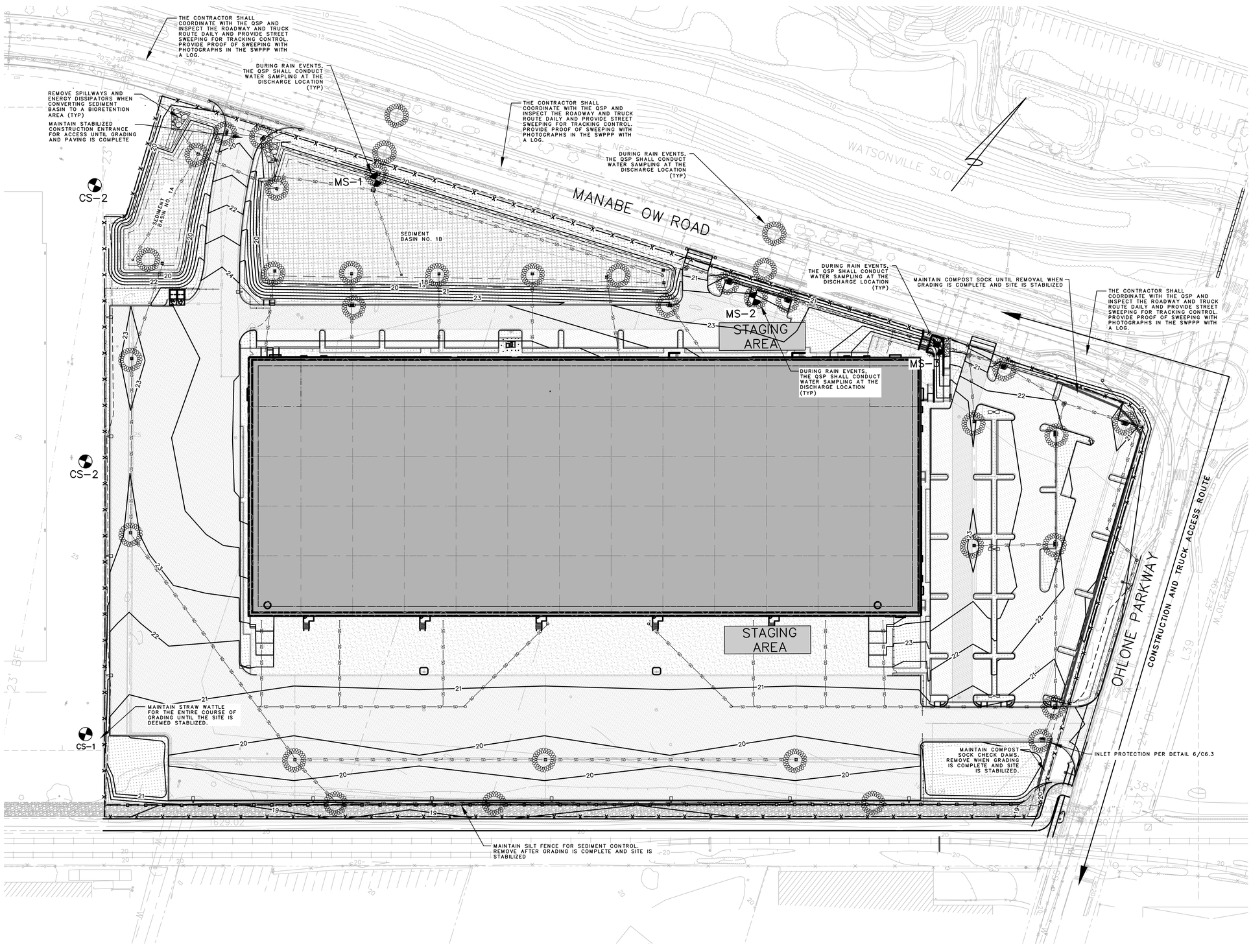
DATE	REMARKS
MAY 23, 2022	2ND SUBMITTAL

PA/PM:	
DRAWN BY.:	
JOB NO.:	SNR21-0142-00

SHEET
C6.0

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PHASE 2 OPERATIONS

1. INSTALL PERIMETER SEDIMENT AND EROSION CONTROL MEASURES.
2. CONSTRUCT AND/OR PROVIDE ADDITIONAL BMPS FOR DISTURBED AREAS NOT UNDER CONSTRUCTION.
3. STABILIZE DISTURBED GROUND NOT SCHEDULED TO BE RE-DISTURBED WITHIN 14 DAYS.
4. USE SOIL BINDER OR HYDRO MULCH AS TEMPORARY BMP TO STABILIZE DISTURBED SOILS PRIOR TO OCCASIONAL LIGHT STORM EVENTS.
5. PRIOR TO RAINY SEASONS, ALL DISTURBED SOIL AREAS SHALL BE STABILIZED WITH ADDITIONAL SEDIMENT BARRIER, SUCH AS STRAW WATTLE OR COMPOST SOCK, AT TOP AND BOTTOM OF SLOPE.
6. GRADED AREAS NOT TO BE RE-DISTURBEDED SHALL BE LANDSCAPED OR HYDROSEED WITH MULCH. SEED MIX SHALL BE PER CITY OF WATSONVILLE MIX ON SHEET C6.3.
7. PROVIDE WASTE MANAGEMENT BMPS.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

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APN 018-711-34 (PART) & -35

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DECEMBER 20, 2021	2ND SUBMITTAL
MAY 23, 2022	TOPOGRAPHY

BOWMAN & WILLIAMS
CONSULTING CIVIL ENGINEERS
AND LAND SURVEYORS
3949 RESEARCH PARK COURT, SUITE 100
SOQUEL, CA 95073-2094
(831) 426-3560

PHASE 2 PRELIMINARY STORMWATER POLLUTION PREVENTION PLAN
OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA

SCALE 1" = 40'	DRAWN	JOB NO. 28595	SHEET
DATE DECEMBER 13, 2021	CHECKED	INDEX PAJARO 2	C6.1
DESIGN	DWG NAME	FILE NO. 28595	OF 19

REGISTERED PROFESSIONAL ENGINEER
JOEL FRANCIS RICCA
No. 53588
STATE OF CALIFORNIA

WARE MALCOMB
ARCHITECTURE CIVIL ENGINEERING
PLANNING BRANDING
INTERIORS BUILDING MEASUREMENT
4683 Chabot Dr. Suite #300
Pleasanton, CA 94588
P 925.244.9620

CIENT LOGO

OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA 95076

PHASE 2 PRELIMINARY STORMWATER POLLUTION PREVENTION PLAN

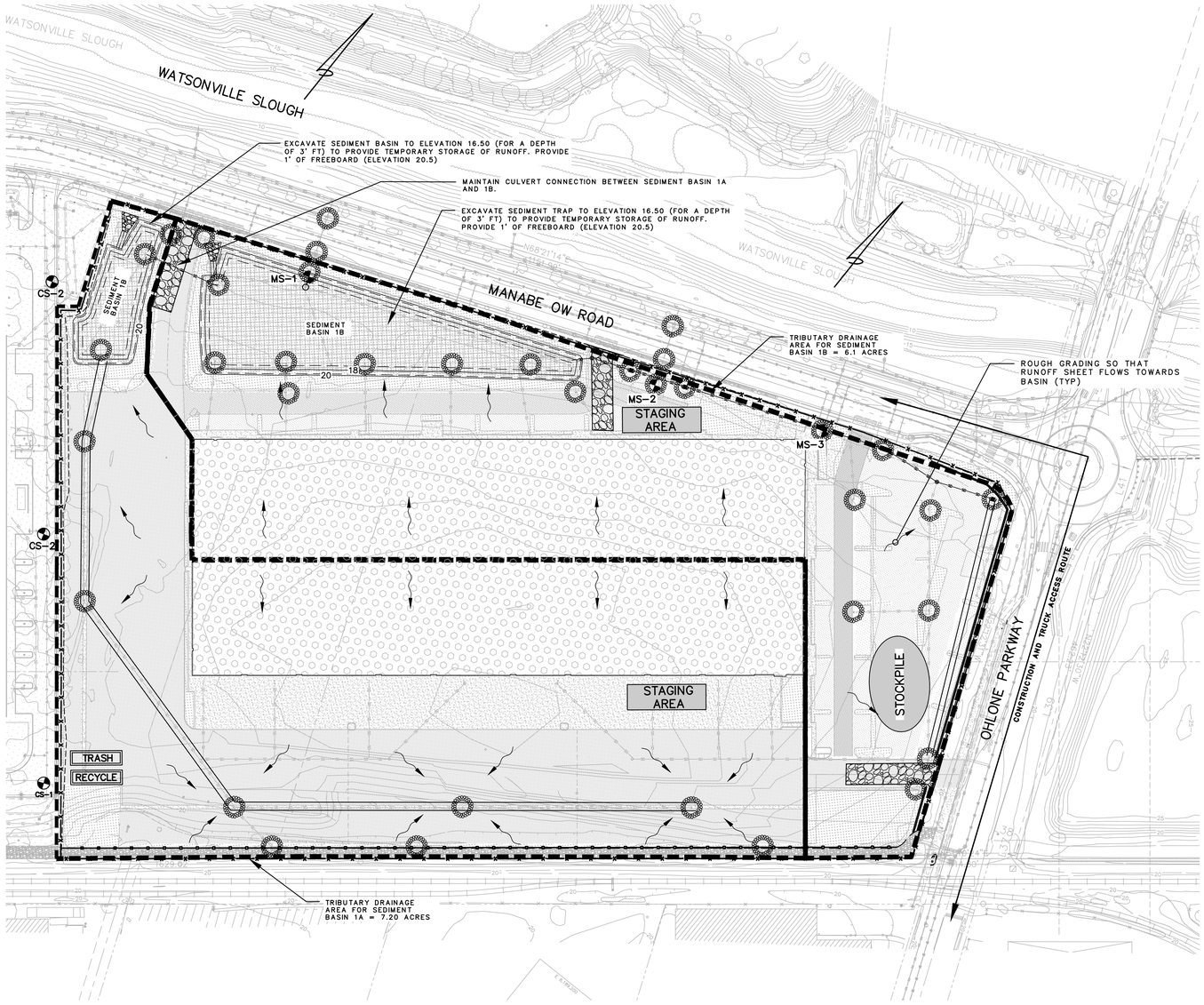
DATE	REMARKS
MAY 23, 2022	2ND SUBMITTAL

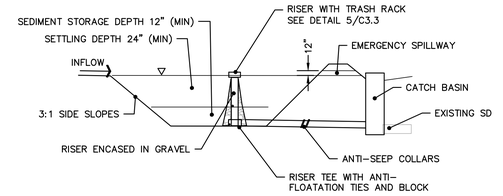
PA/PM:	
DRAWN BY.:	
JOB NO.:	SNR21-0142-00

SHEET
C6.1

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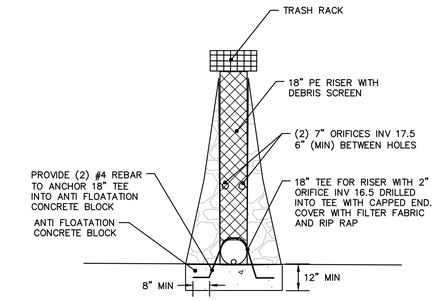
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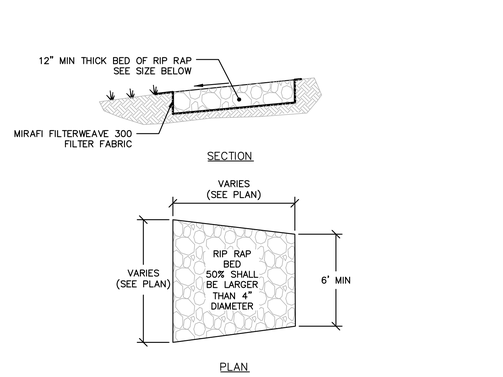


NOTE:
1. PROVIDE CHAIN LINK FENCE AROUND THE SEDIMENT BASIN.
2. THE BASIN ALIGNMENT IS DESIGNED SUCH THAT THE LENGTH OF THE BASIN IS MORE THAN TWICE THE WIDTH OF THE BASIN; ANY MODIFICATION TO THE BASIN REQUIRES APPROVAL BY THE QSD.
3. APPROXIMATE SEDIMENT LOSS ACCUMULATED BY THE BASIN IS 330 TONS (4400 CF). CONTRACTOR SHALL BE RESPONSIBLE FOR ANNUAL SEDIMENT REMOVAL.

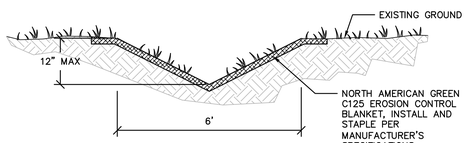
3 / C6.2 — SEDIMENT BASIN
SCALE: N.T.S.



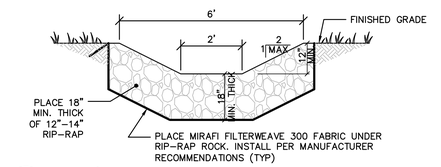
4 / C6.2 — 18" RISER DETAIL
SCALE: N.T.S.



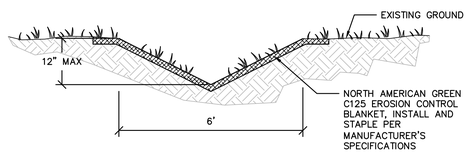
5 / C6.2 — ENERGY DISSIPATOR
SCALE: NTS



6 / C6.2 — 9' GRASS LINED SWALE
SCALE: NTS



1 / C6.2 — 6' WIDE SPILL WAY TYPICAL SECTION
SCALE 1/2" = 1'-0"



2 / C6.2 — 6' GRASS LINED SWALE
SCALE: NTS

GRAPHIC SCALE
60 0 30 60 120 240
(IN FEET)
1 inch = 60 ft.

811 Know what's below. Call before you dig.

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APN 018-711-34 (PART) & -35

REVISED
MAY 23, 2022 2ND SUBMITTAL

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CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS
3949 RESEARCH PARK COURT, SUITE 100
SOQUEL, CA 95073-2094
(831) 426-3560

PHASE 1 PRELIMINARY SEDIMENT TRAPS SIZING & DETAILS
OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA

SCALE 1" = 60'	DRAWN
DATE DECEMBER 13, 2021	CHECKED
DESIGN	DWG NAME
JOB NO. 28595	SHEET C6.2
INDEX PAJARO 2	OF 19
FILE NO. 28595	

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PLANNING LANDSCAPE
INTERIORS BUILDING MEASUREMENT
4683 Chabot Dr. Suite #300
Pleasanton, CA 94588
P 925.249.3520

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PHASE 1 PRELIMINARY SEDIMENT TRAP SIZING & DETAILS

REMARKS	DATE
2ND SUBMITTAL	MAY 23, 2022

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DRAWN BY.:	
JOB NO.:	SNR21-0142-00

SHEET
C6.2

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City of Watsonville
Erosion Control Standards

Temporary erosion control measures are effective all year long

.

General Requirements

1. If any grading operations, other than lot finish grading, are to be performed during the rainy season, October 15 through April 15, an **Erosion Control Plan must be submitted by August 15** and the plan must be approved by the City of Watsonville prior to the commencement of any such grading operations.

2. All erosion and sediment control measures shall be constructed and maintained in accordance with the ***Erosion and Sediment Control Field Manual***, published by the California Regional Water Quality Control Board, Region 2, unless otherwise stated within these Standards. Recommended practices cited in these standards come from the Third Edition, July 1999. Control measures are subject to the inspection and approval of the City. Schedule an initial site inspection by calling 831-728-6018 at least 48 hours prior to the start of any work.

3. Except as otherwise directed by the Inspector, **all devices shown on the Erosion Control Plan shall be in place at the end of each day**. All erosion control facilities must be inspected and repaired by the owner/contractor at the end of each working day ~~during the rainy season~~ and maintained ~~during the rainy season (October 15 to April 15)~~. Any erosion control facilities that are disturbed during the work day must be in place and functional by the end of each day.

4. **Temporary erosion control devices and Best Management Practices (BMPs) shall be relocated or modified only with approval of the Inspector**.

5. The Permittee or Contractor shall be responsible for any and all emergency work during rainstorms.

6. Borrow areas and temporary stockpiles shall be protected with appropriate erosion control measures to the satisfaction of the Inspector. (Recommended Practices: *Temporary seeding and mulching, p. 31; Hydromulching - hydroseeding, p. 35; Erosion control blankets and geotextiles, p. 45; Fiber rolls, p. 47*).

7. Sufficient erosion control materials shall be stored on site and placed at intervals shown on erosion control plans.

Inspections

8. After October 15, all erosion control measures will be **inspected by the City daily and after each storm**. After October 15, damage to BMPs must be repaired at the close of each day and whenever rain is forecast.

Hydroseeding and Mulching

9. **All graded areas with slopes in excess of 5% shall be hydroseeded per the *Erosion and Sediment Control Field Manual, p. 35*.** In addition to hydroseeding, application of **straw with a tackifier or mulch may be required** by the City. Graded areas with slopes less than 5% shall be protected from erosion with straw and a tackifier. An approved mix design follows:

~~Blando Brome~~	BROMUS CARINATUS	~~30 lbs./acre~~ 25 LBS./ACRE
~~Zorro Fescue~~	ELYMUS GLAUCUS	~~10 lbs./acre~~ 10 LBS./ACRE
~~Hykon Rose Clover~~	VULPIA MICROSTACHYS	~~12 lbs./acre~~ 6 LBS./ACRE
~~California Native Wildflower~~	TRIFOLIUM CILIATUM	~~8 lbs./acre~~ 4 LBS./ACRE
Fertilizer (ammonium phosphate with sulfur, 16-20-0)		200 lbs./acre
Organic Binder		100 lbs./acre
Straw Mulch		4000 lbs./acre (about 45 bales/acre)

~~Note: Santa Cruz County Erosion Control Mix (used at 60 lbs/acre) may be used for the seed portion of the above mix.~~

Stormwater Conveyance

10. If the permanent storm drain system is not installed by October 1, **temporary ditches shall be constructed** to contain the storm water and direct it to sediment control facilities. Temporary ditches shall be lined with a suitable material that prevents erosion of the ditch.

Provide **velocity check dams in all unpaved graded channels** at the intervals indicated below. (Recommended Practices: *Check dams, p. 57; Temporary straw bale dike, p. 65; Sand/gravel bag barrier, p. 69*).

Grade of Channel	Interval
Less than 3%	100 feet
3% to 6%	50 feet
Over 6%	25 feet

11. **All cut and fill slopes are to be protected to prevent overbank flow** using 4" earth berms or sand bags. When directed by the Inspector, a 12-inch berm shall be maintained along the top of the slope of those fills on which grading is not in progress. (Recommended Practice: *Sand/gravel bag barrier*, p. 69).

12. Provide **velocity check dams in all unpaved streets** at the intervals indicated below. Velocity check dams may be constructed of straw bales, sandbags or other erosion resistant materials approved by the Inspector, and shall extend completely across the street or channel at right angles to the centerline. Earth dikes may not be used as velocity check dams. (Recommended Practices: *Check dams, p. 57; Temporary straw bale dike, p. 65; Sand/gravel bag barrier, p. 69*).

Grade of the Street	Interval
Less than 2%	As required
2% to 4%	100 feet
4% to 10%	50 feet
Over 10%	25 feet

Construction Entrances

13. The Contractor shall place drain rock as a gravel roadway (6" minimum thickness for the full width and 50 feet long) at each road entrance to the site. Any mud that is tracked onto public streets shall be removed the same day. (Recommended Practices: *Stabilized construction entrance, p. 51; Entrance/exit tire wash, p. 53*).

14. All soil and debris shall be removed from any street areas impacted by construction on a daily basis, or more frequently as directed by the Inspector. The site shall be maintained so as to minimize sediment laden runoff to any storm drain or natural drainage system.

Miscellaneous

15. Utility or storm drain trenches that are cut through basin dikes or basin inlet dikes, shall be plugged with sandbags from top of pipe to top of dike. Utility lines shall first be encased in concrete before sandbags are placed.

16. All open utility trenches shall be blocked at the prescribed intervals from the bottom to top with a double row of sandbags prior to backfill. Utility trenches shall be blocked at the prescribed intervals with a double row of sandbags extending two sandbags from the graded surface of the street. Sandbags are to be placed with alternate header and stretcher courses. The intervals prescribed between sandbag locking shall depend on the slope of the ground surface, but not exceed the following:

Grade of the Trench	Interval
Less than 2%	As required
2% to 4%	100 feet
4% to 10%	50 feet
Over 10%	25 feet

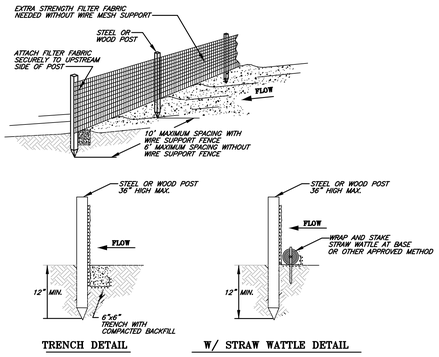
17. After utility trenches are backfilled and compacted, the surfaces over such trenches shall be mounded slightly to prevent channeling of water in the trench area. Care should be exercised to provide for cross flow at frequent intervals where trenches are not on the center line of a crowned street.

18. **Hazardous materials and wastes**, including petroleum products, asphalt products, pesticides, paints, stains, solvents, and concrete curing compounds must be properly stored and handled, as per the *Erosion and Sediment Control Field Manual, p. 97-106*.

19. Concrete mixing equipment and trucks must be cleaned in a properly constructed **Concrete Washout Area** as per the *Erosion and Sediment Control Field Manual, p. 107*. Concrete wash-out is not allowed to flow into streets, storm drains, or off of the construction site.

Erosion and Sediment Control Field Manual
Third Edition, 1999

To order a copy of this Manual, contact
Friends of the San Francisco Estuary, P.O. Box 791, Oakland, CA 94604-0791,
call (510) 622-2419, or go to http://store.abag.ca.gov/construction.asp

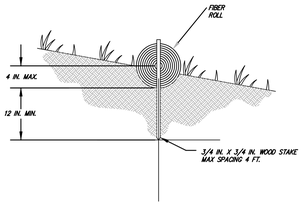


TRENCH DETAIL — W/ STRAW WATTLE DETAIL

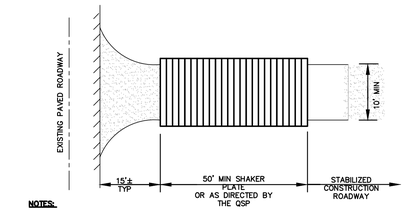
NOTES:

1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" MAXIMUM RECOMMENDED STORAGE HEIGHT.
3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.

1 / C6.2 — SILT FENCE
SCALE: NTS



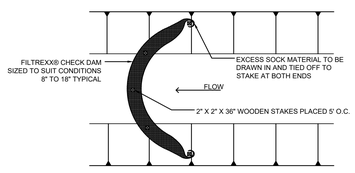
2 / C6.2 — STRAW WATTLES/FIBER ROLLS
SCALE: NTS



NOTES:

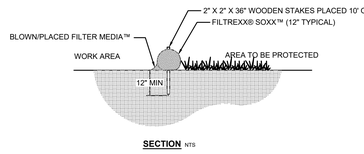
1. THE CONTRACTOR SHALL EMPLOY A MONITORING STATION TO OBSERVE AND ASSESS THE DUST AND TRACKING CONDITIONS.
2. AT THE DIRECTION OF THE QSP, THE CONTRACTOR MAY DEPLOY A STREET SWEEPER TO CONTROL TRACKING.

4 / C6.2 — CONSTRUCTION ENTRANCE/EXIT
SCALE: NTS

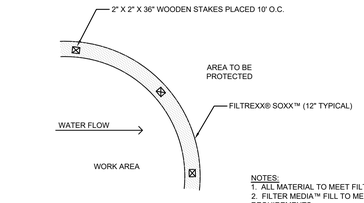


NOTES:
1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
2. CHECK DAM SHOULD BE USED IN AREAS THAT DRAIN 10 ACRES OR LESS.
3. SEDIMENT SHOULD BE REMOVED FROM BEHIND CHECK DAM ONCE THE ACCUMULATED HEIGHT HAS REACHED ½ THE HEIGHT OF THE CHECK DAM.
4. CHECK DAM CAN BE DIRECT SEEDED AT THE TIME OF INSTALLATION.
5. CONTRACTOR IS REQUIRED TO BE A FILTREXX CERTIFIED™ INSTALLER.

7 / C6.2 — **FILTREXX® CHECK DAM**
SCALE: NTS



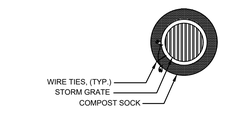
SECTION NTS



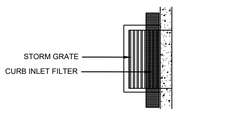
PLAN NTS

NOTES:
1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
2. FILTER MEDIA™ FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

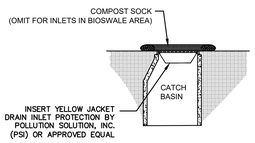
5 / C6.2 — **FILTREXX® SEDIMENT CONTROL**
NTS



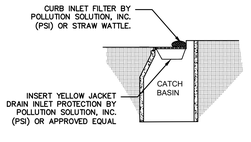
TYPICAL SITE DRAIN INLET PLAN



STREET DRAIN INLET PLAN

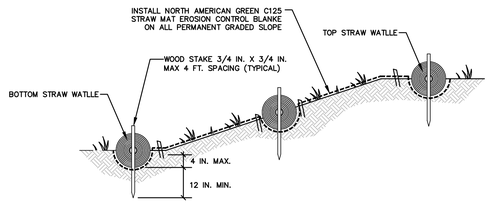


TYPICAL SITE DRAIN INLET SECTION



STREET DRAIN INLET SECTION

6 / C6.2 — DRAIN INLET PROTECTION
SCALE: NTS



3 / C6.2 — TYPICAL SLOPE EROSION CONTROL
SCALE: NTS

811 Know what's below. Call before you dig.

REGISTERED PROFESSIONAL ENGINEER — JOEL FRANCIS ATIGA — No. 53588 — STATE OF CALIFORNIA

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REVISED: MAY 23, 2022 2ND SUBMITTAL

BOWMAN & WILLIAMS
CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS
3949 RESEARCH PARK COURT, SUITE 100
SOQUEL, CA 95073-2094
(831) 426-3560

PRELIMINARY EROSION CONTROL DETAILS

OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA

SCALE AS SHOWN	DRAWN
DATE DECEMBER 13, 2021	CHECKED
DESIGN	DWG NAME
JOB NO. 28595	SHEET C6.3
INDEX PAJARO 2	OF 19
FILE NO. 28595	

WARE MALCOMB
ARCHITECTURE CIVIL ENGINEERING
PLANNING LANDSCAPE
INTERIORS BUILDING MEASUREMENT
4683 Chabot Dr. Suite #200
Pleasanton, CA 94588
P (925) 244-6925

CIENT LOGO

PRELIMINARY EROSION CONTROL DETAILS
REMARKS: 2ND SUBMITTAL
DATE: MAY 23, 2022

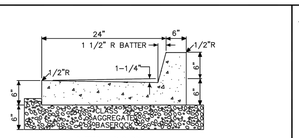
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JOB NO.:	SNR21-0142-00

SHEET C6.3

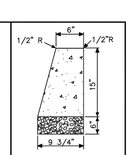
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100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA 95076

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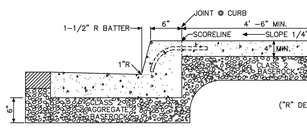
CAUTION: IF THIS SHEET IS NOT 30"x42" IT IS A REDUCED PRINT



GUTTER AND CURB



CLASS B CURB



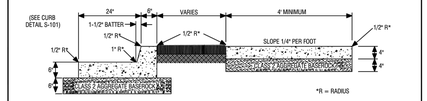
COMBINATION CURB, GUTTER & SIDEWALK

NOTES:

1. ALL CONCRETE SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE TO THE PROVISIONS OF SECTION 73, "CONCRETE CURBS AND SIDEWALKS" OF THE CALTRANS STANDARD SPECIFICATIONS.
2. RELATIVE COMPACTION OF NOT LESS THAN 95% SHALL BE OBTAINED FOR SUBGRADE SOILS AND CLASS 2 AGGREGATE BASE BELOW CURBS AND GUTTERS. RELATIVE COMPACTION OF NOT LESS THAN 90% SHALL BE OBTAINED FOR SUBGRADE SOILS AND CLASS 2 AGGREGATE BASE BELOW SIDEWALKS.
3. LIMITS OF REMOVAL OF ALL CURBS, GUTTERS, SIDEWALKS AND APPROACHES SHALL BE SAWED ALONG EXISTING JOINTS AND SCORE LINES.
4. NEW CONCRETE IMPROVEMENTS SHALL BE JOINED TO EXISTING BY DOWELLING #4 REBAR 6" INTO EXISTING CONCRETE AND 12" INTO NEW CONCRETE EVERY 2'.
5. CONCRETE WHICH HAS BEEN MARKED OR SCRATCHED SHALL BE REMOVED AND REPLACED.
6. USE 1/4" RADIUS JOINTER FOR ALL SCORELINES. LINES SHALL BE STRAIGHT, TRUE TO ALIGNMENT AND DEPTH. PLACE 1/2" SCORELINES EVERY 4', WITH EVERY OTHER SCORELINE BEING A 3/4" DEEP SCORE.
7. 3/4" DEEP SCORE RUNS CONTINUOUSLY THROUGH SIDEWALK AND CURB AND GUTTER.
8. SCORELINES FOR SIDEWALKS WIDER THAN 5' SHALL INCLUDE A 1/2" LONGTUDINAL CENTERED SCORELINE.
9. PLACE EXPANSION JOINTS EVERY 60'.

CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

NOT TO SCALE	CITY OF WATSONVILLE	STANDARD DRAWING FOR CURB, GUTTER & SIDEWALK	DRAWN: 6/97	REV.: 12/12
DRAWN BY: P.A.C.			RESOLUTION No. 76-13 (CM)	
CHECKED BY: T.S.		MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DRAWING No. S-101	



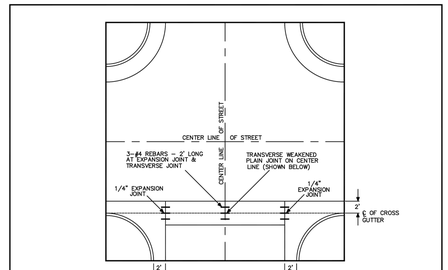
CURB & GUTTER WITH DETACHED SIDEWALK

NOTES:

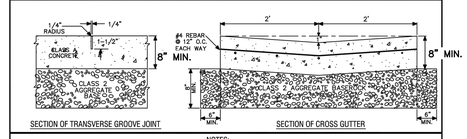
1. ALL CONCRETE SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE TO THE PROVISIONS OF SECTION 73, "CONCRETE CURBS AND SIDEWALKS", OF THE CALTRANS STANDARD SPECIFICATIONS.
2. RELATIVE COMPACTION OF NOT LESS THAN 95% SHALL BE OBTAINED FOR SUBGRADE SOILS AND CLASS 2 AGGREGATE BASE BELOW CURBS AND GUTTERS. RELATIVE COMPACTION OF NOT LESS THAN 90% SHALL BE OBTAINED FOR SUBGRADE SOILS AND CLASS 2 AGGREGATE BASE BELOW SIDEWALKS.
3. LIMITS OF REMOVAL OF ALL CURBS, GUTTERS, SIDEWALKS AND APPROACHES SHALL BE SAWED ALONG EXISTING JOINTS AND SCORE LINES.
4. CONCRETE WHICH HAS BEEN MARKED OR SCRATCHED SHALL BE REMOVED AND REPLACED.
5. SEE PUBLIC IMPROVEMENT STANDARD S-101 FOR SCORING AND JOINTING REQUIREMENTS.

CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

NOT TO SCALE	CITY OF WATSONVILLE	STANDARD DRAWING FOR CURB, GUTTER AND SEPARATED SIDEWALK	DRAWN: 6/97	REV.: 12/12
DRAWN BY: P.A.C.			RESOLUTION No. 76-13 (CM)	
CHECKED BY: T.S.		MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DRAWING No. S-102	



PLAN OF TYPICAL INTERSECTION WITH CROSS GUTTER



SECTION OF TRANSVERSE GROOVE JOINT

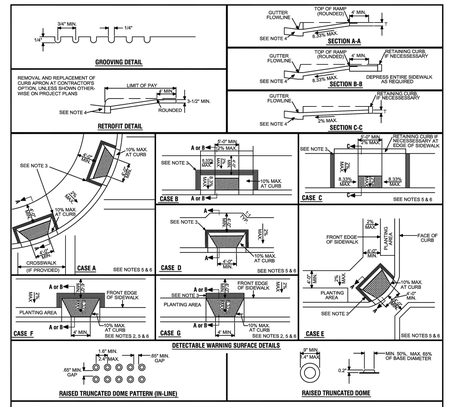
SECTION OF CROSS GUTTER

NOTES:

1. ALL CONCRETE SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE TO THE PROVISIONS OF SECTION 73, "CONCRETE CURBS AND SIDEWALKS", OF THE CALTRANS STANDARD SPECIFICATIONS.
2. RELATIVE COMPACTION OF NOT LESS THAN 95% SHALL BE OBTAINED FOR SUBGRADE SOILS AND CLASS 2 AGGREGATE BASE BELOW THE CROSS GUTTER.
3. NEW CONCRETE IMPROVEMENTS SHALL BE JOINED TO EXISTING BY DOWELLING #4 REBAR 6" INTO EXISTING CONCRETE AND 12" INTO NEW CONCRETE EVERY 2'.
4. CONCRETE WHICH HAS BEEN MARKED OR SCRATCHED SHALL BE REMOVED AND REPLACED.
5. WEAKENED PLANE JOINTS CONSTRUCTED AT 20' SPACING.

CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT STANDARD DRAWING

NOT TO SCALE	CITY OF WATSONVILLE	STANDARD DRAWING FOR 4' STANDARD CROSS GUTTER	DRAWN: 7/97	REV.: 12/12
DRAWN BY: P.A.C.			RESOLUTION 76-13 (CM)	
CHECKED BY: T.S.		MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DRAWING No. S-103	



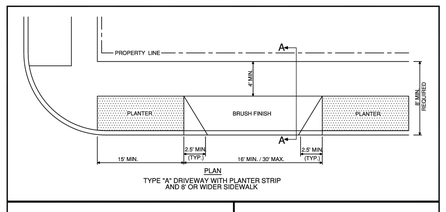
NOTES:

1) IF THE DISTANCE FROM CURB TO BACK OF SIDEWALK IS TOO SHORT TO ACCOMODATE RAMP AND 4'-0" PLATFORM AS IN CASE "A", THE SIDEWALK MAY BE DEPRESSED LONGITUDINALLY AS IN CASE "B" OR "C", OR MAY BE WIDENED AS IN CASE "D".
2) FOR CASES "F" AND "G", THE LONGITUDINAL PORTION OF THE SIDEWALK MAY NEED TO BE DEPRESSED, AS IN CASE "B".
3) THE RAMP SHALL HAVE A 12" WIDE BORDER WITH 1/4" GROOVES APPROX. 3/4" ON CENTER. SEE "GROOVING DETAIL".
4) MAXIMUM SLOPES OF ADJOINING GUTTERS, THE ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP AND CONTINUOUS TO THE CURB RAMP SHALL NOT EXCEED 5% WITHIN 4'-0" OF THE TOP OR BOTTOM OF THE CURB RAMP.
5) CURB RAMPS SHALL HAVE A DETECTABLE WARNING SURFACE THAT EXTENDS THE FULL WIDTH AND 2'-0" DEPTH OF THE CURB RAMP. DETECTABLE WARNING SURFACES SHALL CONFORM TO THE DETAILS ON THIS PLAN AND THE REQUIREMENTS IN THE SPECIAL PROVISIONS.
6) THE EDGE OF THE DETECTABLE WARNING SURFACE NEAREST THE STREET SHALL BE BETWEEN 6" AND 8" FROM THE GUTTER FLOW LINE.

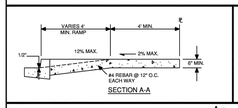
ACCESSIBILITY STANDARDS & DETAILS ARE SUBJECT TO CHANGE TO COMPLY WITH THE MOST CURRENT FEDERAL REGULATIONS SET FORTH BY THE ACCESS BROAD "AMERICANS WITH DISABILITIES ACT GUIDELINES".

CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

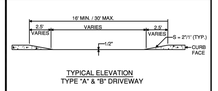
NOT TO SCALE	CITY OF WATSONVILLE	STANDARD DRAWING FOR CURB RAMP	DRAWN: 9/97	REV.: 11/12
DRAWN BY: P.A.C.			RESOLUTION: 76-13 (CM)	
CHECKED BY: M.E.C.R.		MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DRAWING No. S-104	



PLAN
TYPE "A" DRIVEWAY WITH PLANTER STRIP AND 8' OR WIDER SIDEWALK



SECTION A-A



TYPICAL ELEVATION
TYPE "A" & "B" DRIVEWAY



PLAN
TYPE "B" DRIVEWAY

NOTES:

1) ALL CONCRETE SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE TO THE PROVISIONS OF SECTION 73, "CONCRETE CURBS AND SIDEWALKS" OF THE CALTRANS STANDARD SPECIFICATIONS.
2) CURBS, GUTTERS AND SIDEWALK APPROACHES SHALL BE UNDERLAIN WITH 6" CLASS 2 AGGREGATE BASE.
3) RELATIVE COMPACTION OF NOT LESS THAN 95% SHALL BE OBTAINED FOR SUBGRADE SOILS AND CLASS 2 AGGREGATE BASE BELOW CURBS, GUTTERS AND DRIVEWAY APPROACHES.
4) THE DRIVEWAY APPROACH SHALL BE REINFORCED WITH #4 REBAR PLACED AT 12" ON CENTER EACH WAY.
5) LIMITS OF REMOVAL OF ALL CURBS, GUTTERS, SIDEWALKS AND APPROACHES SHALL BE SAWED ALONG EXISTING JOINTS AND SCORELINES.
6) CONCRETE WHICH HAS BEEN MARKED OR SCRATCHED SHALL BE REMOVED AND REPLACED.
7) SEE PUBLIC IMPROVEMENT STANDARD S-101 FOR SCORING AND JOINTING REQUIREMENTS.

CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

NOT TO SCALE	CITY OF WATSONVILLE	STANDARD DRAWING FOR DRIVEWAY APPROACH	DRAWN: 8/11	REV.: 12/12
DRAWN BY: P.A.C.			RESOLUTION: 76-13 (CM)	
CHECKED BY: M.E.C.R.		MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DRAWING No. S-105	

WATER MAIN

WATER MAINS SHALL BE DUCTILE IRON PIPE, CLASS 52, CONFORMING TO ANSI/AWWA SPECIFICATION C15/A.21.51. PIPES SHALL BE COATED WITH BITUMINOUS SEAL AND CEMENT MORTAR LINING CONFORMING TO ANSI/AWWA SPECIFICATION C104/A21.4. THE COATING SHALL BE 1/16" THICK. JOINTS SHALL BE TYTON OR EQUAL RUBBER GASKET TYPE CONFORMING TO ANSI/AWWA SPECIFICATION C111/A21.11. CONTRACTOR SHALL ENCASE ALL NEW WATER MAINS WITH POLYWRAP MEETING AWWA C105-10.

SANITARY SEWER- GRAVITY MAIN

SANITARY SEWER GRAVITY MAINS SHALL BE P.V.C. PIPE, SDR-26 OR LESS.

SANITARY SEWER - FORCE MAIN

SANITARY SEWER FORCE MAINS SHALL BE C-900 CLASS 100 PVC WITH LOCATOR WIRE. THE WIRE SHALL BE A MINIMUM OF 12 GUAGE THW OR 12 GUAGE THWN, AND SHALL BE CONTINUOUS FOR THE ENTIRE LENGTH OF PIPE LAID BETWEEN CLEANOUTS. THE WIRE SHALL BE SECURED TO PIPE BY TAPE WRAPPED COMPLETELY AROUND PIPE EVERY 12 FEET OR LESS. THE WIRE SHALL BE BROUGHT INTO CLEANOUT MANHOLES WITH 2 FEET OF WIRE MORE THAN IS NEEDED TO REACH THE SURFACE.

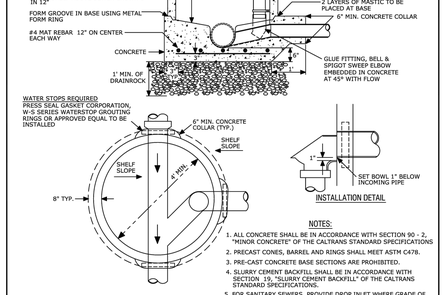
STORM SEWER

STORM SEWER MAINS SHALL BE;

- CLASS III REINFORCED CONCRETE PIPE (RCP) WITH RUBBER ISOPRENE GASKETS
- PVC SDR-26 PIPE OR LESS.
- HIGH DENSITY POLYETEHYLENE (HDPE) CORRUGATED PIPE WITH SMOOTH INTERIOR WALLS (TYPE "S"), WITH RUBBER GASKETTED, WATER-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM 3212 (ADS N12 OR APPROVED EQUAL).

CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

NOT TO SCALE	CITY OF WATSONVILLE	STANDARD DRAWING FOR WATER, SANITARY SEWER & STORM SEWER PIPING	DRAWN: 12/02	REV.: 12/12
DRAWN BY: P.A.C.			RESOLUTION: 76-13 (CM)	
CHECKED BY: T.S.		MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DRAWING No. S-201	



INSTALLATION DETAIL

NOTES:

1. ALL CONCRETE SHALL BE IN ACCORDANCE WITH SECTION 90 - 2, "MINOR CONCRETE" OF THE CALTRANS STANDARD SPECIFICATIONS
2. PRECAST CONES, BARREL AND RINGS SHALL MEET ASTM C478.
3. PRE-CAST CONCRETE BASE SECTIONS ARE PROHIBITED.
4. SLURRY CEMENT BACKFILL SHALL BE IN ACCORDANCE WITH SECTION 19, "SLURRY CEMENT BACKFILL" OF THE CALTRANS STANDARD SPECIFICATIONS.
5. FOR SANITARY SEWERS, PROVIDE DROP INLET WHERE GRADE OF ENTERING LINE IS 24" ON MORE ABOVE THE FLOWLINE OF THE SEWER MANHOLE.

CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

NOT TO SCALE	CITY OF WATSONVILLE	STANDARD DRAWING FOR STANDARD MANHOLE	DRAWN: 11/10	REV.: 8/12
DRAWN BY: P.A.C.			RESOLUTION: 76-13 (CM)	
CHECKED BY: T.S.		MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DRAWING No. S-202	



STORM DRAIN MARKER DETAIL

NOTES:

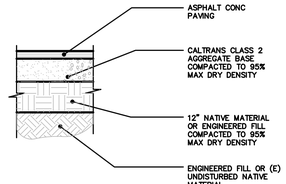
1) THE STORM DRAIN MARKER SHALL BE CENTERED ABOVE THE STORM DRAIN CATCH BASIN AS SHOWN.

2) STAINLESS STEEL STORM DRAIN MARKER SHALL BE ALMETEK STORM DRAIN MARKER, WITH FISH READING "DRAINS TO WATERWAY".

CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

NOT TO SCALE	CITY OF WATSONVILLE	WATER DIVISION STANDARD DRAWING STORM DRAIN MARKER INSTALLATION	DATE DRAWN: 5/10	
DRAWN BY: P.A.C.			DATE REVISED: 76-13 (CM)	
CHECKED BY: T.S.		MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DRAWING No. S-207	

PVMT TYPE	A.C. (MIN. THICK)	A.B. (MIN. THICK)
AUTOMOBILE PARKING	3.0"	9.0"
AUTO. DRIVE AISLES	3.0"	9.0"
FIRE ACCESS LANES	4.0"	14.5"



-SEE ALSO SOILS REPORT FOR NOTES REGARDING SUBGRADE PREPARATION AND IN AREAS OF FILL

1 / C7.1 TYPICAL AC PAVEMENT SECTION

SCALE: NONE PS05

811 Know what's below. Call before you dig.

REGISTERED PROFESSIONAL ENGINEER JOE FRANCIS RICCA No. 53588 STATE OF CALIFORNIA

PRELIMINARY FOR DESIGN REVIEW ONLY

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APN 018-711-34 (PART) & -35

REVISED	
MAY 23, 2022 2ND SUBMITTAL	

BOWMAN & WILLIAMS
CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS
3949 RESEARCH PARK COURT, SUITE 100
SOQUEL, CA 95073-2094
(831) 426-3560

STANDARD DETAILS

OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA

SCALE AS SHOWN	DRAWN TPC	JOB NO. 28595	SHEET
DATE DECEMBER 13, 2021	CHECKED JFR	INDEX PAJARO 2	C7.1
DESIGN	DWG NAME	FILE NO. 28595	OF 19

WARE MALCOMB
ARCHITECTURE CIVIL ENGINEERING
PLANNING LANDSCAPE
INTERIORS BUILDING MEASUREMENT
4683 Chabot Dr. Suite #300
Pleasanton, CA 94588
P:925.244.9520

CIENT LOGO

REMARKS
2ND SUBMITTAL

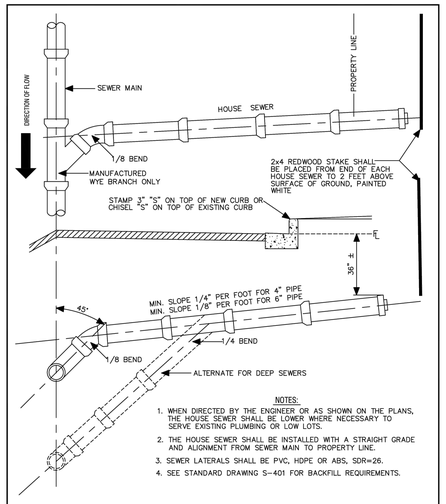
DATE MAY 23, 2022

P.A/PM:	
DRAWN BY.:	
JOB NO.:	SNR21-0142-00

SHEET C7.1

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CAUTION: IF THIS SHEET IS NOT 30"x42" IT IS A REDUCED PRINT

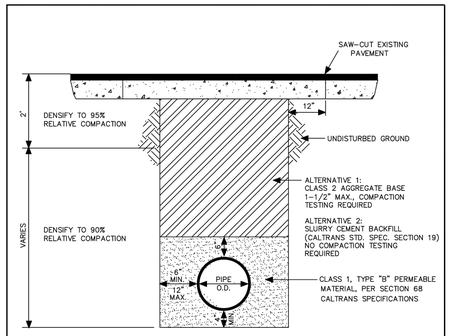


NOTES:

1. WHEN DIRECTED BY THE ENGINEER OR AS SHOWN ON THE PLANS, THE HOUSE SEWER SHALL BE LOWER WHERE NECESSARY TO SERVE EXISTING PLUMBING OR LOW LOTS.
2. THE HOUSE SEWER SHALL BE INSTALLED WITH A STRAIGHT GRADE AND ALIGNMENT FROM SEWER MAIN TO PROPERTY LINE.
3. SEWER LATERALS SHALL BE PVC, HDPE OR ABS, SDR=26.
4. SEE STANDARD DRAWING S-401 FOR BACKFILL REQUIREMENTS.

CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

NOT TO SCALE	STANDARD DRAWING FOR	DRAWN: 6/95	REV: 12/11
DRAWN BY: P.A.C.	SEWER LATERAL: NEW DEVELOPMENT	RESOLUTION: 76-13 (CM)	
CHECKED BY: T.S.	MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DRAWING No. S-209a	

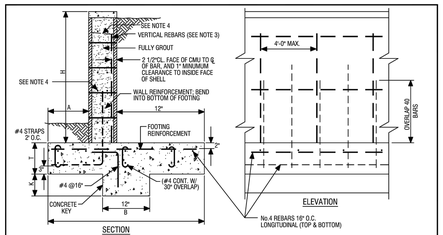


NOTES:

1. TRENCHES SHALL BE EXCAVATED IN A NEAT & WORKMANLIKE MANNER AT THE STREET SURFACE AND THE SHAPE SHALL BE RECTANGULAR.
2. SHOVEL SLICE PIPE ZONE BEDDING UNDER HAUNCHES OF PIPE. THE MINIMUM PAVE-MENT RESTORATION SHALL BE 4" OF TYPE "A" ASPHALT CONCRETE OVER THE TRENCH AREA AND 4" OF TYPE "A" ASPHALT CONCRETE OVER 12" OF CLASS 2 AGGREGATE BASE. IF THE EXISTING PAVEMENT SECTION IS THICKER THAN 4" AC OVER 12" AB, THE RESTORATION PAVEMENT SECTION SHALL BE AS DIRECTED BY THE ENGINEER.
3. A CONCRETE CAP 6" THICK AND THE WIDTH OF THE TRENCH TO PIPE SPRINGLINE SHALL BE CONSTRUCTED FOR ANY PIPE WITH LESS THAN 24" COVER. CONCRETE SHALL CONFORM TO THE PROVISIONS OF SECTION 90-2, "MINOR CONCRETE", OF THE CALTRANS STANDARD SPECIFICATIONS.
4. **WHERE TRENCHES PASS INTO BUILDING AND PAVEMENT AREAS, INCLUDE A PLUG OF LOW-PERMEABILITY CLAY SOIL, SAND-CEMENT SLURRY, OR LEAN CONCRETE.**

CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

NOT TO SCALE	STANDARD TRENCH BACKFILL SECTION	DRAWN: 9/12	REV: 5/13
DRAWN BY: P.A.C.		RESOLUTION: 76-13 (CM)	
CHECKED BY: T.S.	MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DRAWING NO. S-401	



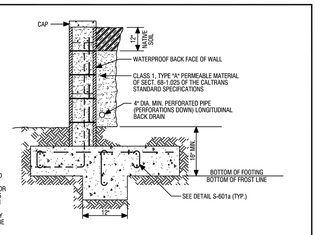
BLOCK WIDTH	H	A	B	T	WALL REINFORCEMENT	FOOTING REINFORCEMENT	K
8"	3'-4"	1'-0"	2'-0"	12"	#4 @ 24" O.C.	#4 @ 24" O.C.	12"
	4'-0"	1'-4"	2'-0"		#4 @ 24" O.C.	#4 @ 24" O.C.	15"
	4'-8"	1'-7"	2'-3"		#4 @ 16" O.C.	#4 @ 24" O.C.	18"
	5'-4"	2'-0"	2'-8"		#5 @ 8" O.C.	#4 @ 16" O.C.	18"
12"	3'-4"	0'-8"	2'-3"	12"	#4 @ 24" O.C.	#4 @ 24" O.C.	12"
	4'-0"	1'-0"	3'-0"		#4 @ 24" O.C.	#4 @ 24" O.C.	15"
	4'-8"	1'-3"	3'-3"		#4 @ 24" O.C.	#4 @ 24" O.C.	18"
	5'-4"	1'-8"	3'-8"		#4 @ 24" O.C.	#4 @ 16" O.C.	18"
	6'-0"	2'-2"	4'-2"		#4 @ 16" O.C.	#5 @ 16" O.C.	18"
	6'-8"	2'-6"	4'-6"		#5 @ 16" O.C.	#5 @ 16" O.C.	20"
	7'-4"	3'-0"	5'-0"		#5 @ 8" O.C.	#5 @ 8" O.C.	24"
	8'-0"	3'-4"	5'-6"		#8 @ 8" O.C.	#5 @ 8" O.C.	24"

NOTES:

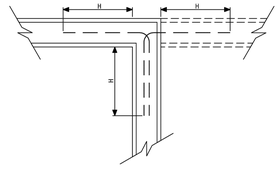
1. ALL RETAINING WALLS SHALL BE MASONRY.
2. EDGE OF ROADWAY, DRIVEWAY & FOUNDATIONS SHALL BE AT LEAST 2 x HEIGHT OF WALL FROM BACK OF WALL
3. REINFORCING BARS SHOULD HAVE STANDARD DEFORMATION AND A YIELD STRENGTH OF 40,000 PSI
4. ALTERNATE VERTICAL REINFORCING BARS MAY BE TERMINATED AT THE UPPER THIRD-POINT OF THE WALL HEIGHT
5. ALL RETAINING WALLS SHALL HAVE A HORIZONTAL BOND BEAM W/ TWO No.4 BARS EVERY 16'.
6. WEIGHT OF ASSUMED SOIL BACKFILL (GRANULAR SOIL WITH CON-SPICUOUS CLAY CONTENT) IS 100 PCF AND EQUIVALENT FLUID PRESSURE IS 45 PCF. THE WALL IS NOT DESIGNED TO BE SURCHARGED, AND THE MAXIMUM SOIL BEARING PRESSURE IS 1,000 P.S.F.
7. THE LAST 30" OF GROUT SHALL BE CONSOLIDATED BY A HIGH-FREQUENCY INTERNAL VIBRATOR WITHIN 5 MINUTES OF POURING INTO BLOCK. THE VIBRATOR SHALL NOT BE ATTACHED TO OR HELD AGAINST THE BLOCK OR REINFORCING STEEL.
8. GROUT SHALL BE PLACED IN ALL CELLS. GROUT SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 2,500 PSI.
9. SEE SHEET S-601b FOR BACKFILL DETAIL.
10. MASONRY UNITS SHALL BE GRADE 'N'.
11. WET SETTING OF THE BLOCKS INTO THE CONCRETE IS FORBIDDEN
12. ALL CONCRETE FOOTINGS & KEYS SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 2,500 PSI.

CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

NOT TO SCALE	STANDARD DRAWING FOR STANDARD MASONRY RETAINING WALL	DRAWN: 10/97	REV: 4/13
DRAWN BY: P.A.C.		RESOLUTION: 76-13 (CM)	
CHECKED BY: P.T.	MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DRAWING No. S-601a	



NOTE:
BACKFILL FOR RETAINING WALLS SHOULD BE MOISTURE CONDITIONED TO NEAR OPTIMUM (OPTIMUM + 3% OR HIGHER FOR CLAY BACKFILL), PLACED IN TWO 8" LIFTS & COMPACTED TO 90% OF THE MAXIMUM DENSITY DETERMINED IN ACCORDANCE WITH CAL IMPACT METHOD #216. HEAVY COMPACTION EQUIPMENT SHOULD NOT BE USED IMMEDIATELY ADJACENT TO THE RETAINING WALL.



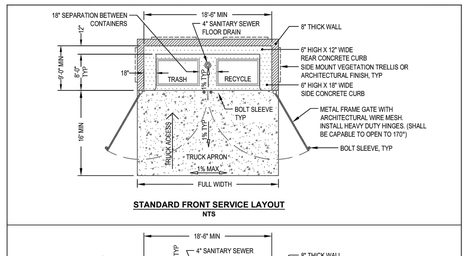
REINFORCING AT CORNERS

NOTES:

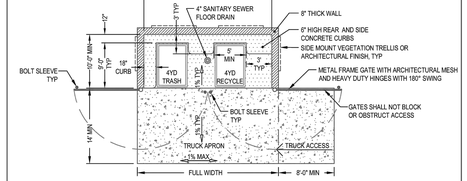
1. 8" CMU: #4 @ 16" O.C. HORIZONTAL IN BOND BEAM UNIT (CENTERED).
2. 12" CMU: (2) #4 @ 8" O.C. HORIZONTAL (ONE EA. SIDE) IN BOND BEAM UNIT.
3. REINFORCING SHALL BE CONTINUOUS AROUND CORNER FOR MINIMUM DISTANCE OF "H" (HEIGHT OF WALL).
4. CORNER REINFORCEMENT IS IN ADDITION TO REQUIRED HORIZONTAL REINFORCEMENT PER S-601a

CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

NOT TO SCALE	STANDARD DRAWING FOR STANDARD MASONRY RETAINING WALL	DRAWN: 10/97	REV: 4/13
DRAWN BY: P.A.C.		RESOLUTION: 76-13 (CM)	
CHECKED BY: P.T.	MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DRAWING No. S-601b	



STANDARD FRONT SERVICE LAYOUT
NTS



NON-STANDARD SIDE SERVICE LAYOUT
NTS

NOTES:

1. REFUSE AND RECYCLING ENCLOSURES SHALL SECURE PERMITS FROM THE COMMUNITY DEVELOPMENT DEPARTMENT.
2. THE APPLICANT SHALL HAVE THE ENCLOSURE DESIGNED TO COMPLY WITH LATEST EDITION OF THE CALIFORNIA BUILDING STANDARDS CODE.
3. CONTAINERS INFORMATION IS AVAILABLE FROM THE SOLID WASTE DIVISION CUSTOMER SERVICE AT (831) 768-3133.
4. THE REFUSE ENCLOSURE SHALL BE DESIGNED TO ACCOMMODATE FRONT LOAD SERVICE.
5. NON-STANDARD SIDE LOAD SERVICE IS SUBJECTED TO STRICT REVIEW CASE-BY-CASE BASIS AND MAY ONLY BE CONSIDERED AFTER THE APPLICANT HAS DEMONSTRATED TECHNICAL INFEASIBILITY FOR FRONT LOAD SERVICE.
6. SEE DWG NO. S-602b FOR DESIGN GUIDELINES.

CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

SCALE: NTS	SOLID WASTE DIVISION STANDARD DRAWING REFUSE ENCLOSURE LAYOUT	DRAWN: MAY 2018	REV:
DRAWN BY: TC		RESOLUTION: 98-18 (CM)	
CHECKED BY:	MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DWG NO. S-602a	

GENERAL REQUIREMENTS:

1. PROVIDE A GRADING PLAN AND SHOW THE LOCATION OF THE ENCLOSURE WITH TRUCK ACCESS PATH, OVERHEAD, AND LATERAL CLEARANCES.
2. TURNING RADIUS : SHOW 14' WIDE TRUCK ACCESS PATH WITH 34' INSIDE TURNING RADIUS AND 50' OUTSIDE TURNING RADIUS.
3. VERTICAL CLEARANCE: 25 FT FROM OVERHEAD IS REQUIRED OUTSIDE OF THE TRASH ENCLOSURE WHERE THE VEHICLE LIFTS THE CONTAINER.
6. THE FINAL DIMENSIONS OF THE ENCLOSURE SHALL BE DETERMINED BY THE NUMBER OF CONTAINERS (TRASH, RECYCLE, ORGANIC) AND SIZES PROPOSED FOR THE PROJECT.
7. ENCLOSURE SHALL HAVE THE FOLLOWING DESIGN ELEMENTS:
   - EXTERIOR WALL LANDSCAPING OR ARCHITECTURAL FEATURES
   - SOLID ROOF COVER
   - 4" SANITARY SEWER FLOOR DRAIN
   - REINFORCED CMU OR CONCRETE WALLS
   - REINFORCED CONCRETE TRUCK APRON
   - REINFORCED CONCRETE FLOOR
   - SEPARATE OR INDOOR TALLOW CONTAINERS AND STORAGE AREA
   - NON-COMBUSTIBLE CONSTRUCTION MATERIALS

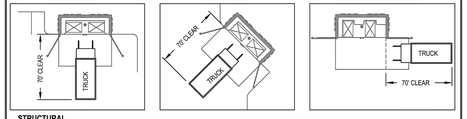
FRONT SERVICE LAYOUT (PREFERRED DESIGN)

8. TRASH ENCLOSURE DIMENSIONS: 6'-0" MINIMUM HIGH WALLS, 12' MINIMUM FRONT CEILING HEIGHT. 8' MINIMUM REAR CEILING HEIGHT,
9. PROVIDE 50 FT UNOBSTRUCTED CLEAR APPROACH MEASURED FROM THE FRONT FACE OF ENCLOSURE.

SIDE SERVICE LAYOUT (SUBJECT TO STRICT REVIEW)

10. SIDE SERVICE DESIGN MAY ONLY BE CONSIDERED AFTER THE APPLICANT HAS DEMONSTRATED TECHNICAL INFEASIBILITY FOR FRONT LOAD SERVICE.
11. THE DESIGN IS LIMITED TO 4 YD MAXIMUM SIZE CONTAINERS AS WELL AS ADDITIONAL SERVICE FEES AND OPERATIONAL REQUIREMENTS.
12. TRASH ENCLOSURE DIMENSIONS: 6'-0" MINIMUM HIGH WALLS, 12' MINIMUM FRONT CEILING HEIGHT. 8' MINIMUM REAR CEILING HEIGHT.
13. PROVIDE 70 FT UNOBSTRUCTED CLEAR APPROACH MEASURED FROM EDGE OF THE ENCLOSURE ALONG THE VEHICLE PATH.

DIAGRAM A



STRUCTURAL

14. THE ENCLOSURE STRUCTURAL SYSTEM SHALL BE DESIGNED AND STAMPED BY A LICENSED CIVIL ENGINEER OR ARCHITECT.
15. THE ENCLOSURE STRUCTURAL SYSTEM SHALL BE DESIGNED AND STAMPED BY A LICENSED CIVIL ENGINEER OR ARCHITECT.
16. ENCLOSURE FLOOR SHALL BE 6" THICK MINIMUM REINFORCED CONCRETE CAPABLE OF WITHSTANDING UP TO 20,000 POUNDS OF DIRECT FORCE.
17. TRUCK APRON SHALL BE 6" THICK MINIMUM REINFORCED CONCRETE DESIGNED TO WITH STAND FULLY LOADED REFUSE TRUCK, UP TO 30 TONS.

ARCHITECTURAL & LANDSCAPING

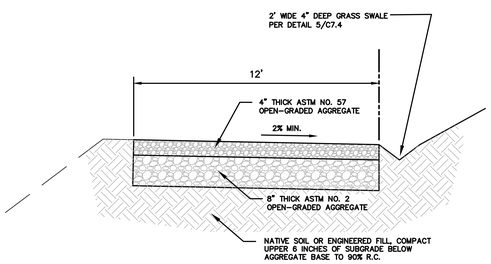
18. LANDSCAPE THE EXTERIOR SIDE OF ALL WALLS OR INCORPORATE ARCHITECTURAL ELEMENTS TO PREVENT GRAFFITI.
19. CONTACT THE COMMUNITY DEVELOPMENT DEPARTMENT, PLANNING DIVISION FOR GUIDANCE ON COLORS, MATERIALS AND ROOFING TO EXISTING AND/OR PROPOSED ARCHITECTURAL ELEMENTS OF THE PROJECT.

MANAGEMENT

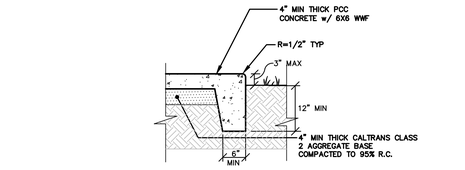
20. CUSTOMER IS RESPONSIBLE FOR MAINTAINING THE ENCLOSURE.
21. AS A CONDITION OF SERVICE, PROPERTY OWNERS AND OTHER CUSTOMERS ACCEPT ALL RISK OF THE PROPERTY LOSS AND LIABILITY FOR DAMAGES OCCURRING FROM NORMAL SERVICE OPERATIONS.
22. ENCLOSURE ARE TO BE USED FOR REFUSE, RECYCLING, AND APPROVED CONTAINERS ONLY. ENCLOSURE SHALL BE KEPT FREE OF ALL LITTER, STORAGE OF OTHER MATERIALS.
23. THE APPLICANT/OWNER SHALL PROVIDE A SIGN 12"X18" SIGN THAT READ "NO HAZARDOUS WASTE DUMPING" IN RED LETTERS WITH WHITE BACKGROUND.

CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

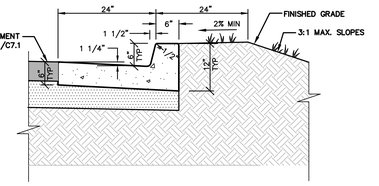
SCALE: NTS	SOLID WASTE DIVISION STANDARD DRAWING REFUSE ENCLOSURE DESIGN GUIDELINES	DRAWN: MAY 2018	REV:
DRAWN BY: STAFF		RESOLUTION: 98-18 (CM)	
CHECKED BY: TC	MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DWG NO. S-602b	



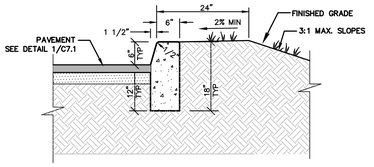
7 / C7.2 CITY ACCESS ROAD TYPICAL SECTION
SCALE: NTS



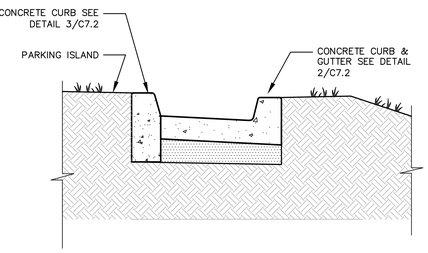
1 / C7.2 CONCRETE SIDEWALK SECTION
SCALE: 3/4" = 1'-0"



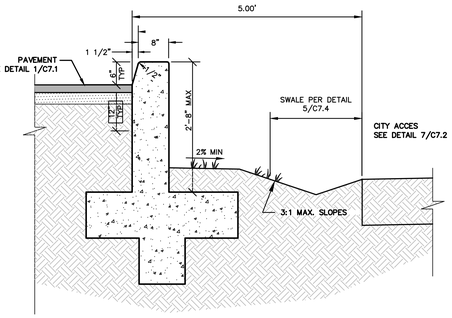
2 / C7.2 CONCRETE CURB & GUTTER
SCALE: 3/4" = 1'-0"



3 / C7.2 CONCRETE CURB
SCALE: 3/4" = 1'-0"



4 / C7.2 CONCRETE CURB/CURB & GUTTER (PARKING ISLAND ADJACENT TO CURB & GUTTER)
SCALE: 3/4" = 1'-0"



5 / C7.2 CONCRETE CURB/RETAINING WALL
SCALE: 3/4" = 1'-0"

811 Know what's below. Call before you dig.

DISCLAIMER

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APN 018-711-34 (PART) & -35

REGISTERED PROFESSIONAL ENGINEER JOEL FRANCIS RICH No. 53588 STATE OF CALIFORNIA

PRELIMINARY FOR DESIGN REVIEW ONLY

REVISED	
	MAY 23, 2022 2ND SUBMITTAL

BOWMAN & WILLIAMS
CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS
3949 RESEARCH PARK COURT, SUITE 100
SOQUEL, CA 95073-2094
(831) 426-3560

STANDARD DETAILS

OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA

SCALE AS SHOWN	DRAWN TPC	JOB NO. 28595	SHEET C7.2
DATE DECEMBER 13, 2021	CHECKED JFR	INDEX PAJARO 2	OF 19
DESIGN	DWG NAME 25918_C6	FILE NO. 28595	

WARE MALCOMB
ARCHITECTURE CIVIL ENGINEERING
PLANNING LANDSCAPE
INTERIORS BUILDING MEASUREMENT
4683 Chabot Dr. Suite #300
Pleasanton, CA 94588
P 925.244.8520

CIENT LOGO

STANDARD DETAILS

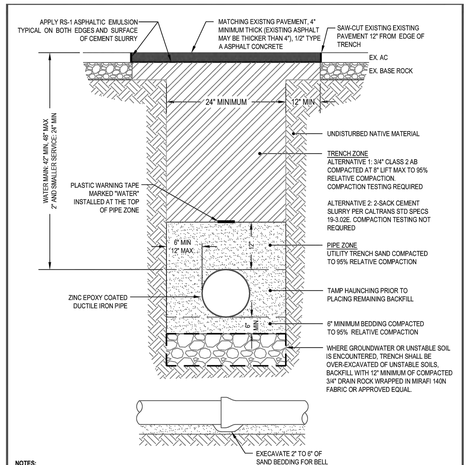
REMARKS	DATE
2ND SUBMITTAL	MAY 23, 2022

PA/PM:	
DRAWN BY.:	
JOB NO.:	SNR21-0142-00

SHEET C7.2

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CAUTION: IF THIS SHEET IS NOT 30"x42" IT IS A REDUCED PRINT

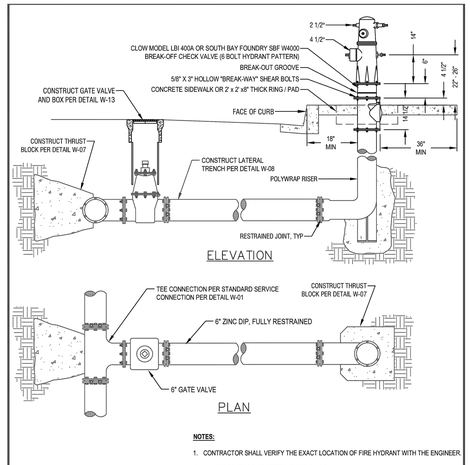


NOTES:

1. TRENCHES SHALL BE EXCAVATED IN A NEAT & WORKMANLIKE MANNER AT THE STREET SURFACE AND THE SHAPE SHALL BE RECTANGULAR.
2. THE MINIMUM PAVEMENT RESTORATION SHALL BE 4" OF TYPE "A" ASPHALT CONCRETE IF THE EXISTING PAVEMENT SECTION IS THICKER THAN 4" AC, THE RESTORATION PAVEMENT SECTION SHALL MATCH THE EXISTING PAVEMENT THICKNESS.
3. A CONCRETE CAP 6" THICK AND THE WIDTH OF THE TRENCH TO PIPE SPRINGLINE SHALL BE CONSTRUCTED FOR ANY PIPE WITH LESS THAN 24" COVER.

CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

SCALE: NTS	WATER DIVISION STANDARD DRAWING	DRAWN: MAY 2018	REV:
DRAWN BY: STAFF	STANDARD WATER TRENCH DETAIL	RESOLUTION: 98-18 (CM)	
CHECKED BY: TC	MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DWG NO.	W-08



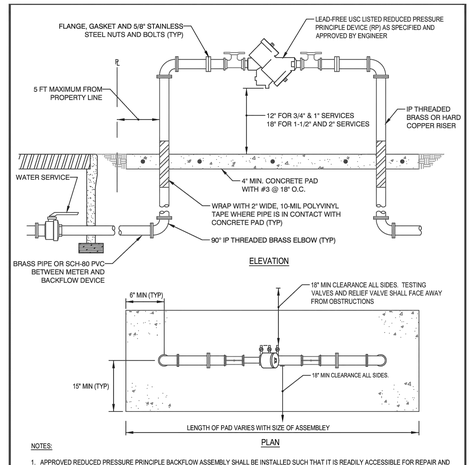
HYDRANT TYPES:		
LOCATION:	JONES	CLOW
CITY RESIDENTIAL:	J-4040	850 DI
CITY COMMERCIAL:	J-4060	860 DI

NOTES:

1. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF FIRE HYDRANT WITH THE ENGINEER.
2. ALL HYDRANTS TO BE SET TRUE AND PLUMB.
3. NO OBSTRUCTIONS SHALL BE WITHIN 36" OF FIRE HYDRANT.
4. PUBLIC HYDRANTS SHALL BE PAINTED CHROME YELLOW.
5. WITNESS HOLE MUST BE ABOVE CONCRETE SURFACE AND HAVE ADEQUATE CLEARANCE.

CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

SCALE: NTS	WATER DIVISION STANDARD DRAWING	DRAWN: MAY 2018	REV:
DRAWN BY: STAFF	NEW FIRE HYDRANT INSTALLATION	RESOLUTION: 98-18 (CM)	
CHECKED BY: TC	MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DWG NO.	W-05

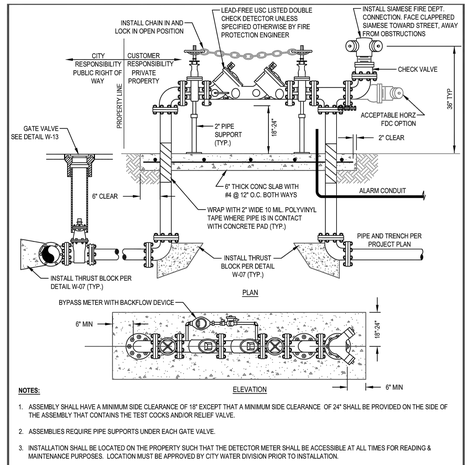


NOTES:

1. APPROVED REDUCED PRESSURE PRINCIPLE BACKFLOW ASSEMBLY SHALL BE INSTALLED SUCH THAT IT IS READILY ACCESSIBLE FOR REPAIR AND INSPECTION.
2. BRASS FITTINGS, VALVES, AND PIPE SHALL CONSIST OF BRASS ALLOY AND SHALL HAVE A MINIMUM RATED WORKING PRESSURE OF 150 PSI.
3. BRASS OR PLASTIC PLUGS SHALL BE INSTALLED ON ALL TEST PORTS.
4. ALL ABOVE GROUND PIPE, FITTINGS, AND ASSEMBLY SHALL BE PAINTED WITH TWO COATS OF ENAMEL.
5. AN ENCLOSURE OR CAGE MAY BE INSTALLED AT THE OPTION OF THE PROPERTY OWNER.

CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

SCALE: NTS	WATER DIVISION STANDARD DRAWING	DRAWN: MAY 2018	REV:
DRAWN BY: STAFF	2" AND SMALLER BACKFLOW SERVICE	RESOLUTION: 98-18 (CM)	
CHECKED BY: TC	MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DWG NO.	W-10

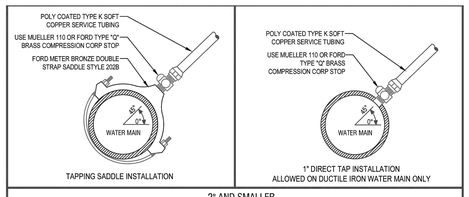


NOTES:

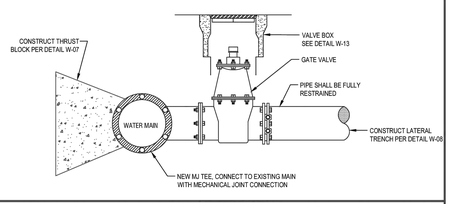
1. ASSEMBLY SHALL HAVE A MINIMUM SIDE CLEARANCE OF 18" EXCEPT THAT A MINIMUM SIDE CLEARANCE OF 24" SHALL BE PROVIDED ON THE SIDE OF THE ASSEMBLY THAT CONTAINS THE TEST COCKS AND/OR RELIEF VALVE.
2. ASSEMBLIES REQUIRE PIPE SUPPORTS UNDER EACH GATE VALVE.
3. INSTALLATION SHALL BE LOCATED ON THE PROPERTY SUCH THAT THE DETECTOR METER SHALL BE ACCESSIBLE AT ALL TIMES FOR READING & MAINTENANCE PURPOSES. LOCATION MUST BE APPROVED BY CITY WATER DIVISION PRIOR TO INSTALLATION.
4. BACKFLOW ASSEMBLY GATE VALVES SHALL BE O.S. & Y. TYPE, EQUIPED WITH TAMPER-PROOF ALARM DEVICES AND SHALL BE CHAINED AND LOCKED IN THE OPEN POSITION.
5. IF DIRECTED TO DO SO BY THE CITY OF WATSONVILLE, INSTALL PROTECTIVE 4" DIA. STEEL PIPE BOLLARDS.
6. OPENING AND CLOSING OF VALVES IS STRICTLY PROHIBITED. FIRE DEPT. APPROVAL REQUIRED.
7. ALL ABOVE GROUND PIPING SHALL BE PAINTED (COLOR TO BE SELECTED AT TIME OF INSTALLATION BY APPROPRIATE FIRE DEPARTMENT.)

CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

SCALE: NTS	WATER DIVISION STANDARD DRAWING	DRAWN: MAY 2018	REV:
DRAWN BY: STAFF	4" AND LARGER FIRE BACKFLOW SERVICE	RESOLUTION: 98-18 (CM)	
CHECKED BY: TC	MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DWG NO.	W-12A



2" AND SMALLER



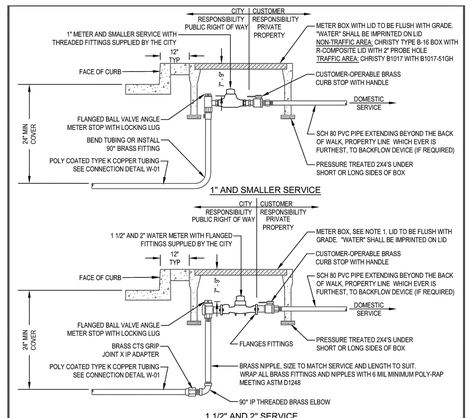
LARGER THAN 2"

NOTES:

1. ALL HOT TAP CONNECTIONS (4" AND LARGER) AND AIR TESTS SHALL BE MADE IN THE PRESENCE OF THE PUBLIC WORKS ENGINEER OR INSPECTOR.
2. ALL HOT TAP CONNECTIONS SHALL BE AT LEAST 24" AWAY FROM ANY JOINT OR FITTING AND 18" AWAY FROM ANY OTHER TAP.
3. FOR DIRECT TAP ONLY CONTRACTOR SHALL APPLY TWO LAYERS OF ADHESIVE TAPE COMPLETELY AROUND PIPE AT TAPPING LOCATION PRIOR TO TAPPING.
4. CONTRACTOR SHALL ENCASE TAPPING SADDLE, ALL FASTENERS, ALL PIPE FITTINGS, AND SERVICE LINE WITHIN WITH POLYWRAP.
5. COUPON OR "COOKIE" SHALL BE RETAINED AND DELIVERED TO THE WATER SERVICES DIVISION.

CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

SCALE: NTS	WATER DIVISION STANDARD DRAWING	DRAWN: MAY 2018	REV:
DRAWN BY: STAFF	STANDARD SERVICE CONNECTION	RESOLUTION: 98-18 (CM)	
CHECKED BY: TC	MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DWG NO.	W-01

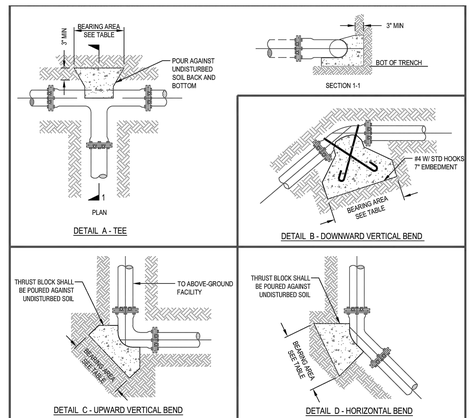


NOTES:

1. METER BOX: CHRISTY B-36 W/ FL36DFIBRELYTE LID NON TRAFFIC, B-1730 BOX W/ B1730-51GH STEEL CHECKER PLATE LID FOR TRAFFIC. ALL LIDS SHALL HAVE A PORT ACCEPTING THE WIRELESS METER READER.
2. ALL PRIVATE INSTALLATION SHALL COMPLY WITH CITY ORDINANCE WMC 6-3.4 AS AMENDED REGARDING "WATER SERVICES AND CHARGES". DOMESTIC AND FIRE SERVICE LINE SHALL BE SIZED PER CALIFORNIA PLUMBING AND FIRE CODES.
3. THE CUSTOMER SHALL INSTALL SUITABLE CONTROL VALVES ON EACH PRIVATE SERVICE LINE ON THE RISER TO EACH BUILDING OR A MAXIMUM OF 50 FEET FROM THE METER. THE VALVES SHALL CONTROL THE ENTIRE WATER SUPPLY FROM THE SURFACE.
4. ALL CORPORATION STOPS, ANGLE METER STOPS, COUPLINGS AND CONNECTIONS SHALL BE BRASS FITTINGS LEAD-FREE COMPLIANCE AND HAVE A MINIMUM WORKING PRESSURE OF 150 PSI.

CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

SCALE: NTS	WATER DIVISION STANDARD DRAWING	DRAWN: MAY 2018	REV:
DRAWN BY: STAFF	2" AND SMALLER STAND-ALONE SERVICE	RESOLUTION: 98-18 (CM)	
CHECKED BY: TC	MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DWG NO.	W-04



REQUIRED BEARING AREA IN SQUARE FEET				
PIPE DIA	TEE- A	DOWN VERT- B	UPWARD VERT - C	HRZ BEND - D
4"	2	2	2	2
6"	5	4	6	4
8"	8	7	11	7
10"	11	10	15	10
12"	17	16	24	16
14"	22	23	31	23
16"	30	30	42	30
18"	39	35	54	35

NOTES:

1. CONCRETE SHALL BE KEPT CLEAR OF ALL FLANGES AND LUGS.
2. ALL CONCRETE THRUST BLOCK SHALL HAVE A MINIMUM THICKNESS OF 12 INCHES.
3. BLOCKING IS BASED ON 150 PSI PRESSURE AND 1000 PSF SOIL BEARING.

CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

SCALE: NTS	WATER DIVISION STANDARD DRAWING	DRAWN: MAY 2018	REV:
DRAWN BY: STAFF	STANDARD THRUST BLOCK	RESOLUTION: 98-18 (CM)	
CHECKED BY: TC	MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DWG NO.	W-07

WARE MALCOMB
ARCHITECTURE PLANNING INTERIORS
CIVIL ENGINEERING LAND SURVEYING BUILDING MEASUREMENT
4683 Chabot Dr. Suite #300 Pleasanton, CA 94588 P 925.244.9520

CIENT LOGO

OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA 95076

STANDARD DETAILS

REMARKS	DATE
2ND SUBMITTAL	MAY 23, 2022

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REGISTERED PROFESSIONAL ENGINEER JOEL FRANCIS ATOCA No. 53588 CIVIL STATE OF CALIFORNIA

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APN 018-711-34 (PART) & -35

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	MAY 23, 2022 2ND SUBMITTAL

BOWMAN & WILLIAMS
CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS
3949 RESEARCH PARK COURT, SUITE 100
SOQUEL, CA 95073-2094
(831) 426-3560

STANDARD DETAILS

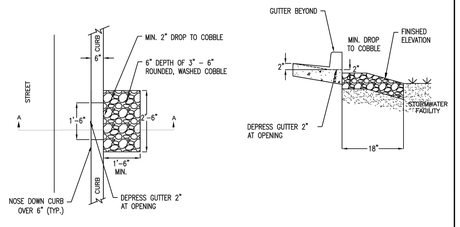
OHLONE PARKWAY INDUSTRIAL
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA

SCALE AS SHOWN	DRAWN TPC	JOB NO. 28595	SHEET C7.3
DATE DECEMBER 13, 2021	CHECKED JFR	INDEX PAJARO 2	OF 19
DESIGN	DWG NAME 25918_C6	FILE NO. 28595	

PA/PM:	
DRAWN BY.:	
JOB NO.:	SNR21-0142-00

SHEET
C7.3

CAUTION: IF THIS SHEET IS NOT 30"x42" IT IS A REDUCED PRINT

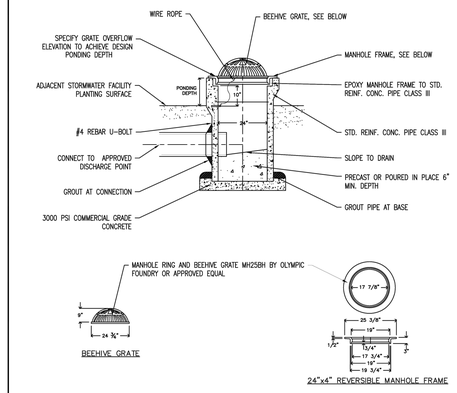


NOTES

1. FOR USE WITH STORMWATER FACILITIES WITH SLOPED SIDES OR FLAT BOTTOMS.
2. WHERE INLET FLOW VELOCITY IS HIGH, EXTEND COBBLE INTO FACILITY, BUT AVOID EXCESSIVE USE.
3. CURB CUT INLET SPACING SHALL BE 20 FEET. CURB CUT INLET SPACING FOR GUTTERS WITH A LONGITUDINAL SLOPE GREATER THAN 4% MUST BE APPROVED BY ENGINEER.

CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

NOT TO SCALE	CITY OF WATSONVILLE	LOW IMPACT DEVELOPMENT STORMWATER MANAGEMENT STANDARD DETAILS	DRAWN: 4/13	REV.:
DRAWN BY: MP		CURB CUT INLET WITH GRAVEL ENERGY DISSIPATION	RESOLUTION No. 76-13 (CM)	
CHECKED BY: TS		MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DRAWING No. LID-002	



CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

NOT TO SCALE	CITY OF WATSONVILLE	LOW IMPACT DEVELOPMENT STORMWATER MANAGEMENT STANDARD DETAILS	DRAWN: 4/13	REV.:
DRAWN BY: MP		OVERFLOW STRUCTURE WITH BEEHIVE GRATE	RESOLUTION No. 76-13 (CM)	
CHECKED BY: TS		MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DRAWING No. LID-003	

TREES

Native	Scientific Name	Common Name	Planting Area	Height	Spread	Exposure	Type	Bioretention Characteristics: Plant Inundation Zone A	Plant Inundation Zone B	Small Planting Stripes (<5' wide)	Large Planting Stripes (>5' wide)	Tolerates Periodic Inundation	Tolerates Prolonged Dry Periods	Requires Good Drainage	Weed Tolerant	Notes
X	Cercis occidentalis	Western Redbud	Small	10'	20'	Full Sun	Deciduous		X	X		X	X			Small tree or large shrub, tolerates clay, winter wet, drought, flowers stronger with less.
X	Chilopsis linearis	Desert Willow	Small	25'	30'	Full Sun	Deciduous		X		X	X	X		X	Tolerates alkaline soil, sand, clay, seasonal flooding and drought, not coastal conditional
X	Platanus racemosa	California Sycamore	Large	40'-80'	40'-70'	Full Sun	Deciduous		X							Tolerates sand and clay soils, seasonal flooding, needs space to grow, avoid underground water/sewer pipes
X	Quercus agrifolia	Coast Live Oak	Medium	25'-60'	40'-70'	Full Sun-Shade	Deciduous		X		X		X	X	X	Tolerates drought and wet conditions, mature trees produce significant litter- limiting understory plantings, need space to grow

SHRUBS

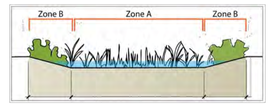
Native	Scientific Name	Common Name	Height	Spread	Exposure	Type	Bioretention Characteristics: Plant Inundation Zone A	Plant Inundation Zone B	Small Planting Stripes (<5' wide)	Large Planting Stripes (>5' wide)	Tolerates Periodic Inundation	Tolerates Prolonged Dry Periods	Requires Good Drainage	Weed Tolerant	Notes
X	Baccharis pilularis consanguinea	Coyote Brush	3'-6'	5'	Sun	Evergreen		X	X	X	X			X	Adaptable evergreen shrub, provides quick cover and bank stabilization, tolerant of coastal conditions, alkaline soil, sand, clay and seasonal wet
X	Heteromeles arbutifolia	Toyon, Christmas Berry	6'-10'	4'-5'	Sun	Evergreen		X		X	X			X	Tolerates sand, clay and serpentine soils, seasonal water with good drainage
X	Iris douglasiana	Douglas Iris	3'	1'-2'	Full Sun-Partial Shade	Grass		X	X		X				Tolerates sand, clay and serpentine soils, seasonal wet (but not soggy) soils and drought
X	Myrica californica	Pacific Wax Myrtle	15'	15'	Sun	Evergreen		X	X		X			X	Large shrub or small tree, tolerates coastal conditions, sand, clay and seasonal inundation
X	Rosa californica	California Rose	3'-6'	3'-5'	Sun-Partial Shade	Deciduous	X	X	X	X	X	X			Tolerates a wide variety of soils, seasonal flooding and some drought, spreads aggressively, avoid edges of walkways because of thorns
X	Sambucus mexicana	Mexican Elderberry	8'-12'	8'	Sun-Partial Shade	Deciduous		X		X	X			X	Large shrub to tree, tolerates clay, seasonal flooding and drought, good wildlife food source
X	Solidago californica	California Goldenrod	1'-4'	1'-4'	Full Sun-Partial Shade	Herbaceous Perennial		X	X	X	X	X			Tolerates poor soils, seasonal wet and drought, can spread aggressively if over irrigated

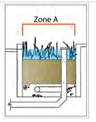
CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

NOT TO SCALE	CITY OF WATSONVILLE	LOW IMPACT DEVELOPMENT STORMWATER MANAGEMENT STANDARD DETAILS	DRAWN: 4/13	REV.:
DRAWN BY: MP		LID RECOMMENDED PLANT LIST (TREES AND SHRUBS)	RESOLUTION No. 76-13 (CM)	
CHECKED BY: TS		MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DRAWING No. LID-004A	

GROUNDCOVER AND VINES

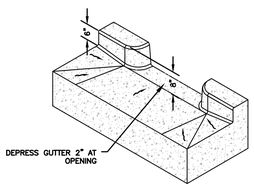
Native	Scientific Name	Common Name	Height	Spread	Exposure	Type	Bioretention Characteristics: Plant Inundation Zone A	Plant Inundation Zone B	Tolerates Periodic Inundation	Tolerates Prolonged Dry Periods	Requires Good Drainage	Tolerates Mowing	Notes
	Carex divulsa	Berkeley Sedge, Grey Sedge	12"-18"	12"-18"	Full Sun-Partial Shade	Grass	X	X	X		X		Tolerates foot traffic, some drought and boggy soils
X	Carex panca	California Meadow Sedge	6"-8"	N/A	Full Sun-Partial Shade	Grass	X	X	X			X	Good lawn substitute, tolerates wide range of growing conditions, seasonal inundation, drought, foot traffic and mowing
X	Carex praegracilis	Clustered Field Sedge	1'-4'	1'-3'	Full Sun-Partial Shade	Grass	X		X	X		X	Useful lawn substitute and bank stabilizer, good planted in masses, tolerates wide range of growing conditions, foot traffic and mowing, may look weedy when mixed with other plants
X	Carex spissa	San Diego Sedge	6"-8"	N/A	Full Sun-Partial Sun	Grass	X	X	X			X	A large grass, tolerates alkaline soil, clay, serpentine, seasonal inundation, and deer
	Chondropetalum tectorum	Small Cape Rush	2'-3'	2'-4'	Full Sun-Partial Sun	Grass	X	X	X	X		X	A tough, attractive reed like plant, tolerates boggy or clay soils and drought once established, Chondropetalum elephantinum is a much larger species
X	Festuca rubra 'molate'	Molate Red Fescue	Up to 10"	6"-40"	Full Sun-Partial Shade	Evergreen Perennial	X	X	X			X	A tufted, spreading bunchgrass, good lawn substitute, provides erosion control, tolerates wet conditions, but looks best with regular water, tolerates drought once established
X	Juncus effusus	Soft Rush	1'-2'	1'-2'	Full Sun-Partial Shade	Grass	X		X				Tolerates poor drainage, heavy soils, needs more supplemental water than Juncus patens
X	Juncus patens	Wire Grass, Blue Rush	2'-3'	Running	Full Sun	Grass	X		X	X			Strong performance in bioretention area, tolerates poor drainage, seasonal inundation, drought, shade
X	Leymus condensatus	Canyon Prince Wild Rye	1'-2'	N/A	Partial Shade	Grass		X	X	X			Tolerates drought, wet, but not soggy soils, looks best with supplemental irrigation, spreads by rhizomes
X	Muhlenbergia rigens	Deer Grass	6'-8'	6'-8'	Full Sun-Partial Shade	Evergreen Shrub		X	X	X			A large grass, tolerates sandy and clay soils, seasonal inundation, best when cut back annually to remove old thatch



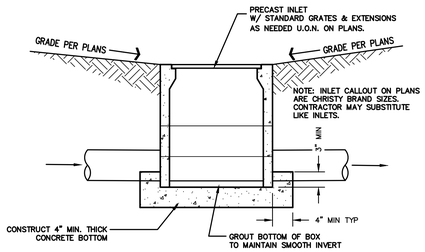


CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

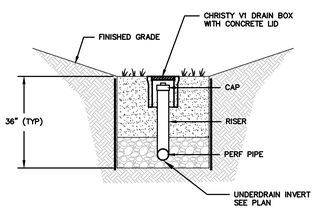
NOT TO SCALE	CITY OF WATSONVILLE	LOW IMPACT DEVELOPMENT STORMWATER MANAGEMENT STANDARD DETAILS	DRAWN: 4/13	REV.:
DRAWN BY: MP		LID RECOMMENDED PLANT LIST (GROUNDCOVER AND VINES)	RESOLUTION No. 76-13 (CM)	
CHECKED BY: TS		MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DRAWING No. LID-004B	



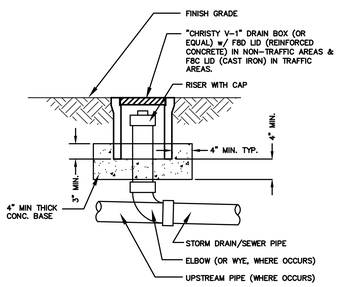
1 C7.4 CURB CUT INLET PERSPECTIVE VIEW
SCALE: NTS



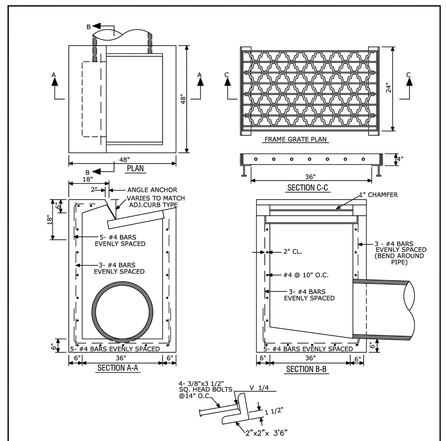
3 C7.4 TYPICAL CATCH BASIN
SCALE: NTS



2 C7.4 TYPICAL SDCO IN BIORETENTION
SCALE: 1/2" = 1'–0"



4 C7.4 CLEANOUT (SDCO/SSCO) DETAIL
SCALE: 1"=1'–0"

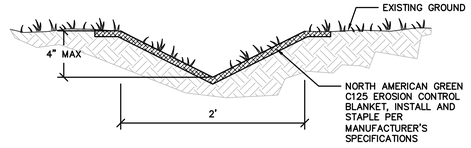


NOTES:

1) GRATE SHALL BE GRADE TYPE 24-10S AS DETAILED BY CALTRANS STANDARD PLAN D77B.
2) FRAME SHALL BE AS DETAILED BY CALTRANS STANDARD PLAN D77A.
3) CONCRETE SHALL CONFORM TO THE PROVISIONS OF SECTION 90-2, "MINOR CONCRETE", OF THE CALTRANS STANDARD SPECIFICATIONS.
4) PRE-CAST BASES ARE PROHIBITED.

CITY OF WATSONVILLE PUBLIC WORKS & UTILITIES DEPARTMENT

NOT TO SCALE	CITY OF WATSONVILLE	STANDARD DRAWING FOR	DRAWN: 9/11	REV.: 5/13
DRAWN BY: P.A.C.		DROP INLET TYPE "D"	RESOLUTION: 76-13 (CM)	
CHECKED BY: T.S.		MARIA ESTHER RODRIGUEZ, CITY ENGINEER	DRAWING No. S-205	



5 C7.4 GRASS LINED SWALE
SCALE: NTS

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3949 RESEARCH PARK COURT, SUITE 100
SOQUEL, CA 95073–2094
(831) 426–3560

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SCALE AS SHOWN	DRAWN TPC	JOB NO. 28595	SHEET C7.4 OF 19
DATE DECEMBER 13, 2021	CHECKED JFR	INDEX PAJARO 2	
DESIGN	DWG NAME	FILE NO. 28595	

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PLANNING ENVIRONMENTAL
INTERIORS BUILDING MEASUREMENT
4683 Chabot Dr. Suite #300
Pleasanton, CA 94588
P 925.244.6620

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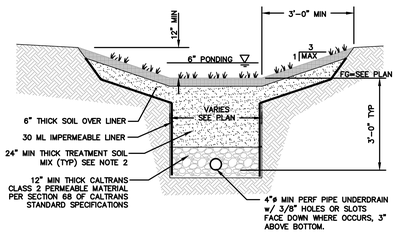
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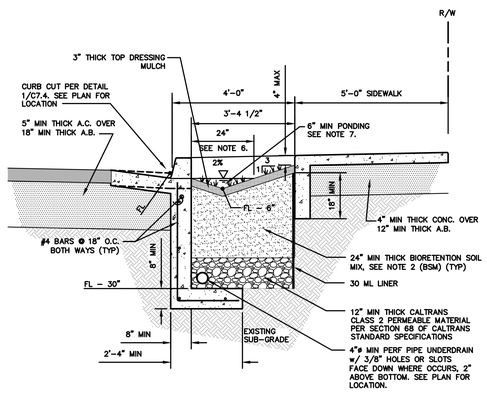


NOTES:

1. SOIL MIX SHALL BE A WELL-BLENDED MIXTURE OF MINERAL AGGREGATE AND COMPOST MEASURED ON A VOLUME BASIS.
2. SOIL MIX SHALL BE PER BASMAA SPECIFICATIONS.
3. THE SOIL MIX SHALL BE WELL BLENDED TO PRODUCE A HOMOGENEOUS MIX.
4. MINERAL AGGREGATE MIX SHALL BE ASTM C33 SAND OR APPROVED EQUAL.
5. BIO SWALE PLANTING SHALL BE PER C.O.W. STD. DWG. NO. LID-004A & LID-004B.
6. AREA SHALL BE DRAINED WITH AN OVERFLOW STRUCTURE WITH BEEHIVE GRATE PER C.O.W. STD. DWG. NO. LID-003.

1 C7.5 TYPICAL BIORETENTION SECTION IN OPEN SPACE

SCALE: 1/2" = 1'-0"

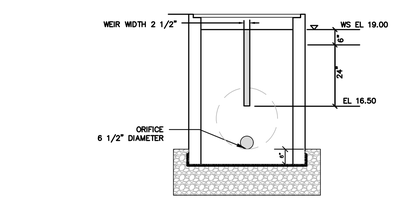


NOTES:

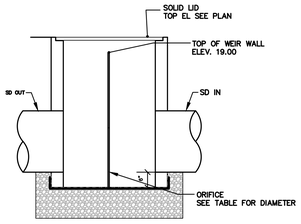
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2. SOIL MIX SHALL BE PER BASMAA SPECIFICATIONS.
3. THE SOIL MIX SHALL BE WELL BLENDED TO PRODUCE A HOMOGENEOUS MIX.
4. MINERAL AGGREGATE MIX SHALL BE ASTM C33 SAND OR APPROVED EQUAL.
5. SEE SHEET C6.1 FOR CURB, GUTTER & SIDEWALK DETAILS.
6. THESE CONDITIONS, 24" EFFECTIVE WIDTH AND 4" MIN PONDING, ARE ADEQUATE GIVEN THE CONSTRAINTS.
7. AREA SHALL BE DRAINED WITH AN OVERFLOW STRUCTURE WITH BEEHIVE GRATE PER C.O.W. STD. DWG. NO. LID-003.

2 C7.5 TYPICAL SECTION – STREET BIO-SWALE

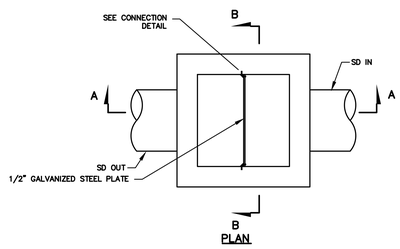
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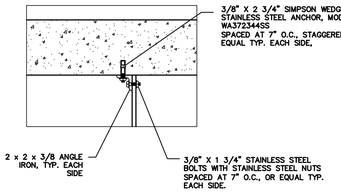


SECTION B-B



SECTION A-A

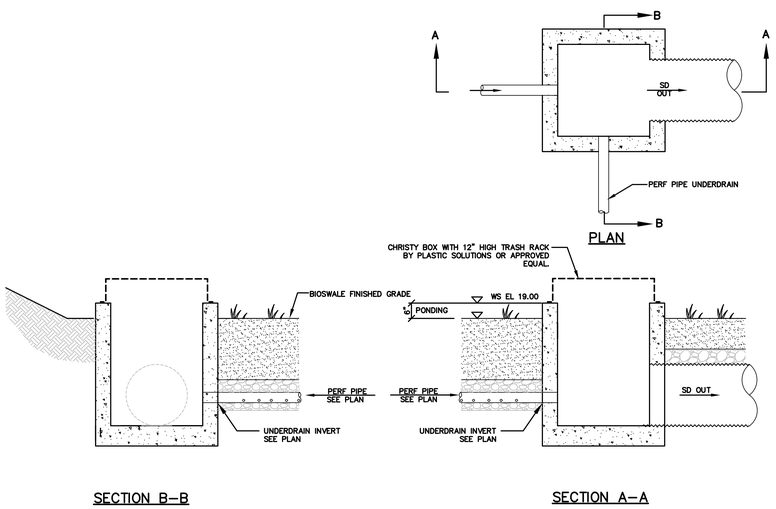




CONNECTION DETAIL

5 C7.5 OUTLET CONTROL STRUCTURE (OCB) DETAILS

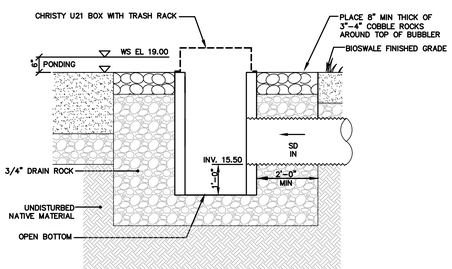
SCALE: 1/2"=1'-0"



SECTION B-B SECTION A-A

3 C7.5 DETENTION OVERFLOW STRUCTURE

SCALE: 1/2" = 1'-0"



4 C7.5 STORM DRAIN BUBBLER

SCALE: 1/2" = 1'-0"

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SOQUEL, CA 95073-2094
(831) 426-3560

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WATSONVILLE, CALIFORNIA

SCALE AS SHOWN	DRAWN TPC	JOB NO. 28595	SHEET
DATE DECEMBER 13, 2021	CHECKED JFR	INDEX PAJARO 2	C7.5
DESIGN	DWG NAME 24735_C7.1	FILE NO. 28595	OF 19

PA/PM:	
DRAWN BY.:	
JOB NO.:	SNR21-0142-00

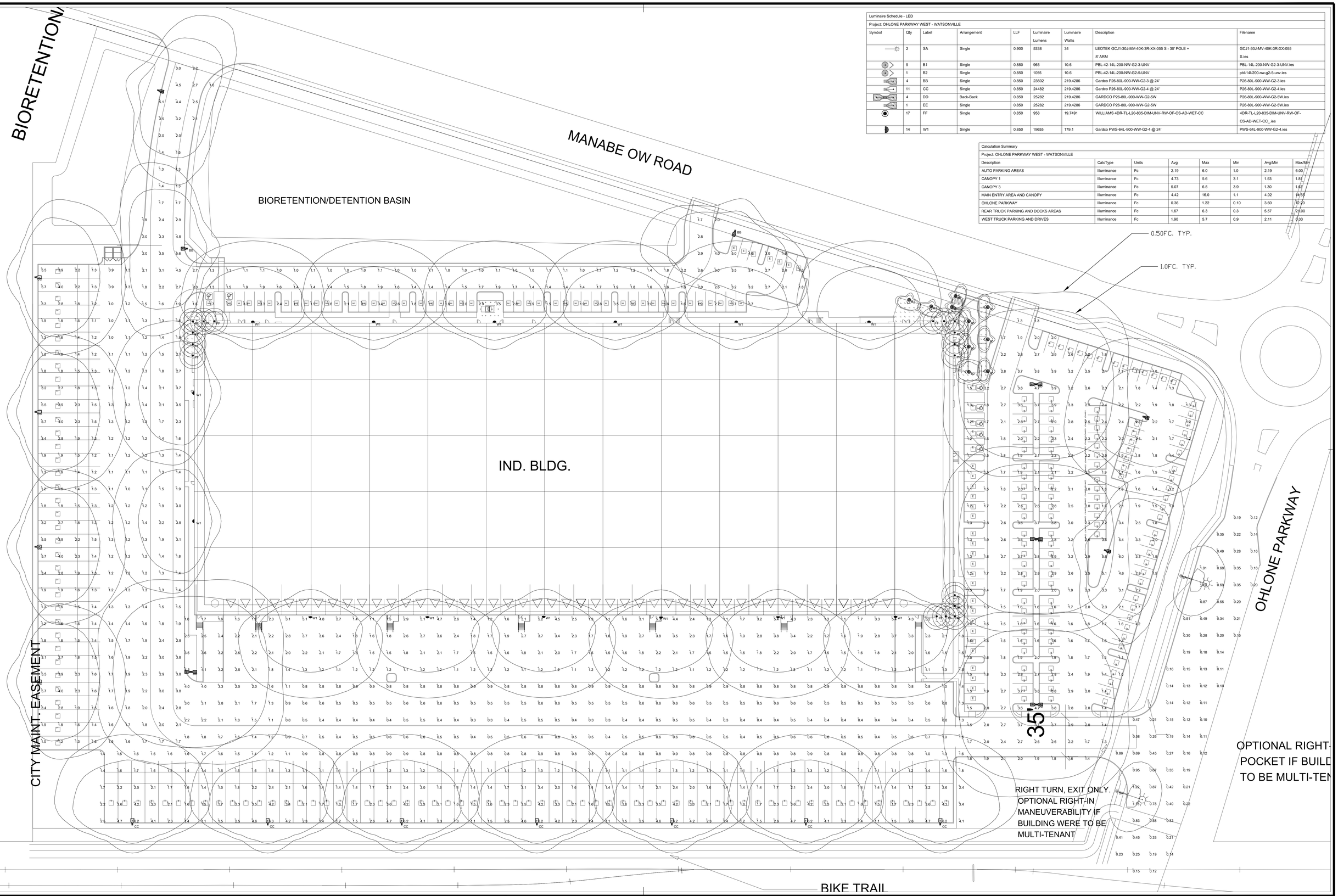
SHEET C7.5

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ARCHITECTURE PLANNING INTERIORS
CIVIL ENGINEERING BRANDING BUILDING MEASUREMENT
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REMARKS	DATE
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Luminaire Schedule - LED								
Project: OHLONE PARKWAY WEST - WATSONVILLE								
Symbol	Qty	Label	Arrangement	LLF	Luminaire Lumens	Luminaire Watts	Description	Filename
	2	SA	Single	0.900	5338	34	LEOTEK GCJ1-30J-MV-40K-3R-XX-055 S - 30' POLE + 8' ARM	GCJ1-30J-MV-40K-3R-XX-055 S.ies
	9	B1	Single	0.850	965	10.6	PBL-42-14L-200-NW-G2-3-UNV	PBL-14L-200-NW-G2-3-UNV.ies
	1	B2	Single	0.850	1055	10.6	PBL-42-14L-200-NW-G2-5-UNV	pbl-14l-200-nw-g2-5-unv.ies
	4	BB	Single	0.850	23602	219.4286	Gardco P26-80L-900-WW-G2-3 @ 24'	P26-80L-900-WW-G2-3.ies
	11	CC	Single	0.850	24482	219.4286	Gardco P26-80L-900-WW-G2-4 @ 24'	P26-80L-900-WW-G2-4.ies
	4	DD	Back-Back	0.850	25282	219.4286	GARDCO P26-80L-900-WW-G2-5W	P26-80L-900-WW-G2-5W.ies
	1	EE	Single	0.850	25282	219.4286	GARDCO P26-80L-900-WW-G2-5W	P26-80L-900-WW-G2-5W.ies
	17	FF	Single	0.850	958	19.7491	WILLIAMS 4DR-TL-L20-835-DIM-UNV-RW-OF-CS-AD-WET-CC	4DR-TL-L20-835-DIM-UNV-RW-OF-CS-AD-WET-CC_.ies
	14	W1	Single	0.850	19655	179.1	Gardco PWS-64L-900-WW-G2-4 @ 24'	PWS-64L-900-WW-G2-4.ies

Calculation Summary							
Project: OHLONE PARKWAY WEST - WATSONVILLE							
Description	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
AUTO PARKING AREAS	Illuminance	Fc	2.19	6.0	1.0	2.19	6.00
CANOPY 1	Illuminance	Fc	4.73	5.6	3.1	1.53	1.81
CANOPY 3	Illuminance	Fc	5.07	6.5	3.9	1.30	1.67
MAIN ENTRY AREA AND CANOPY	Illuminance	Fc	4.42	16.0	1.1	4.02	14.55
OHLONE PARKWAY	Illuminance	Fc	0.36	1.22	0.10	3.60	12.20
REAR TRUCK PARKING AND DOCKS AREAS	Illuminance	Fc	1.67	6.3	0.3	5.57	21.00
WEST TRUCK PARKING AND DRIVES	Illuminance	Fc	1.90	5.7	0.9	2.11	6.33

ALL VALUES SHOWN ARE MAINTAINED HORIZONTAL FOOTCANDLES AT GRADE

PHOTOMETRIC DATA USED AS INPUT FOR THESE CALCULATIONS IS BASED ON ESTABLISHED IES PROCEDURES AND PUBLISHED LAMP, RATINGS, FIELD PERFORMANCE WILL DEPEND ON ACTUAL LAMP, BALLAST, ELECTRICAL, AND SITE CHARACTERISTICS.

Calculations have been performed according to IES standards and good practice. Some differences between measured values and calculated results may occur due to tolerances in calculation methods, testing procedures, component performance, measurement techniques and field conditions such as voltage and temperature variations. Input data used to generate the attached calculations such as room dimensions, reflectances, furniture and architectural elements significantly affect the lighting calculations. If the real environment conditions do not match the input data, differences will occur between measured values and calculated values.

Associated Lighting Representatives, Inc.

ASSOCIATED LIGHTING REPRESENTATIVES, INC
7777 PARDEE LANE
P.O. BOX 2265
OAKLAND, CA 94621
PHONE: (510) 638-0158 - FAX (510) 638-2908

REPORT FOR: WARE MALCOMB
BY: APPLICATIONS ENGINEERING; RAMON ZAPATA
SALES REPRESENTATIVE: ALR; CATHY JOHNSON

AGI32 VERSION 20.1
AGI (C) 2021 LIGHTING ANALYSTS, INC.
10268 W, CENTENNIAL ROAD, SUITE 202
LITTLETON, CO 80127

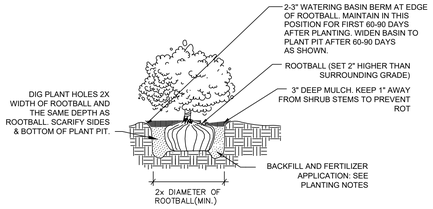
PROJECT DESCRIPTION

CA VENTURES - OHLONE PARKWAY WEST

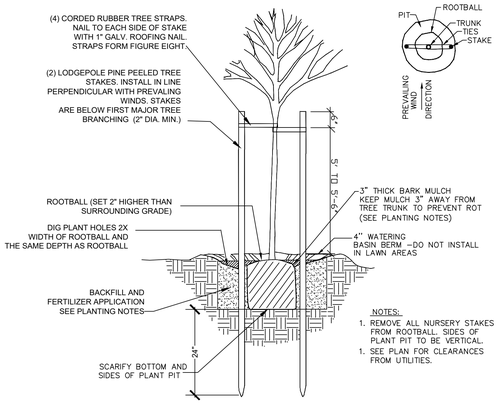
CITY OF WATSONVILLE

DRAWING NO. / INPUT FILE
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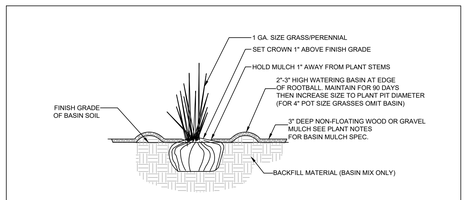
SCALE	SHEET	DATE	REV
1" = 30'	1 OF 1	05.18.2022	2



SHRUB PLANTING DETAIL



TREE PLANTING DETAIL



PLANTING GRASSES IN BIO-INFILTRATION BASIN

WATER EFFICIENT LANDSCAPE WORKSHEET - BY HYDROZONE

REFERENCE EVAPOTRANSPIRATION (ETo): 37.7

HYDROZONE #	HYDROZONE / (PLANT WATER USE)	PLANT TYPE	PLANT FACTOR (PF)	IRRIGATION METHOD	IRRIGATION EFFICIENCY (IE)	ETAF (PF / IE)	LANDSCAPE AREA (sq. ft.)	ETAF x AREA	ESTIMATED TOTAL WATER USE (ETWU)	% OF TOTAL LANDSCAPE AREA
REGULAR LANDSCAPE AREA:										
1	LOW WATER USE	SHRUBS	0.3	DRIP	0.81	0.37037037	79755	29538.88889	690442.0	72%
2	LOW WATER USE	HYDROSEED	0.3	ROTOR	0.75	0.4	29390	11756	274784.7	27%
3	MEDIUM WATER USE	TREES	0.5	BUBBLER	0.81	0.61728395	1440	888.8888889	20776.9	1%
						TOTALS:	110585	42184		100%
SPECIAL LANDSCAPE AREAS:										
	REC. AREA					1		0	0	
	POOL					1		0	0	
	WATER FEATURE 2					1		0	0	
						TOTALS:	0	0		
								ETWU TOTAL:	986.004	
								MAXIMUM ALLOWED WATER ALLOWANCE (MAWA):	1,163.166	

ETAF CALCULATIONS:

REGULAR LANDSCAPE AREAS:

TOTAL ETAF x AREA	42,184
TOTAL LANDSCAPE AREA	110,585
AVERAGE ETAF	0.38

NOTE: AVERAGE ETAF FOR REGULAR LANDSCAPE AREAS MUST BE 0.55 OR BELOW FOR RESIDENTIAL AREAS, AND 0.45 OR BELOW FOR NON-RESIDENTIAL AREAS.

ALL LANDSCAPE AREAS:

TOTAL ETAF x AREA	42,184
TOTAL LANDSCAPE AREA	110,585
SITEWIDE ETAF	0.38

PLANTING NOTES

GENERAL NOTES: The Landscape Contractor shall inspect the site and be familiar with all existing site conditions prior to submitting his bid. Contractor shall not willfully proceed with construction as shown when it is obvious that obstructions, landscape area and/or grade differences exist that may not have been known during design. such conditions shall immediately be brought to the attention of the Landscape Architect. The contractor shall assume full responsibility for all necessary revisions due to failure to give such notification. Contractor shall be responsible for making himself familiar with all underground utilities, pipes, structures and obstructions. Contractor shall take sole responsibility for all costs incurred due to damage and/or replacement of these items. Contractor shall be responsible for coordination between trades and subcontractors as required to accomplish landscape operations. The Landscape Contractor shall be responsible for any damage to existing facilities caused by or during the performance of his work. All repairs shall be made at no cost to the Owner. Planting shall be installed in conformance with all applicable local codes and ordinances by experienced workmen and a licensed Landscape Contractor who shall obtain all necessary permits and pay all required fees.

SOIL PREPARATION: The Landscape Contractor shall be responsible for finish grading and all planting area drainage. Positive drainage away from the building as per city codes shall be maintained. No low spots which hold standing water will be accepted. The Landscape Contractor shall incorporate soil preparation amendment into planting areas as noted below. Where rototilling is not possible, incorporate soil amendments into top 6 inches with hand tools. After installation of irrigation system, all planting areas are to be fine graded to within 2 inches and slightly mounded away from edges of top of planter, curb, walk, header, etc. and raked smooth with all rocks and debris over 1 inch in diameter removed.

SOIL MANAGEMENT REPORT:
A. The Contractor shall submit soil samples to the laboratory for analysis and recommendations.
1. Soil sampling shall be conducted in accordance with the laboratory protocol, including protocols regarding adequate sampling depth for the intended plants.
2. Soil analysis may include:
   a. Soil texture
   b. Infiltration rate determined by laboratory test or soil infiltration rate table
   c. pH
   d. Total soluble salts
   e. Sodium
   f. Percent organic matter
   g. Recommendations
B. Contractor shall submit soil report and recommendations to the City as part of the certificate of completion.
C. The soil analysis report shall be made available, in a timely manner, to the professionals preparing the landscape design plans and irrigation design plans to make any necessary adjustments to the design plans and if required, submitted to the City prior to application.
D. The contractor shall submit documentation verifying implementation of the soil analysis report recommendations to the City with certificate of completion.

SOIL PREPARATION AMENDMENTS AND BACKFILL MIX: (THE FOLLOWING SOIL AMENDMENT PREPARATIONS ARE FOR BID PURPOSES ONLY, CONTRACTOR TO CONDUCT SOILS FERTILITY ANALYSIS TEST AND SUBMIT RESULTS TO CITY PRIOR TO IMPLEMENTING TEST RESULTS RECOMMENDATIONS) The Landscape Contractor shall amend existing soil, by rototilling, 6 cu. yd. CCW 'Super Humus' compost and 20 lbs. organic fertilizer 'Phyta-Boost' 7-2-1 per 1,000 sq. ft . into the top 6 inches of soil in all planting areas. (or equal) Pit Planting Mix: for trees and shrubs mix 1/3 compost amendment and 2/3 amended topsoil as noted above.

TREE PLANTING: (THE FOLLOWING SOIL AMENDMENT PREPARATIONS ARE FOR BID PURPOSES ONLY, CONTRACTOR TO CONDUCT SOILS FERTILITY ANALYSIS TEST AND SUBMIT RESULTS TO CITY PRIOR TO IMPLEMENTING TEST RESULTS RECOMMENDATIONS). The trees are to be planted as per detail on plan. Trees shall typically be located a minimum of 4 feet from curbs, walks, headers, buildings, overheads, and other trees within the project. backfill shall be the 'Pit Planting Mix' as noted above. All trees shall receive organic fertilizer 'Phyta Boost' 7-1-2 -pelleted (or equal) for 15 gallon trees: 1 lb., 1/ 2 lb.for 5 gallon trees and shrubs: Mix fertilizer with backfill soil and thoroughly water trees immediately after planting.

ROOT BARRIERS: All trees planted within 5' of a paved surface shall receive a linear type root barrier 18" deep and 10' long centered on the tree trunk. (See detail)

SHRUB PLANTING: (THE FOLLOWING SOIL AMENDMENT PREPARATIONS ARE FOR BID PURPOSES ONLY, CONTRACTOR TO CONDUCT SOILS ANALYSIS TEST AND SUBMIT RESULTS TO CITY PRIOR TO IMPLEMENTING TEST RESULTS RECOMMENDATIONS). The shrubs shall be spotted as per plan and the locations approved prior to the digging of the holes. Shrub backfill shall be the 'Pit Planting Mix' as noted in 'Backfill soil mixes'. All shrubs shall receive 'Phyta-Boost 7-1-2 organic fertilizer-pelleted.(or equal) at the following rates: For 5 gallon shrubs:1/2 lb. for, 1 gallon shrubs:1/4 lb. Mix fertilizerl with backfill soil and thoroughly water shrubs immediately after planting. Do not plant any plant within 2'0" of any building wall.

MULCHING STREETSCAPES: Mulch all planting areas, having a slope less than 2:1 with a 3 inch minimum depth of recycled wood fiber, non-dyed with a PH of no higher than 5.0. and free of noxious weeds and foreign materials. Available from 'Re-User Inc.' or approved equal. Keep 1" away from stems of plants to avoid smothering and rot while still covering rootball.

MULCHING ON-SITE: Mulch all parking islands, end-caps, behind truck trailer parking stalls, and planters adjoining parking areas or pedestrian walks with 3" deep pea gravel tan-gray tones 1/ 8"-1/4" dia. Provide sample for approval prior to installation. Keep 1" away from stems of plants to avoid smothering and rot while still covering rootball.

MAINTENANCE: The Contractor shall maintain the project for 90 days (or as requested by owner) following the approval to begin the maintenance period. During the entire maintenance period, watering, cultivating, weeding, mowing, repair/tightening of stakes and ties, restoration of basins, provision of supplemental water by hand in addition to irrigation system as necessary. No pre-emergence herbicides shall be applied- hand remove weeds. Only organic fertilizers shall be applied such as those specified above. Install per manufacturer's recommendations. At the end of the 90 day maintenance period all areas are to be weed free and all plant material is to be in a healthy, thriving condition. Integrated pest management practices shall be implemented.

SUBSTITUTIONS: Requests for substitutions of plant varieties shall be made to the Landscape Architect within 15 days after signing of contract.

GUARANTEE: All construction, trees and shrubs by the Landscape Contractor and/or his subcontractors shall be guaranteed for (1) one year after beginning of maintenance period. The contractor shall replace, at no expense to the Owner, any and all landscape materials that are in an unacceptable condition for time of use, and trees or shrubs that are dead or not in a vigorous, healthy growing condition; within two weeks of notification of such condition. Replacement shall be of the same kind and size as the originally specified item and shall be replaced as originally described on the drawings. The Contractor shall not be held liable for loss of plant materials during the guarantee period due to vandalism, accidental causes or acts of neglect by others than the Contractor, his agents and employees.

CLEAN UP: At the end of each work day, at the inspection for substantial completion and before acceptance of project, clean paved areas that are dirtied or stained by construction operations, by sweeping or washing, and remove defacements and stains. Remove construction equipment, excess materials and tools. Haul from Owners property the debris resulting from construction, and dispose of legally. Remove remaining temporary protection at time of acceptance by Owner unless otherwise agreed.

FERTILIZERS: Available California Organics Fertilizers 1-800-269-5690 www.organicag.com
Compost available from Contra Costa Waste Management: www.contracostawaste.com

METAL EDGING: Install metal edging at interfaces of gravel mulch and hydroseed or firbark mulch areas. See plan for location and detail this sheet.

SPECIAL NOTES:
1.TREES TO BE KEPT TRIMMED TO 6'-0" ABOVE PAVEMENT IN PEDESTRIAN PATHWAYS AND PARKING LOTS AND 13'-0" ABOVE PAVEMENT IN TRUCK AISLES.

2. LANDSCAPE CONTRACTOR SHALL ADJUST PLANT MATERIALS AROUND ABOVE GROUND UTILITIES (IF LOCATION VARIES FROM PLANS) TO PROVIDE MAXIMUM SCREENING AND MAINTAIN REQUIRED CLEARANCES. CONTACT LANDSCAPE ARCHITECT FOR CLARIFICATION.

RECOMMENDED PLANT MATERIALS LIST

TREES:

SYMBOL	BOTANICAL NAME	COMMON NAME	WATER USE WUCOLS	SIZE	MATURE SIZE
	CINNAMOMUM CAMPHORA	CAMPHOR TREE	MED	24" BOX	30'Hx30'W
	CERCIS OCCIDENTALIS (STANDARD)	WESTERN REDBUD	LOW	24" BOX	20'Hx20'W
	LAGERSTROEMIA 'CATAWBA' (STANDARD)	STANDARD CRAPE MYRTLE	LOW	24" BOX	8'Hx10'W
	LAGERSTROEMIA 'MUSKOGEE' (STANDARD)	STANDARD CRAPE MYRTLE	LOW	24" BOX	25'Hx18'W
	MAGNOLIA GRANDIFLORA 'LITTLE GEM'	SOUTHERN MAGNOLIA	MED	24" BOX	25'Hx25'W
	PLATANUS RACEMOSA	CALIFORNIA SYCAMORE	MED	24"BOX	30'Hx40'W
	QUERCUS AGRIFOLIA	CALIFORNIA LIVE OAK	VERY LOW	24" BOX	40'Hx40'W
	ULMUS PARVIFOLIA 'ALLEE'	ALLEE CHINESE ELM	MED	24"BOX	50'Hx30'W

RECOMMENDED PLANT MATERIALS LIST

PLANTING ZONES:

SYMBOL	BOTANICAL NAME	COMMON NAME	WATER USE WUCOLS	SIZE	MATURE SIZE
STORMWATER TREATMENT BASIN:					
	CAREX DIVULSA	SEDGE	LOW	1 GA	2'Hx3'W
	JUNCUS PATENS	BLUE RUSH	LOW	1 GA	2'Hx3'W
	MUHLENBERGIA RIGENS	DEER GRASS	LOW	1 GA	4'Hx4'W
BUILDING FRONTS/ WALKWAYS:					
	ACHILLEA MILLEFOLIUM 'MOONSHINE'	MOONSHINE YARROW	LOW	5 GA	18"Hx18"W
	CALLISTEMON 'LITTLE JOHN'	DWARF BOTTLEBRUSH	LOW	5 GA	3'Hx5'W
	CEANOTHUS 'CONCHA'	WILD LILAC	LOW	5 GA	5'Hx5'W
	DIETES BICOLOR	FORTNIGHT LILY	LOW	5 GA	3'Hx3'W
	FRANGULA CALIFORNICA 'EVE CASE'	CALIFORNIA COFFEEBERRY	LOW	5 GA	4'Hx5'W
	LANTANA SPP	LANTANA	LOW	5 GA	3'Hx5'W
	LOMANDRA LONGIFOLIA 'SEA BREEZE'	DWARF MAT RUSH	LOW	5 GA	3'x3'W
	SALVIA 'GREGGII'	SAGE	LOW	5 GA	4'Hx4'W
	SALVIA NEMEROSA	PURPLE SAGE	LOW	5 GA	3'Hx3'W
	TEUCRIUM FRUTICANS	BUSH GERMANDER	LOW	5 GA	5'Hx5'W
	WESTRINGIA FRUTICOSA	COAST ROSEMARY	LOW	5 GA	5'Hx5'W
PARKING LOT AREAS:					
	CALLISTEMON 'LITTLE JOHN'	DWARF BOTTLEBRUSH	LOW	5 GA	3'Hx5'W
	COPROSMA 'KIRKII'	CREEPING COPROSMA	LOW	1 GA	2'Hx6'W
	LOMANDRA LONGIFOLIA 'SEA BREEZE'	DWARF MAT RUSH	LOW	5 GA	3'x3'W
	TEUCRIUM F. 'COMPACTA'	DWARF GERMANDER	LOW	5 GA	3'Hx3'W
INTERSECTIONS / SITE ENTRY AREAS:					
	AGAVE 'BLUE GLOW'	BLUE GLOW AGAVE	LOW	5 GA	3'Hx4'W
	BOUGAINVILLEA 'SAN DIEGO RED'	BOUGAINVILLEA	LOW	5 GA	4'Hx8'W
	BOUGAINVILLEA 'BARBARA KARST'	BOUGAINVILLEA	LOW	5 GA	4'Hx8'W
	CORYLINE SPP	CORDYLINE	LOW	5 GA	4'Hx3'W
	LANTANA MONTEVIDENSIS	TRAILING LANTANA	LOW	5 GA	3'Hx5'W
	LEUCODENDRON 'SAFARI SUNSET'	SAFARI SUNSET CONEBUSH	LOW	15 GA	5'Hx'5'W
PERIMETER FRONTAGE AREAS:					
	BOUGAINVILLEA 'SAN DIEGO RED'	BOUGAINVILLEA	LOW	5 GA	4'Hx8'W
	BOUGAINVILLEA 'BARBARA KARST'	BOUGAINVILLEA	LOW	5 GA	4'Hx8'W
	CEANOTHUS 'CONCHA'	WILD LILAC	LOW	5 GA	5'Hx5'W
	CEANOTHUS 'JOYCE COULTER'	WILD LIAC	LOW	5 GA	3'Wx6'W
	COPROSMA 'KIRKII'	CREEPING COPROSMA	LOW	1 GA	2'Hx6'W
	FRANGULA CALIFORNICA 'EVE CASE'	CALIFORNIA COFFEEBERRY	LOW	5 GA	4'Hx5'W
	HETEROMELES ARBUTIFOLIA	TOYON	LOW	5 GA	8'Hx8'W
	MYOPORUM PARVIFOLIUM	MYOPORUM 'PUTAH CREEK'	LOW	1 GA	12"Hx8'W
	PITTOSPORUM TOBIRA 'VARIEGATA'	VARIEGATED TOBIRA	LOW	5 GA	6'Hx8'W
SCREENING / BACKGROUND SHRUBS:					
	HETEROMELES ARBUTIFOLIA	TOYON	LOW	5 GA	8'Hx8'W
	PRUNUS ILIFOLIA	HOLLY-LEAF CHERRY	LOW	5 GA	12'Hx12'W
	XYLOSMA CONGESTUM	SHINY XYLOSMA	LOW	5 GA	12'Hx 12'W

GENERAL NOTES:

1. PLANS TO COMPLY WITH APPLICABLE CITY OF WATSONVILLE LANDSCAPE STANDARDS.

2. LANDSCAPE AND IRRIGATION SHALL COMPLY WITH CITY OF WATSONVILLE WATER EFFICIENTY LANDSCAPE ORDINANCE AND WATER CONSERVATION STANDARDS AS WELL AS APPLICABLE WATER CONSERVATION REQUIREMENTS OF THE STATE OF CALIFORNIA. THIS INCLUDES WATER USE CALCULATIONS AND WATER BUDGET CALCULATIONS FOR REVIEW.

3. COUNTY 'STATEMENT OF COMPLAINCE' SHALL BE SUBMITTED SIGNED BY LANDSCAPE ARCHITECT.

4. IRRIGATION TO BE A WATER CONSERVING DRIP TYPE SYSTEM WITH A WEATHER BASED 'SMART' CONTROLLER WITH RAIN SHUT OFF, MASTER VALVE AND FLOW SENSOR.

5. ALL UTILITIES INCLUDING BACKFLOW PREVENTERS, ENCLOSURES AND TRANSFORMERS SHALL BE SCREENED WITH PLANT MATERIALS 5 GALLON SIZE MINIMUM.

MULCH TYPES:
APPLY 2" DEEP RIVERWASHED GRAVEL (TAN TONES) OVER PERVIOUS WEED BARRIER IN ALL PLANTED AREAS WITHIN PROJECT, EXCEPT STORMWATER DETENTION BASINS, SITE PERIMETER AREAS AND STREET FRONTAGES.

APPLY 3" DEEP NON-DYED RECYCLED WOOD MULCH (3" SIZE MAX.) FOR SITE PERIMETER AREAS AND STREET FRONTAGES.

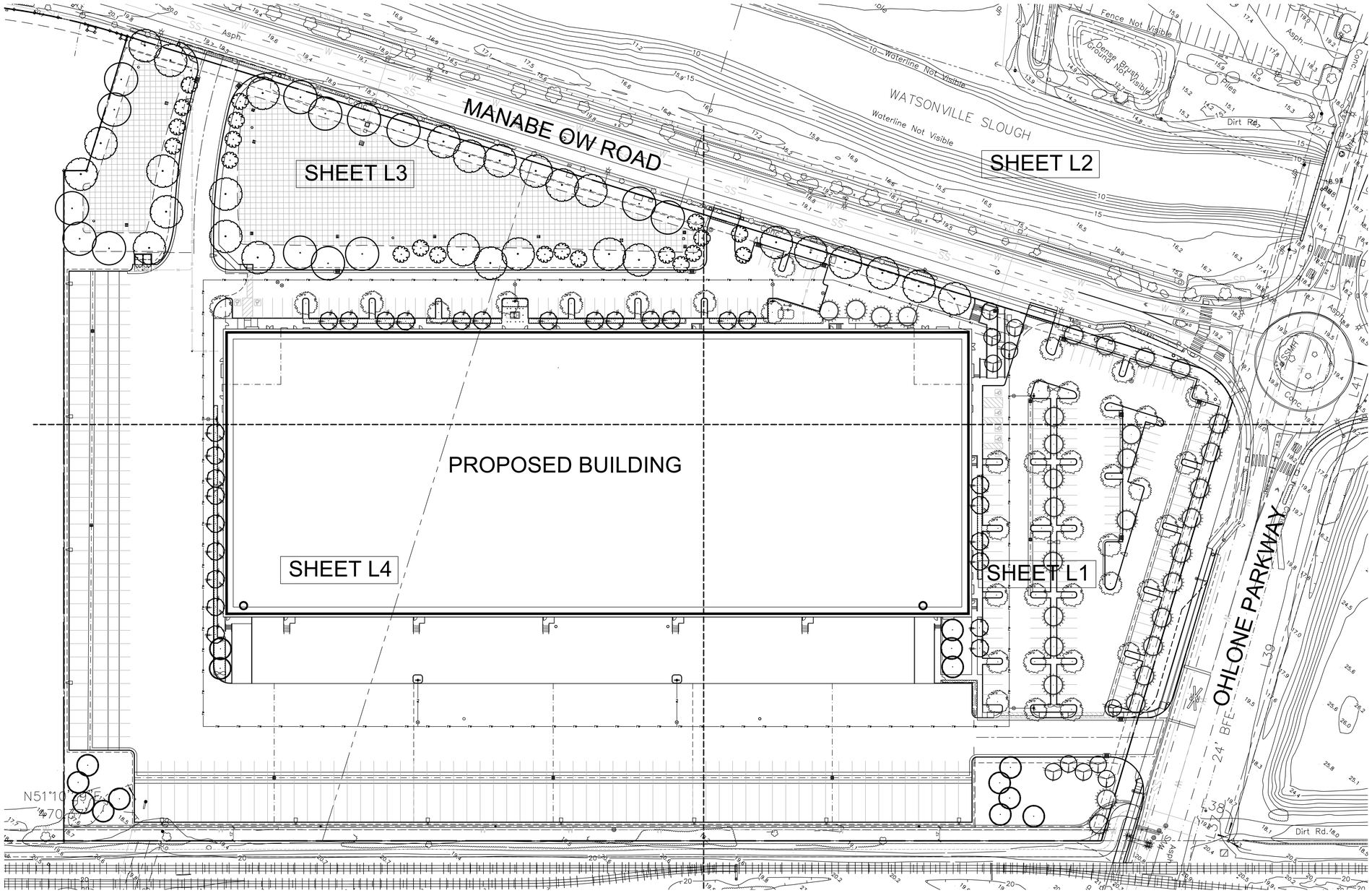
REVISIONS	BY
PLAN SUBM. #2 05-23-2022	

RW Stover & Associates, Inc.
Landscape Architecture
1620 North Main Street, Suite 4
Walnut Creek, CA 94596
Ph: 925.597.1545

OHLONE PARKWAY
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA

RECOMMENDED PLAN LIST, NOTES AND DETAILS

DRAWN: RS
CHECKED: RS
DATE: 4-22-22
SCALE:
JOB NO.
SHEET: L0.1
OF SHEETS



GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

REVISIONS	BY
PLAN SUBM. #2 05-23-2022	

RW Stover & Associates, Inc.
Landscape Architecture
1620 North Main Street, Suite 4
Walnut Creek, CA 94596
Ph: 925.937.2161

OHLONE PARKWAY
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA

OVERALL LANDSCAPE PLAN

DRAWN	RS
CHECKED	RS
DATE	4-22-22
SCALE	
JOB NO.	
SHEET	L0.2
OF	SHEETS

MATCHLINE SEE SHEET L2

MATCHLINE SEE SHEET L4

BUILDING

LOW ACCENT PLANTING ALONG WALKWAYS

POLE-MOUNTED LIGHTS IN PARKING AREAS

LOW SPREADING PLANTING WITH ORNAMENTAL GRASSES IN PARKING LOT PLANTERS

TRUCK LOADING DOCK AREA

MEDIUM FLOWERING ACCENT TREE (CRAPE MYRTLE CATAWABA)

TALL SCREENING SHRUBS OUTSIDE SECURITY FENCE

LARGE CANOPY SCREEN TREES (CAMPHOR TREES)

TRUCK TRAILER PARKING

NO PLANTING IN 10 FT. WIDE WATER EASEMENT

CITY MAINTENANCE EASEMENT (GRAVEL SURFACE)

12'

SECONDARY BROADLEAF EVERGREEN TREES (SOUTHERN MAGNOLIA)

LUSH LANDSCAPE TREATMENT ALONG PERIMETER OF PARKING STALLS AT SITE FRONTAGES

SECONDARY BROADLEAF EVERGREEN TREES (SOUTHERN MAGNOLIA)

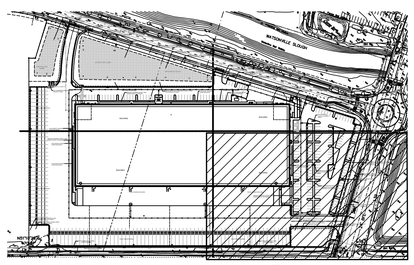
PARKING LOT CANOPY TREE (CHINESE ELM)

OHLONE PARKWAY

LOW ACCENT PLANTING AT PROJECT SITE ENTRY DRIVEWAYS

SITE ACCENT TREES AT SITE ENTRIES (CRAPE MYRTLES)

Dirt Rd.



SITE MAP

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

REFER TO SHEET L0.1 FOR RECOMMENDED PLANT LIST, NOTES AND DETAILS

REVISIONS	BY
PLAN SUBM. #2 05-23-2022	

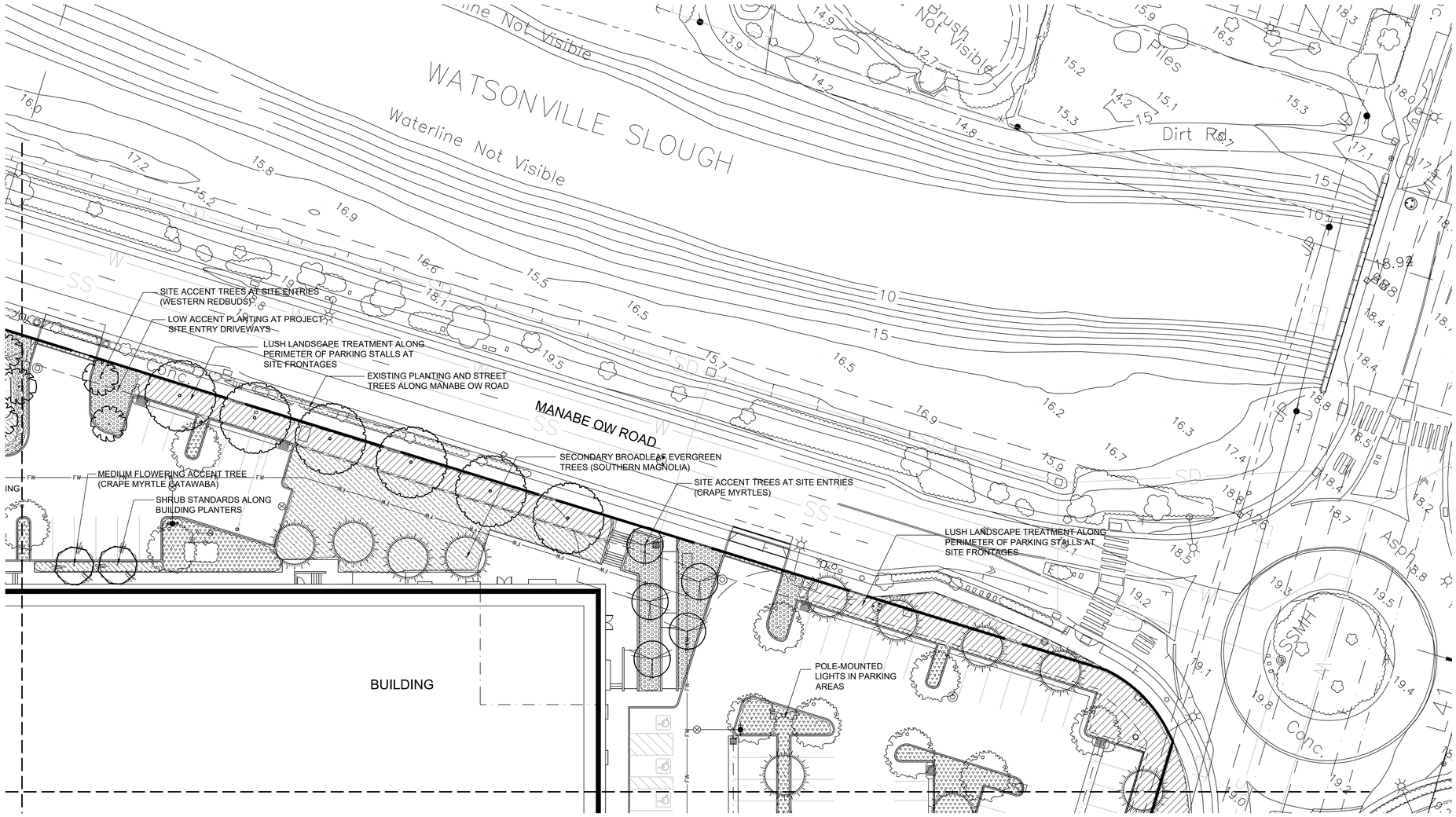
RW Stover & Associates, Inc.
Landscape Architecture
1620 North Main Street, Suite 4
Walnut Creek, CA 94596
Ph: 925.937.5165

OHLONE PARKWAY
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA

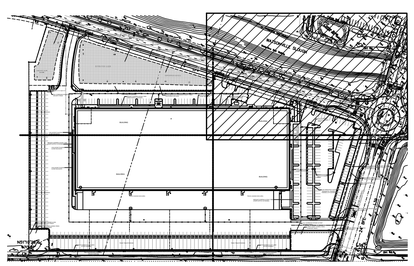
PRELIMINARY
LANDSCAPE PLAN

DRAWN	RS
CHECKED	RS
DATE	4-22-22
SCALE	
JOB NO.	
SHEET	L1
OF	SHEETS

MATCHLINE SEE SHEET L3



MATCHLINE SEE SHEET L1



SITE MAP

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

REFER TO SHEET L0.1 FOR RECOMMENDED PLANT LIST, NOTES AND DETAILS

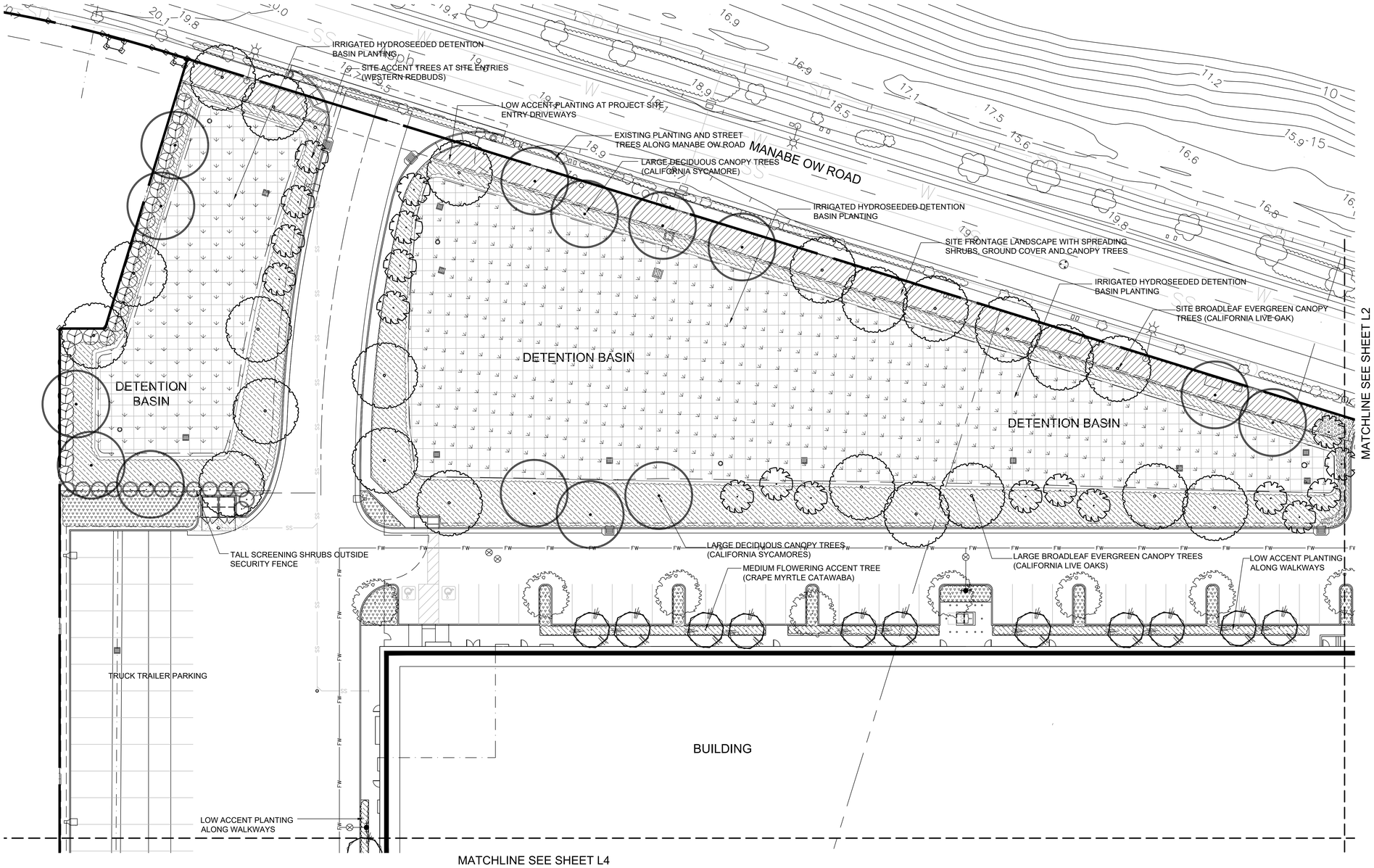
REVISIONS	BY
PLAN SUBM. #2 05-23-2022	

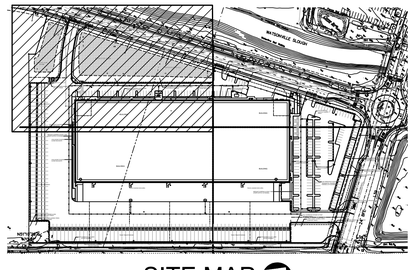
RW Stover & Associates, Inc.
Landscape Architecture
1620 North Main Street, Suite 4
Walnut Creek, CA 94596
Ph: 925.937.2585

OHLONE PARKWAY
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA

PRELIMINARY
LANDSCAPE PLAN

DRAWN	RS
CHECKED	RS
DATE	4-22-22
SCALE	
JOB NO.	
SHEET	L2
OF	SHEETS





SITE MAP

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

REFER TO SHEET L0.1 FOR RECOMMENDED PLANT LIST, NOTES AND DETAILS

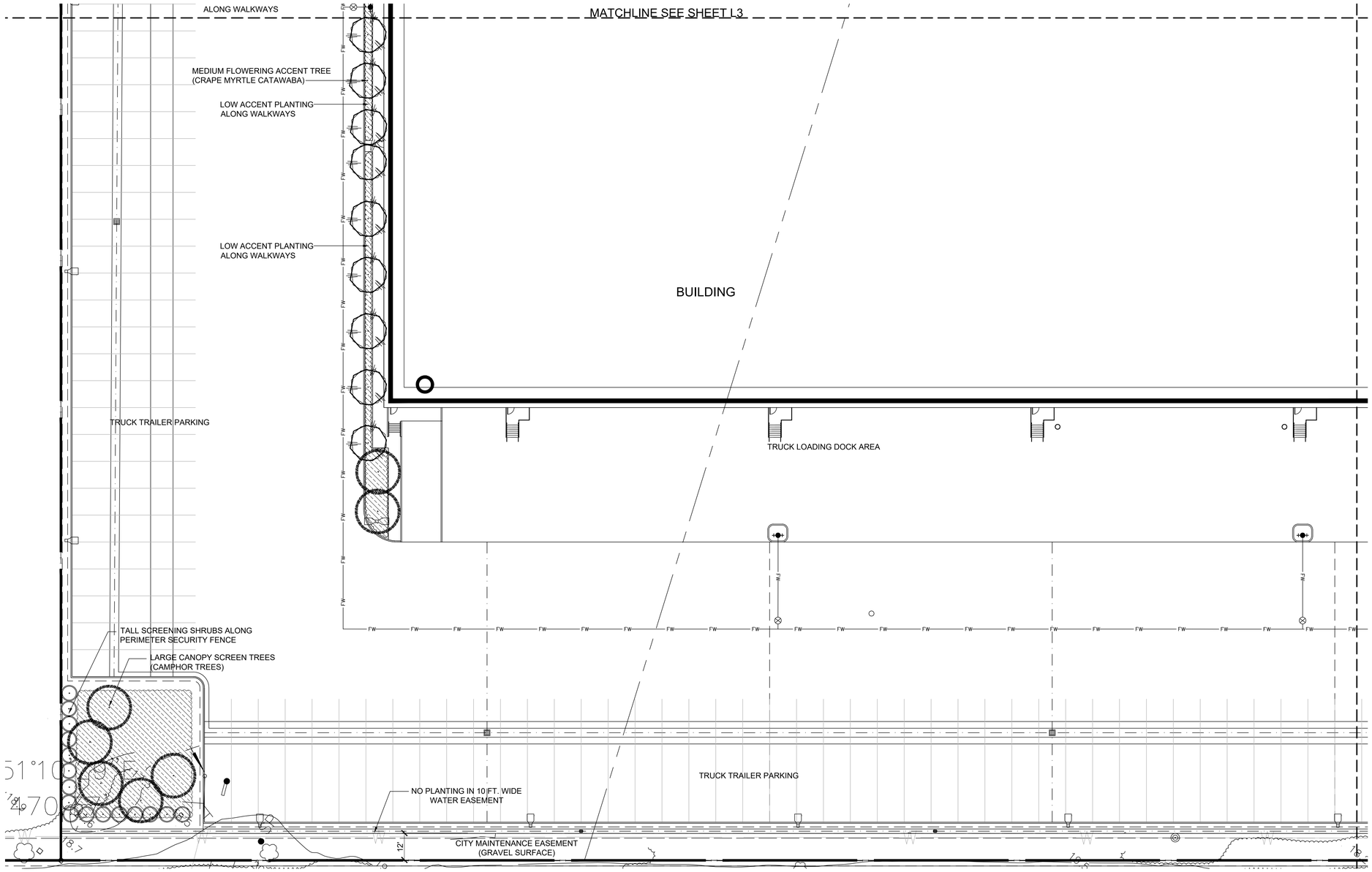
REVISIONS	BY
PLAN SUBM. #2 05-23-2022	

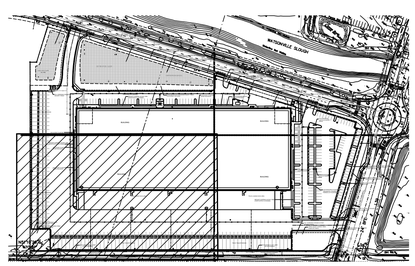
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100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA

PRELIMINARY
LANDSCAPE PLAN

DRAWN	RS
CHECKED	RS
DATE	4-22-22
SCALE	
JOB NO.	
SHEET	L3
OF	SHEETS





SITE MAP

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

REFER TO SHEET L0.1 FOR RECOMMENDED PLANT LIST, NOTES AND DETAILS

REVISIONS	BY
PLAN SUBM. #2 05-23-2022	

RW Stover & Associates, Inc.
Landscape Architecture
1620 North Main Street, Suite 4
Walnut Creek, CA 94596
Ph: 925.937.2183

OHLONE PARKWAY
100 MANABE OW ROAD
WATSONVILLE, CALIFORNIA

PRELIMINARY
LANDSCAPE PLAN

DRAWN
RS
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DATE
4-22-22
SCALE
JOB NO.
SHEET
L4
OF SHEETS

Appendix C Photographs



Photo 1. Developed land cover within the 100 Manabe Ow Road project area. The area had been recently graded and disked.



Photo 2. *Wild Oats and Annual Brome Grassland* within the 200 Manabe Ow Road project area.



Photo 3. *Cattail Marsh* along the western edge of the 200 Manabe Ow Road project area.



Photo 4. Watsonville Slough adjacent to the 200 Manabe Ow Road project area.



Photo 5. A depression within the 200 Manabe Ow Road project area that showed signs of recent ponding, including water-stained leaves.

MEMO

To: Mike Orbach
From: Kim Briones (Senior Biologist), Christina Lau (Project Manager)
Date: May 11, 2023
Re: 100 Manabe Ow Road Industrial Project – Biological Resources Report Update

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The 100 Manabe Ow Road Industrial project (Project) proposes to construct a one-story industrial warehouse structure on a vacant site located at 100 Manabe Ow Road in Watsonville, California. A biological resources report was prepared for the Project in April 2022 (MIG 2022) in support of the California Environmental Quality Act analysis. Currently, an Initial Study is being prepared for the Project. During this analysis, it was determined that the Project will also require placement and stockpile of approximately 24,000 cubic yards of soil from the Project site on an adjacent parcel (APN 018-711-13) on Ohlone Parkway. This stockpile area was not evaluated in the biological resources report in 2022; thus, a follow-up analysis was conducted to determine if there are any additional biological resources in the stockpile area that were not evaluated in the April 2022 Biological Resources report. Additionally, because existing conditions at the 100 Manabe Ow Road Project (Project) site have changed since that site was surveyed, this report also evaluates the potential for sensitive biological resources, special-status species in particular, to occur on the Project site, and whether there are any potential new impacts that need to be addressed.

Methods

Prior to conducting field work, MIG senior biologist Kim Briones reviewed the April 2022 Biological Resources report, aerial imagery (Google Inc. 2023); the California Department of Fish and Wildlife's (CDFW's) California Natural Diversity Database (CNDDB) (2023); the Calflora database on special-status plant occurrences (2023); the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2023); bird records from the project vicinity reported to the eBird database (Cornell Lab of Ornithology 2023); and other relevant scientific literature and technical databases in order to assess the current distribution of special-status plants and animals in the site vicinity. A figure delineating the approximate location of the stockpile area provided by Joel Ricca (Bowman and Williams) was also reviewed. In addition, for plants, Kim reviewed all species currently ranked by the CNPS as California Rare Plant Rank (CRPR) 1A, 1B, 2, or 3 occurring in the *Watsonville West, California* 7.5-minute U.S. Geological Survey 7.5-minute quadrangle and eight surrounding quadrangles (*Watsonville East, Mt. Madonna, Prunedale, Laurel, Loma Prieta, Moss Landing, and Soquel*). The CNPS plant list for Santa Cruz County was also considered, as the CNPS does not maintain quadrangle-level records for CRPR 4 species.

Following the background review, Kim visited the proposed stockpile area and conducted a biological assessment of the area on May 1, 2023. During the survey, Kim walked the entirety of the site and examined conditions throughout the site and its associated access route (Figure 1). Additionally, because conditions at the Project site have changed since they were evaluated in 2022, Kim evaluated those conditions during this follow-up assessment.

Existing Conditions

Existing Land Uses, Natural Communities, and Habitats

Stockpile Area

The proposed soil stockpile area and associated access route contain wild oats and annual brome grassland and developed landcover (Figure 2, Photos 1 and 2). Dominant plant species observed within the wild oats and annual grassland include wild oats (*Avena* sp.), wild radish (*Raphanus sativus*), ripgut brome (*Bromus diandrus*), and Italian rye grass (*Festuca perennis*). Other species observed include bristly ox tongue (*Helminthotheca echiodes*), vetch (*Vinca* sp.), and Italian thistle *(Carduus pycnocephalus*). The developed portion of the stockpile area consists of a compact gravel road, which enters the site from Ohlone Way. This road borders the entire southern portion of the parcel. The road is approximately 15 feet wide but widens to approximately 80 feet for a short distance where it has not been colonized by vegetation. No sensitive or jurisdictional habitats (e.g., wetlands) are present on the site.

Native wildlife species that were observed in the grassland habitat that may breed and forage on the site include song sparrow (*Melospiza melodia*), red-winged blackbird (*Agelaius phoeniceus*), western fence lizard (*Sceloporus occidentalis*), gopher snake (*Pituophis catenifer*), and various bumble bee species (*Bombus* sp.). Based on the presence of small numbers of burrows in the grassland area, the site may also support breeding and foraging California vole (*Microtus californicus*), and various bumble bee species. No wildlife species were observed in the gravel areas during the survey, but killdeer (*Charadrius vociferus*) may nest in open areas such as this.

100 Manabe Ow Road

Since the April 2022 Biological Resources Report, existing conditions on a portion of the Project site have changed (Figure 2, Photos 3 and 4). The eastern portion of the site has not changed and is sparsely vegetated. However, the central and western portions, and part of the northern portion of the site have become densely vegetated with grasses and forbs. Non-native species dominate the western portion of the site and include wild oats, Italian rye grass, and bristly ox tongue, wild radish, and ripgut brome, among others. Because the vegetation in this area is comprised of many of the same species as the adjacent 200 Manabe Ow Road project site, this area is similarly characterized as Wild Oats and Annual Brome Grassland. As described in the April 2022 Biological Resources Report, no sensitive or jurisdictional habitats (e.g., wetlands) are present on the site.

Given that a portion of the site has become vegetated, various wildlife species may occupy the site including foraging raptors such as the white-tailed kite (*Elanus leucurus*) and red-tailed hawk (*Buteo jamaicensis*), ground-nesting birds, western fence lizards, and gopher snake (*Pituophis catenifer*)

may occur in this area. Small numbers of burrows, likely of California vole, were observed in the vegetated portion of the site.

Special-Status Species

As described in the April 2022 Biological Resources Report, several special-status species were considered for their potential to occur at the 100 Manabe Ow Road site but their potential to occur was ruled out due to the lack of suitable habitat on the site. These species are the California red-legged frog (*Rana draytonii*), a federally-threatened species and California species of special concern; western pond turtle (*Actinemys marmorata*), a California species of special concern; western burrowing owl (*Athene cunicularia*), a California species of special concern; and Santa Cruz tarplant (*Holocarpha macradenia*), a federally endangered species and CNPS-ranked 1B.1 species. The Santa Cruz tarplant and burrowing owl are still not expected to occur at the Project site, nor are they expected to occur within the stockpile area. However, the California red-legged frog and western pond turtle are now considered to have some potential to occur on the Project site, as well as the stockpile area. Additionally, the Crotch bumble bee, a candidate for listing under the California Endangered Species Act (CESA) also has some potential to occur on the Project site and stockpile area. These species are discussed in more detail below, along with their potential occurrence at these two sites.

Santa Cruz Tarplant

As described in the April 2022 Biological Resources Report, the Santa Cruz tarplant occurs in grassland habitats that are seasonally saturated. Although a portion of the stockpile area supports grassland habitat and there are known occurrences of the species in the vicinity of the site (MIG 2022), no low-lying areas (e.g., depressions) that may support such saturated soils were observed in this area. Thus, this species is not expected to occur in the stockpile area. This species was also ruled out as potentially occurring at the Project site, because the current conditions on the site (lack of saturated soils) are not present.

Burrowing Owl

As discussed in the April 2022 Biological Resources Report (MIG 2022), there are several documented occurrences of burrowing owls within 1 mile of the Project site, which now includes the stockpile area. While some burrows were observed in the grassland portions of the stockpile area, they are located in areas with dense, tall grasses. Furthermore, no California ground squirrels were observed in the stockpile area during the May 1 site visit. Because burrowing owls require short and sparsely vegetated areas to be able to detect predators, it is unlikely that the stockpile area would support this species. Similarly, although conditions have changed on the Project site itself, no California ground squirrels, or evidence of ground squirrel activity were observed during the May 1 site visit. It is possible the ground squirrels could move onto and occupy the site, but as long as both areas remain vegetated and not maintained, burrowing owls are not expected to occur on the Project site or the stockpile area.

California Red-legged Frog and Western Pond Turtle

As described in the April 2022 Biological Resources Report, the California red-legged frog and western pond turtle are known to occur in Project site vicinity, with occurrences in the Watsonville Slough watershed (MIG 2022). Based on the presence of grassland habitat and small mammal burrows on a portion of the proposed stockpile area, and the known occurrences of these species in proximity to the stockpile area (MIG 2022), the California red-legged frog and western pond turtle have a moderate potential to occur in this area. Additionally, based on the current conditions that were observed on the Project site on May 1, 2023, the western portion of the Project site now supports patchy to densely vegetated grassland habitat, whereas the site was devoid of vegetation when it was previously assessed in 2022. Thus, the Project site itself now has some potential to support these two species. Both sites support potential upland habitat where these species may make overland movements, and based on the presence of small mammal burrows, California red-legged frogs have some potential to aestivate within these sites. However, no aquatic breeding habitat for the California red-legged frog is present on either of these sites. The western pond turtle has some potential to make overland movements on both sites and could potentially nest in upland habitat in the stockpile area and western portion of the Project site, based on the presence of loose soils that were observed.

Crotch Bumble Bee

As of May 2022, the Crotch bumble bee (*Bombus crotchii*) is a candidate for listing under the CESA. The Crotch bumble bee occurs from coastal California east to the Sierra-Cascade crest (Koch et al. 2012). This species is a generalist forager and occurs in grassland and scrub habitats containing abundant floral resources and small mammal burrows. The species nests underground, primarily in abandoned small mammal burrows (e.g., California vole), but may also nest under perennial bunch grasses, or thatched annual grasses, underbrush piles, in old bird nests, and in dead trees or hollow logs (Williams et al 2014, Hatfield et al. 2015). Active nests of bumble bees typically support between 50 to 500 individuals. Queens overwinter in soft soils, or under leaf litter or other debris (Goulson 2010, Williams et al. 2014). The species has experienced large population declines in the last 10 years (Xerces Society et al. 2018). There are three occurrences of the crotch bumble bee in Santa Cruz County from the mid-1990s. These occurrences are within approximately 2, 3, and 15 miles of the site (CNDDB 2023). This species was also observed in 2022 approximately 15 miles northeast of the site (Xerces Society et al. 2023).

Although a majority of the flowering species within the stockpile area and Project site are non-native species, the Crotch bumble bee will forage on a variety of flowering species, including non-native species, because it is a generalist forager. Based on the presence of abundant floral resources, small mammal burrows (likely California voles), and because the site is within their known range, there is a moderate potential for the Crotch bumble bee to occur within Project site and stockpile area.

Impacts on Special-Status Species

Impacts on California Red-legged Frog and Western Pond Turtle – Less than Significant with Mitigation

Based on the current conditions within the stockpile area and Project site, the California red-legged frog and western pond turtle may be present in these areas. As noted in the April 2022 Biological Resources Report, project activities would result in the permanent loss of upland refugia for both species, and potential upland nesting habitat for the western pond turtle at the 200 Manabe Road site, and this would also be the case on the Project site and stockpile area, given the sites' proximity to Watsonville Slough. Potential impacts on these species have been listed in the April 2022 Biological Resources report but are included here as well. Potential impacts include the following:

- Injury or mortality to these species if they are present on the site when project activities are initiated,
- Disruption of foraging and dispersal behavior/disruption of seasonal movements leading to risk of desiccation and predation,
- Release of petrochemicals (hydraulic fluids, oil spills) could kill individuals,
- Increased human habitation in the area may result in an increase in native and non-native predators that would be attracted to trash on the project site,
- Spread of pathogens such as chytrid fungus, which can impair the health of amphibians.

However, the implementation of **Mitigation Measures BIO-2a through BIO-2j** from the April 2022 Biological Resources Report will reduce project impacts and avoid take of California red-legged frog and western pond turtle that may be present within the 100 Manabe Ow Road project site and stockpile area. With the implementation of these measures, potential impacts to these species will be less than significant.

Impacts on Crotch Bumble Bee – Less than Significant with Mitigation

A portion of the Project site and stockpile area are covered with gravel substrate, but they also support grassland habitat that could be occupied by the Crotch bumble bee. Due to the potential occurrence of this species within the Project site and stockpile area, there is some potential for this species to be impacted by project activities. Potential impacts that could occur include burying or destroying active bumble bee nests supporting several dozen to several hundred individuals, burying or destroying hibernating individuals, and permanent loss of nesting, hibernating, and foraging habitat. Due to the rarity of this species and its candidacy for protection under the CESA, such impacts would be significant under CEQA. However, the implementation of **Mitigation Measures BIO-3a and 3b**, below, will reduce project impacts on the Project site and stockpile area to less than significant.

> **Mitigation Measure BIO-3a. Focused Surveys for the Crotch Bumble Bee.** Within one year of Project initiation, a qualified biologist shall conduct a focused survey for the Project

site and stockpile area. These surveys shall be conducted during the flight season (March - September), timed to occur when detection probability is highest, including surveys in early spring (early April) and early summer (early July). Focused surveys shall be conducted during four evenly spaced sampling periods during the flight season. Surveys shall be conducted by a qualified biologist with knowledge of the life history and ecology of special-status bumble bees. Reference sites shall be visited to confirm bumble bee activity as flight periods may vary geographically and with weather. Surveys shall be conducted within the project site and accessible adjacent areas with suitable habitat. Survey results shall be documented and will be submitted to the City, if requested. At a minimum, a survey report shall provide the following:

1. A description and map of the survey area, focusing on areas that could provide suitable habitat for the Crotch bumble bee;

2. The name(s) of qualified biologist(s) and their qualifications, date and time of the survey, survey duration, general weather conditions, and survey methodology.

3. Figure showing the locations of nest/colonies; and,

4. A description of the physical (e.g., soil type, moisture, slope aspect) and biological conditions (e.g., dominant plant species) where each nest/colony was detected.

5. A description of primarily impacted habitat, including plant composition (e.g., density, cover, and abundance) within the impacted habitat (e.g., species list separated by vegetation class, density, cover, and abundance of each species).

If the Project site or stockpile area is not occupied by the Crotch bumble bee, no additional actions are warranted. However, if there are any delays in project scheduling greater than one year following the focused surveys, the surveys shall be repeated.

If the crotch bumble bee is found to occupy the Project site or stockpile area, Mitigation Measures BIO-2b (Worker Environmental Awareness Program) in the April 2022 Biological Resources Report (MIG 2022) and BIO-3b (below) shall be implemented.

Mitigation Measure BIO-3b. Regulatory Agency Consultation. If a qualified biologist determines that the Crotch bumble bee is present on the Project site or stockpile area, and if “take” or adverse impacts to the bumble bee cannot be avoided, the CDFW shall be consulted to determine if a CESA Section 2080 Incidental Take Permit is required. If an Incidental Take Permit is required, the project shall comply with the requirements of the ITP. Typical requirements of an ITP include compensatory mitigation for the loss of habitat, and a Habitat Mitigation and Monitoring Plan to ensure that conservation lands are functioning properly. Typical requirements of an HMMP include a planting plan and associated success criteria, and long-term monitoring of the habitat.

References

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Koch, J, J. Strange, and P. Williams. 2012. Bumble bees of the western United States. USDA Forest Service Research Notes. Publication No. FS-972.

MIG. 2022. 100 and 200 Manabe Ow Road Watsonville, CA Biological Resources Report. Prepared for the City of Watsonville Community Development Department Planning Division. April.

The Xerces Society for Invertebrate Conservation, Defenders of Wildlife, and Center for Food Safety. 2018. A petition to the state of California fish and Game Commission to list the Crotch's bumble bee (*Bombus crotchii*), Franklin's bumble bee (*Bombus franklini*), Suckley cuckoo bumble bee (*Bombus suckleyi*), and western bumble bee (*Bombus occidentalis occidentalis*) as Endangered under the California Endangered Species Act.

The Xerces Society, Wildlife Preservation Canada, York University, University of Ottawa, The Montreal Insectarium, The London Natural History Museum, BeeSpotter. 2023. Data accessed from Bumble Bee Watch, a collaborative website to track and conserve North America's bumble bees. Available from http://www.bumblebeewatch.org/app/#/bees/lists. Accessed: May 2023.

Williams, P. H., R. W. Thorp, L. L. Richardson,· and S .R. Colla. 2014. Bumble bees of North America: An Identification guide. Princeton University Press, Princeton, New Jersey. 208pp.



Source: Google Earth 9/2021; MIG 2023

Project Site

Stock Pile Area

Access Route

0 0.05 0.1 0.2 Miles

N

Figure 1 Site Location

Watsonville Manabe Ow West Distribution Facility project



Source: Google Earth 9/2021; MIG 2023

Project Site
Stock Pile Area
Parcel 018-71-131
Access Route
Wild Oats and Annual Grassland
Developed

0 0.05 0.1 0.2 Miles

N

MIG

Figure 2 Existing Conditions

Watsonville Manabe Ow West Distribution Facility Project

Attachment 1. Photos



Photo 1. Wild oats and annual brome grassland (right) and developed landcover (left) in the proposed soil stockpile area. Photo aspect: west. Photo date: May 1, 2023.



Photo 2. Proposed soil stockpile access route, which is primarily occupied by developed landcover and bordered by wild oats and annual brome grassland. Photo aspect: west. Photo date: May 1, 2023.



Photo 3. Western portion of the 100 Manabe Ow Road Project site. Photo aspect: north. Photo date: May 1, 2023.



Photo 4. Eastern portion of the 100 Manabe Ow Road Project site. Photo aspect: east. Photo date: May 1, 2023.