



**East Bay Municipal Utility District
Sobrante Water Treatment Plant Reliability
Improvements Project
Draft Environmental Impact Report
SCH # 2022030308
Volume III – Appendix D**

September 2024

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APPENDIX D

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EAST BAY MUNICIPAL UTILITY DISTRICT
SOBRANTE WATER TREATMENT PLANT
RELIABILITY IMPROVEMENT PROJECT
AESTHETICS CONCEPTUAL DESIGN
REPORT

FINAL | March 2024



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SUMMARY OF KEY FINDINGS

This report, prepared by Panorama Environmental, Inc., MWA Architects, and Merrill Morris Partners (Design Team), documents the development of architectural and landscape design concepts for the East Bay Municipal Utility District's (EBMUD) Sobrante Water Treatment Plant (SOWTP) Reliability Improvements Project (Project). Documented design work includes evaluation of visual design alternatives and a preferred aesthetic conceptual design for a new consolidated maintenance building, new water treatment plant structures and support buildings, and new perimeter landscaping along the northeast edge of the SOWTP. This report expands on the planned improvements documented in the Basis of Design Report (BODR) prepared by EBMUD in November 2020 and updated in April 2021. In December 2022, EBMUD also provided a revised site layout that was incorporated into this report. See Figure A for an overview of the proposed and existing SOWTP facilities.

Figure A Preferred Concept Aerial View



The consolidated maintenance building consists of a single-story structure totaling approximately 17,600 square feet. The consolidated maintenance building consolidates existing uses at the SOWTP site and is divided into its key program functions: shop and storage, office, and support spaces for SOWTP maintenance staff. Space sizing will be suitable for the six trade crews' needs. The construction cost of the consolidated maintenance building is estimated at \$790 per square foot, or \$13.9 million total in 2021 dollars.

The water treatment plant buildings and structure additions will utilize two distinct architectural styles based on their function and location in the site. New facilities closest to Amend Road are designed in a contemporary Mission Revival style to blend with neighboring buildings, specifically the existing Richmond Fire Station No. 63 located at the corner of Amend Road and Valley View Road. New facilities located among the existing SOWTP facilities feature a functional concrete style similar to other SOWTP facilities.

The perimeter landscape screening will be concentrated along Amend Road to soften the perimeter of the SOWTP and screen views into the site. Screening will consist of a gradually sloping earthen berm topped by native and adapted trees and shrubs.

This report documents the potential views of the Project from the neighborhood and public viewsheds. The site layout, architectural and landscape designs, and conceptual visualizations were presented as part of the public outreach process for the Environmental Impact Report prepared by Panorama Environmental. See Figure B for a selection of screening concept views that represent the proposed landscaping and treatment facilities.

Figure B Selected Preferred Concept Views



SECTION 1: INTRODUCTION

EBMUD is proposing the Project located at 5500 Amend Road in El Sobrante, Contra Costa County, California. The SOWTP site is located in both the unincorporated Contra Costa County area of El Sobrante and the City of Richmond. The purpose of the Project is to increase the treatment capacity of the SOWTP to meet future demand, treat additional Folsom South Canal Connection (FSCC) water during droughts, reduce disinfection by-products, and improve treatment processes to reliably operate the SOWTP at 60 million gallons per day (MGD) in the near-term and 80 MGD in the long-term. The Project will be constructed in two phases, with many of the publicly visible facilities being constructed in Phase 1. See Figure 1.1.1 for the proposed site plan.

Figure 1.1.1 Site Plan of the SOWTP Reliability Improvement Project



This report is organized into six primary sections that represent the major tasks completed for the Project scope of work:

- Section 1: Introduction – provides a Project overview describing the purpose and context of the Report in the overall planning, design, and construction process.
- Section 2: Existing Conditions – provides relevant information for the existing SOWTP site structures and the area’s surrounding context.
- Section 3: Consolidated Maintenance Building Programming – documents the process of assessing needs and sizing spaces for the new consolidated maintenance building, including site analysis, user group interviews, and iterative workshops.
- Section 4: Concept Development – presents the criteria, iterations, and development of the preferred layout for the consolidated maintenance building and the criteria for evaluating layout options.
- Section 5: Facility Design Concept Development – documents the priorities and considerations made in defining the aesthetic concepts for the overall facility design.
- Section 6: Preferred Concept and Design Guidelines – presents the preferred architectural, landscape, and site design guidelines.

SECTION 2: EXISTING CONDITIONS

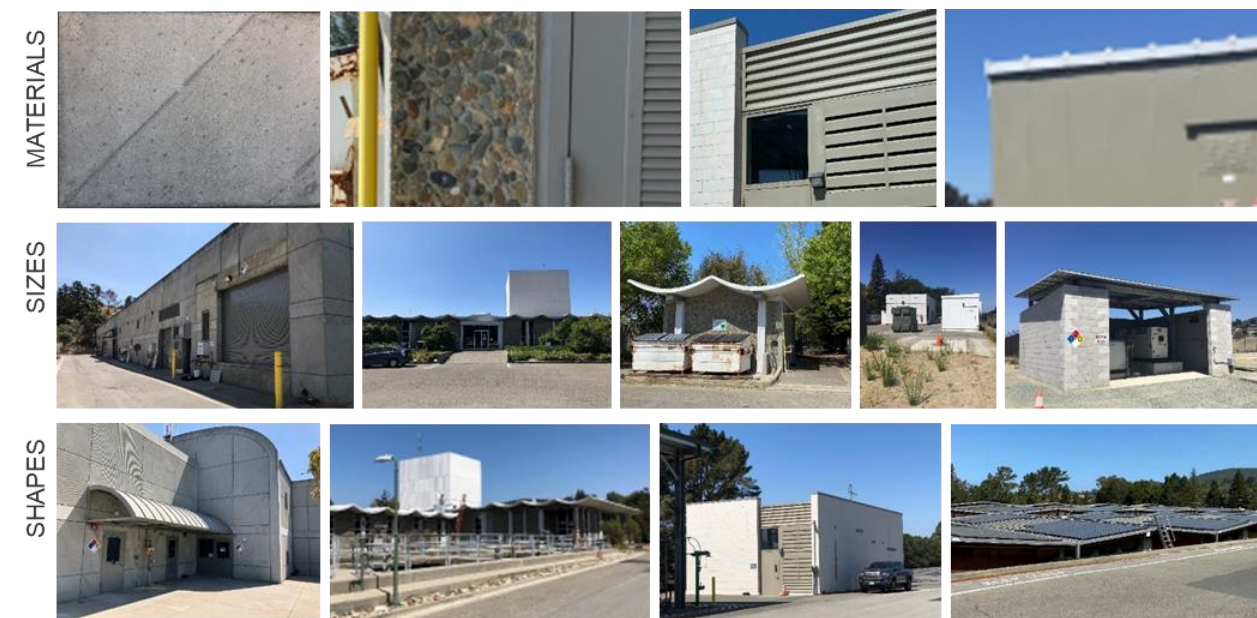
2.1 Existing Facilities

A survey of the existing conditions was conducted at the SOWTP and in the neighborhoods surrounding the site to ensure that proposed designs are appropriate to the setting. The survey collected information about the existing building materials, scales, functions, and forms. A variety of architectural styles were found to be represented on site, in the area's key public buildings, and in the surrounding neighborhood.

2.1.1 On-Site Building Survey

The SOWTP is a working site with exposed treatment equipment, structures, and buildings that reflect their function, see Figure 2.1.1. Building forms are rectilinear, sized to accommodate equipment clearance and required opening positions, with a tendency for the roofs to be expressive and visible from public viewpoints. Roof forms frequently create internal daylighting with glazed inserts integral to the shape. To meet site performance requirements, a variety of durable materials are used, including concrete or aggregated stone accented by metal panels or stucco. Roof materials vary, but are typically metal or membrane roofs, and tend to be lighter in color. Matte silver metal safety rails and a variety of exterior light fixture types are present throughout the site.

Figure 2.1.1 Visual Survey of Existing Building and Structures at SOWTP



2.1.2 Site Considerations

Existing SOWTP structures are separated from public roadways and viewpoints in several ways (Figure 2.1.2). Currently, SOWTP structures are set back from the site perimeter at a considerable distance. The existing topography concentrates public viewpoints to Amend Road and portions of smaller side streets that are elevated above the SOWTP. The screening is further aided by perimeter planting which reduces public views into the site.

Figure 2.1.2 Visual Survey of Existing Vegetation at SOWTP and the Surrounding Neighborhood



2.1.3 Natural Features

The SOWTP site was previously used for agricultural production prior to being developed for the SOWTP in the 1960s and contains non-native grassland, coast live oak woodland, seasonal wetland, willow riparian, and ruderal vegetation.

2.1.4 Wetlands

An Aquatic Resource Delineation Report (ARDR) was prepared by Sequoia Ecological Consulting, Inc. to define the limits of wetlands and other aquatic resources subject to state and federal jurisdiction. In addition to direct precipitation, the site receives surface runoff from adjacent uplands, and weakly channelized flow emerging from a culvert under Amend Road and draining through a roadside drainage swale in the northern portion of the site. The swale drains southwest as a broad swale complex and into an ephemeral drainage channel that flows into a concrete culvert under residential development adjacent to the northwestern corner of the site.

The drainage swale/channel is a potentially jurisdictional wetland as identified in the ARDR (Sequoia Ecological Consulting, Inc., 2022). The area is dominated by hydric soils and wetland-classified plant species, including bulrush, Italian ryegrass, spreading rush, bristly ox-tongue, velvet grass, creeping wildrye, and Mediterranean barley. Adjacent terraces and slopes above the swale are dominated by upland-classified plant species and lack wetland hydrology and hydric soil indicators.

2.1.5 Topography

The SOWTP site is located on a terrace that slopes moderately to steeply to the south and west. The steepest site grades occur along Valley View Road and the edge of the roadway near the SOWTP entrance road as the site slopes toward the new site improvements. Public views into the SOWTP are greatest along Amend Road, at the entryway, and areas uphill from the entry way along Heavenly Ridge Lane.

2.1.6 Arborist Conditions Report

The Arborist Condition Report (ACR) was prepared by Merrill Morris Partners to assist EBMUD in site planning for the Project. A total of 195 trees were surveyed in the areas outlined by the EBMUD Project survey area. The ACR includes a tree survey and inventory, a general assessment of the health, recommendations for tree removal based on health, an evaluation of the potential construction effects, and preliminary guidelines for tree protection and preservation during Project design.

Currently views into the SOWTP near the planned new structures are primarily of a field of grasses and some wetland species. Several oak trees and other woodland trees surround the edge of the field of grasses. The oak trees and grassland provide a natural buffer between the SOWTP and the adjacent neighborhood.

A healthy mature grove of coast live oak trees exists in the northwestern portion of the SOWTP site. The Project design includes avoidance of the mature coast live oak trees during the Project construction. The trees provide an effective natural screening of the SOWTP from a high-visible location.

2.2 Local Context

2.2.1 Circulation and Transportation

The SOWTP is located near the intersection of Valley View Road, a large arterial road, and Amend Road, a smaller road leading to residential neighborhoods. Although the main method of transportation in the area is private vehicles, a bus route and bike lanes are located along Valley View Road. A sidewalk is available for pedestrian passage on the opposite side of Amend Road from the SOWTP and both sides of Valley View Road. The open hillside adjacent to the fenced portion of the SOWTP is not accessible to the public for walking or hiking. The SOWTP is situated such that primary views into the site are peripheral and seen while in motion.

2.2.2 Neighborhood and Character

The community of El Sobrante and Richmond near the SOWTP consists of a clustered development pattern.

The closest public building to the SOWTP is the Richmond Fire Station No. 63, designed in a contemporary Mission Revival style, features stucco cladding, traditional roof forms, and fenestration motifs. A variety of building scales, materials, and forms are represented in other key buildings in the wider area, see Figure 2.2.1.

Figure 2.2.1 Visual Survey of Key Area Public Buildings



The area directly surrounding the SOWTP is largely comprised of single-family residences clustered on smaller roads off main arteries. Houses display a variety of styles, scales, and materials, but tend toward a traditional California style. Designs include low-sloped roofs, large overhangs, prominent garages on the main façade, and small punched opening windows, see Figure 2.2.2. Front yard landscaping is largely typical suburban

medium to high-water use planting consisting of shrub beds and manicured lawns. A few isolated properties have been renovated with drought-tolerant native and adapted planting.

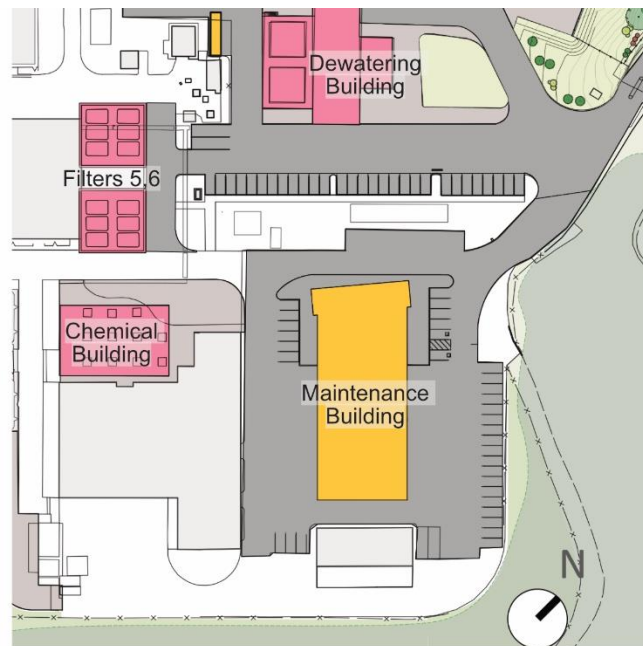
Figure 2.2.2 Visual Survey of Typical Residential Context



SECTION 3: CONSOLIDATED MAINTENANCE BUILDING PROGRAMMING

Phase 1 of the Project includes the construction of a consolidated maintenance building that consolidates and replaces the existing maintenance shops, workstations, and storage areas that are currently scattered throughout the SOWTP, see Figure 3.1.1. The BODR issued by EBMUD contained a preliminary program, building layout, and site layout that formed the starting point for the needs assessment task. Maintenance building programming objectives were to provide EBMUD maintenance staff with an appropriately sized, operationally efficient, and safe workplace.

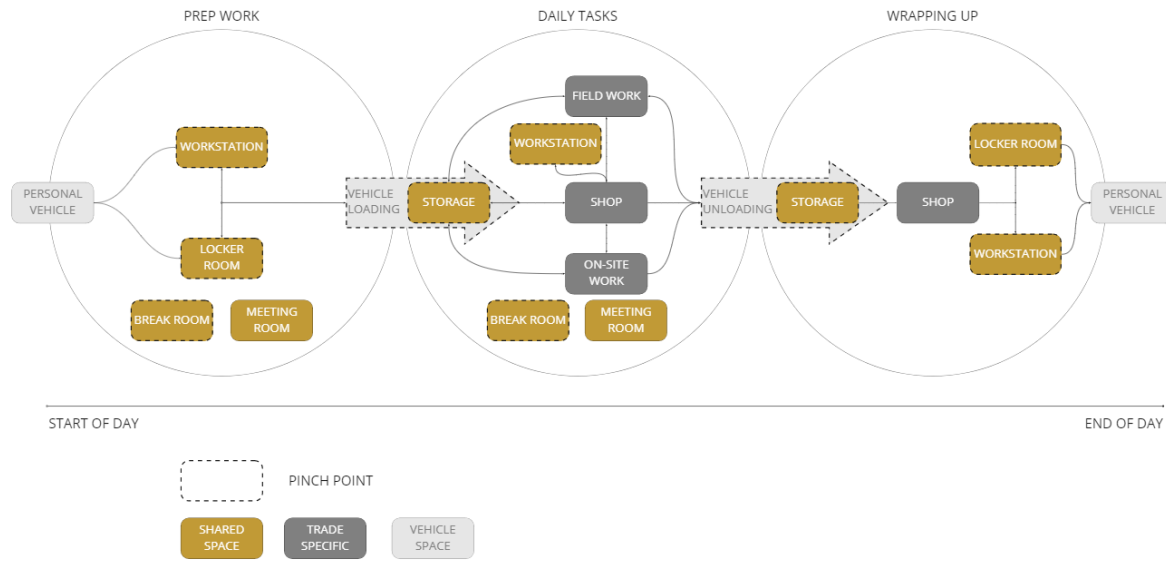
Figure 3.1.1 Layout of Consolidated Maintenance Building Site



3.1 User Group Description

There are currently 13 maintenance staff reporting to the SOWTP which is projected to grow to 22 staff at the time the planned improvements are complete. The Maintenance Division at the SOWTP is comprised of six skilled trade crews: Carpentry, Electrical, Grounds, Instrumentation, Mechanical, and Paint. Each trade crew operates independently of the others, with varied arrival and departure times. The workflow for each crew is similar. Staff members arrive in the morning and report to a workstation, then move to a shop or offsite maintenance task, returning to close out administrative tasks at their workstation in the afternoon. See Figure 3.1.2 for typical maintenance staff workflow.

Figure 3.1.2 Workflow Diagram for SOWTP Maintenance Staff



3.2 Space Needs Confirmation Process

The Design Team analyzed the BODR consolidated maintenance building program document and verified EBMUD operations to update the space sizing and program to reflect current and future staff needs. The confirmation process consisted of multiple activities, including:

- **Information Requests:** EBMUD staff provided information to aid the Design Team in properly sizing the programmed areas of the building, including existing and planned equipment, storage needs, and staffing. See Appendix A for information provided.
- **Existing Conditions Evaluation:** Documentation of existing storage and shop spaces to quantify current maintenance activities and spaces used. Collected informal feedback from trade supervisors.
- **Site Visits and Job Shadows:** Visit all site areas utilized by maintenance staff to document workflow, adjacencies, and detailed needs and wants.
- **Workshops:** Present iterations of space needs and layouts at a series of workshops to assess needs, present preliminary space sizing and layouts, and gather feedback.

3.3 Program Summary

Following the space needs confirmation process, the consolidated maintenance building space program was determined to be 14,046 sf. A net to gross multiplier of 20 percent was added to accommodate circulation and structure for a total of approximately 17,600 sf. See Appendix B for full program breakdown.

3.4 Description of Office Spaces

3.4.1 Workstations

The workstations are centralized in an open office area with dedicated space for each group. The open office area accommodates 22 staff during a typical working day. Workstations and private offices require a clean environment and noise separation from shop spaces. Within the open office, staff typically work independently, with collaboration taking place in dedicated meeting space or hallways. Workstations are clustered by trade group to facilitate discussions while minimizing disruptions to other groups. The

workstations require immediate adjacency to the Meeting Room, Supervisor Office, and Document Review & Storage.

Furniture systems are sized based on EBMUD standards. Existing computers, phones, desk chairs, and printers/copiers will be utilized when possible. Cubicle systems typically include:

1. 48-inch tall partition
2. Desk and chair system

3.4.2 Document Review and Storage

The document review and storage space allows staff to review large drawings and materials. The space is shared between all staff and is centrally located near the open office area. The document review and storage area includes:

1. Counter workspace for large format drawings (minimum 30 x 42-inch sheets)
2. Under-counter file storage cabinets
3. Table and chairs
4. Printer/copier

3.4.3 Supervisor Office

The supervisor office is shared between all groups for meetings and temporary work. There is no current need for a dedicated office for each trade supervisor. Furniture and equipment provided by EBMUD includes:

1. Desk and chair system
2. Shelving and file cabinet
3. Computer and associated equipment

3.4.4 Meeting Room

The meeting room provides space for larger group meetings, with seating for 12 people. The finishes match the open office area. Furniture and equipment provided by EBMUD includes:

1. Conference table and chairs for 12 people
2. A/V Equipment: TV monitor or projector with computer connection and speakers
3. Shelving or storage console for computer equipment

3.5 Description of Support Spaces

The support spaces include shared spaces in addition to what was listed in the BODR. The support spaces include a health and wellness space, privacy/lactation room, mudroom, a kitchen/break room area with outdoor break area, and a larger janitor closet. The mechanical room is separated from the electrical room for fire safety, and an IT/Telecom room has been added. General staff support areas are used by all staff throughout the day and night. Spaces are centrally located between the shops and office areas and organized to provide direct exterior access for staff coming from around the SOWTP.

3.5.1 Break Room

The break room provides meal preparation and break area for all SOWTP staff. The break room is accessed during lunchtime and during breaks throughout the day. The space will provide seating for a minimum of 20 people. Staff will have direct access to the outdoor break area, furnished with a grill and picnic tables. Interior finishes will be standard for office kitchens. The kitchen will provide a full range of kitchen equipment, including:

1. Movable, collapsible tables

2. Stackable chairs
3. Built-in kitchen casework
4. 2+ refrigerator/freezers, stove, oven, sink, dishwasher, and ice maker
5. Trash, recycling, and compost receptacles

3.5.2 Health and Wellness

The health and wellness space is a flexible activity and workout space for all SOWTP staff. The space is primarily used during lunchtime and requires proximity to the locker rooms. Finishes are more durable office finishes with rubber mat flooring. EBMUD provided specific equipment to determine required sizing.

Equipment provided by EBMUD includes:

1. Treadmill
2. Multi-function workout station
3. Weight bench
4. Elliptical machine
5. Storage closet for equipment and mats
6. Open area for stretching and other exercises

3.5.3 Locker Rooms

The locker rooms are accessible for all staff at the SOWTP. The spaces are used throughout the day and night. Finishes are durable materials including ceramic tile. Proximity to the staff entry and mud room is required. The laundry room is equipped with a washer and dryer and bin for dirty uniforms and towels.

The layout objective is to provide an open feel in the locker area and allow changing and showering in separate, fully enclosed stalls. This arrangement allows EBMUD more staffing flexibility and is in line with other recent all-gender facilities.

1. 3 separate, enclosed showers and adjoining changing stalls
2. 34 built-in full height lockers, count determined by staff needs
3. 3 separate, enclosed toilet rooms
4. 2 lavatories with counter space
5. Floor drains

3.5.4 Laundry Room

The laundry room is equipped with a washer and dryer, bins for dirty uniforms and towels, and racks for clean uniforms.

3.5.5 Mud Room

The mud room provides open storage cubbies to accommodate field gear for all SOWTP staff and serves as a threshold between the outside and inside. The cubbies are for boots, coveralls, and heavy rain gear. The space is used throughout the day and is separated from the primary circulation corridor to contain any dirt and mud. The space is finished with similar, durable materials as the locker room and includes:

1. Cubbies
2. Hooks
3. Benches
4. Floor drain
5. Exterior boot and hand wash station

3.5.6 Privacy Room

The privacy room is intended for individual use, specifically lactation, changing, or private phone calls. Adjacency to the locker room is preferred. Finishes are standard office materials. The door is lockable when in use. The privacy room includes:

1. Comfortable chair
2. Side table
3. Mini fridge
4. Counter with sink

3.5.7 Janitor

The janitorial closet includes a mop sink and shelving for storage of dry goods and supplies.

3.5.8 Emergency Supplies

The emergency supplies closet provides centralized storage for personal protective equipment, emergency safety equipment, and gear for staff.

3.5.9 Mechanical

The mechanical room is an unfinished space for HVAC or plumbing equipment not located on the roof. SOWTP staff requested additional storage space for SOWTP supplies including air filters and small parts.

3.5.10 Electrical

The electrical room is a dedicated, unfinished space for electrical panels and equipment.

3.6 Description of Shop & Storages Spaces

Dedicated shop and storage spaces are provided for each trade group, allowing Maintenance staff to perform repair activities and store equipment, materials, and parts critical to the function of the SOWTP's operations and service area. Each space is equipped with a roll-up door and a personnel door to allow safe transfer of materials and equipment. A restroom is provided in the shop hallway for staff convenience but is not required by the California Building Code. The outdoor perimeter of the shop and storage spaces provide apron space for outdoor work and loading of vehicles.

3.6.1 Shop Spaces

Each trade group is provided a dedicated shop space sized based on a detailed equipment list and typical activities. Each group provided multiple rounds of review for their shop space to ensure the layouts accommodate their daily activities, equipment, and clearances.

1. See Equipment List in Appendix A, equipment to be provided by EBMUD.
2. Outdoor, covered work area is provided for the grounds and paint staff for chemical mixing and small paint projects.

3.6.2 Storage Spaces

The necessary trade groups are provided dedicated storage space sized based on their existing and planned storage needs. The space provides adequate shelving and clearance space to safely transfer materials and equipment. Spaces are not sized to accommodate typical forklift maneuvering clearances.

3.6.3 Carpentry Boneyard

The carpentry boneyard is a covered outdoor storage space for oversized materials that are transported via truck or forklift. The racks are located to allow sufficient maneuvering clearances for forklifts.

SECTION 4: CONSOLIDATED MAINTENANCE BUILDING LAYOUT

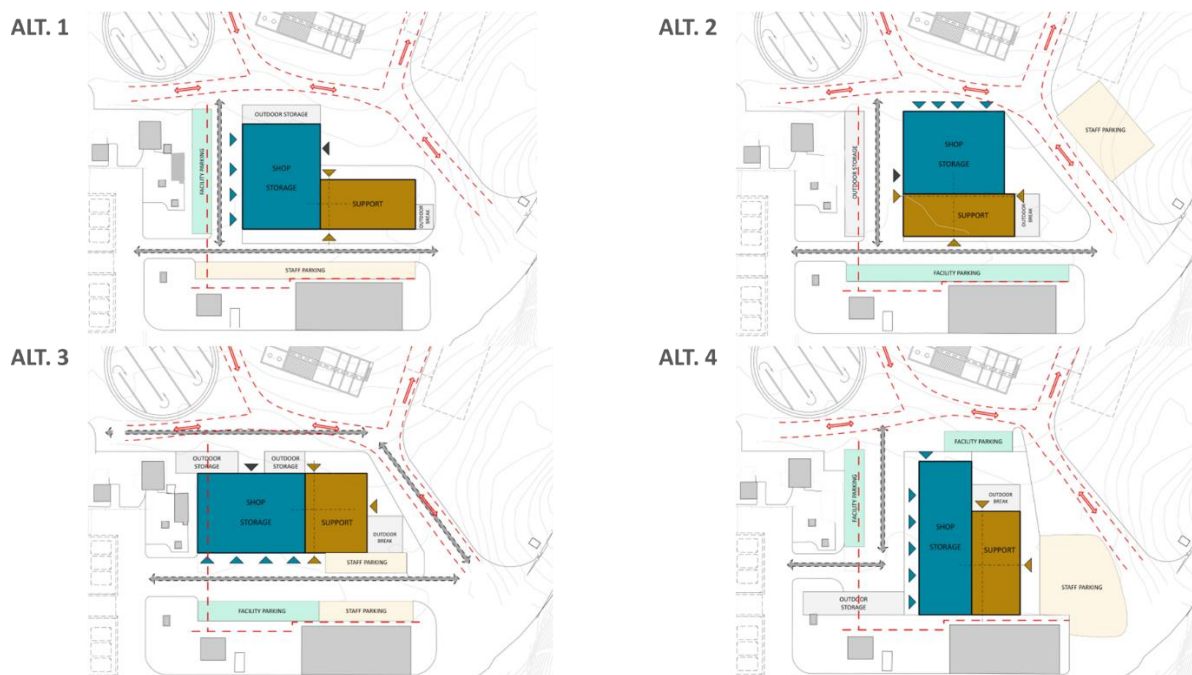
4.1 Building Layout Process

The Design Team held a series of workshops to review building layout alternatives and determine a preferred maintenance building layout, see Appendix B. Alternatives were evaluated using the established criteria and incorporated feedback from SOWTP staff.

4.1.1 Building Configuration Evaluation

The Design Team held a series of workshops to identify the preferred consolidated maintenance building configuration. The programming exercise described in Section 3 established two clear divisions of space: Shop+Storage and Office+Support areas. Initial concepts arranged these program blocks in a variety of configurations. The initial concepts are located on the original BODR site location, see Figure 4.1.1. Feedback from SOWTP staff on the initial concepts was used to create a single preferred site layout.

Figure 4.1.1: Initial Building Configuration Diagrams



4.1.2 Building Configuration Evaluation Criteria

The objective of the evaluation was to create a functional and efficient building configuration through an objective, well-documented process and establish criteria including:

1. Constructability: Complexity and potential for future expansion
2. Impact to Operations: Impact on daily activities and long-term operations
3. Site Circulation and Parking: Accommodate facility vehicles, staff personal vehicles, pedestrians
4. Optimize Building Layout: Facilitate efficient, functional workflows and access
5. Workspace Comfort: Provide views and light, reduce noise/vibrations/odor
6. Promote Civic Identity: Consider impact to public views, emphasize design opportunities

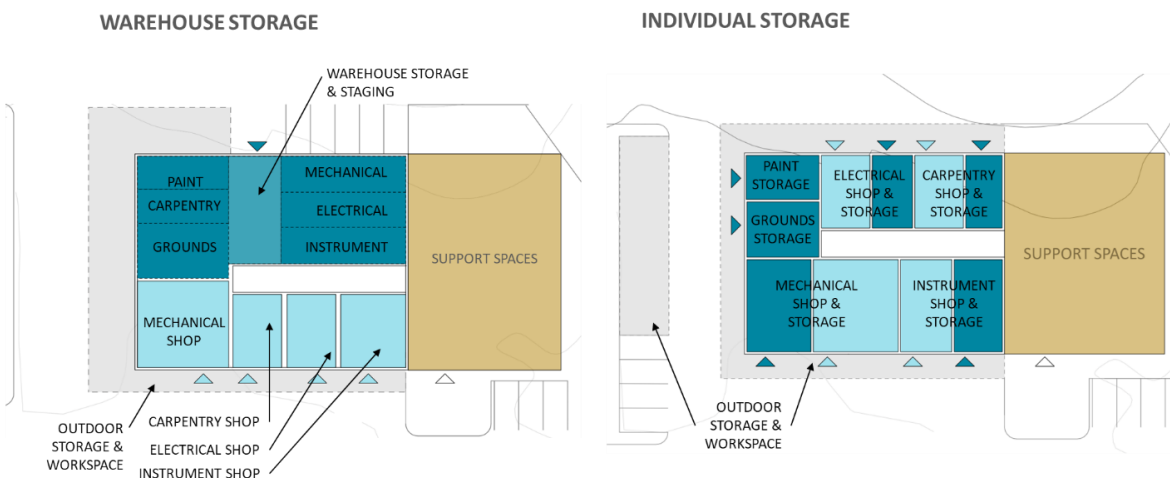
4.1.3 Key Building Exterior Considerations

- Circulation: Safe and efficient vehicular and pedestrian circulation around the consolidated maintenance building is a priority. Sidewalks and crosswalks that connect the consolidated maintenance building to other portions of the SOWTP are provided.
- Parking: Based on projected staff counts, a total of 25 EBMUD vehicle spots and 25 personal staff vehicle spots are provided adjacent to the consolidated maintenance building, including 2 ADA-required accessible parking spaces. The consolidated maintenance building site will provide convenient bicycle parking and locking adjacent to the building entry. Parking for staff personal vehicles is separated from EBMUD vehicle and equipment areas for safety and efficiency.

4.1.4 Key Building Interior Considerations

- Circulation and Access: Safe and operationally efficient work environments are a priority for staff. Direct interior and exterior access to shop and/or storage spaces is required for all trades. Support and office areas should be adjacent. A central corridor provides direct access to key program areas in the building.
- Spatial Division: Program spaces are organized by function. Shop and storage spaces are grouped together by trade and are separated, both spatially and structurally, from the office and other support spaces. Support spaces act as a buffer and transition zone between the shop area and the office area and allows for sound, odor, and vibration isolation. Centralized support spaces create a more logical circulation for staff based on their typical workflows.
- Shop and Storage: Two schemes for storage spaces were presented in the workshops, see Figure 4.1.2. On the left, a shared warehouse space offers additional flexibility for changing future needs. On the right, storage spaces separated by trade allow more individual storage areas. Based on feedback from EBMUD, the individual storage concept is the preferred alternative.

Figure 4.1.2: Diagram of Shop and Storage Layout Alternatives



- Offices: Two schemes for the offices were presented in the workshops, see Figure 4.1.3. On the left, both offices and support spaces are adjacent to the shops for direct access. On the right, offices are separated from the shops by the support spaces. Based on feedback from EBMUD, separating the offices from the shops is preferred to maintain a quieter, cleaner environment.

Figure 4.1.3: Diagram of Support/ Office Layout Alternatives



- Support: The centralized support spaces provide more convenient access from all spaces within the building and creates a buffer between the quiet office area and louder shop areas and house important program that allow maintenance staff to better perform their jobs.

4.2 Preferred Maintenance Building Layout

The Design Team presented the preferred layout to EBMUD after incorporating comments from the iterative workshops, see Figure 4.2.1. See Appendix B for full drawing set.

Figure 4.2.1: Consolidated Maintenance Building Floor Plan



4.3 Code Summary

The new consolidated maintenance building is designed to meet the 2019 California Building Code, effective January 1, 2020. The building is assumed to be constructed of structural steel framing and cast in place or tilt-up concrete on a mat slab concrete foundation. The exterior envelope will be composed of non-loadbearing exterior metal framed walls with rainscreen cladding, as well as aluminum storefront and curtainwall. Construction type will be Type IIB Noncombustible.

The consolidated maintenance building will be equipped throughout with an automatic sprinkler system. The consolidated maintenance building will primarily be Group B occupancy in the office and support areas, and Groups F-1 and S-1 in the Shop and Storage areas, including hazardous materials storage below allowable limits. Full code analysis can be found in Appendix B.

The proposed maintenance building design satisfies applicable building codes except for the CPC section 422.2 requirement for gender separated restroom facilities. This exception is necessary to meet EBMUD's need for all-gender facilities.

SECTION 5: SITE AND BUILDING CONCEPTS

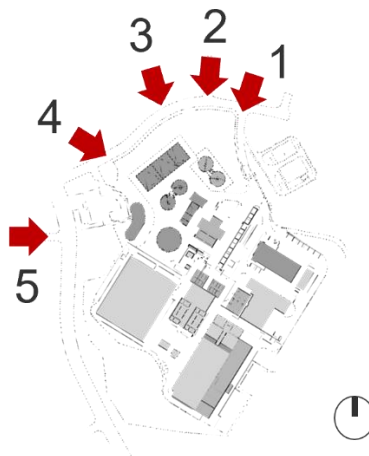
The exterior design of the Project structures will remain true to the functional nature of the SOWTP, complementing the existing architecture with thoughtful, visually appealing forms and materials. Key design objectives are based on feedback and priorities provided in workshops by EBMUD:

1. Distinguish occupied spaces from treatment/shop spaces.
2. Provide natural daylighting in occupied spaces.
3. Simplify building form and massing.
4. Utilize durable materials.
5. Enhance existing facility architecture.

5.1 Key Site Views

The Design Team conducted a perimeter walk of the SOWTP site and field analysis from surrounding streets. This documented potential observation points that could be used for analysis of impacts to public viewsheds. Documentation of the views from all sides of the SOWTP site can be found in Appendix C. Five key viewpoints were selected to represent key views of the improvements and to create the visual simulations in Section 5.2, see Figure 5.1.1.

Figure 5.1.1: Key Plan of Selected Site Views



Key views of the Project include:

1. Entry View: Looking southwest from Amend Road entry
2. Heavenly Ridge Lane: Looking south from the residential street
3. Amend Road High: Looking south from Amend Road near Heavenly Ridge Lane
4. Amend Road Low: Looking southeast from Amend Road near Richmond Fire Station No. 63
5. Christopher Court: Looking east from the residential street

5.2 Preliminary Architectural Concepts

Preliminary design concepts were developed based on design criteria and priorities developed with EBMUD and presented during a series of workshops, see Appendix D. Each concept addressed functional requirements while exploring unique approaches to form and material. Two concepts were further refined

through EBMUD’s feedback on building scale, materials, forms, structure, accents, windows, maintenance experiences, and sustainability. See Figure 5.2.1 for a comparison.

Figure 5.2.1: Comparison of Concept 1 (Left) and Concept 2 (Right)



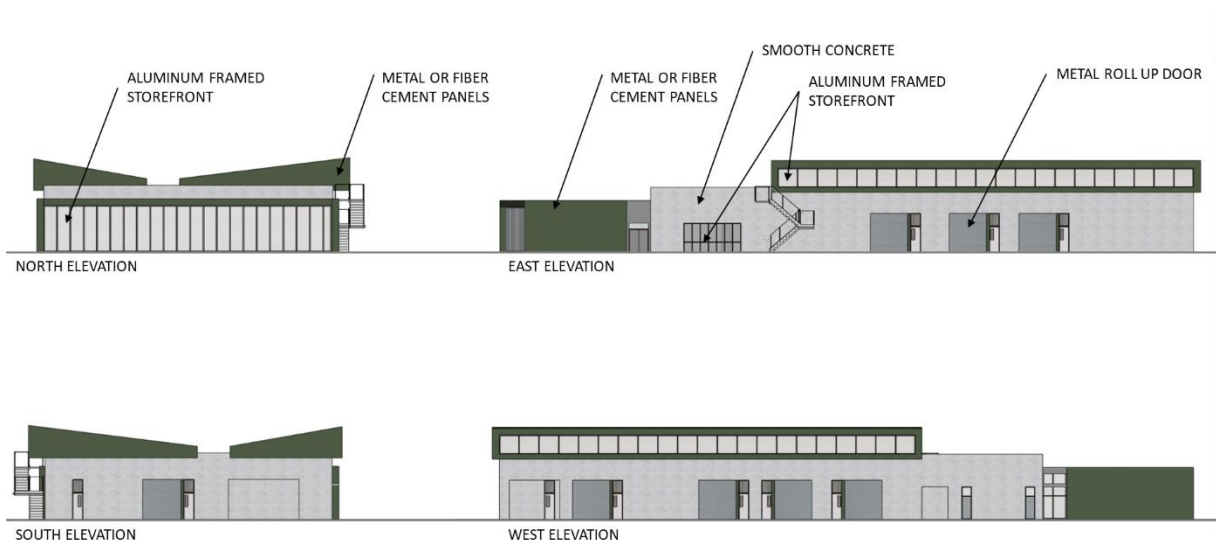
5.2.1 Consolidated Maintenance Building Concept 1

Concept 1 pairs a butterfly roof form resting on a simple concrete base connected to an adjacent metal-clad office volume, see Figure 5.2.2. Concept 1 draws from the existing buildings at the SOWTP that have rectilinear forms and expressive roofs. The massing and materials emphasize the occupied portions of the buildings.

The concrete features a brushed finish and regular reveal pattern similar to that of the existing Ozone building. The butterfly roof provides daylight to the shop and storage spaces.

1. Primary Cladding Materials: Concrete, Standing Seam Metal Roof, Metal Wall Panels, Storefront Glazing
2. Forms: The shop and storage area, the primary portions of the building, are housed in the concrete portion of the building, while the secondary functions such as office and support are housed in the metal portion of the building.

Figure 5.2.2: Concept 1 Exterior Elevations



Concept 1 was selected as the preferred concept to present at the public meeting because it utilizes materials and forms already prevalent at the SOWTP while reducing the need for unique maintenance practices.

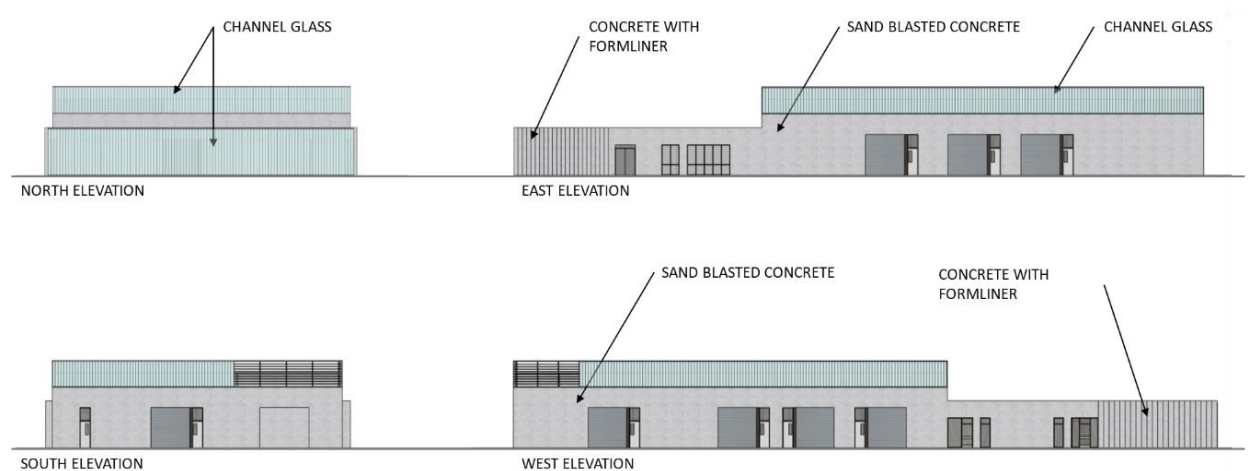
5.2.2 Consolidated Maintenance Building Concept 2

Concept 2 incorporates a glazed, translucent box sitting on top of a solid concrete base, see Figure 5.2.3. The building is expressed as a unified form, referencing the existing monolithic concrete structures on the site. The translucent channel glass blends with the concrete to conceal the different spaces within the building. To reinforce the uniformity, the design features an internal stair and mechanical mezzanine. A flat membrane roof is used in this concept.

The channel glass is a non-standard material for EBMUD, and a flat roof condition is not desirable due to drainage and maintenance concerns.

1. Primary cladding materials: concrete, channel glass
2. Forms: rectilinear box, broken down into solid, translucent, and transparent forms based on function.

Figure 5.2.3: Concept 2 Exterior Elevation



5.2.3 Treatment Buildings

The water treatment plant buildings are simplified versions of Concepts 1 and 2. They are functional, concrete structures with the same brushed concrete and rectilinear reveal patterns. They feature single-sloped metal roofs with generous clerestories for natural light and will create a consistent architectural style paired with the existing SOWTP site.

1. Primary cladding materials: concrete, standing seam metal roof, storefront glazing
2. Forms: rectilinear box with sloped roof

5.3 Preliminary Landscaping Concept

A wide variety of screening options were evaluated based on screening ability, maintenance, and security, see Appendix D. These included various materials, fences, walls, berms, and planting schemes. The landscape design criteria were refined based on discussions during the review process and include the following concepts:

1. Focus screening and design at high visibility areas
2. Screen views of the SOWTP with landscaping including trees and shrubs
3. Avoid decorative or wooden fencing due to maintenance requirements
4. Avoid walls that could attract graffiti and block security views
5. EBMUD standard security fencing is required although alternatives can be considered along the property line on Amend Road
6. Berms (2:1 slope max with 3:1 preferred) are preferred to elevate trees and shrubs giving younger plant material taller heights at time of planting
7. Planting should be drought-tolerant, require minimal maintenance, and not require irrigation after 5-years
8. Planting should not include invasive species such as Eucalyptus, Ivy or any plants listed by the California Invasive Plant Council (CAL-IPC)
9. Trees should not be used near the equalization basins, close to security fences, or within 15 feet of each other for maintenance access and security
10. Decomposed granite paving can be used where permeable paving is needed

Two options for the area along Amend Road were studied to increase screening potential. Using either walls or berms along Amend Road can raise the base of the planting by 5 to 10 feet, thereby increasing its screening ability. The wall option can raise the height of the screening a few feet higher than the earthen berm due to erosion and maintenance constraints on the slope of the sides of the berm. Both options provide immediate screening potential that does not depend on the growth of the planting. Taller shrubs on the top of the berm or wall will begin to provide more screening as they mature.

The final conceptual designs resulting from the workshops included using taller drought-tolerant trees where appropriate and low and medium height shrubs to provide screening at high visibility areas in conjunction with earthen berms to gain elevation to assist in screening. Some areas are not able to support trees due to the proximity of the wetlands and new water treatment plant equipment, but taller shrubs will be utilized at these locations along the earthen berms.

The views from the southwest of the SOWTP are further away from the new water treatment plant equipment and buildings. Planted trees and larger shrubs at key locations inside the SOWTP will mature and effectively screen the new site structures.

5.3.1 Stormwater Retention Area

A stormwater retention basin is proposed southwest of the new SOWTP facilities. Additional impervious surfaces created by the Project could result in additional discharge of stormwater to surface waters. The stormwater retention basin will capture and treat stormwater in accordance with applicable local and state water quality control plans and regulations. These basins typically contains biotreatment soil, planting, and utility infrastructure as described in the Contra Costa County C.3 Guidebook.

5.4 Public Meetings

The Project team presented an overview of the Project, images of the existing site and context, and photo realistic visualizations at two public meetings in March 2022 and April 2023, see Appendix D. Visual simulations of the consolidated maintenance building, polymer & power building, dewatering building, and chemical storage building showed the primary architectural design strategy. Future treatment structures, including gravity thickeners and the dewatering building were included in the key site views to ensure the architectural design aligned with all other improvements and the landscape improvements sufficiently screen the future facilities.

The presented architectural concept for the consolidated maintenance building was a refined version of Concept 1 in Section 5.2.1 with brushed finish concrete accented by a standing seam metal butterfly roof and metal wall cladding.

The presented architectural concept for all other treatment buildings and structures was a refined version of the design in Section 5.2.3 with brushed finish concrete accented by a standing seam single-slope metal roof.

The area along Amend Road near the Richmond Fire Station is a key public viewpoint that requires screening. During the initial public meeting in March 2022 two alternatives for screening this area were presented: 1) walls and 2) berm. The walls allow for more immediate screening and raise the screening shrubs a few feet higher than the berm. The berm is more natural looking and blends with the neighborhood but does not screen as high as the wall option. A poll was presented during the meeting to assess the preferences of those attending. The poll results indicated an even split in preferences for the two alternatives. Prior to the public meeting in April 2023, the facilities were set back from Amend Road allowing more space for an earthen berm. The earthen berm approach was selected due to the increased setback from the road allowing for additional landscape screening of infrastructure.

5.4.1 Public Comment

EBMUD reached out to adjacent community members through a variety of channels. The presentation and question and answer sessions were broadcast live. The architectural and landscape design plan alternatives were posted on the Project website. The community was provided contact information and asked to submit written comments on the alternatives.

The community expressed a concern about the proximity of new buildings and structures to Amend Road.

The community also expressed a strong preference for visible buildings and structures to match the architectural style of the adjacent Richmond Fire Department Station No. 63, which includes contemporary Mission Revival style features with stucco cladding, gabled roofs, more regular windows, and trim.

Multiple comments expressed a desire for a more aesthetically pleasing fence along the perimeter of the Project to blend with the residential neighborhood and more dense landscaping around the perimeter. Overall, the revised site layout with more extensive landscaped screening was well-received.

Additional comments were considered but not able to be incorporated in the revisions:

1. Consider underground treatment facilities. Underground treatment facilities would be substantially more expensive to construct and maintain and would provide limited benefit to the overall aesthetics due to the low profile of the treatment facilities, which are primarily subsurface.
2. Consider a sidewalk or landscaped walking path along Amend Road. A sidewalk along Amend Road was rejected due to safety concerns as the sidewalk would not connect to an existing sidewalk on the south side of the street beyond the Project site.
3. Provide larger setbacks or taller berms. The extent of setback and berm height is the maximum that can be accounted for in the space given existing topography and other structures on the site.
4. Planting fast-growing landscaping. The landscaping design reflects drought-tolerant and native plants.

5.5 Concept Refinement

As a result of feedback provided in the public meetings, EBMUD revised the site layout and the Design Team revised the architectural and landscape designs to incorporate community feedback. See Figure 5.5.1 for specific revisions, including:

1. Consolidated maintenance building rotated and relocated next to the existing Ozone Building.

2. EQ basins and gravity thickeners repositioned further from Amend Road.
3. Dewatering building redesigned in contemporary Mission Revival style and relocated further from Amend Road.
4. Polymer and power building redesigned in contemporary Mission Revival style and relocated further from Amend Road.
5. Chemical storage building relocated to the plaza area adjacent to the Ozone Building.
6. Underground utilities repositioned to accommodate revised layout.
7. Landscape buffer increased from 50 feet to over 100 feet and berm height increased.
8. Perimeter fence along Amend Road set back 10' from road and changed to a 4' tall ornamental picket style fence in black to match the Fire Station No. 63.

Figure 5.5.1: **Site Layout Revision Diagram**

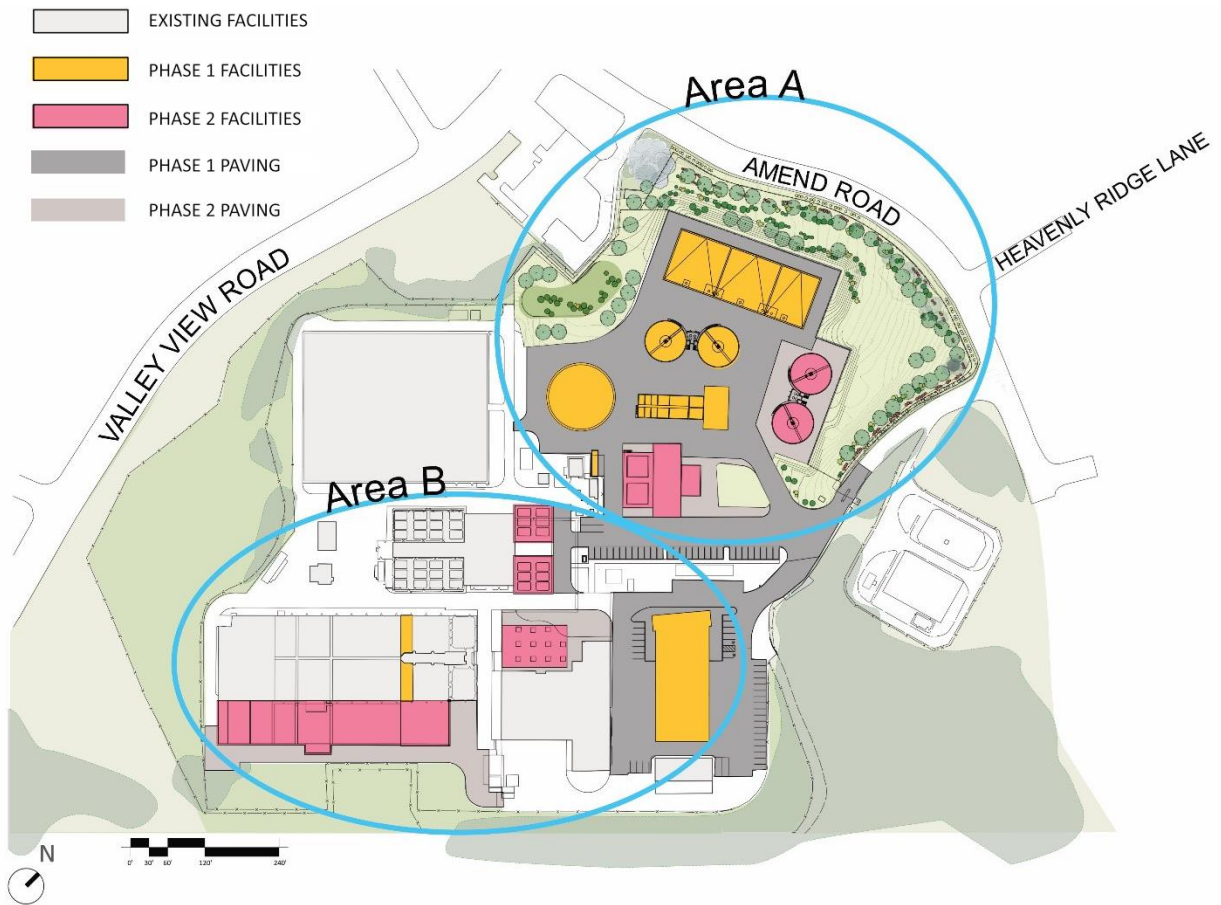


The goal was to reduce visual impacts from the surrounding public viewsheds while maintaining required circulation, functionality, and underground utility routing. This refinement created two distinct areas within the SOWTP site, see Figure 5.5.2.

- Area A includes new facilities that are more visible from Amend Road:
 - Dewatering Building
 - Polymer/ Power Building
 - Flocculation / Sedimentation Basins
 - Gravity Thickeners

- Chlorine Contact Basin
- Equalization Basin
- Area B includes new facilities that are located among the existing facilities:
 - Chemical Storage Building
 - Consolidated Maintenance Building
 - Ozone Contact and Basin
 - Flocculation / Sedimentation Basins 3
 - Filters 5 and 6
 - Raw Water Vault

Figure 5.5.2: Site Plan with Area A and B



5.5.1 Architecture

The facilities in Area A are designed in a contemporary Mission Revival style and facilities in Area B resemble the existing concrete architecture at the SOWTP.

Figure 5.5.3 represents the primary architectural features in Area A, including:

- Stucco exterior with decorative trim
- Gable roof in red standing seam
- Incorporating colonnades where appropriate
- Painted stucco exterior finish in light, warm tones selected from EBMUD paint color standards
- Painted concrete treatment structures to match adjacent stucco color

Figure 5.5.3: View of Buildings in Area A



Figure 5.5.4 represents primary architectural features in Area B, including the brushed concrete finish and standing seam metal roof described in sections 5.2.1 and 5.2.3.

Figure 5.5.4: Representative Area B building



5.5.2 Landscape

The berm concept was chosen to create a more natural landscape area between Amend Road and the new facilities. A concrete retaining wall is set adjacent to the water treatment plant basins to allow the top of berm to flatten out and coordinate with the elevation of the top of the structures behind it.

A selected mix of trees and shrubs would be placed in the foreground, closer to the fence along the street and along the berm to help elevate the plant material to provide the greatest screening capability.

A 4-foot-tall decorative fence was chosen for the exterior fence line along Amend Road. The softer look of the revised fence fits with the suburban surrounding neighborhood while delineating the property line for security. Additionally, planting was added between the roadway and the exterior fence to further soften the look of the fencing along Amend Road and create an aesthetically pleasing addition to the neighborhood.

5.5.3 Public Comment

The updated site plan, revised architectural concepts, revised landscape plan, and photo realistic visualizations were presented at a second public meeting on April 27, 2023. Community reception was largely positive, accepting the revisions to the site layout, architectural design, and landscaping strategy. No significant revisions were made to the architectural or landscape designs.

SECTION 6: DESIGN GUIDELINES

Aesthetic design guidelines should guide the detailed design of the new SOWTP facilities. See Section 6.2 and 6.3 for the preferred architectural and landscape design respectively.

6.1 Site Design Guidelines

6.1.1 Circulation

New buildings and treatment structures at the SOWTP will be positioned to accommodate truck circulation. New additions to the site will be positioned to allow a larger turning radius appropriate for a 53-foot trailer. New sidewalks and crosswalks will be provided for safe pedestrian passage on site. There is no current need for new sidewalks at the perimeter.

6.1.2 Parking

Parking spots of standard 10 foot x 18 foot size will be provided for EBMUD vehicles and staff personal vehicles at the maintenance building. In addition to the dedicated parking spaces, the building will be positioned with enough apron space for facility vehicles to load and unload in front of each shop and storage space. Additional spaces for trailers, electric vehicles, visitor spaces, and two ADA accessible parking spaces will be provided. 25 dedicated parking spaces for personal vehicles will be provided. Personal vehicle parking will be separated from EBMUD vehicle parking and loading areas of the site to reduce potential for damage to personal vehicles.

While designated parking spots are not needed, ample vehicle clearance will be provided at each of the water treatment plant structures at the SOWTP. The enclosed water treatment plant buildings have roll-up doors to allow access.

6.1.3 Security and Safety

Metal stairs, guardrails, and handrails will be installed as required for safety at water treatment plant structures. The stairs and railings will match the existing facilities or be painted in EBMUD standard colors.

6.1.4 Lighting

EBMUD provided lighting types and locations, selected to minimize light pollution and views into the site while providing a safe work environment for staff. Refer to Chapter 2 in the Environmental Impact Report for lighting locations.

6.1.5 Utilities

A 20-foot minimum clearance will be provided for primary underground utility lines. Buildings will be all-electric with no gas service.

6.2 Architectural Design Guidelines

See Appendix D for images and descriptions of architectural treatments.

6.2.1 Exterior Walls

Exterior walls will be designed to be practical and functional, focusing on durability, minimizing maintenance requirements, and enhancing the concept design goals.

Area A: Exterior walls will be cast-in-place or tilt-up reinforced concrete construction. The concrete will be covered in a full height painted stucco finish. The stucco will be painted Federal Standard Color No. 26400. The stucco will feature narrow control joints aligned with façade elements.

Trim will be provided around doors and louvers painted Federal Standard Color No. 26400. The gable ends of each building will use arched ornamental trim.

The arched colonnade at the Dewatering Building will create a canopy that screens the truck loading conveyors. The colonnade along the Flocculation and Sedimentation building will be ornamental.

Area B: Exterior walls will be one of two types:

1. Cast-in-place concrete walls for enclosed water treatment plant, storage, and maintenance shop areas. Concrete is designed with a regular, vertical reveal pattern. A horizontal band runs above the door to create a square pattern that references the reveal pattern on the Ozone building. (See Elevation in Section 5.2)
 - a. Figure: +0 feet to 15 feet above grade: broom finished
 - b. Figure: +15 feet above grade: smooth finish
2. Light grey metal panel over steel framing with light gauge metal stud infill with rigid insulation at office and support spaces.

6.2.2 Roofs

Area A: Roofs will be a steel-framed gable form, sloped at 4:12, with a pre-finished double lock mechanical standing seam metal roofing system. The roof will be configured with gutters and downspouts at the eaves of the gable to control runoff and direct drainage away from equipment, doorways, and louvers. The roof structure will be composed of exposed steel beams. The roof will extend at least two feet beyond the walls. The standing seam metal roofing will match the predominant color of the clay tile roof of the adjacent Richmond Fire Department Station No. 63. The primary roof fascia and gutters will also match the roof color.

Area B: Roofs will consist of a variety of types:

1. Butterfly Roof: Factory finished double lock mechanical standing seam metal roof that drains to a central gutter with external drainage conductors on both ends. Exterior stairs and a ladder from the rear lower portion will allow access to inspect and clean the roof.
2. Single Sloped Roof: Factory finished double lock mechanical standing seam metal roof that drains to a single gutter located on the rear of each building.
3. Low Slope Roof: To achieve a flat roof aesthetic while minimizing glare from white membrane roofing, a parapet above the office and support space of the consolidated maintenance building will conceal a sloped standing seam metal roof. This will be a factory finished double lock mechanical seam roof that drains to external conductors to avoid internal drain systems.
4. Flat Roof: All roof-mounted mechanical equipment will be located on the small flat roof portion of the consolidated maintenance building, accessed from an external metal stair. The roof membrane will be a singly-ply roofing membrane with external conductors and downspouts.
5. Outdoor Canopies: Factory finished double lock mechanical standing seam metal roof that drains to a single gutter located on the rear of each canopy. The primary use is to protect equipment and supplies to replace the existing uncovered carpentry boneyard. Bird netting will be provided to protect exposed structures.

6.2.3 Windows and Skylights

Area A: Minimally reflective glazed surfaces will be used facing public viewsheds. Glazing will be used sparingly, reserved for occupied spaces and daylighting of enclosed treatment spaces. Two types of windows are used in the new buildings in Area A:

1. Storefront window systems at the gable ends and along the façade to increase daylight and emphasize Mission Revival style. Translucent windows, frosted glass, or spandrel glass for treatment buildings may be considered as an alternative where no views are desired.
2. Transom windows at personnel doors.

Area B: Minimally reflective glazed surfaces will be used facing public viewsheds. Glazing will be used to provide natural daylight and views in occupied spaces and treatment spaces. Two types of windows are used in the new buildings in Area B:

1. Clerestory windows in process and shop spaces increase daylight and emphasize the height of the roof slope. Translucent windows, frosted glass, or spandrel glass for treatment buildings may be considered as an alternative where no direct light is desired.
2. Full-height storefront window systems located in occupied office and support portions of the consolidated maintenance building with a vertical mullion pattern, sized according to the reveal pattern of the concrete facades. Continuous glazing will avoid the appearance of punched openings in the façade.

6.2.4 Doors

All doors and louvers will match the materials and appearance of other exterior finishes. Openings will be coordinated with the overall exterior façade design to enhance the overall design concept.

Access doors provided for personnel and equipment will be shop primed hollow metal construction and field painted. Doors in Area A will be painted in Federal Standard 20318 color and doors in Area B will be painted Federal Standard 20318 color. The double-door size will be approximately 6 feet wide by 8 feet tall. Single-door size will be approximately 3 feet wide by 8 feet tall. Door hardware will match the door and frame finishes.

Three types of exterior doors are used in the new buildings:

1. Storefront doors with integrated sidelights and transoms. Mullions will be finished to match the selected metal exterior finishes. Storefront door systems will be used in support and office portions of the building. At the entries to the maintenance building lobby and mud room, doors are recessed 2 feet to provide a covered entryway.
2. Hollow metal personnel doors with or without vision lite into shop and storage spaces.
3. Metal overhead door with adjacent personnel door, to be expressed as a single unit.

6.2.5 Louvers

Louvers will be factory finished to match the adjacent exterior cladding color. All functional louvers will be acoustic louvers to reduce sound transmission. Non-functional louvers will be backed with an integrated acoustic blank-off panel to reduce noise transmission. All louvers will have insect screens fitted.

6.3 Landscaping Design Guidelines

6.3.1 Fence

The interior fence will be EBMUD standard security fencing as defined by EBMUD Standard Drawing 3328-GB-002, Security Chain Link Fence. An Omega Max 8-foot tall fence, color black, with ½ inch x 3 inch x 8 GA Anti-cut, Anti-Climb mesh, will be constructed on top of the retaining wall directly adjacent to the treatment equipment. There will be a 2-inch maximum space between the mesh and wall.

The exterior fence along Amend Road will be set back approximately 10 feet from Amend Road, parallel to the public right-of-way. This fence will be ornamental in nature, i.e., tubular steel (wrought iron) picket style, 4-foot height, color black.

6.3.2 Planting

The plant species will be chosen from the plant palette listed below. Tree and plant species should be mixed to avoid monoculture and provide a healthy ecosystem. Species of varying heights should be planted together to create a natural multilevel effect.

Complete ground cover would be provided via hydroseed with EBMUD standard seed mix to further emphasize the natural landscape in conjunction with tree and shrub planting.

Ideally a minimum 6-foot clear zone should be maintained adjacent to the interior fence. An exception to this for this project is the planting in front of the exterior fence along Amend Road. The planting should be at least 2 feet away from the fence and be of a non-woody nature to deter climbing on the fence. Tree canopies should not overhang the fences or otherwise provide a potential climbing aid to intruders.

6.3.3 Irrigation

An irrigation system will be required for 5 years to establish the new plants in the Project area at screening locations. A permanent irrigation system is required for the stormwater treatment basin to maintain plants in healthy condition due to the required porous sand/compost soil mix in the stormwater basin. The irrigation for the stormwater treatment area should be on separate valves from the screening planting outside the basin.

6.3.4 Maintenance

Landscape irrigation should be provided during the first 5 years of the Project and tapered down as plants mature. An evaluation of the plant material should be conducted after 5 years to determine if the temporary irrigation system can be removed. The irrigation system will remain active for the stormwater retention basin due to the porous soils required there and the requirement to maintain the plants in a healthy condition for biotreatment.

The irrigation system should be inspected periodically for leaks, broken or clogged emitters, and adjustment of irrigation scheduling. Drip irrigation filters should be inspected for clogged screens and cleaned as needed. The system should be flushed with manual flush valves periodically.

Plant species are low-maintenance and do not require shearing or hedging. Occasional pruning and removal of dead branches may be required to maintain the health of the shrubs and trees. As the trees mature, they should be limbed up near fence locations to ensure any new branches do not allow climbing over the security fence.

The Project includes a stormwater retention basin to capture the increased runoff from impervious surfaces. The retention basin will require maintenance as described in the Contra Costa County C.3 Guidebook, and an O&M Plan should be developed and maintained. Trash and debris should be cleared from the stormwater retention basin periodically, and soil level should be maintained per the requirements in the C.3 Guidebook.

All planting areas should be mulched regularly to retain moisture, prevent erosion, and minimize weed growth.

6.3.5 Palette

Tree species include a variety of native and adapted trees, some deciduous and some conifers; about half are flowering, which should provide some seasonal interest. Shrubs include a variety of native and adapted species to our summer-dry climate; most have seasonal interests and fit well into the surrounding neighborhood.

Most of the trees in the conceptual planting design are evergreen and will retain their leaves throughout the year. A few deciduous trees are included that will lose part or all their leaves during the winter. A healthy ecosystem requires a mix of both evergreen and deciduous trees to create a habitat for birds and other pollinators. Additionally, deciduous trees provide a sense of seasonality with spring blooms and fall colors. See Table 2 for additional notes on each plant.

Table 2

Plant Palette

Botanical Name	Common Name	Native	Water Use	Max Height	Max Width	Notes
Trees						
Arbutus 'Marina'	Strawberry Tree	No	L	50'	40'	From Maloney PP palette
xChitalpa tashkentensis	Chitalpa	Part	L	30'	30'	Fast growing, hybrid of desert willow
Lagerstroemia 'Tuscarora'	Tuscarora Crape Myrtle	No	L	25'	18'	From Maloney PP palette
Lyonothamus floridundus sp. Asplenifolius	Catalina Ironwood	Yes	L	40'	20'	Nice upright tree, faster growing
Prunus caroliniana	Carolina Laurel	No	L	30'	25'	Good screen, dense leaves.
Quercus agrifolia	Coast Live Oak	Yes	VL	70'	50'	
Quercus chrysolepis	Canyon Live Oak	Yes	VL	60'	50'	
Quercus douglasii	Blue Oak	Yes	VL	50'	50'	Low, spreading branches. Immune to sudden oak death.
Large Shrubs						
Garrya elliptica	Silktassel	Yes	L	15'	12'	From Maloney PP palette, Ok for bioretention
Heteromeles arbutifolia	Toyon	Yes	L	15'	15'	Ok for bioretention
Rhaphiolepis 'Montic'	Majestic Beauty India Hawthorn	No	L	20'	10'	
Medium Shrubs						
Arctostaphylos manzanita	Manzanita	Yes	L	12'	12'	Ok for bioretention
Ceanothus thyrsiflorus 'Snow Flurry'	Wild Lilac	Yes	VL	10'	12'	Ok for bioretention
Ceanothus 'Frosty Blue'	Frosty Blue Wild Lilac	Yes	VL	8'	8'	From Maloney PP palette, Ok for bioretention
Dendromecon rigida	Bush Poppy	Yes	VL	6'	6'	
Rhamnus californica 'Eve Case'	Eve Case Coffeeberry	Yes	L	8'	8'	From Maloney PP palette, Ok for bioretention
Salvia clevelandii	Cleveland Sage	Yes	L	5'	5'	From Maloney PP palette
Stormwater Facility Grasses & Perennials						
Bouteloua gracilis	Blue Grama Grass		L	1.5'	1'	Ok for bioretention
Festuca californica	California fescue	Yes	L	2'	2'	Ok for bioretention
Achillea millefolium	Yarrow	Yes	L	1.5'	1'	Ok for bioretention

6.3.6 Hydroseed

The areas outside of the main Project landscaping should receive a hydroseed mix to provide erosion control and promote healthy soils. Typically, the hydroseed mix is applied in the fall before the rainy season. The EBMUD standard hydroseed mix should be used, see Table 3 for additional notes on each plant.

Table 3: EBMUD Standard Hydroseed Mix

Plant Species	Minimum Germination (percent)	Seeding Rate (pounds PLS per acre)
Festuca rubra var. Molate Blue (Native Blue Fescue)	45	10.0
Bromus carinatus (California Brome)	45	7.5
Elymus glaucus (Blue Wildrye)	45	6.0
Hordeum californicum	45	6.0
Festucaidahoensis (Idaho Fescue)	40	3.75
Nassellapulchra (Purple Needlegrass)	40	3.75
Poa secunda (Native Pine Bluegrass)	40	3.0
Eschscholzia californica (California Poppy)	45	1.5
Lasthenia glabrata (Goldfields)	40	1.5
Lupinus microcarpa var. microcarpa (Blue Chic Lupine)	40	2.75
Clarkia purpurea (Wine Cup Clarkia)	40	1.25
Total		47

6.3.7 Paving

Any landscape paving that is needed for maintenance and not part of the concrete or asphalt paving plans should consist of pervious decomposed granite (DG). DG material should be California Gold fines available from many local distributors. The DG should be applied without stabilizer to maintain permeability for stormwater infiltration.

6.3.8 Landscaping Phasing

There may be some opportunity to construct new landscaping before or at the beginning (Year 2 or Year 3) of Phase 1 Project construction. Early landscaping would allow for screening of the site during construction and allow the landscaping to mature sooner. However, the areas of early landscaping are limited to where the new landscaping would not conflict with the construction of water treatment plant structures, grading disturbances, and laydown areas. Pre-construction landscaping may be considered along Amend Road near the SOWTP entrance road as no new facilities are planned for that area. However, all other areas of the new landscaping included in the Project will be affected by construction activity and landscaping installation could not occur until after disturbance in the area has ceased.

6.4 Maintenance Building Concept Estimate

A Class 4 opinion of probable construction costs (OPCC), found in Appendix E, was prepared for the consolidated maintenance building and immediately surrounding sitework in accordance with the procedures and guidelines of the Cost Estimate Classification System published by the Association for the Advancement of Cost Engineering International (AACE). See Table 4 for a summary. Class 4 estimates are generally prepared based on limited information and subsequently have wide accuracy ranges. Class 4 estimates are typically used for project screening, determination of feasibility, concept evaluation, and preliminary budget approval.

Table 4: **Summary of Concept Estimate**

1.00	BUILDING	17,600	GSF	790.03	\$ 13,904,579
2.00	SITEWORK	150,519	SF	25.16	\$ 3,787,149
TOTAL PROJECT COSTS				25.16	\$ 17,691,728

APPENDICES

- Appendix A: RFI Documentation
- Appendix B: Maintenance Building Drawings
- Appendix C: Key Observation Points
- Appendix D: Concept Presentations
- Appendix E: Conceptual Cost Estimate

EAST BAY MUNICIPAL UTILITY DISTRICT
SOBRANTE WATER TREATMENT PLANT
RELIABILITY IMPROVEMENT PROJECT
AESTHETICS CONCEPTUAL DESIGN
REPORT

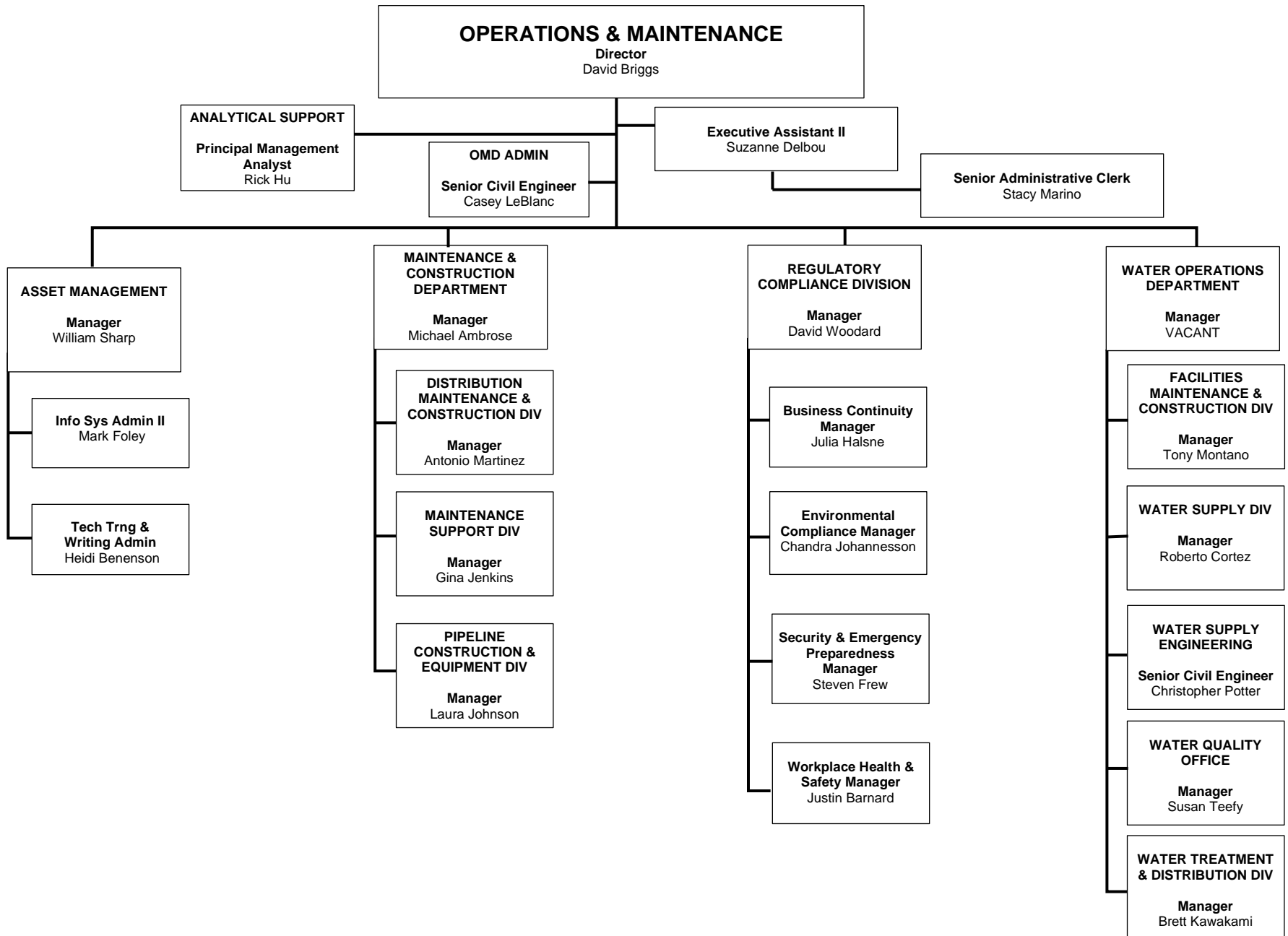
Appendix A: RFI Documentation

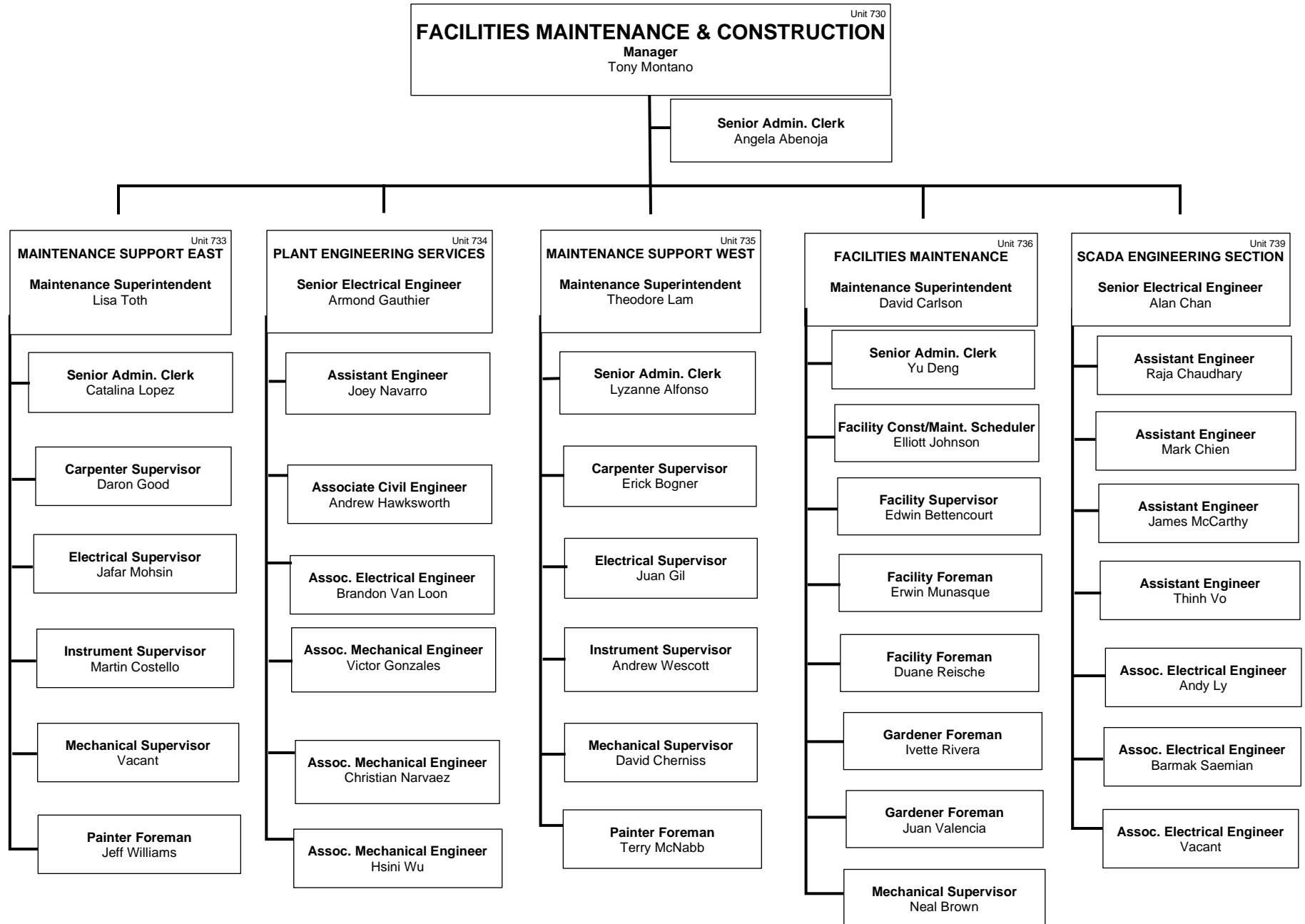
FINAL | March 2024

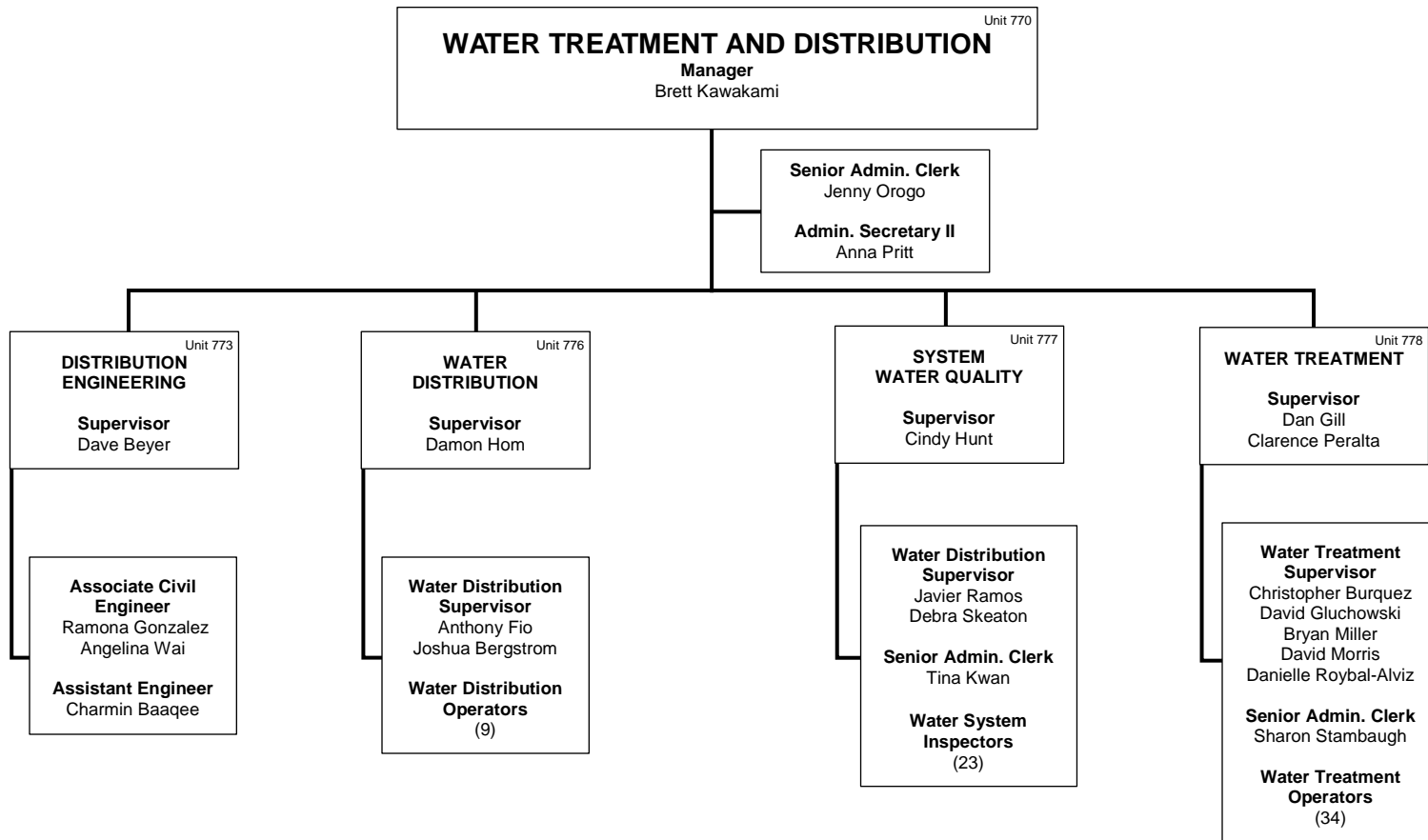


SOWTP STAFF COUNT

Trade	Current Staff	Additional Staff	Total Staff
FMC			
Mechanical	2	2	4
Instrumentation	3	1	4
Electrical	4	1	5
Paint	1	1	2
Carpentry	1	1	2
Landscaping	2	2	4
Supervisors	0	1	1
Total	13	9	22
WTP Staff			
Operators	2 to 7	2	4 to 9
WT Supervisor	1	1	2
Total	3 to 8	3	6 to 11







#	NAME	DIMS (FT)	HEIGHT AG	ROOF	WALLS	OPENINGS	ACCENT	NOTES	PHASE
SFBW EQUALIZATION									
1	BASINS (2)	84x84	+ 3'	NONE	BC	NONE	RA, ST	PARTIALLY BURIED	1
2	FILTER-TO-WASTE EQUALIZATION	84X64	+ 3'	NONE	BC	NONE	RA, ST	PARTIALLY BURIED	1
SFBW FLOCC/SED									
3	BASINS (2)	100X12	+ 15'	NONE	BC	NONE	RA, ST		1
4	POLYMER & ELECTRICAL BUILDING	70X40	+ 16'	SS SINGLE	BC, SC	OH, PD, LO, CL			1
CHLORINE CONTACT									
5	BASIN	115' DI	+ 6'	NONE	BC	NONE	RA, ST	PARTIALLY BURIED	1
6	GRAVITY THICKENER (2)	50' DI	+ 8'	NONE	BC	NONE	RA, ST	PARTIALLY BURIED	1
7	MAINTENANCE BUILDING			SS BUTTERFLY, FL	BC, MP, SC	OH, PD, ST, CL			1
8	FLOCCULATION 5TH STAGE (2)	N/A	N/A	N/A	N/A	N/A	N/A	EXISTING STRUCTURE	1
9	RAW WATER VAULT	N/A	N/A	N/A	N/A	N/A	N/A	BURIED VAULT	1
10	FILTER NO. 5 & 6	24x48	+ 3'	NONE	BC	NONE	RA, ST	PARTIALLY BURIED	2
	FILTER GALLERY	10X24		SS SINGLE	BC	ST			2
11	FLOCCULATION BASIN NO. 3	75x68	+ 4'	NONE	BC	NONE	RA, ST	PARTIALLY BURIED	2
SEDIMENTATION									
12	BASIN NO. 3	210x68	+ 4'	NONE	BC	NONE	RA, ST	PARTIALLY BURIED	2
13	OZONE CONTACT BASINS (2)	70x35	+ 4'	NONE	BC	NONE	RA, ST	PARTIALLY BURIED	2
OZONE DESTRUCT									
14	ROOM	70x10	+ 4'	NONE	BC	NONE	RA, ST		2
15	CABLE VAC PP			SS SINGLE	BC	ST			2
16	CHEMICAL STORAGE BUILDING	150X50	+ 25'	SS SINGLE	BC, SC	OH, PD, LO, CL			2
17	GRAVITY THICKENER (2)	50' DI	+ 8'	NONE	BC	NONE	RA, ST	PARTIALLY BURIED	FUTURE
SOLIDS DEWATERING									
18	BUILDING	110X45	+ 25'	SS SINGLE	BC, SC	OH, PD, LO, CL			FUTURE

KEY

FL = FLAT MEMBRANE ROOF
PS = CONCEALED SLOPED PARAPET ROOF
SS = STANDING SEAM

BC = BRUSHED CONCRETE
MP = METAL PANEL
SC = SMOOTH CONCRETE

CL = CLERESTORY STOREFRONT WINDOW
LO = LOUVER
OH = OVERHEAD DOOR
PD = PERSONNEL DOOR
ST = STOREFRONT DOOR/WINDOWS

RA = METAL SAFETY RAILINGS
ST = METAL STAIRS

Workstation Guidelines

Prepared May 5, 2021 based on feedback from Lisa Toth

In lieu of formal workstation guidelines (which are unavailable), O&M requests that each workstation has the following items (or equivalent):

- 5'-6' worksurface
- File/storage base cabinet (1 file drawer plus two other drawers)
- Overhead cabinet

Examples:







Solids Detention Basins

Maloney Pumping Plant

Clearwell

Backup Generator Building

Power Building

Entrance Gate

Operations Building

Hydrogen Peroxide Tank and Feed System

Filters 1-4

Air Blower Building

Washwater Settling Basins

Ozone Destruct Room

Ozone Contactors

Plate Settlers

Cable-Vac Pumps

Sedimentation Basins

Flocculation Basins

Aerators

Rapid Mix

Chemical & Ozone Generator Building

New Plant Switchgear

Sobrante Water Treatment Plant

Liquid Oxygen Tanks

Chemical Deliveries Truck Route

Figure 2.1 – Sobrante WTP Facilities



Solids Detention Basins

General Use & Maintenance Vehicle Route

Maloney Pumping Plant

Clearwell

Backup Generator Building

Air Blower Building

Power Building

Filters 1-4

Entrance Gate

Hydrogen Peroxide Tank and Feed System

Operations Building

Washwater Settling Basins

Rapid Mix

Ozone Destruct Room

New Plant Switchgear

Ozone Contactors

Chemical & Ozone Generator Building

Plate Settlers

Flocculation Basins

Cable-Vac Pumps

Sedimentation Basins

Aerators

Liquid Oxygen Tanks

Figure 2.1 – Sobrante WTP Facilities



Solids Detention Basins

Maloney Pumping Plant

Clearwell

Hydrogen Peroxide Delivery Route

Backup Generator Building

Air Blower Building

Power Building

Filters 1-4

Entrance Gate

Hydrogen Peroxide Tank and Feed System

Operations Building

Washwater Settling Basins

Rapid Mix

New Plant Switchgear

Ozone Destruct Room

Chemical & Ozone Generator Building

Ozone Contactors

Flocculation Basins

Plate Settlers

Cable-Vac Pumps

Sedimentation Basins

Aerators

Liquid Oxygen Tanks

Figure 2.1 – Sobrante WTP Facilities

SPEC NO. ---

SOBRANTE WTP FLOW RATE:

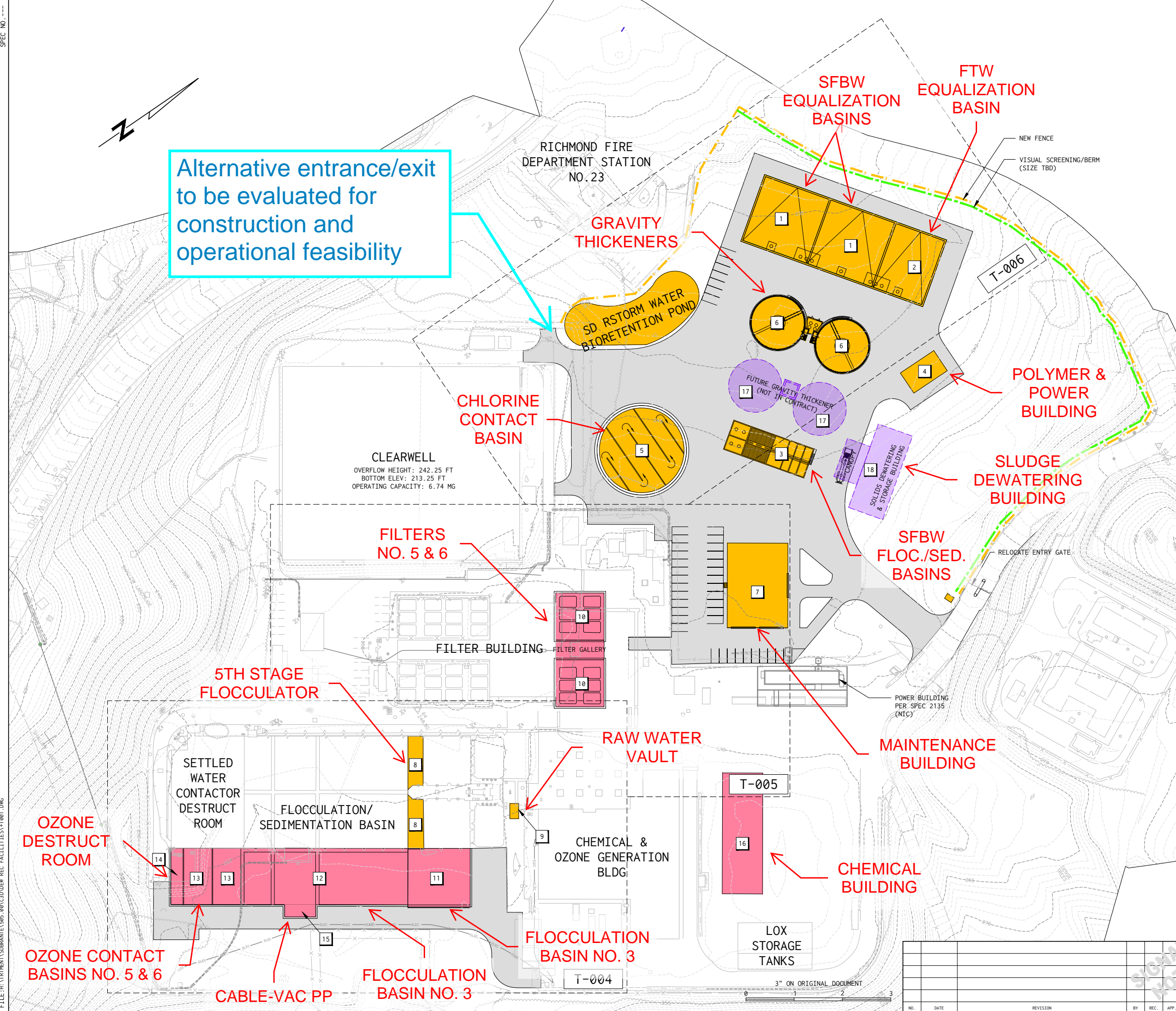
PHASE 1 RELIABLE CAPACITY: 60 MGD
 PHASE 2 RELIABLE CAPACITY: 80 MGD
 MINIMUM PLANT PRODUCTION RATE: 10 MGD

LEGEND

PHASE I ■
 PHASE II ■
 SPACE PLANNING ■

Alternative entrance/exit to be evaluated for construction and operational feasibility

TABLE						
PROPOSED FACILITIES						
ID	NAME	QUANTITY	AREA (SQ FT)	TYPE	DIMENSIONS LxWxD (FT)	VOLUME (GAL)
1	SFBW EQUALIZATION BASIN	2	7056	CONC, BURIED	84x84x36	1,900,171
2	FILTER-TO-WASTE EQUALIZATION	1	5376	CONC, BURIED	84x64x36	1,447,749
3	SFBW FLOCC/SED BASINS	2	1200	CONC, CONC ABOVE GRADE	100x12x15	--
4	POLYMER & ELECTRICAL BUILDING	1	2800	--	70x40x16	--
5	CHLORINE CONTACT BASIN	1	10387	CONC CONV RESERVOIR	115 IDx35 (121 OD)	2,719,476
6	GRAVITY THICKENER	2	1963	CONC, CONICAL BOTTOM	50 IDx24	352,511
7	MAINTENANCE BUILDING	1	7500	--	100x75x18	--
8	FLOCCULATION 5TH STAGE	2	1197	--	--	--
9	RAW WATER VAULT	1	600	CONC, BURIED	30x20x12	--
10	FILTER NO. 5 & 6	2	1152	GRAVITY, DUAL MEDIA FILTER	24x48x16	--
11	FLOCCULATION BASIN NO. 3	1	5100	RECTANGULAR, HORIZ FLOW	75x68x15	572,260
12	SEDIMENTATION BASIN NO. 3	1	14280	RECTANGULAR, HIGH RATE PLATE SETTLERS	210x68x15	1,602,327
13	OZONE CONTACT BASINS	2	2450	CONC, BURIED	70x35x20	366,545
14	OZONE DESTRUCT ROOM	1	700	--	70x10x14	--
15	CABLE VAC PP	1	576	--	--	--
16	CHEMICAL STORAGE BUILDING	1	7500	CONC BLDG	150x50x25	--
17	FUTURE GRAVITY THICKENER	2	1963	CONC, CONICAL BOTTOM	50 IDx24	220,319
18	FUTURE SOLIDS DEWATERING BLDG	1	5000	CONC BLDG	110x45x25	--



SOBRANTE WTP LOOKING SOUTHEAST

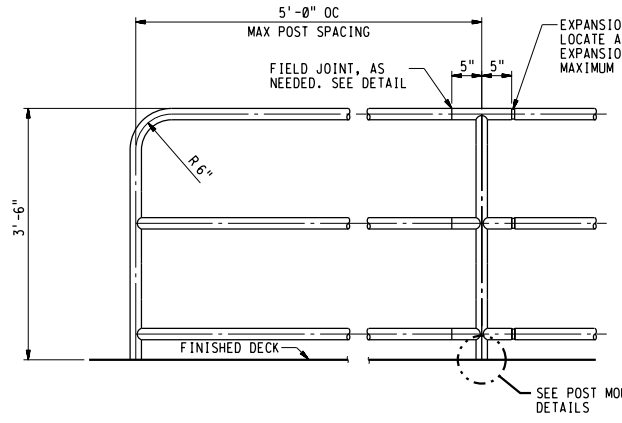
DESIGNED BY	---	EAST BAY MUNICIPAL UTILITY DISTRICT OAKLAND, CALIFORNIA
DESIGN CHECKED BY	---	
DRAWN	CEU	SOBRANTE WATER TREATMENT FACILITY MAINTENANCE & RELIABILITY PROJECT
PROJECT ENGINEER	---	
		SITE PLAN

Figure 1.1 - Location of New Facilities

REF 1: ---
 REF 2: ---
 REF 3: ---
 REF 4: ---
 USER: JEREMY_CARLOS
 DATE: 07/27/2020 10:59 AM
 FILE: \\A:\TERRA\SOBRANTE\595\00\CSD\VIEW REC FACILITIES\T001.DWG
 PLOT SCALE: 1:16.8356

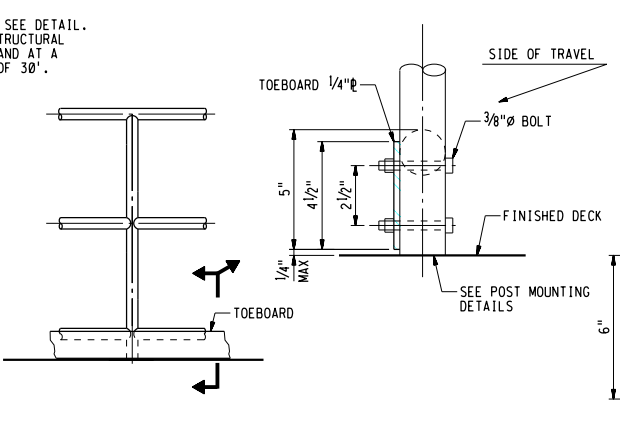
NO.	DATE	REVISION	BY	REC.	APP.

3" ON ORIGINAL DOCUMENT

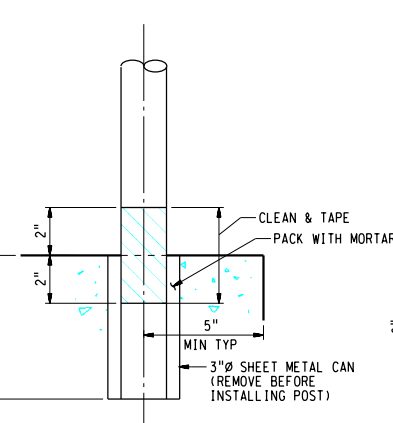


WITHOUT TOEBOARD

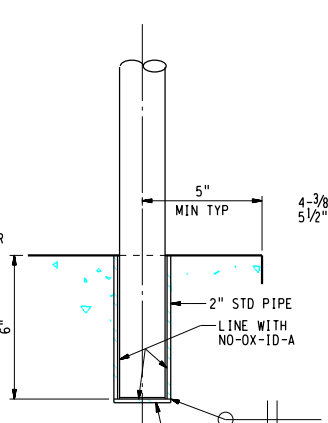
DECK RAILING
3/4"=1'-0"



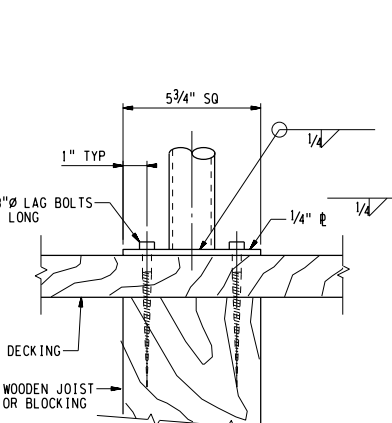
WITH TOEBOARD



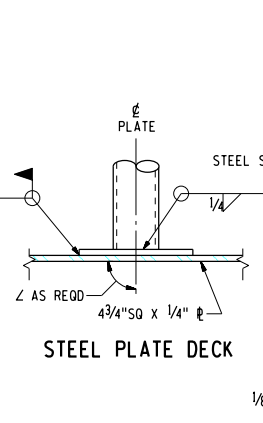
CONCRETE DECK
(FIXED IN SOCKET)



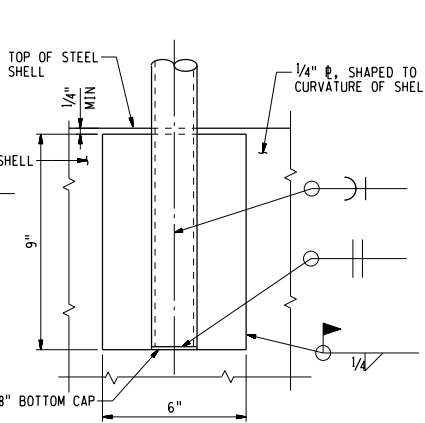
CONCRETE DECK
(REMOVABLE IN SOCKET)



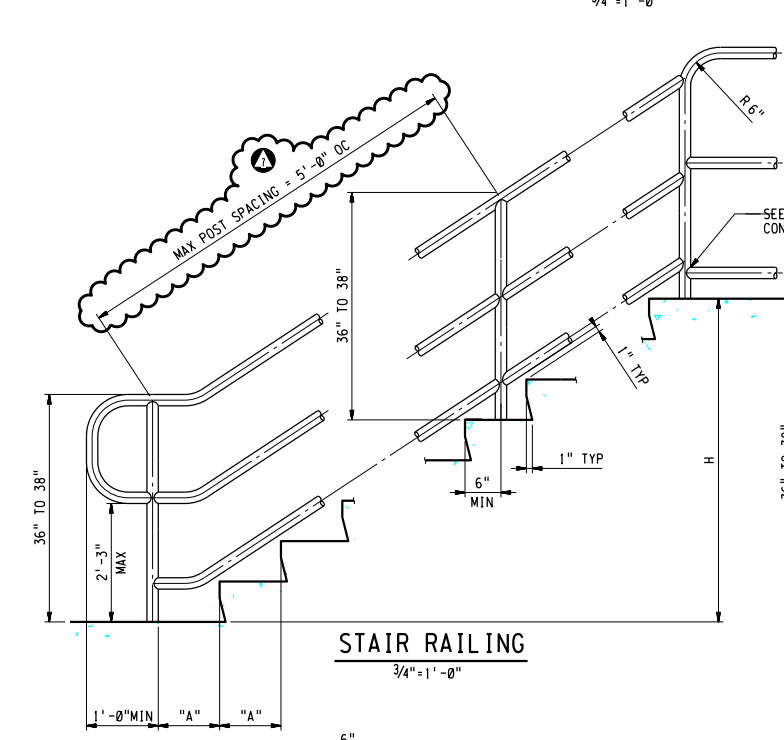
WOODEN DECK



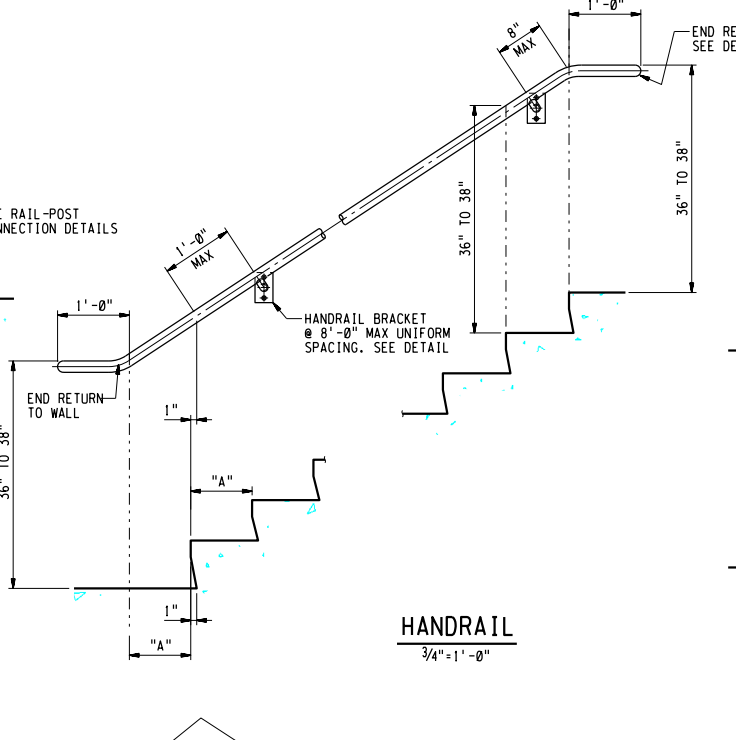
STEEL PLATE DECK



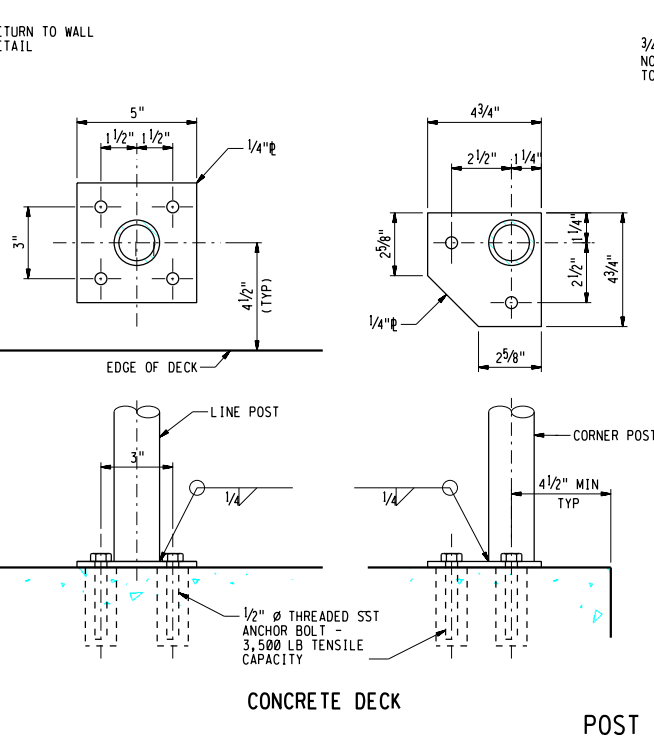
STEEL SHELL WALL



STAIR RAILING
3/4"=1'-0"

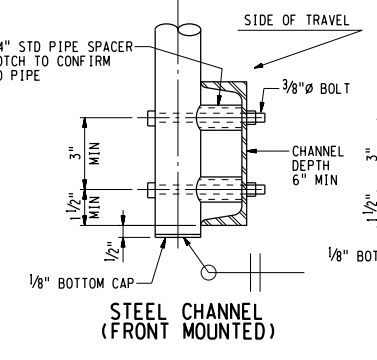


HANDRAIL
3/4"=1'-0"

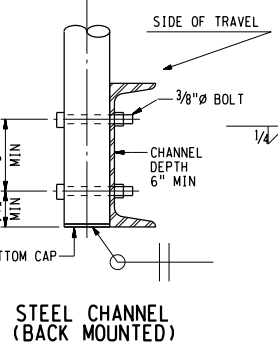


CONCRETE DECK

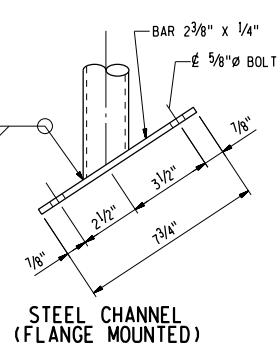
POST MOUNTING DETAILS
3/4"=1'-0"



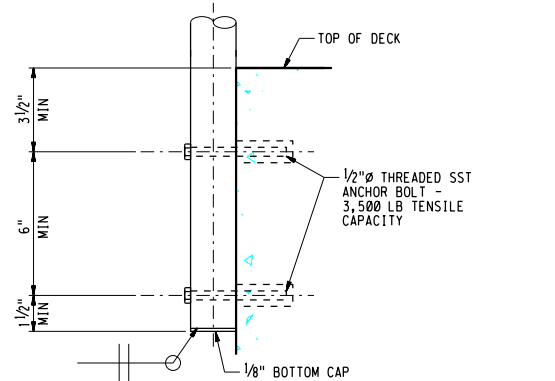
STEEL CHANNEL
(FRONT MOUNTED)



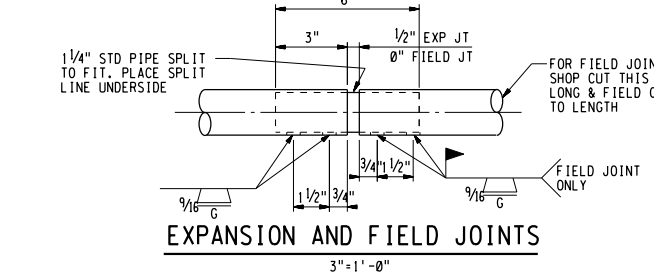
STEEL CHANNEL
(BACK MOUNTED)



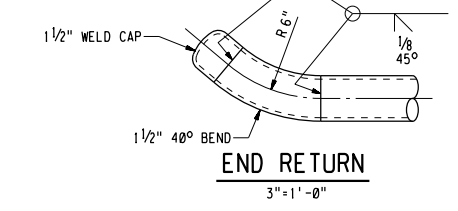
STEEL CHANNEL
(FLANGE MOUNTED)



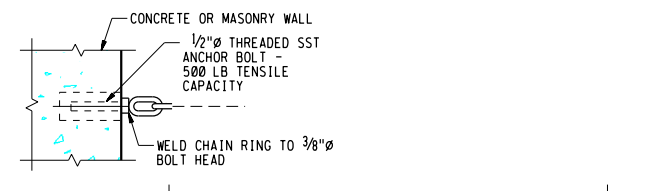
CONCRETE DECK
(SIDE MOUNTED)



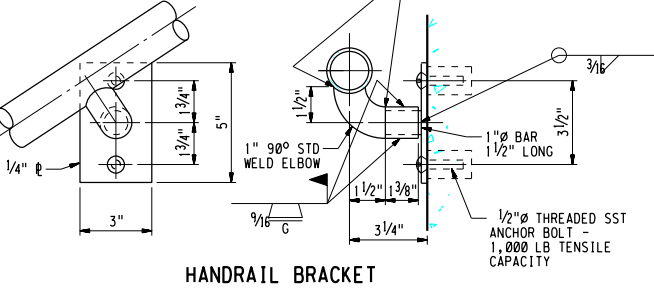
EXPANSION AND FIELD JOINTS
3"=1'-0"



END RETURN
3"=1'-0"

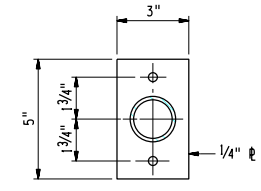


GUARD CHAIN
NOT TO SCALE

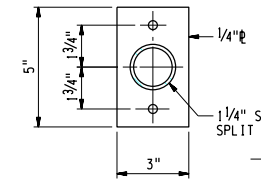


HANDRAIL BRACKET

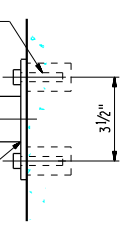
RAIL - WALL CONNECTIONS
3"=1'-0"



FIXED RAIL



ADJUSTABLE RAIL



**OFFSET RAIL IN-LINE RAIL
RAIL-POST CONNECTIONS**
3/4"=1'-0"

- NOTES**
1. FOR OTHER REQUIREMENTS AND DETAILS, SEE THE PROJECT PLANS AND SPECIFICATIONS.
 2. ALL INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE STATE OF CALIFORNIA GENERAL INDUSTRY SAFETY ORDERS.
 3. ALL RAILS SHALL BE 1 1/2" STANDARD PIPE. ALL POSTS SHALL BE 1/2" EXTRA STRONG PIPE. POSTS SHALL BE UNIFORMLY SPACED, UNLESS OTHERWISE SPECIFIED.
 4. COMMERCIAL FITTINGS, IF APPROVED BY THE ENGINEER, MAY BE USED IN LIEU OF FITTINGS SHOWN.
 5. ALL WELDS SHALL BE GROUND FLUSH AND SMOOTH.
 6. ALL PARTS SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION. EXPANSION ANCHOR BOLTS AND SCREWS SHALL BE STAINLESS STEEL, UNLESS OTHERWISE SPECIFIED.
 7. FIELD WELDS WILL PERMITTED ONLY WHERE SHOWN ON THIS DRAWING, OR WHERE APPROVED BY THE ENGINEER. COAT WITH ZINC RICH PAINT.
 8. CAPACITY VALUES GIVEN FOR ANCHORAGE BOLTS ARE BASED ON STRENGTH DESIGN PER ACI-318, CHAPTER 17.

THIS DRAWING SUPERSEDES DRAWING NO. 4862-GB			
DESIGNED BY	—	EAST BAY MUNICIPAL UTILITY DISTRICT OAKLAND, CALIFORNIA	
DESIGN CHECKED BY	—		
DRAWN BY	—		
A MICROFILM COPY OF THE ORIGINAL DRAWING WITH ORIGINAL SIGNATURES CAN BE FOUND IN ENGINEERING RECORDS.		STANDARD DRAWING	
PROJECT ENGR.	—	STEEL PIPE RAILING - NON PUBLIC ACCESS	
R.P.E. NO.	—	PROJ. NO.	4862-GB-001
RECOMMENDED SR. P.E. NO.	—	SCALE	AS SHOWN
APPROVED MGR. OF DESIGN R.P.E. NO.	—	DATE	14 SEP 65
NO.	DATE	REVISION	BY REC. APP.
05FEB2020	26SEP2019	REVISED STAIR RAILING POST SPACING	PM PRC ST
		REVISED RAILING POST SPACING	PR PRC ST

USER: mdpwn-2020-08:23
DATE: 06-FEB-2020 08:23
FILE: H:\S1\tds\8\8\stdwg\4862GB001.R07

PLOT SCALE:
3"=1'-0"



- EXISTING FACILITIES
- PHASE I FACILITIES
- PHASE II FACILITIES
- FUTURE (NIC) FACILITIES
- PROPOSED RELOCATIONS FROM BODR LAYOUT

Safety Railing Requirements/Detail:

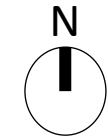
- 42" (3'-6") minimum from ground to top of fall protection - often round up for simplicity/railing type
- Guard rail not required where wall is taller than 42"
- Railing detail: 4862-GB-001 - steel type (steel can be painted any color), provided in RFI folder.
- Often toeboard included for maintenance safety
- Only required where structures are roofless

Assume 2' AG minimum to minimize potential for stormwater entry into the basins. These basins have a significant amount of freeboard, so there is a lot of control over the height above ground. Our existing topo shows 234.81' at the center of this side of the tank for existing grade (EG) elevation based on the BODR. There is flexibility in what this FG can be to meet aesthetic needs. Note that the EG can change slightly based on shifting of the tank that was discussed.

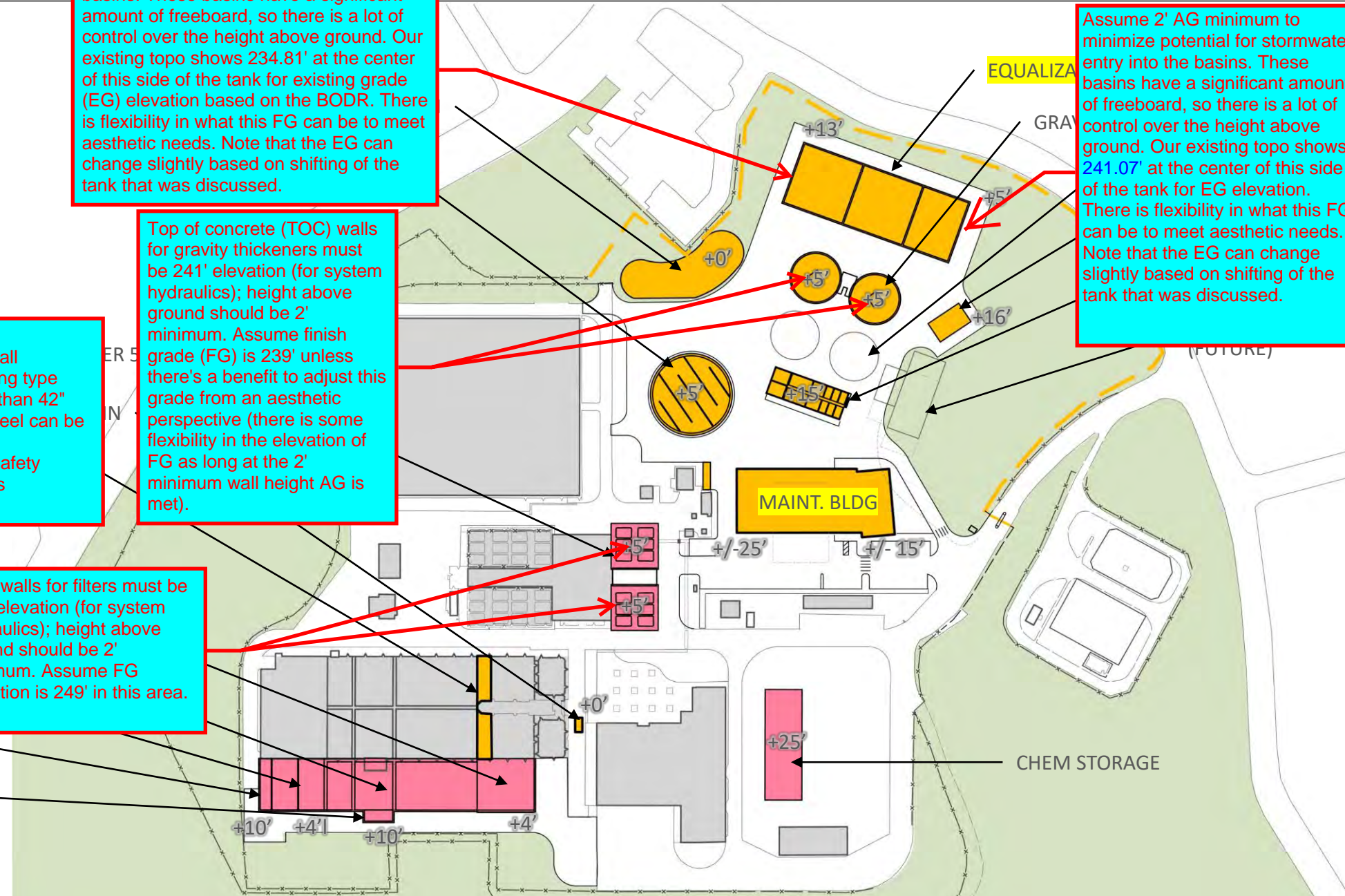
Top of concrete (TOC) walls for gravity thickeners must be 241' elevation (for system hydraulics); height above ground should be 2' minimum. Assume finish grade (FG) is 239' unless there's a benefit to adjust this grade from an aesthetic perspective (there is some flexibility in the elevation of FG as long as the 2' minimum wall height AG is met).

TOC walls for filters must be 251' elevation (for system hydraulics); height above ground should be 2' minimum. Assume FG elevation is 249' in this area.

Assume 2' AG minimum to minimize potential for stormwater entry into the basins. These basins have a significant amount of freeboard, so there is a lot of control over the height above ground. Our existing topo shows 241.07' at the center of this side of the tank for EG elevation. There is flexibility in what this FG can be to meet aesthetic needs. Note that the EG can change slightly based on shifting of the tank that was discussed.



- FLOCCULATION BASIN
- SEDIMENTATION BASIN
- OZONE CONTACT BASIN
- OZONE DESTRUCT ROOM
- CABLE VAC PP





REF 3: [unreadable]
REF 2: [unreadable]
REF 1: [unreadable]
REF 2: [unreadable]
PLOT SCALE: 1"=16.00'
USER: [unreadable]
DATE: 10/27/2018 2:23 PM
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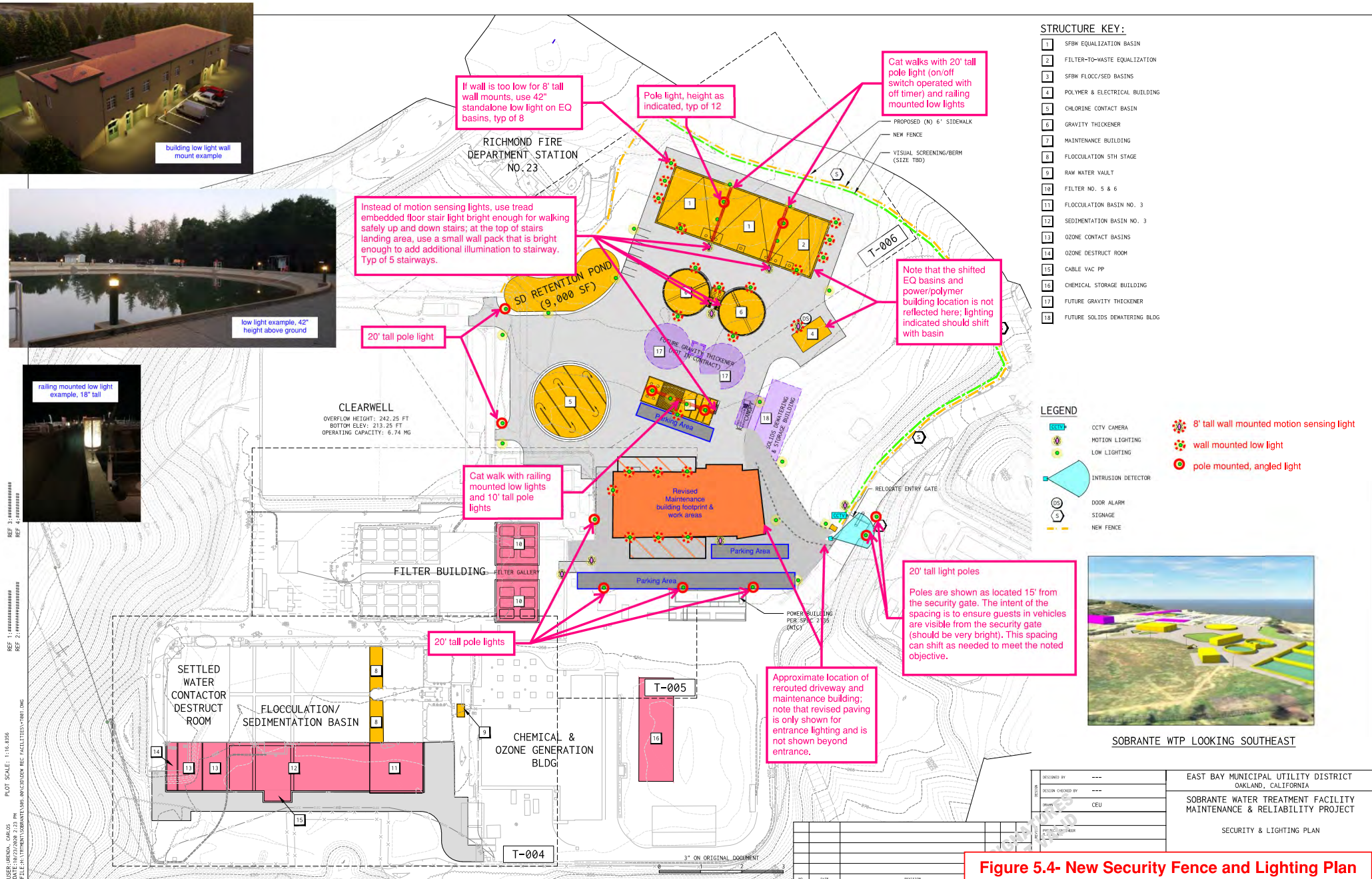
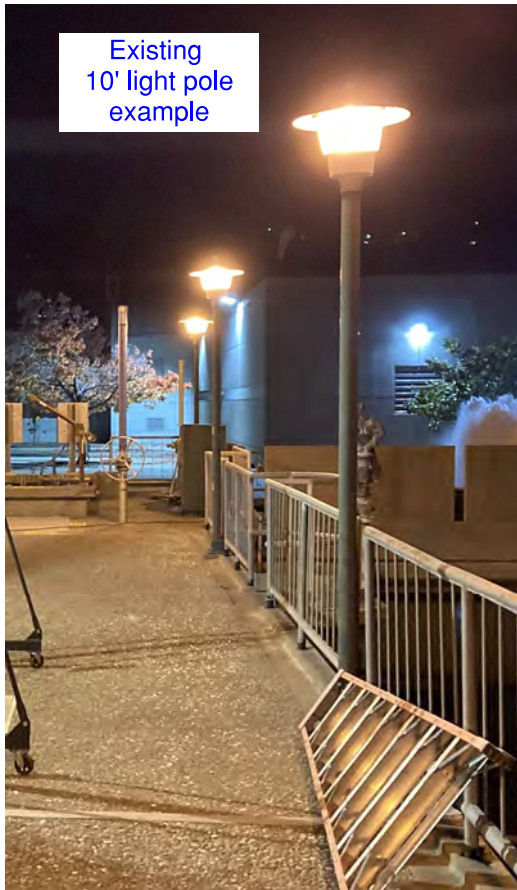
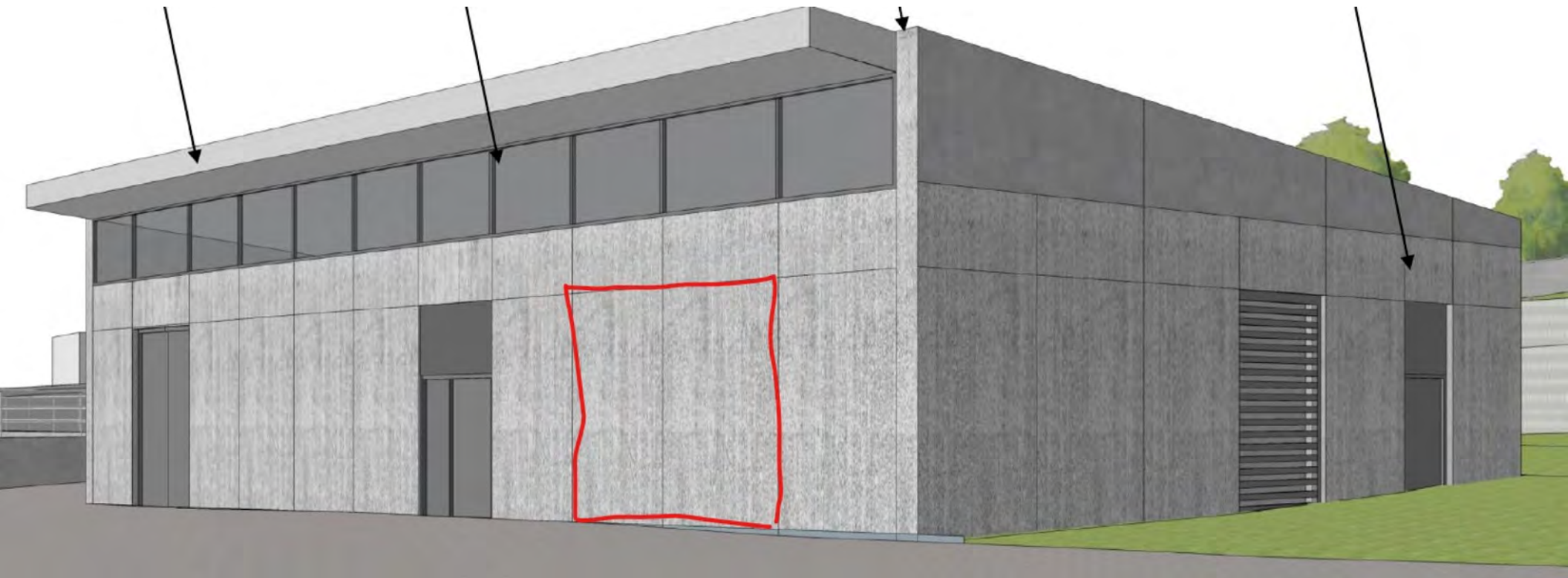


Figure 5.4- New Security Fence and Lighting Plan

Existing Light Poles at SOWTP





TRADE	CODE	DESCRIPTION	#	SIZE	(N)/(E)	CLEARANCE	MOBILE/FIXED	NOTES
MECHANICAL	WB-1	WORKTABLE	2	6'X10'	EXISTING	5' ALL AROUND	FIXED	
MECHANICAL	WT-1	WELDING TABLE	1	6'X10'	EXISTING	5' ALL AROUND	FIXED	
MECHANICAL	WH-1	WELDING HOOD	1	6'X2'	NEW	5' EACH SIDE, 3' FRONT	FIXED	
MECHANICAL	DP-1	DRILL PRESS	1	2'X3'	EXISTING	8'X8'	FIXED	
MECHANICAL	ML-1	MILL	1	3'X5'	EXISTING	12'X12'	FIXED	
MECHANICAL	BS-1	BAND SAW	1	24" X 19"	EXISTING	10'X10'	FIXED	
MECHANICAL	LA-1	LATHE	1	4'X8'	EXISTING	9'X20'	FIXED	
MECHANICAL	MS-1	SHEET METAL SHEAR	1	4'X3'	NEW			
MECHANICAL	MB-1	SHEET METAL BRAKE	1	4'X3'	NEW			
GROUND	WB-3	WORK BENCH	2	4'X10'	NEW	3' ALL AROUND		IN EACH STORAGE AREA, CHEMICAL AND TOOL STORAGE
GROUND	AC-1	AIR COMPRESSOR	1	25 GAL	NEW			NEAR TOOL STORAGE
GROUND	FC-1	FLAMMABLE STORAGE CABINET	1	30 GAL	NEW			
GROUND	TR-1	TOOL RACKS	2	10'	NEW			FOR POWER TOOLS WITH SPILL CONTAINMENT
ELECTRICAL	BT-1	BREAKER TESTER	1	3' X 5'	EXISTING	4' X 8'		
ELECTRICAL	WB-1	WORKTABLE	2	6'X10'	NEW	5' ALL AROUND	FIXED	
ELECTRICAL	CB-1	CONDUIT BENDER	1	10' X 10"	EXISTING	44" FRONT, SIDE	FIXED	
ELECTRICAL	BT-2	SMALL CIRCUIT BREAKER TESTER	1	3' X 3'	EXISTING	3' X 4'		
ELECTRICAL	CT-1	CONDUIT THREADER	1	2'X3'	EXISTING	3' X 19'	MOBILE	
ELECTRICAL	DP-1	DRILL PRESS	1	2'X3'	EXISTING	4' X 8'		
ELECTRICAL	BS-2	BAND SAW/ CHOP SAW	1	24" X 19"	NEW	3' X 15'	MOBILE	
ELECTRICAL	RT-1	RELAY TESTING EQUIPMENT	1	3' X 6'	EXISTING	3' X 6'		MOUNTED TO WORKBENCH SPACE
ELECTRICAL	JC-1	JIB CRANE	1		NEW			
INSTRUMENT	WS-2	WET WORK STATION	1	3' X 6'	NEW	3' AROUND	FIXED	DOUBLE BASIN UTILITY SINK WITH SUFFICIENT COUNTER SPACE AND DRAWERS TO WORK ON WQ ANALYZERS
INSTRUMENT	WS-3	TEST STATION	1	3'X8"	NEW	3' AROUND	FIXED	WALL SPACE AND BENCH AREA TO PERMANENTLY MOUNT RTUS, PLCS, RADIOS, AND VARIOUS FIELD EQUIPMENT
INSTRUMENT	YSI-1	YSI PROFILER	3	4'X6"	EXISTING	10'X12"	MOBILE	STORAGE AND WORK SPACE
INSTRUMENT	TC-1	ROLLAWAY TOOL CHEST AND TOP BOX	1	2'X6'	NEW	5' IN FRONT	MOBILE	
INSTRUMENT	CS-1	CHARGING STATION		3'X6"	NEW	5' IN FRONT	FIXED	POWER TOOLS AND TEST EQUIPMENT
INSTRUMENT	TG-1	TABLE GRINDER		1'X1'	NEW			
INSTRUMENT	WB-1	WORKTABLE	2	6'X10'	NEW	5' ALL AROUND	FIXED	
INSTRUMENT	DP-1	DRILL PRESS	1	2'X3'	NEW	4' X 8'		
INSTRUMENT	BS-1	BAND SAW/ CHOP SAW	1	24" X 19"	NEW	3' X 15'		
INSTRUMENT	VH-1	VAPOR HOOD	1	6'X2'	NEW	5' EACH SIDE, 3' FRONT		
INSTRUMENT	WB-2	WORK BENCH		3'X16"	NEW	6'X20'	FIXED	ALONG THE WALL WITH SHELVING AND LIGHTING
INSTRUMENT	ST-1	STORAGE CABINETS		3'X24'X8"	NEW	8'X24'	FIXED	FLOOR TO CEILING LISTA CABINETS / DRAWERS / SHELVING
CARPENTRY	SA-1	MITER SAW	1	2'X2'	NEW	5' X 20'	FIXED	INCORPORATED INTO 20' WORK BENCH
CARPENTRY	TS-1	TABLE SAW	1		NEW	6' X 20'	MOBILE	
CARPENTRY	AC-1	AIR COMPRESSOR	1	25 GAL	NEW	3' X 3'	FIXED	MIN 30 GAL
CARPENTRY	DC-1	DUST COLLECTION SYSTEM	1		NEW	OVER HEAD AND WALL MOUNT	FIXED	
SUPPORT	WR-1	WEIGHT BENCH	1	5'X8"	NEW	2'-6" X 2'	FIXED	
SUPPORT	FS-1	FITNESS SYSTEM	1	8'X10'	NEW	2' ALL AROUND	FIXED	
SUPPORT	TE-1	TREADMILL	1	6'X3'	NEW	2' EACH SIDE, 5' AT REAR	FIXED	
SUPPORT	SB-1	STATIONARY BIKE	1	4'X3'	NEW	2' EACH SIDE, 3' AT REAR	FIXED	
SUPPORT	EL-1	ELLIPTICAL	1	6'X2'-6"	NEW	1' EACH SIDE	FIXED	
SUPPORT	GR-1	GAS RANGE	1	30"	NEW		FIXED	
SUPPORT	DW-1	DISHWASHER	1	30"	NEW		FIXED	
SUPPORT	FR-1	REFRIGERATOR	2	4'X2'	NEW		FIXED	
SUPPORT	FR-2	ICE MAKER	1	2'X3'	NEW		FIXED	
SUPPORT	US-3	KITCHEN SINK	1	42"X21"	NEW		FIXED	
SUPPORT	US-4	BOOT WASH	1	3'X2'	NEW		FIXED	
STORAGE	SR-1	PARTS STORAGE		1'X7"	NEW		FIXED	
STORAGE	SR-2	STORAGE RACK		2'X5"	NEW		FIXED	
STORAGE	SR-3	STORAGE RACK		3'X5"	NEW		FIXED	
STORAGE	SR-4	LARGE ITEM STORAGE		3' DEEP	NEW	WIDTH VARIES	FIXED	

SPEC. NO. ---

SOBRANTE WTP FLOW RATE:

PHASE 1 RELIABLE CAPACITY: 60 MGD
 PHASE 2 RELIABLE CAPACITY: 80 MGD
 MINIMUM PLANT PRODUCTION RATE: 10 MGD

LEGEND

PHASE I
 PHASE II
 SPACE PLANNING

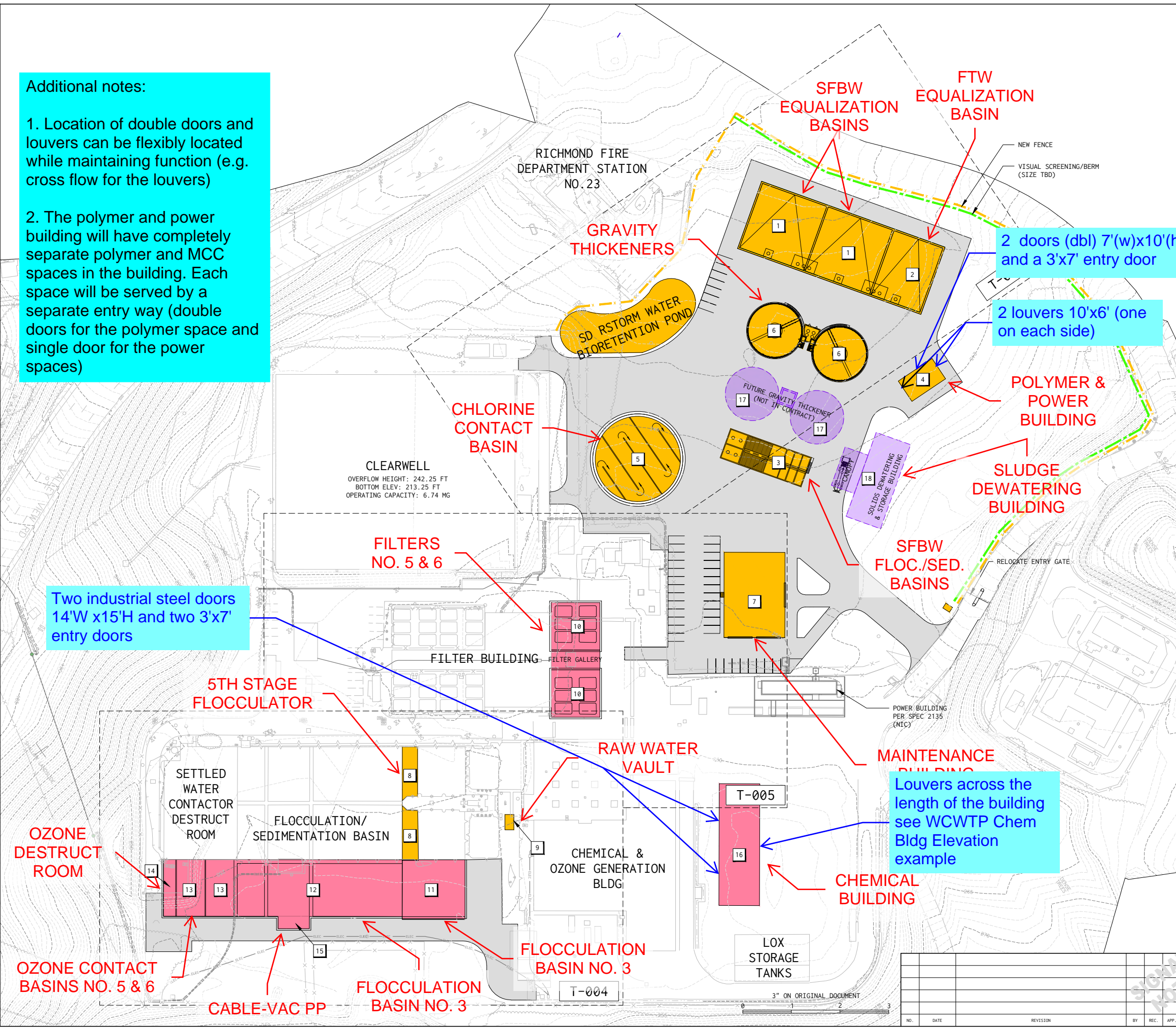
Additional notes:

1. Location of double doors and louvers can be flexibly located while maintaining function (e.g. cross flow for the louvers)
2. The polymer and power building will have completely separate polymer and MCC spaces in the building. Each space will be served by a separate entry way (double doors for the polymer space and single door for the power spaces)

TABLE						
PROPOSED FACILITIES						
ID	NAME	QUANTITY	AREA (SQ FT)	TYPE	DIMENSIONS LxWxD (FT)	VOLUME (GAL)
1	SFBW EQUALIZATION BASIN	2	7056	CONC, BURIED	84x84x36	1,900,171
2	FILTER-TO-WASTE EQUALIZATION	1	5376	CONC, BURIED	84x64x36	1,447,749
3	SFBW FLOCC/SED BASINS	2	1200	CONC, CONC ABOVE GRADE	100x12x15	--
4	POLYMER & ELECTRICAL BUILDING	1	2800	--	70x40x16	--
5	CHLORINE CONTACT BASIN	1	10387	CONC CONV RESERVOIR	115 IDx35 (121 OD)	2,719,476
6	GRAVITY THICKENER	2	1963	CONC, CONICAL BOTTOM	50 IDx24	352,511
7	MAINTENANCE BUILDING	1	7500	--	100x75x18	--
8	FLOCCULATION 5TH STAGE	2	1197	--	--	--
9	RAW WATER VAULT	1	600	CONC, BURIED	30x20x12	--
10	FILTER NO. 5 & 6	2	1152	GRAVITY, DUAL MEDIA FILTER	24x48x16	--
11	FLOCCULATION BASIN NO. 3	1	5100	RECTANGULAR, HORIZ FLOW	75x68x15	572,260
12	SEDIMENTATION BASIN NO. 3	1	14280	RECTANGULAR, HIGH RATE PLATE SETTLERS	210x68x15	1,602,327
13	OZONE CONTACT BASINS	2	2450	CONC, BURIED	70x35x20	366,545
14	OZONE DESTRUCT ROOM	1	700	--	70x10x14	--
15	CABLE VAC PP	1	576	--	--	--
16	CHEMICAL STORAGE BUILDING	1	7500	CONC BLDG	150x50x25	--
17	FUTURE GRAVITY THICKENER	2	1963	CONC, CONICAL BOTTOM	50 IDx24	220,319
18	FUTURE SOLIDS DEWATERING BLDG	1	5000	CONC BLDG	110x45x25	--

REF 3: #
 REF 4: #
 REF 1: #
 REF 2: #

PLOT SCALE: 1:16.8356
 USER: JEREMY_CURLIOS
 DATE: 07/27/2020 10:59 AM
 FILE: \\A:\TERRACE\SOBRANTE\595\00\CSD\VIEW REC FACILITIES\T001.DWG



SOBRANTE WTP LOOKING SOUTHEAST

DESIGNED BY: ---	EAST BAY MUNICIPAL UTILITY DISTRICT OAKLAND, CALIFORNIA
DESIGN CHECKED BY: ---	
DRAWN: CEU	
PROJECT ENGINEER: ---	
SOBRANTE WATER TREATMENT FACILITY MAINTENANCE & RELIABILITY PROJECT	
SITE PLAN	

Figure 1.1 - Location of New Facilities

NO.	DATE	REVISION	BY	REC.	APP.

EAST BAY MUNICIPAL UTILITY DISTRICT
SOBRANTE WATER TREATMENT PLANT
RELIABILITY IMPROVEMENT PROJECT
AESTHETICS CONCEPTUAL DESIGN
REPORT

Appendix B: Maintenance Building
Drawings

FINAL | March 2024



EBMUD Sobrante WTP Maintenance Building												
Building Space Needs												
OBSERVED EXISTING AREAS				BODR IDENTIFIED EXISTING AREAS		BODR PROGRAM		PROPOSED MAINTENANCE BUILDING PROGRAM				
Category	Space	Current Location	Area (sq. ft.)	Space	Area (sq. ft.)	Space	Area (sq. ft.)	Space	Area (sq. ft.)	Amenities	MWA Comments	Client Comments
Common Space	Locker Room	Ops	480	Locker Room	480	Locker Room	304	Locker Room	745	2 showers and 3 individual toilet rooms	Increased to provide 2 showers and 3 individual toilet rooms	
				Conference Room	0	Conference Room	308	Meeting Room	336	Adaptable space	Confirmed size for 10-12 people	
				Printer Area	40	Printer Area	40	Printer Area	0		Relocated to Library Program	
				Kitchen/Breakroom	0	Kitchen/Breakroom	242	Kitchen/Breakroom	504	Small appliances, ice maker	Increased to accommodate 10-12 people	
				Janitorial	0	Janitorial	18	Janitorial	55	Paper good storage and mop sink		
				MCC Room	0	MCC Room	182	Mechanical Room	170		Size will vary, Increased to allow for HVAC storage	
								Electrical Room	100			
								IT/Telecom	100			
				Supervisor Office	0	Supervisor Office	100	Supervisor Office	144	Hot desk for all supervisors	Increased based on standard office size	
								Document Storage and Review	327	Plan review & printer area	Increased to accommodate all trades, replaces individual trade spaces	
								Hazardous Storage	0	Relocated outside	Based on existing hazardous storage	
								Privacy/Lactation Room	78	Chair, sink, refrigerator, elec		
								Health/Wellness Room	633			
								Mud Room	136			
							Vestibule	88				
							Restroom	83				
							Emergency Supplies	50				
			TOTAL SF		TOTAL SF		TOTAL SF		TOTAL SF			
			480		520		1,194		3,549			
Trade - Mechanical	Storage	Ops, Ozone, Conex	730	Storage	840	Storage	406	Storage	1,168		Based on current storage + clearances	
	Shop	Ops	440	Shop & Tools	440	Shop & Tools	1,418	Shop & Tools	1,638		Based on Air Prep Room Proposal	
	Workstations	Ops	144	Workstations	144	Workstations (4)	286	Workstations (4)	260		Standardized workstation square footage @ 65sf	
			TOTAL SF		TOTAL SF		TOTAL SF		TOTAL SF			
			1,314		1,424		2,110		3,066			
Trade - Electrical	Storage	Ops, Ozone, Conex	831	Storage	510	Storage	518	Storage	668		Based on current storage + clearances	
	Shop	Ops	196	Documents	360	Documents	199	Library	0		Move to shared support space	
	Workstations	Ops	196	Shop	92	Shop	112	Shop	866		Based on equipment RFI responses	
				Workstations	300	Workstations (5)	308	Workstations (5)	325		Standardized workstation square footage @ 65sf	
			TOTAL SF		TOTAL SF		TOTAL SF		TOTAL SF			
			1,223		1,262		1,137		1,859			
Trade - Instrument	Storage	Ops, Conex	775	Storage	454	Storage	420	Shop and Storage	2,097		Based on current storage + clearances	
	Shop	Ops	0	Shop	0	Shop	140				Based on equipment RFI responses	
	Workstations	Ops	294	Workstations	294	Workstations (4)	300	Workstations (5)	325		1 add'l workstation based on equipment RFI	
			TOTAL SF		TOTAL SF		TOTAL SF		TOTAL SF			
			1,069		748		860		2,422			

Category	OBSERVED EXISTING AREAS			BODR IDENTIFIED EXISTING AREAS		BODR PROGRAM		PROPOSED MAINTENANCE BUILDING PROGRAM			MWA Comments	Client Comments	
	Space	Current Location	Area (sq. ft.)	Space	Area (sq. ft.)	Space	Area (sq. ft.)	Space	Area (sq. ft.)	Amenities			
Trade - Carpentry	Storage	Conex, Boneyards	320	Storage	160	Storage	165	Shop and Storage	1,079		Based on current storage + clearances		
	Shop		0	Shop	160	Shop	224				Based on comments in workshop		
	Workstations		0	Workstations	0	Workstations (2)	132	Workstations (2)	130		Standardized workstation square footage @ 65sf		
			TOTAL SF		TOTAL SF		TOTAL SF		TOTAL SF				
			320		320		521		1,209				
Trade - Paint	Storage	Conex Box	360	Storage	160	Storage	169	Shop and Storage	686		Based on current storage + clearances		
	Shop		0	Shop	160	Shop	192	Outdoor Work Space		Covered outdoor work bench	Relocated outside based on workshop comments		
	Workstations		0	Workstations	0	Workstations (2)	132	Workstations (2)	130		Standardized workstation square footage @ 65sf		
			TOTAL SF		TOTAL SF		TOTAL SF		TOTAL SF				
			360		320		493		816				
Trade - Grounds	Storage	Sheds, Trailer	490	Storage	490	Storage	200	Shop and Storage	865	Dry goods, Power tools w/ spill containment, incl. chem storage and mixing workbench and flammable storage	Based on current storage + clearances		
	Shop		0										
	Workstations	Trailer	660	Workstations	660	Workstations (3)	140	Workstations (4)	260		Standardized workstation square footage @ 65sf		
											1 add'l workstation based on workshop feedback		
			TOTAL SF		TOTAL SF		TOTAL SF		TOTAL SF				
			1,150		1,150		340		1,125				



EAST BAY MUNICIPAL UTILITIES DISTRICT
 SOBRANTE WATER TREATMENT PLANT
 5500 AMEND ROAD
 EL SOBRANTE, CA 94803

NOTES

OCCUPANCY LOAD SCHEDULE						
ROOM NAME	ROOM NUMBER	AREA	OCCUPANCY			
			GROUP	FUNCTION OF SPACE	LOAD FACTOR	OCCUPANT NUMBER
GROUPS WORK AREA	001	178 SF	F-1 (COVERED)	INDUSTRIAL	150 SF	2
PAINT WORK AREA	002	280 SF	F-1 (COVERED)	INDUSTRIAL	150 SF	2
VESTIBULE	101	89 SF	B	BUSINESS	150 SF	1
DOCUMENT REVIEW & STORAGE	102	276 SF	B	BUSINESS	150 SF	3
MEETING ROOM	103	476 SF	B	BUSINESS	15 SF	25
OFFICE	104	130 SF	B	BUSINESS	150 SF	1
WORKSTATIONS	105	2166 SF	B	BUSINESS	150 SF	14
MUD ROOM	106	165 SF	B	BUSINESS	150 SF	2
LOCKER ROOM	107	865 SF	B	BUSINESS	150 SF	6
PRIVACY/LACTATION ROOM	108	63 SF	B	BUSINESS	150 SF	1
CORRIDOR	109	587 SF	B	BUSINESS	150 SF	6
HEALTH & WELLNESS	110	637 SF	B	EXERCISE ROOM	50 SF	12
EMERGENCY SUPPLIES	111	48 SF	B	BUSINESS	150 SF	1
JANITOR	112	53 SF	B	BUSINESS	150 SF	1
IT/TELECOM	113	100 SF	B	MECHANICAL EQUIPMENT	300 SF	1
ELECTRICAL	114	100 SF	B	MECHANICAL EQUIPMENT	300 SF	1
MECHANICAL	115	105 SF	B	MECHANICAL EQUIPMENT	300 SF	1
KITCHEN/ BREAK ROOM	116	498 SF	B	BUSINESS	150 SF	4
SHOP CORRIDOR	117	798 SF	F-1	BUSINESS	150 SF	7
ELECTRICAL SHOP	118	874 SF	F-1	INDUSTRIAL	150 SF	6
INSTRUMENTATION	119	2077 SF	F-1	INDUSTRIAL	150 SF	14
ELECTRICAL STORAGE	120	674 SF	F-1	STORAGE	300 SF	3
MECHANICAL STORAGE	121	1158 SF	F-1	STORAGE	300 SF	4
CARPENTRY	122	1090 SF	F-1	INDUSTRIAL	150 SF	8
MECHANICAL SHOP	123	1622 SF	F-1	INDUSTRIAL	150 SF	11
PAINT	124	703 SF	F-1	INDUSTRIAL	150 SF	5
GROUPS	125	871 SF	F-1	INDUSTRIAL	150 SF	6
RESTROOM	126	85 SF	F-1	BUSINESS	150 SF	1
TOTALS		16771 SF				

AREA: OCCUPANTS: 160

APPLICABLE CODES AND STANDARDS	
• 2019 CALIFORNIA BUILDING CODE:	• 2019 CALIFORNIA ENERGY CODE
• 2019 CALIFORNIA ELECTRICAL CODE	• 2019 CALIFORNIA FIRE CODE
• 2019 CALIFORNIA MECHANICAL CODE	• CALOSHA
• 2019 CALIFORNIA PLUMBING CODE	• CONTRA COSTA COUNTY MUNICIPAL CODE
• 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE	

BUILDING DESCRIPTION		CODE REVIEW	
1		1 STORY ABOVE GROUND LEVEL PROPOSED HEIGHT: 25' ABOVE GRADE PROPOSED AREA (GSF): 17,600 SF	
2	OCCUPANCY	OCCUPANCY GROUPS	NOTES
		CBC SECTION 304.1 OFFICE AND SUPPORT SPACES 306.3 SHOPS	B F-1
3	BUILDING HEIGHT/OCCUPANCY	ALLOWED	PROVIDED
	ALLOWABLE HEIGHT	CBC TABLE 504.3 B, F, S, OCCUPANCY TYPE II B SPRINKLERED	75' ABOVE GRADE PLANE
	ALLOWABLE STORIES	CBC TABLE 504.4 B OCCUPANCY TYPE II B SPRINKLERED F-1 OCCUPANCY TYPE II B SPRINKLERED	4 STORIES ABOVE GRADE PLANE 3 STORIES ABOVE GRADE PLANE
	ALLOWABLE AREA	CBC TABLE 506.2 B OCCUPANCY TYPE II B S1 92,000 SF F-1 OCCUPANCY TYPE II B S1 62,000 SF	
	OCCUPANCY SEPARATIONS	CBC TABLE 508.4 B, F-1, NON RATED OCCUPANCY SEPARATION REQUIRED	NO SEPARATION
			BUILDING WILL BE EQUIPPED AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA 13
4	FIRE RESISTIVE REQUIREMENTS	REQUIRED	PROVIDED
	CONSTRUCTION TYPE	CBC SECTION 602.5 TYPE II B NON-COMBUSTIBLE	TYPE II B
	BUILDING ELEMENTS	PRIMARY STRUCTURAL FRAME:	0 HOURS
		BEARING WALLS (INT & EXT):	0 HOURS
		NO-BEARING WALLS (INT & EXT):	0 HOURS
		FLOOR CONSTRUCTION:	0 HOURS
		ROOF CONSTRUCTION:	0 HOURS
		EXTERIOR WALLS	CBC TABLE 602 TYPE II B CONSTRUCTION, GROUP F-1 OCCUPANCY (MOST RESTRICTIVE) WHERE FIRE SEPARATION DISTANCE >10 FEET:
			15' MIN.
5	FIRE PROTECTION	REQUIRED	PROVIDED
	FIRE PROTECTION	CBC SECTION 903 FIRE PROTECTION REQUIRED FOR OCCUPANCIES B, F-1 > 5,000 SF*	BUILDING WILL BE EQUIPPED AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA 13
	FIRE EXTINGUISHERS	CBC SECTION 906 PORTABLE FIRE EXTINGUISHERS SHALL BE INSTALLED FOR OCCUPANCIES B, F-1	PROVIDED
			*PER CONTRA COSTA COUNTY CODE CH. 722-2.004 AMENDMENTS
6	MEANS OF EGRESS	REQUIRED	PROVIDED
	OCCUPANCY LOAD FACTOR	CBC TABLE 1004.1.2 SEE OCCUPANCY LOAD SCHEDULE	SEE OCCUPANCY LOAD SCHEDULE
	ESTIMATED OCCUPANT LOAD BY ROOM		SEE OCCUPANCY LOAD SCHEDULE
	REQUIRED CORRIDOR WIDTH	CBC SECTION 1005.1 MIN. WIDTH = 44"	44"
	NUMBER OF EXITS	CBC TABLE 1006.3.1, TABLE 1006.3.2 2 EXITS	2 EXITS
	MAX. COMMON PATH OF EGRESS TRAVEL	CBC TABLE 1006.3.2 B, F OCCUPANCY: 100' (SPRINKLERED)	85'
	EXIT ACCESS TRAVEL DISTANCE	CBC TABLE 1017.2 B OCCUPANCY: 300', F-1: 250' (SPRINKLERED)	120'
	SEPARATION OF EXITS	CBC SECTION 1007.1.1 EXCEPTION 2 TWO EXISTS MUST BE PLACED A DISTANCE APART EQUAL TO NOT LESS THAN 1/3 OF THE LENGTH OF THE MAXIMUM OVERALL DIAGONAL DIMENSION OF THE BUILDING, WHERE THE BUILDING IS EQUIPPED WITH AN AUTOMATIC SPRINKLER SYSTEM	150' > 1/3*227
7	PLUMBING FIXTURES	OCCUPANCY COUNT	REQUIRED
	CALCULATED FIXTURE COUNT	CPC TABLE 422.1, TABLE A	B = 39.3 M: 20 F: 20 F-1 = 4 M: 2 F: 2
			TOILET: M: 1 F: 2 LAVATORY: M: 1 F: 1 URINAL: M: 1 DRINKING FOUNTAIN: 0
			TOILET: 3 UNISEX LAVATORY: 2 UNISEX URINAL: 0 DRINKING FOUNTAIN: 1
8	ACCESSIBILITY	SPACES ACCESSIBLE PER CBC 11B. MACHINERY SPACES FREQUENTED ONLY BY SERVICE PERSONNEL FOR MAINTENANCE, REPAIR, OR OCCASIONAL MONITORING OF EQUIPMENT ARE NOT REQUIRED TO COMPLY WITH ACCESSIBILITY REQUIREMENTS OR TO BE ON AN ACCESSIBLE ROUTE PER CBC 11B-203.5	

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SHEET TITLE
CODE REVIEW

SOWTP MAINTENANCE BUILDING

Scale	MWA Project No.:
Drawn DE	202025
Designed TG	Sheet
Checked GR	A001
Issue Date 11/16/2021	

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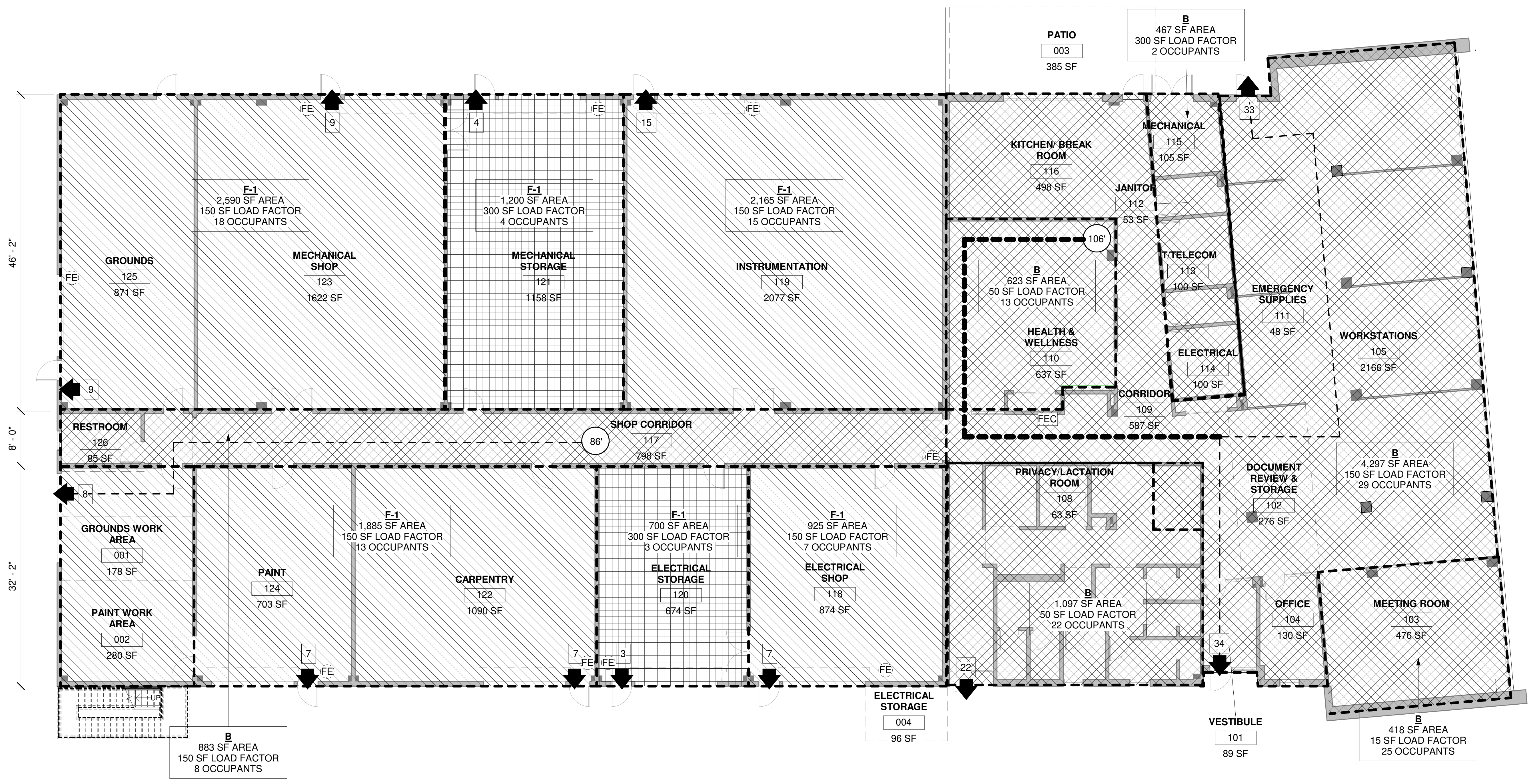
SHEET TITLE
CODE PLAN

SOWTP MAINTENANCE BUILDING

Scale	As indicated	MWA Project No.:	202025
Drawn	DE	Sheet	
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		A002

LEGEND

XX → OCCUPANT LOAD	- - - - PATH OF TRAVEL	F-1 ← OCCUPANCY TYPE
(XX) REMOTE POINT (BEGIN EGRESS)	●●●● COMMON PATH OF TRAVEL	← AREA
▨ B OCCUPANCY	- - - - AREA LINE BOUNDARY	← LOAD FACTOR
▧ F-1 OCCUPANCY	FE FIRE EXTINGUISHER CABINET	← OCCUPANT (S)
▩ S-1 OCCUPANCY	FEC FIRE EXTINGUISHER	



1 CODE PLAN
 1/8" = 1'-0"



EAST BAY MUNICIPAL UTILITIES DISTRICT
SOBRANTE WATER TREATMENT PLANT
5500 AMEND ROAD
EL SOBRANTE, CA 94803

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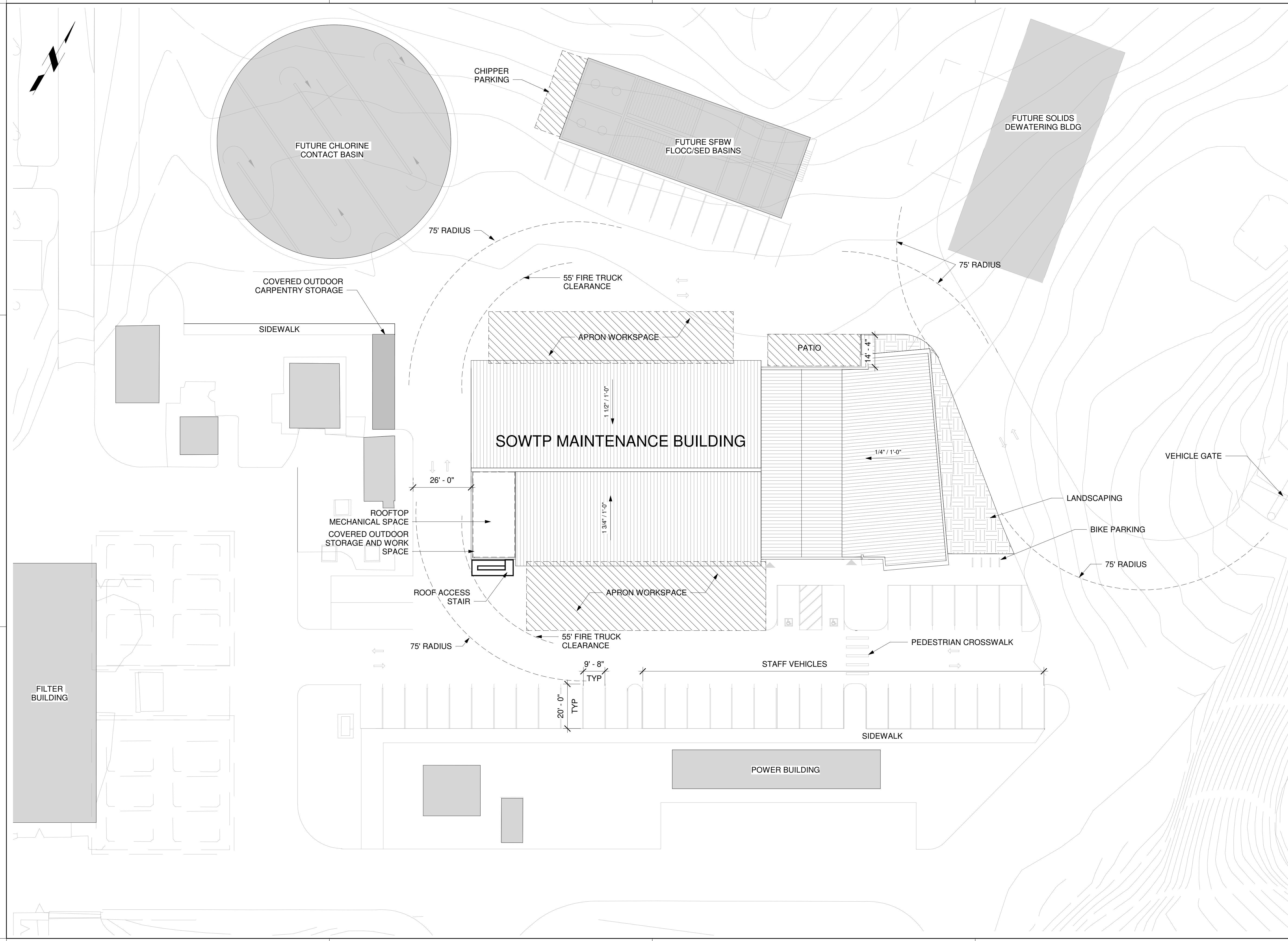


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SHEET TITLE
SITE PLAN

SOWTP MAINTENANCE BUILDING

Scale	1" = 20'-0"	MWA Project No.:	202025
Drawn	DE	Sheet	
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		A100





EAST BAY MUNICIPAL UTILITIES DISTRICT
SOBRANTE WATER TREATMENT PLANT
5500 AMEND ROAD
EL SOBRANTE, CA 94803

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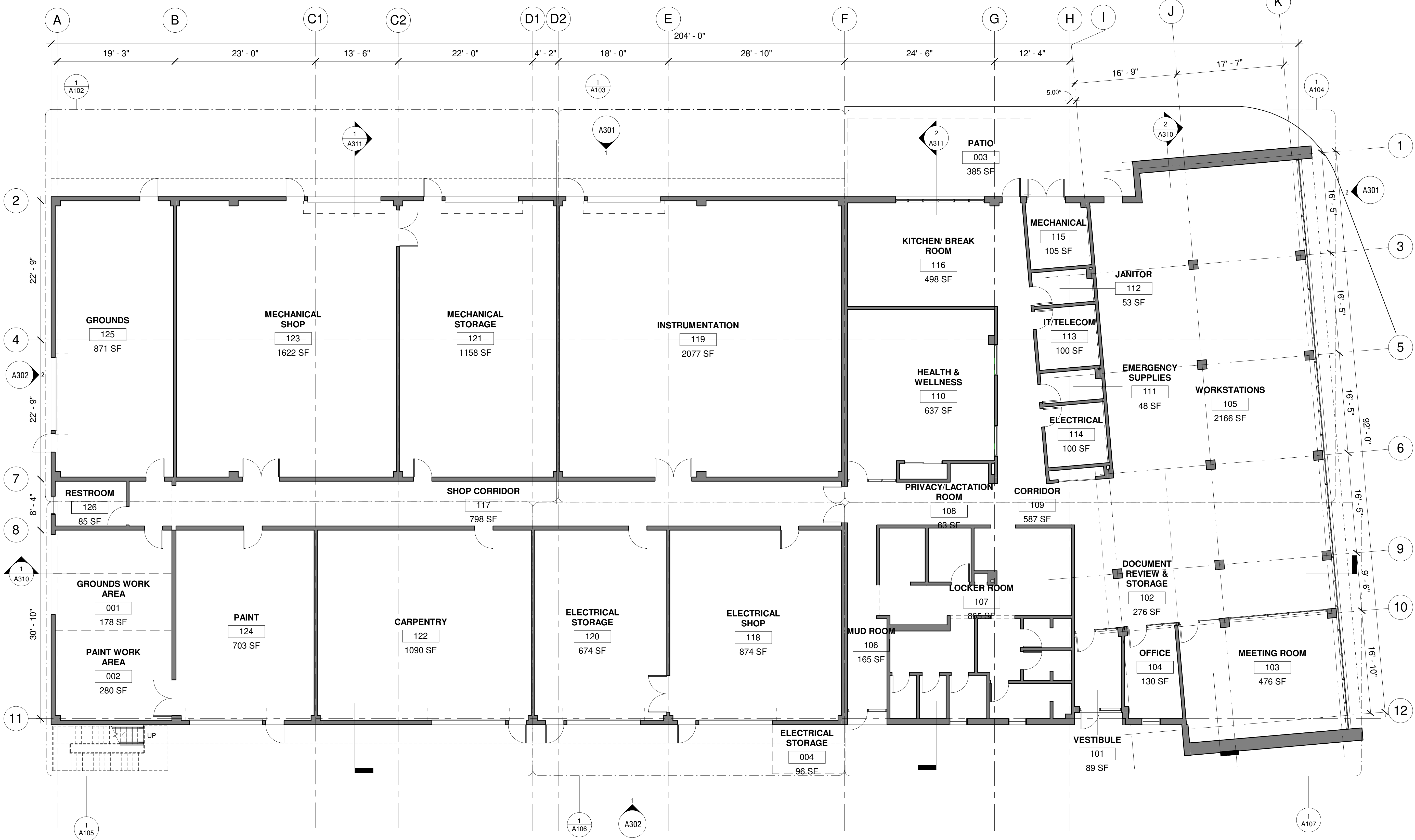


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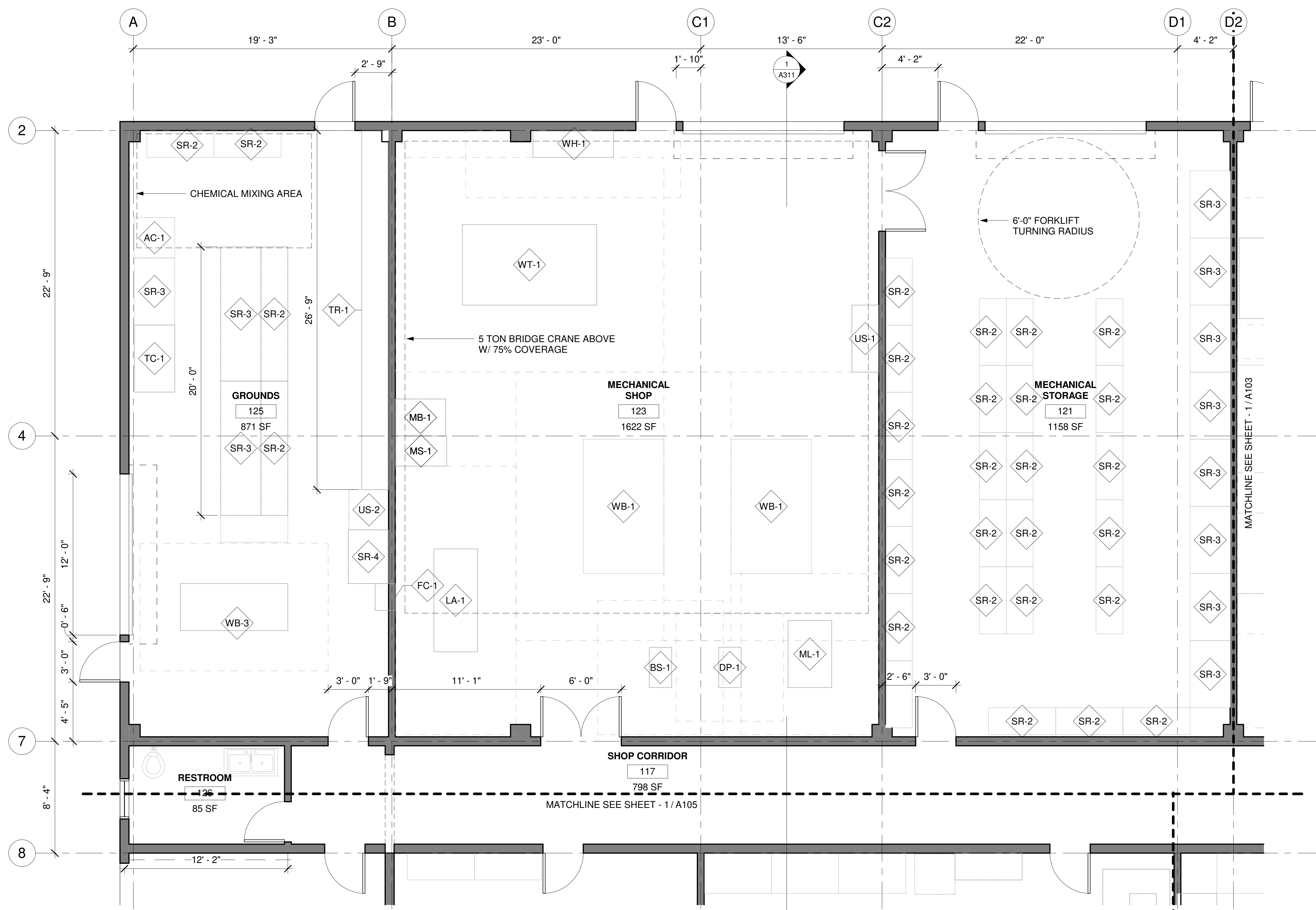
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OVERALL PLAN

SOWTP MAINTENANCE BUILDING

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Designed	TG		
Checked	GR		
Issue Date	11/16/2021		

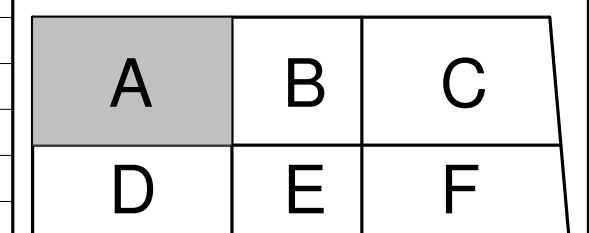


NOTES



EQUIPMENT SCHEDULE	
LABEL	EQUIPMENT NAME
AC-1	AIR COMPRESSOR
BS-1	BAND SAW
BS-2	BAND SAW/ CHOP SAW
BT-1	LARGE BREAKER TESTER
BT-2	SMALL CIRCUIT BREAKER TESTER
CB-1	CONDUIT BENDER
CS-1	CHARGING STATION
CT-1	CONDUIT THREADER
DC-1	DUST COLLECTION SYSTEM
DP-1	DRILL PRESS
DW-1	DISHWASHER
EL-1	ELLIPTICAL
ER-1	ELECTRIC RANGE
FC-1	FLAMMABLE CABINET
FR-1	REFRIGERATOR
FR-2	ICE MAKER
FS-1	FITNESS SYSTEM
JC-1	JIB CRANE
LA-1	LATHE
MB-1	SHEET METAL BRAKE
ML-1	MILL
MS-1	SHEET METAL SHEAR
SA-1	MITER SAW
SB-1	STATIONARY BIKE
SR-1	STORAGE RACK
SR-2	STORAGE RACK
SR-3	LARGE ITEM STORAGE RACK
SR-4	STORAGE RACK
ST-1	STORAGE CABINET
TC-1	TOOL CHEST
TE-1	TREADMILL
TG-1	TABLE GRINDER
TG-2	TABLE GRINDER
TR-1	TOOL RACK
TS-1	TABLE SAW
US-1	UTILITY SINK
US-2	UTILITY SINK
US-3	KITCHEN SINK
US-4	BOOT WASH
VH-1	VENT HOOD
WB-2	WORKTABLE
WB-3	WORKTABLE
WB-4	WORKTABLE
WB-5	WORKTABLE
WF-1	WATER FOUNTAIN
WH-1	WELDING HOOD
WR-1	WEIGHT BENCH
WS-2	WET WORK STATION
WS-3	TEST STATION
WT-1	WORKTABLE
YSI-1	YSI PROFILER

KEY PLAN



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SHEET TITLE

AREA PLAN A

SOWTP MAINTENANCE BUILDING

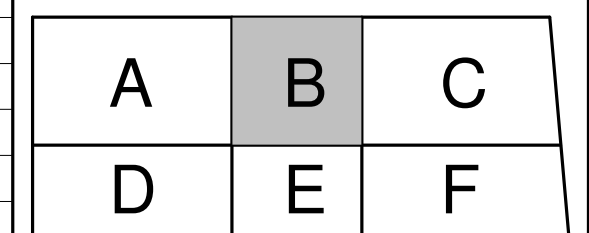
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Checked	GR		
Issue Date	11/16/2021		



EAST BAY MUNICIPAL UTILITIES DISTRICT
 SOBRANTE WATER TREATMENT PLANT
 5500 AMEND ROAD
 EL SOBRANTE, CA 94803

NOTES

KEY PLAN



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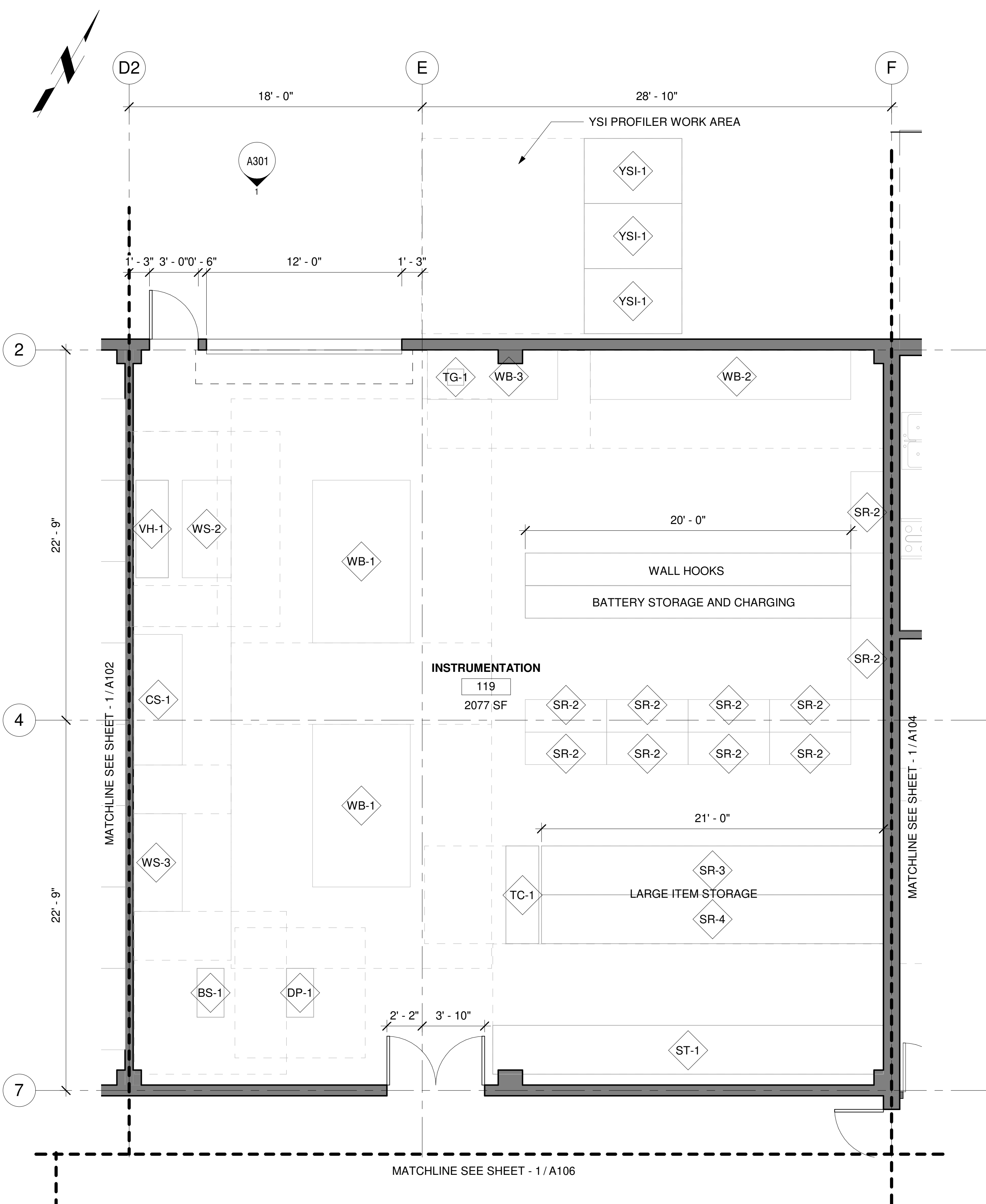
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SHEET TITLE
 AREA PLAN B

SOWTP MAINTENANCE BUILDING

Scale	1/4" = 1'-0"	MWA Project No.:	202025
Drawn	DE	Sheet	A103
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		

EQUIPMENT SCHEDULE	
LABEL	EQUIPMENT NAME
AC-1	AIR COMPRESSOR
BS-1	BAND SAW
BS-2	BAND SAW/ CHOP SAW
BT-1	LARGE BREAKER TESTER
BT-2	SMALL CIRCUIT BREAKER TESTER
CB-1	CONDUIT BENDER
CS-1	CHARGING STATION
CT-1	CONDUIT THREADER
DC-1	DUST COLLECTION SYSTEM
DP-1	DRILL PRESS
DW-1	DISHWASHER
EL-1	ELLIPTICAL
ER-1	ELECTRIC RANGE
FC-1	FLAMMABLE CABINET
FR-1	REFRIGERATOR
FR-2	ICE MAKER
FS-1	FITNESS SYSTEM
JC-1	JIB CRANE
LA-1	LATHE
MB-1	SHEET METAL BRAKE
ML-1	MILL
MS-1	SHEET METAL SHEAR
SA-1	MITER SAW
SB-1	STATIONARY BIKE
SR-1	STORAGE RACK
SR-2	STORAGE RACK
SR-3	LARGE ITEM STORAGE RACK
SR-4	STORAGE RACK
ST-1	STORAGE CABINET
TC-1	TOOL CHEST
TE-1	TREADMILL
TG-1	TABLE GRINDER
TG-2	TABLE GRINDER
TR-1	TOOL RACK
TS-1	TABLE SAW
US-1	UTILITY SINK
US-2	UTILITY SINK
US-3	KITCHEN SINK
US-4	BOOT WASH
VH-1	VENT HOOD
WB-2	WORKTABLE
WB-3	WORKTABLE
WB-4	WORKTABLE
WB-5	WORKTABLE
WF-1	WATER FOUNTAIN
WH-1	WELDING HOOD
WR-1	WEIGHT BENCH
WS-2	WET WORK STATION
WS-3	TEST STATION
WT-1	WORKTABLE
YSI-1	YSI PROFILER



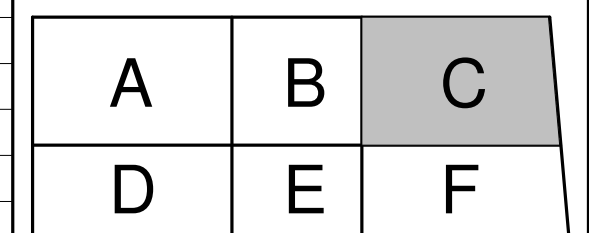
MATCHLINE SEE SHEET - 1 / A106

MATCHLINE SEE SHEET - 1 / A102

MATCHLINE SEE SHEET - 1 / A104

NOTES

KEY PLAN



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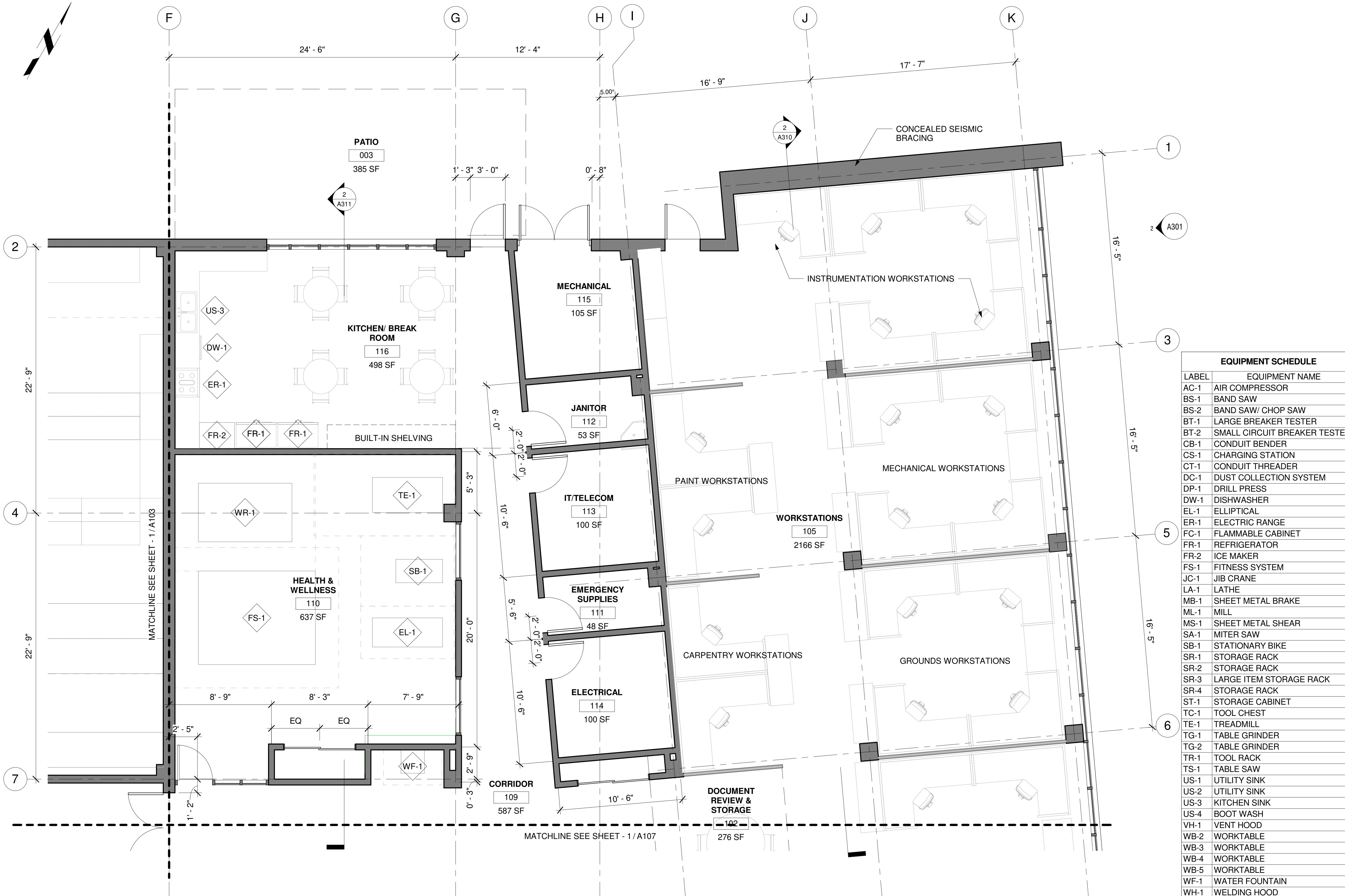
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SHEET TITLE
AREA PLAN C

SOWTP MAINTENANCE BUILDING

Scale	1/4" = 1'-0"	MWA Project No.:	202025
Drawn	DE	Sheet	A104
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		



EQUIPMENT SCHEDULE

LABEL	EQUIPMENT NAME
AC-1	AIR COMPRESSOR
BS-1	BAND SAW
BS-2	BAND SAW/ CHOP SAW
BT-1	LARGE BREAKER TESTER
BT-2	SMALL CIRCUIT BREAKER TESTER
CB-1	CONDUIT BENDER
CS-1	CHARGING STATION
CT-1	CONDUIT THREADER
DC-1	DUST COLLECTION SYSTEM
DP-1	DRILL PRESS
DW-1	DISHWASHER
EL-1	ELLIPTICAL
ER-1	ELECTRIC RANGE
FC-1	FLAMMABLE CABINET
FR-1	REFRIGERATOR
FR-2	ICE MAKER
FS-1	FITNESS SYSTEM
JC-1	JIB CRANE
LA-1	LATHE
MB-1	SHEET METAL BRAKE
ML-1	MILL
MS-1	SHEET METAL SHEAR
SA-1	MITER SAW
SB-1	STATIONARY BIKE
SR-1	STORAGE RACK
SR-2	STORAGE RACK
SR-3	LARGE ITEM STORAGE RACK
SR-4	STORAGE RACK
ST-1	STORAGE CABINET
TC-1	TOOL CHEST
TE-1	TREADMILL
TG-1	TABLE GRINDER
TG-2	TABLE GRINDER
TR-1	TOOL RACK
TS-1	TABLE SAW
US-1	UTILITY SINK
US-2	UTILITY SINK
US-3	KITCHEN SINK
US-4	BOOT WASH
VH-1	VENT HOOD
WB-2	WORKTABLE
WB-3	WORKTABLE
WB-4	WORKTABLE
WB-5	WORKTABLE
WF-1	WATER FOUNTAIN
WH-1	WELDING HOOD
WR-1	WEIGHT BENCH
WS-2	WET WORK STATION
WS-3	TEST STATION
WT-1	WORKTABLE
YSI-1	YSI PROFILER

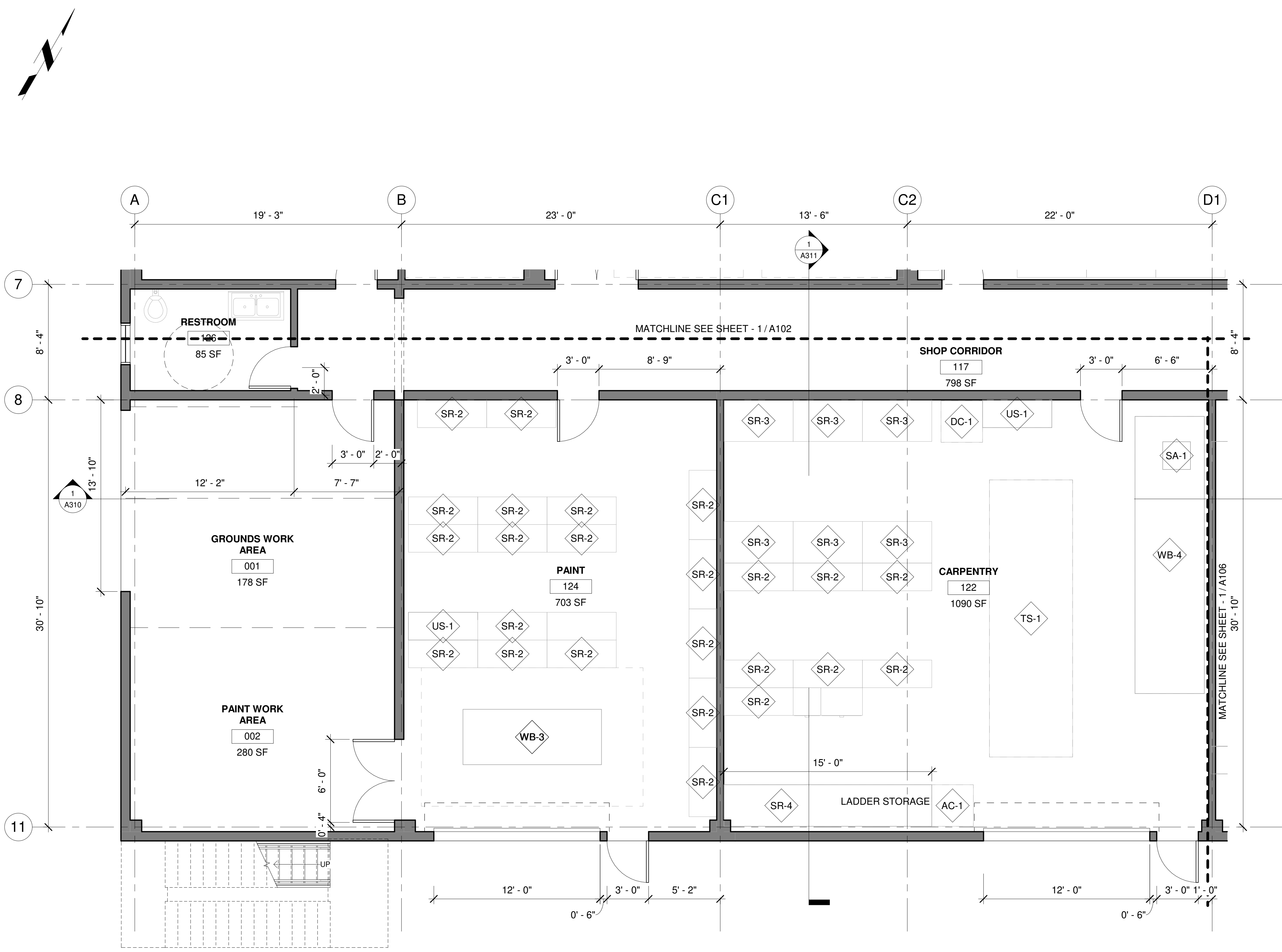
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MATCHLINE SEE SHEET - 1/A107



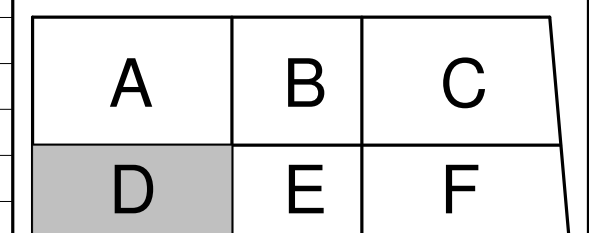
EAST BAY MUNICIPAL UTILITIES DISTRICT
 SOBRANTE WATER TREATMENT PLANT
 5500 AMEND ROAD
 EL SOBRANTE, CA 94803

NOTES



EQUIPMENT SCHEDULE	
LABEL	EQUIPMENT NAME
AC-1	AIR COMPRESSOR
BS-1	BAND SAW
BS-2	BAND SAW/ CHOP SAW
BT-1	LARGE BREAKER TESTER
BT-2	SMALL CIRCUIT BREAKER TESTER
CB-1	CONDUIT BENDER
CS-1	CHARGING STATION
CT-1	CONDUIT THREADER
DC-1	DUST COLLECTION SYSTEM
DP-1	DRILL PRESS
DW-1	DISHWASHER
EL-1	ELLIPTICAL
ER-1	ELECTRIC RANGE
FC-1	FLAMMABLE CABINET
FR-1	REFRIGERATOR
FR-2	ICE MAKER
FS-1	FITNESS SYSTEM
JC-1	JIB CRANE
LA-1	LATHE
MB-1	SHEET METAL BRAKE
ML-1	MILL
MS-1	SHEET METAL SHEAR
SA-1	MITER SAW
SB-1	STATIONARY BIKE
SR-1	STORAGE RACK
SR-2	STORAGE RACK
SR-3	LARGE ITEM STORAGE RACK
SR-4	STORAGE RACK
ST-1	STORAGE CABINET
TC-1	TOOL CHEST
TE-1	TREADMILL
TG-1	TABLE GRINDER
TG-2	TABLE GRINDER
TR-1	TOOL RACK
TS-1	TABLE SAW
US-1	UTILITY SINK
US-2	UTILITY SINK
US-3	KITCHEN SINK
US-4	BOOT WASH
VH-1	VENT HOOD
WB-2	WORKTABLE
WB-3	WORKTABLE
WB-4	WORKTABLE
WB-5	WORKTABLE
WF-1	WATER FOUNTAIN
WH-1	WELDING HOOD
WR-1	WEIGHT BENCH
WS-2	WET WORK STATION
WS-3	TEST STATION
WT-1	WORKTABLE
YSI-1	YSI PROFILER

KEY PLAN



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SHEET TITLE

AREA PLAN D

SOWTP MAINTENANCE BUILDING

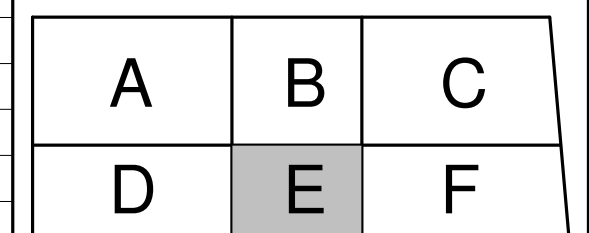
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Drawn	DE	Sheet	A105
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		



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 SOBRANTE WATER TREATMENT PLANT
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 EL SOBRANTE, CA 94803

NOTES

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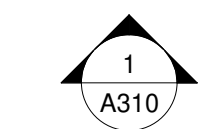
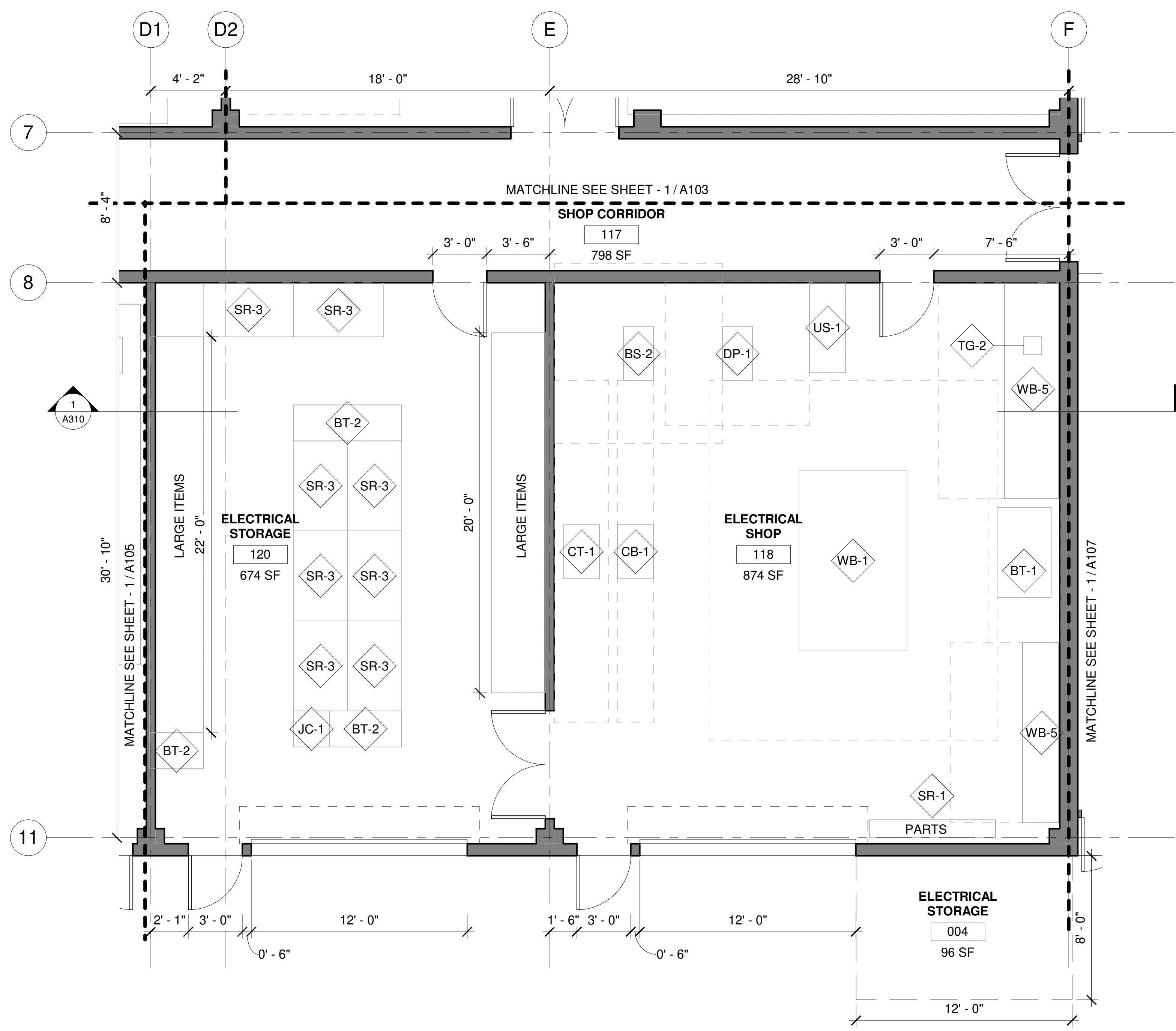


SHEET TITLE
 AREA PLAN E

SOWTP MAINTENANCE BUILDING

Scale	1/4" = 1'-0"	MWA Project No.:	202025
Drawn	DE	Sheet	A106
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		

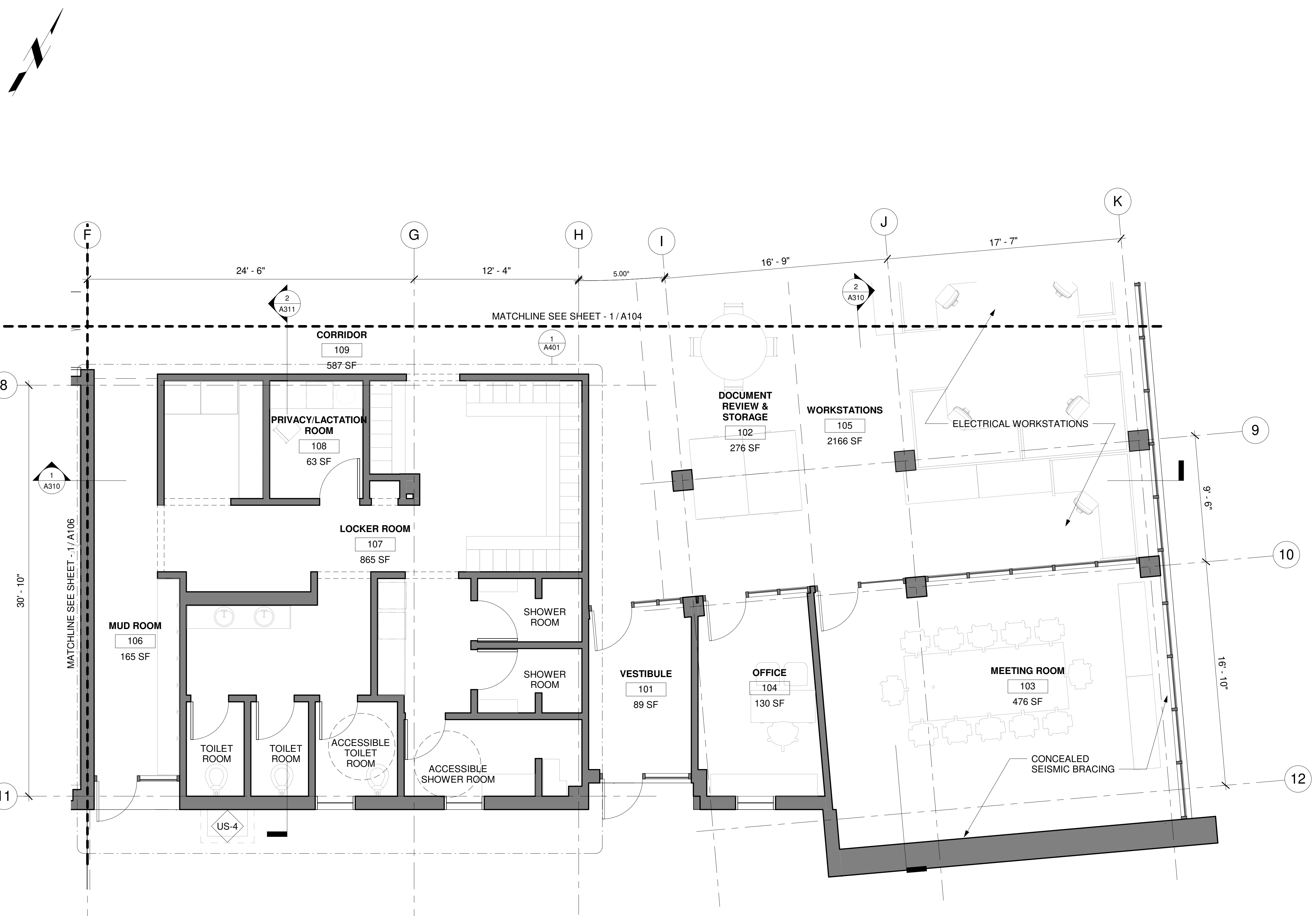
EQUIPMENT SCHEDULE	
LABEL	EQUIPMENT NAME
AC-1	AIR COMPRESSOR
BS-1	BAND SAW
BS-2	BAND SAW/ CHOP SAW
BT-1	LARGE BREAKER TESTER
BT-2	SMALL CIRCUIT BREAKER TESTER
CB-1	CONDUIT BENDER
CS-1	CHARGING STATION
CT-1	CONDUIT THREADER
DC-1	DUST COLLECTION SYSTEM
DP-1	DRILL PRESS
DW-1	DISHWASHER
EL-1	ELLIPTICAL
ER-1	ELECTRIC RANGE
FC-1	FLAMMABLE CABINET
FR-1	REFRIGERATOR
FR-2	ICE MAKER
FS-1	FITNESS SYSTEM
JC-1	JIB CRANE
LA-1	LATHE
MB-1	SHEET METAL BRAKE
ML-1	MILL
MS-1	SHEET METAL SHEAR
SA-1	MITER SAW
SB-1	STATIONARY BIKE
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SR-2	STORAGE RACK
SR-3	LARGE ITEM STORAGE RACK
SR-4	STORAGE RACK
ST-1	STORAGE CABINET
TC-1	TOOL CHEST
TE-1	TREADMILL
TG-1	TABLE GRINDER
TG-2	TABLE GRINDER
TR-1	TOOL RACK
TS-1	TABLE SAW
US-1	UTILITY SINK
US-2	UTILITY SINK
US-3	KITCHEN SINK
US-4	BOOT WASH
VH-1	VENT HOOD
WB-2	WORKTABLE
WB-3	WORKTABLE
WB-4	WORKTABLE
WB-5	WORKTABLE
WF-1	WATER FOUNTAIN
WH-1	WELDING HOOD
WR-1	WEIGHT BENCH
WS-2	WET WORK STATION
WS-3	TEST STATION
WT-1	WORKTABLE
YSI-1	YSI PROFILER





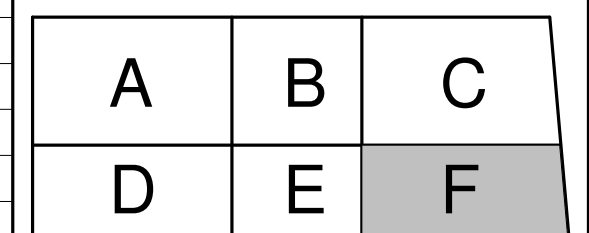
EAST BAY MUNICIPAL UTILITIES DISTRICT
 SOBRANTE WATER TREATMENT PLANT
 5500 AMEND ROAD
 EL SOBRANTE, CA 94803

NOTES



EQUIPMENT SCHEDULE	
LABEL	EQUIPMENT NAME
AC-1	AIR COMPRESSOR
BS-1	BAND SAW
BS-2	BAND SAW/ CHOP SAW
BT-1	LARGE BREAKER TESTER
BT-2	SMALL CIRCUIT BREAKER TESTER
CB-1	CONDUIT BENDER
CS-1	CHARGING STATION
CT-1	CONDUIT THREADER
DC-1	DUST COLLECTION SYSTEM
DP-1	DRILL PRESS
DW-1	DISHWASHER
EL-1	ELLIPTICAL
ER-1	ELECTRIC RANGE
FC-1	FLAMMABLE CABINET
FR-1	REFRIGERATOR
FR-2	ICE MAKER
FS-1	FITNESS SYSTEM
JC-1	JIB CRANE
LA-1	LATHE
MB-1	SHEET METAL BRAKE
ML-1	MILL
MS-1	SHEET METAL SHEAR
SA-1	MITER SAW
SB-1	STATIONARY BIKE
SR-1	STORAGE RACK
SR-2	STORAGE RACK
SR-3	LARGE ITEM STORAGE RACK
SR-4	STORAGE RACK
ST-1	STORAGE CABINET
TC-1	TOOL CHEST
TE-1	TREADMILL
TG-1	TABLE GRINDER
TG-2	TABLE GRINDER
TR-1	TOOL RACK
TS-1	TABLE SAW
US-1	UTILITY SINK
US-2	UTILITY SINK
US-3	KITCHEN SINK
US-4	BOOT WASH
VH-1	VENT HOOD
WB-2	WORKTABLE
WB-3	WORKTABLE
WB-4	WORKTABLE
WB-5	WORKTABLE
WF-1	WATER FOUNTAIN
WH-1	WELDING HOOD
WR-1	WEIGHT BENCH
WS-2	WET WORK STATION
WS-3	TEST STATION
WT-1	WORKTABLE
YSI-1	YSI PROFILER

KEY PLAN



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SHEET TITLE

AREA PLAN F

SOWTP MAINTENANCE BUILDING

Scale	1/4" = 1'-0"	MWA Project No.:	202025
Drawn	DE	Sheet	A107
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		



EAST BAY MUNICIPAL UTILITIES DISTRICT
SOBRANTE WATER TREATMENT PLANT
5500 AMEND ROAD
EL SOBRANTE, CA 94803

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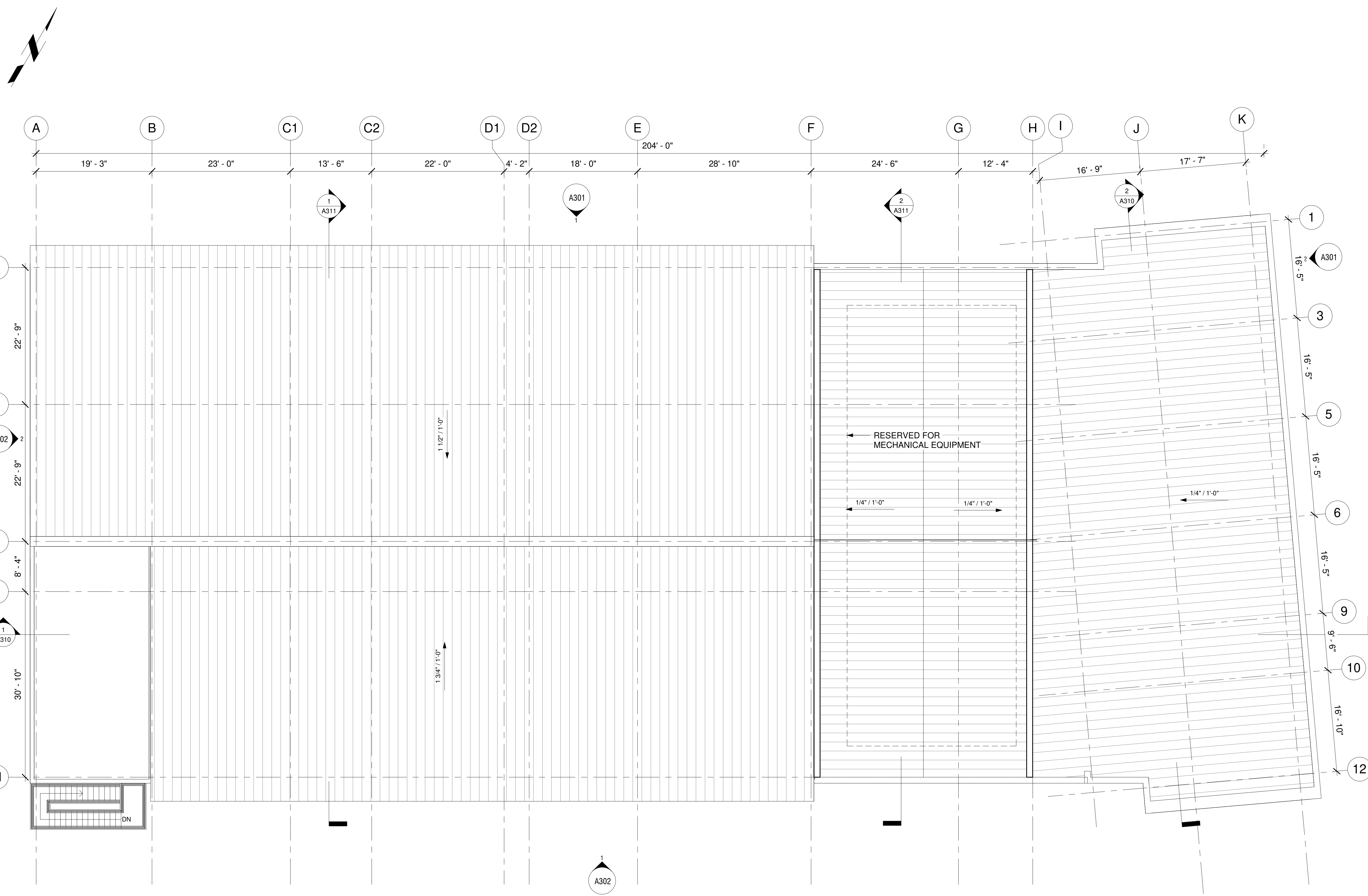


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SHEET TITLE
ROOF PLAN

SOWTP MAINTENANCE BUILDING

Scale	1/8" = 1'-0"	MWA Project No.:	202025
Drawn	DE	Sheet	A110
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		



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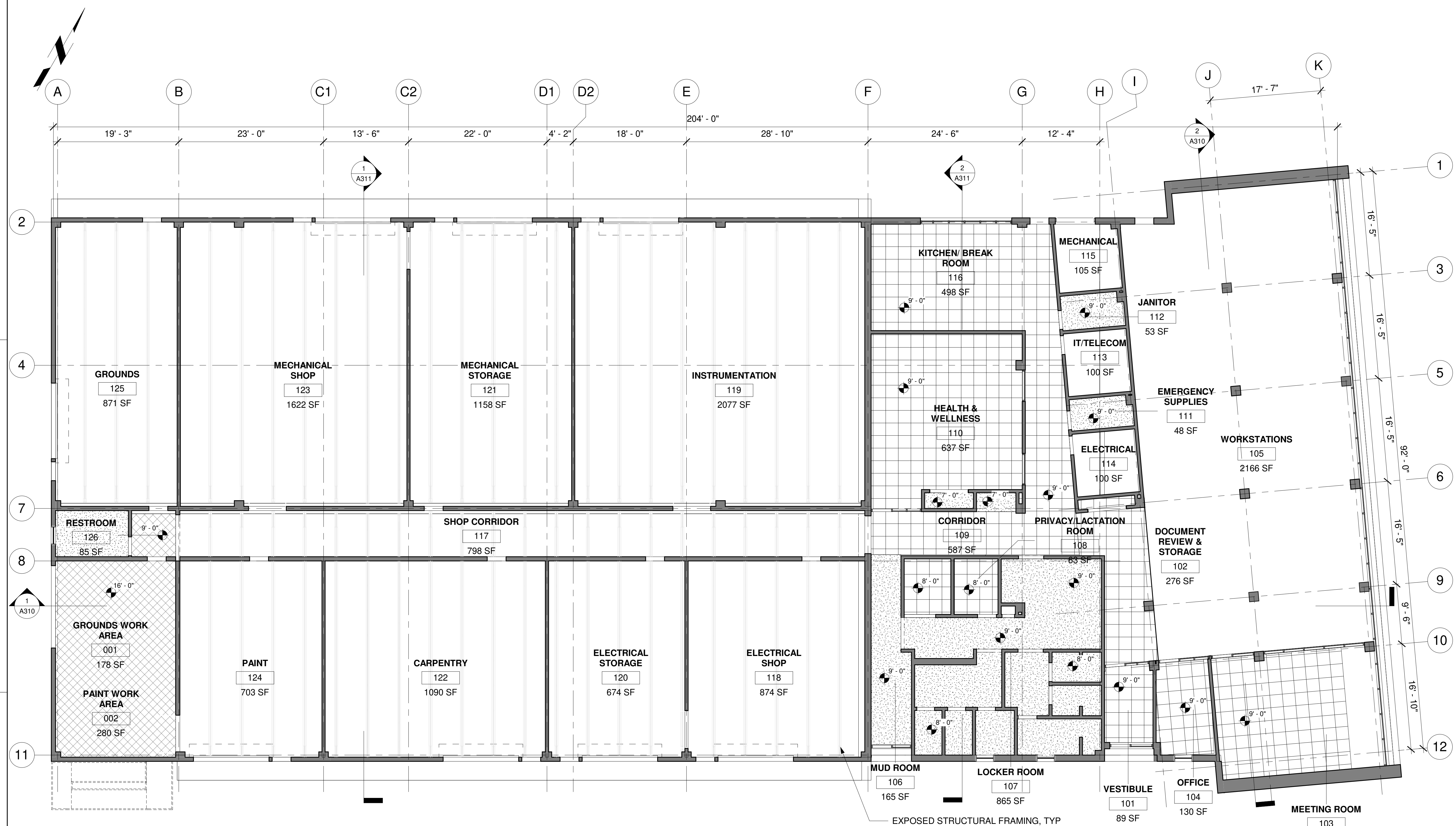


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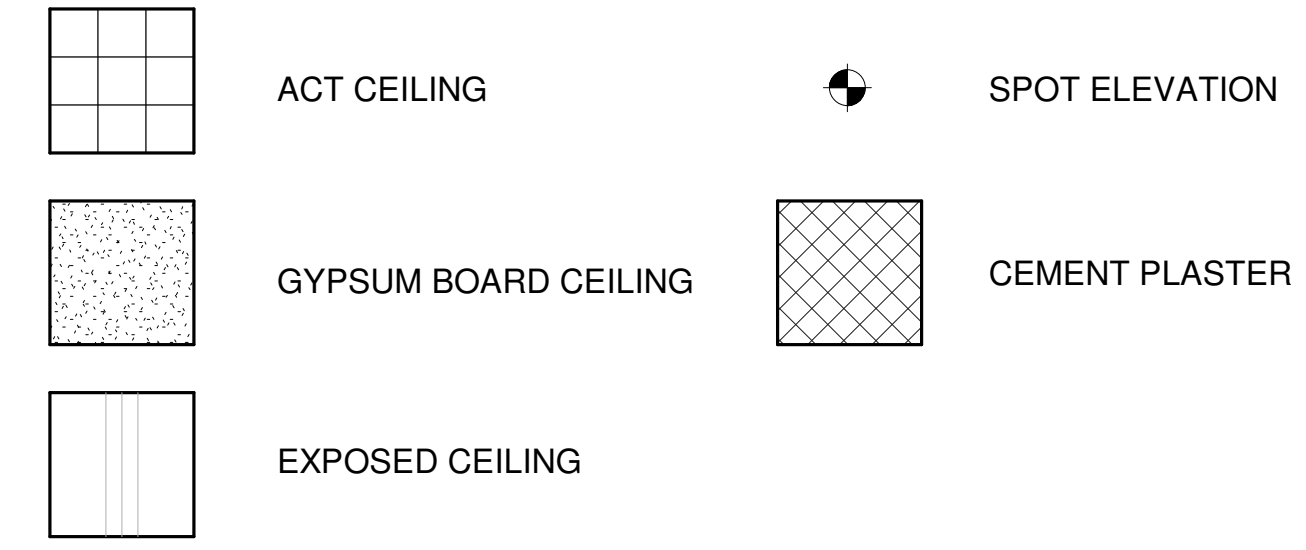
SHEET TITLE
REFLECTED CEILING PLAN

SOWTP MAINTENANCE BUILDING

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Drawn	DE	Sheet	
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		A201



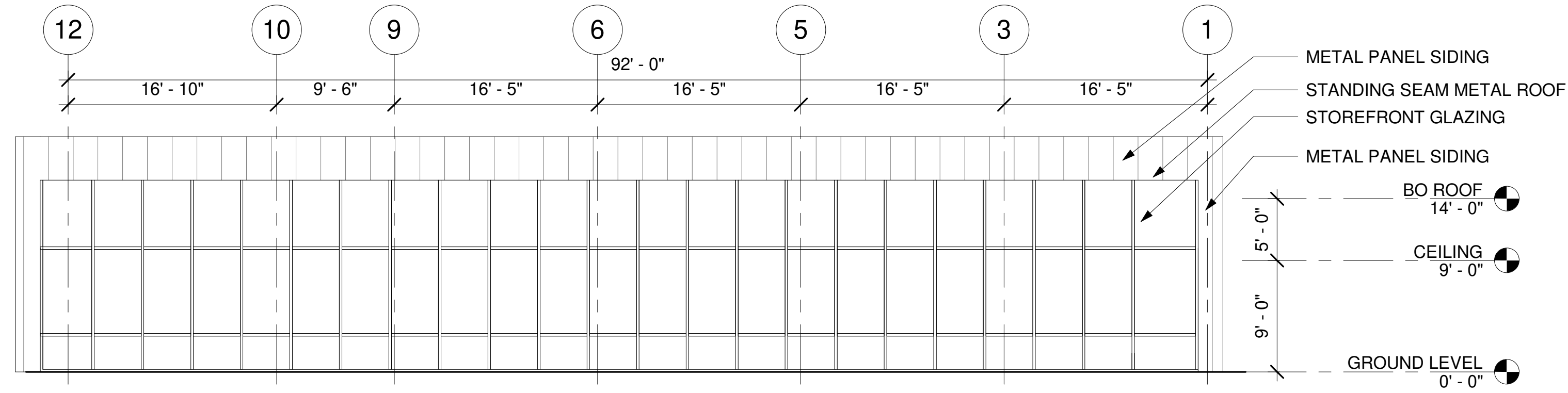
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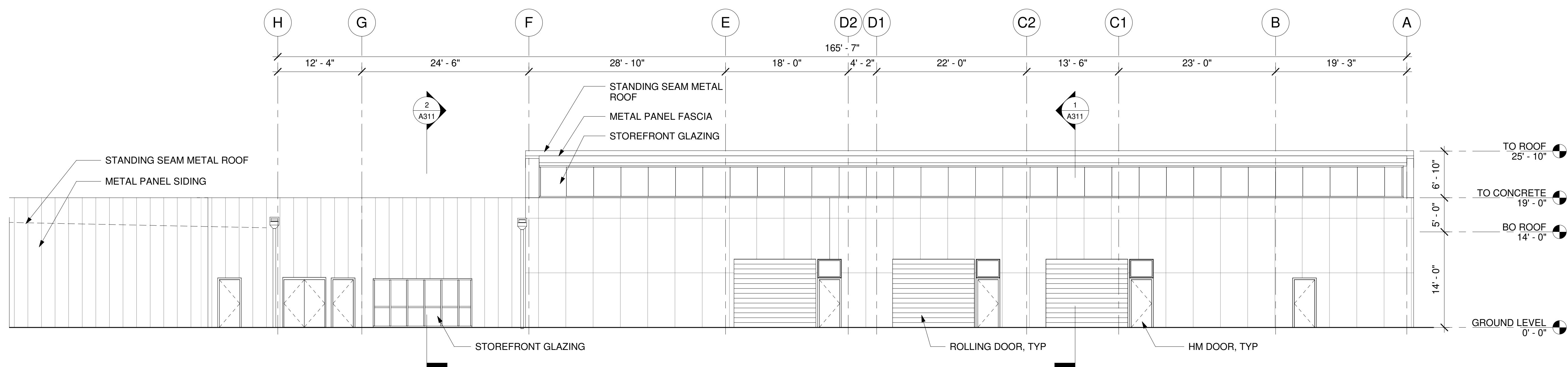


EAST BAY MUNICIPAL UTILITIES DISTRICT
 SOBRANTE WATER TREATMENT PLANT
 5500 AMEND ROAD
 EL SOBRANTE, CA 94803

NOTES



2 NORTH ELEVATION
 1/8" = 1'-0"



1 WEST ELEVATION
 1/8" = 1'-0"

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SHEET TITLE
BUILDING ELEVATIONS

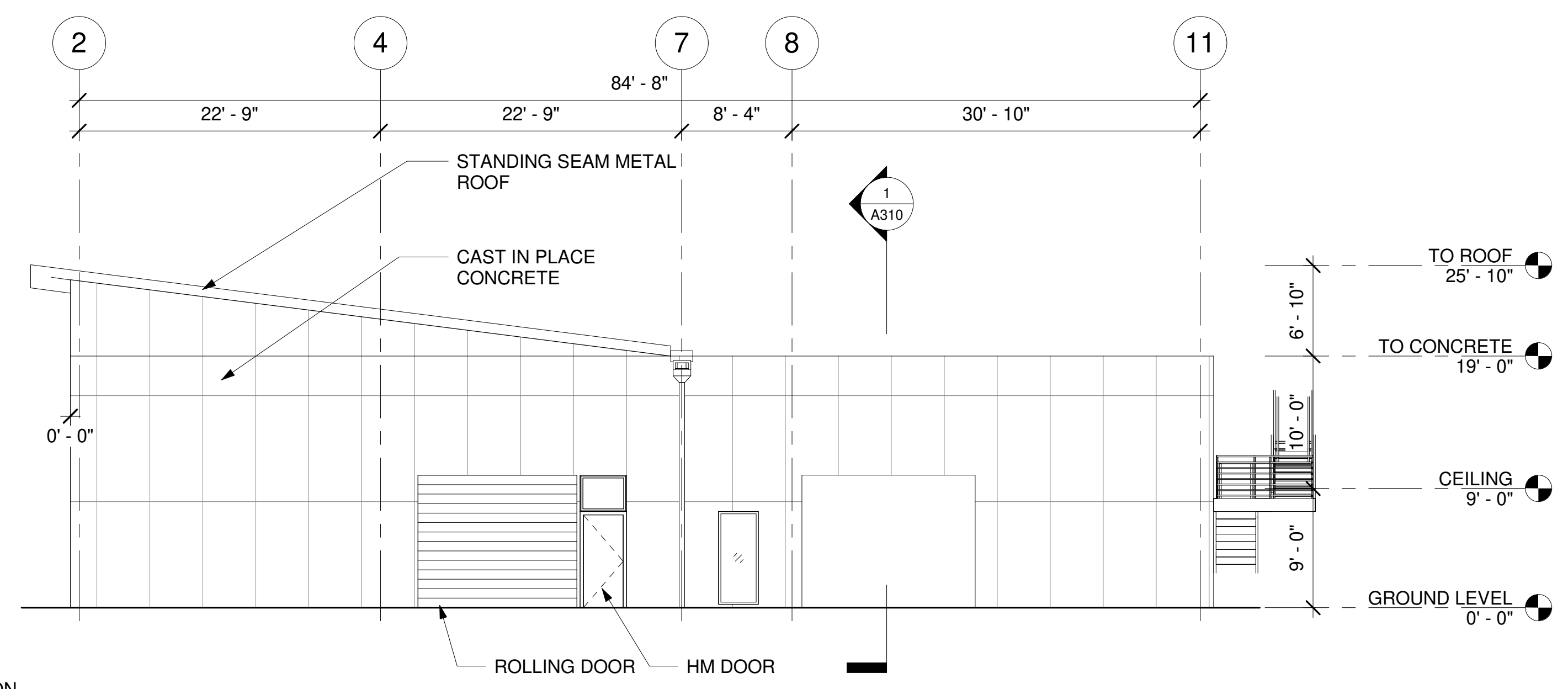
SOWTP MAINTENANCE BUILDING

Scale	1/8" = 1'-0"	MWA Project No.:	202025
Drawn	DE	Sheet	
Designed	TG		
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Issue Date	11/16/2021		A301

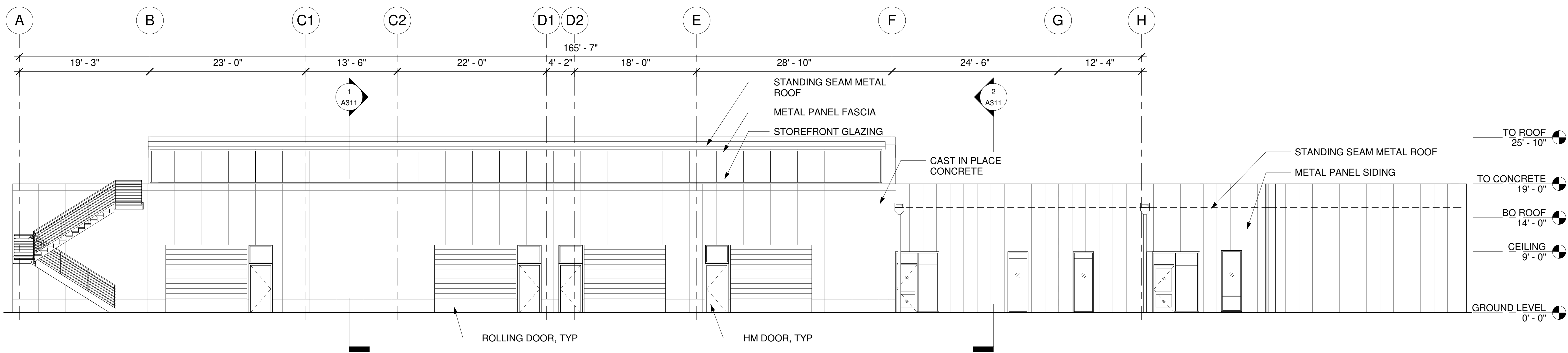


EAST BAY MUNICIPAL UTILITIES DISTRICT
SOBRANTE WATER TREATMENT PLANT
5500 AMEND ROAD
EL SOBRANTE, CA 94803

NOTES



2 SOUTH ELEVATION
1/8" = 1'-0"



1 EAST ELEVATION
1/8" = 1'-0"

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SHEET TITLE

BUILDING ELEVATIONS

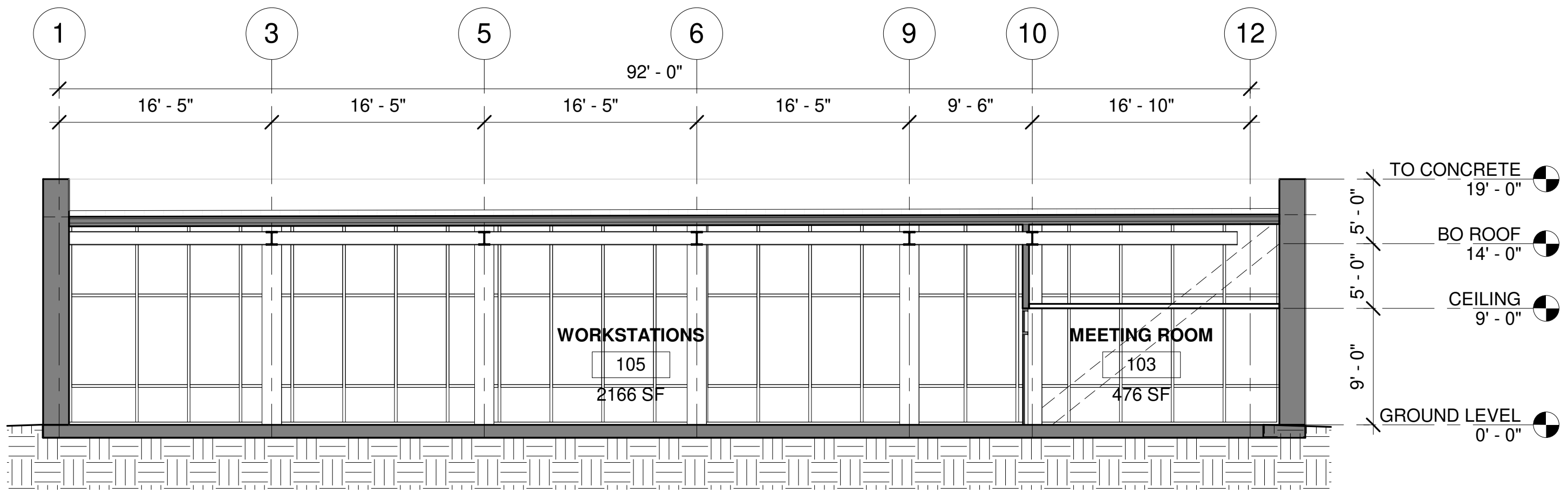
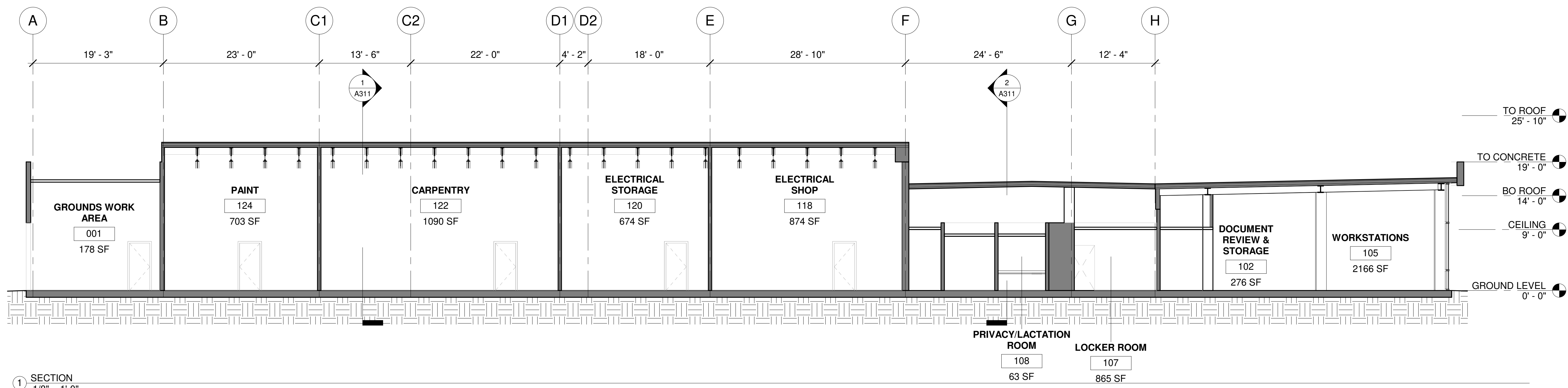
SOWTP MAINTENANCE BUILDING

Scale	1/8" = 1'-0"	MWA Project No.:	202025
Drawn	DE	Sheet	A302
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		



EAST BAY MUNICIPAL UTILITIES DISTRICT
 SOBRANTE WATER TREATMENT PLANT
 5500 AMEND ROAD
 EL SOBRANTE, CA 94803

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SHEET TITLE
BUILDING SECTIONS

SOWTP MAINTENANCE BUILDING

Scale	1/8" = 1'-0"	MWA Project No.:	202025
Drawn	DE	Sheet	
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		

A310



EAST BAY MUNICIPAL UTILITIES DISTRICT
 SOBRANTE WATER TREATMENT PLANT
 5500 AMEND ROAD
 EL SOBRANTE, CA 94803

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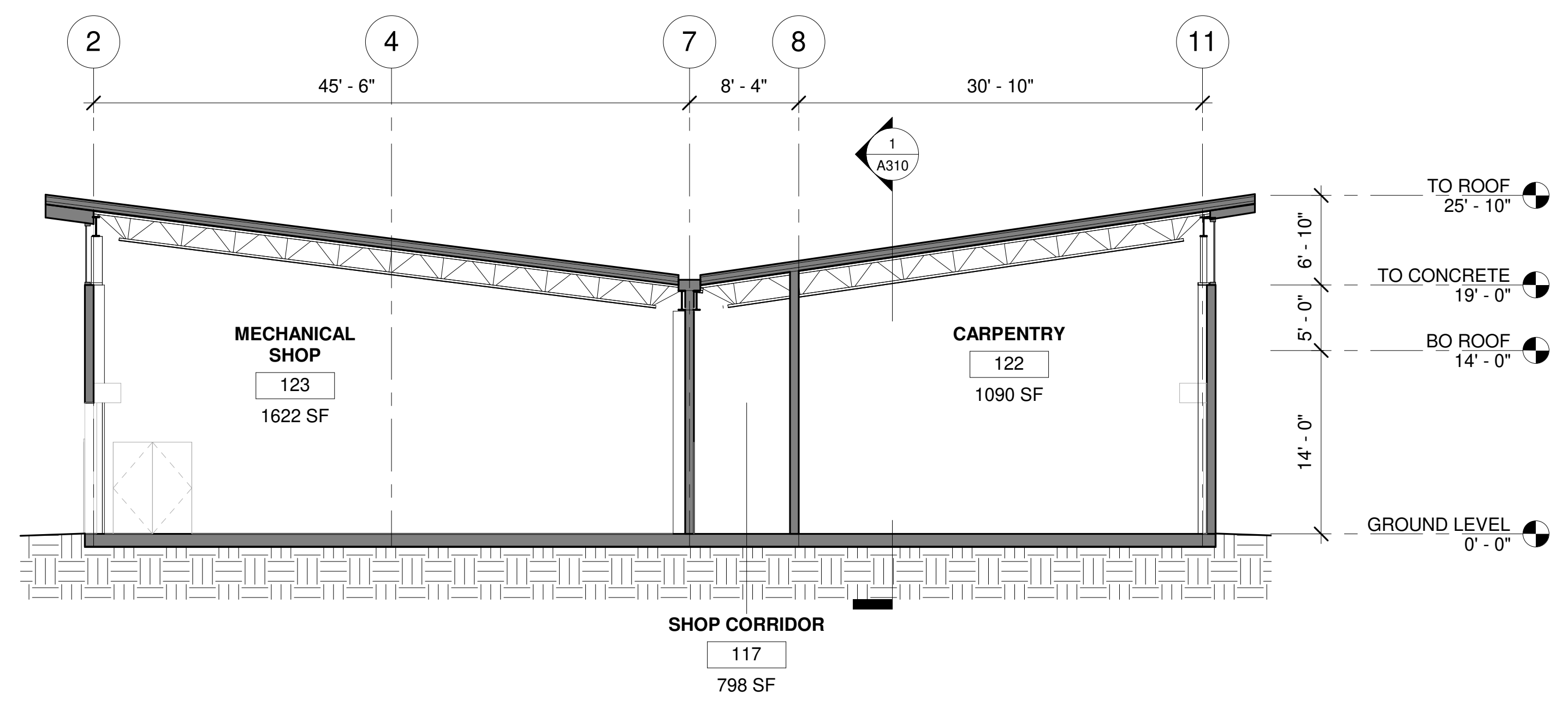
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 SAN FRANCISCO, CA 94105
 T: (415)957 2750
 F: (415)957 2780

SHEET TITLE
 BUILDING SECTIONS

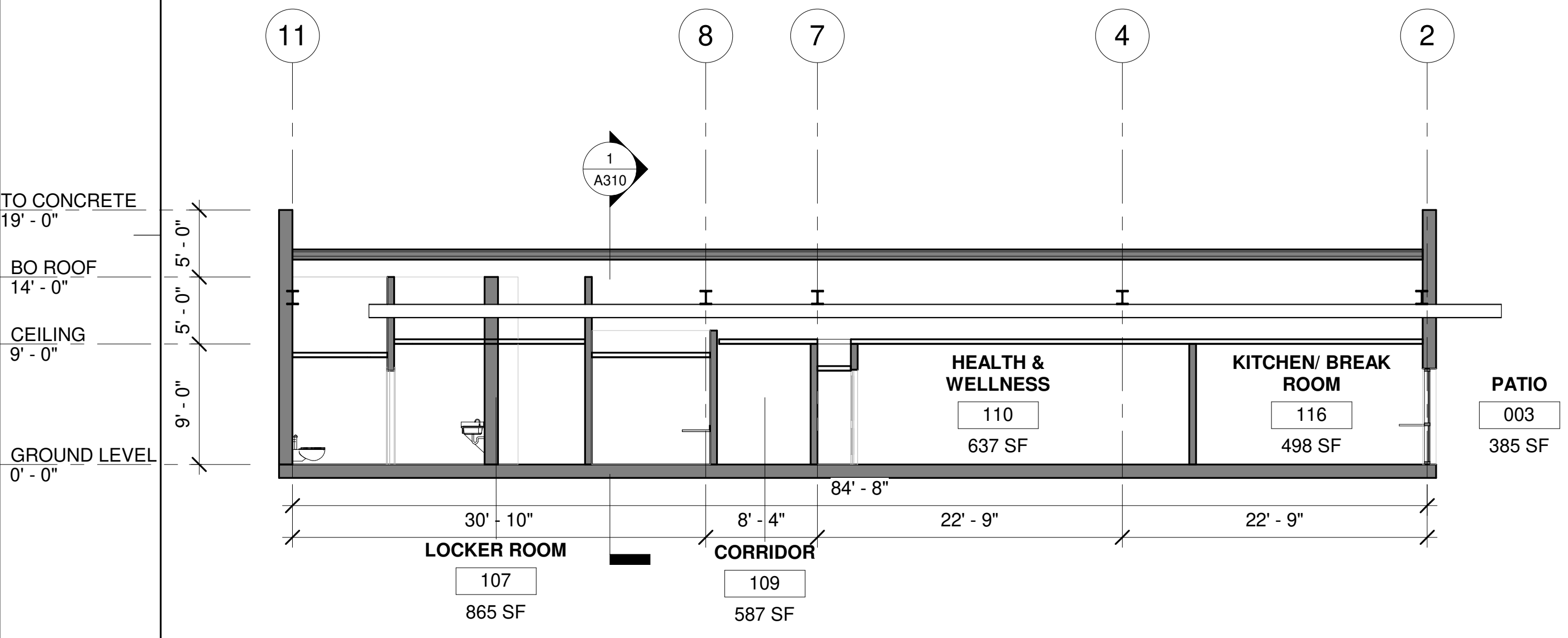
SOWTP MAINTENANCE BUILDING

Scale	1/8" = 1'-0"	MWA Project No.:	202025
Drawn	DE	Sheet	
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		

A311



SECTION 1
 1/8" = 1'-0"



SECTION 2
 1/8" = 1'-0"

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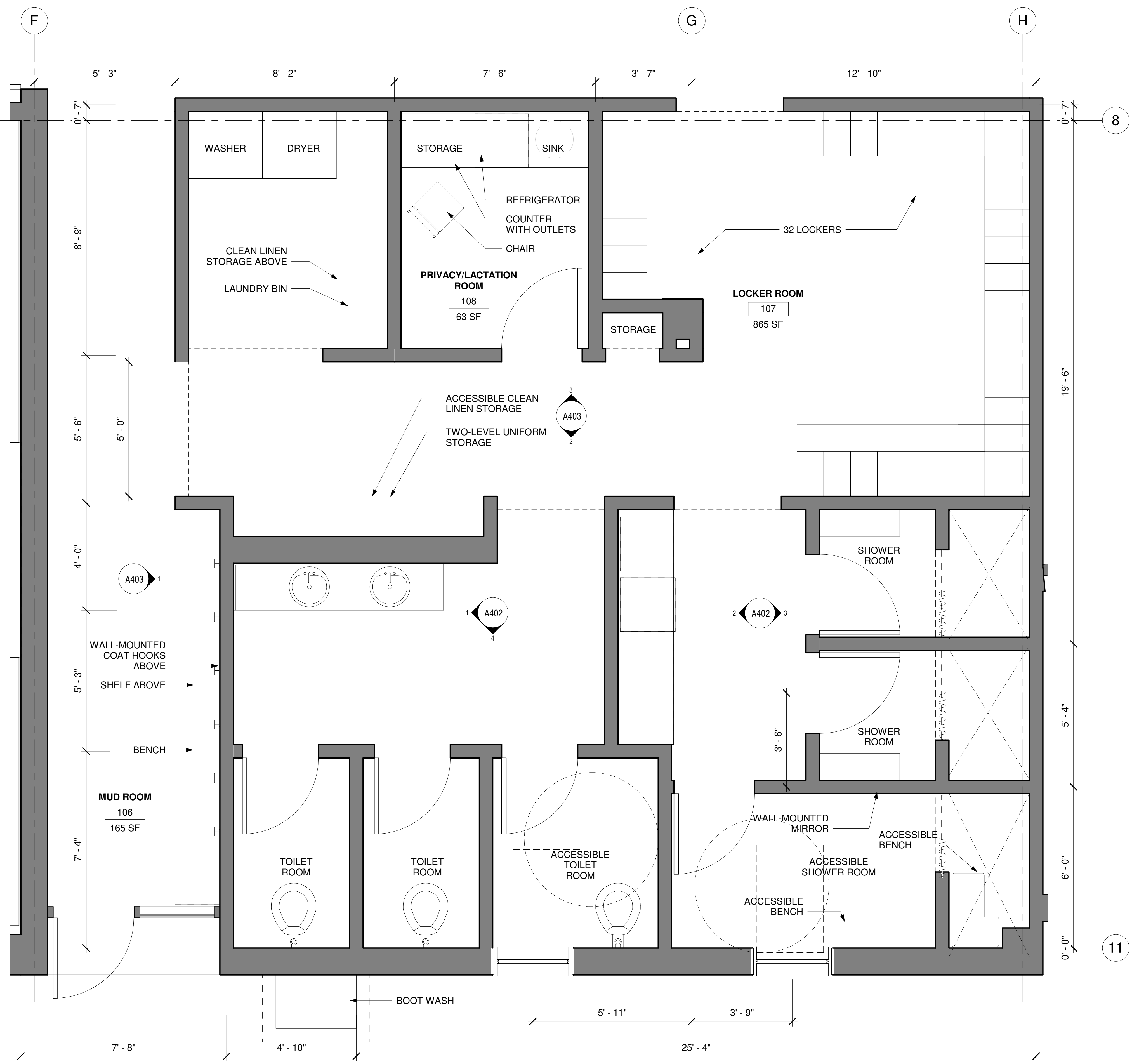
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SHEET TITLE

ENLARGED DRAWINGS - LOCKER ROOM

SOWTP MAINTENANCE BUILDING

Scale	1/2" = 1'-0"	MWA Project No.:	202025
Drawn	DE	Sheet	
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		A401

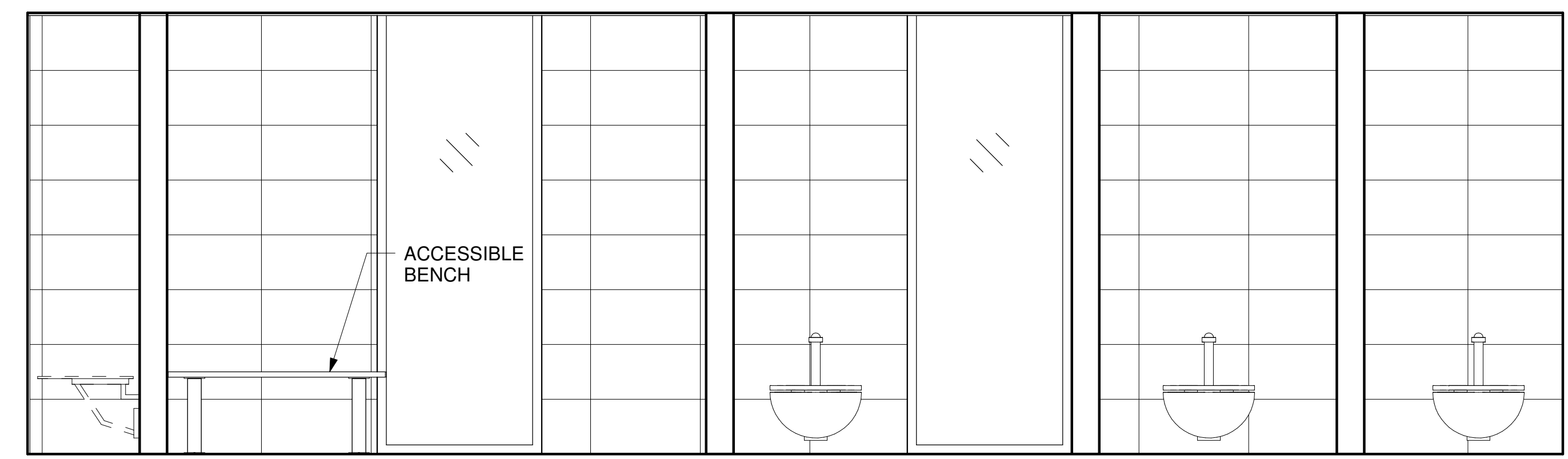


1 ENLARGED - LOCKER ROOM
1/2" = 1'-0"

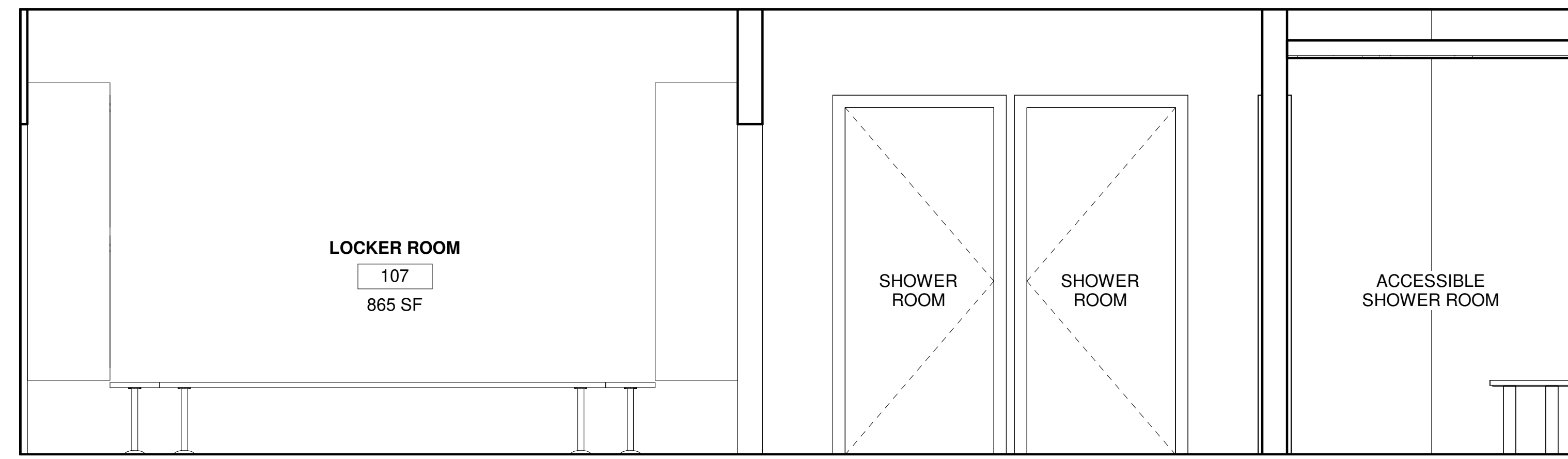


EAST BAY MUNICIPAL UTILITIES DISTRICT
SOBRANTE WATER TREATMENT PLANT
5500 AMEND ROAD
EL SOBRANTE, CA 94803

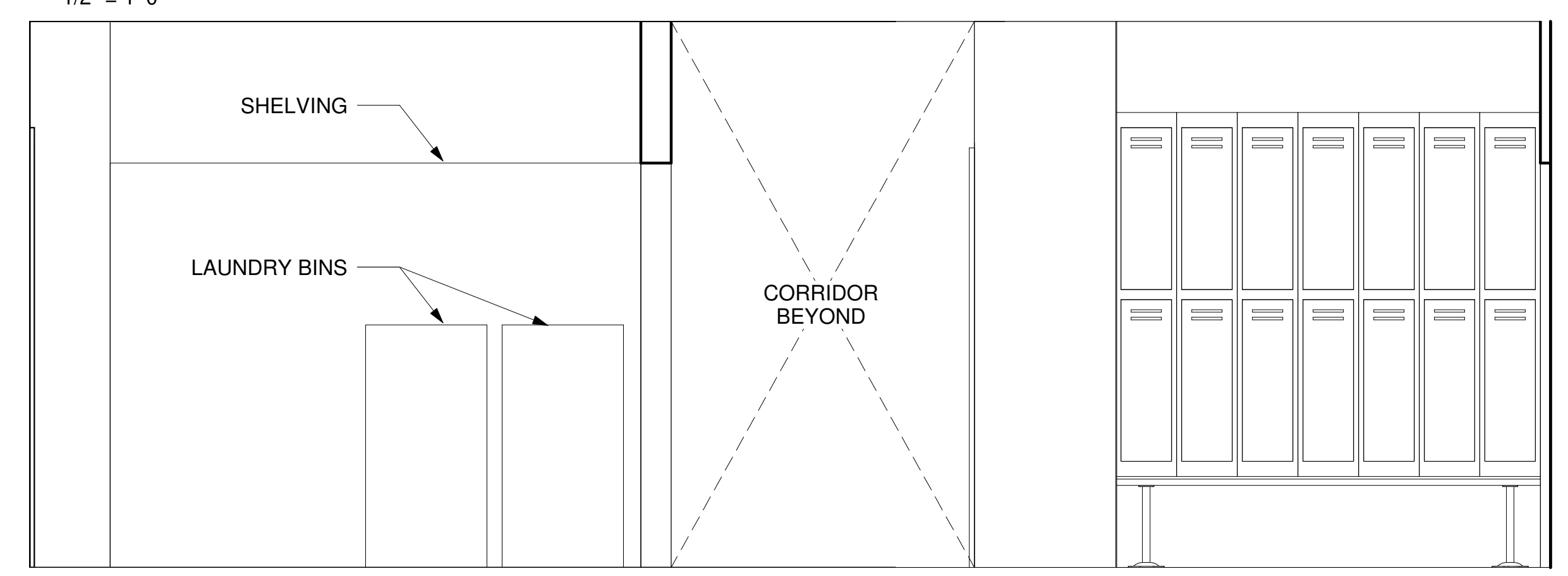
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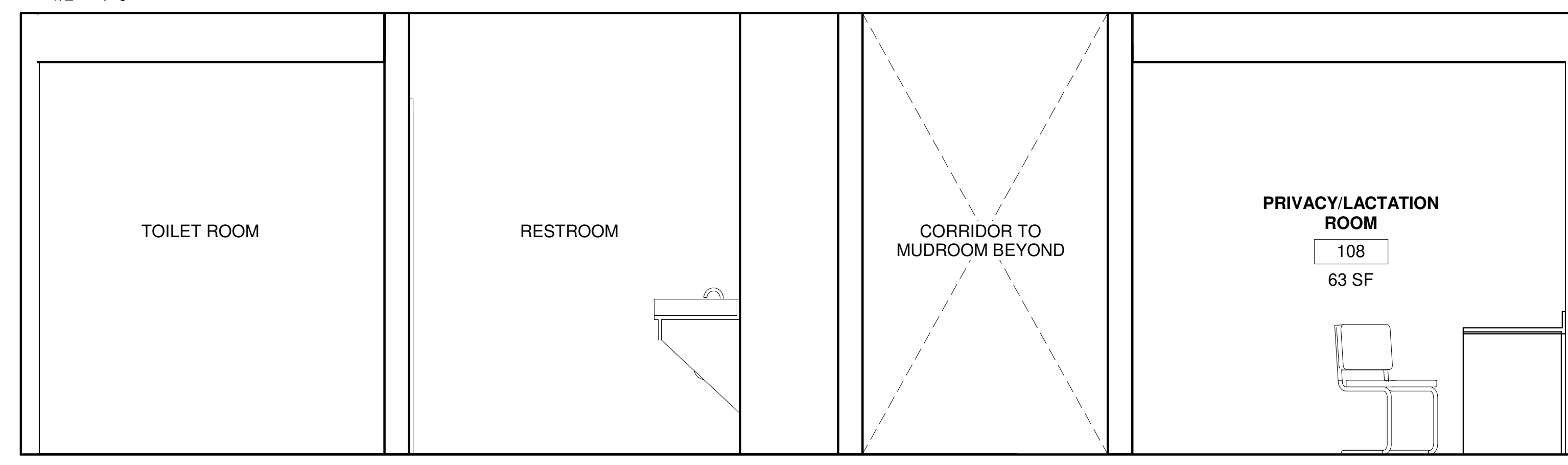
4 LOCKER AREA EAST
1/2" = 1'-0"



3 INTERIOR ELEVATION - LOCKER ROOM
1/2" = 1'-0"



2 INTERIOR ELEVATION - LOCKER ROOM
1/2" = 1'-0"



1 INTERIOR ELEVATION - RESTROOM
1/2" = 1'-0"

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SHEET TITLE
**ENLARGED
DRAWINGS -
LOCKER ROOM**

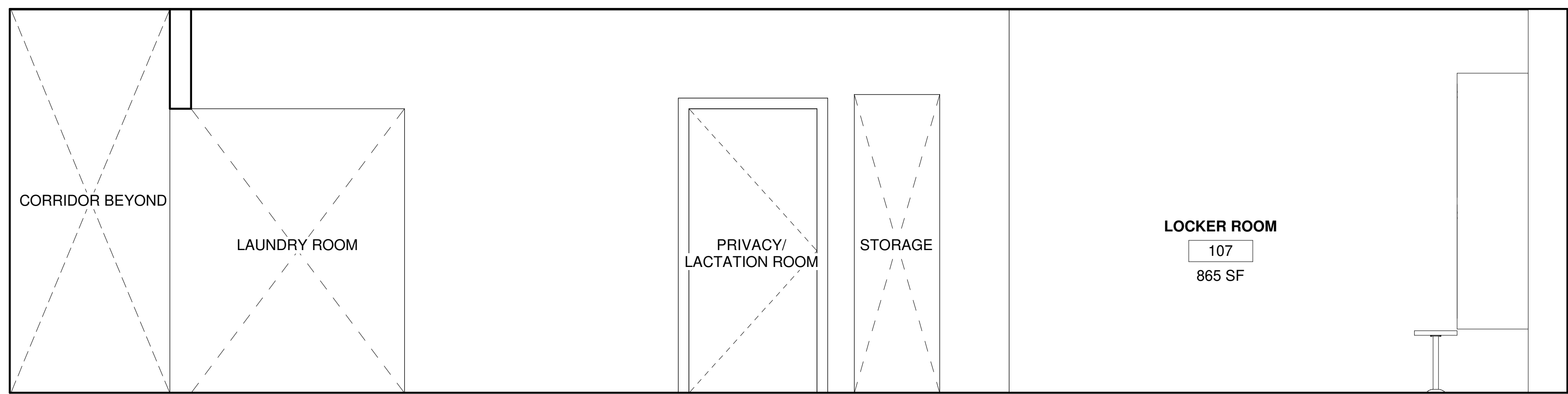
SOWTP MAINTENANCE BUILDING

Scale	1/2" = 1'-0"	MWA Project No.:	202025
Drawn	DE	Sheet	
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Issue Date	11/16/2021		A402

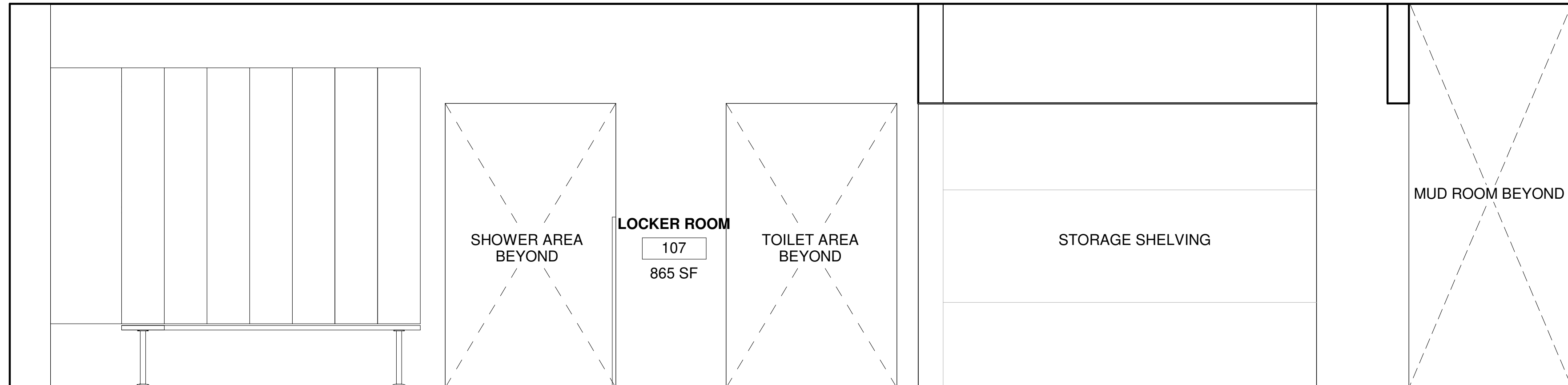


EAST BAY MUNICIPAL UTILITIES DISTRICT
SOBRANTE WATER TREATMENT PLANT
5500 AMEND ROAD
EL SOBRANTE, CA 94803

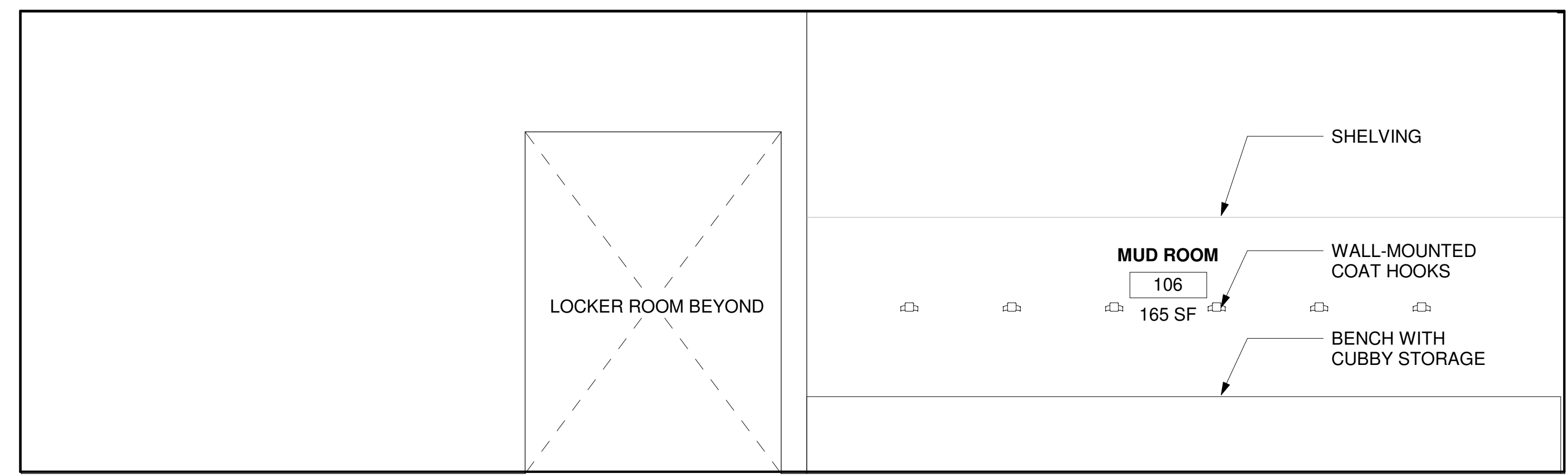
NOTES



3 INTERIOR ELEVATION - CORRIDOR
1/2" = 1'-0"



2 INTERIOR ELEVATION - CORRIDOR
1/2" = 1'-0"



1 INTERIOR ELEVATION - MUDROOM
1/2" = 1'-0"

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SHEET TITLE

ENLARGED DRAWINGS - LOCKER ROOM

SOWTP MAINTENANCE BUILDING

Scale	1/2" = 1'-0"	MWA Project No.:	202025
Drawn	DE	Sheet	A403
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		

EQUIPMENT SCHEDULE

TRADE	CODE	DESCRIPTION	#	SIZE	(N)/(E)	CLEARANCE	MOBILE/FIXED	NOTES
MECHANICAL	WB-1	WORKTABLE		2 6'X10'	EXISTING	5' ALL AROUND	FIXED	
MECHANICAL	WT-1	WELDING TABLE		1 6'X10'	EXISTING	5' ALL AROUND	FIXED	
MECHANICAL	WH-1	WELDING HOOD		1 6'X2'	NEW	5' EACH SIDE, 3' FRONT	FIXED	
MECHANICAL	DP-1	DRILL PRESS		1 2'X3'	EXISTING	8'X8'	FIXED	
MECHANICAL	ML-1	MILL		1 3'X5'	EXISTING	12'X12'	FIXED	
MECHANICAL	BS-1	BAND SAW		1 24" X 19"	EXISTING	10'X10'	FIXED	
MECHANICAL	LA-1	LATHE		1 4'X8'	EXISTING	9'X20'	FIXED	
MECHANICAL	MS-1	SHEET METAL SHEAR		1 4'X3'	NEW			
MECHANICAL	MB-1	SHEET METAL BRAKE		1 4'X3'	NEW			
GROUPS	WB-3	WORK BENCH		2 4'X10'	NEW	3' ALL AROUND		IN EACH STORAGE AREA, CHEMICAL AND TOOL STORAGE
GROUPS	AC-1	AIR COMPRESSOR		1 25 GAL	NEW			NEAR TOOL STORAGE
GROUPS	FC-1	FLAMMABLE STORAGE CABINET		1 30 GAL	NEW			
GROUPS	TR-1	TOOL RACKS		2 10'	NEW			FOR POWER TOOLS WITH SPILL CONTAINMENT
ELECTRICAL	BT-1	BREAKER TESTER		1 3' X 5'	EXISTING	4' X 8'		
ELECTRICAL	WB-1	WORKTABLE		2 6'X10'	NEW	5' ALL AROUND	FIXED	
ELECTRICAL	CB-1	CONDUIT BENDER		1 10" X 10"	EXISTING	44" FRONT, SIDE	FIXED	
ELECTRICAL	BT-2	SMALL CIRCUIT BREAKER TESTER		1 3' X 3'	EXISTING	3' X 4'		
ELECTRICAL	CT-1	CONDUIT THREADER		1 2'X3'	EXISTING	3' X 19'	MOBILE	
ELECTRICAL	DP-1	DRILL PRESS		1 2'X3'	EXISTING	4' X 8'		
ELECTRICAL	BS-2	BAND SAW/ CHOP SAW		1 24" X 19"	NEW	3' X 15'	MOBILE	
ELECTRICAL	RT-1	RELAY TESTING EQUIPMENT		1 3' X 6'	EXISTING	3' X 6'		MOUNTED TO WORKBENCH SPACE
ELECTRICAL	JC-1	JIB CRANE		1	NEW			
INSTRUMENT	WS-2	WET WORK STATION		1 3' X 6'	NEW	3' AROUND	FIXED	DOUBLE BASIN UTILITY SINK WITH SUFFICIENT COUNTER SPACE AND DRAWERS TO WORK ON WQ ANALYZERS
INSTRUMENT	WS-3	TEST STATION		1 3'X8"	NEW	3' AROUND	FIXED	WALL SPACE AND BENCH AREA TO PERMANENTLY MOUNT RTUS, PLCS, RADIOS, AND VARIOUS FIELD EQUIPMENT
INSTRUMENT	YSI-1	YSI PROFILER		3 4'X6'	EXISTING	10'X12"	MOBILE	STORAGE AND WORK SPACE
INSTRUMENT	TC-1	ROLLAWAY TOOL CHEST AND TOP BOX		1 2'X6'	NEW	5' IN FRONT	MOBILE	
INSTRUMENT	CS-1	CHARGING STATION		3'X6"	NEW	5' IN FRONT	FIXED	POWER TOOLS AND TEST EQUIPMENT
INSTRUMENT	TG-1	TABLE GRINDER		1'X1'	NEW			
INSTRUMENT	WB-1	WORKTABLE		2 6'X10'	NEW	5' ALL AROUND	FIXED	
INSTRUMENT	DP-1	DRILL PRESS		1 2'X3'	NEW	4' X 8'		
INSTRUMENT	BS-1	BAND SAW/ CHOP SAW		1 24" X 19"	NEW	3' X 15'		
INSTRUMENT	VH-1	VAPOR HOOD		1 6'X2'	NEW	5' EACH SIDE, 3' FRONT		
INSTRUMENT	WB-2	WORK BENCH		3'X16'	NEW	6'X20'	FIXED	ALONG THE WALL WITH SHELVING AND LIGHTING
INSTRUMENT	ST-1	STORAGE CABINETS		3'X24'X8'	NEW	8'X24'	FIXED	FLOOR TO CEILING LISTA CABINETS / DRAWERS / SHELVING
CARPENTRY	SA-1	MITER SAW		1 2'X2'	NEW	5' X 20'	FIXED	INCORPORATED INTO 20' WORK BENCH
CARPENTRY	TS-1	TABLE SAW		1	NEW	6' X 20'	MOBILE	
CARPENTRY	AC-1	AIR COMPRESSOR		1 25 GAL	NEW	3' X 3'	FIXED	MIN 30 GAL
CARPENTRY	DC-1	DUST COLLECTION SYSTEM		1	NEW	OVER HEAD AND WALL MOUNT	FIXED	
SUPPORT	WR-1	WEIGHT BENCH		1 5'X8'	NEW	2'-6" X 2'	FIXED	
SUPPORT	FS-1	FITNESS SYSTEM		1 8'X10'	NEW	2' ALL AROUND	FIXED	
SUPPORT	TE-1	TREADMILL		1 6'X3'	NEW	2' EACH SIDE, 5' AT REAR	FIXED	
SUPPORT	SB-1	STATIONARY BIKE		1 4'X3'	NEW	2' EACH SIDE, 3' AT REAR	FIXED	
SUPPORT	EL-1	ELLIPTICAL		1 6'X2'-6"	NEW	1' EACH SIDE	FIXED	
SUPPORT	GR-1	GAS RANGE		1 30"	NEW		FIXED	
SUPPORT	DW-1	DISHWASHER		1 30"	NEW		FIXED	
SUPPORT	FR-1	REFRIGERATOR		2 4'X2'	NEW		FIXED	
SUPPORT	FR-2	ICE MAKER		1 2'X3'	NEW		FIXED	
SUPPORT	US-3	KITCHEN SINK		1 42"X21"	NEW		FIXED	
SUPPORT	US-4	BOOT WASH		1 3'X2'	NEW		FIXED	
STORAGE	SR-1	PARTS STORAGE		1'X7'	NEW		FIXED	
STORAGE	SR-2	STORAGE RACK		2'X5'	NEW		FIXED	
STORAGE	SR-3	STORAGE RACK		3'X5'	NEW		FIXED	
STORAGE	SR-4	LARGE ITEM STORAGE		3' DEEP	NEW	WIDTH VARIES	FIXED	

ROOM FINISH SCHEDULE

ROOM #	ROOM NAME	WALL	FLOOR	CEILING	CEILING HEIGHT	NOTES
001	GROUPS WORK AREA	-	FS-1	CP-1	9' - 0"	
002	PAINT WORK AREA	-	FS-1	CP-1	9' - 0"	
003	PATIO	-	FS-1	-		
004	ELECTRICAL STORAGE	-	FS-1	-		
005	CARPENTRY BONEYARD	-	FS-1	-		
101	VESTIBULE	PT-1	RSF-1	GWB	9' - 0"	
102	DOCUMENT REVIEW & STORAGE	PT-1	RSF-1	EXP		
103	MEETING ROOM	PT-1	RSF-1	ACT	9' - 0"	
104	OFFICE	PT-1	RSF-1	ACT	9' - 0"	
105	WORKSTATIONS	PT-1	RSF-1	EXP		
106	MUD ROOM					
107	LOCKER ROOM					
108	PRIVACY/LACTATION ROOM					
109	CORRIDOR	PT-1	RSF-1	ACT/GWB PT-2	9' - 0"	
110	HEALTH & WELLNESS	PT-1	RFT-1	ACT	9' - 0"	
111	EMERGENCY SUPPLIES	PT-1	RSF-1	GWB	8' - 0"	
112	JANITOR	CT-1/PT-1	CT-2	GWB	8' - 0"	
113	IT/TELECOM	PT-1	RSF-1	EXP		
114	ELECTRICAL	PT-1	EXP	EXP		
115	MECHANICAL	PT-1	EXP	EXP		
116	KITCHEN/ BREAK ROOM	PT-1	RSF-1	ACT	9' - 0"	
117	SHOP CORRIDOR	PT-1	FS-1	EXP		
118	ELECTRICAL SHOP	EXP	FS-1	EXP		
119	INSTRUMENTATION	EXP	FS-1	EXP		
120	ELECTRICAL STORAGE	EXP	FS-1	EXP		
121	MECHANICAL STORAGE	EXP	FS-1	EXP		
122	CARPENTRY	EXP	FS-1	EXP		
123	MECHANICAL SHOP	EXP	FS-1	EXP		
124	PAINT	EXP	FS-1	EXP		
125	GROUPS	EXP	FS-1	EXP		
126	RESTROOM	CT-1	CT-2	GWB	9' - 0"	

FINISH SCHEDULE LEGEND

WALLS

- NO WALLS
- PT-1 PAINTED GYPSUM BOARD
- CT-1 CERAMIC TILE

FLOORING

- FS-1 CONCRETE FLOOR SEALER
- RSF-1 RESILIENT SHEET FLOORING
- CT-2 CERAMIC TILE
- RFT-1 RUBBER FLOOR TILE

CEILINGS

- NO CEILING
- EXP EXPOSED
- ACT ACOUSTIC CEILING TILE
- GWB PAINTED GYPSUM BOARD
- PT-2 PAINTED
- CP-1 CEMENT PLASTER



EAST BAY MUNICIPAL UTILITIES DISTRICT

SOBRANTE WATER TREATMENT PLANT
5500 AMEND ROAD
EL SOBRANTE, CA 94803

NOTES

All drawings and written material appearing herein constitute original and unpublished work of the architects and may not be duplicated, used or disclosed without written consent of the Architect.

ARCHITECT



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SHEET TITLE

SCHEDULES

SOWTP MAINTENANCE BUILDING

Scale	MWA Project No.:
Drawn DE	202025
Designed TG	Sheet
Checked GR	A801
Issue Date 11/16/2021	

EAST BAY MUNICIPAL UTILITY DISTRICT
SOBRANTE WATER TREATMENT PLANT
RELIABILITY IMPROVEMENT PROJECT
AESTHETICS CONCEPTUAL DESIGN
REPORT

Appendix C: Key Observation Points

FINAL | March 2024



KEY OBSERVATION POINT (KOP) OPTIONS SUMMARY

The following overviews potential KOPs that could be used for analysis of public viewsheds at the East Bay Municipal Utility District Sbrante Water Treatment Plant and the development of photo-simulations depicting the project.

Table 1 lists the KOP options and selected considerations. As used in Table 1, the following distance zone definitions apply:

- Immediate foreground: 0' to 300'
- Foreground: 300' to 1/2 mile
- Middleground: 1/2 mile to 4 miles
- Background: 4 miles to horizon

The camera used for Key Observation Points is an Iphone 12 Mini with a 28mm focal length to provide a wider representation of viewpoints at each perimeter location.

The following Viewer Sensitivity zone definitions apply:

- None: Area does not have views into the site from any vantage point
- Low: Partial or obstructed views from private property
- Moderate: Partial or Obstructed Views from the public right-of-way
- High: Unobstructed views into the project site from the public right-of-way

A perimeter walk of the project site and follow-up field analysis from the local street network was conducted. The visual benefit of a site perimeter walk is that if any structures or use areas in the surrounding landscape that can be seen, conversely, the site can be seen from those locations. The following observations are made:

VALLEY VIEW ROAD

- Mature vegetation and steep topography effectively block public views into SOWTP from along Valley View Road. At the corner of Amend Road and Valley View Road, the Richmond Fire Station adds additional visual buffer to the site.
- There are approximately 3 residences that may have partial views to the project site on or near Valley View Road

AMEND ROAD

- Primary public views into the project site are along Amend Road. The majority of the planned improvements are located in the open field, which will be visible to passers-by (KOP #2).
- Mature vegetation provides a soft buffer at the perimeter but is not effective in screening views into the project site.
- There are approximately 9 residences that may have open or partial views to the project site from the front of the property (KOP #3).
- If other homes do see a portion of the project site, the partial view would be at a distance and filtered by vegetation.
- The entry to the site is located in the northeast corner of the property on Amend Road (KOP #4). The improvements to the site will be visible from this vista.

FASCINATION CIRCLE

- Existing residences, mature forest and steep topography along the north and east edges of SOWTP effectively blocks views from the public viewpoints on Fascination Circle (KOP #5).
- There are approximately 12 residences that have open views to the project site from the Fascination Circle neighborhood area located in the El Sobrante Hills to the southeast of the project site (see KOP # 6). These views are restricted to higher elevation residences on the west. However, those views would not substantially change as a result of the SOWTP improvements. A large portion of the project site is blocked by existing vegetation from these views.
- The hillside below provides similar vistas, simulating the views from the residences at the top of the hill (KOP #5)

HILLSIDE

- The hillside and trails below Fascination Circle adjacent to SOWTP are not accessible to the public. The slope of the hill is steep and not used for recreation purposes. A trail for SOWTP staff is adjacent to the perimeter fence, but there is no public access (KOP #6).

RESIDENTIAL CUL-DE-SACS

- A series of small residential streets may have partial public views to the project site due to their topography. These public vista points are generally located at a considerable distance and obscured by mature vegetation in the neighborhood and at SOWTP (KOP #8).
- The primary street of concern is Christopher Court, located off of Valley View Road. There is a partial view of SOWTP from the public right-of-way.

SPANISH TRAILS ROAD

- There are approximately 5 residences in the private community on Spanish Trails Road with views toward SOWTP. These views are blocked by the steep topography to the northwest (KOP #9).
- There is no public access to this residential area.

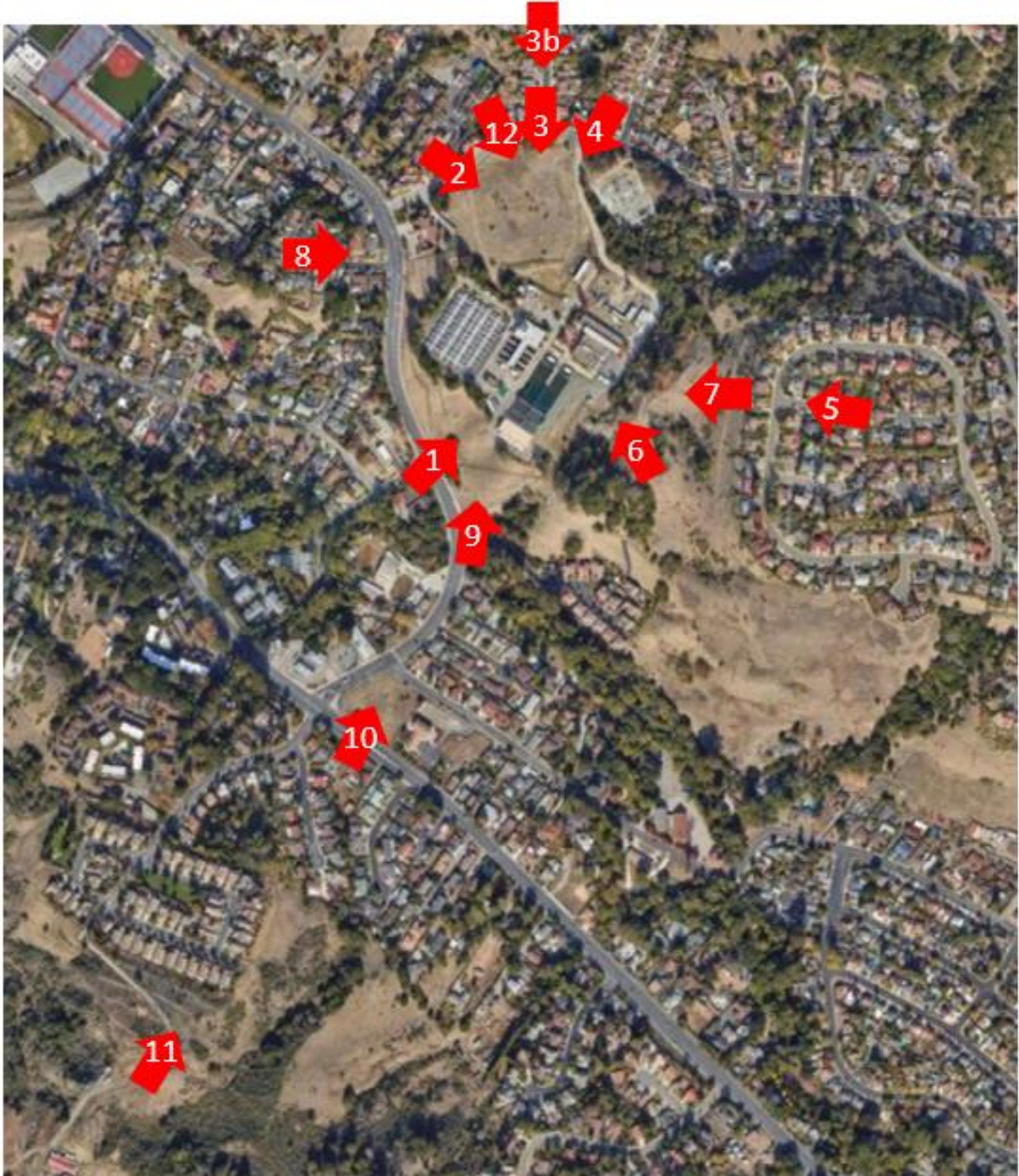
GREENBRIAR NEIGHBORHOOD

- There are no public views to the project site evident from within the street system of Greenbriar. There are no public vistas in the neighborhood. (KOP #10)
- Views to SOWTP are effectively screened by the surrounding topography as well as San Pablo Creek's mature vegetation.

EAST BAY REGIONAL PARK DISTRICT

- Views to the project site are available from the Valley View Road entrance to the Old Nimitz Way Trail and the end of Valley View Road closest to Wildcat Canyon Regional Park. (KOP #11) However, these views would be mostly blocked by existing mature vegetation. The distance would obscure large additions to the project site.
- There are no major views from within the EBRPD trail system.

Key Observation Points (KOP) Map



KOP Coordinates

KOP #1	37° 57' 46.36" N	122° 16' 54.07" W
KOP #2	37° 57' 58.31" N	122° 16' 52.84" W
KOP #3	37° 58' 00.81" N	122° 16' 47.58" W
KOP #3b	37° 58' 02.28" N	122° 16' 47.36" W
KOP #4	37° 58' 00.55" N	122° 16' 45.25" W
KOP #5	37° 57' 48.89" N	122° 16' 32.81" W
KOP #6	37° 57' 46.88" N	122° 16' 42.74" W
KOP #7	37° 57' 49.47" N	122° 16' 37.62" W
KOP #8	37° 57' 54.95" N	122° 17' 00.22" W
KOP #9	37° 57' 44.03" N	122° 16' 51.80" W
KOP #10	37° 57' 34.46" N	122° 16' 56.52" W
KOP #11	37° 57' 22.59" N	122° 17' 07.23" W
KOP #12	37° 58' 00.28" N	122° 16' 49.75" W

KOP Images



KOP #1: Valley View Road facing northeast



KOP #2: Amend Road closest to Richmond Fire Station #3, facing southeast



KOP #3: Heavenly Ridge Lane at the intersection of Amend Road, facing south



KOP #3b: Heavenly Ridge Lane facing south at intersection of Scotts Chute Ct



KOP#4: SOWTP Entry Road facing southwest



KOP #5: Fascination Circle facing west



KOP #6: Lower hillside facing northwest



KOP #7: Upper hillside facing northwest



KOP #8: Christopher Court facing east



KOP #9: Valley View Road at Spanish Trails Road facing north



KOP #10: San Pablo Dam Road facing north



KOP #11: Valley View Road termination at Wildcat Canyon facing northeast



KOP #12: Upper Amend Road View facing south

EAST BAY MUNICIPAL UTILITY DISTRICT
SOBRANTE WATER TREATMENT PLANT
RELIABILITY IMPROVEMENT PROJECT
AESTHETICS CONCEPTUAL DESIGN
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Appendix D: Concept Presentations

FINAL | March 2024



EAST BAY MUNICIPAL UTILITIES DISTRICT

SOBRANTE WATER TREATMENT PLANT

AESTHETICS CONCEPTUAL DESIGN

BRAINSTORMING WORKSHOP

SEPTEMBER 20, 2021



mwa architects

A G E N D A

Introductions

Site Layout Considerations

Design Discussion

Key Viewsheds

Next Steps

OBJECTIVES

Review Site Layout Modifications

Identify Design Priorities and Limitations

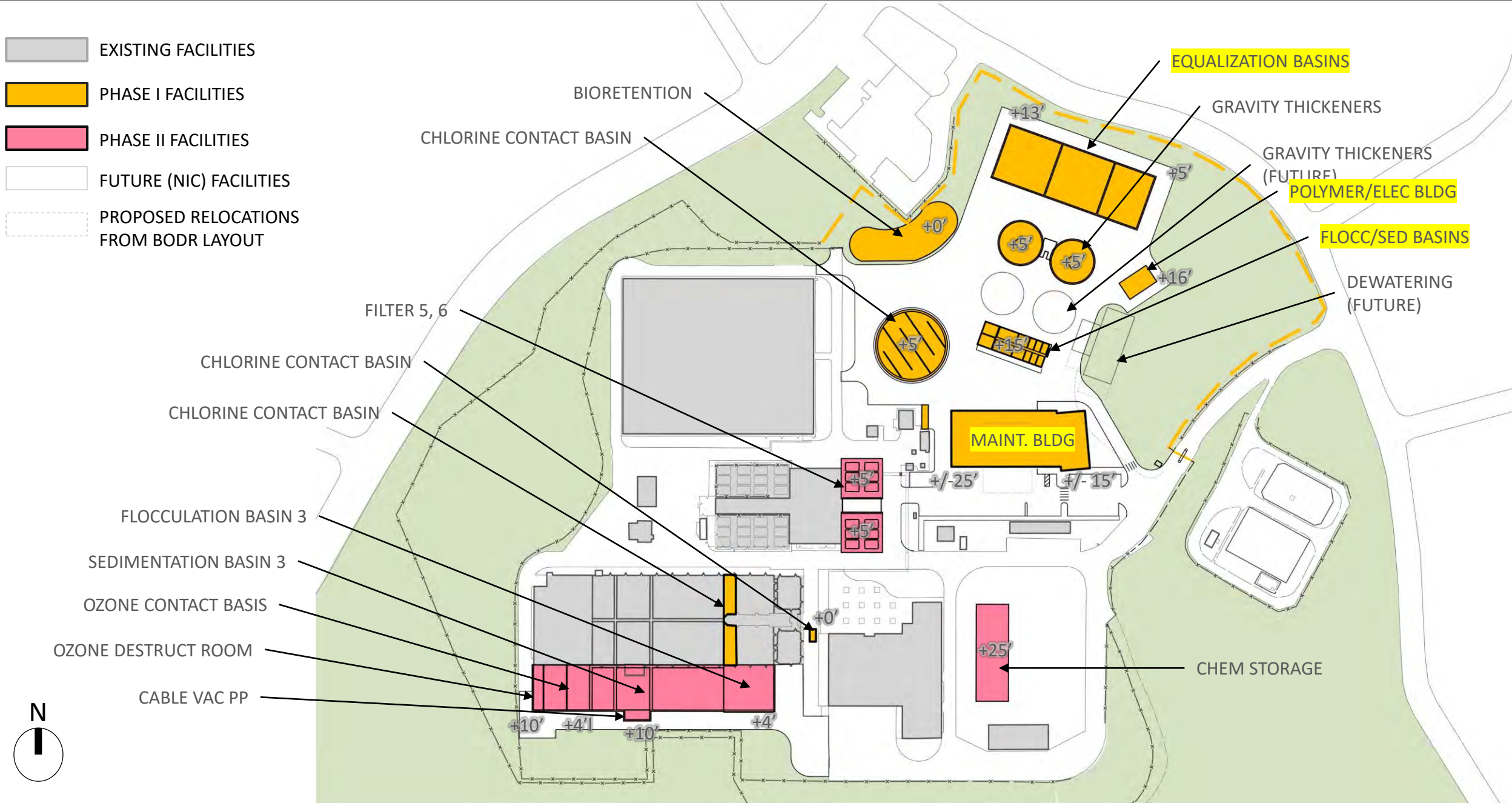
Select Key Viewsheds

An aerial photograph of a school campus, rendered in a monochromatic, muted green-grey tone. The image shows several large, rectangular school buildings with flat roofs, interspersed with parking lots and paved areas. A prominent feature is a large, open, grassy field in the lower center of the frame. The campus is surrounded by dense trees and a residential neighborhood with houses and streets visible on the right side. A winding road or path curves through the upper right portion of the image. The overall scene is captured from a high-angle perspective, providing a comprehensive view of the site's layout.

SITE LAYOUT CONSIDERATIONS

UPDATED SITE LAYOUT

- EXISTING FACILITIES
- PHASE I FACILITIES
- PHASE II FACILITIES
- FUTURE (NIC) FACILITIES
- PROPOSED RELOCATIONS FROM BODR LAYOUT



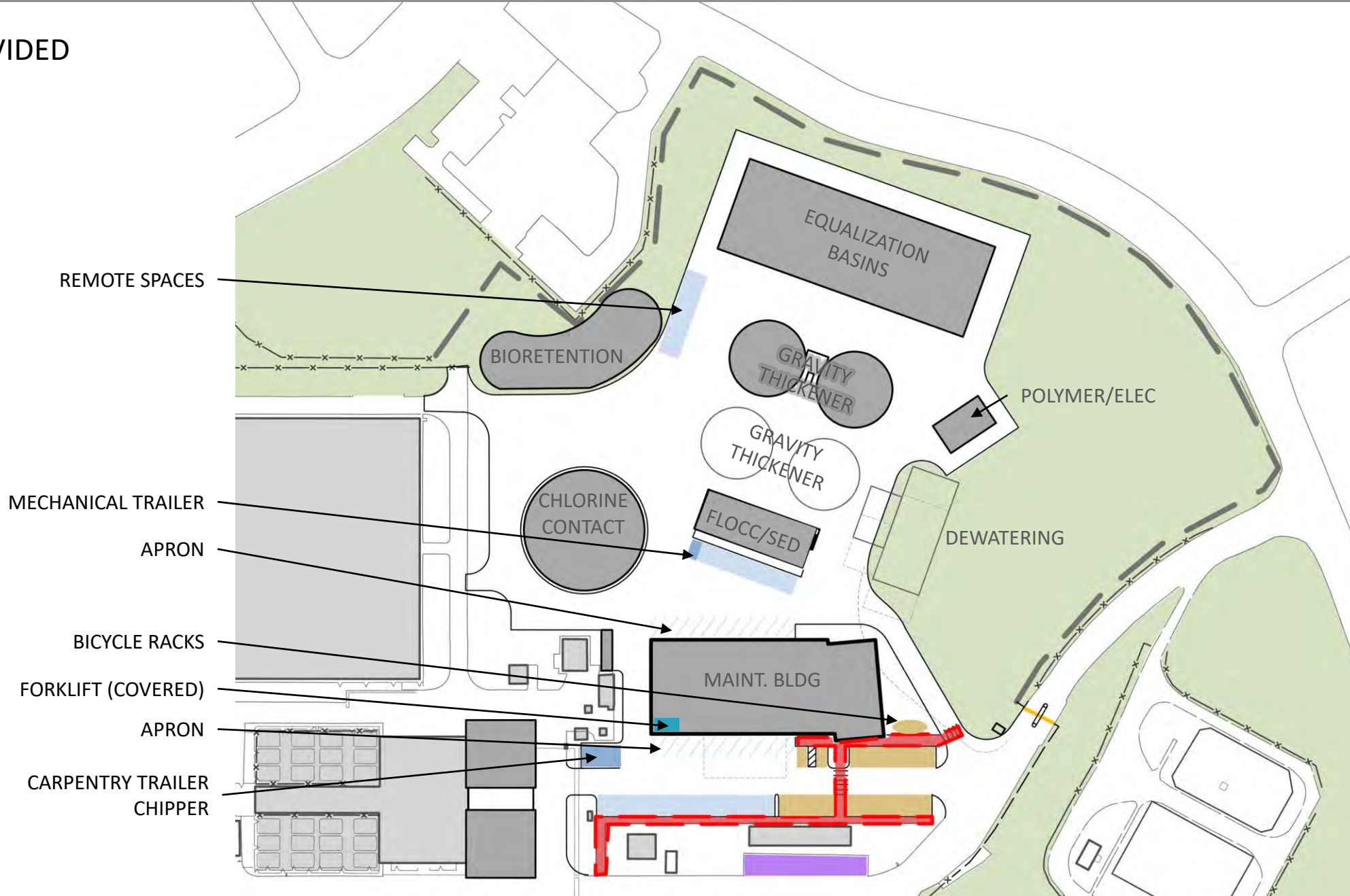
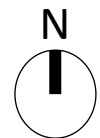
**55 VEHICLE SPACES PROVIDED
(48 REQUIRED)**

4 EQUIPMENT SPACES






- FACILITY PARKING**
 23 VEHICLES (INCL. 3 EV)
 2 TRAILERS
 1 LONG CHIPPER
 1 FORKLIFT
 7 REMOTE SPACES

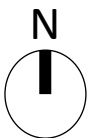
- STAFF PARKING**
 22 VEHICLES
 3 VISITORS

- FACILITY SPACES
- STAFF/VISITOR SPACES
- POWER BUILDING SPACES
- SIDEWALK






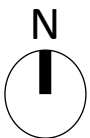
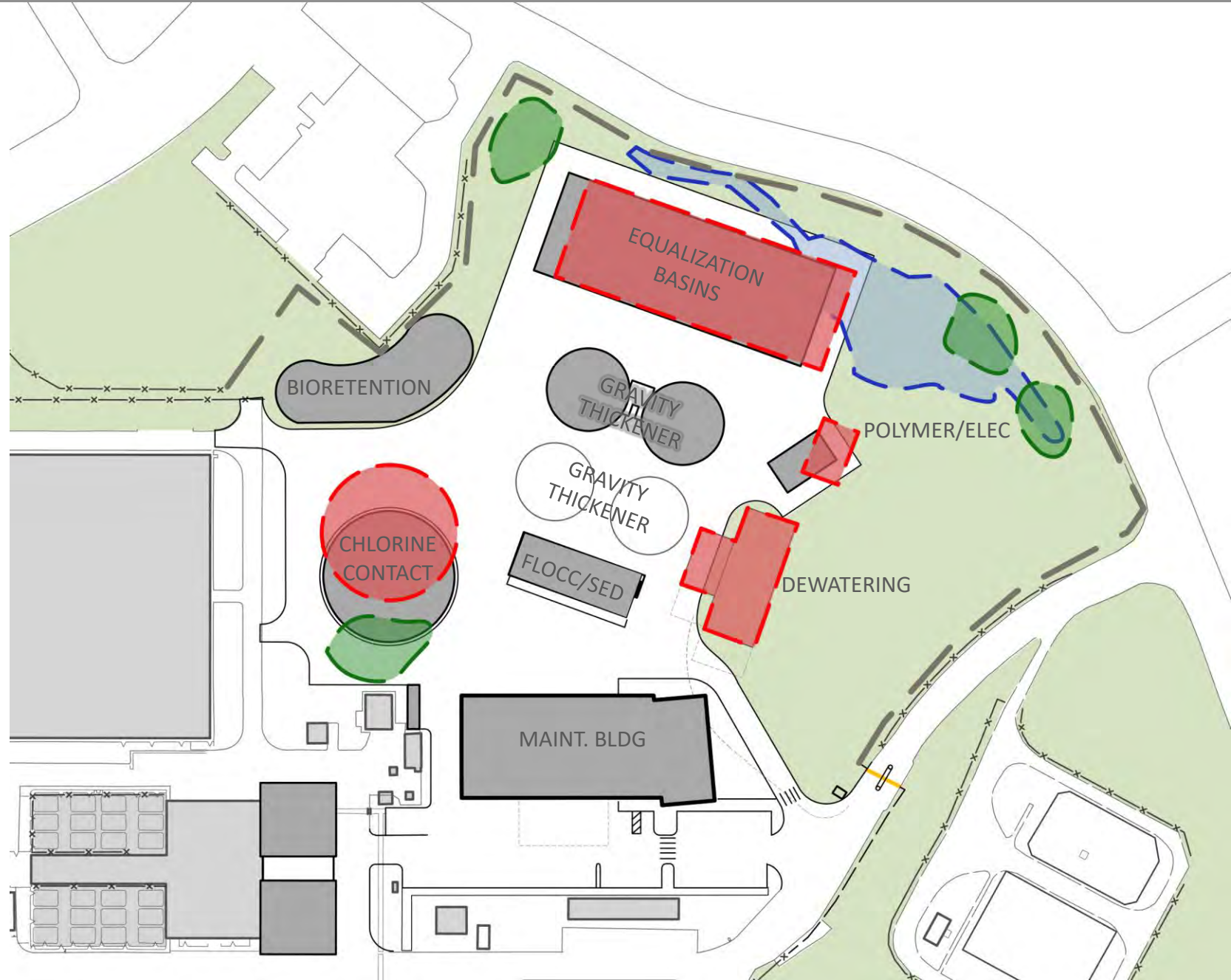
SITE LAYOUT CONSIDERATIONS

-  POTENTIAL NEW SIDEWALK
-  POTENTIAL FENCELINE RELOCATION
-  EXISTING TREES
-  EXISTING WETLANDS
-  PERSONNEL GATE



SITE LAYOUT CONSIDERATIONS

-  PROPOSED FACILITY RELOCATION
-  EXISTING TREES
-  EXISTING WETLANDS



An aerial photograph of a residential and commercial area. In the center, there is a large, open, light-colored field. Surrounding the field are various buildings, including a large multi-story building with a grid-like facade, several smaller commercial buildings, and a parking lot. The area is surrounded by dense residential housing with trees and winding roads. The entire image is overlaid with a semi-transparent grey filter.

ARCHITECTURAL CONTEXT

FIRE STATION



DE ANZA HIGH SCHOOL



MURPHY ELEMENTARY





MATERIALS



SCALE



FORMS



GLAZING



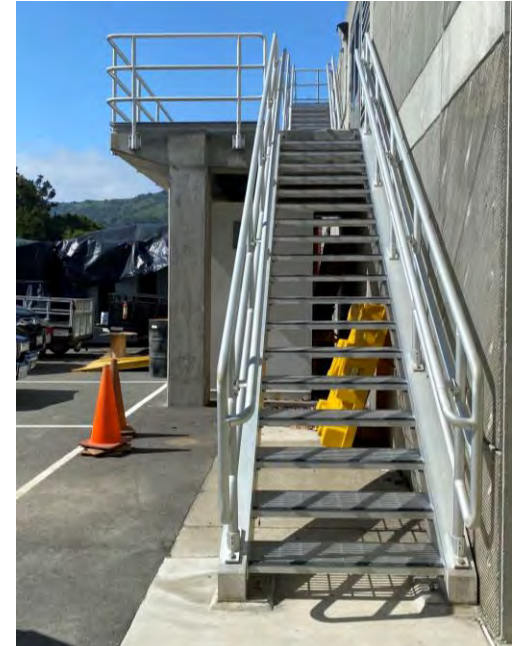
CANOPY



LANDMARK



SAFETY AND ACCESS



ON SITE



BUFFER



NEIGHBORHOOD



An aerial photograph of a campus, likely a university or college. The central focus is a large, open, light-colored field, possibly a sports field or a common area. Surrounding this field are several large, multi-story buildings with flat roofs, some of which appear to be dormitories or academic buildings. There are numerous trees scattered throughout the campus, particularly around the perimeter and between buildings. A road or path curves around the right side of the field. The overall scene is a mix of built-up areas and open space.

DESIGN OBJECTIVES

Utilize a structural system optimized for the programmatic function, long-term maintenance, and operations of the plant.

STEEL



- Range of forms and angles possible
- Materials: Widest Range

CONCRETE



- Load-bearing, some variation of form and texture possible
- Long-term durability
- Materials: Applied (if any)

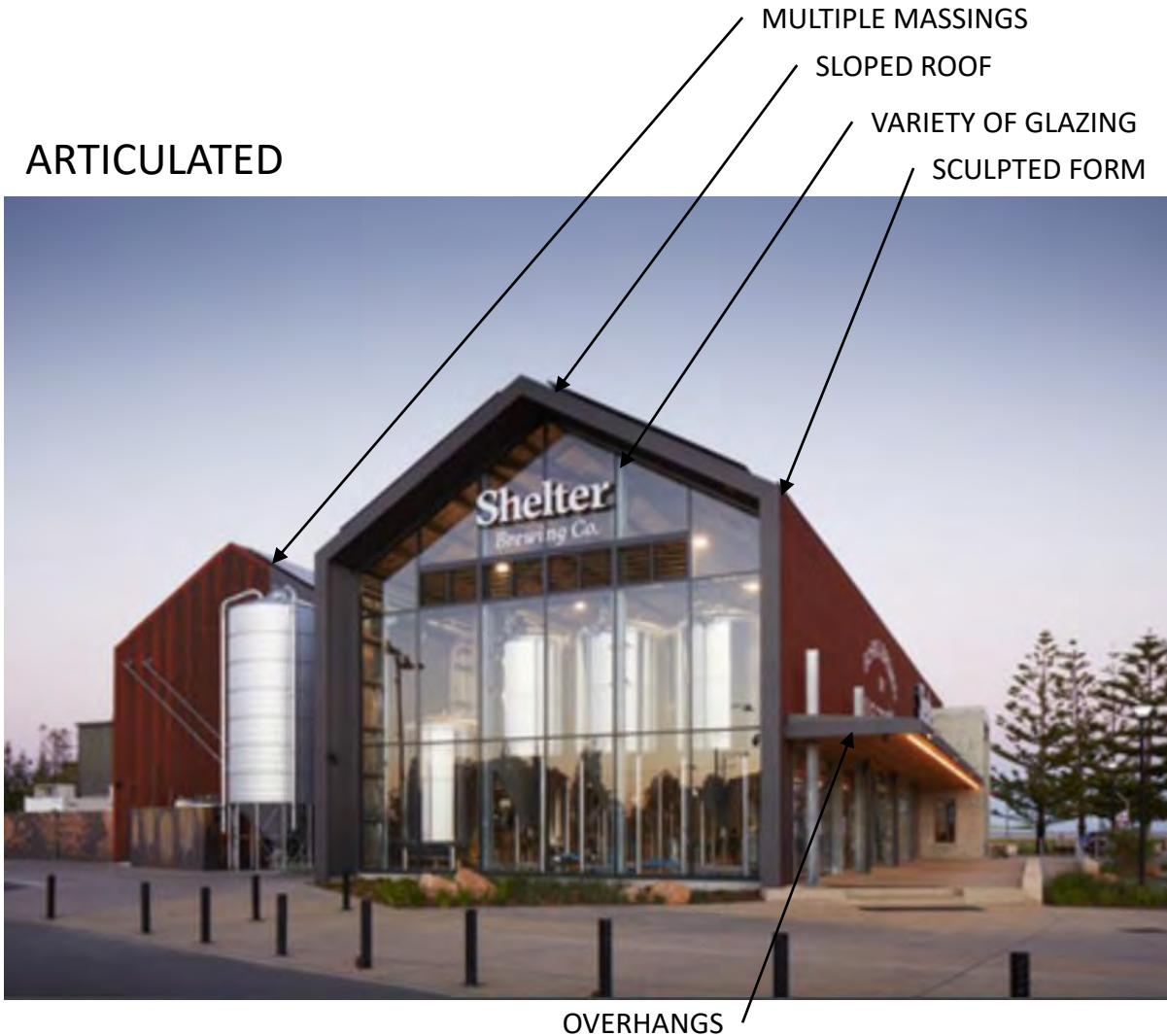
CMU



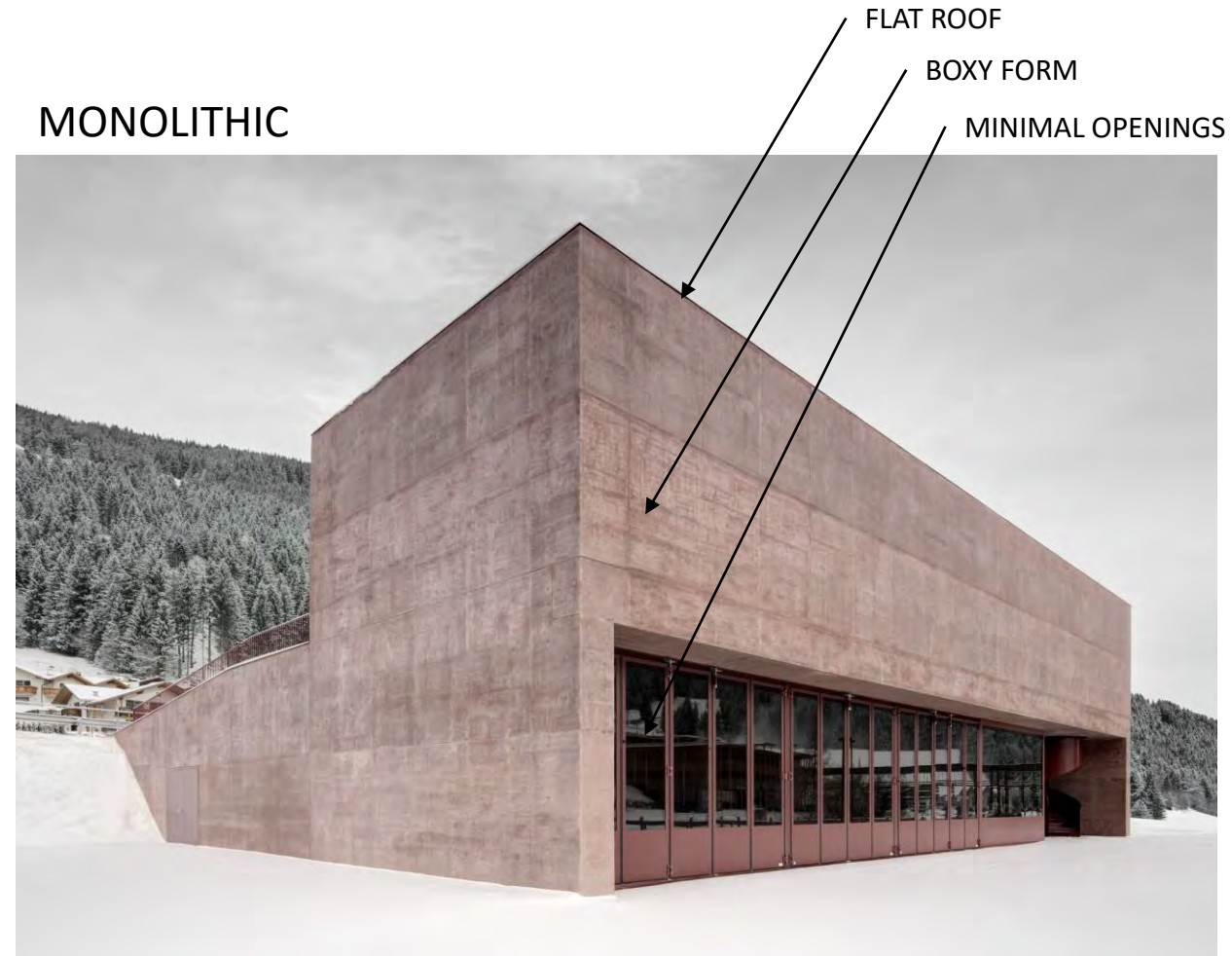
- Load-bearing, least variation in form possible
- Long-term durability
- Materials: Applied (if any)

Draw from existing site geometry to generate simple forms and massing.

ARTICULATED



MONOLITHIC



Create a cohesive plant identity by using a defined material palette and features across the site.

SCREENING AND FENCING



MATERIAL AND COLOR



CHANNEL GLASS



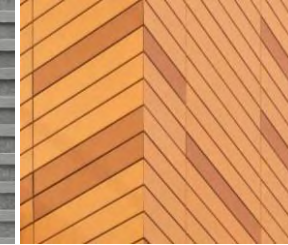
CONCRETE



METAL PANELS



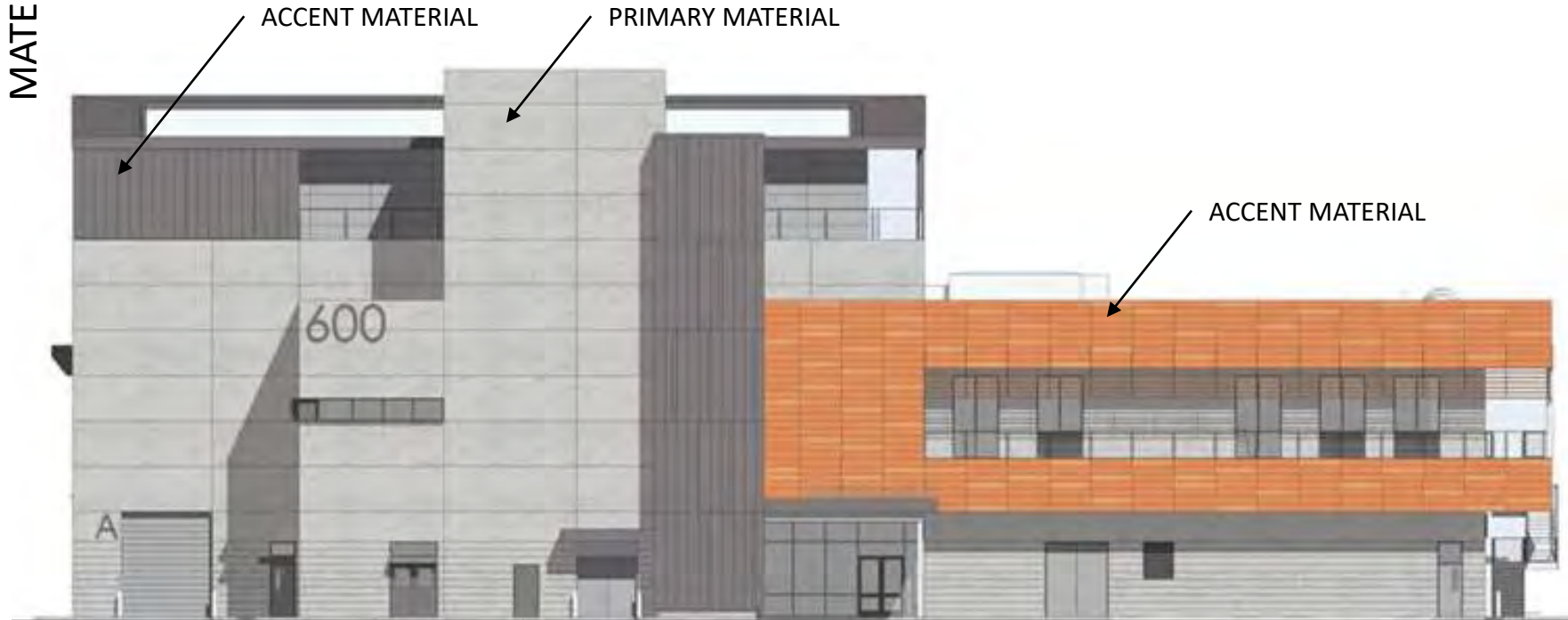
FIBER CEMENT



TERRA COTTA



STUCCO



Optimize the building features, fenestration, and orientation to maximize access, views, light, and utility.

SAWTOOTH ROOF WITH GLAZING FOR INDIRECT DAYLIGHTING



EYE-LEVEL WINDOWS IN WORK AREAS

CLERESTORY WINDOWS FOR INDIRECT DAYLIGHTING

FRAME VIEWS

ENLARGED SPACE AT ENTRY FOR GATHERING



EMPHASIZE ENTRY WITH WINDOWS AND CANOPIES

SCREEN GLAZING TO MINIMIZE SOLAR GAIN

TRANSLUCENT WEST FAÇADE FOR DIFFUSED DAYLIGHT

ROOF FORM INCORPORATED IN FAÇADE DESIGN



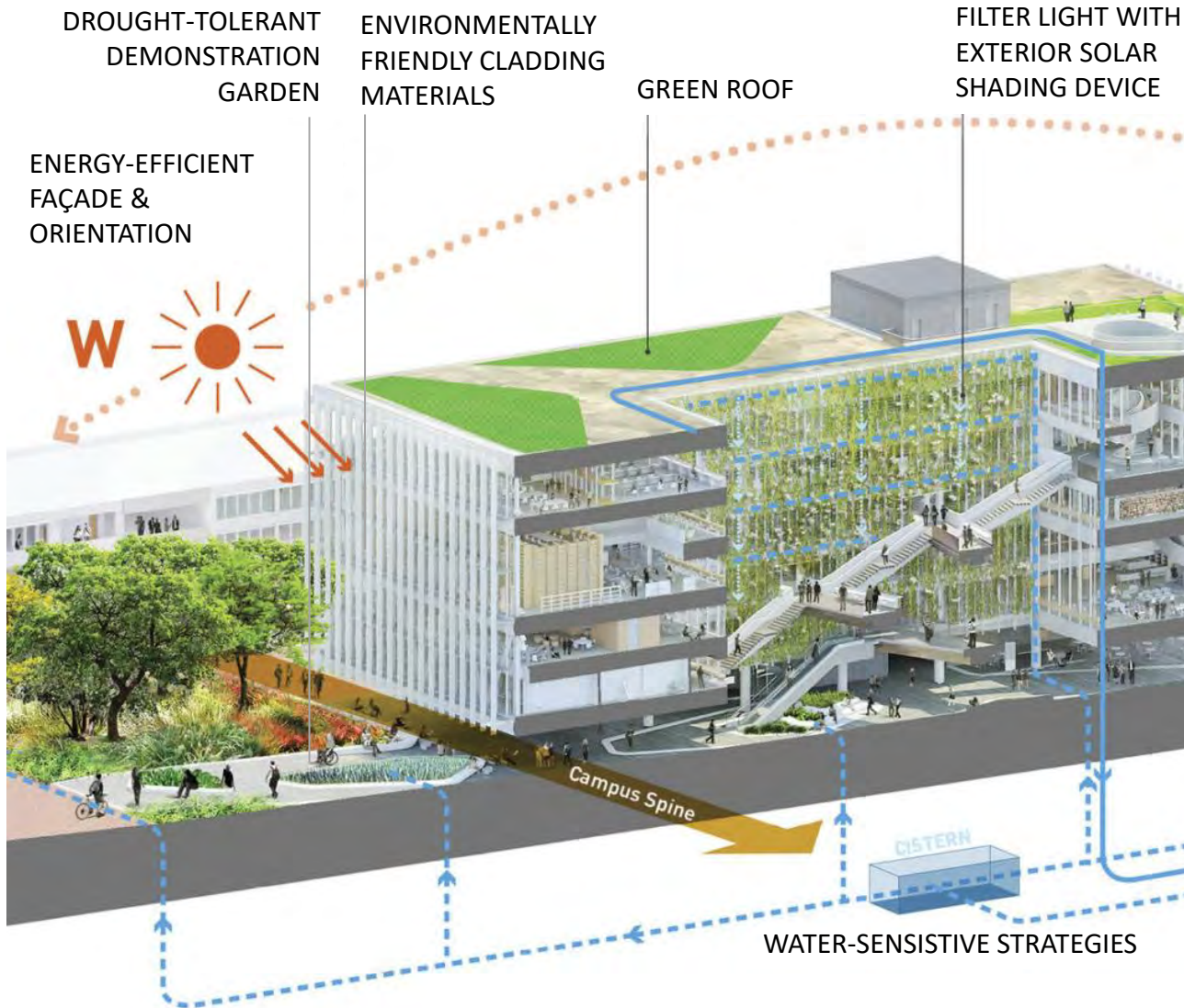
SOLID WALL IN PROCESS SPACE

LARGE WINDOWS AT OCCUPIED SPACES AT NORTH FAÇADE

FACILITY PARKING ADJACENT TO ENTRIES

Adhere to EBMUD's commitment to sustainability by optimizing the design for environmental factors and reducing ecological impacts.

GREEN STRATEGIES



ROOF FEATURES





LANDSCAPE AND SCREENING CONTEXT

VEGETATION SCREENING

- Mature trees screen the Plant from strategic angles
- Dense shrubs screen sunken plant equipment
- Distance views show dense growth vegetation surrounding plant



Valley View Rd. & Christopher Ct. – Tall trees provide some screening



Fascination Circle Hillside – Mature trees screen plant from above



Richmond Fire Station – Dense mature trees to left of station



Valley View Road & De Avila Way – Low shrubs screen equipment



Heavenly Ridge Lane – Distance view from hillside above

CONSTRUCTED BERMS

- Berms provide complete screening for sunken plant equipment
- Berms provide additional height for vegetated screen elements



Valley View Rd. – Berm screening from road



Spanish Trails – Side view showing berm construction



Valley View Rd. & Spanish Trails Rd. – Berm and vegetation combination

An aerial photograph of a residential and commercial area. In the center, there is a large, open, light-colored field or undeveloped lot. Surrounding this field are several buildings, including a large multi-story structure with a grid-like facade, and other smaller commercial or industrial buildings. A winding road or driveway curves around the right side of the field. The surrounding area is densely packed with residential houses and trees. The entire image is overlaid with a semi-transparent grey filter.

LANDSCAPE AND SCREENING STRATEGY


Constraints, Opportunities & Questions

- Plant tall trees that grow quickly
- 50 to 100 feet tall at maturity
- Drought-tolerant requiring no irrigation beyond establishment
- Minimal leaf litter for fire prevention

Example species:

- *Lophostemon confertus* (Brisbane Box)
- *Eucalyptus sideroxylon* (Red Ironbark)
- *Casuarina stricta* (Mountain She Oak)
- *Eucalyptus gunnii* (Cider Gum)



 Potential large tree planting areas



Constraints, Opportunities & Questions

- Drought-tolerant shrub species to soften edges and screen lower views such as:
- How soon does screening need to be effective? 5 years, 10 years
- Planting strategy:
 1. Densely plant vegetation for immediate screening but requiring future thinning
 2. Use natural spacing when planting with no future thinning

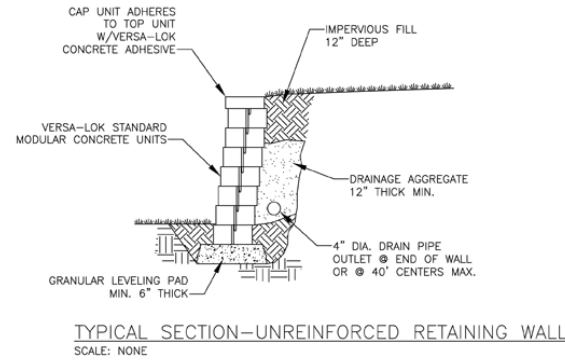
Example species:

- *Sambucus Mexicana* (Blue Elderberry)
- *Rhamnus californica* (California Coffeeberry)
- *Arctostaphylos* 'Dr. Hurd'
- *Laurus nobilis*



Constraints, Opportunities & Questions

- Create berms at edges of property placed in strategic view corridors
- 3'-5' mounds in combination with planting
- Requires more space than walls and fence elements
- Creates more natural looking landscape than walls and fence elements



Use of dry-stack blocks to create berm



Berm as an art form




Berm and wall combination



Berm and wall combination



 Potential berm area

Constraints, Opportunities & Questions

- Create walls at edges of property placed in strategic view corridors
- Does not require a lot of space
- Creates an opportunity for art and/or signage
- Institutional feel in residential area
- Vines or terracing may soften the hard institutional effect
- Terraced shorter, natural walls to create berm




Incorporated signage



Concrete wall with vine planting



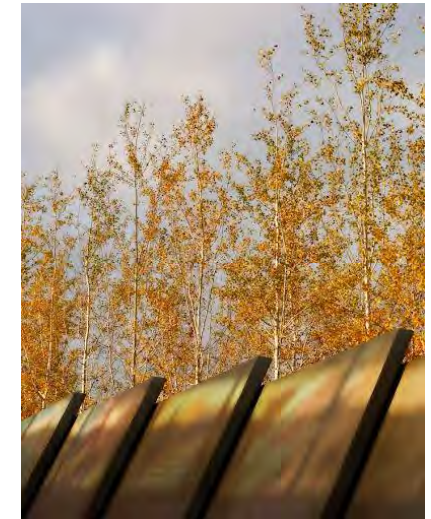
 Potential wall area



Berm and wall combination



Tall wall with art




Wall with art and tree screening

Constraints, Opportunities & Questions

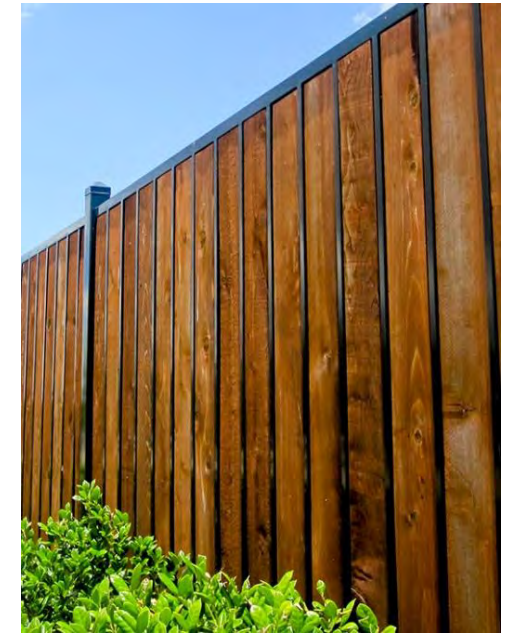
- Construct fences edges of property placed in strategic view corridors
- Does not require a lot of space
- Creates an opportunity for art and/or signage
- May create a more institutional feel, but vines or terracing may soften the effect
- Residential screening in neighborhood is often wood fencing



 Potential fence area



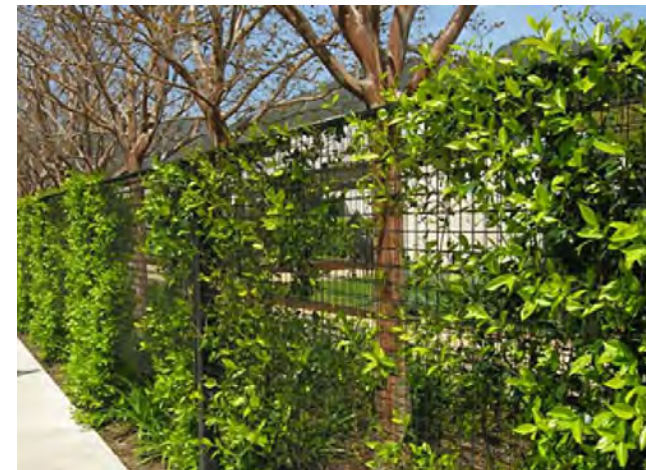
Metal fence with art



Wood/metal fence



Perforated metal fence



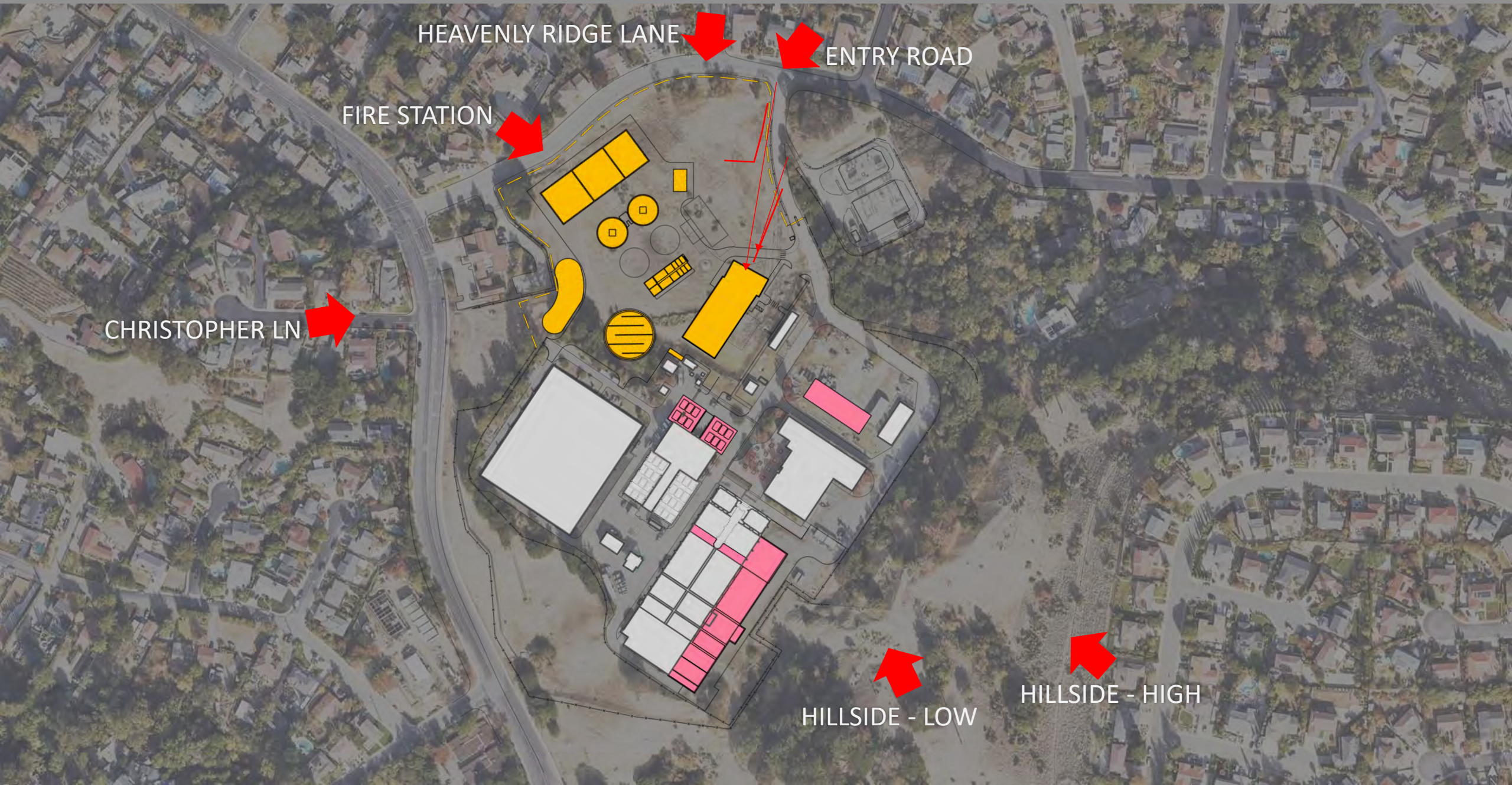
Greenscreen Fence



Greenscreen Fence with planting at front

KEY VIEWSHEDS





HEAVENLY RIDGE LANE

ENTRY ROAD

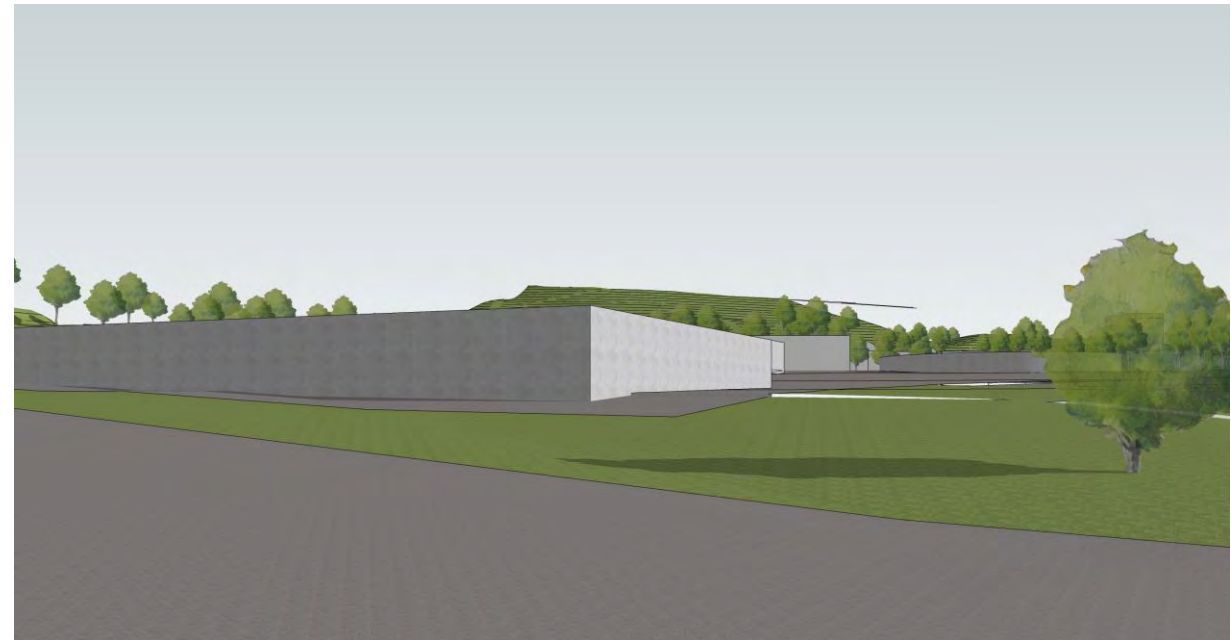
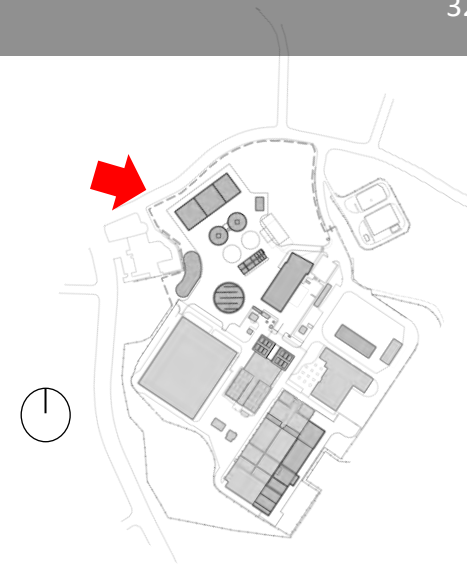
FIRE STATION

CHRISTOPHER LN

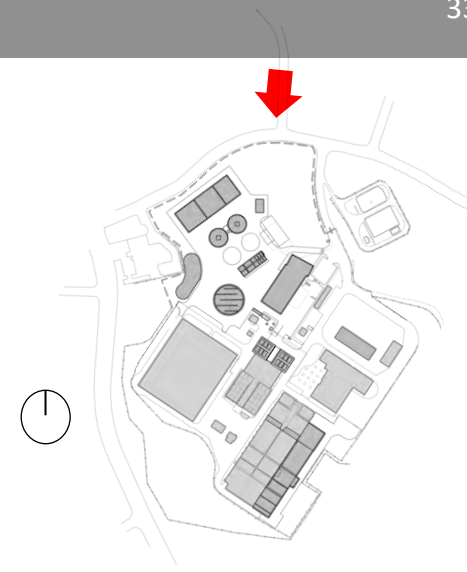
HILLSIDE - LOW

HILLSIDE - HIGH

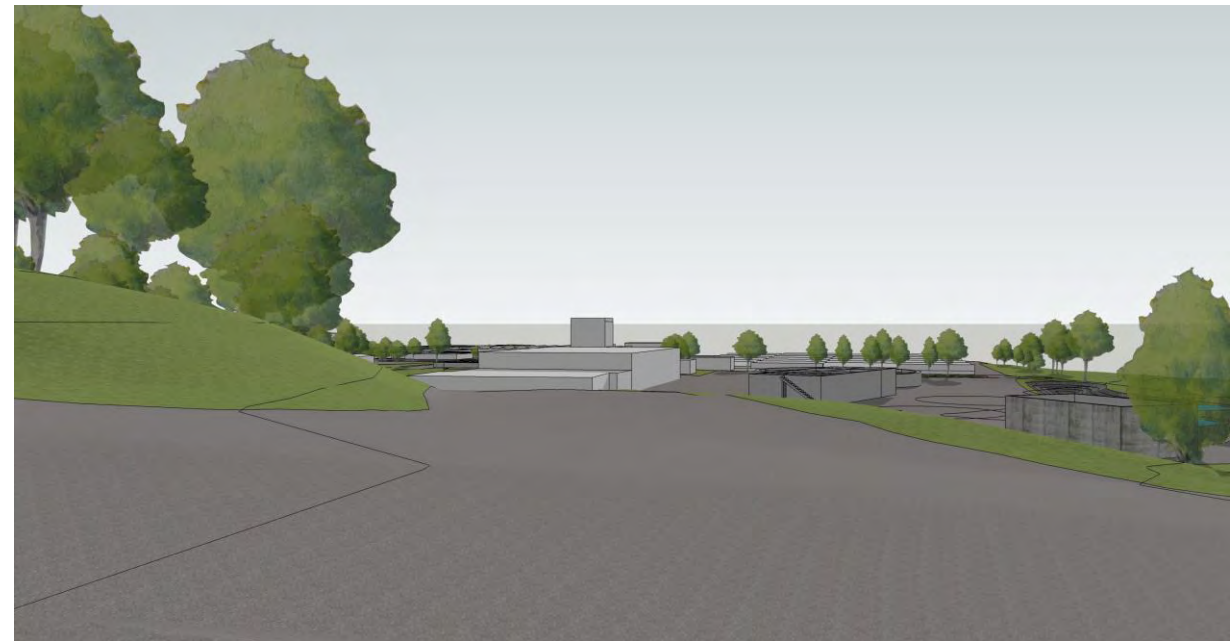
- VIEW IMPACTS VERY CLOSE TO THE PUBLIC EDGE.
- VANTAGE POINT LOCATED BELOW GROUND LEVEL FOR MOST OF THE PROPOSED FACILITIES.
- LIMITED SPACE FOR SCREENING DUE TO WETLANDS, SECURITY FENCING, AND LOCATION OF EQ BASINS.



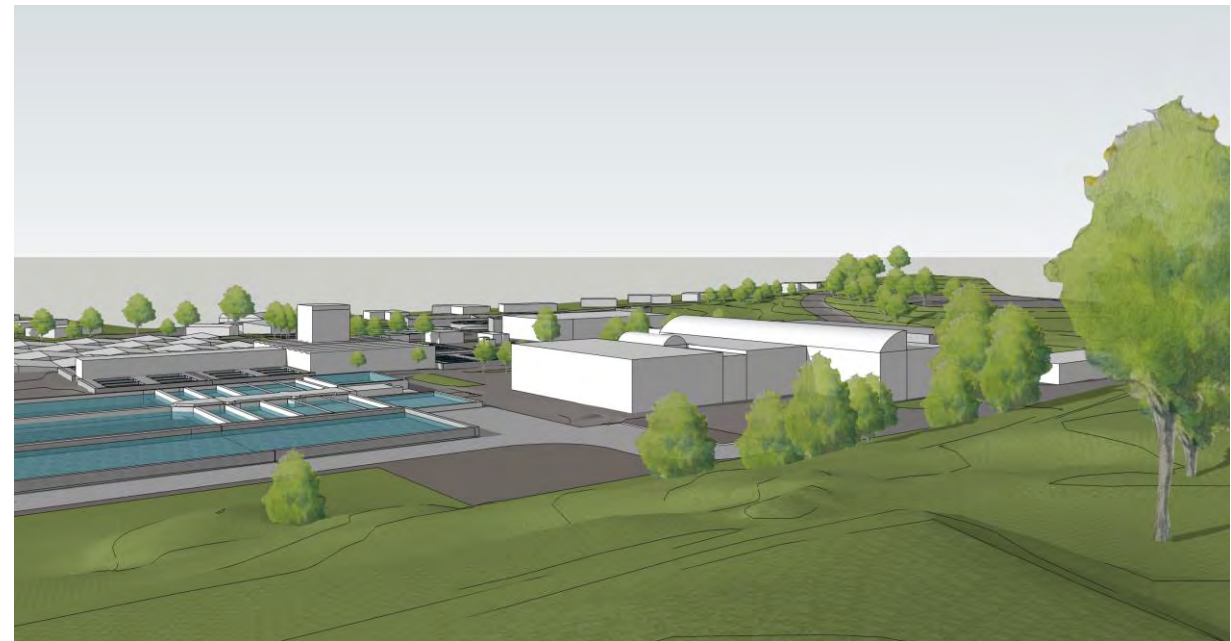
- VIEW IMPACTS SET BACK FROM PUBLIC EDGE.
- VANTAGE POINT LOCATED ABOVE THE LEVEL FOR MOST OF THE PROPOSED FACILITIES
- MULTIPLE LAYERS OF SCREENING REQUIRED TO BE EFFECTIVE.
- EXISTING TREES PROVIDE SCREENING BUT ARE NOT SUFFICIENT.



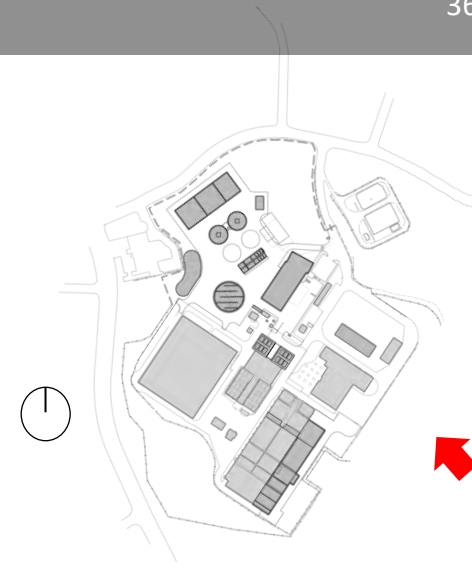
- VIEW IMPACTS SET BACK FROM PUBLIC EDGE.
- VIEW OPPORTUNITY TO EXPOSE OCCUPIED OFFICE SPACE IN MAINTENANCE BUILDING
- VANTAGE POINT LOCATED ABOVE THE LEVEL FOR MOST OF THE PROPOSED FACILITIES.
- MULTIPLE LAYERS OF SCREENING REQUIRED TO BE EFFECTIVE.
- TOPOGRAPHY DROPS DOWN NEXT TO THE ROAD LIMITING SCREENING STRATEGIES.



- PREDOMINANTLY PRIVATE VIEW IMPACTS SET FAR AWAY FROM PLANT.
- VANTAGE POINT LOCATED HIGH ABOVE THE LEVEL FOR MOST OF THE PROPOSED FACILITIES.
- IF NEEDED, MULTIPLE LAYERS OF SCREENING REQUIRED TO BE EFFECTIVE.



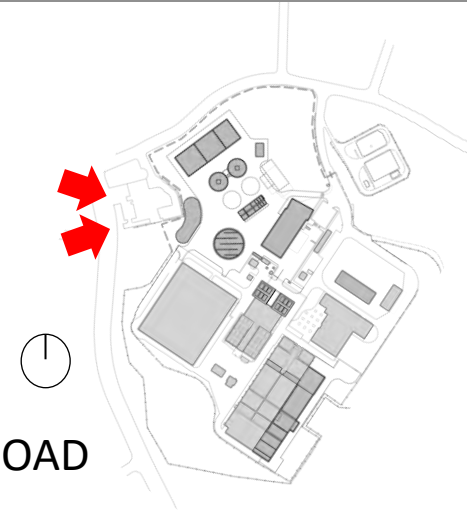
- PREDOMINANTLY PRIVATE VIEW IMPACTS SET FAR AWAY FROM PLANT.
- VANTAGE POINT LOCATED HIGH ABOVE THE LEVEL FOR MOST OF THE PROPOSED FACILITIES.
- IF NEEDED, MULTIPLE LAYERS OF SCREENING REQUIRED TO BE EFFECTIVE.



LIMITED VISIBILITY FROM VALLEY VIEW ROAD



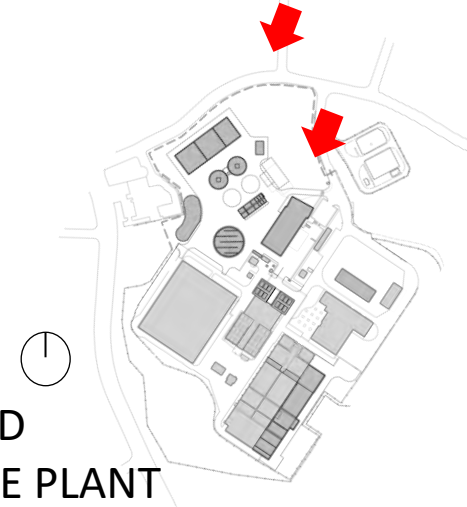
NO VISIBILITY FROM VALLEY VIEW ROAD



LIMITED VISIBILITY FROM FURTHER UP HEAVENLY RIDGE LANE



MORE DETAILED VIEW OF PROPOSED MAINTENANCE FACILITY WITHIN THE PLANT



LIMITED VISIBILITY FROM THE SOUTH



NO VISIBILITY FROM VALLEY VIEW ROAD



NEXT STEPS



EAST BAY MUNICIPAL UTILITIES DISTRICT

SOBRANTE WATER TREATMENT PLANT

CONCEPTUAL AESTHETICS PLANS

WORKSHOP #1

JANUARY 7, 2022



mwa architects

AGENDA

Project Context

Site Layout

Screening Strategies

Facility Design Concepts

OBJECTIVES

Review project context and format for first public workshop

Identify preferred screening approach

Confirm design and representation of plant buildings and process structures

GENERAL DISCUSSION

Public workshop scheduling status update

Desired level of refinement for key views at
public workshop

PROJECT CONTEXT





FIRE STATION



DE ANZA HIGH SCHOOL



MURPHY ELEMENTARY





CHEMICAL & OZONE BUILDING



OPERATIONS BUILDING & FILTER GALLERY



MATERIALS



SCALE



FORMS



ON SITE

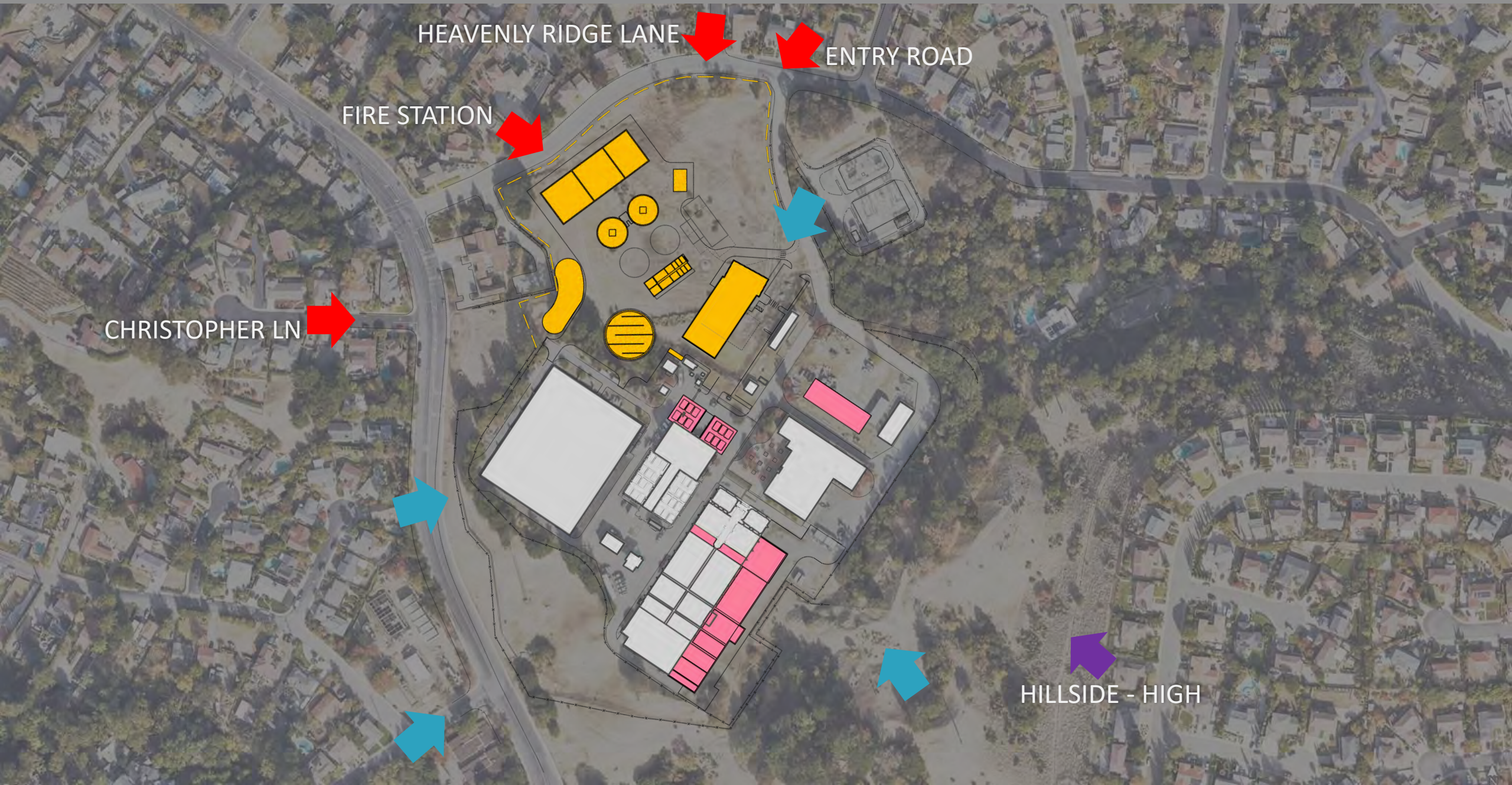


BUFFER



NEIGHBORHOOD





HEAVENLY RIDGE LANE

ENTRY ROAD

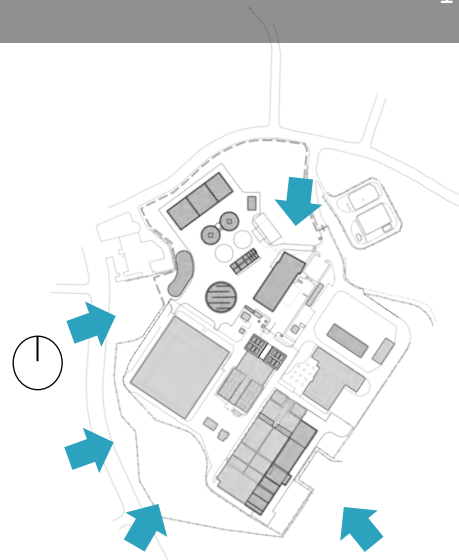
FIRE STATION

CHRISTOPHER LN

HILLSIDE - HIGH

EXISTING SITE VIEWS





SITE LAYOUT



- EXISTING FACILITIES
- PHASE I FACILITIES
- PHASE II FACILITIES
- LANDSCAPING



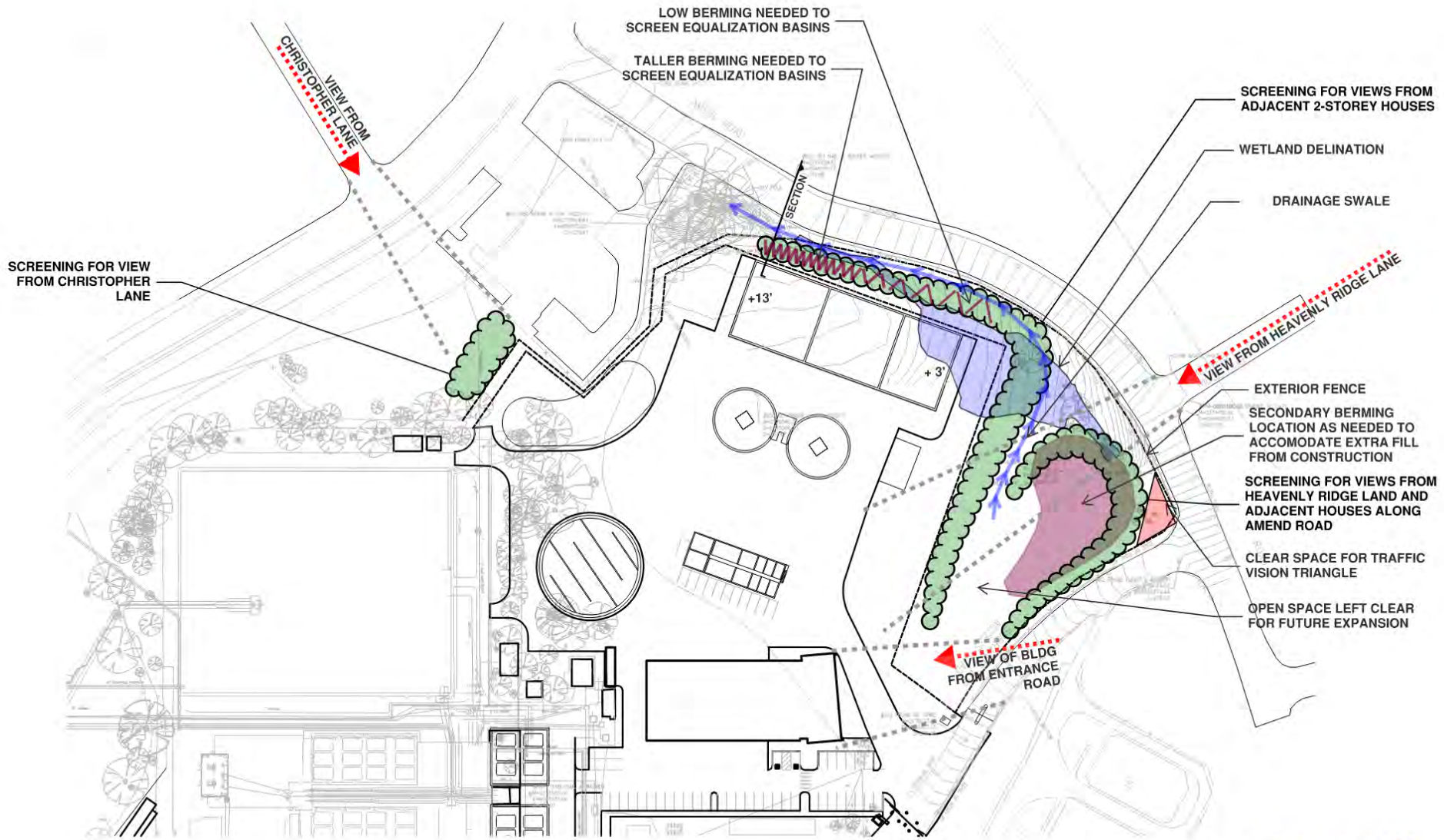
- EXISTING FACILITIES
- PHASE I/II FACILITIES
- PROPOSED FENCELINE
- PROPOSED SIDEWALK
- UNDERGROUND UTILITIES
- FUTURE FACILITIES (NIC)



An aerial photograph of a school campus, featuring a large open field in the foreground, several large buildings, and a winding road. The image is overlaid with a semi-transparent grey filter.

SCREENING STRATEGIES

1. Focus screening and design features at high visibility areas
 - Christopher Court intersection
 - Heavenly Ridge Lane Intersection
 - Adjacent houses along Amend Road
2. Screen views of the plant with landscaping
 - Mature tree screen the Plant from strategic angles
 - Dense shrubs screen below-grade plant equipment
 - Distant views from surrounding neighborhoods show dense growth vegetation surrounding Plant
 - Berms provide additional height for vegetated screen elements
3. Utilize resilient planting:
 - Drought tolerant
 - Minimal maintenance
 - No irrigation after establishment period
 - Minimal leaf litter for fire prevention
4. Maintain Plant security
 - Position planting to be clear of interior and exterior fences
 - Maintain views of exterior perimeter of plant while screening plant from adjacent public areas



1/4/2022
1" = 90'

Botanical Name	Common Name	Native	Water Use	Max Height	Max Width	Notes
Trees						
Casuarina stricta	Mountain She-Oak	No	L	35'	35'	Very little pruning required. Fast growing.
xChitalpa tashkentensis	Chitalpa	Part	L	30'	30'	Fast growing, hybrid of desert willow
Melaleuca linariifolia	Flaxleaf Paperbark	No	L	30'	25'	
Melaleuca quinquenervia	Paperbark	No	L			
Pinus attenuata	Knobcone Pine	Yes	VL	80'	25'	Fast growing. Ok with poor soil.
Pinus sabiniana	Foothill Pine	Yes	VL	80'	40'	
Pinus coulteri	Coulter Pine	Yes	L	80'	40'	
Prunus caroliniana	Carolina Laurel	No	L	30'	25'	Good screen, dense leaves.
Quercus agrifolia	Coast Live Oak	Yes	VL	70'	50'	
Quercus chrysolepis	Canyon Live Oak	Yes	VL	60'	50'	
Quercus douglasii	Blue Oak	Yes	VL	50'	50'	Low, spreading branches. Immune to sudden oak death.
Large Shrubs						
Cercocarpus betuloides	Mountain Ironwood	Yes	VL	12'	12'	
Frangula californica tomentella	Chaparral Coffeeberry	Yes	L	12'	12'	Ok for bioretention
Heteromeles arbutifolia	Toyon	Yes	L	15'	15'	Ok for bioretention
Rhaphiolepis 'Montic'	Majestic Beauty India Hawthorn	No	L	20'	10'	
Rhus laurina	Laurel Sumac	Yes	VL	18'	18'	
Medium Shrubs						
Arctostaphylos manzanita	Manzanita	Yes	L	12'	12'	Ok for bioretention
Ceanothus thyrsiflorus 'Snow Flurry'	Wild Lilac	Yes	VL	10'	12'	Ok for bioretention
Dendromecon rigida	Bush Poppy	Yes	VL	6'	6'	
Lepechinia hastata	Mexican Pitcher Sage	Yes	L	6'	6'	
Rhus integrifolia	Lemonade Berry	Yes	L	10'	10'	Ok for bioretention
Stormwater Facility Grasses & Perennials						
Bouteloua gracilis	Blue Grama Grass		L	1.5'	1'	Ok for bioretention
Festuca californica	California fescue	Yes	L	2'	2'	Ok for bioretention
Melica californica	California melic	Yes	L	1'	1'	Ok for bioretention
Achillea millefolium	Yarrow	Yes	L	1.5'	1'	Ok for bioretention
Epilobium canum	California Fuchsia	Yes	L	1'	4'	Ok for bioretention
Artemisia californica	Sagebrush	Yes	L	4'	6'	Ok for bioretention

Trees



Casuarina stricta
Coast Beefwood



Chitalpa x tashkentensis
Chitalpa



Melaleuca linariifolia
Flax Leaf Paperbark



Melaleuca quinquenervia
Cajeput



Pinus attenuata
Knobcone Pine



Pinus coulteri
Coulter Pine, Bigcone Pine



Pinus sabiniana
Foothill, Gray & Digger Pine



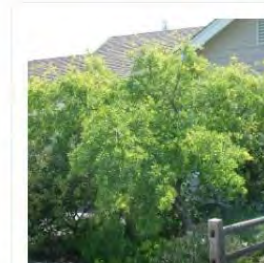
Prunus caroliniana
Carolina Laurel Cherry



Quercus agrifolia
Coast Live Oak



Quercus chrysolepis
Maul or Goldencup Oak, Canyon Live



Quercus douglasii
Blue Oak

Shrubs



Arctostaphylos manzanita
Common Manzanita



Artemisia californica
California Sagebrush



Ceanothus thyrsiflorus 'Snow Flurry'
White Blossom Ceanothus



Cercocarpus betuloides
Mountain Mahogany



Dendromecon rigida
Bush Poppy



Heteromeles arbutifolia
Toyon



Lepechinia fragrans
Pitcher Sage



Malosma laurina
Laurel Sumac



Rhamnus californica tomentella
Serpentine Coffeeberry



Rhaphiolepis 'Majestic Beauty'
Majestic Beauty Indian Hawthorne



Rhaphiolepis indica 'Springtime'
Springtime Indian Hawthorn



Rhus integrifolia
Lemonade Berry

Ground Covers



Achillea millefolium
Common Yarrow



Bouteloua gracilis
Mosquito Grass



Bouteloua gracilis 'Blonde Ambition'
Blonde Ambition Blue Grama



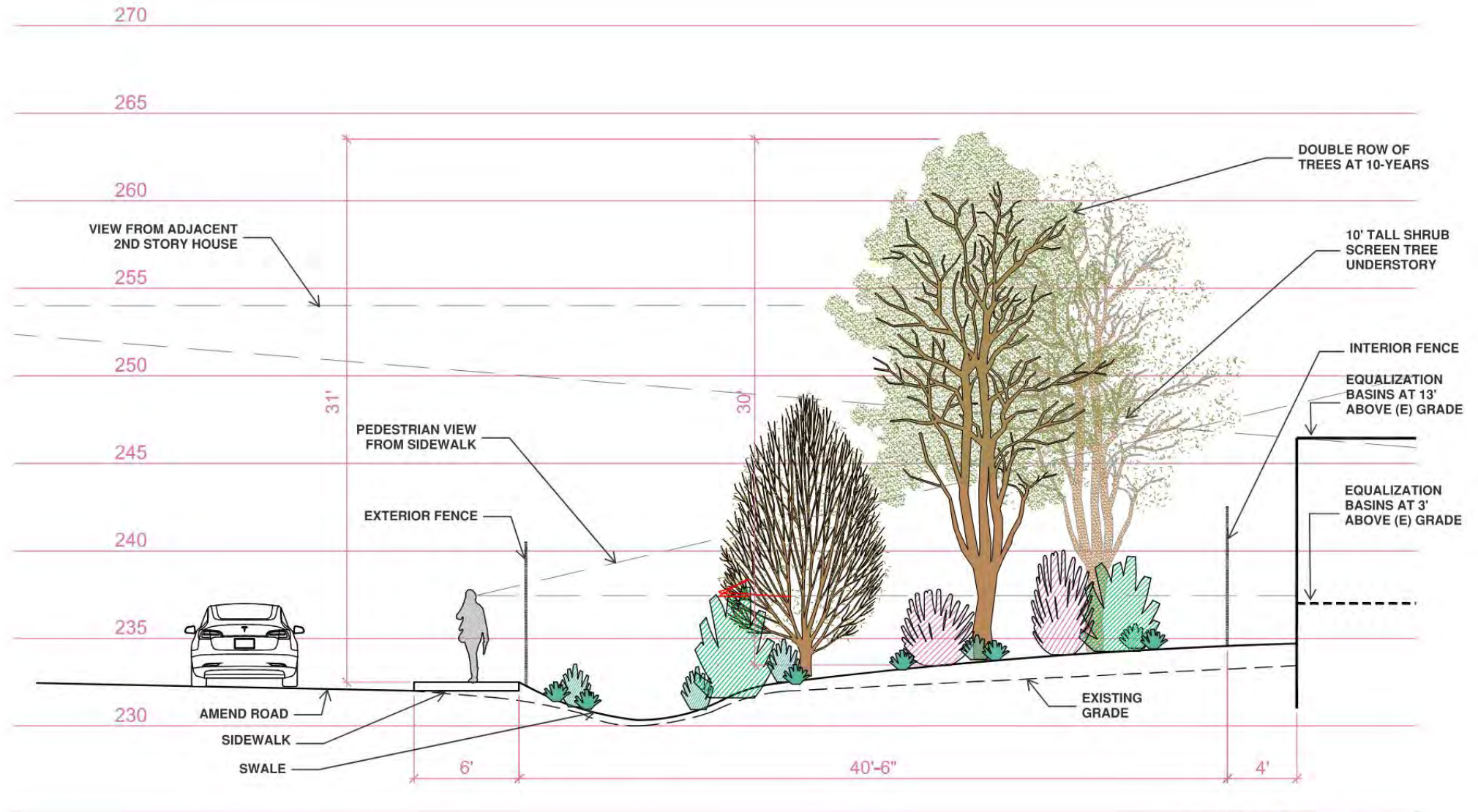
Epilobium canum
California Fuchsia

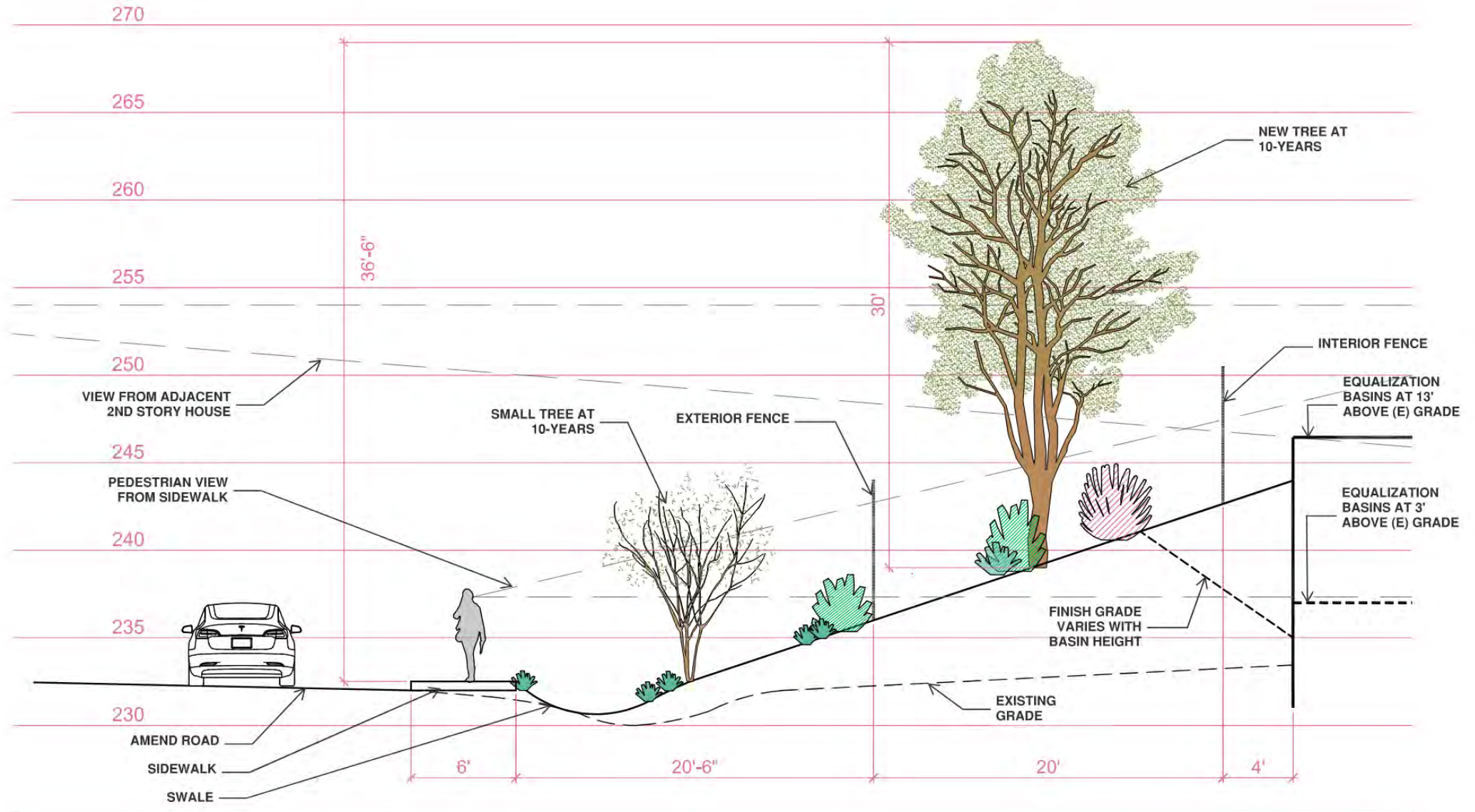


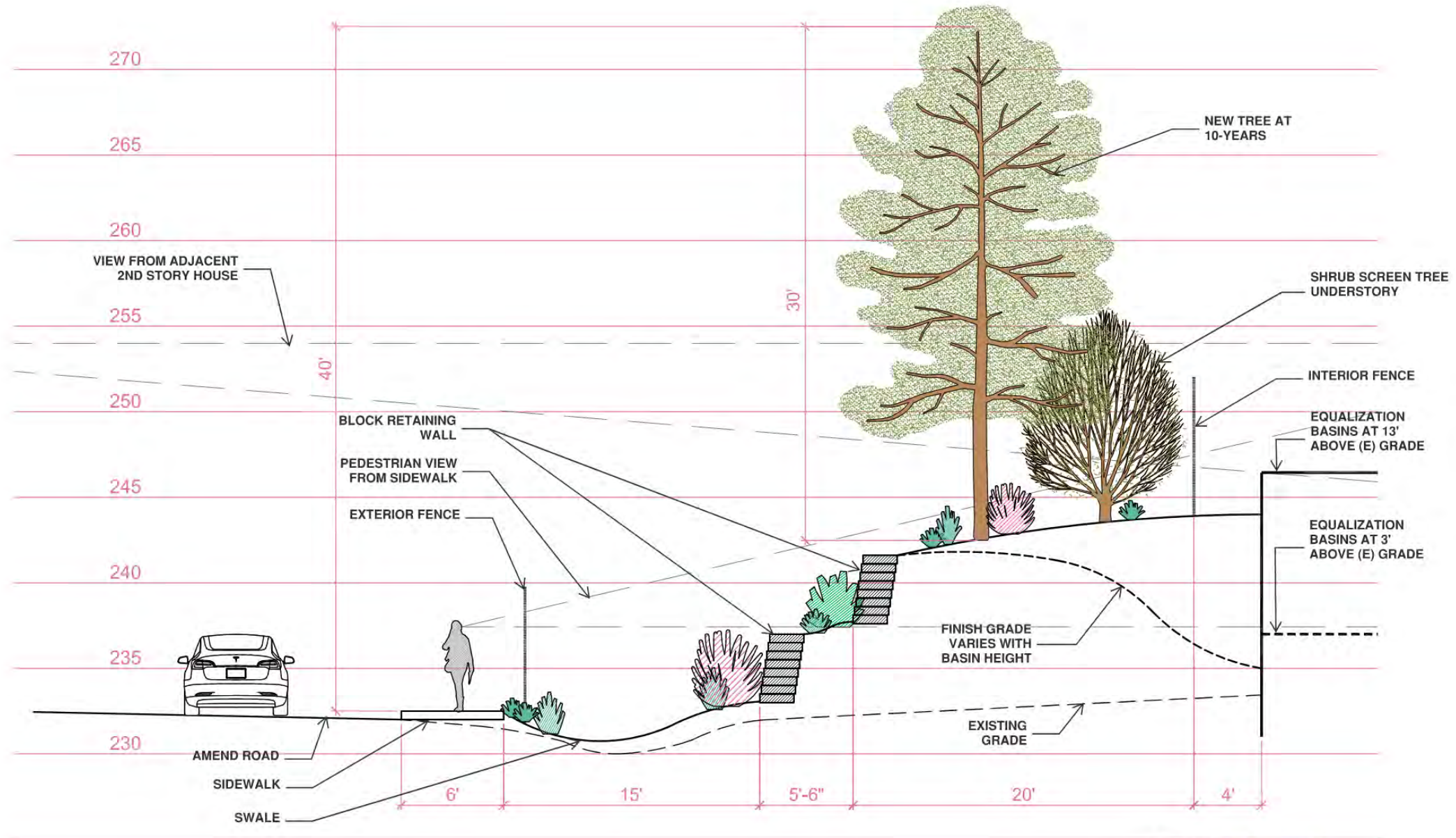
Festuca californica
California Fescue

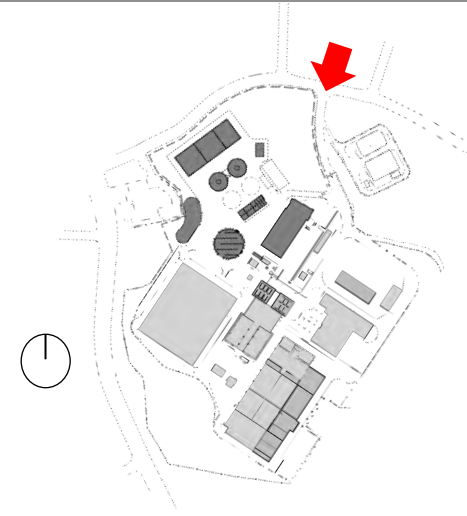


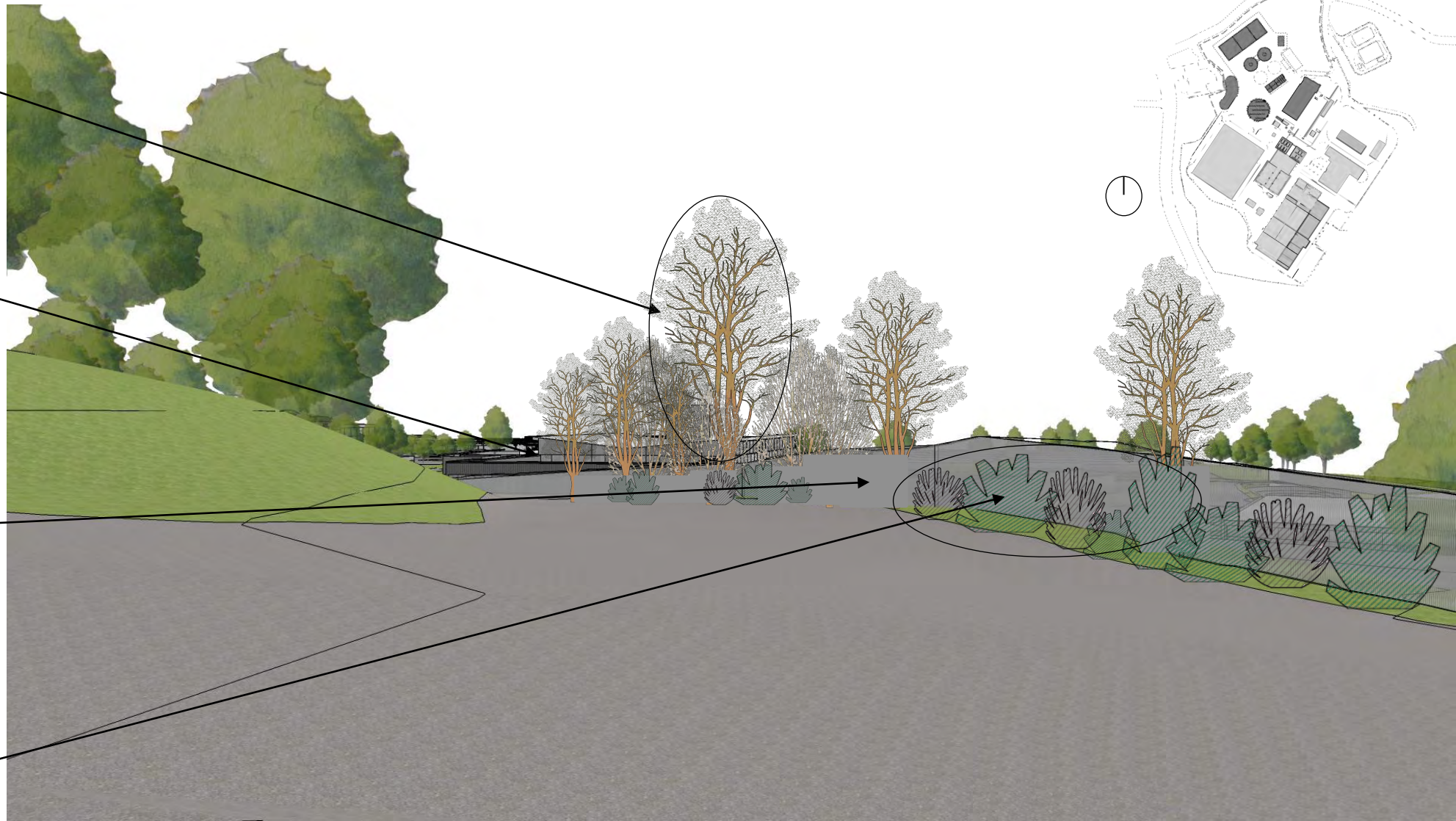
Melica californica
California Melic

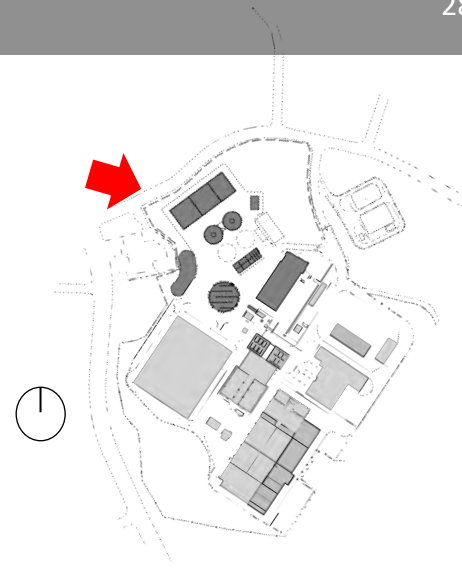


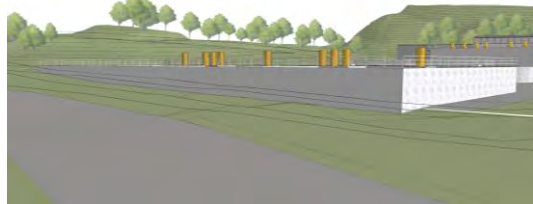


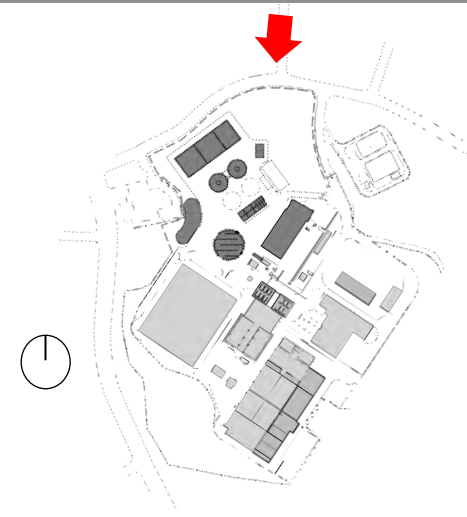


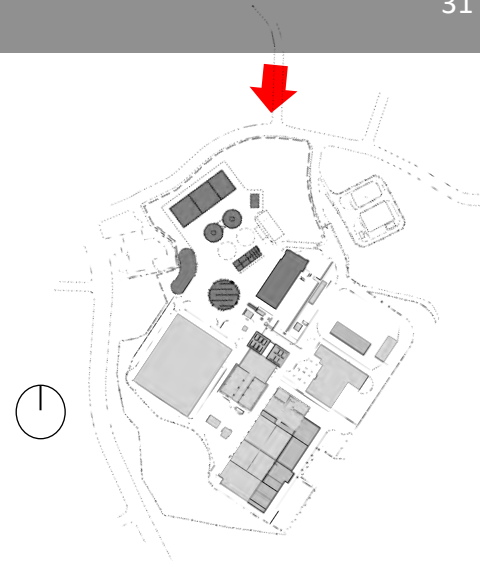


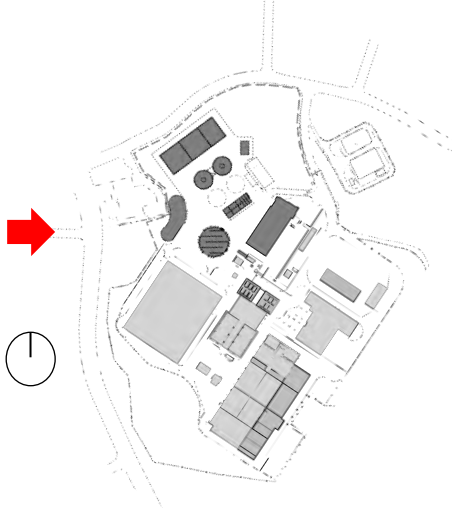


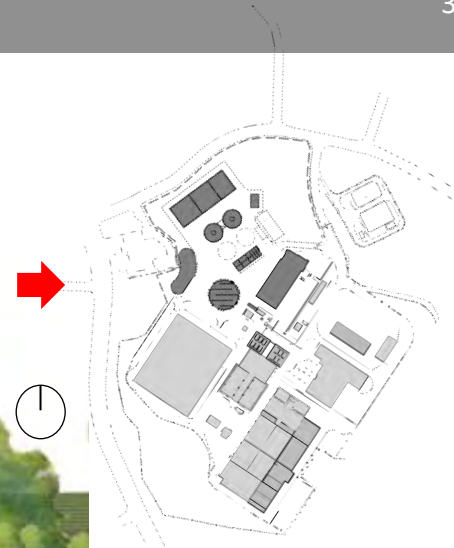
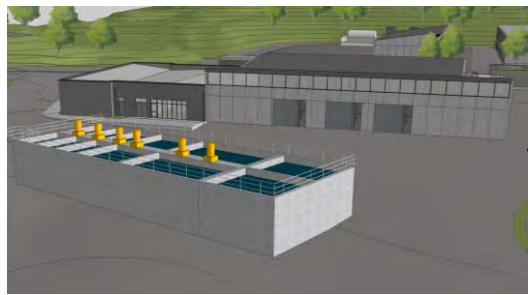


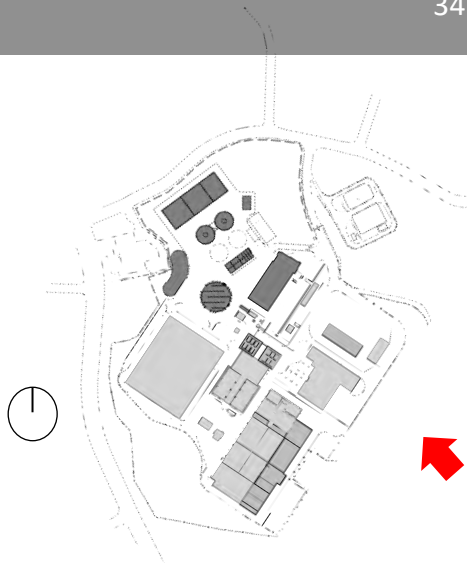


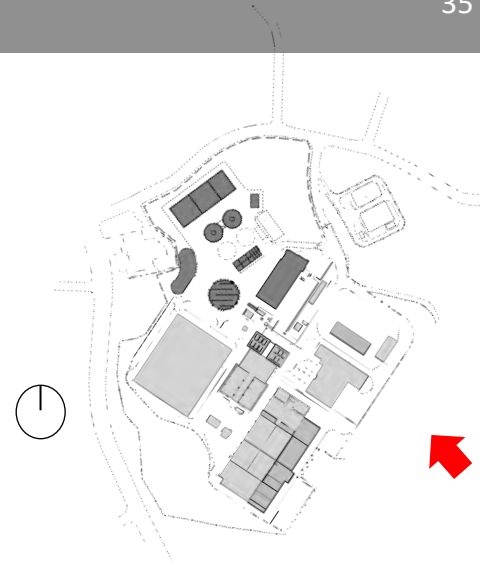
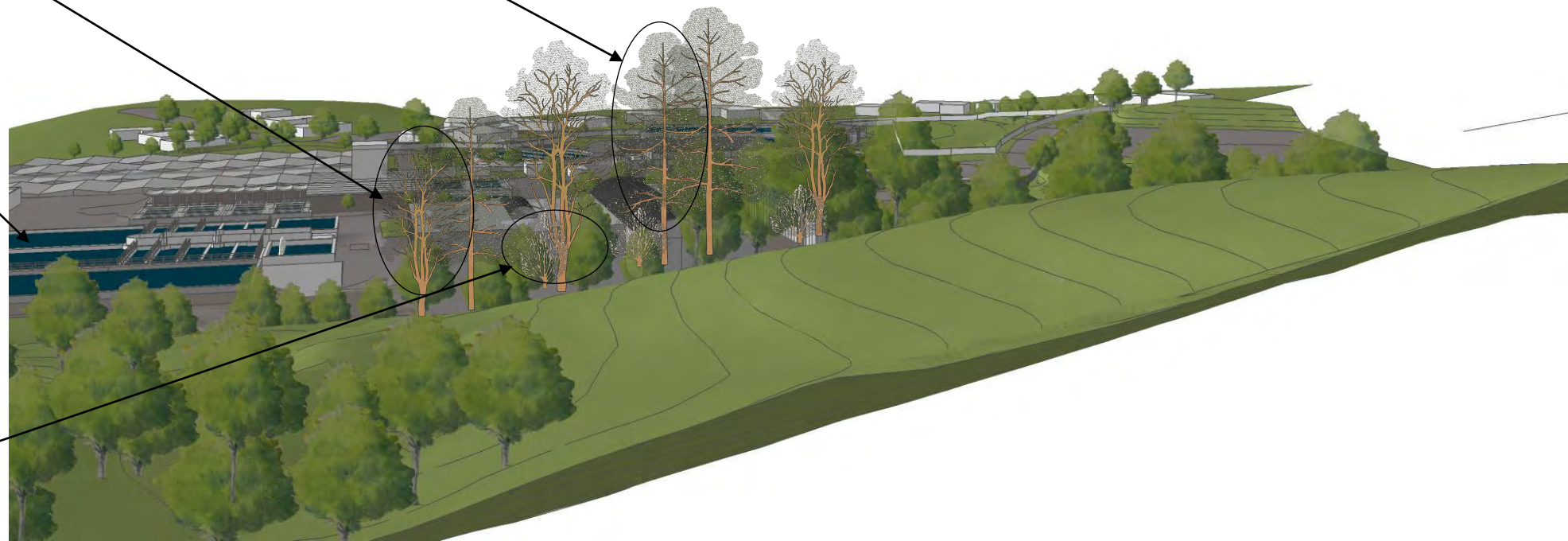
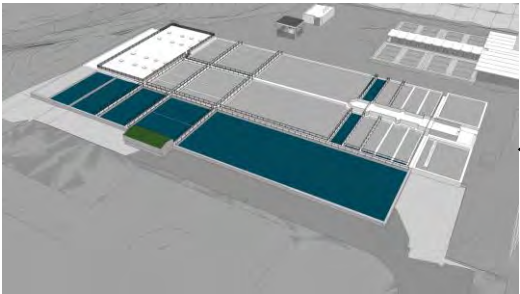




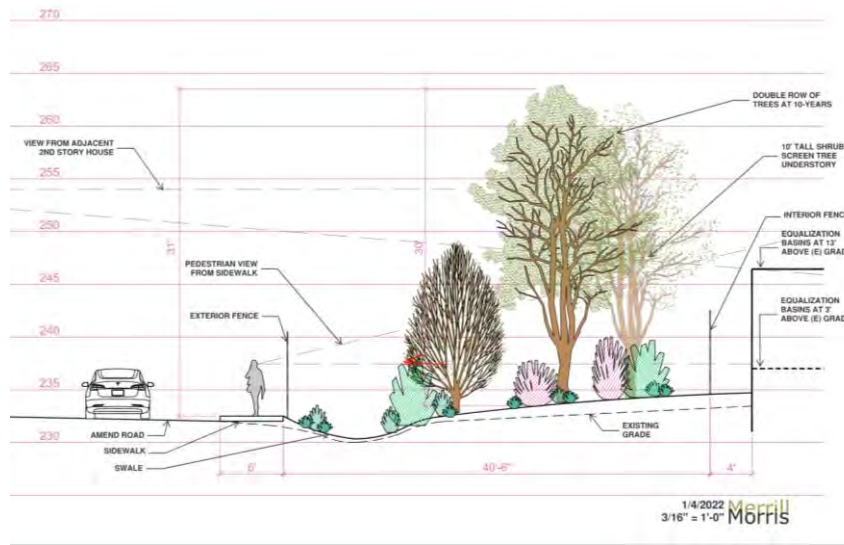




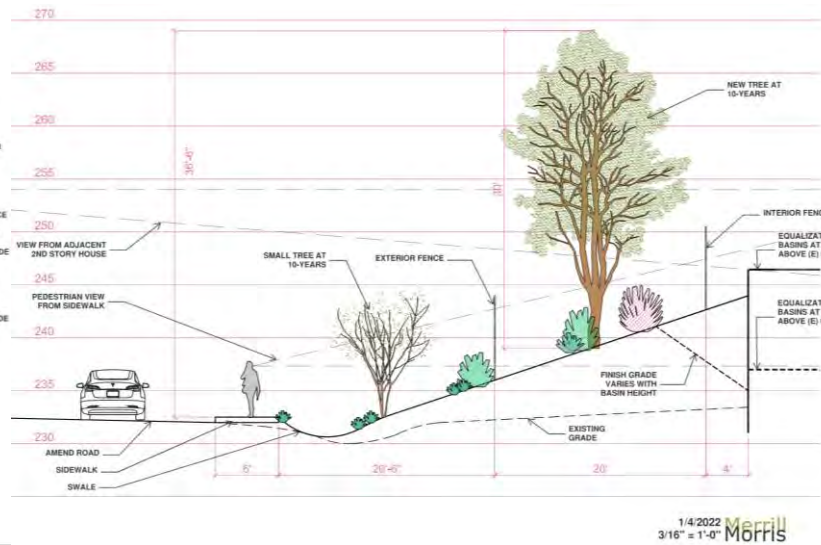




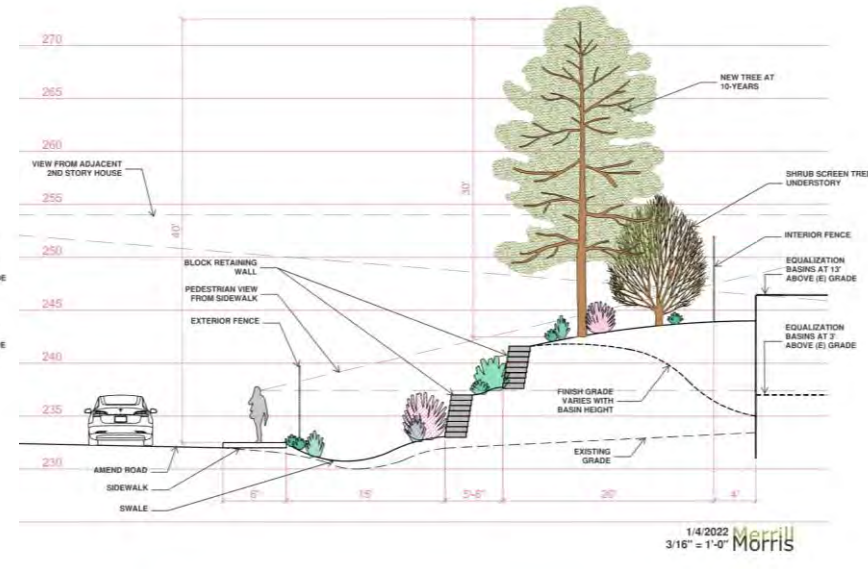
OPTION A



OPTION B

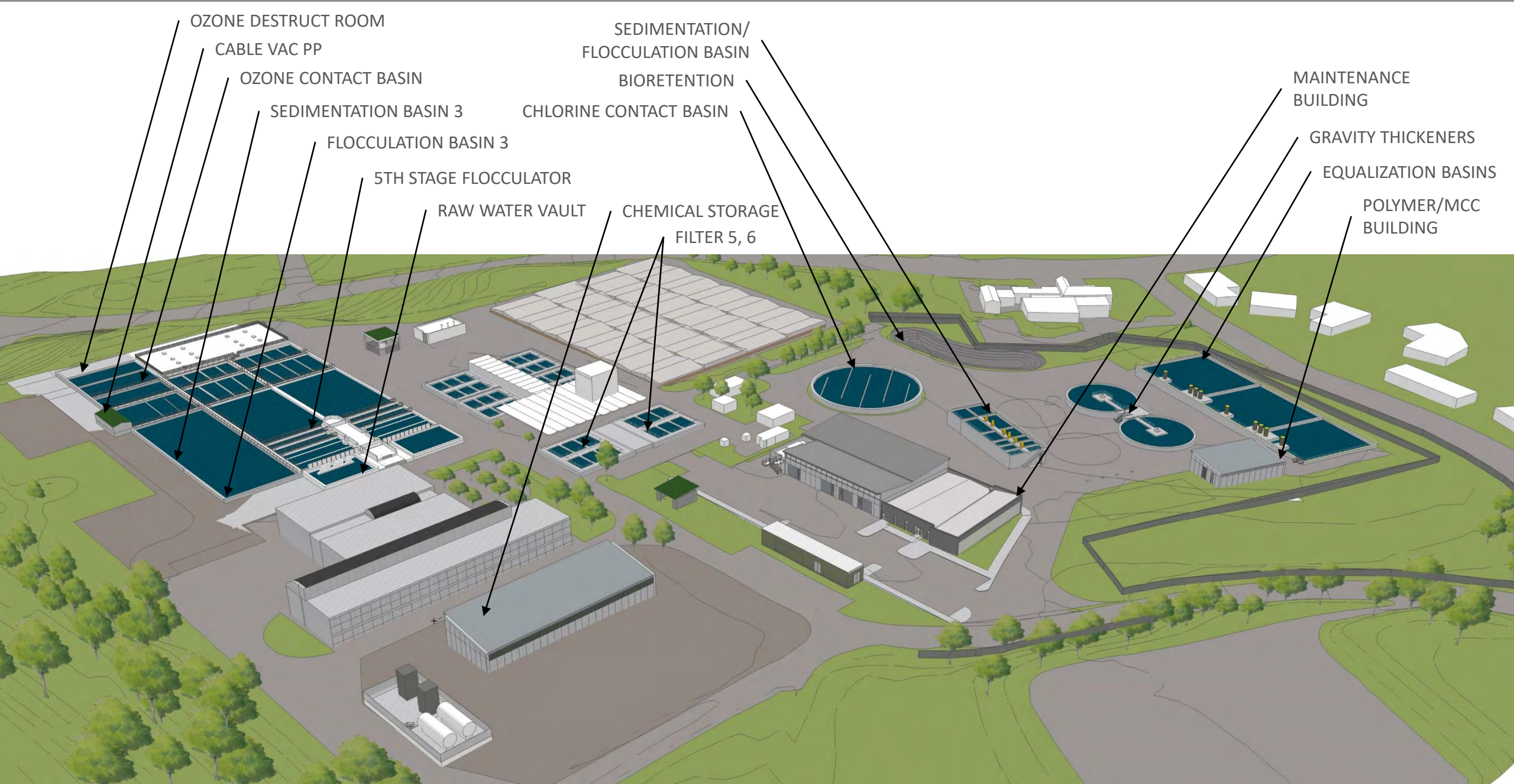


OPTION C



An aerial photograph of a large facility site, possibly a school or university campus, with various buildings and parking lots. The image is overlaid with a semi-transparent grey filter. The text 'FACILITY DESIGN CONCEPTS' is centered in white, bold, uppercase letters. The background shows a mix of greenery, paved areas, and several large, rectangular buildings with flat roofs. A winding road or path is visible on the right side of the image.

FACILITY DESIGN CONCEPTS



OZONE DESTRUCT ROOM

CABLE VAC PP

OZONE CONTACT BASIN

SEDIMENTATION BASIN 3

FLOCCULATION BASIN 3

5TH STAGE FLOCCULATOR

RAW WATER VAULT

CHLORINE CONTACT BASIN

CHEMICAL STORAGE
FILTER 5, 6

SEDIMENTATION/
FLOCCULATION BASIN

BIORETENTION

MAINTENANCE
BUILDING

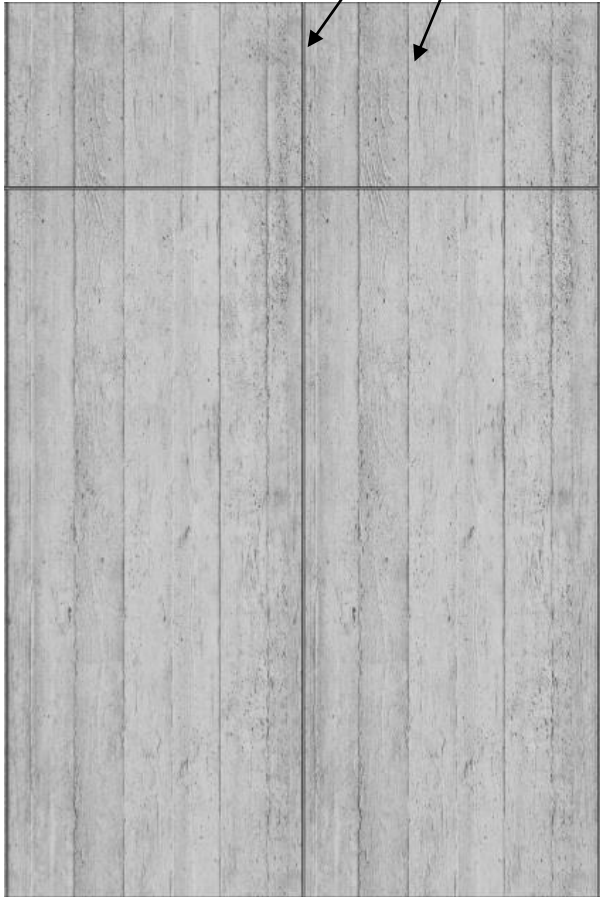
GRAVITY THICKENERS

EQUALIZATION BASINS

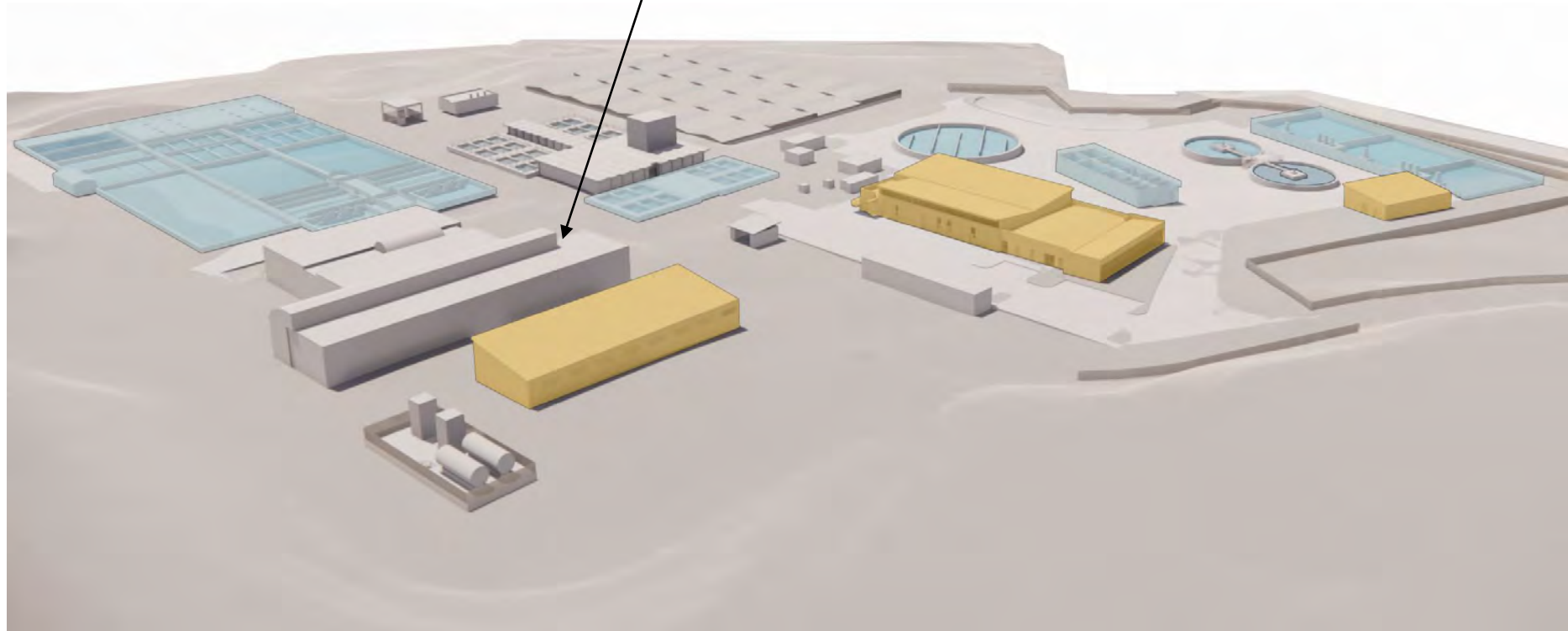
POLYMER/MCC
BUILDING

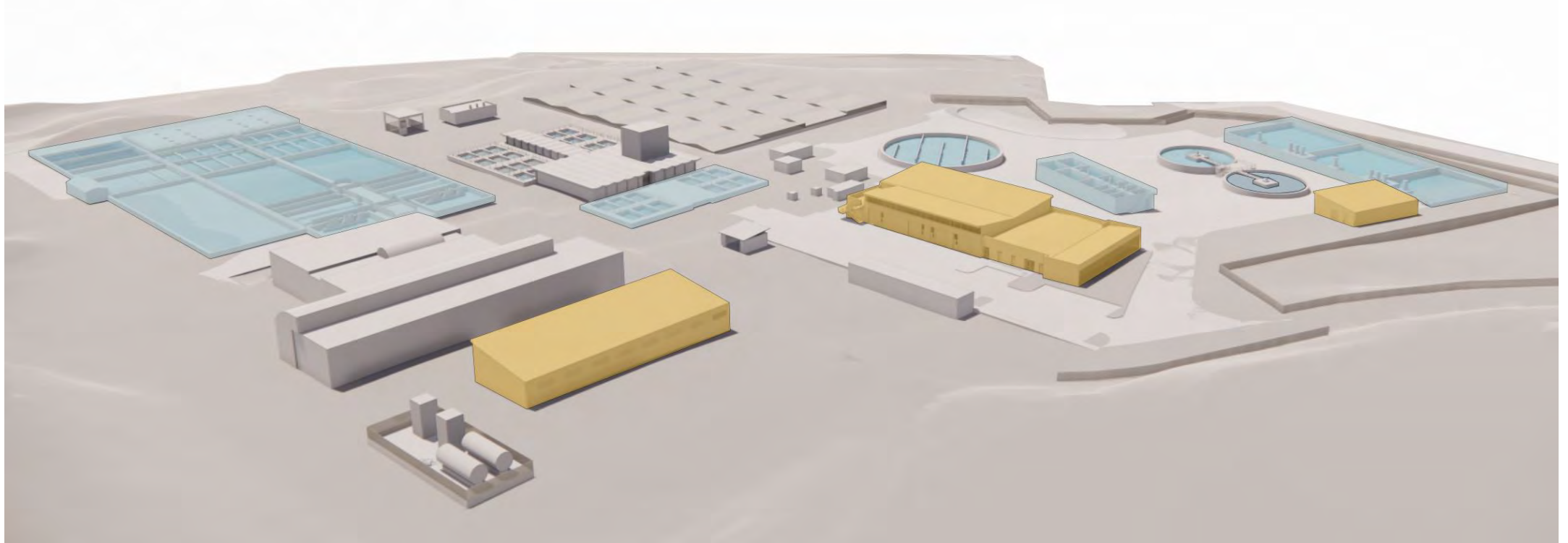
REVEAL PATTERN, TYP

TEXTURED
CONCRETE



CHEMICAL & OZONE BUILDING CONCRETE PATTERN





CONCRETE FORMLINER

METAL WALL PANEL

WALL PANEL COLORS

STANDING SEAM ROOF

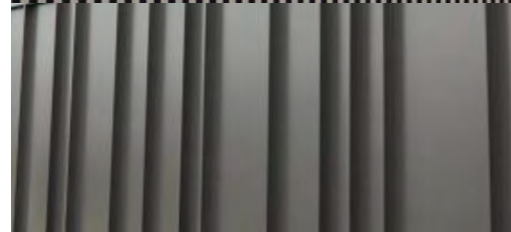
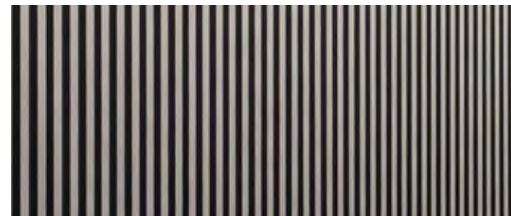
FORMWORK
STRIATIONS:



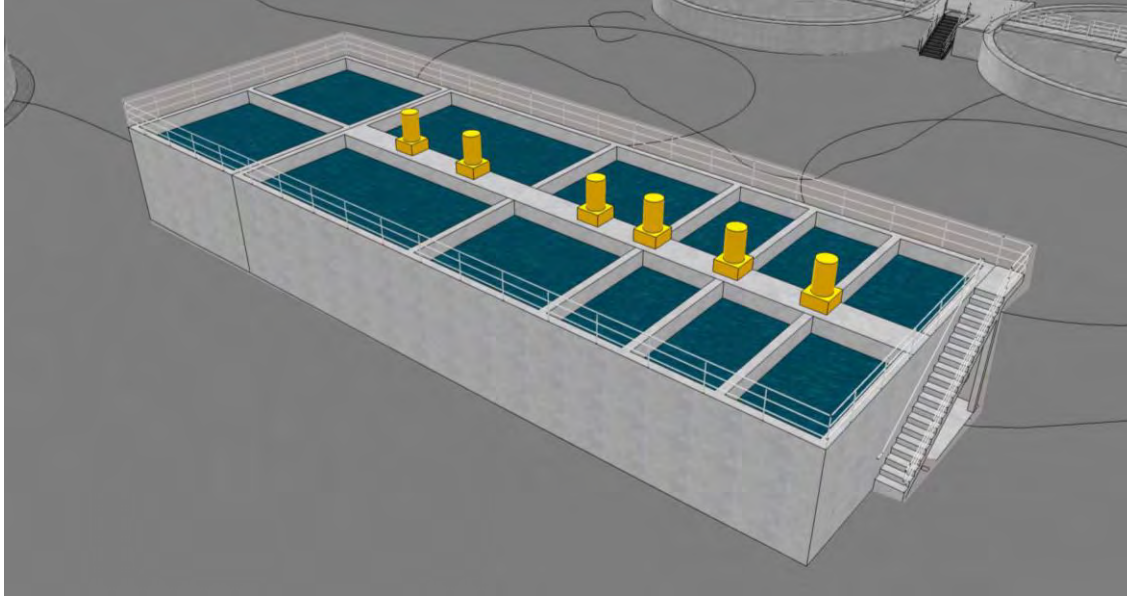
BROOM
FINISH:



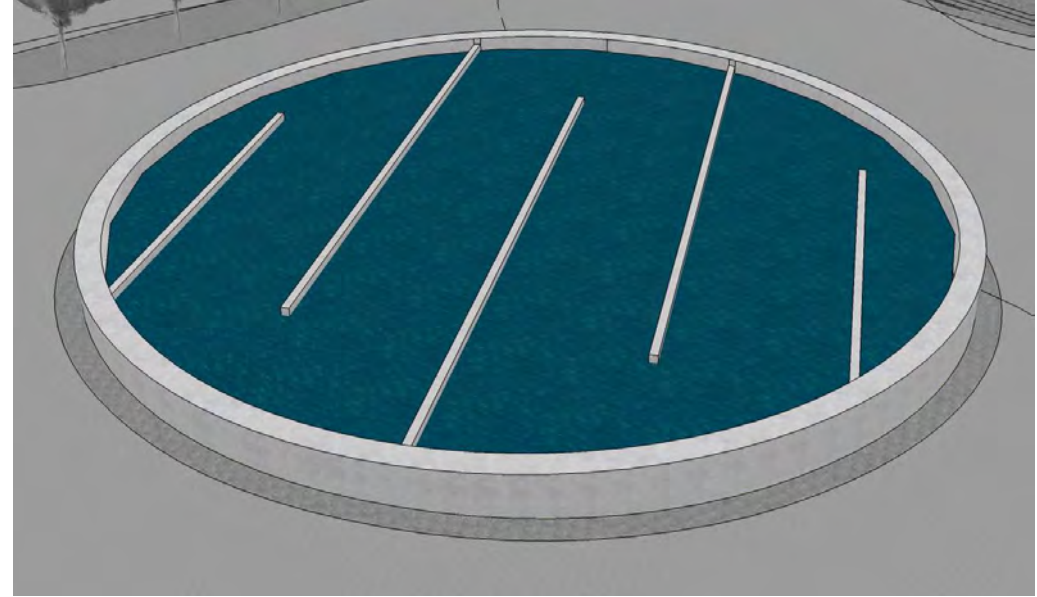
NATURAL
FORMWORK:



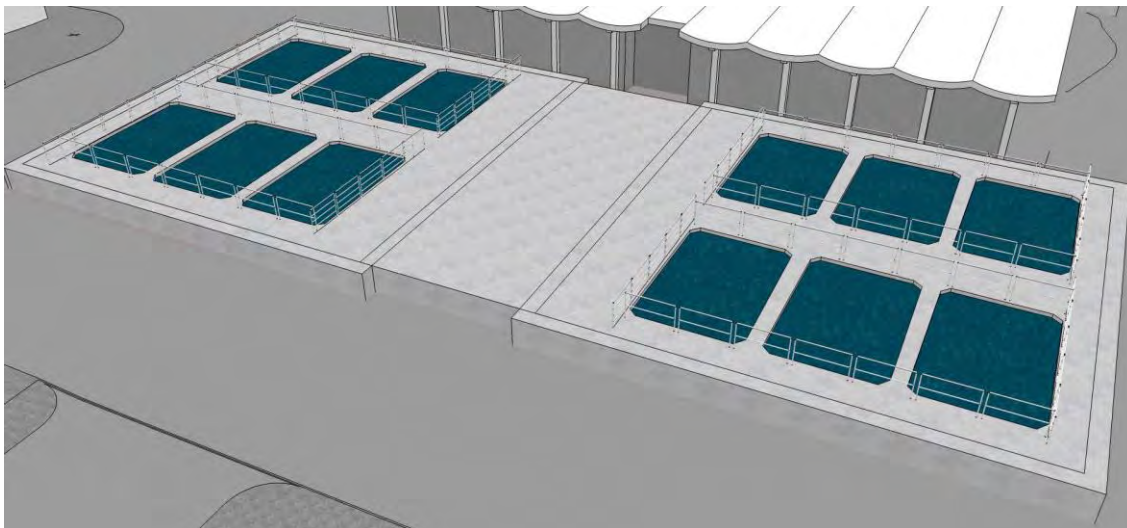
FLOCCULATION AND SEDIMENTATION BASIN



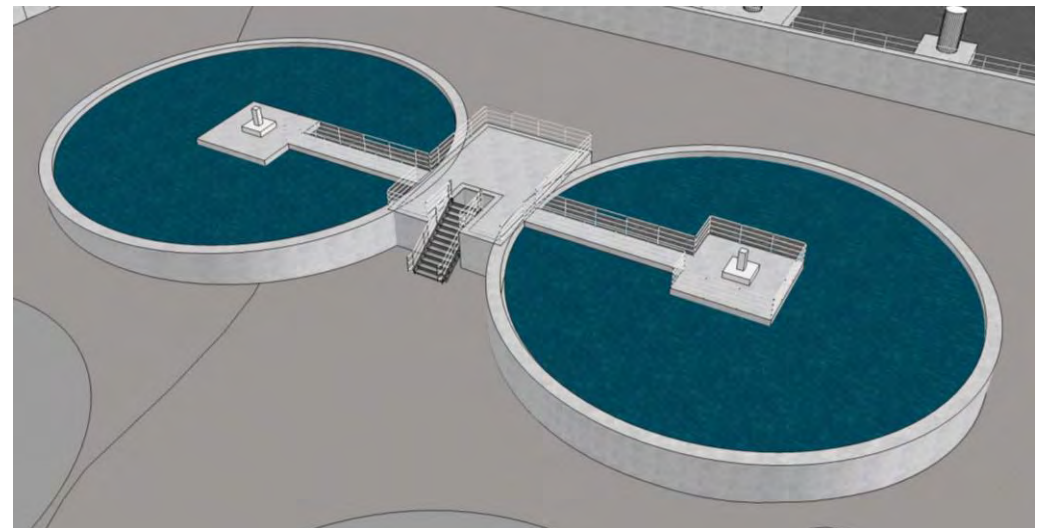
CONTACT BASINS

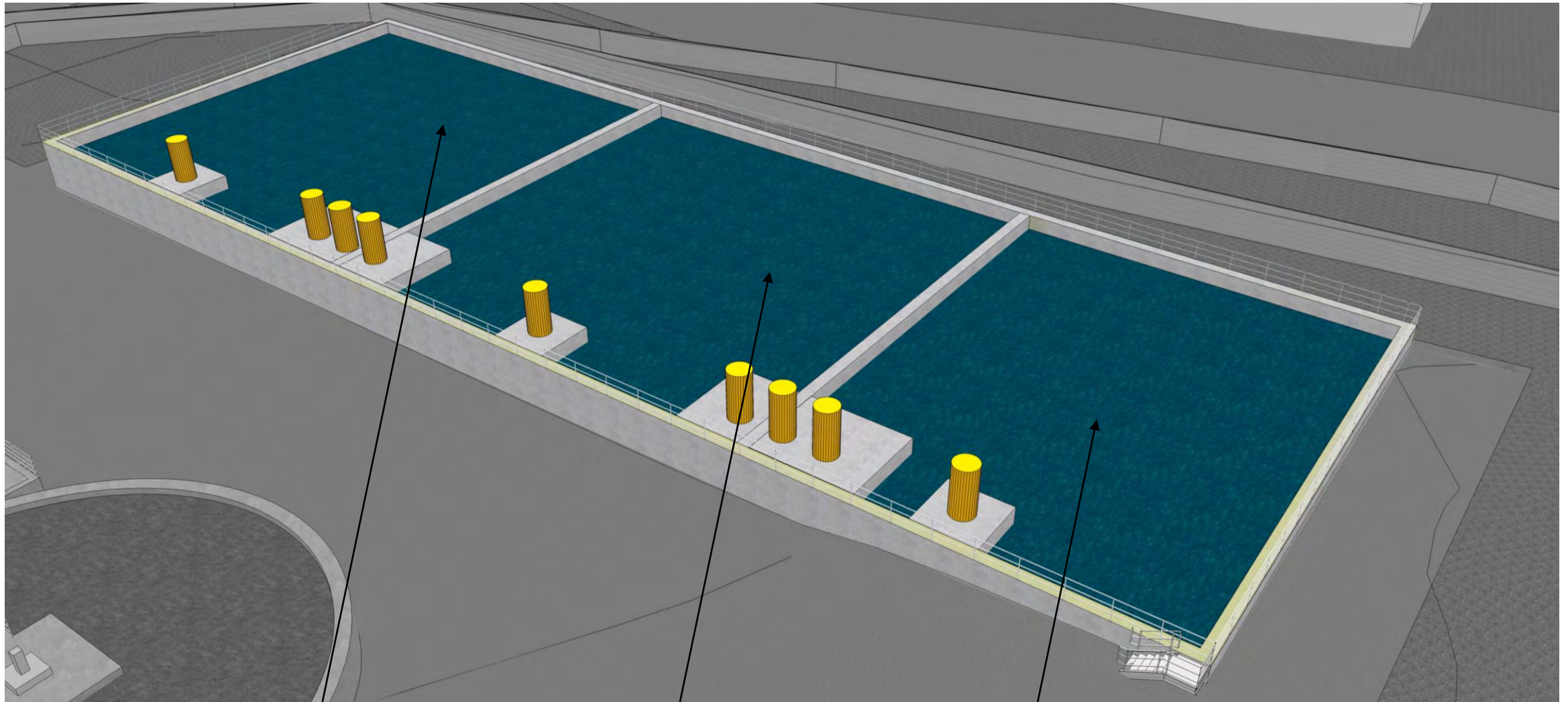


FILTERS



GRAVITY THICKENER

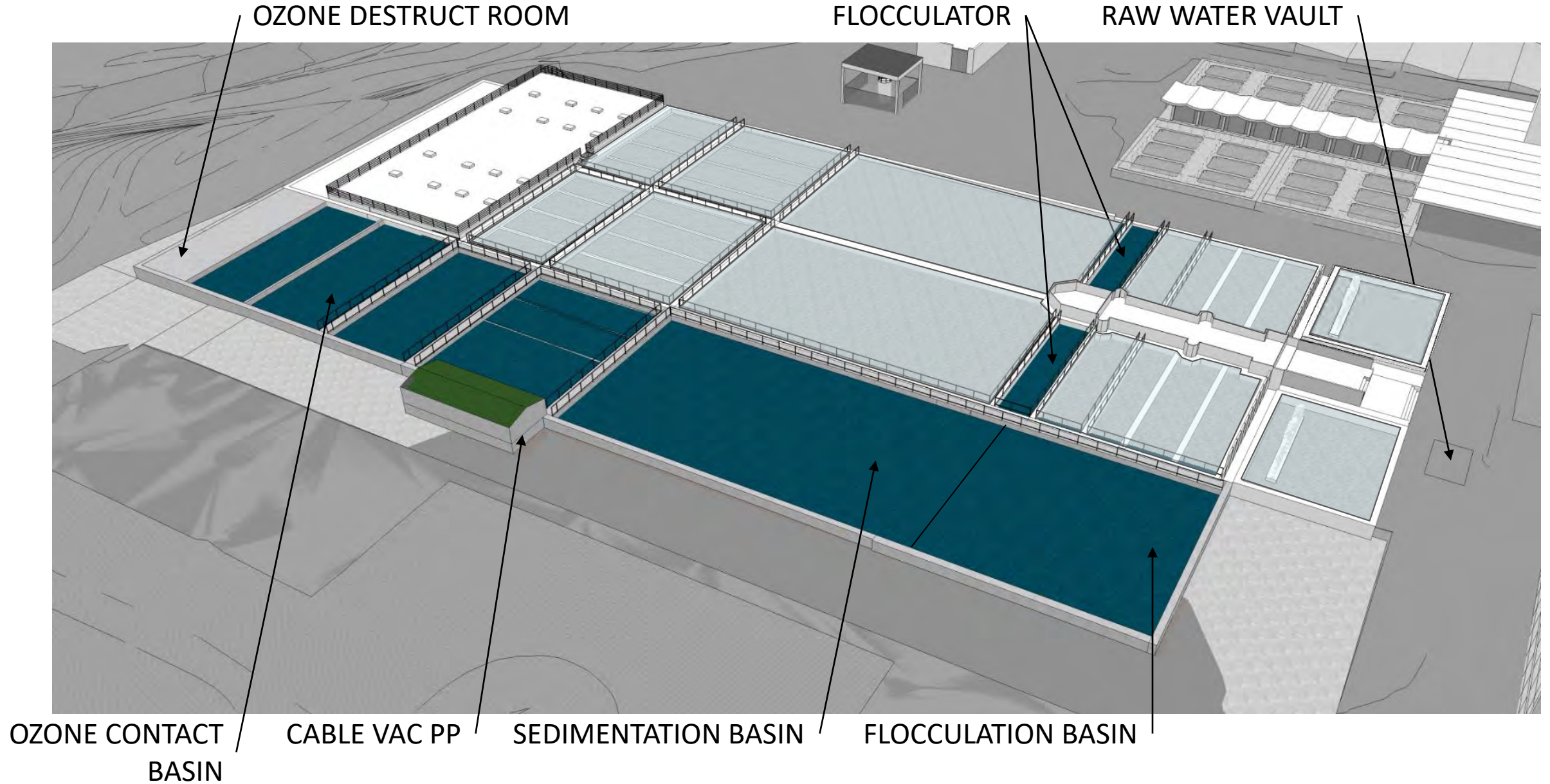




SFBW EQUALIZATION
BASIN

SFBW EQUALIZATION
BASIN

FITLER TO WASTE
EQUALIZATION BASIN



MAINTENANCE BUILDING

HVAC EQUIPMENT
AND STAIR
RELOCATED TO REAR

CLERESTORY
DAYLIGHTING

CONCRETE REVEAL
PATTERN

BUTTERFLY ROOF WITH CENTRAL
GUTTER AND EXTERNAL DRAINS

SLOPED STANDING SEAM ROOF
BEHIND PARAPET

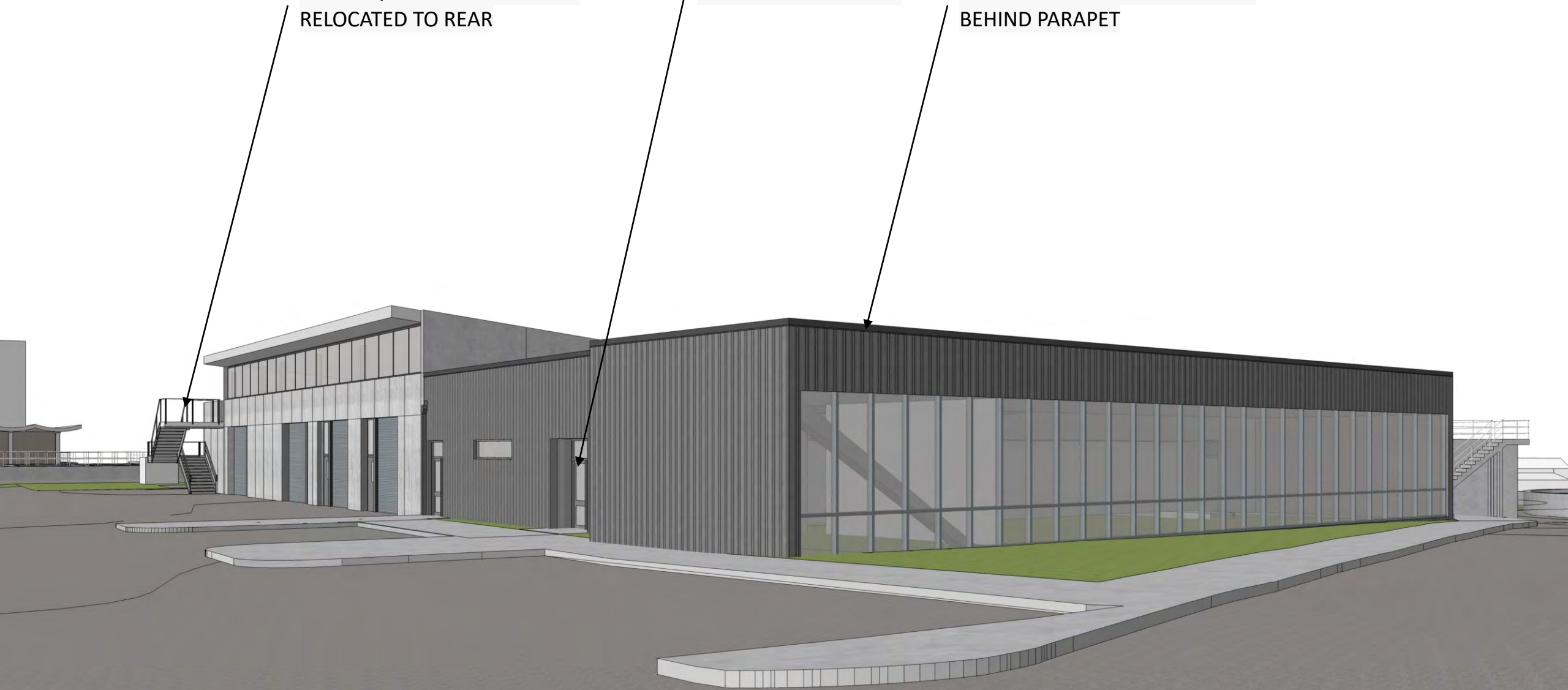


MAINTENANCE BUILDING

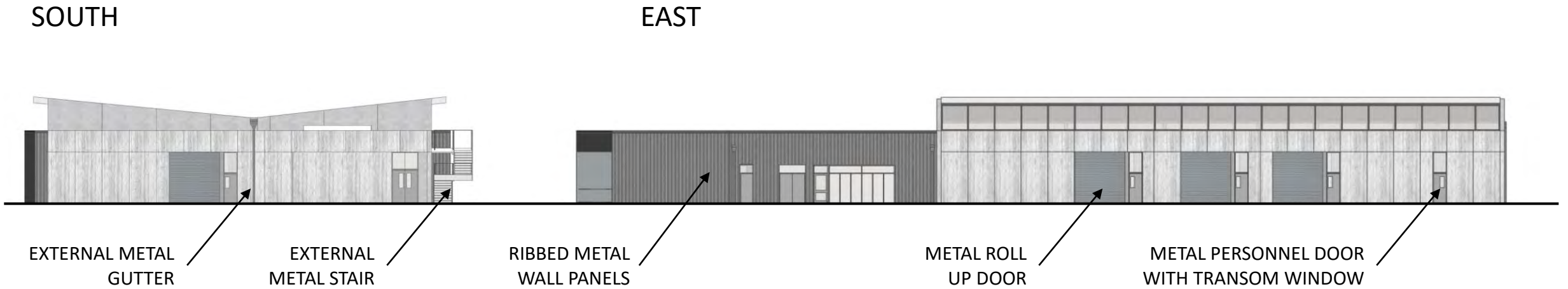
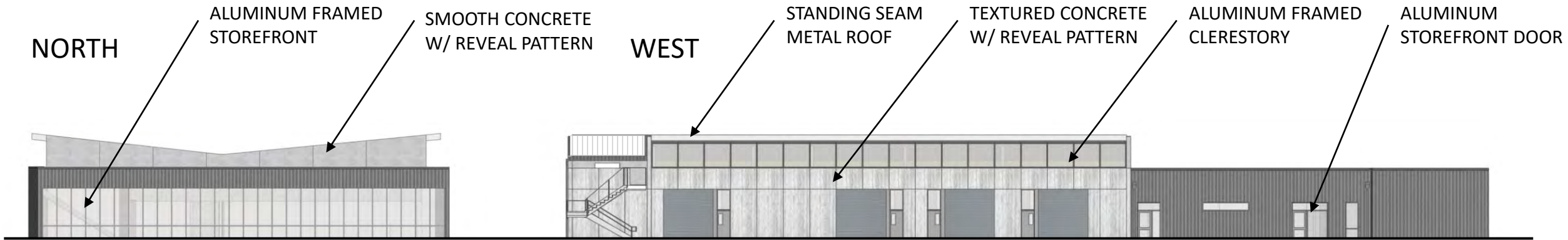
HVAC EQUIPMENT AND STAIR
RELOCATED TO REAR

MODIFIED ENTRYWAY

SLOPED STANDING SEAM ROOF
BEHIND PARAPET





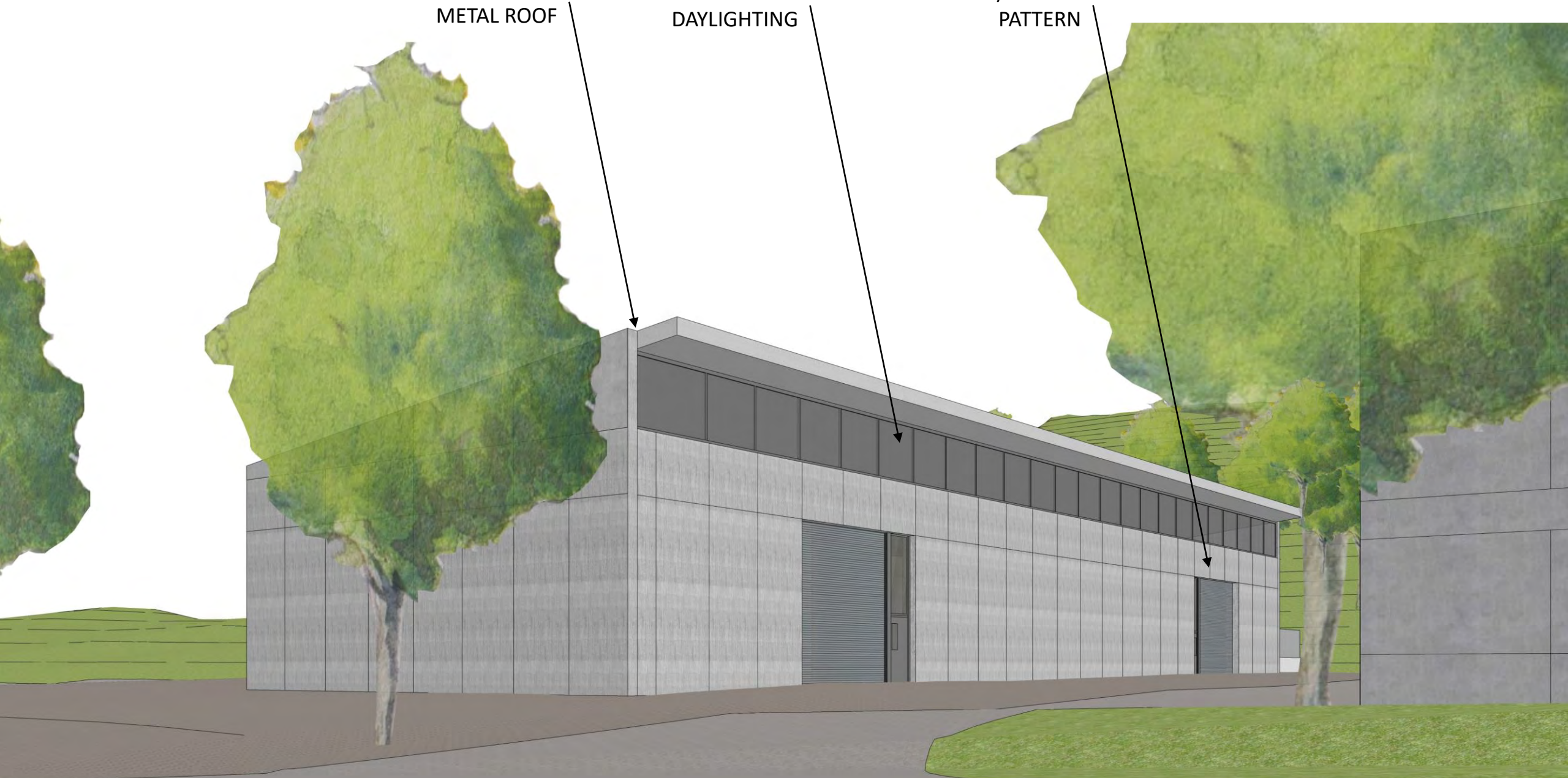


CHEMICAL STORAGE BUILDING

SLOPED STANDING SEAM
METAL ROOF

CLERESTORY
DAYLIGHTING

CONCRETE W/
REVEAL
PATTERN

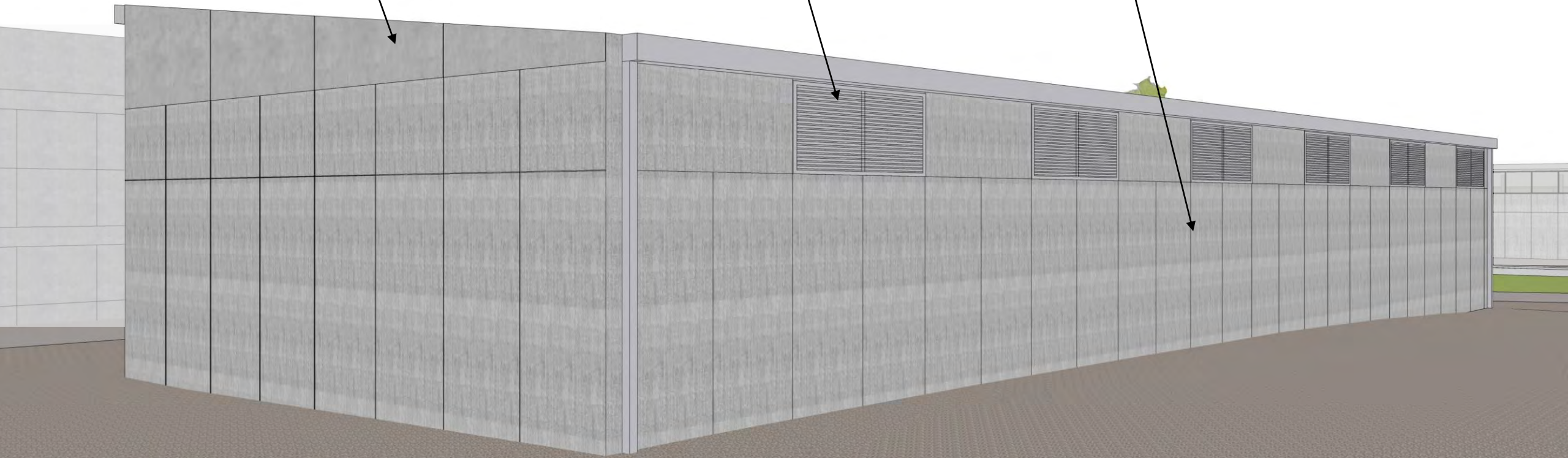


CHEMICAL STORAGE BUILDING

SMOOTH
CONCRETE

METAL LOUVER

TEXTURED CONCRETE W/
REVEAL PATTERN

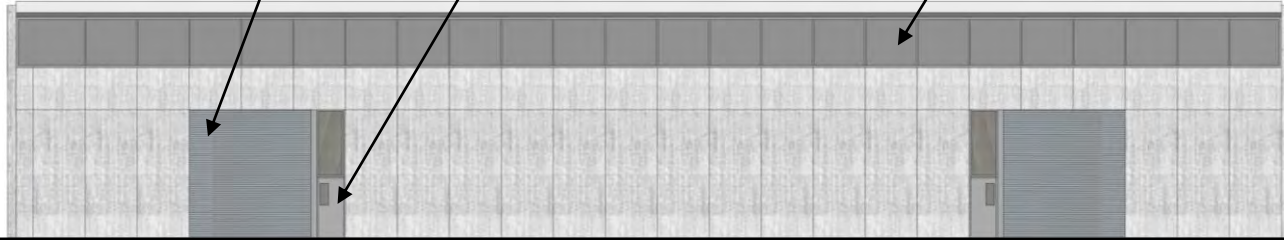


FRONT

METAL ROLL UP DOOR

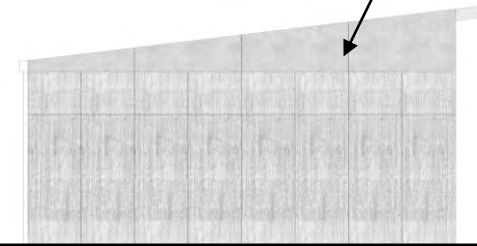
METAL PERSONNEL DOOR WITH TRANSOM WINDOW

ALUMINUM FRAMED CLERESTORY



SIDE

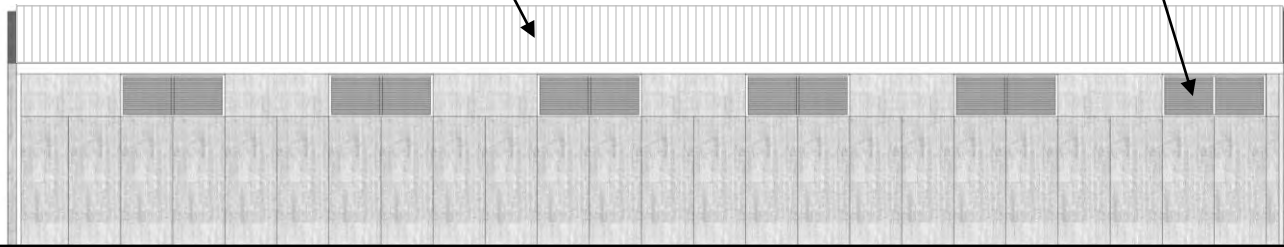
SMOOTH CONCRETE W/ REVEAL PATTERN



REAR

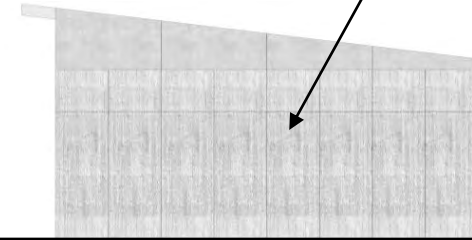
STANDING SEAM METAL ROOF

METAL LOUVER



SIDE

TEXTURED CONCRETE W/ REVEAL PATTERN

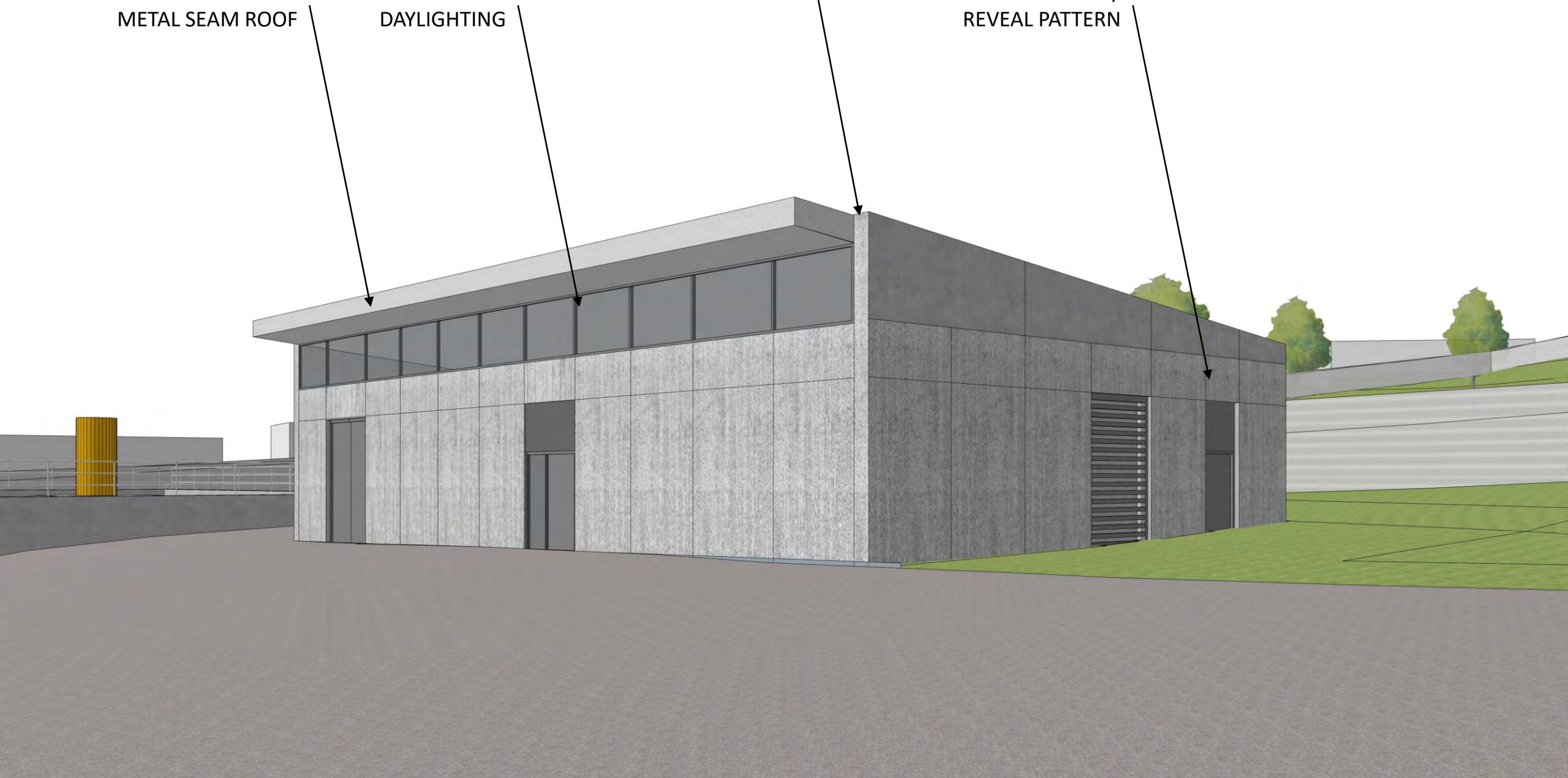


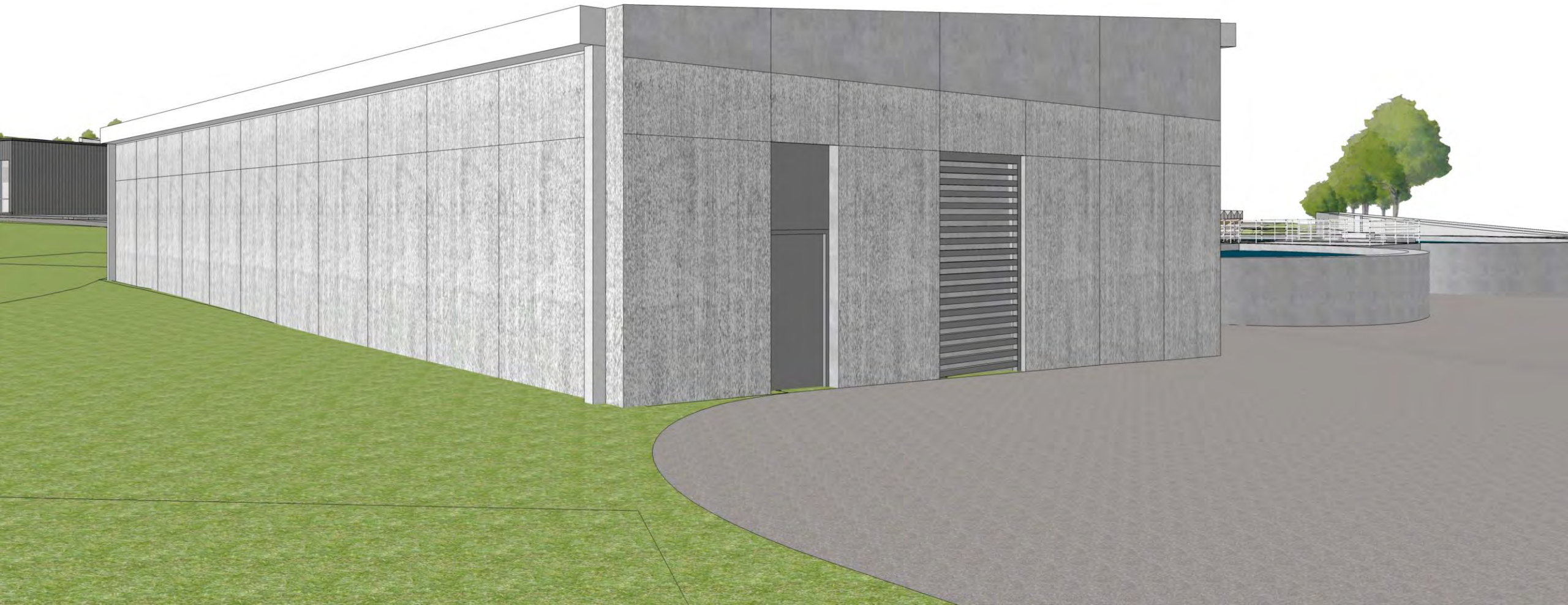
SLOPED STANDING
METAL SEAM ROOF

CLERESTORY
DAYLIGHTING

ROOF FEATURE

TEXTURED CONCRETE W/
REVEAL PATTERN





FRONT

METAL PERSONNEL DOOR, 8'H

METAL PERSONNEL DOOR WITH SIDELITE

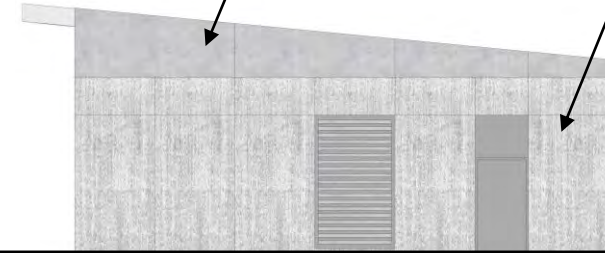
ALUMINUM FRAMED CLERESTORY



SIDE

SMOOTH CONCRETE W/ REVEAL PATTERN

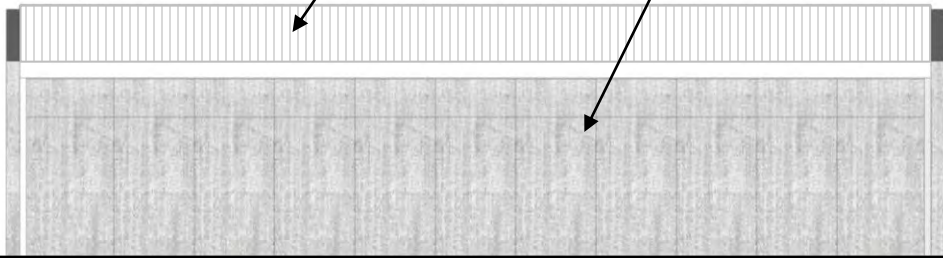
TEXTURED CONCRETE W/ REVEAL PATTERN



REAR

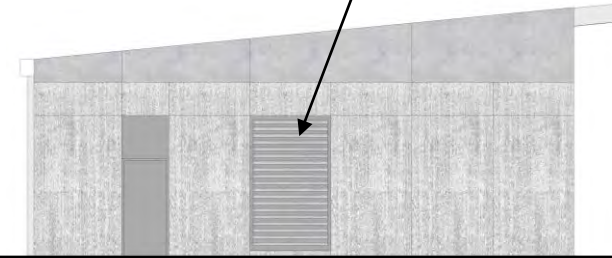
SLOPED STANDING SEAM METAL ROOF

TEXTURED CONCRETE W/ REVEAL PATTERN



SIDE

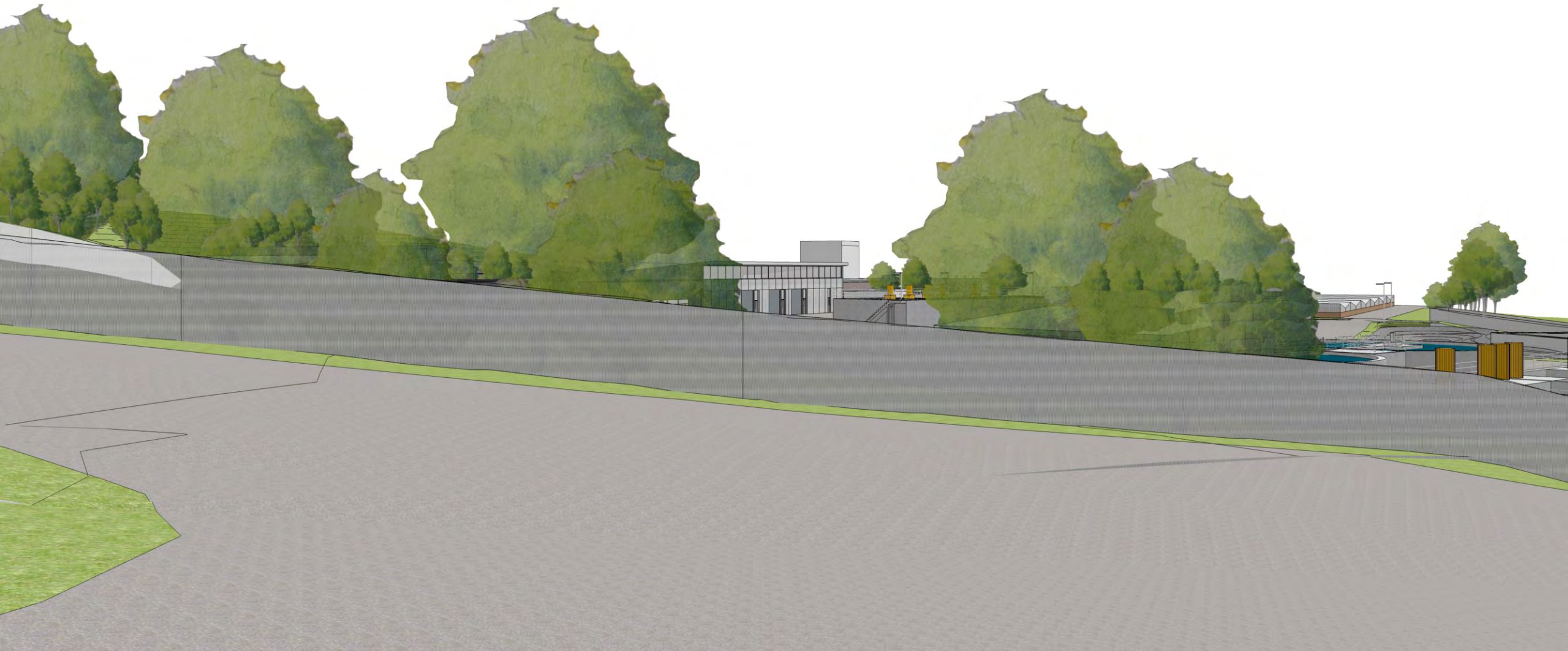
METAL LOUVER



NEXT STEPS









EAST BAY MUNICIPAL UTILITIES DISTRICT

SOBRANTE WATER TREATMENT PLANT
RELIABILITY IMPROVEMENTS PROJECT

CONCEPTUAL AESTHETICS PLANS

WORKSHOP #2

FEBRUARY 8, 2022



mwa architects

**Merrill
Morris**

AGENDA

Project Context

Site Layout

Design Concepts

Screening Strategies

OBJECTIVES

Review Project Schedule

Confirm design and representation of buildings and process structures

Confirm screening strategies and representation

An aerial photograph of a school campus. In the foreground, there is a large, open, light-colored field. Behind the field, several school buildings are visible, including a large rectangular building with a grid-like facade and a smaller building with a flat roof. A winding road or path curves through the campus. The surrounding area is filled with trees and residential-style buildings.

PROJECT CONTEXT



FIRE STATION



DE ANZA HIGH SCHOOL



MURPHY ELEMENTARY



WATER TREATMENT PLANT AERIAL



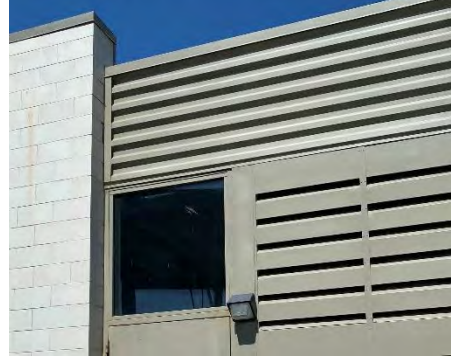
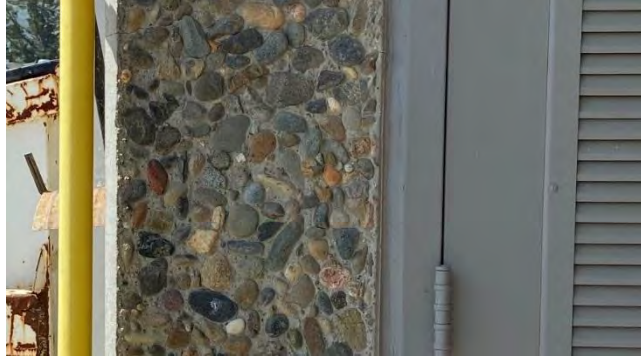
CHEMICAL & OZONE BUILDING



OPERATIONS BUILDING & FILTER GALLERY



MATERIALS



SCALE



FORMS



ON SITE



BUFFER



NEIGHBORHOOD



AERIAL SITE PLAN



3 - HEAVENLY RIDGE LANE

1 - ENTRY ROAD

2 - AMEND ROAD

4 - CHRISTOPHER CT

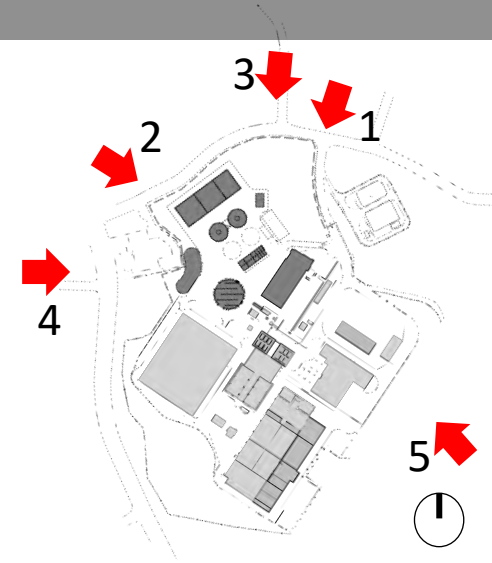
AMEND ROAD

VALLEY VIEW ROAD

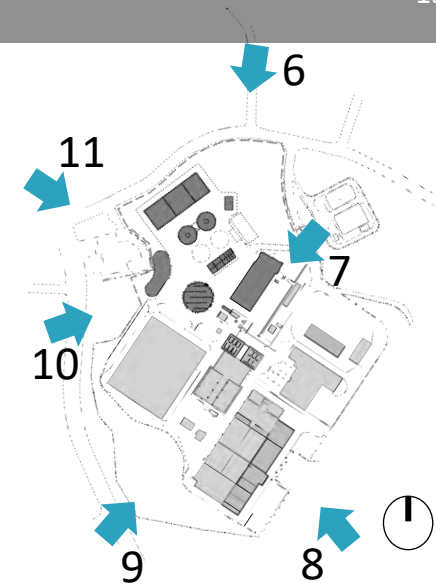
5 - HILLSIDE



KEY SITE VIEWS



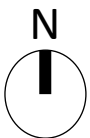
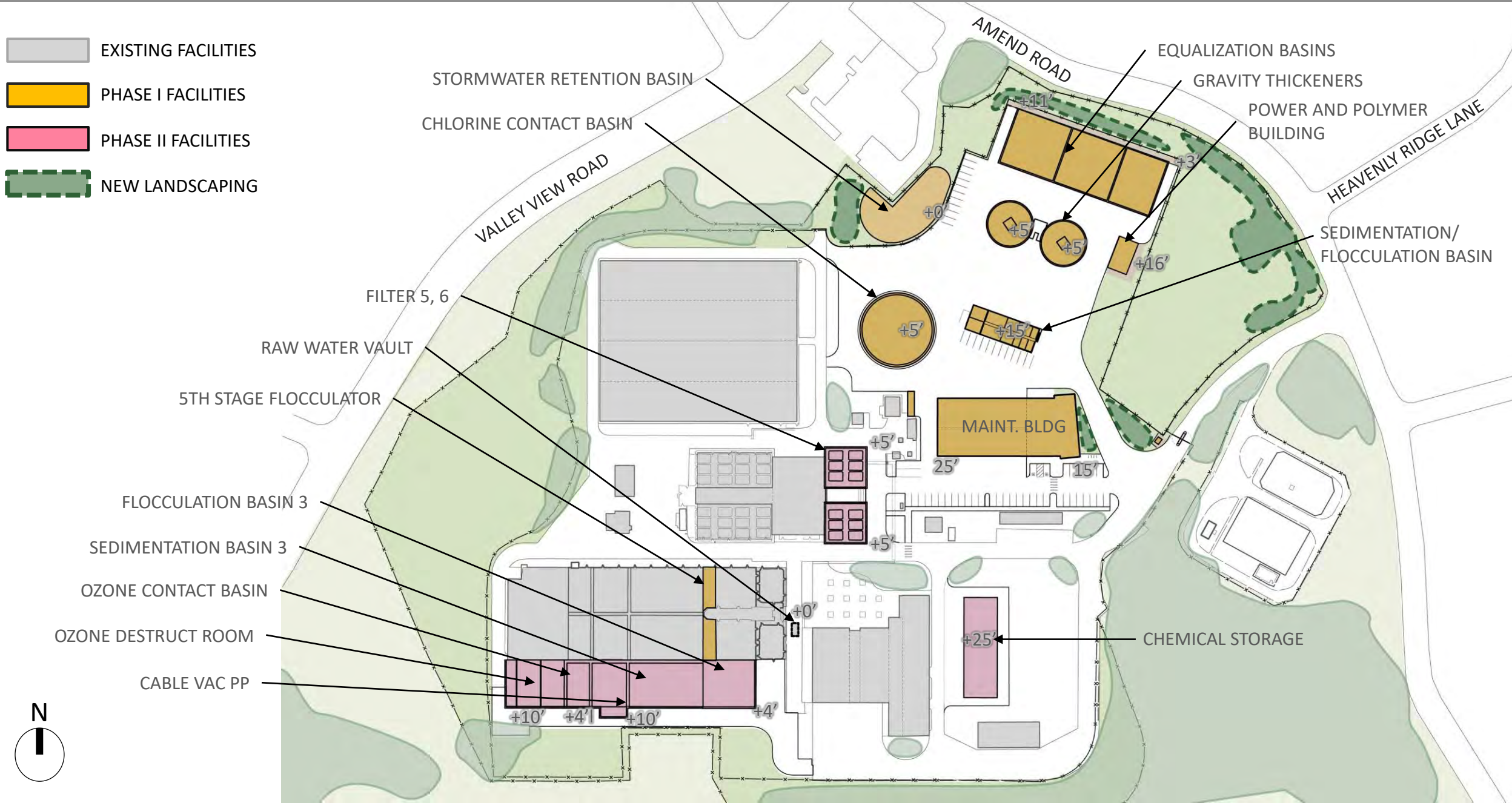
EXISTING SITE VIEWS

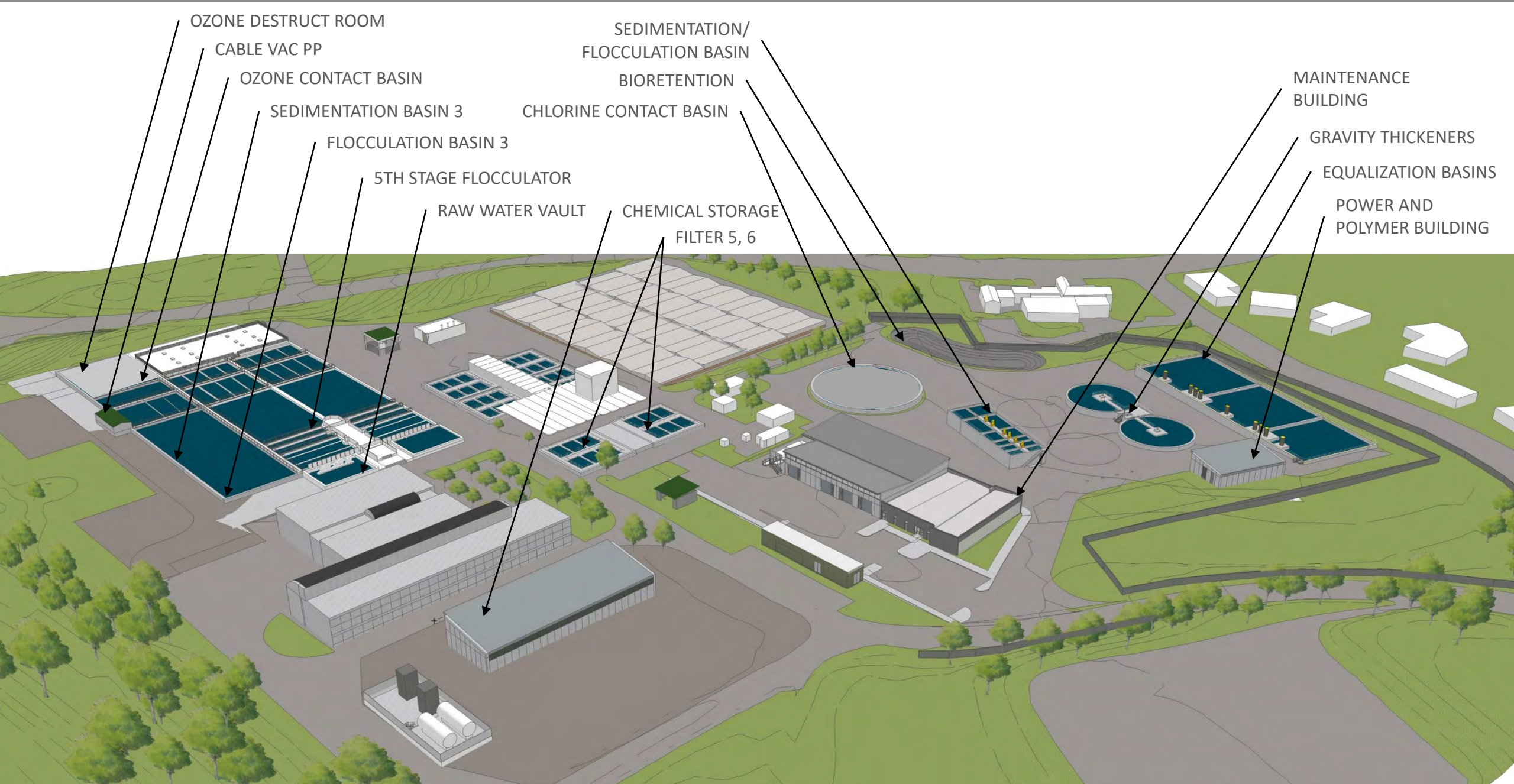


SITE LAYOUT



- EXISTING FACILITIES
- PHASE I FACILITIES
- PHASE II FACILITIES
- NEW LANDSCAPING





OZONE DESTRUCT ROOM

CABLE VAC PP

OZONE CONTACT BASIN

SEDIMENTATION BASIN 3

FLOCCULATION BASIN 3

5TH STAGE FLOCCULATOR

RAW WATER VAULT

CHEMICAL STORAGE
FILTER 5, 6

SEDIMENTATION/
FLOCCULATION BASIN

BIORETENTION

CHLORINE CONTACT BASIN

MAINTENANCE
BUILDING

GRAVITY THICKENERS

EQUALIZATION BASINS

POWER AND
POLYMER BUILDING

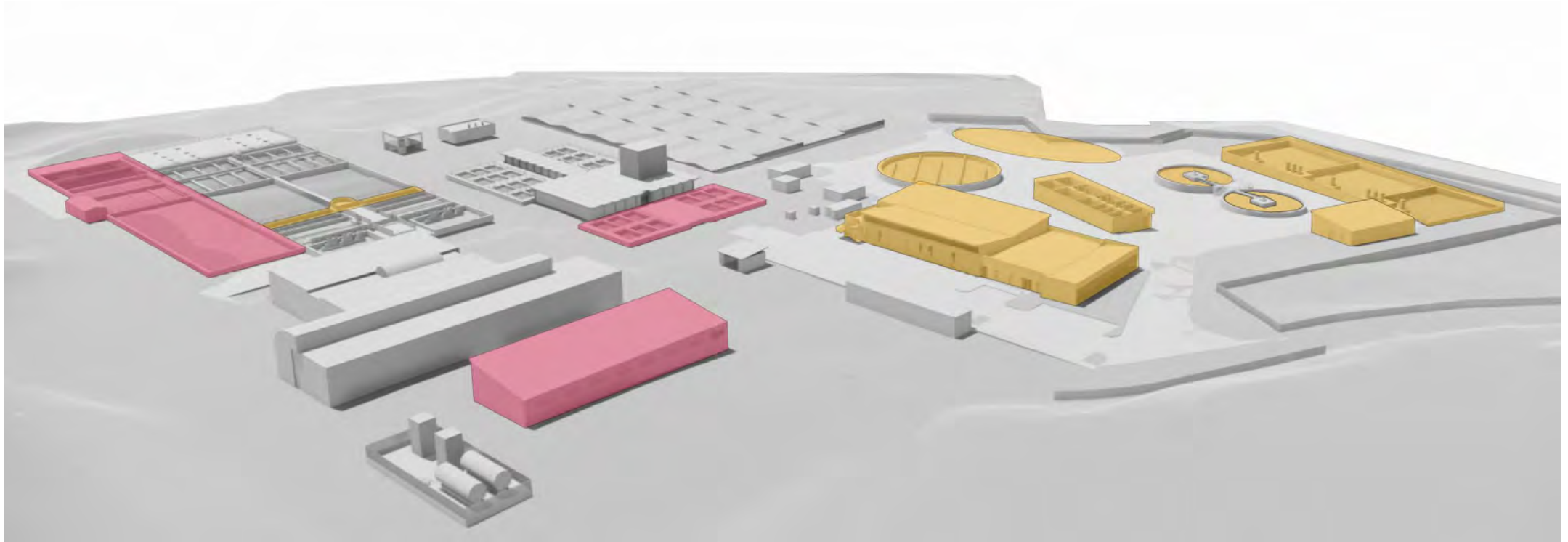
An aerial photograph of a water treatment plant facility. The image shows several large, rectangular industrial buildings with flat roofs, some with visible structural details. A large, open, light-colored area, possibly a construction site or a large storage yard, is prominent in the lower center. The facility is surrounded by dense green trees and a residential neighborhood with houses and streets is visible on the right side. A winding road or path cuts through the site. The overall scene is captured in a muted, grayscale-like tone.

WATER TREATMENT PLANT DESIGN CONCEPTS

1. Distinguish occupied spaces from process/shop spaces
2. Provide natural daylighting in enclosed spaces
3. Simplify building form and massing
4. Utilize durable materials
5. Enhance existing facility architecture



CHEMICAL & OZONE BUILDING CONCRETE PATTERN

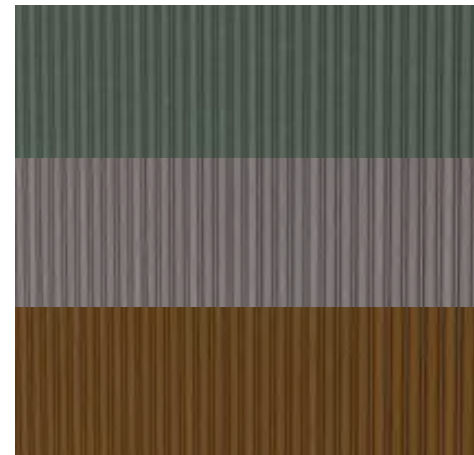
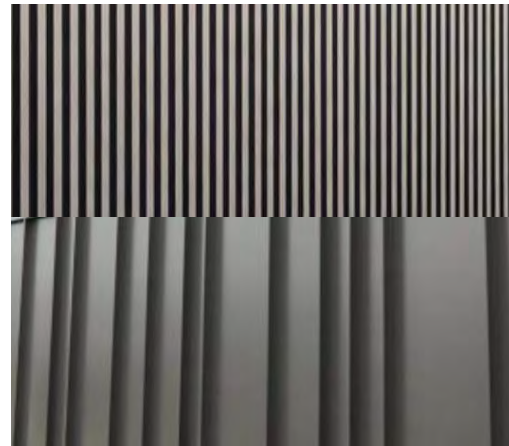


CONCRETE FINISH

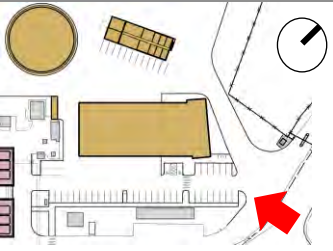
METAL WALL PANEL

WALL PANEL COLORS

STANDING SEAM ROOF



MAINTENANCE BUILDING AERIAL



HVAC EQUIPMENT AND STAIR

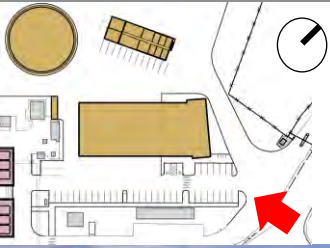
MAINTENANCE SHOPS AND STORAGE

PRIMARY ENTRY

OFFICE AND SUPPORT SPACES



MAINTENANCE BUILDING PRIMARY VIEW



CONCRETE STRUCTURE
WITH STEEL ROOF TRUSS

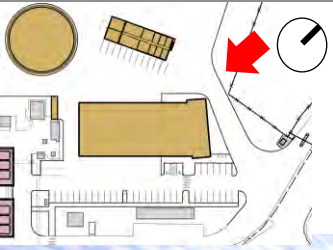
STANDING SEAM
METAL ROOF

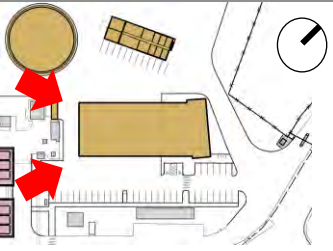
RIBBED METAL PWALL PANELS OVER
STRUCTURAL STEEL FRAMING

ALUMINUM FRAMED
STOREFRONT GLASS

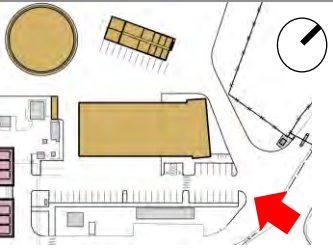


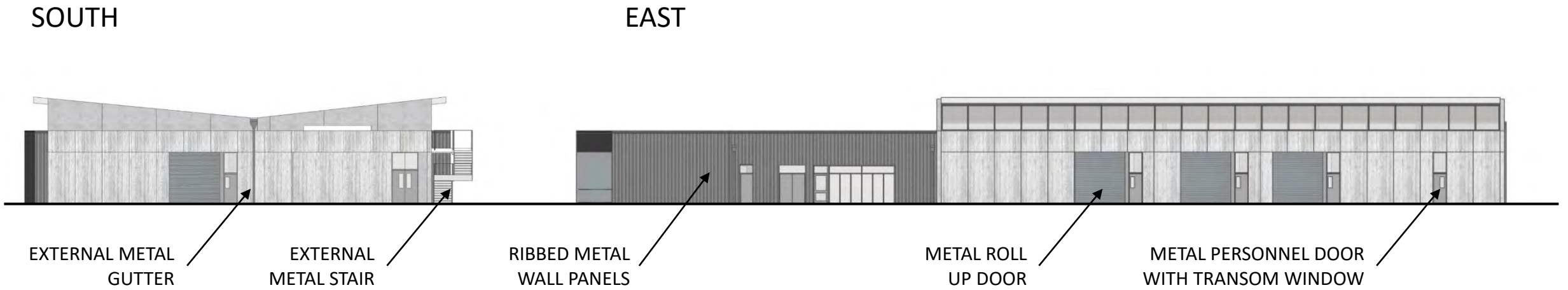
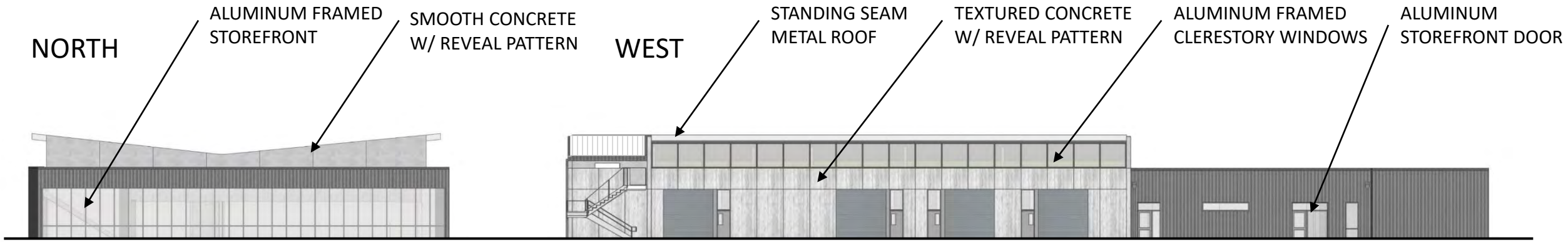
MAINTENANCE BUILDING





MAINTENANCE BUILDING COLOR ALTERNATIVES





CHEMICAL STORAGE BUILDING

STANDING SEAM METAL
ROOF

ALUMINUM FRAMED
CLERESTORY WINDOWS

TEXTURED CONCRETE W/
REVEAL PATTERN



CHEMICAL STORAGE BUILDING

SMOOTH CONCRETE
W/ REVEAL PATTERN

METAL LOUVER

TEXTURED CONCRETE W/
REVEAL PATTERN



FRONT

METAL ROLL UP DOOR

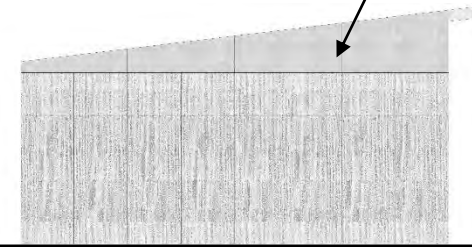
METAL PERSONNEL DOOR WITH TRANSOM WINDOW

ALUMINUM FRAMED CLERESTORY



SIDE

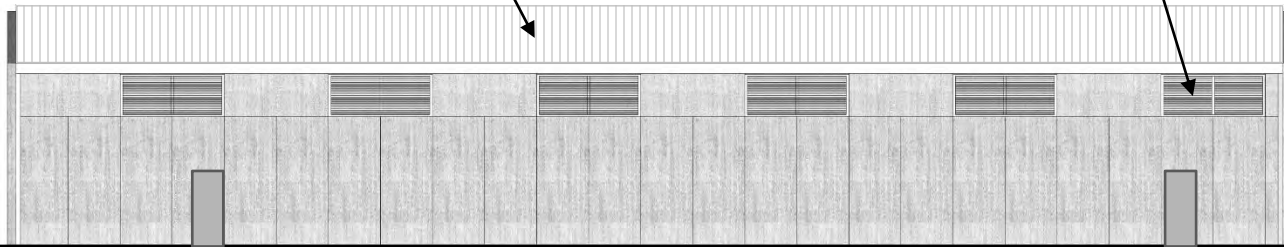
SMOOTH CONCRETE W/ REVEAL PATTERN



REAR

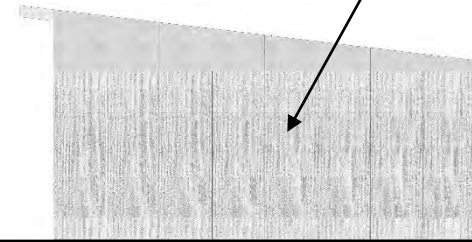
STANDING SEAM METAL ROOF

METAL LOUVER



SIDE

TEXTURED CONCRETE W/ REVEAL PATTERN



STANDING METAL SEAM
ROOF

ALUMINUM FRAMED
CLERESTORY WINDOWS

TEXTURED CONCRETE W/
REVEAL PATTERN



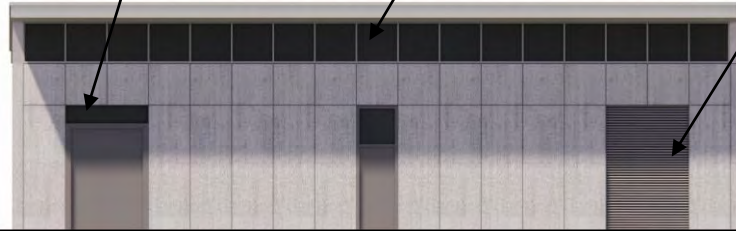


FRONT

METAL PERSONNEL DOOR, 8'H

ALUMINUM FRAMED CLERESTORY WINDOWS

METAL ROLL UP DOOR, 12'H



SIDE

TEXTURED CONCRETE W/ REVEAL PATTERN

SMOOTH CONCRETE W/ REVEAL PATTERN



REAR

SLOPED STANDING SEAM METAL ROOF

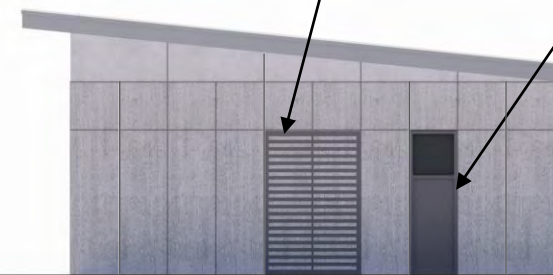
TEXTURED CONCRETE W/ REVEAL PATTERN



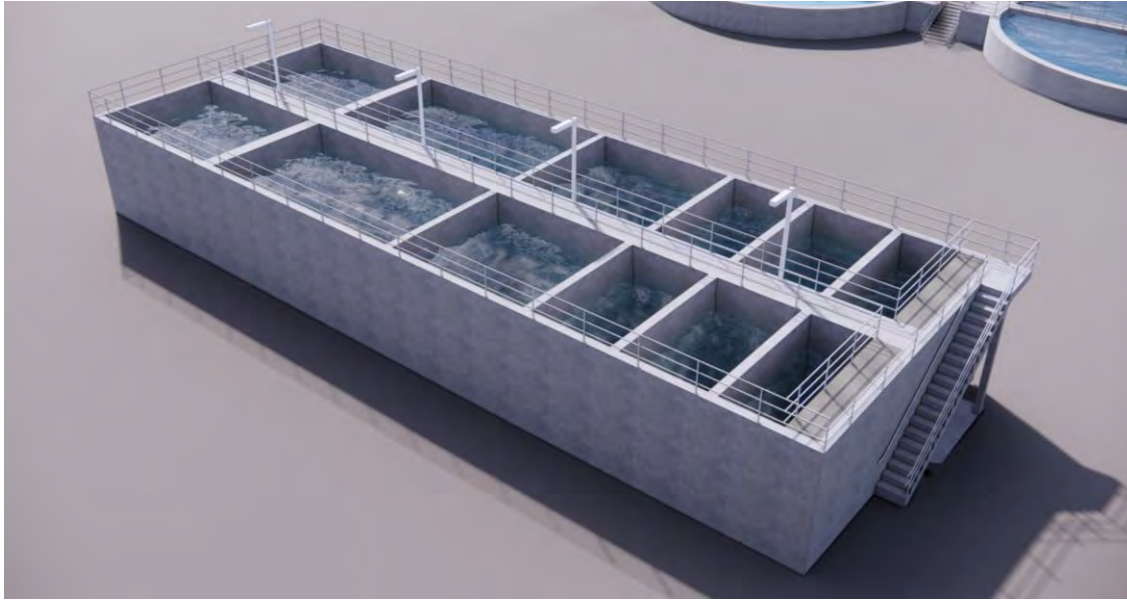
SIDE

METAL LOUVER

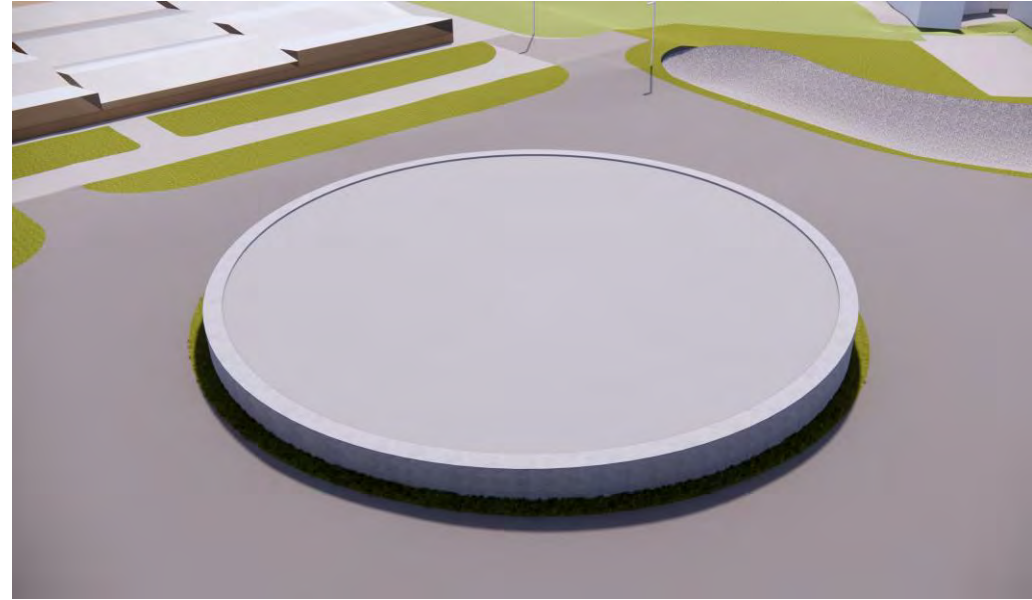
METAL PERSONNEL DOOR W/ TRANSOM WINDOW



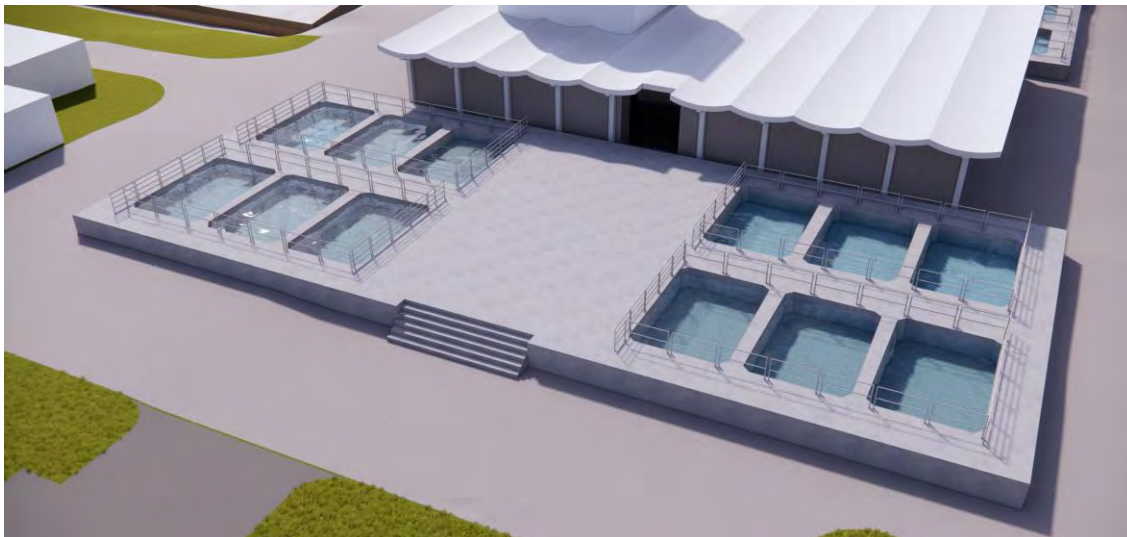
FLOCCULATION AND SEDIMENTATION BASIN



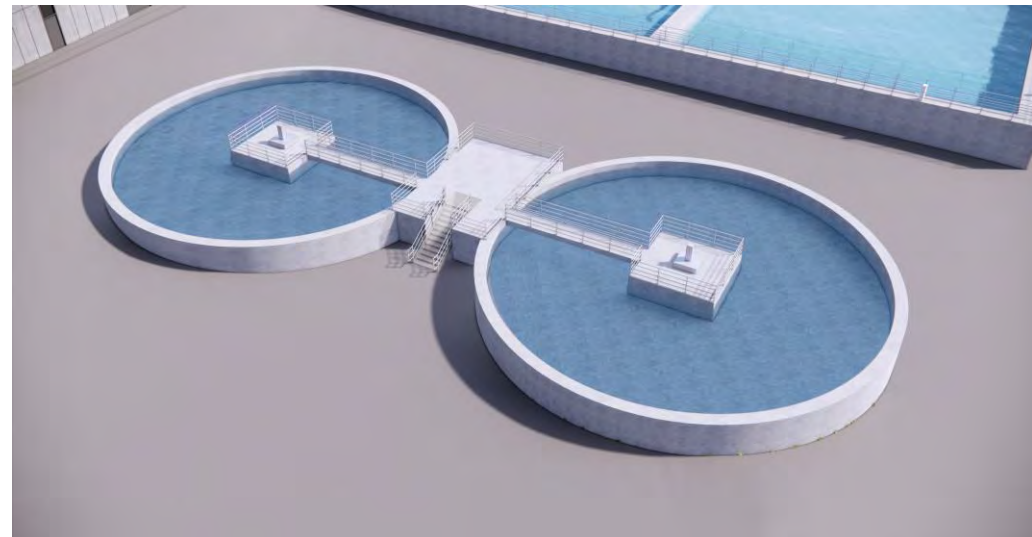
CONTACT BASINS



FILTERS



GRAVITY THICKENER

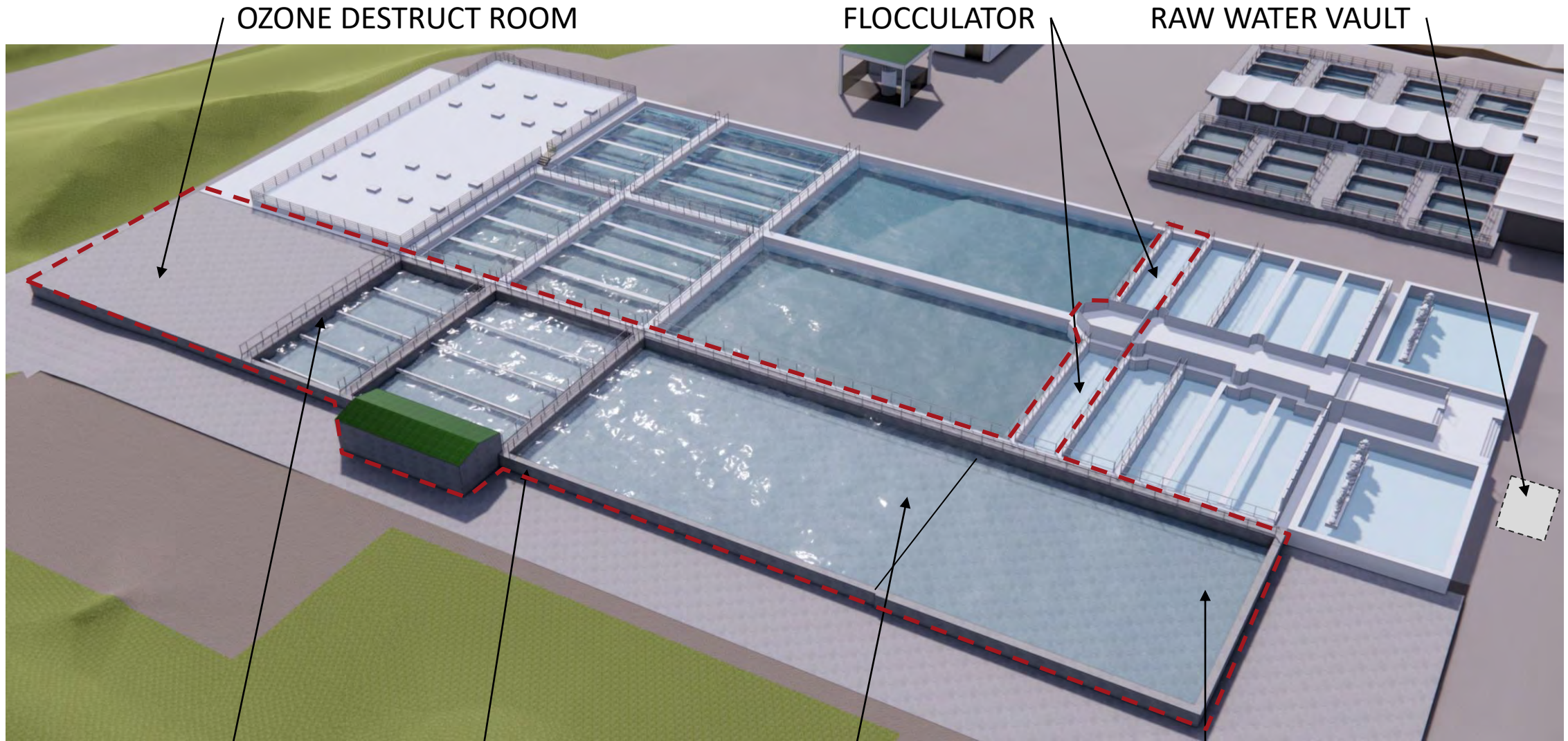




SFBW EQUALIZATION
BASIN

SFBW EQUALIZATION
BASIN

FILTER TO WASTE
EQUALIZATION BASIN



OZONE CONTACT
BASIN

CABLE VAC PP

SEDIMENTATION BASIN

FLOCCULATION BASIN

OZONE DESTRUCT ROOM

FLOCCULATOR

RAW WATER VAULT

An aerial photograph of a school campus, featuring a large central field, several buildings, and a winding road. The image is overlaid with a semi-transparent grey filter. The text "SCREENING STRATEGIES" is centered in white, bold, uppercase letters.

SCREENING STRATEGIES

Focus screening at areas with public views

- Christopher Court intersection
- Heavenly Ridge Lane Intersection
- Sidewalk across Amend Road

Use resilient planting

- Drought tolerant without permanent irrigation
- Low-maintenance with minimal leaf litter for fire prevention

Screen public views with landscaping

- Trees and shrubs to screen process facilities
- Berms or low landscape walls provide additional height screening plants

Maintain security

- Position planting to be clear of fences
- Maintain views of exterior perimeter of facility while screening from public views



**WETLAND SHOWN FOR
INTERNAL REFERENCE ONLY**

**Sobrante Water Treatment Plant
Reliability Improvements Project**

**PRELIMINARY SCREENING
OPTION 1: BERMS**

**East Bay Municipal Utility District
5500 Amend Road
El Sobrante, CA 94803**



**WETLAND SHOWN FOR
INTERNAL REFERENCE ONLY**

**Sobrante Water Treatment Plant
Reliability Improvements Project**

**PRELIMINARY SCREENING
OPTION 2: WALLS**

**East Bay Municipal Utility District
5500 Amend Road
El Sobrante, CA 94803**



Sobrante Water Treatment Plant
Reliability Improvements Project

**PRELIMINARY SCREENING
OPTION 1: BERMS**

East Bay Municipal Utility District
5500 Amend Road
El Sobrante, CA 94803



Sobrante Water Treatment Plant
Reliability Improvements Project

**PRELIMINARY SCREENING
OPTION 2: WALLS**

East Bay Municipal Utility District
5500 Amend Road
El Sobrante, CA 94803

Botanical Name	Common Name	Native	Water Use	Max Height	Max Width	Notes
Trees						
Arbutus 'Marina'	Strawberry Tree	No	L	50'	40'	From Maloney PP palette
Calocedrus decurrens	Incense Cedar	Yes	L	90'	15'	From Maloney PP palette
Cedrus deodara	Deodar Cedar	No	L	60'	30'	From Maloney PP palette
xChitalpa tashkentensis	Chitalpa	Part	L	30'	30'	Fast growing, hybrid of dessert willow
Lagerstroemia 'Tuscarora'	Tuscarora Crape Myrtle	No	L	25'	18'	From Maloney PP palette
Prunus caroliniana	Carolina Laurel	No	L	30'	25'	Good screen, dense leaves.
Quercus agrifolia	Coast Live Oak	Yes	VL	70'	50'	
Quercus chrysolepis	Canyon Live Oak	Yes	VL	60'	50'	
Quercus douglasii	Blue Oak	Yes	VL	50'	50'	Low, spreading branches. Immune to sudden oak death.
Large Shrubs						
Garrya elliptica	Silktassel	Yes	L	15'	12'	From Maloney PP palette, Ok for bioretention
Heteromeles arbutifolia	Toyon	Yes	L	15'	15'	Ok for bioretention
Rhaphiolepis 'Montic'	Majestic Beauty India Hawthorn	No	L	20'	10'	
Medium Shrubs						
Arctostaphylos manzanita	Manzanita	Yes	L	12'	12'	Ok for bioretention
Ceanothus thyrsiflorus 'Snow Flurry'	Wild Lilac	Yes	VL	10'	12'	Ok for bioretention
Ceanothus 'Frosty Blue'	Frosty Blue Wild Lilac	Yes	VL	8'	8'	From Maloney PP palette, Ok for bioretention
Dendromecon rigida	Bush Poppy	Yes	VL	6'	6'	
Rhamnus californica 'Eve Case'	Eve Case Coffeeberry	Yes	L	8'	8'	From Maloney PP palette, Ok for bioretention
Salvia clevelandii	Cleveland Sage	Yes	L	5'	5'	From Maloney PP palette
Stormwater Facility Grasses & Perennials						
Bouteloua gracilis	Blue Grama Grass		L	1.5'	1'	Ok for bioretention
Festuca californica	California fescue	Yes	L	2'	2'	Ok for bioretention
Achillea millefolium	Yarrow	Yes	L	1.5'	1'	Ok for bioretention

LANDMARK HYDROSEED MIX

Contains:

- Bromus carinatus (Native "Bay Area" California Brome)
- Elymus glaucus ("Bay Area" Blue Wildrye)
- Hordeum californicum (California Barley)
- Festuca rubra Molate (Native Red Fescue)

Notes:

- Maximum height 12".
- No lupin or clovers which are bad for goats.
- Available from Pacific Coast Seed 925-373-6855.

Trees



Arbutus 'Marina'
Marina Strawberry Tree



Calocedrus decurrens
Incense Cedar



Cedrus deodara
Deodar Cedar



Chitalpa x tashkentensis
Chitalpa



Lagerstroemia indica 'Tuscarora'
Tuscarora Crape Myrtle



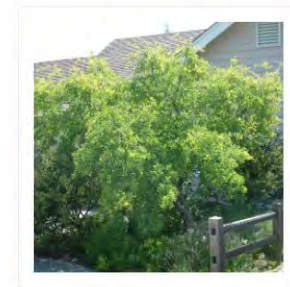
Prunus caroliniana
Carolina Laurel Cherry



Quercus agrifolia
Coast Live Oak



Quercus chrysolepis
Maul or Goldencup Oak, Canyon Live



Quercus douglasii
Blue Oak

Shrubs



Achillea millefolium
Common Yarrow



Arctostaphylos manzanita
Common Manzanita



Bouteloua gracilis 'Blonde Ambition'
Blonde Ambition Blue Grama



Ceanothus 'Frosty Blue'
Frosty Blue Wild Lilac



Ceanothus thyrsiflorus 'Snow Flurry'
White Blossom Ceanothus



Dendromecon rigida
Bush Poppy



Festuca californica
California Fescue



Garrya elliptica
Coast Silktassel



Heteromeles arbutifolia
Toyon



Rhamnus californica 'Eve Case'
Eve Case Compact Coffeeberry

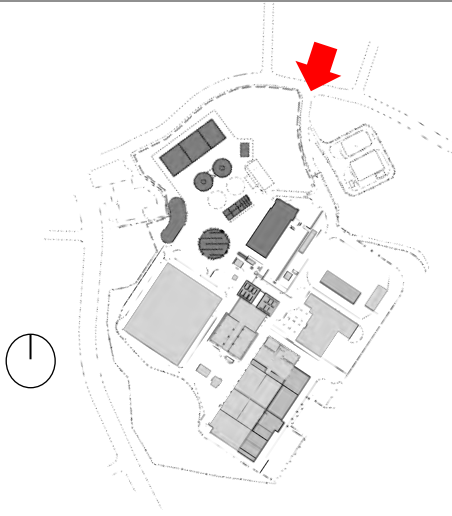


Raphiolepis 'Majestic Beauty'
Majestic Beauty Indian Hawthorne

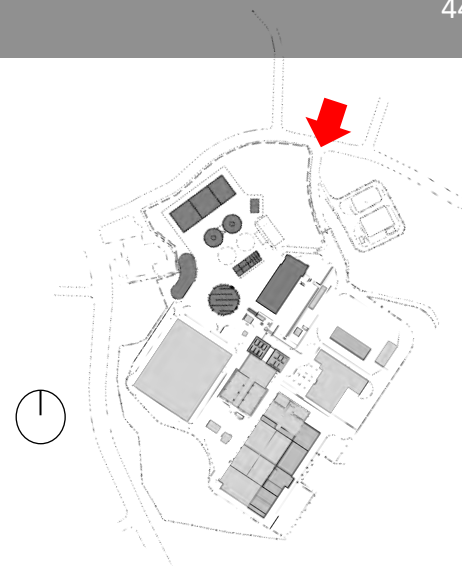


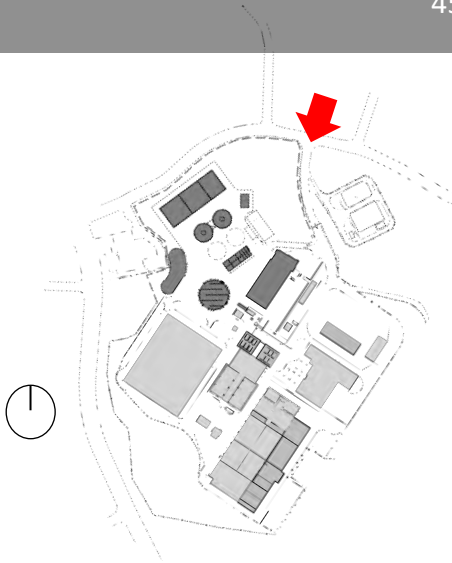
Salvia clevelandii
Cleveland Blue Sage

VIEW 1 – ENTRY ROAD (EXISTING)

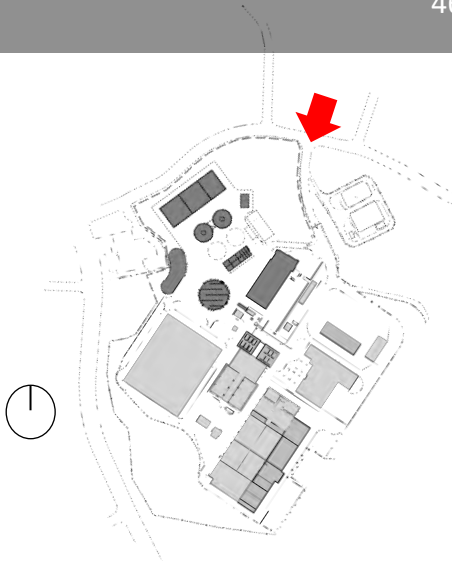


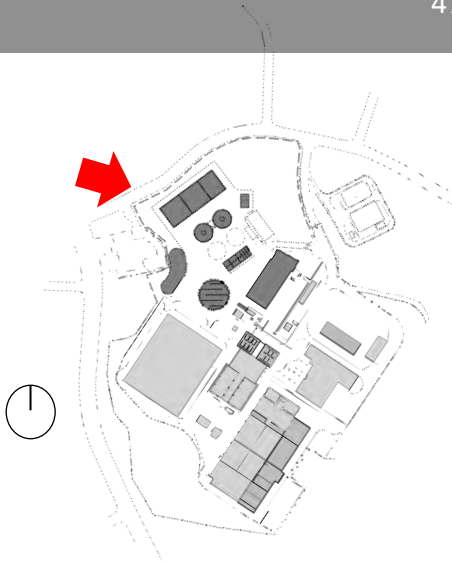
VIEW 1 – ENTRY ROAD (YEAR 0)

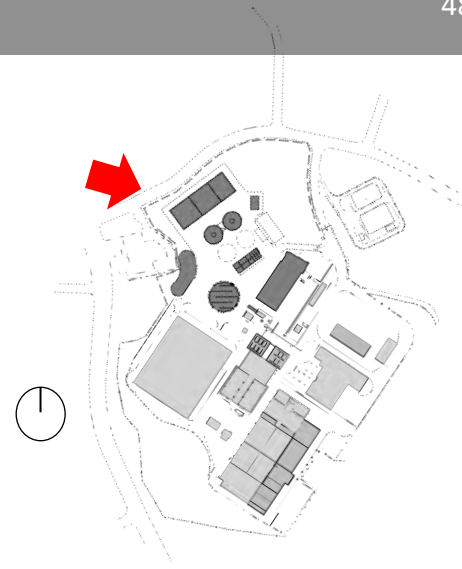


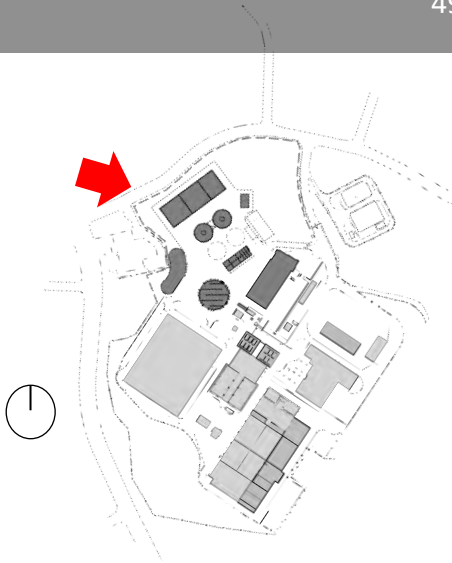


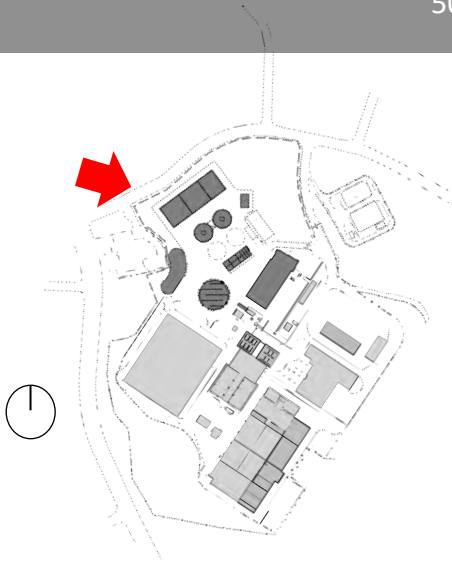
VIEW 1 – ENTRY ROAD (YEAR 10)

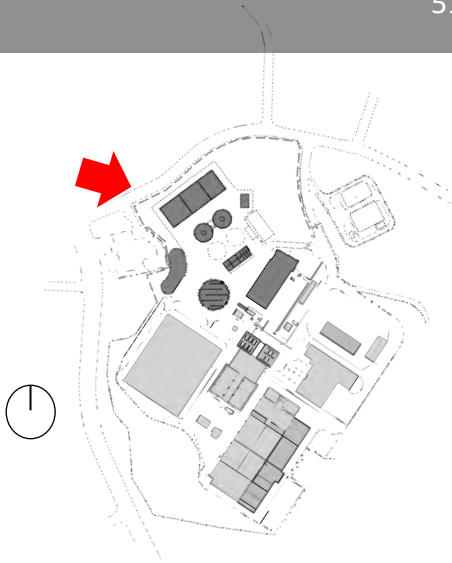


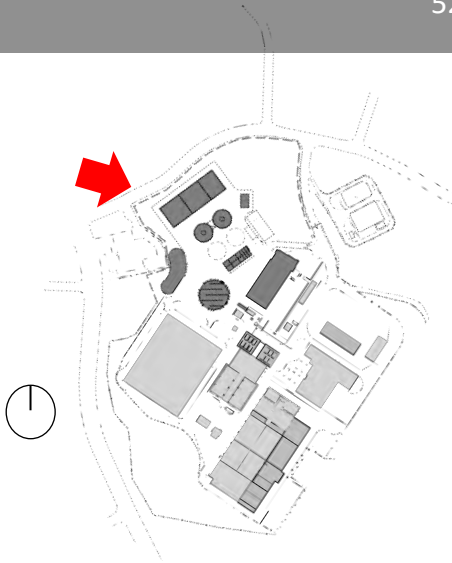


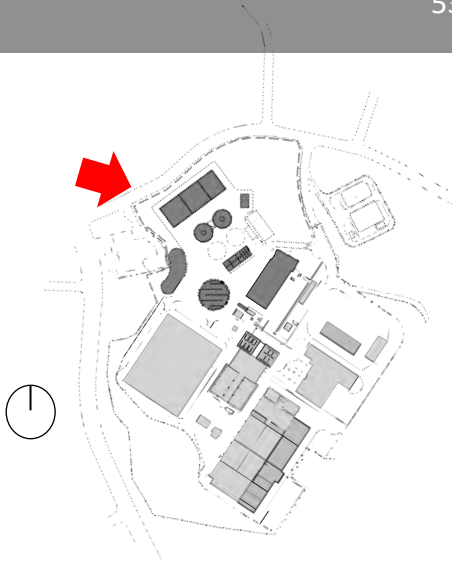


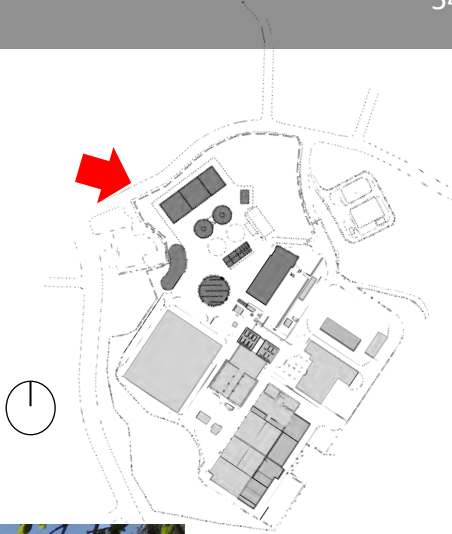


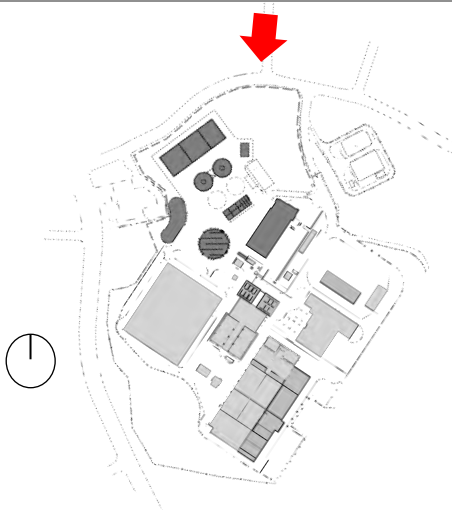


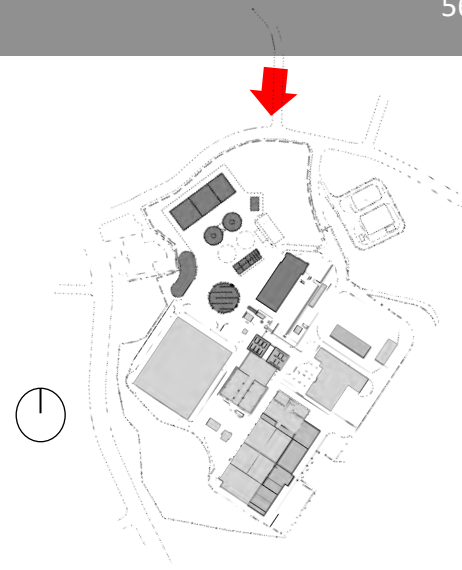


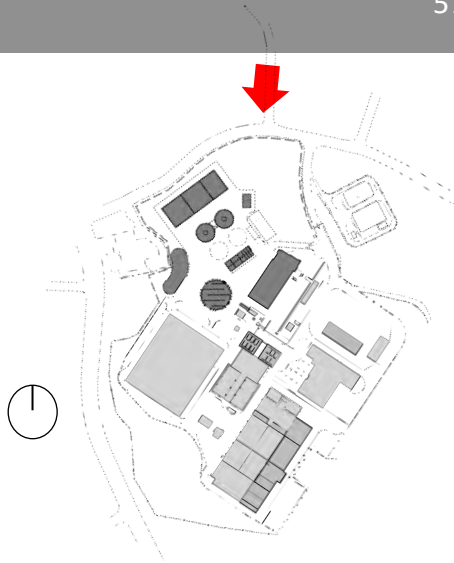


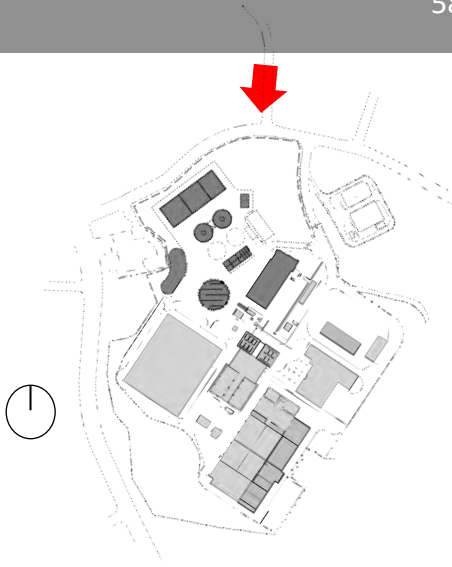


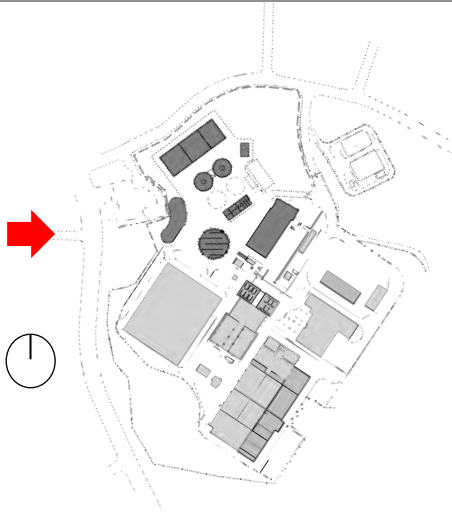


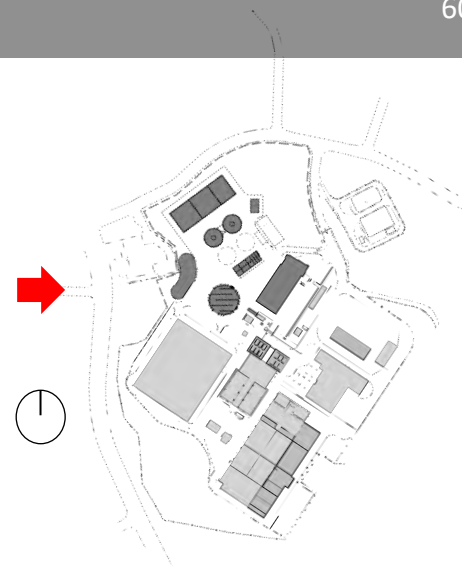


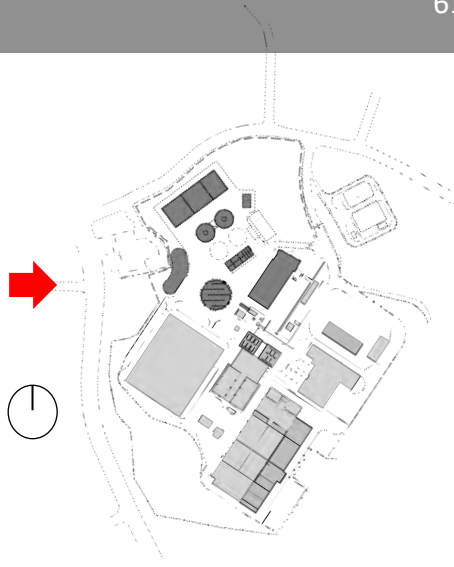


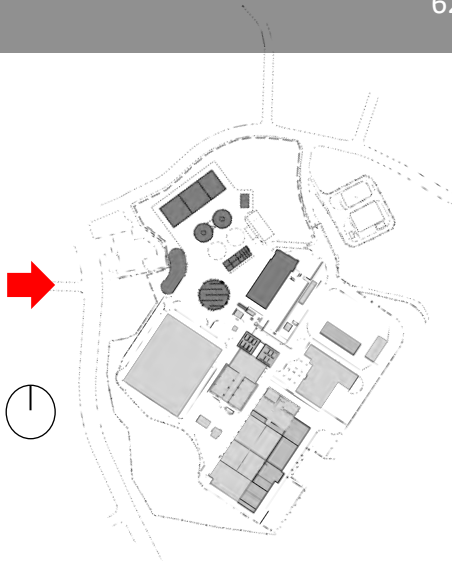




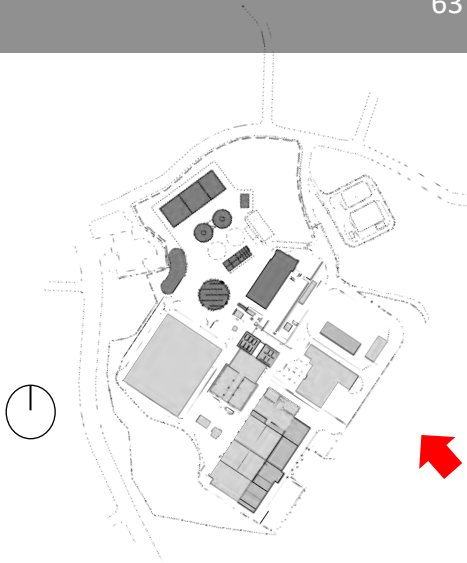


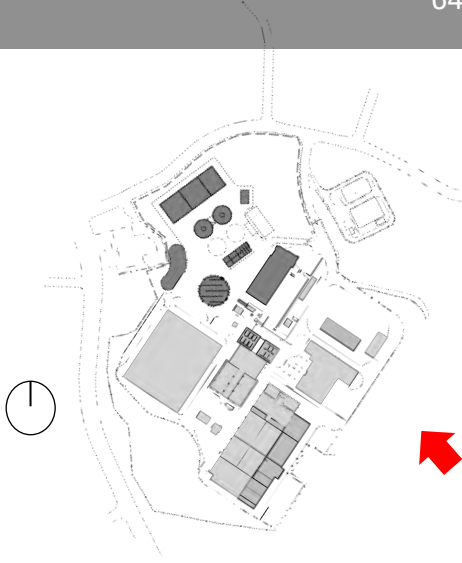






VIEW 5 – HILLSIDE (EXISTING)





NEXT STEPS



Sobrante Water Treatment Plant (SOWTP) Reliability Improvements Project



Welcome! We will begin shortly...

Zoom Information

Meeting ID: 850 6345 1447

Dial by phone: 1-669-900-6833

All attendees will be muted as they join the meeting.

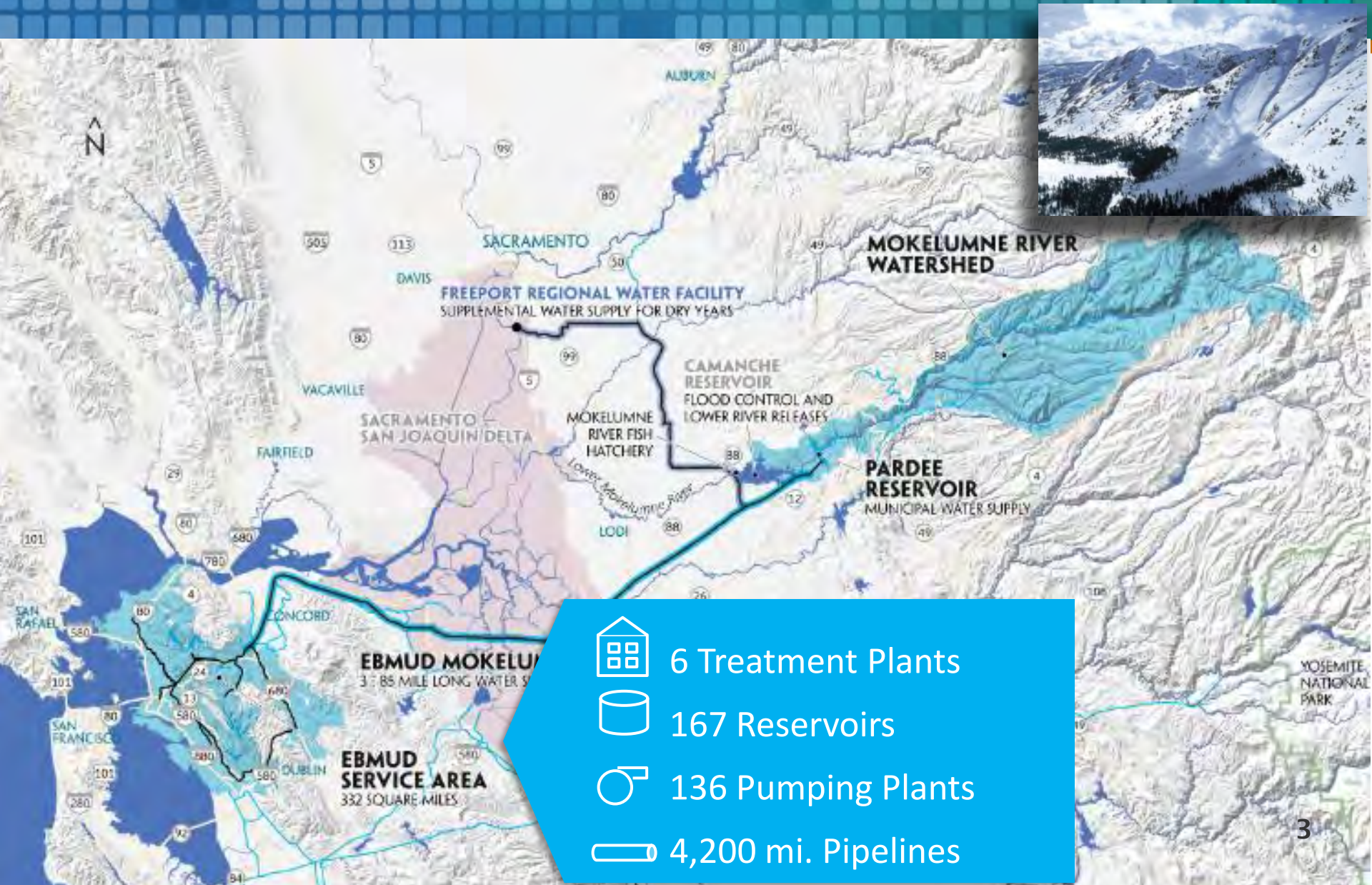
Questions and comments will be taken after the presentation in the chat or by raising your virtual hand under "reactions" on your Zoom toolbar




**Sobrante Water
Treatment Plant
Reliability
Improvements
Project**



**Virtual Public Scoping Meeting
March 24, 2022**

EBMUD Water System



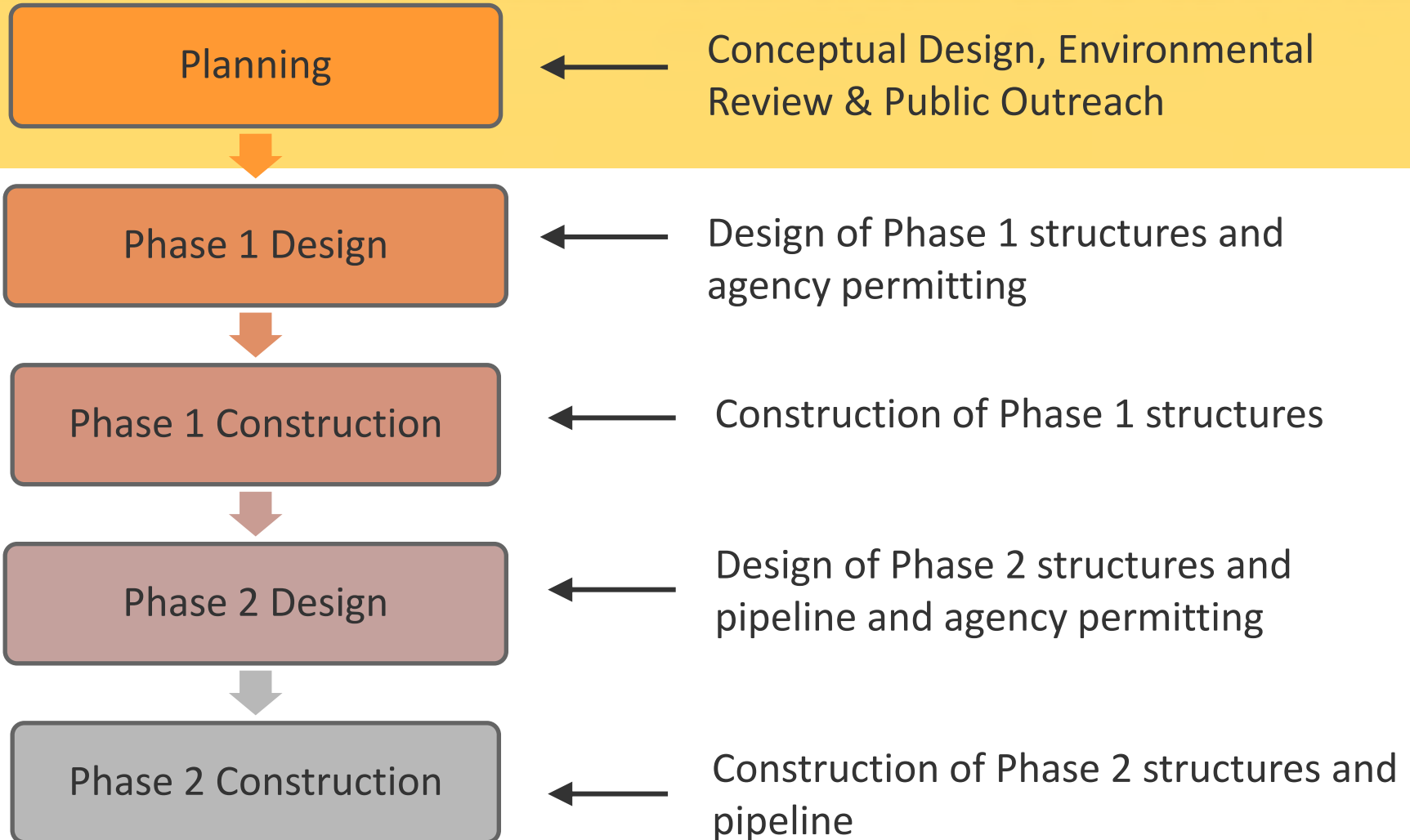
-  6 Treatment Plants
-  167 Reservoirs
-  136 Pumping Plants
-  4,200 mi. Pipelines

Purpose of the Meeting

- Present the Project:
 - Preliminary site plans
 - Conceptual visual simulations
- Receive input on aesthetics and landscape design



General Schedule



Agenda



- Project Team
- Project location
- Project purpose, need, and description
- Conceptual visual simulations
- Environmental review process & schedule
- Next Steps
- Questions & comments

Project Team



- EBMUD
 - Stella Tan, P.E., Project Manager
 - Tim McGowan, P.E., Senior Civil Engineer
 - David Rehnstrom, P.E., Division Manager
 - Sharla Sullivan, Community Affairs
- Consultants
 - Panorama Environmental, Inc., Environmental Consultant
 - MWA Architects, Architects
 - Merrill Morris Partners, Landscape Architects

Project Location



Project Purpose & Need



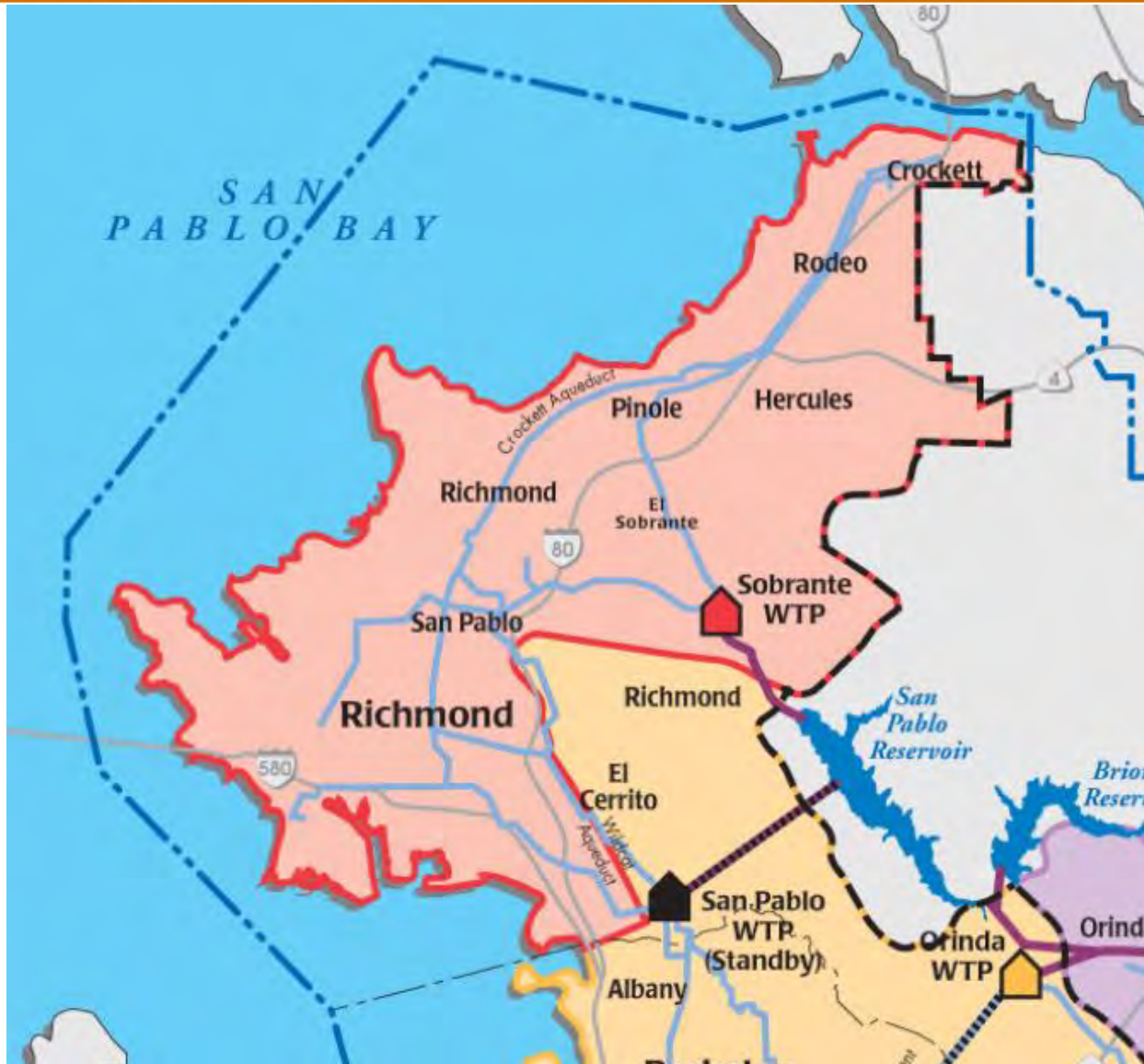
- Meet existing and future water demands
- Maintain water quality and reduce disinfectant byproducts
- Support drought operations
- Provide treatment capacity for changing untreated water quality or planned untreated water aqueduct outages

Sobrante WTP Proposed Improvements



- Construct new structures to increase reliable capacity of Sobrante Water Treatment Plant (WTP)
 - Phase 1 (near term): 60 MGD
 - Phase 2 (long term): 80 MGD
- After Phase 1 completed, demolish structures at the existing Sobrante WTP
- In Phase 2, construct the Central North Aqueduct pipeline to convey Phase 2 treatment capacity

Sobrante WTP Area Served

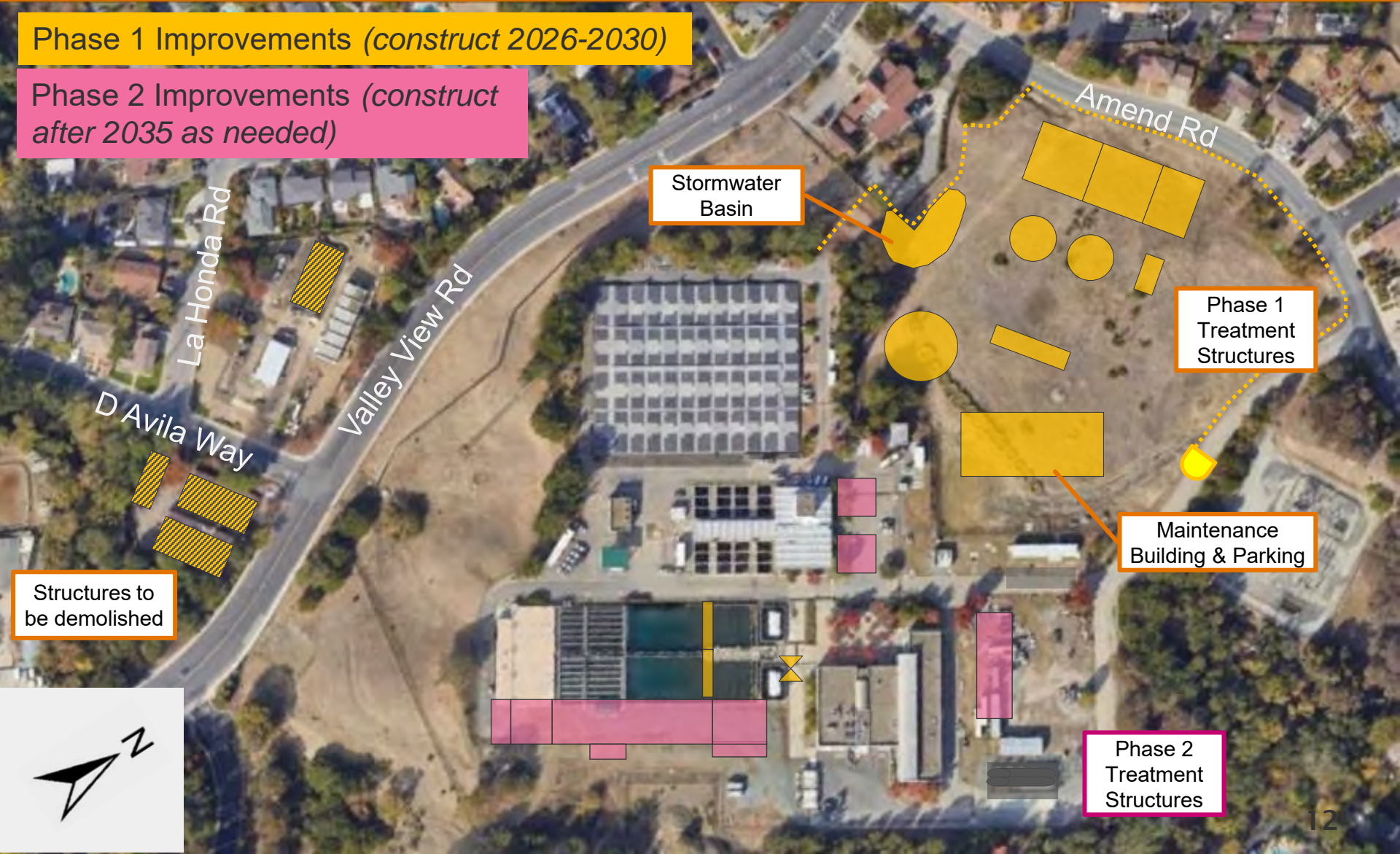


Sobrante WTP Proposed Improvements



Phase 1 Improvements (*construct 2026-2030*)

Phase 2 Improvements (*construct after 2035 as needed*)



Stormwater Basin

Phase 1 Treatment Structures

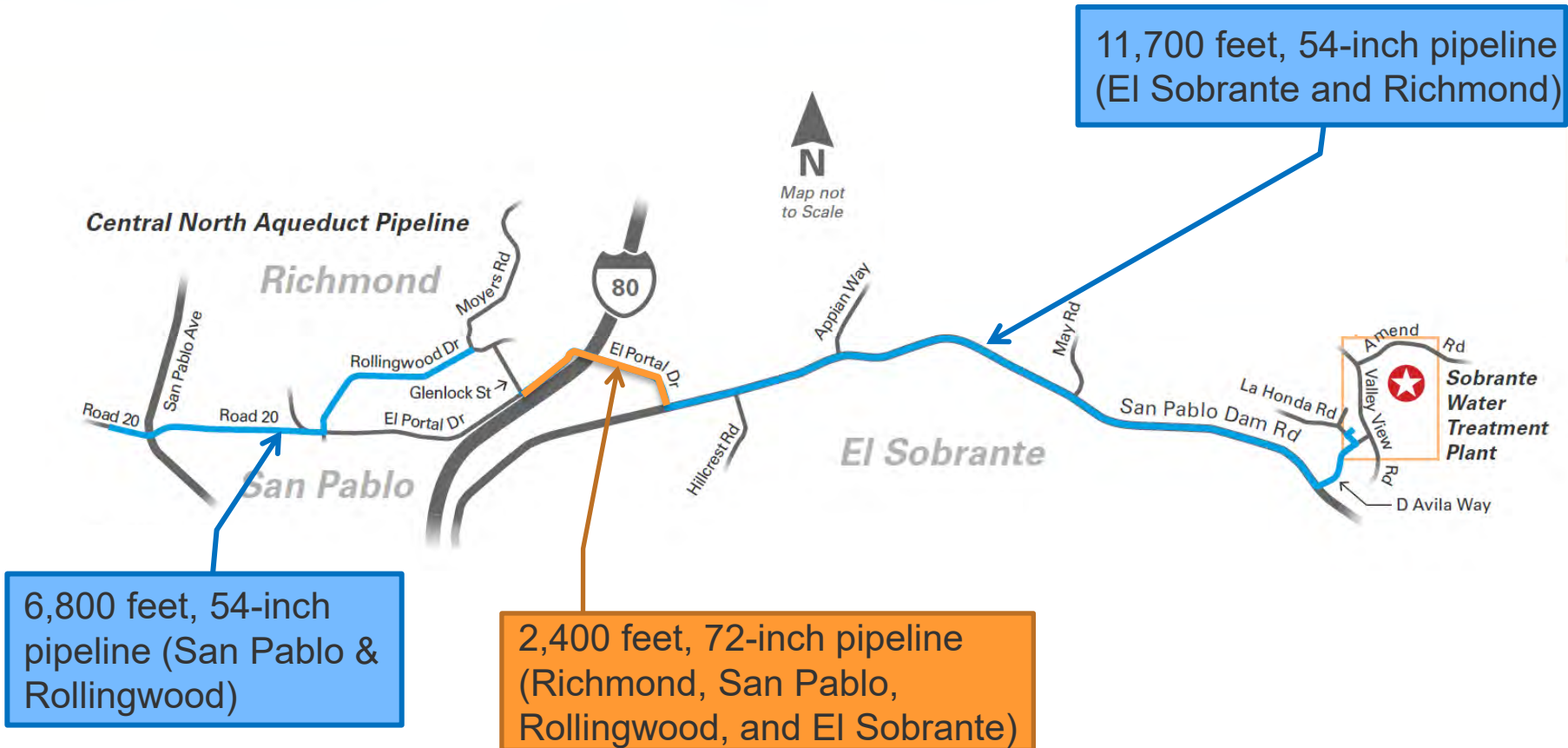
Maintenance Building & Parking

Phase 2 Treatment Structures

Structures to be demolished



Central North Aqueduct Pipeline



An aerial photograph of a large industrial or commercial complex, featuring several large buildings, parking lots, and surrounding greenery. The image is overlaid with a semi-transparent grey filter. At the top of the slide, there is a decorative header with a blue-to-teal gradient and a grid pattern. At the bottom, there is a decorative footer with a grey-to-black gradient and a grid pattern.

Aesthetic & Landscape Design

Existing Architectural Features



Key Public Buildings

RICHMOND FIRE STATION



DE ANZA HIGH SCHOOL

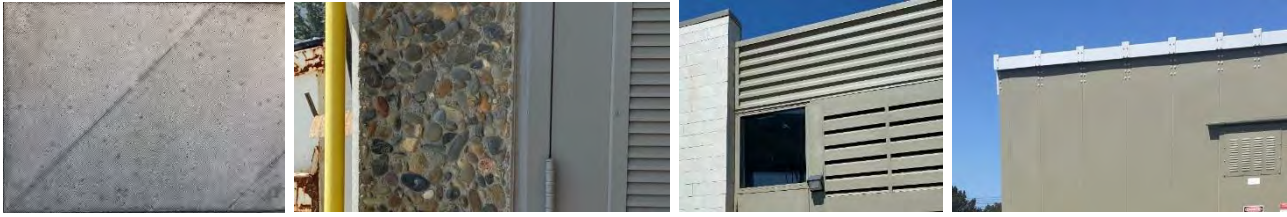


MURPHY ELEMENTARY SCHOOL



Sobrante Water Treatment Plant

MATERIALS



SIZES



SHAPES



Existing Vegetated Features



ON SITE



PERIMETER



NEIGHBORHOOD



New Buildings



MAINTENANCE BUILDING



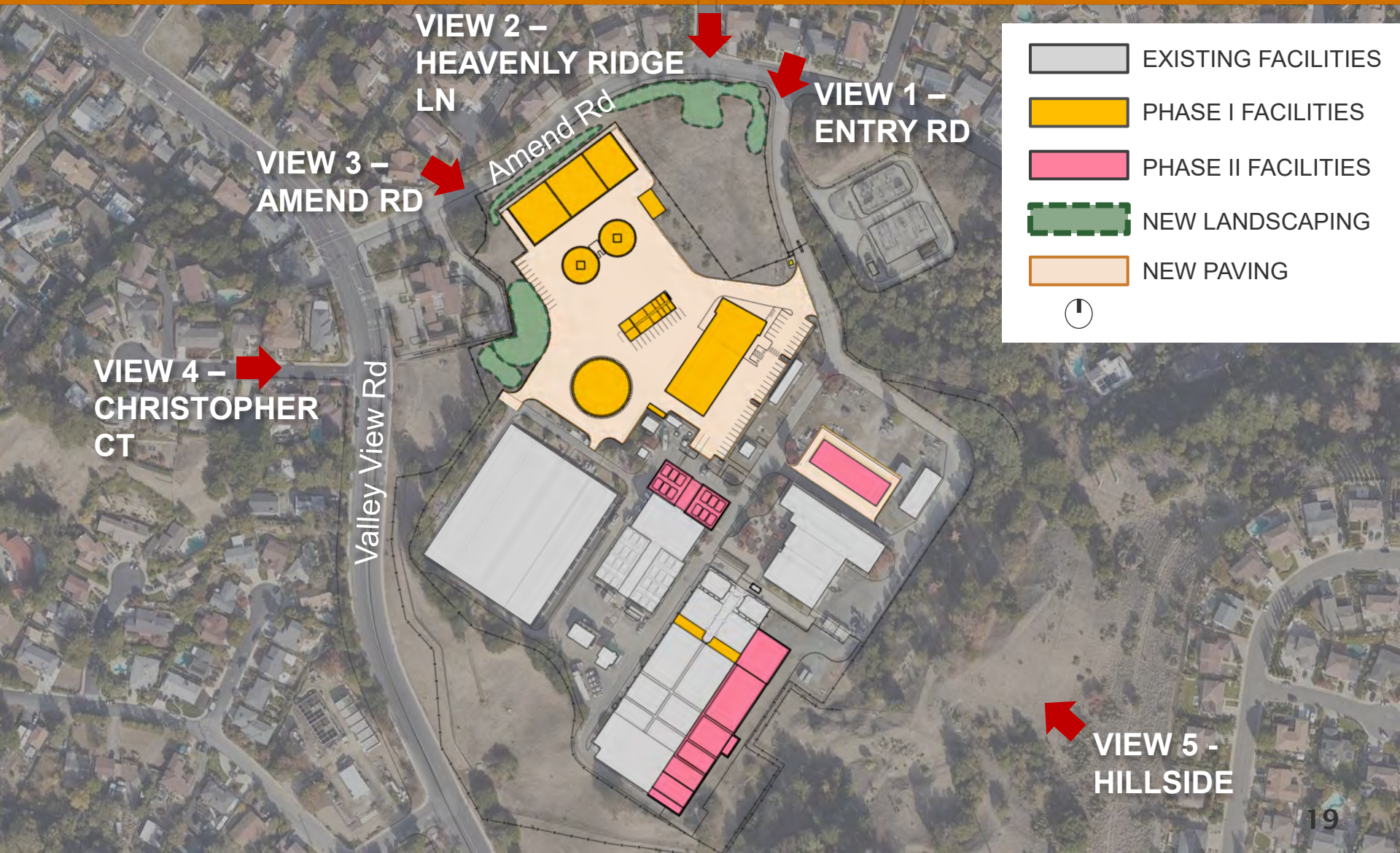
PROCESS BUILDINGS



Sobrante WTP with Improvements



Key Site Views



VIEW 2 –
HEAVENLY RIDGE
LN

VIEW 1 –
ENTRY RD

VIEW 3 –
AMEND RD

VIEW 4 –
CHRISTOPHER
CT

- EXISTING FACILITIES
- PHASE I FACILITIES
- PHASE II FACILITIES
- NEW LANDSCAPING
- NEW PAVING
-

VIEW 5 -
HILLSIDE

Key Site Views – Street View



1 – ENTRY ROAD



2 – HEAVENLY RIDGE LANE



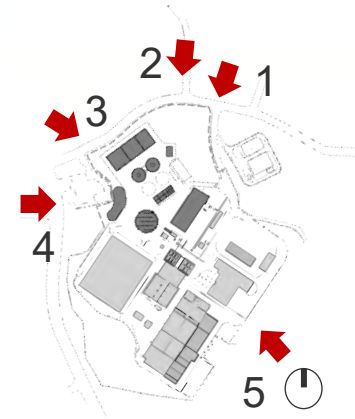
3 – AMEND ROAD



4 – CHRISTOPHER COURT



5 - HILLSIDE



Conceptual Plant Palette - Trees



Arbutus 'Marina'
Marina Strawberry Tree



Calocedrus decurrens
Incense Cedar



Cedrus deodara
Deodar Cedar



Chitalpa x tashkentensis
Chitalpa



Lagerstroemia indica 'Tuscarora'
Tuscarora Crape Myrtle



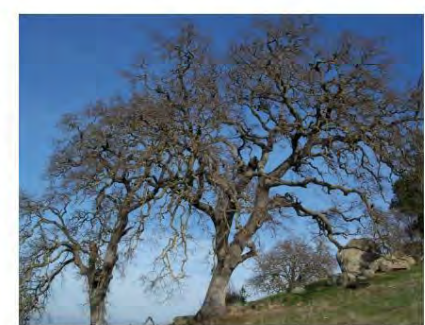
Prunus caroliniana
Carolina Laurel Cherry



Quercus agrifolia
Coast Live Oak



Quercus chrysolepis
Canyon Live Oak



Quercus douglasii
Blue Oak

Conceptual Plant Palette - Shrubs



Achillea millefolium
Common Yarrow



Arctostaphylos manzanita
Common Manzanita



Bouteloua gracilis 'Blonde Ambition'
Blonde Ambition Blue Grama



Ceanothus 'Frosty Blue'
Frosty Blue Wild Lilac



Dendromecon rigida
Bush Poppy



Ceanothus thursiflorus 'Snow Flurry'
White Blossom Ceanothus



Festuca californica
California Fescue



Garrya elliptica
Coast Silktassel



Heteromeles arbutifolia
Toyon



Rhamnus californica 'Eve Case'
Eve Case Compact Coffeeberry

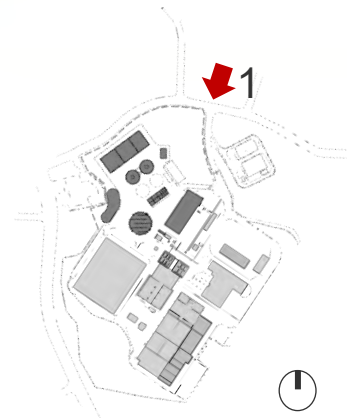


Raphiolepis 'Majestic Beauty'
Majestic Beauty Indian Hawthorne

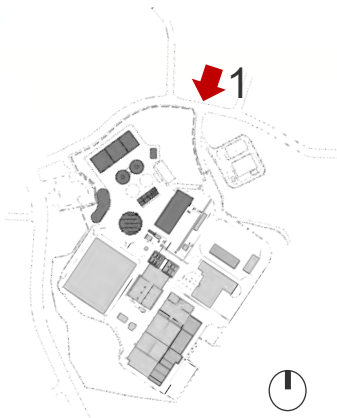


Salvia clevelandii
Cleveland Blue Sage

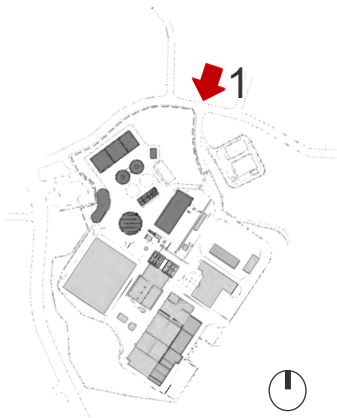
View 1 - Entry Road (Existing)



View 1 - Entry Road (Year 0)



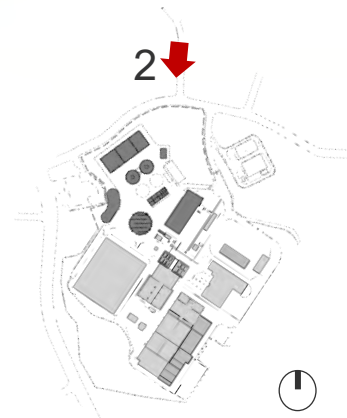
View 1 - Entry Road (Year 5)



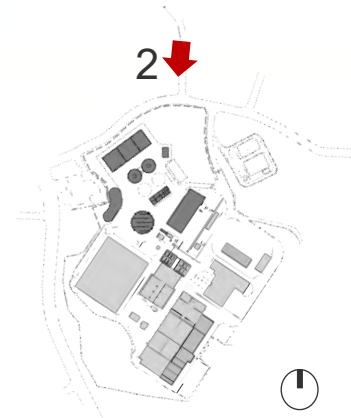
View 1 - Entry Road (Year 10)



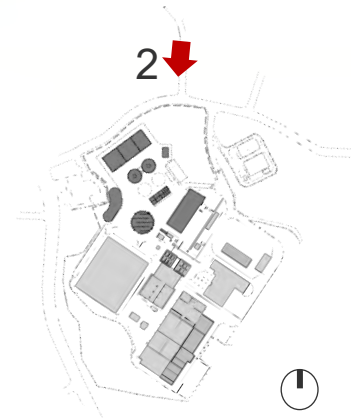
View 2 - Heavenly Ridge Lane (Existing)



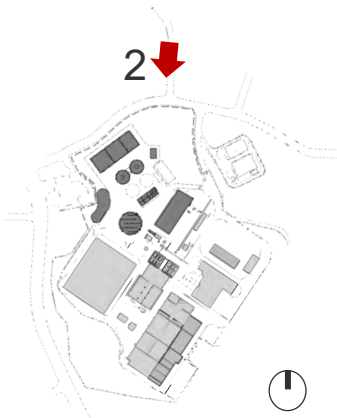
View 2 - Heavenly Ridge Lane (Year 0)



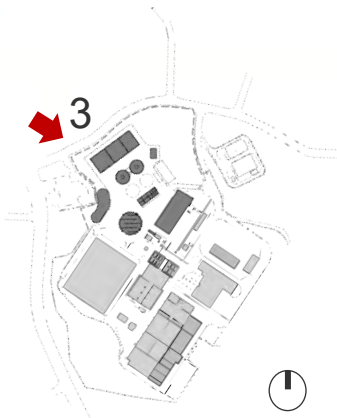
View 2 - Heavenly Ridge Lane (Year 5)



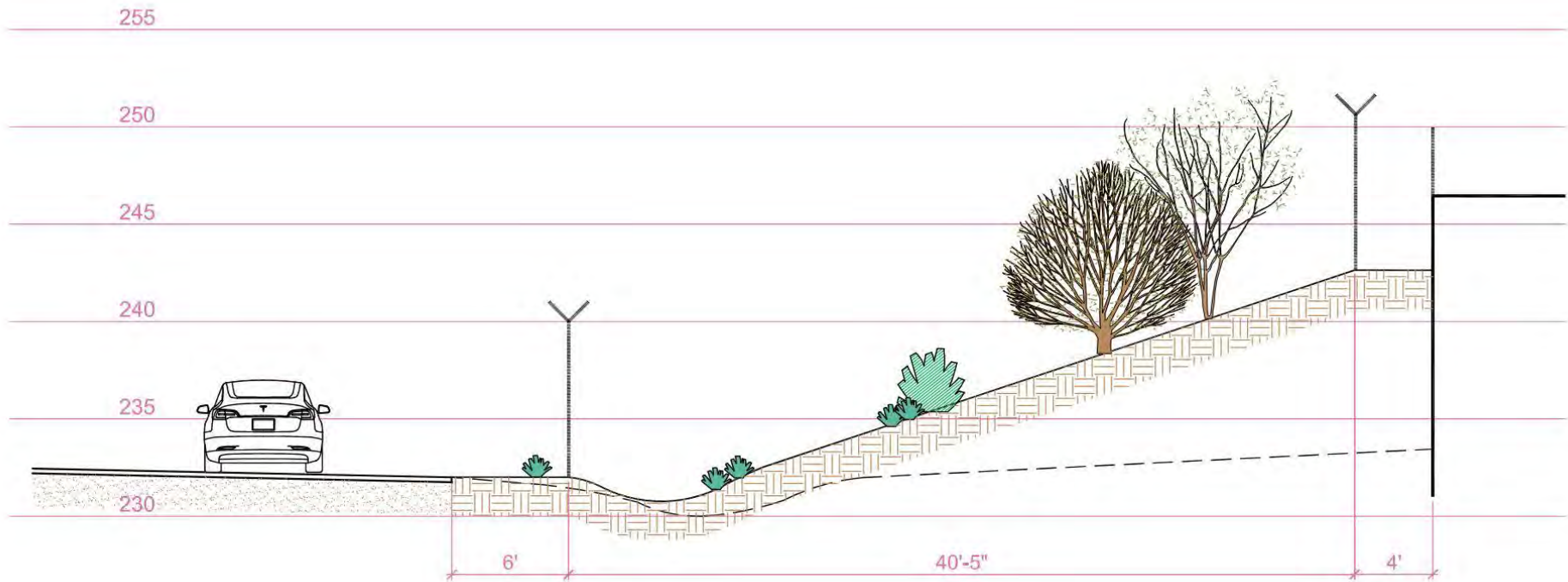
View 2 - Heavenly Ridge Lane (Year 10)



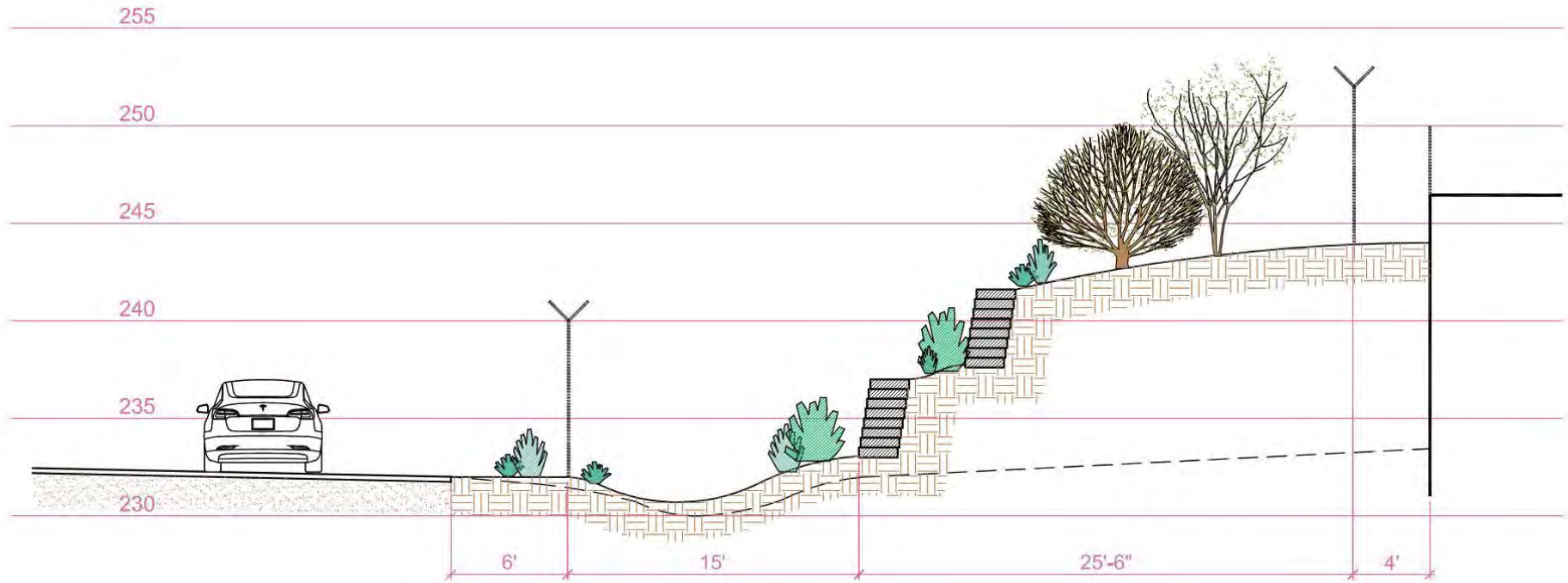
View 3 - Amend Road (Existing)



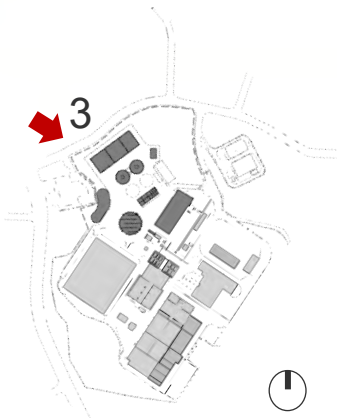
Amend Road Screening Option 1 - Berm



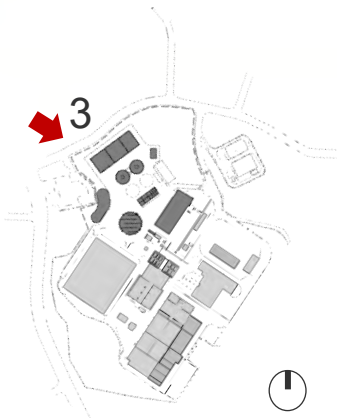
Amend Road Screening Option 2 - Wall



View 3 - Amend Road Option 1 - Berm (Year 0)



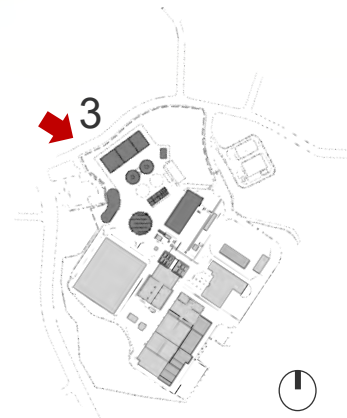
View 3 - Amend Road Option 1 - Berm (Year 5)



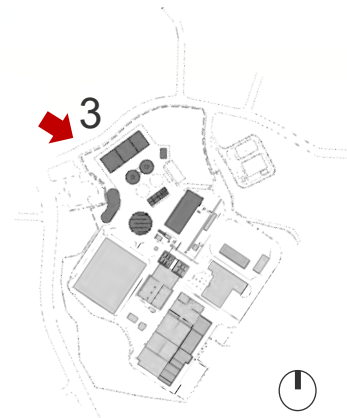
View 3 - Amend Road Option 1 - Berm (Year 10)



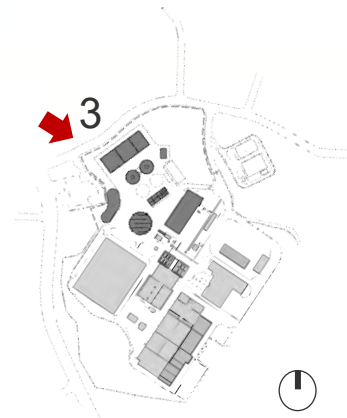
View 3 - Amend Road Option 2 - Wall (Year 0)



View 3 - Amend Road Option 2 - Wall (Year 5)

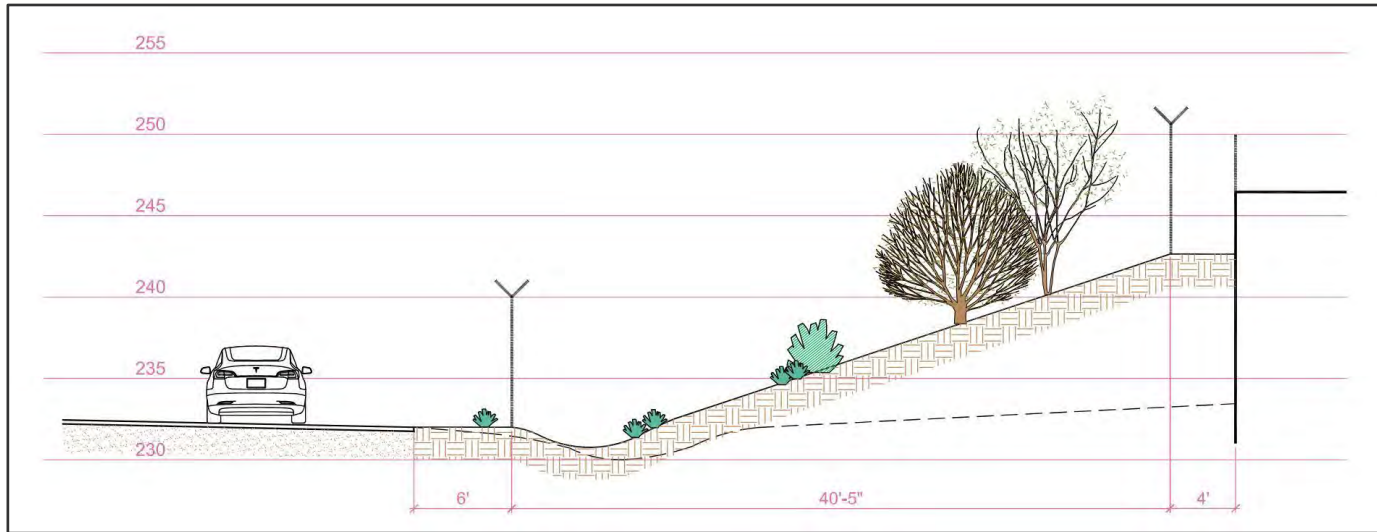


View 3 - Amend Road Option 2 - Wall (Year 10)

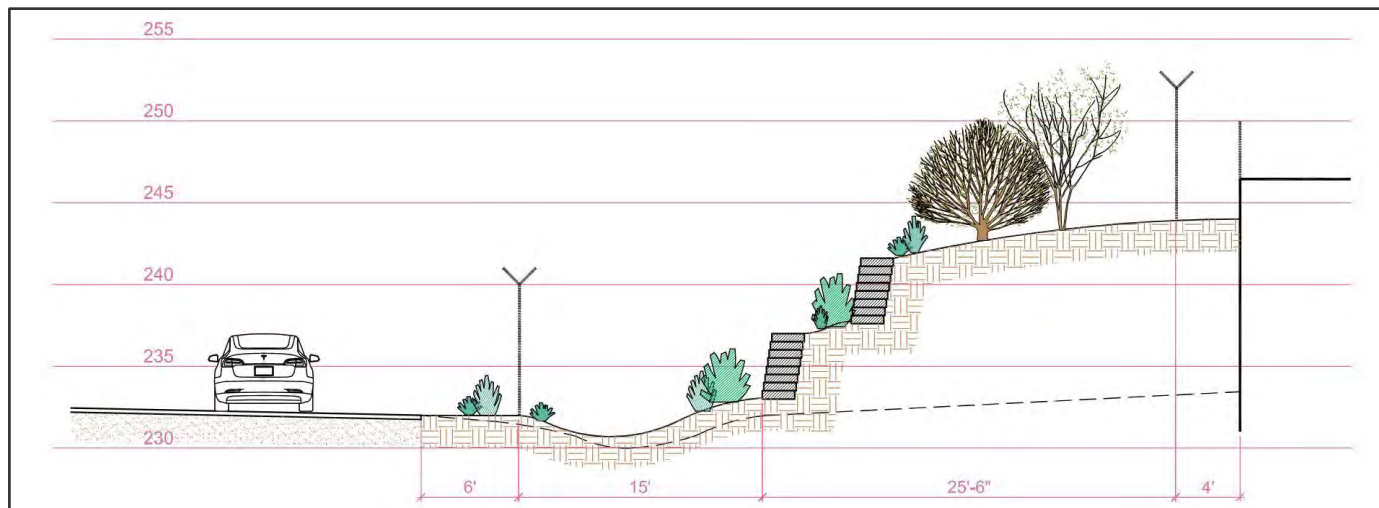


Gauge preferences (Poll): Amend Road Wall vs Berm

BERM



WALL



View 4 - Christopher Court (Existing)



View 4 - Christopher Court (Year 0)



View 4 - Christopher Court (Year 5)



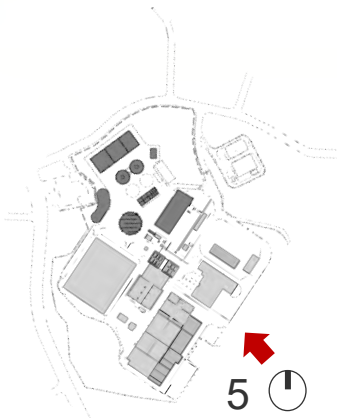
View 4 - Christopher Court (Year 10)



View – Hillside View (Existing)



View – Hillside View (Year 0)



An aerial photograph of an industrial or commercial site, showing several large, interconnected buildings with flat roofs, parking lots, and surrounding greenery. The image is overlaid with a semi-transparent grey filter.

Environmental Review Process and Schedule

What is an Environmental Impact Report (EIR)?



EIR required under...

the California Environmental Quality Act (CEQA)

EIR required when...

there is potential that a project may have significant impacts

EIR purpose:

To inform the public of the environmental consequences of projects

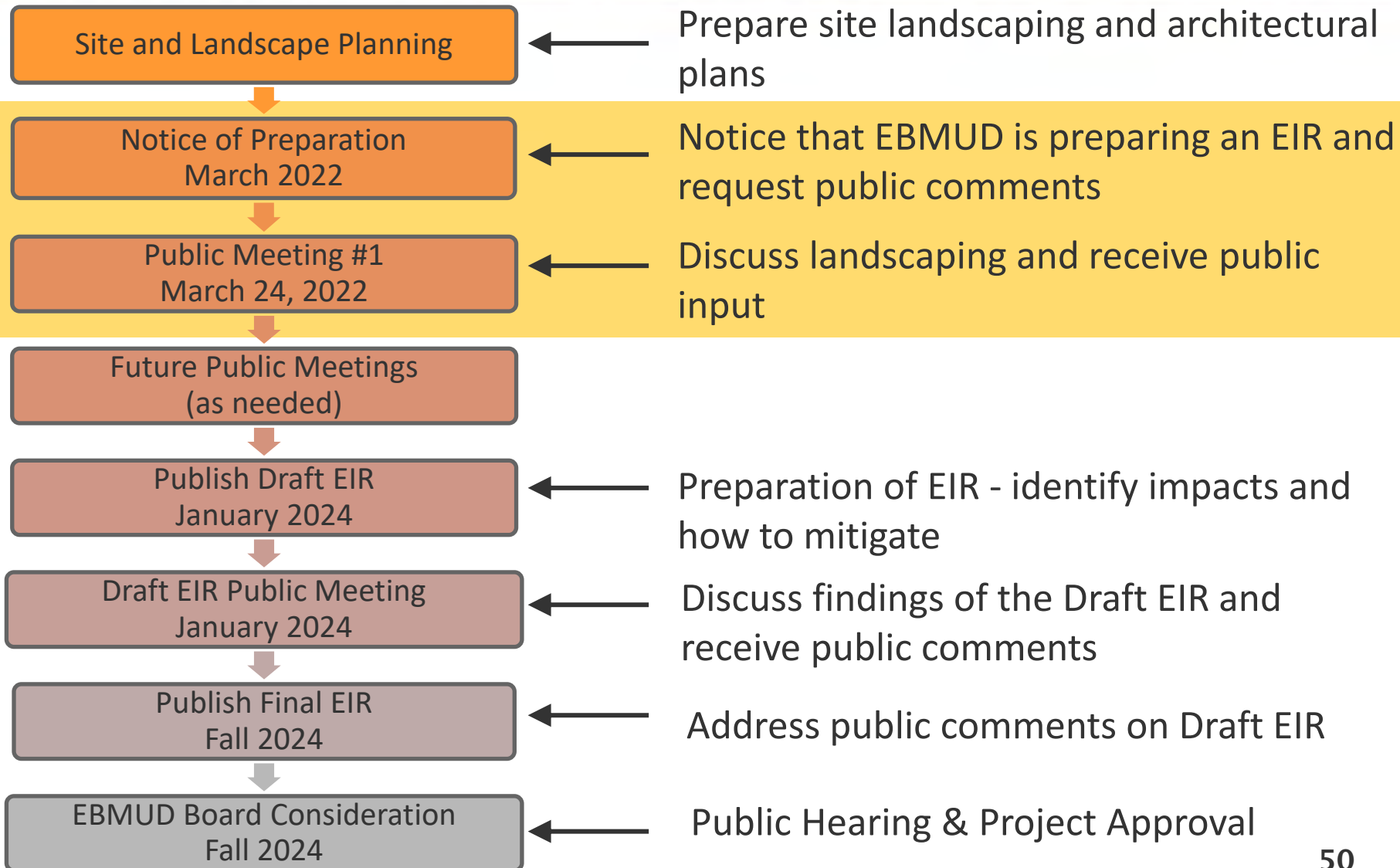
EIR Analysis of Impacts



Environmental Resource Category	Less than Significant	Less than Significant with Mitigation	Significant and Unavoidable
Aesthetics			
Air Quality			
Biological Resources			
Cultural/Historical Resources	<i>To be analyzed in the EIR</i>		
Energy			
Geology			
Greenhouse Gases			
Hazards			
Hydrology/Water Quality			
Noise			
Traffic			
Wildfire			

Initial Study available on Project website: www.ebmud.com/sowtp

Environmental Review Schedule



Next Steps



- Incorporate feedback from tonight's public meeting and via email/mail
 - Will consider preference for wall/berm
- Prepare Draft Environmental Impact Report to be released January 2024

For more information and comments



More information and tonight's presentation can be found at the

Project Website:

www.ebmud.com/sowtp

Questions and Comments:

sowtp.improvements@ebmud.com

Or by mail:

Stella Tan, Project Manager
East Bay Municipal Utility District
375 Eleventh Street, MS 701
Oakland, CA 94607-4240

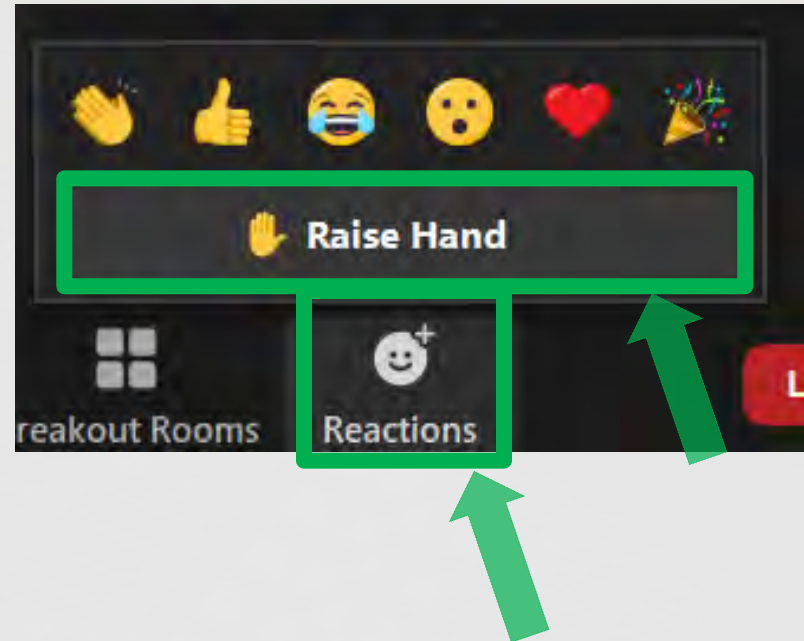
Send NOP comments by April 11, 2022

General Contact:

Sharla Sullivan, Community Affairs Representative
(510) 287-7208

Questions and Comments

- To participate, please click “Raise Hand” at the bottom of your screen.
- A member of our team will prompt you to speak.
- Please first state your full name.
- After you have made your comment, click “Lower Hand.”



EAST BAY MUNICIPAL UTILITIES DISTRICT

SOBRANTE WATER TREATMENT PLANT
RELIABILITY IMPROVEMENTS PROJECT

UPDATED VISUALIZATIONS

JUNE 2, 2022



mwa architects

**Merrill
Morris**



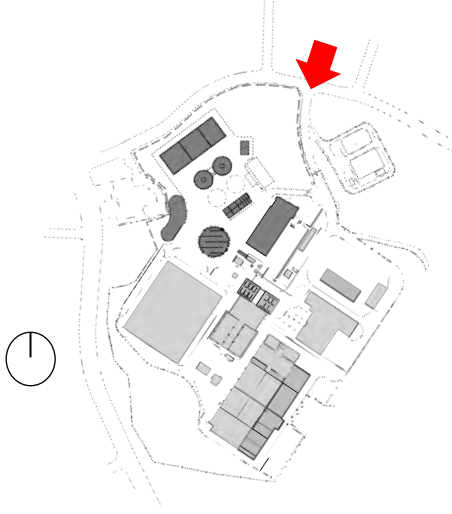
**WETLAND SHOWN FOR
INTERNAL REFERENCE ONLY**

**Sobrante Water Treatment Plant
Reliability Improvements Project**

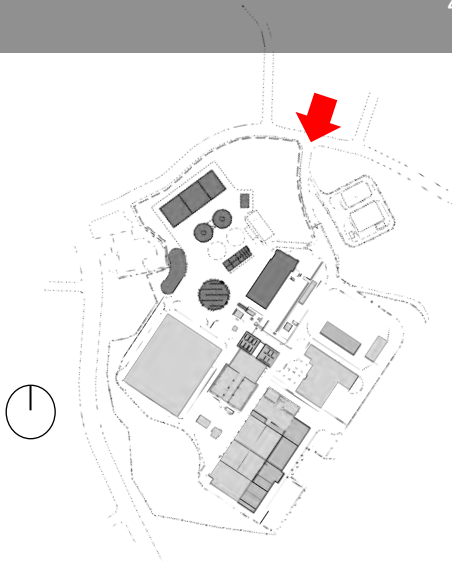
SITE PLAN

**East Bay Municipal Utility District
5500 Amend Road
El Sobrante, CA 94803**

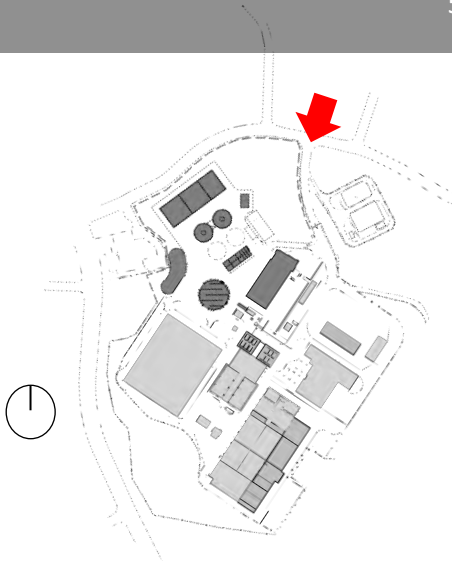
VIEW 1 – ENTRY ROAD (EXISTING)



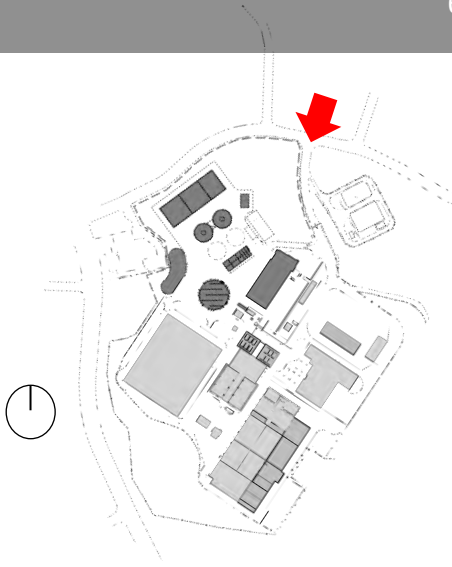
VIEW 1 – ENTRY ROAD (YEAR 0)

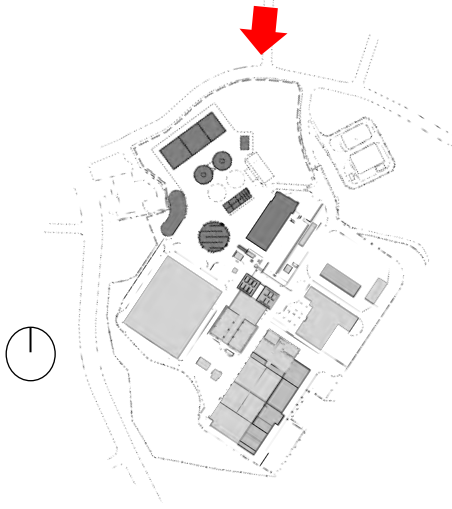


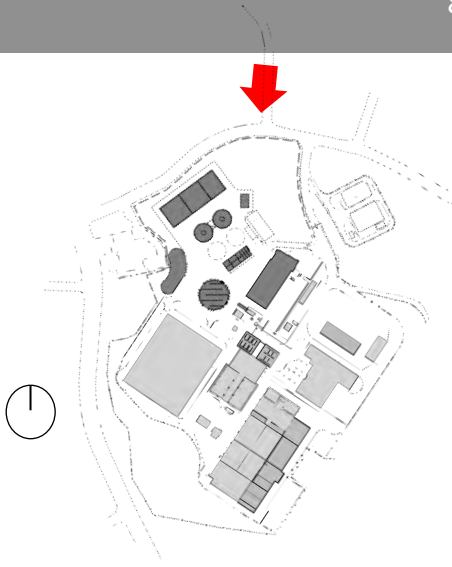
VIEW 1 – ENTRY ROAD (YEAR 5)

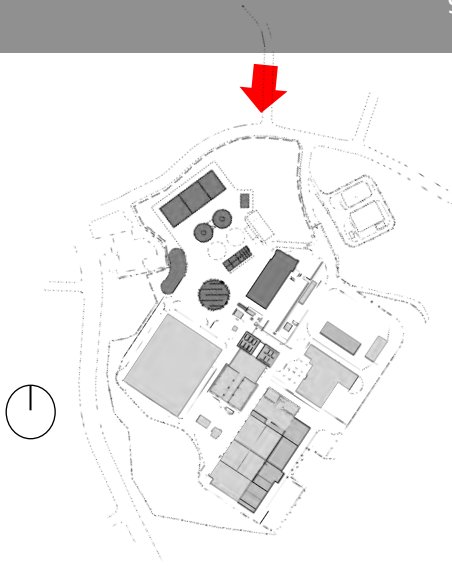


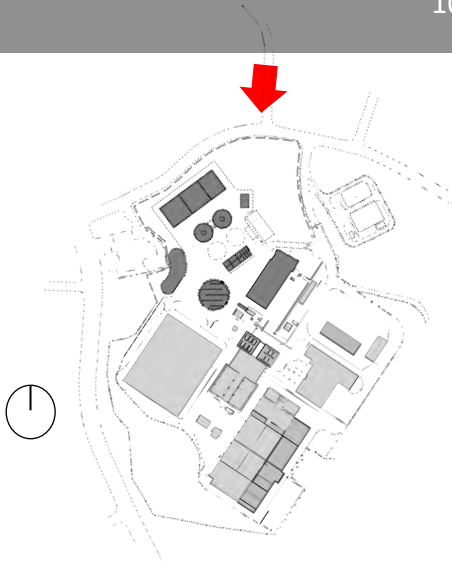
VIEW 1 – ENTRY ROAD (YEAR 10)

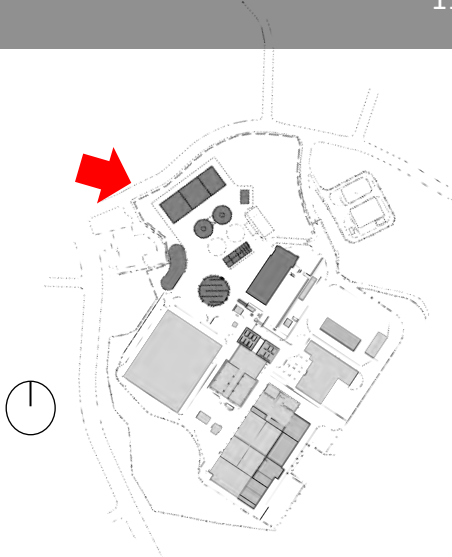


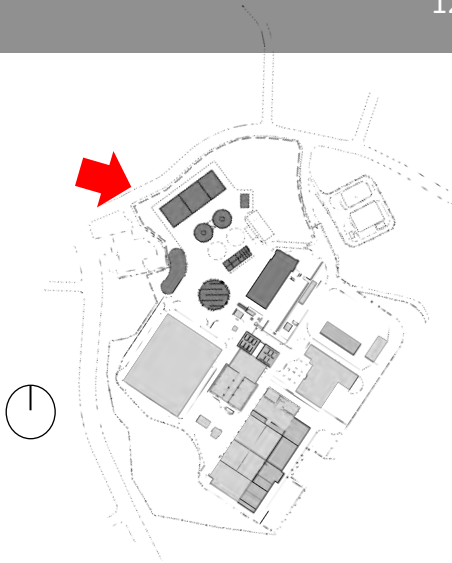


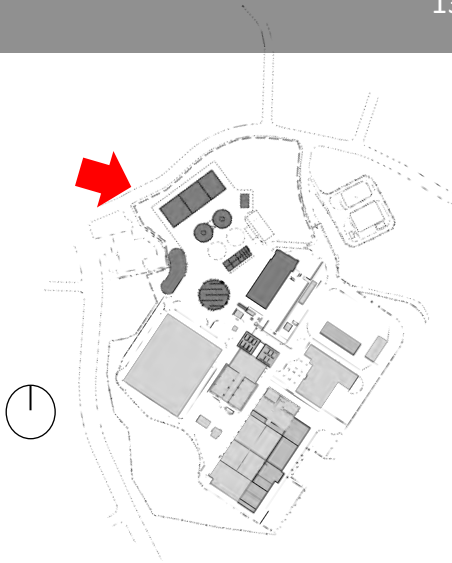


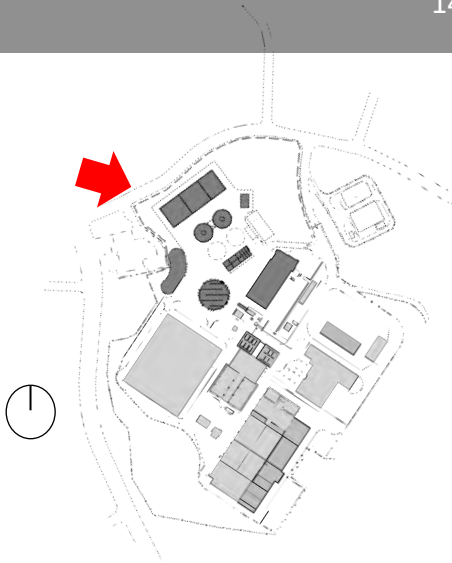


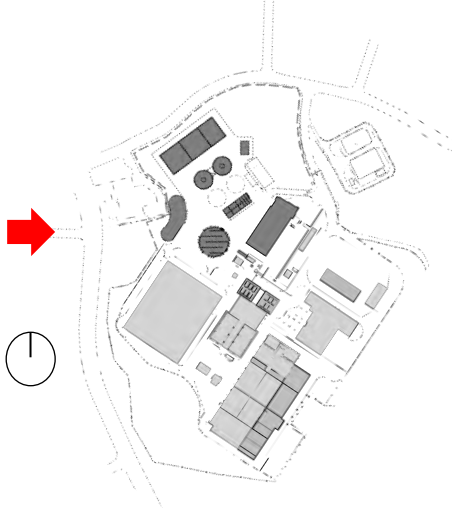


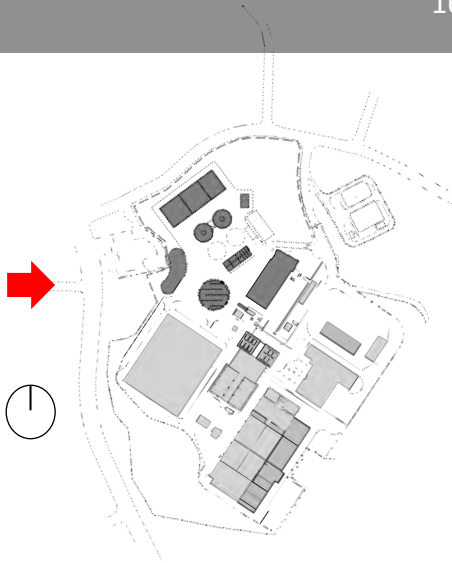


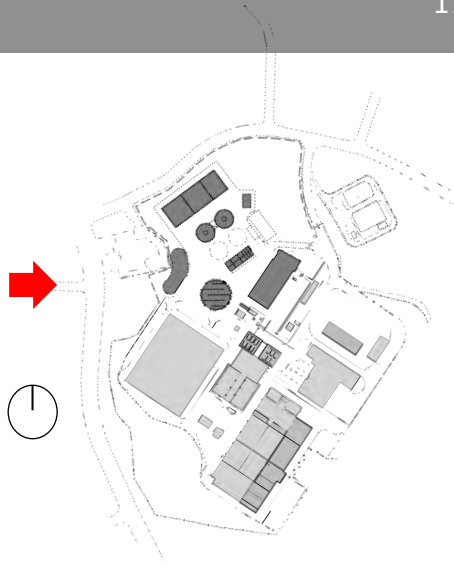


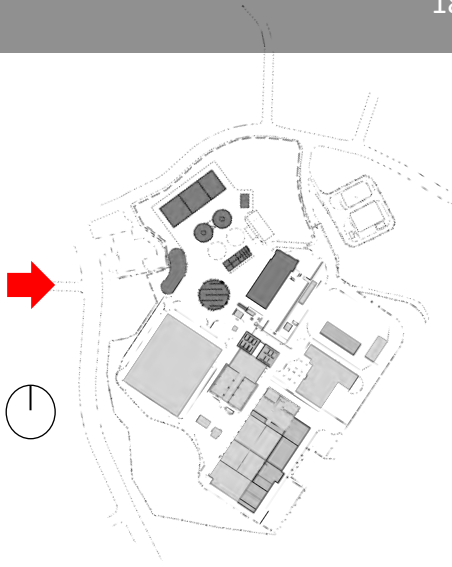




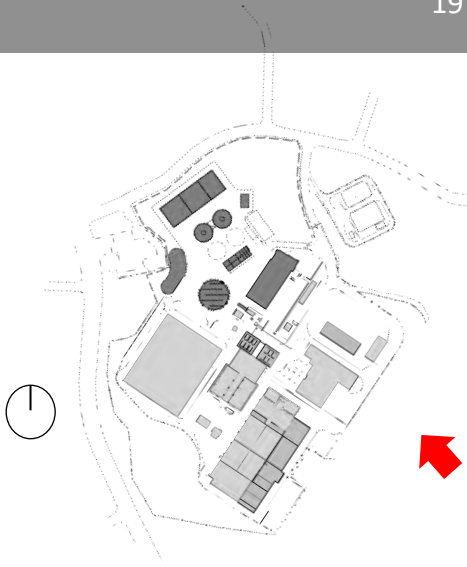


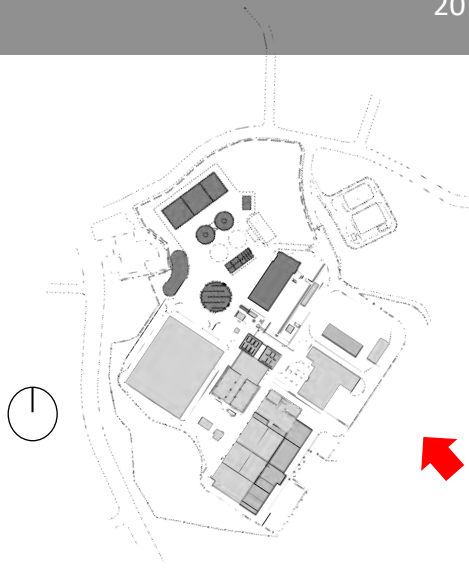






VIEW 5 – HILLSIDE (EXISTING)







Sobrante Water Treatment Plant Reliability Improvements Project

Virtual Community Meeting, April 27, 2023



Purpose of the Meeting

- Since the last public meeting:
 - Evaluated ways to incorporate comments
 - Updates to improve aesthetics
- Present project updates:
 - Site plans
 - Conceptual visual simulations
- Receive feedback on changes



Agenda

- Team Introduction
- Project context & purpose
- Project description & location
- Public comments received
- Updated:
 - Site plan
 - Aesthetics & landscape plan
 - Conceptual visual simulations
- Environmental review process & schedule
- Next Steps
- Questions & comments

Project Team

- EBMUD
 - Stella Tan, P.E., Project Manager/Associate Civil Engineer
 - Timothy McGowan, P.E., Senior Civil Engineer
 - David Rehnstrom, P.E., Division Manager
 - Joseph Voelker, Community Affairs Rep
 - Rolando Gonzalez, Community Affairs Rep (this evening)
 - David Cook, Manager of Security
- Consultants
 - Panorama Environmental, Inc., Environmental Consultant
 - MWA Architects, Architects
 - Merrill Morris Partners (MMP), Landscape Architects

SOWTP Service Area

Providing Resilience



Sobrante WTP History



1965

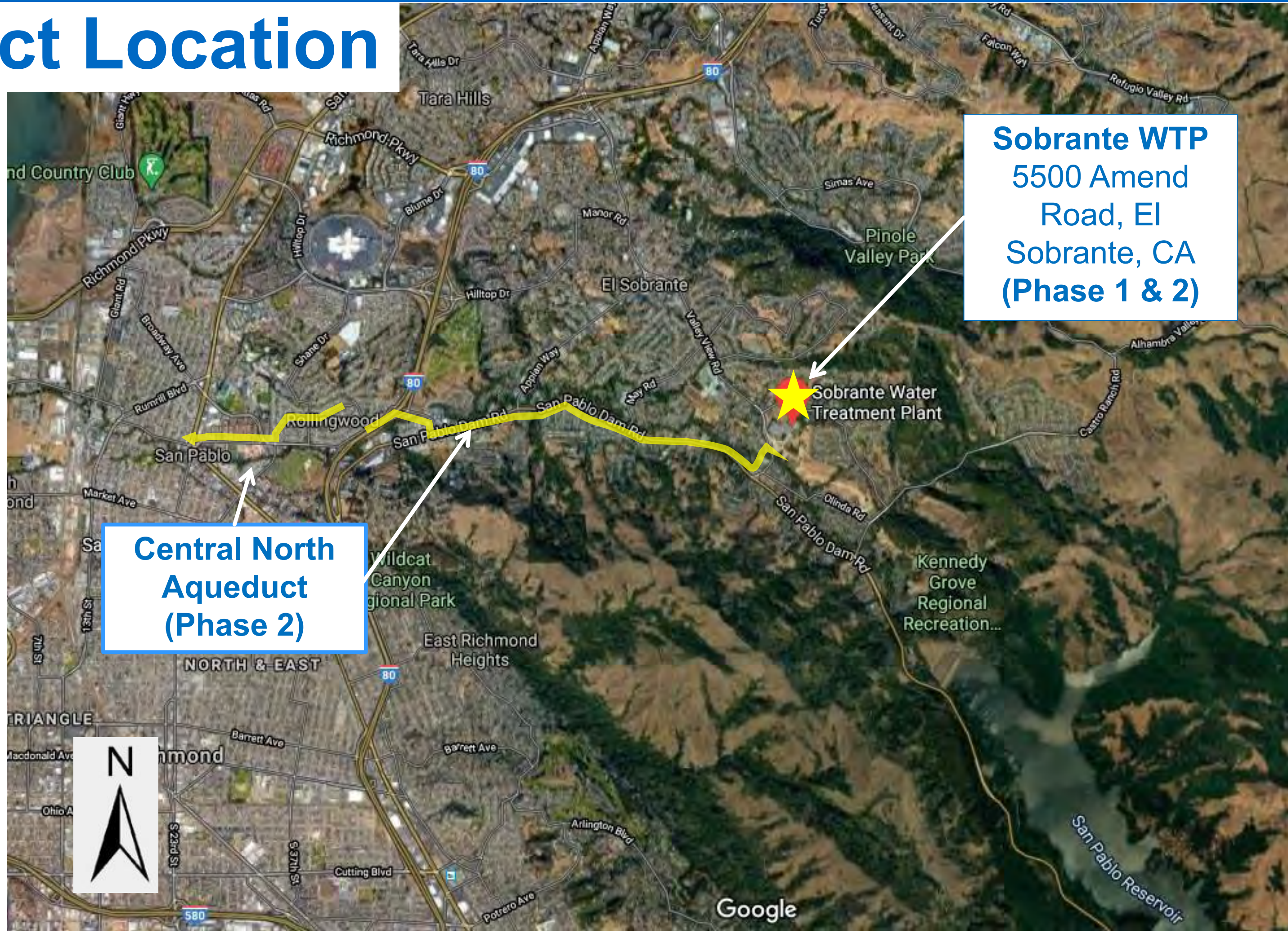


2022

Project Purpose

- Replace aging infrastructure
- Meet existing and future water demands
- Maintain water quality and reduce disinfectant byproducts
- Support drought operations
- Provide treatment capacity for changing untreated water quality or planned untreated water aqueduct outages

Project Location



Sobrante WTP Proposed Improvements

- Construct new structures to increase reliable capacity of Sobrante Water Treatment Plant (WTP)
 - Phase 1 (near term): 60 MGD
 - Phase 2 (long term): 80 MGD
- After Phase 1 completed, demolish existing aging structures
- In Phase 2, construct the Central North Aqueduct pipeline to convey Phase 2 treatment capacity

*MGD: Million Gallons Per Day

Original Site Plan



Community Meeting Requests

- Move facilities further away from Amend Road
- Improve the aesthetic design along Amend Road, especially for the security fence
- Match building architecture to the neighborhood buildings, such as the fire station
- Install landscaping before construction begins
- Completely hide facilities from public view along Amend Road
- Add an additional viewpoint on Amend Road
- Address noise, chemical hazards, and wildlife/biology impacts

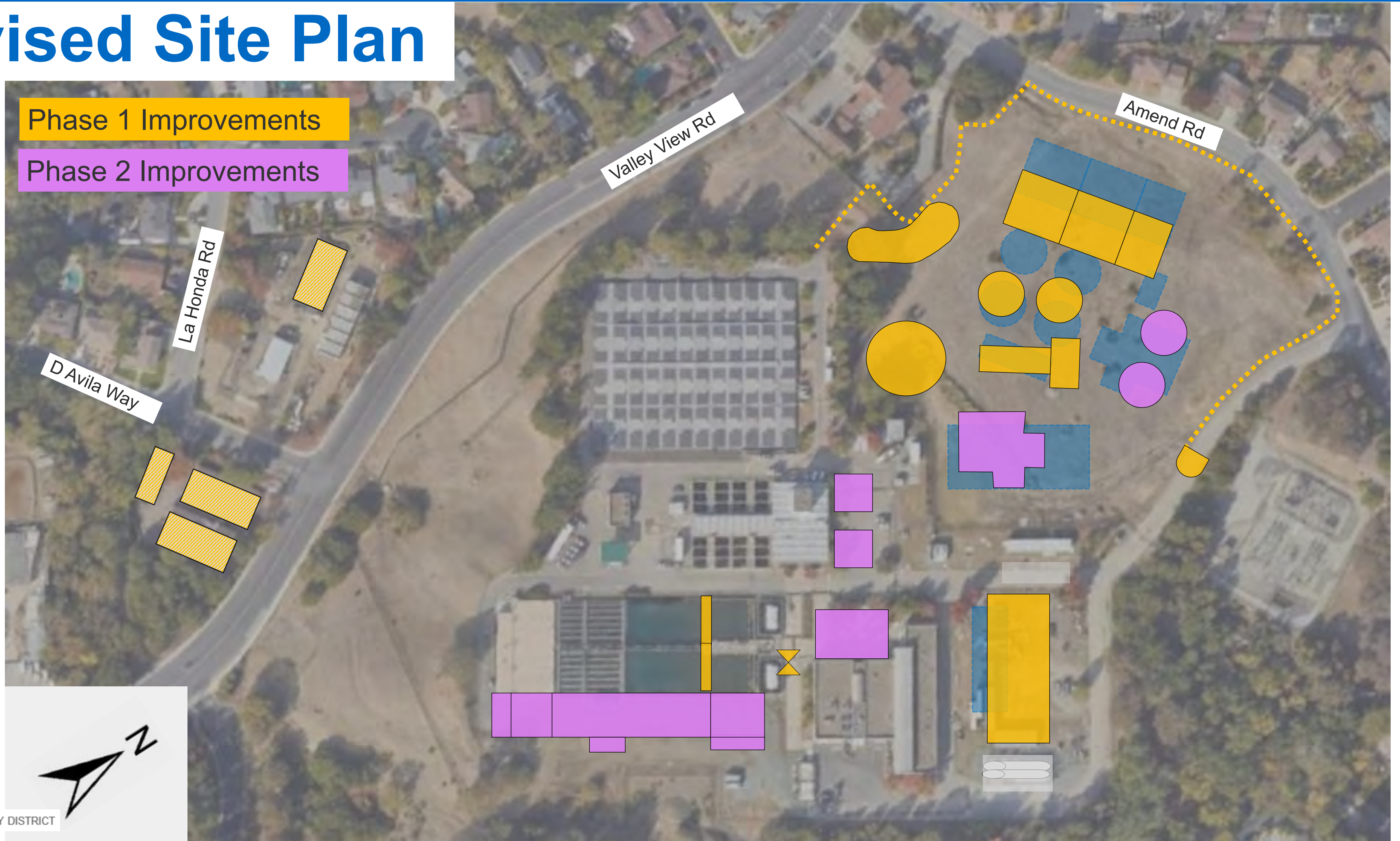
Areas reviewed for new facilities



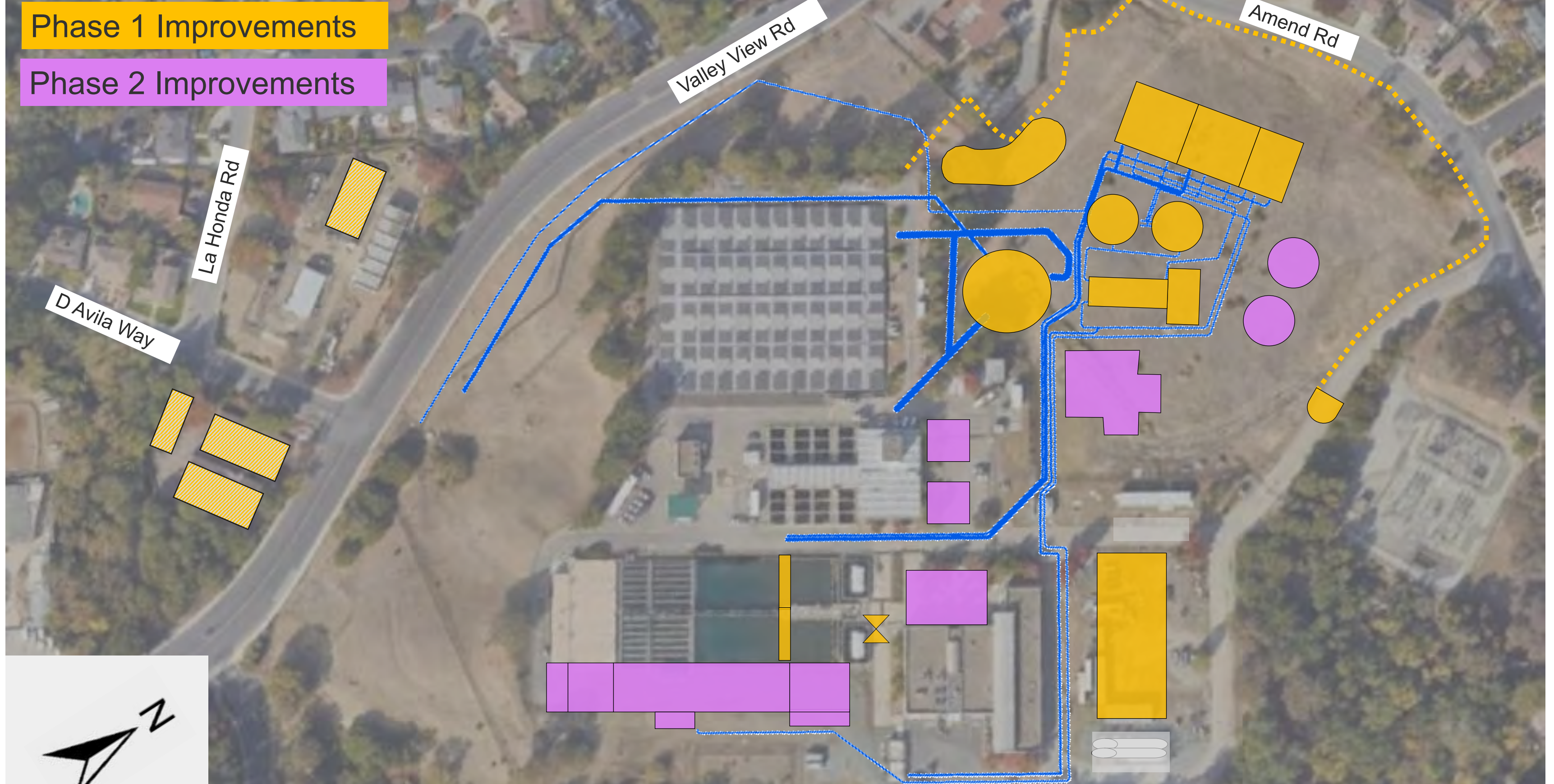
Revised Site Plan

Phase 1 Improvements

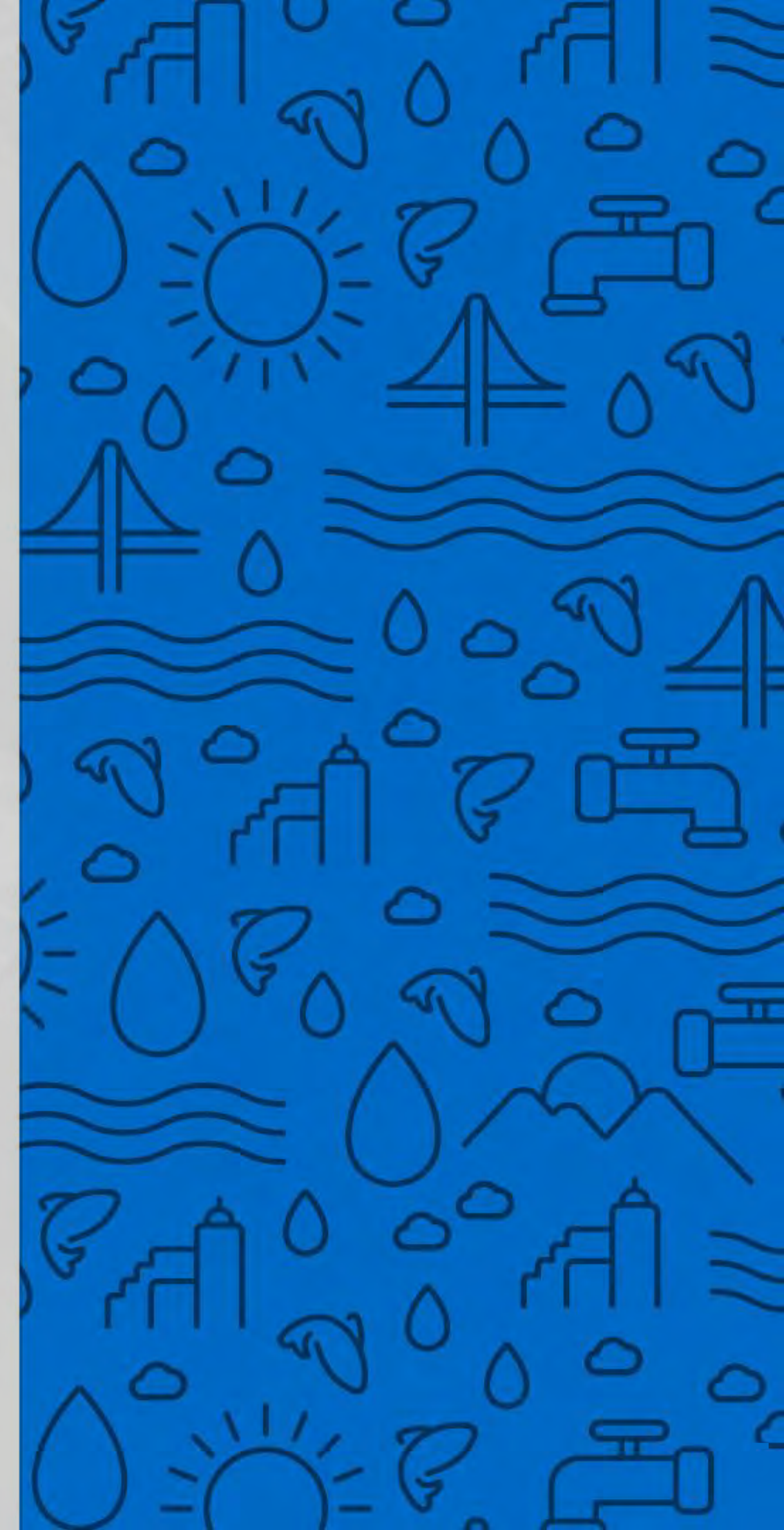
Phase 2 Improvements



Proposed New Pipelines



Aesthetic & Landscape Design



Sobrante WTP with Improvements



New buildings visible from Amend Road

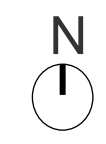
Process Buildings





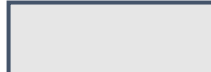


- Constructed in Phase 1 (right) and 2 (left)
- Designed to match the style of the Richmond Fire Station and nearby homes.
- Symmetrical shape, traditional arches, windows and walls with trim, and sloped red roofs

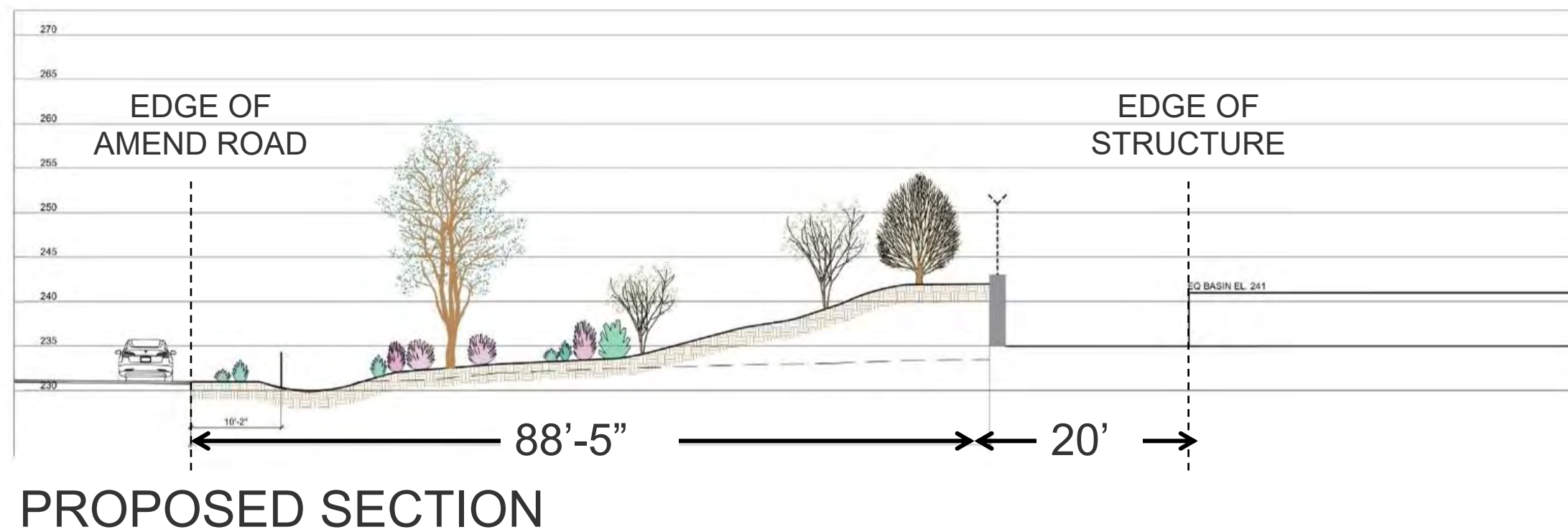
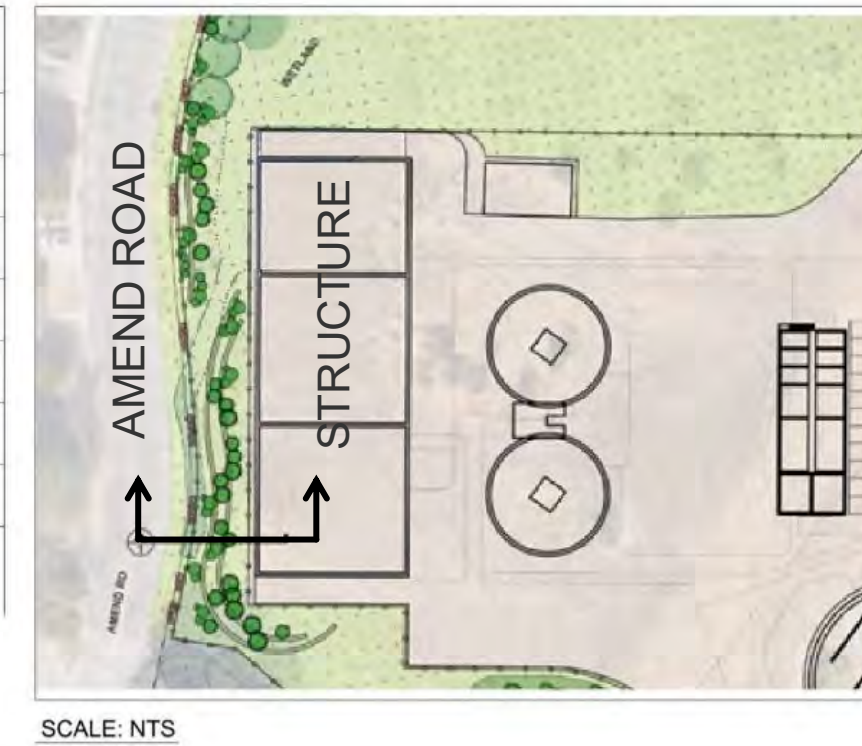
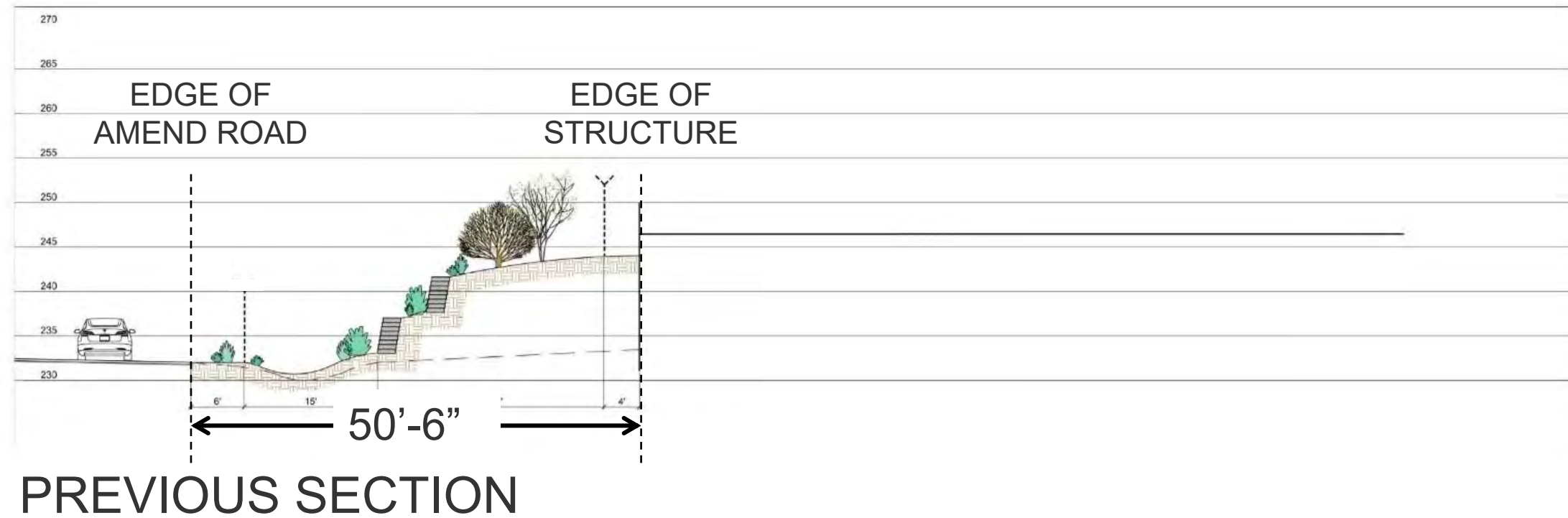


Landscape/Screening Plan



-  PHASE 1 FACILITIES
-  PHASE 2 FACILITIES
-  NEW LANDSCAPING
-  PHASE 1 PAVING
-  PHASE 2 PAVING

Amend Road Cross Sections



Updated Amend Road fence

Previous Fence



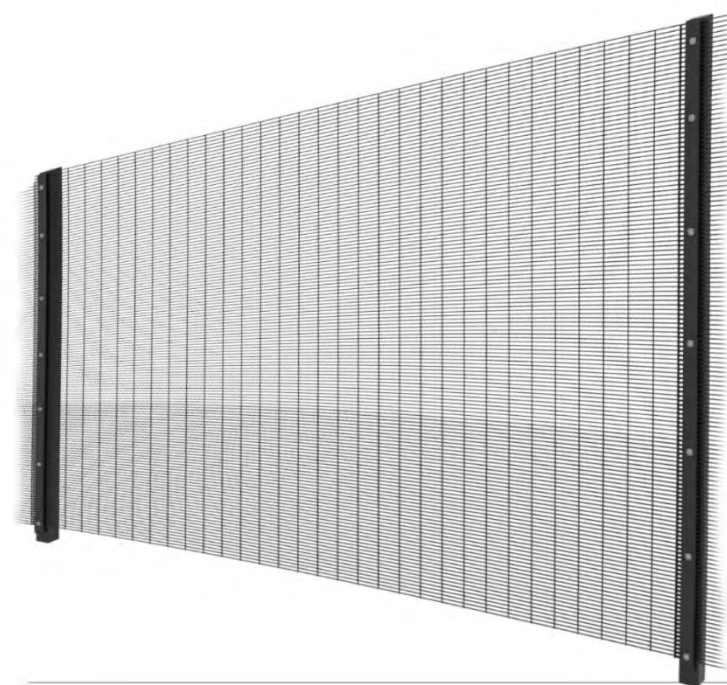
Coated Metal Wire

8' Tall

Proposed Fence



Wrought-Iron Look



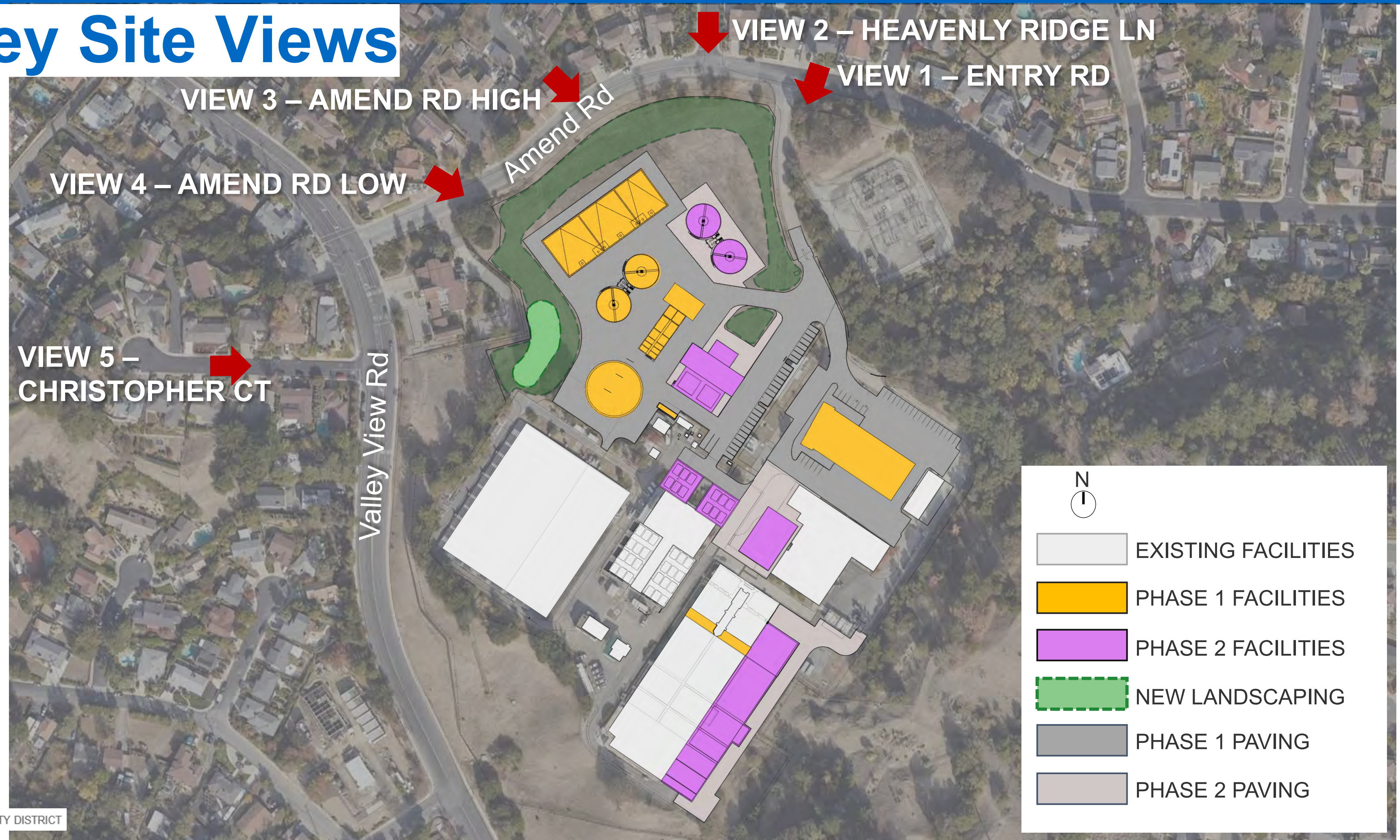
6'-0"



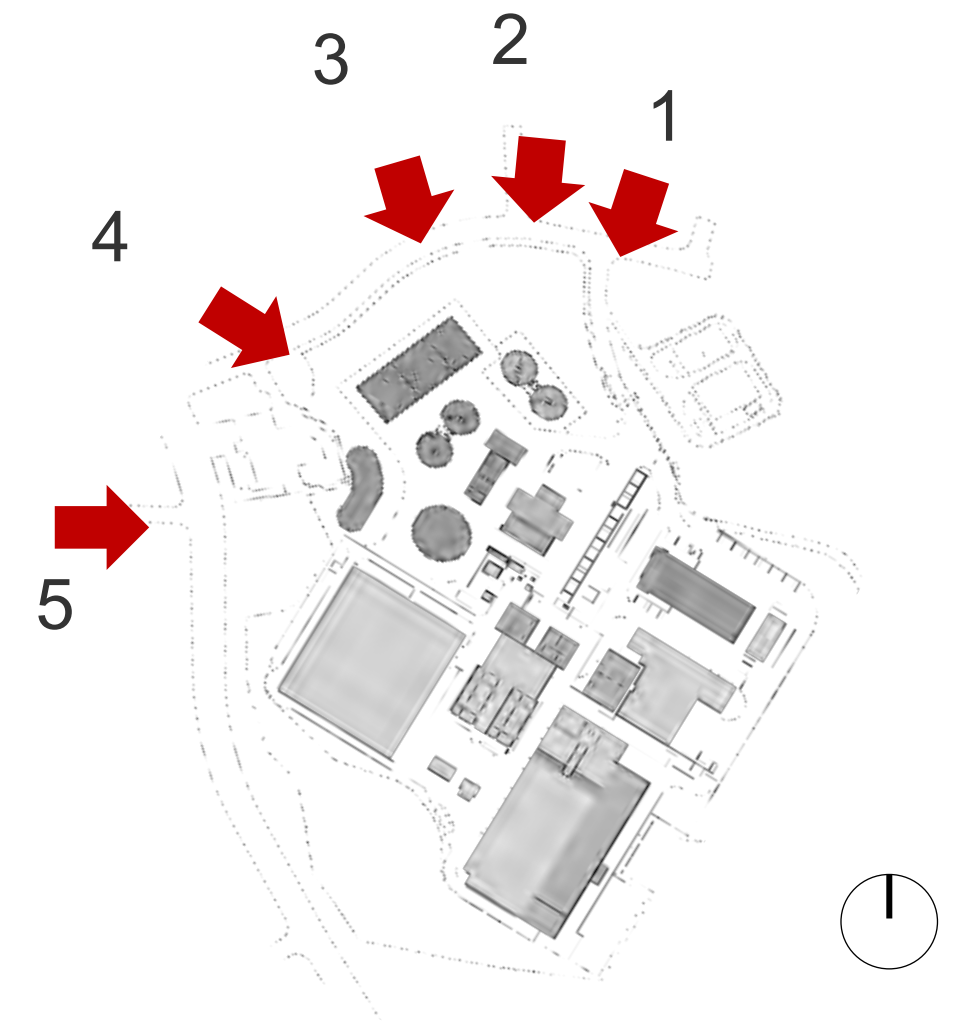
4' Tall



Key Site Views



Key Site Views



Additional Views

RICHMOND FIRE STATION



HIGHER UP HEAVENLY RIDGE LN.



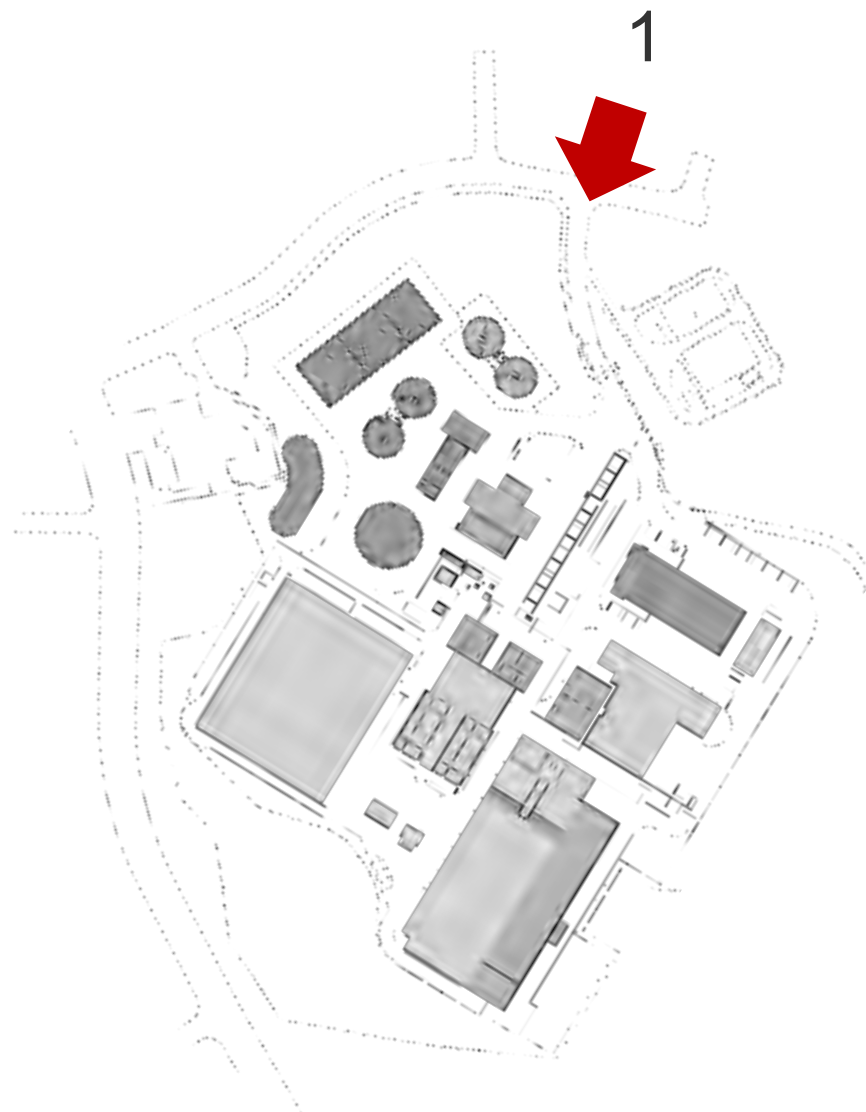
VALLEY VIEW RD.



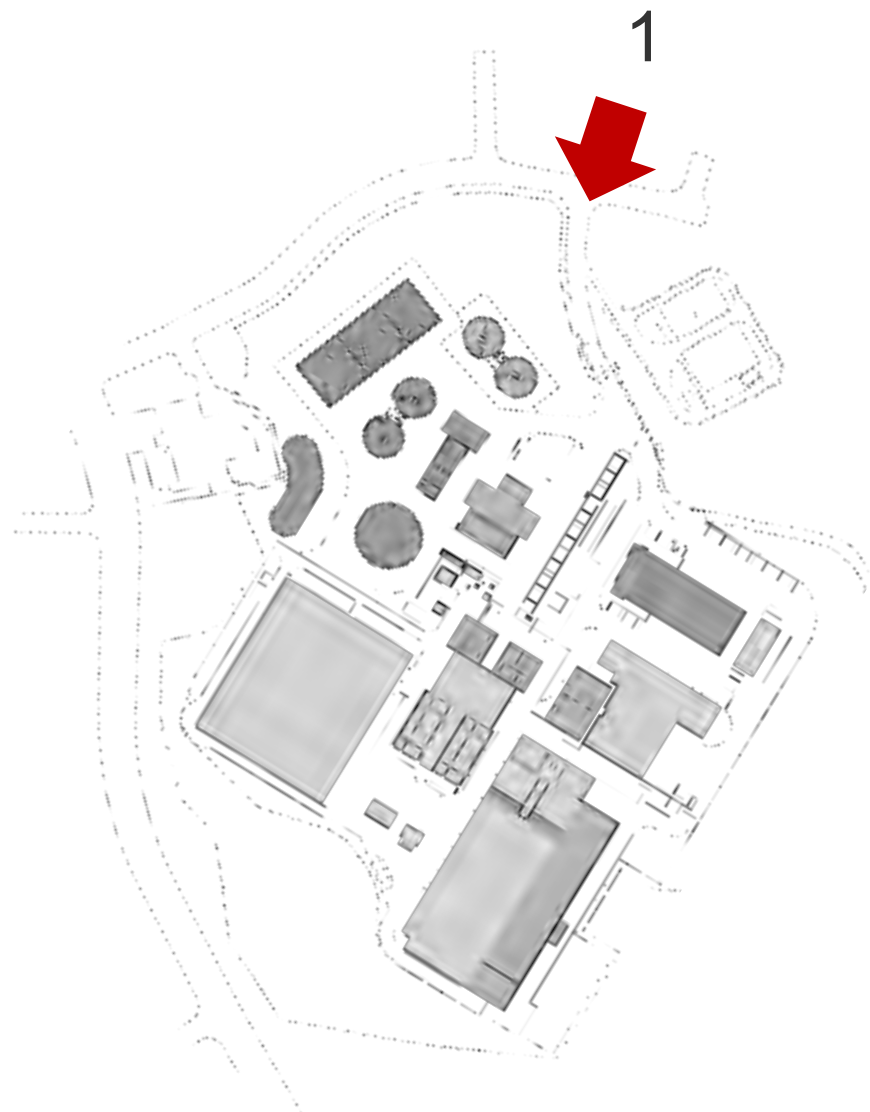
VALLEY VIEW RD. & SPANISH TRAILS RD



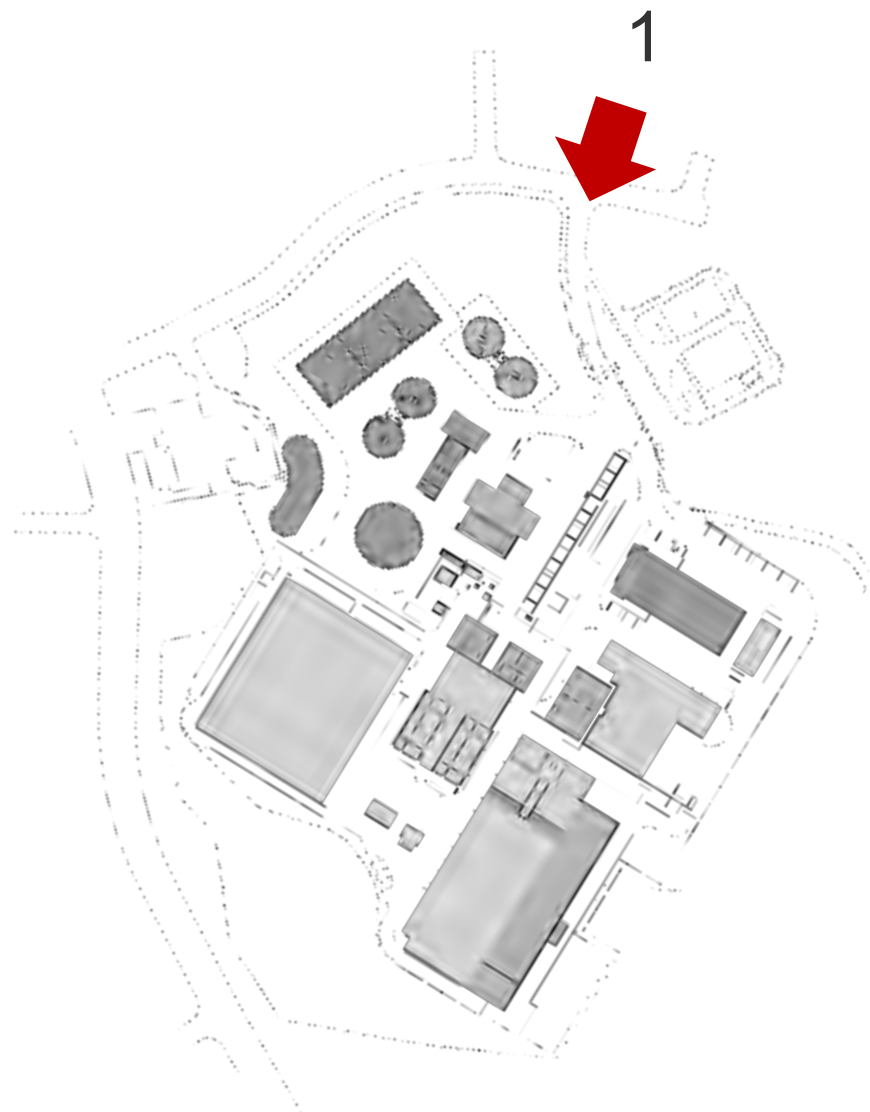
View 1 – Entry Road (Existing)



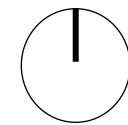
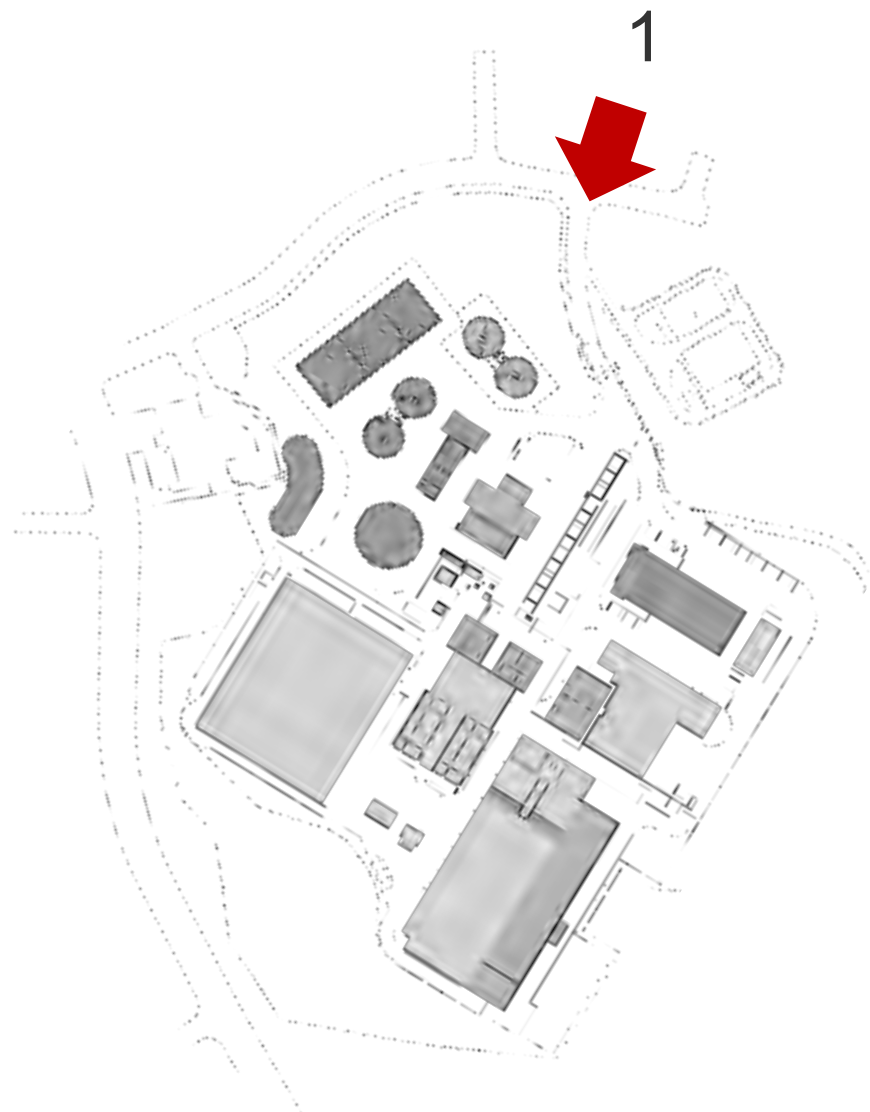
View 1 – Entry Road (Year 0)



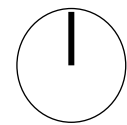
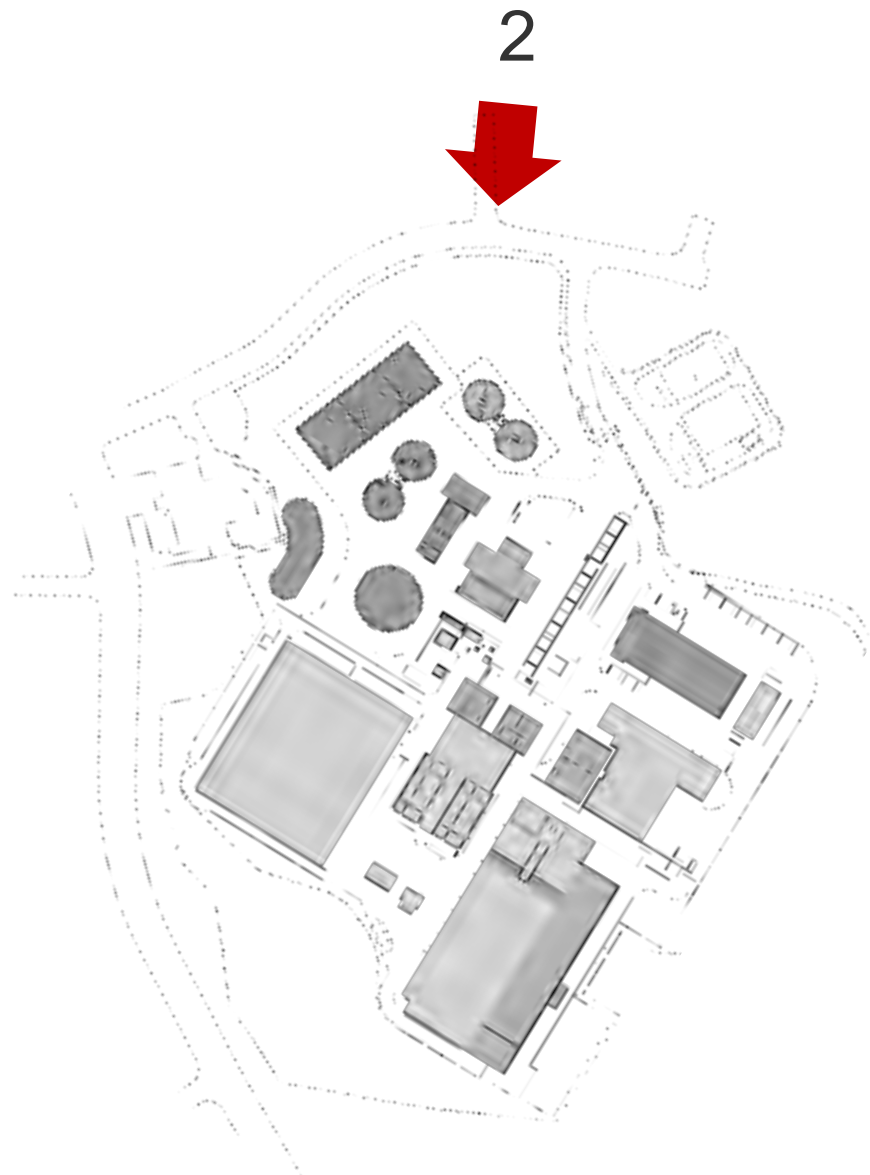
View 1 – Entry Road (Year 5)



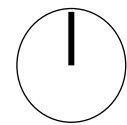
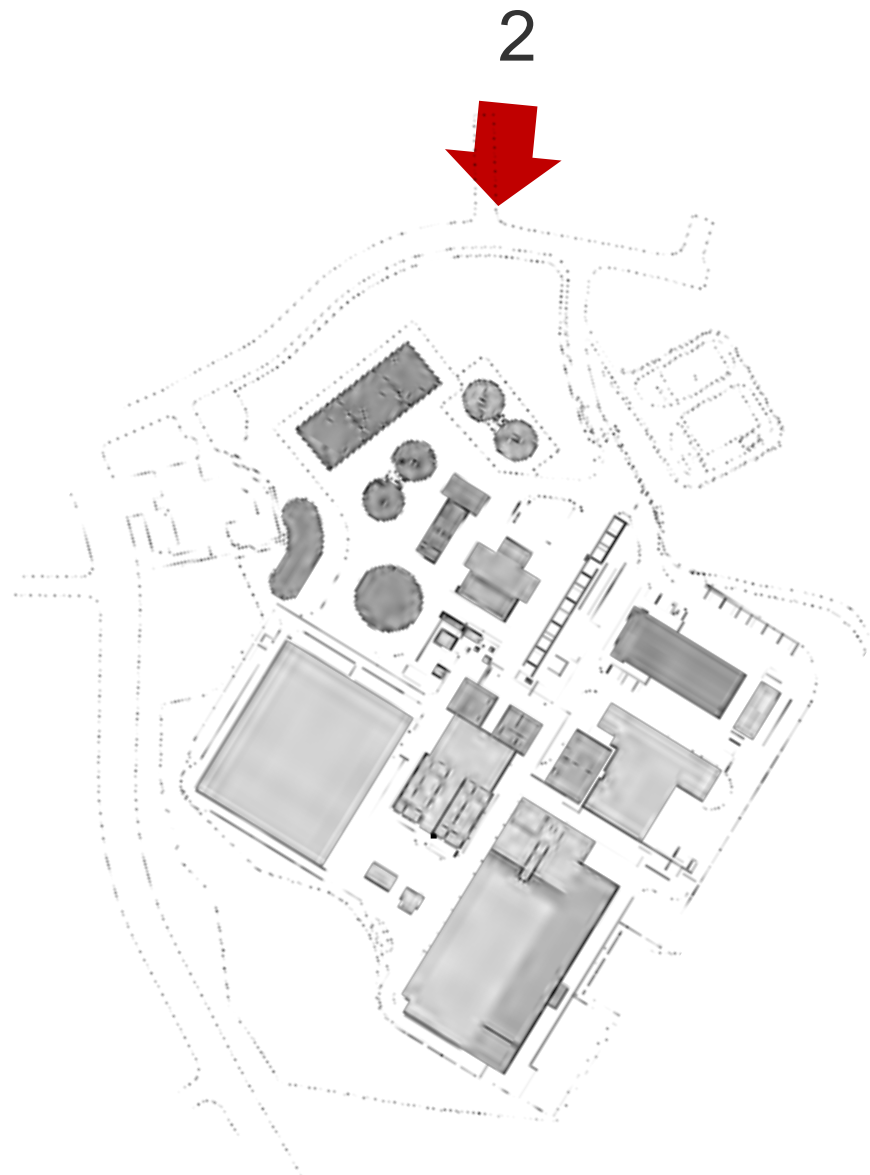
View 1 – Entry Road (Year 10)



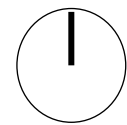
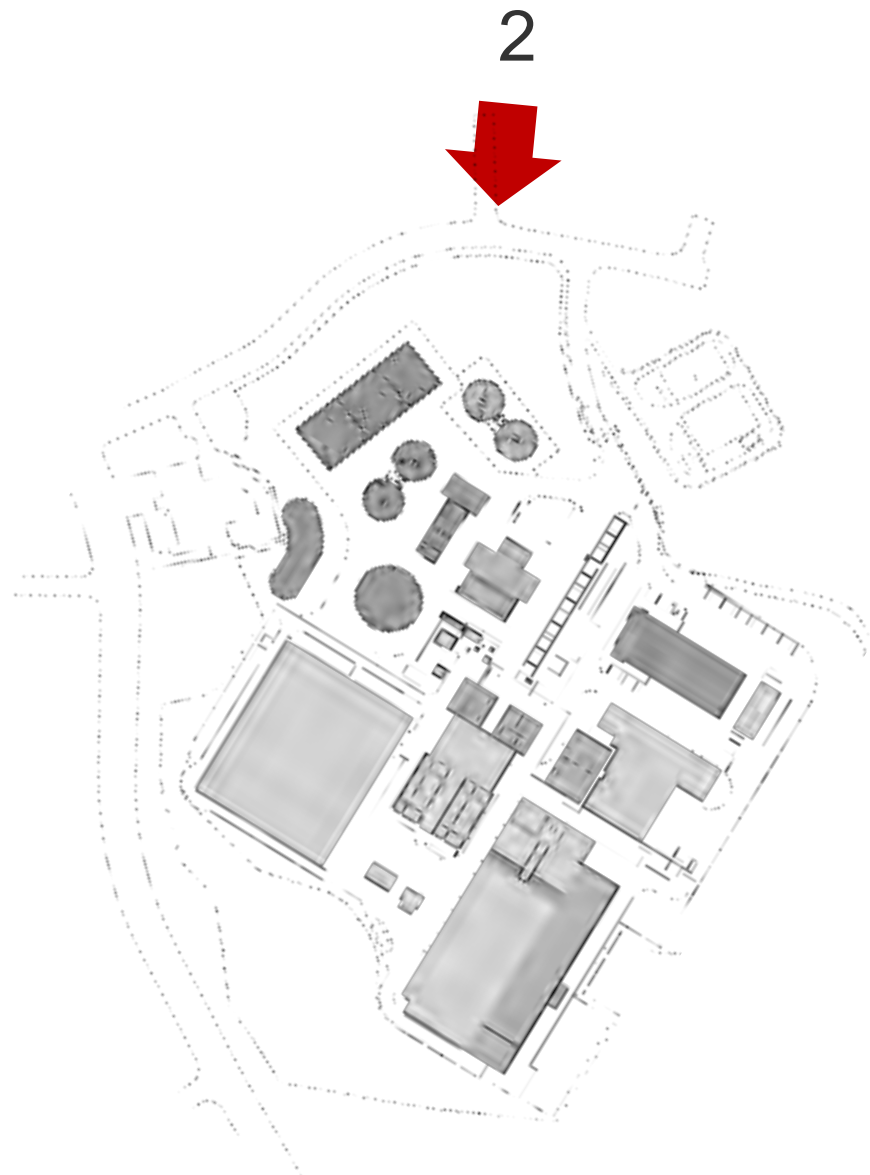
View 2 – Heavenly Ridge Lane (Existing)



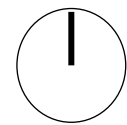
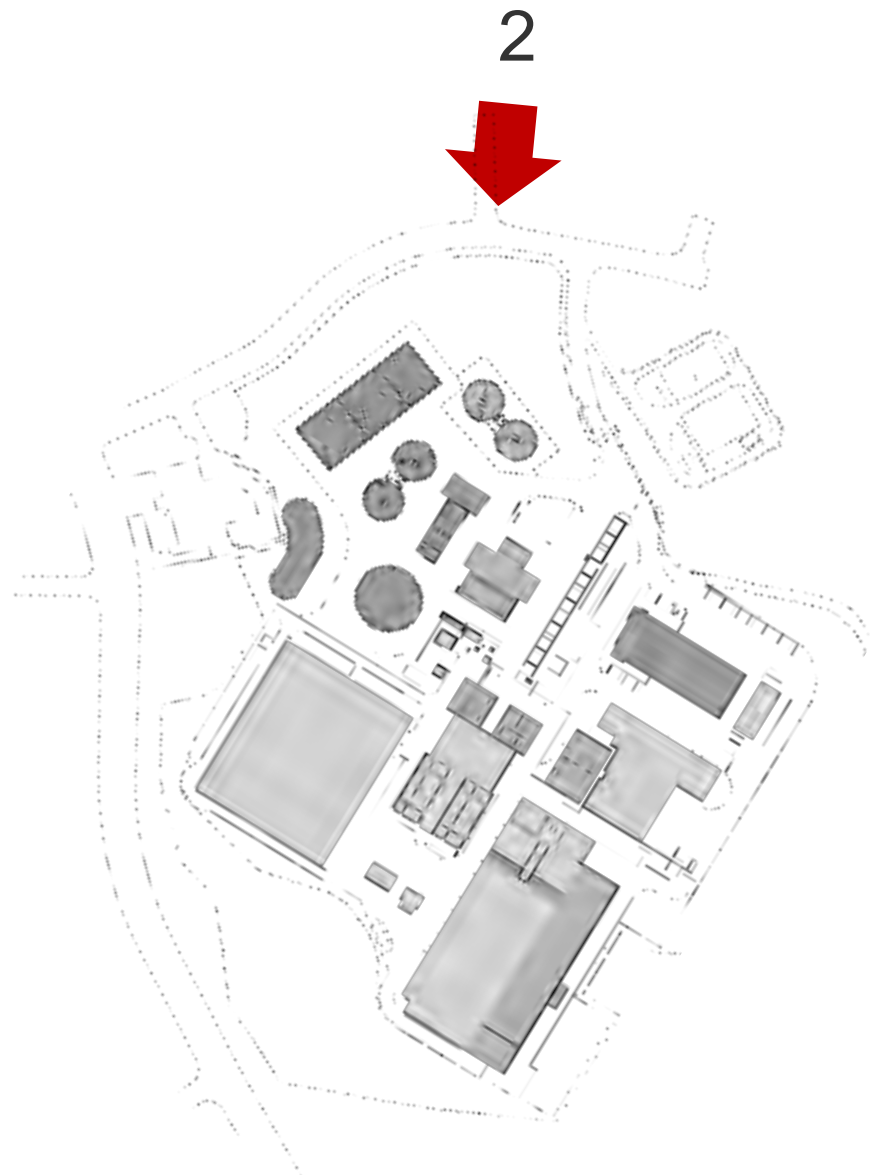
View 2 – Heavenly Ridge Lane (Year 0)



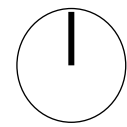
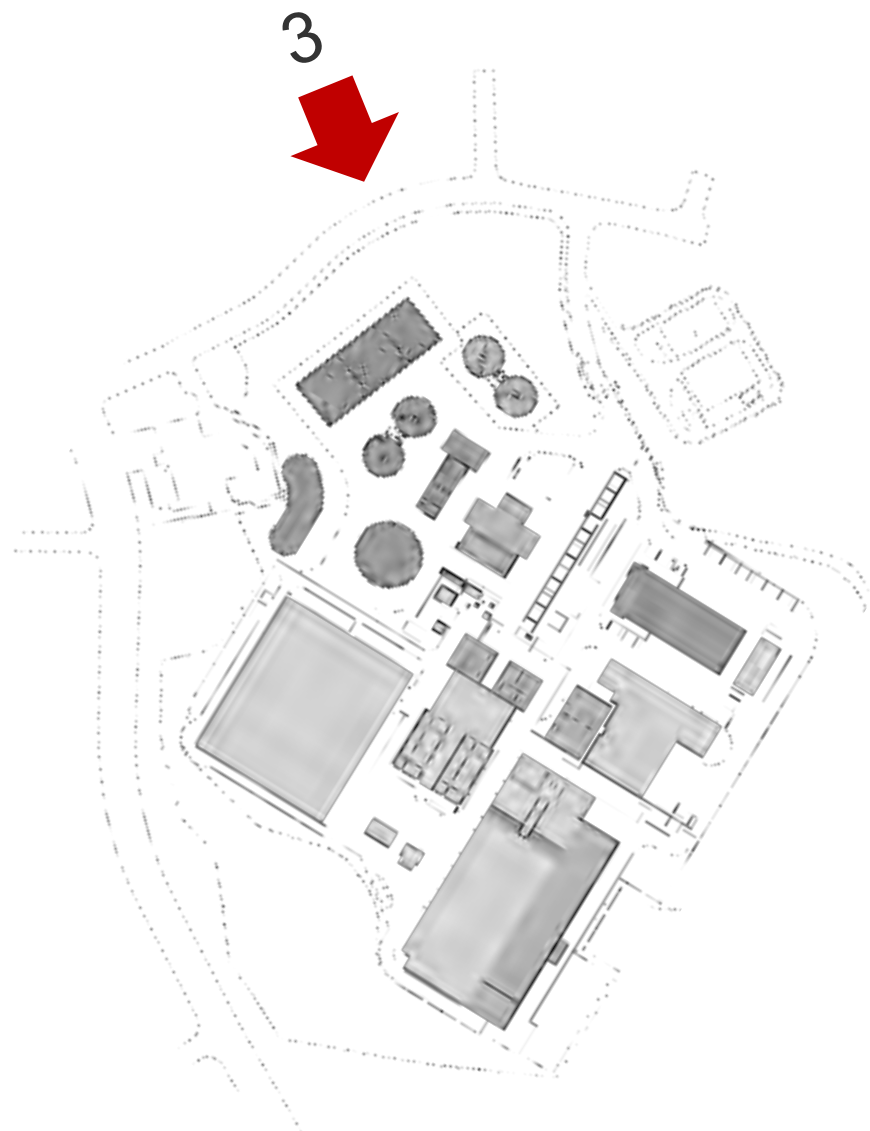
View 2 – Heavenly Ridge Lane (Year 5)



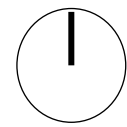
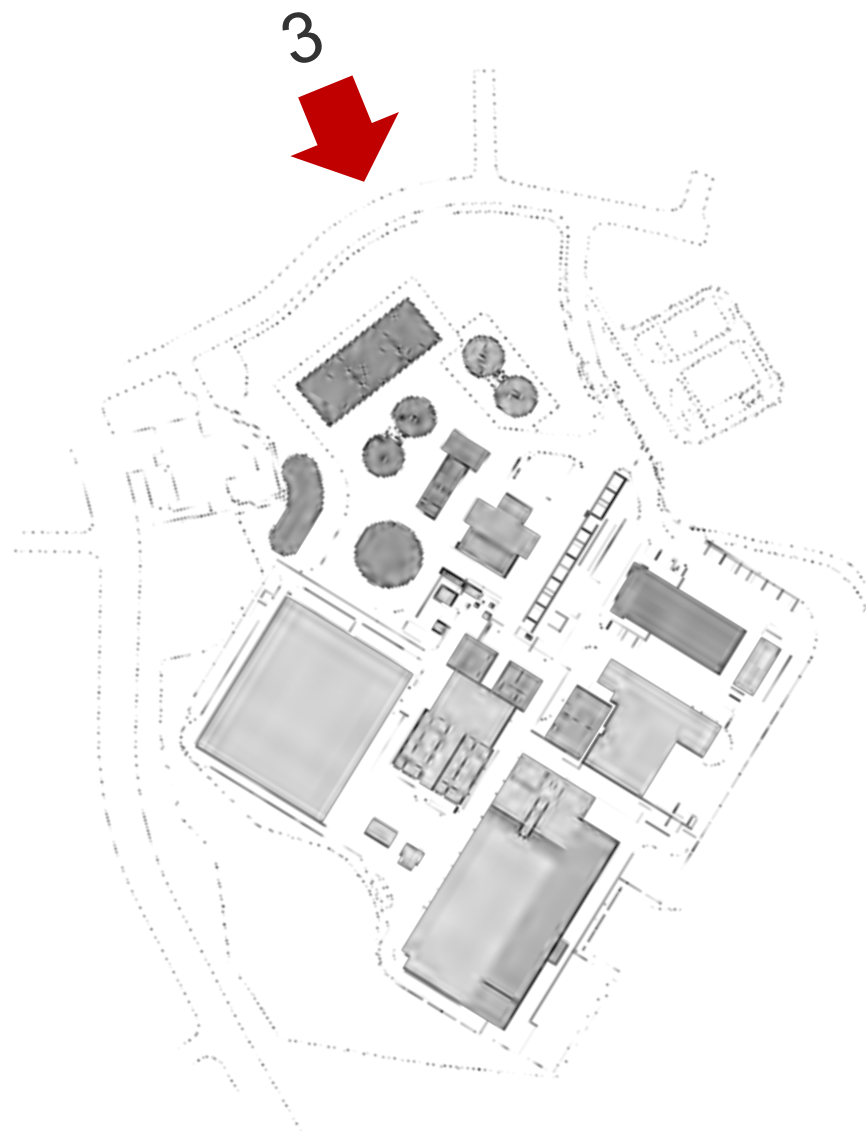
View 2 – Heavenly Ridge Lane (Year 10)



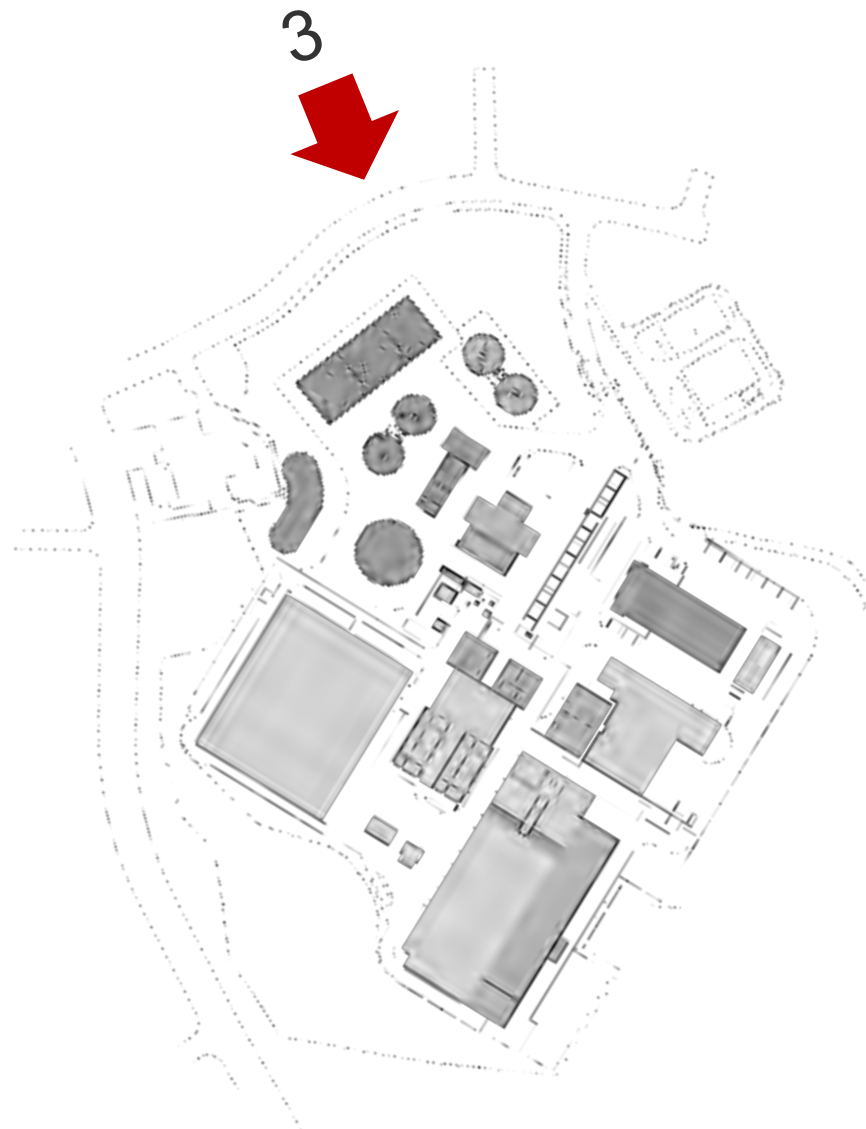
View 3 – Amend Road High (Existing)



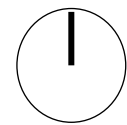
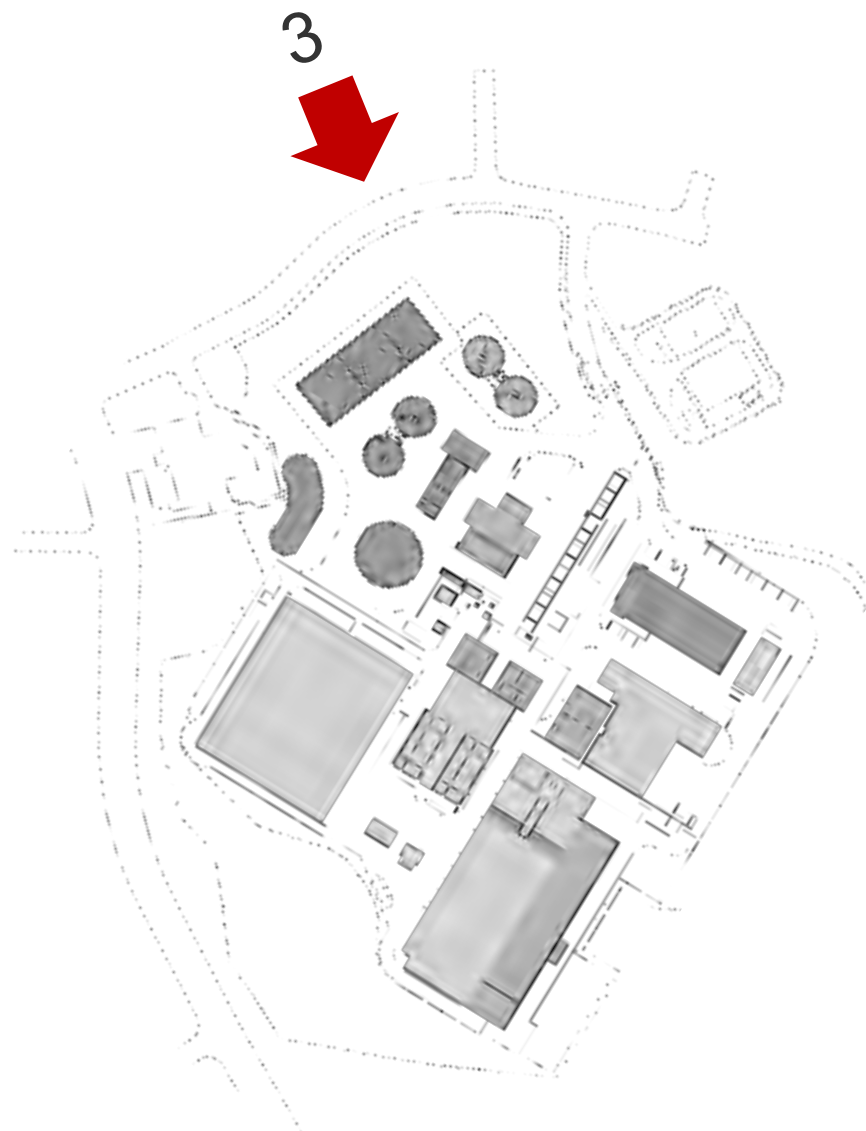
View 3 – Amend Road High (Year 0)



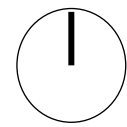
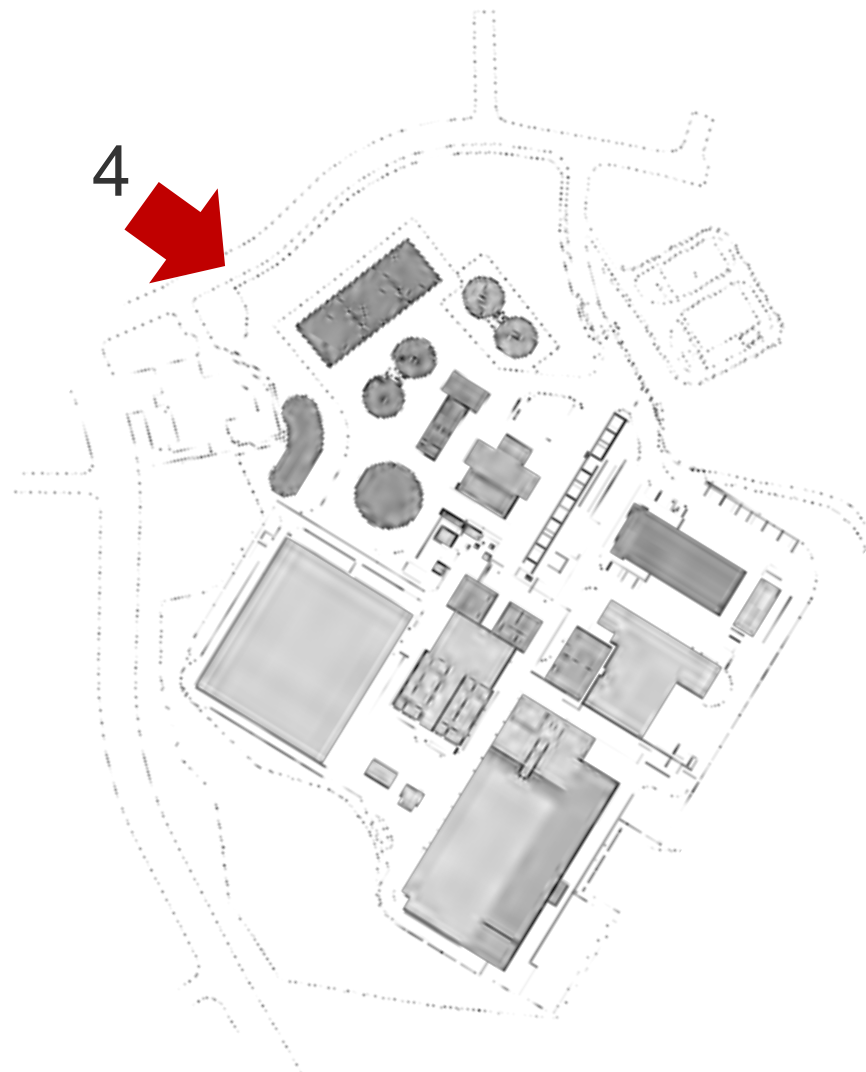
View 3 – Amend Road High (Year 5)



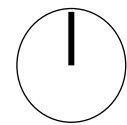
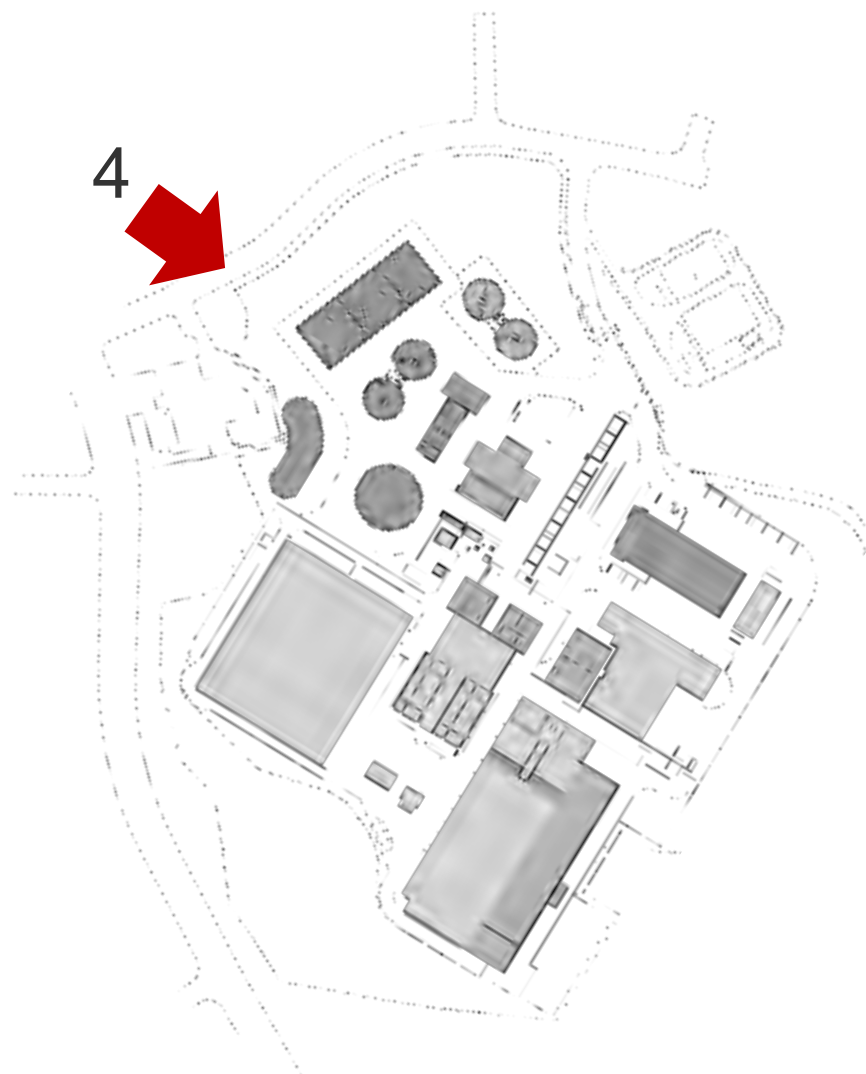
View 3 – Amend Road High (Year 10)



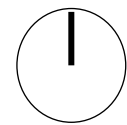
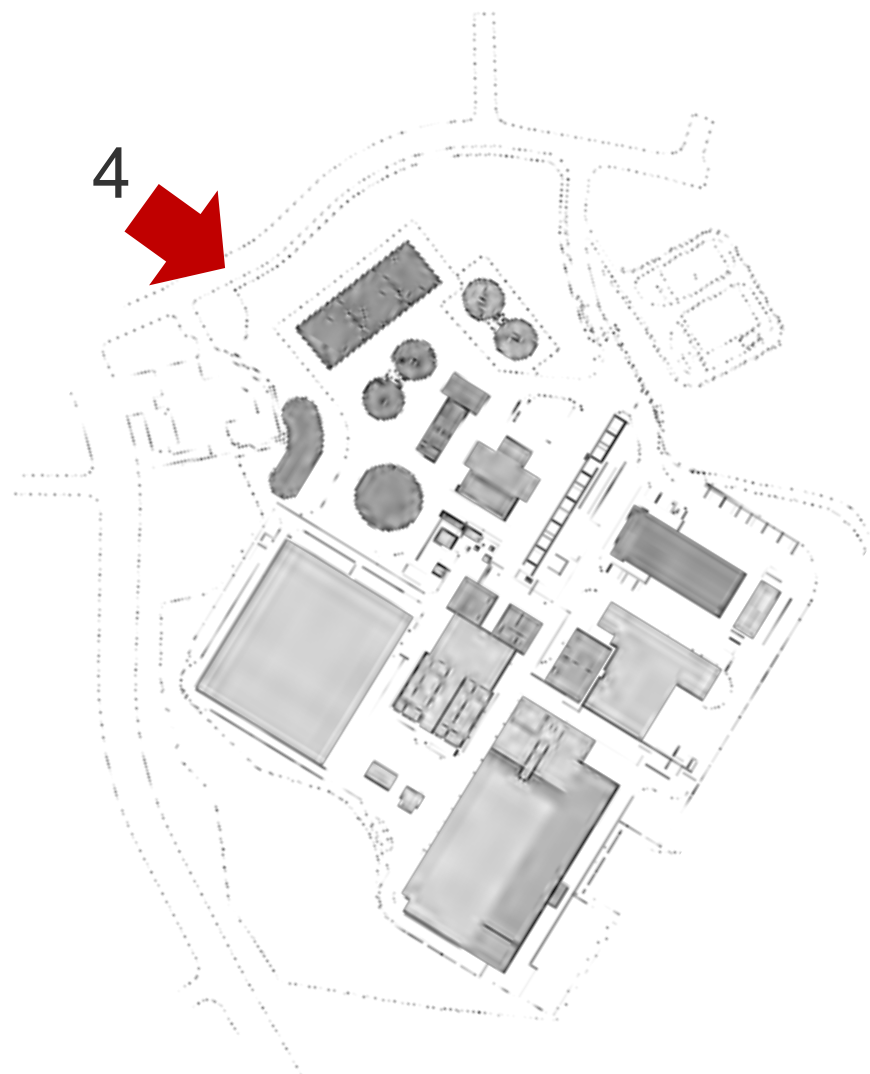
View 4 – Amend Road Low (Existing)



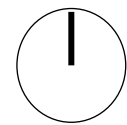
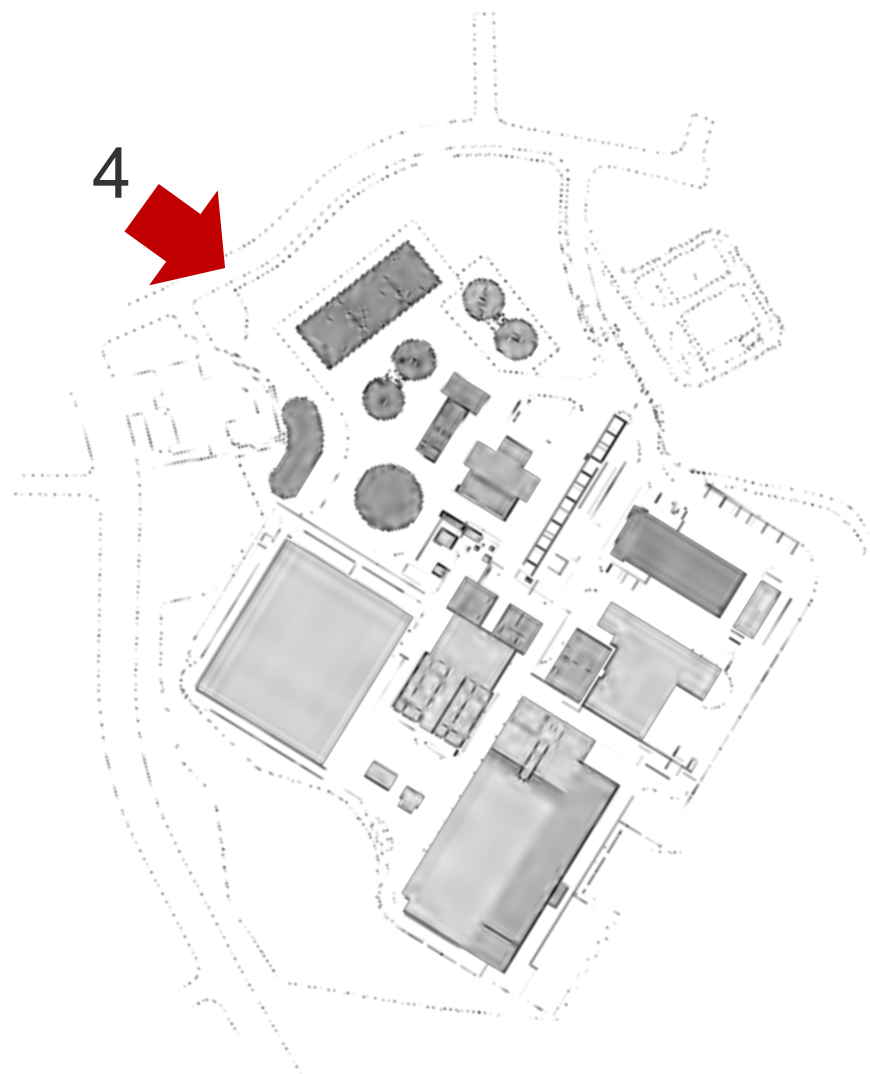
View 4 – Amend Road Low (Year 0)



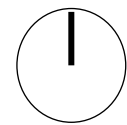
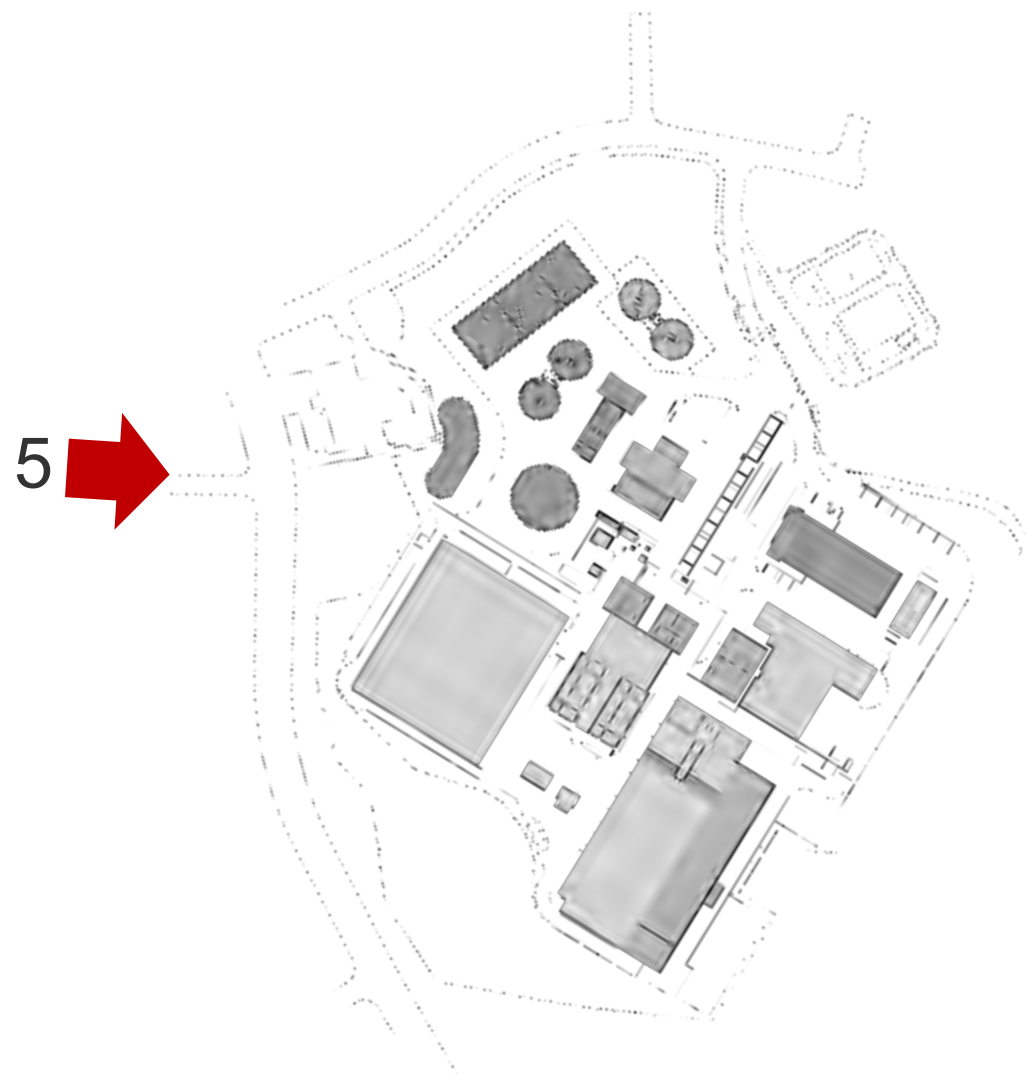
View 4 – Amend Road Low (Year 5)



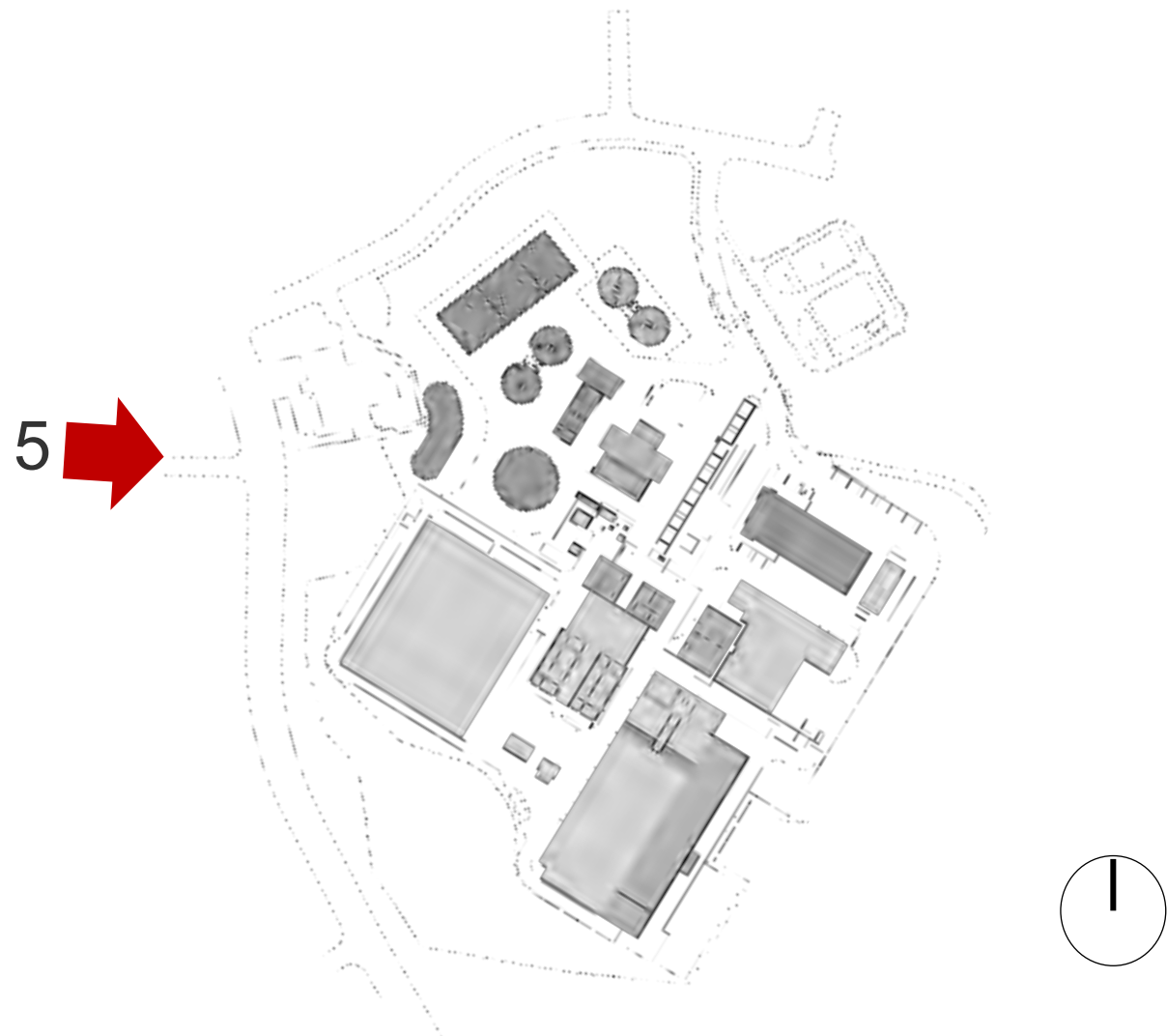
View 4 – Amend Road Low (Year 10)



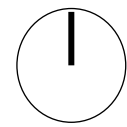
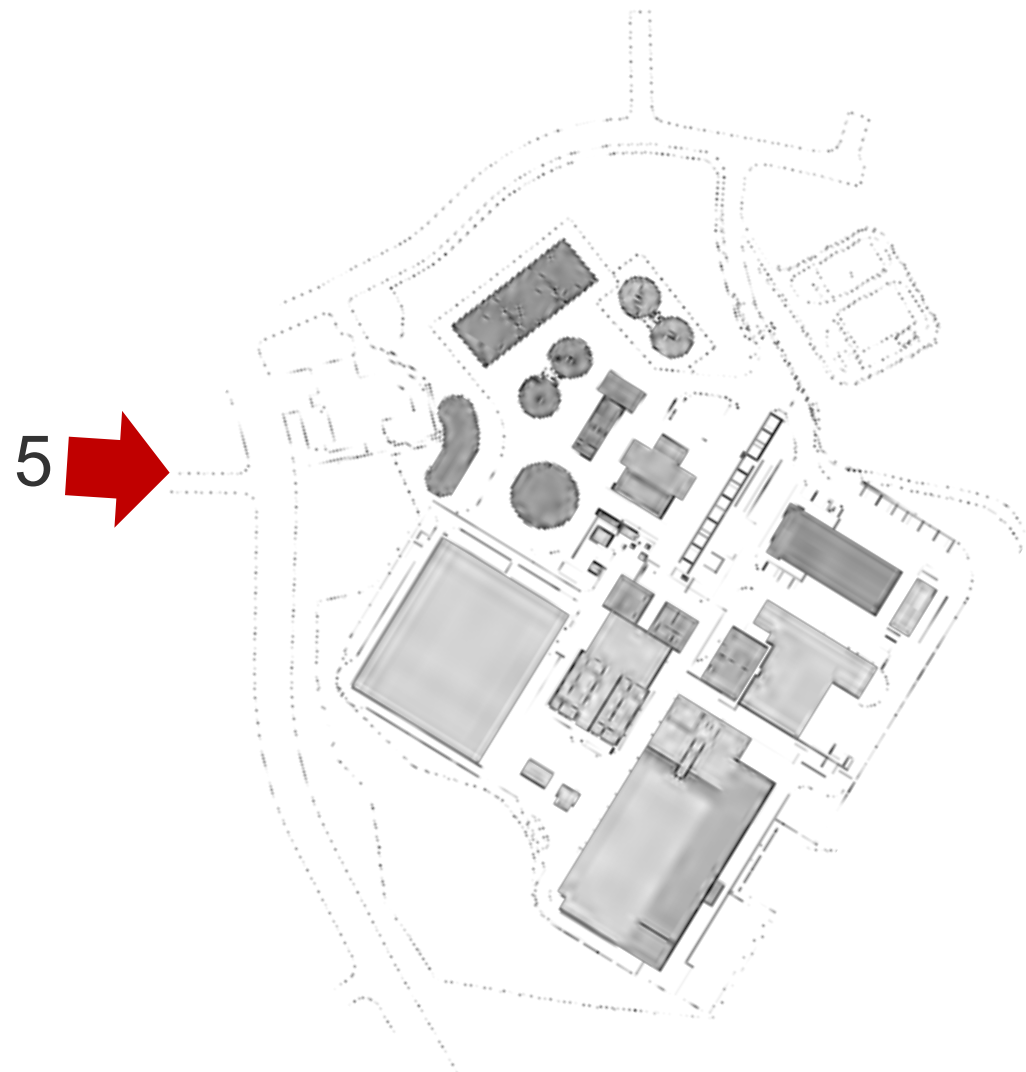
View 5 – Christopher Court (Existing)



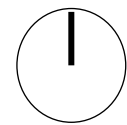
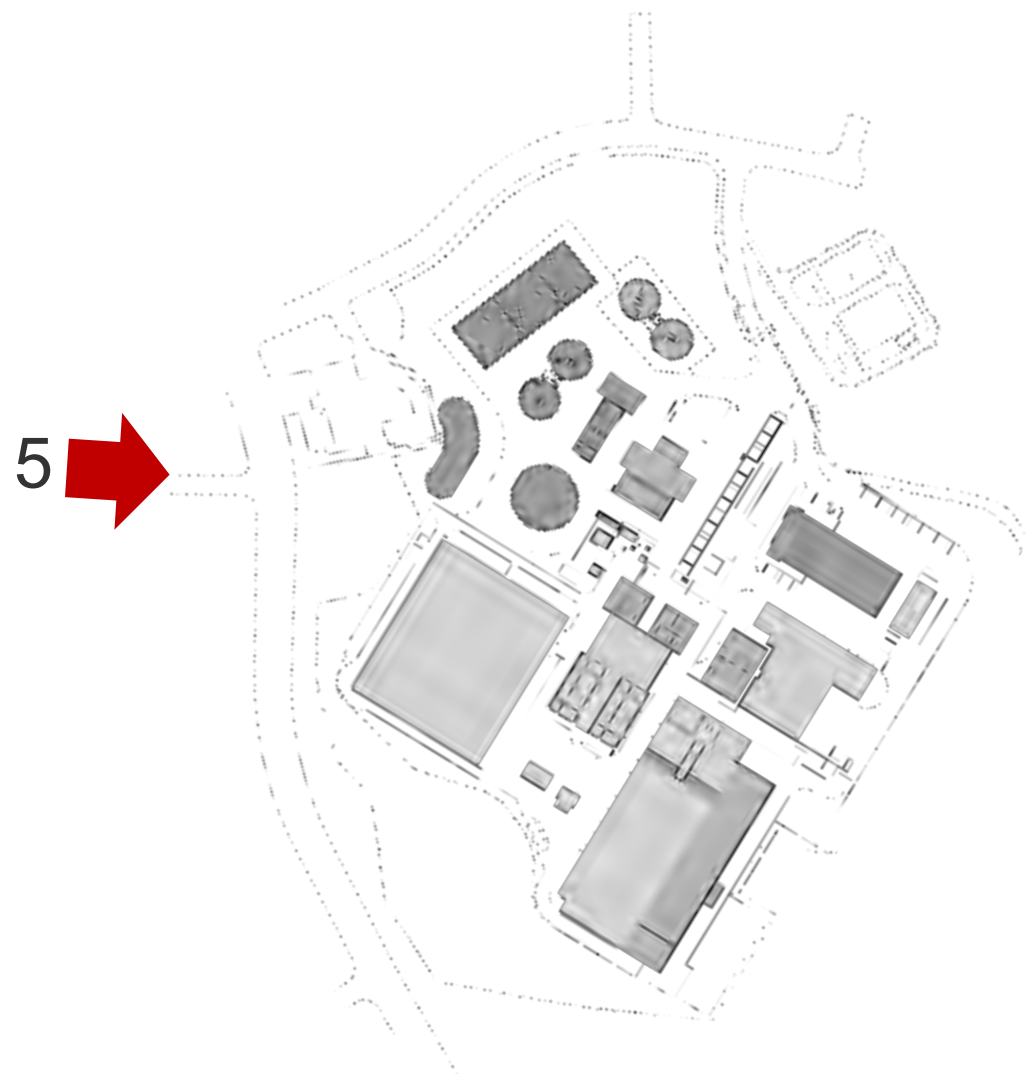
View 5 – Christopher Court (Year 0)



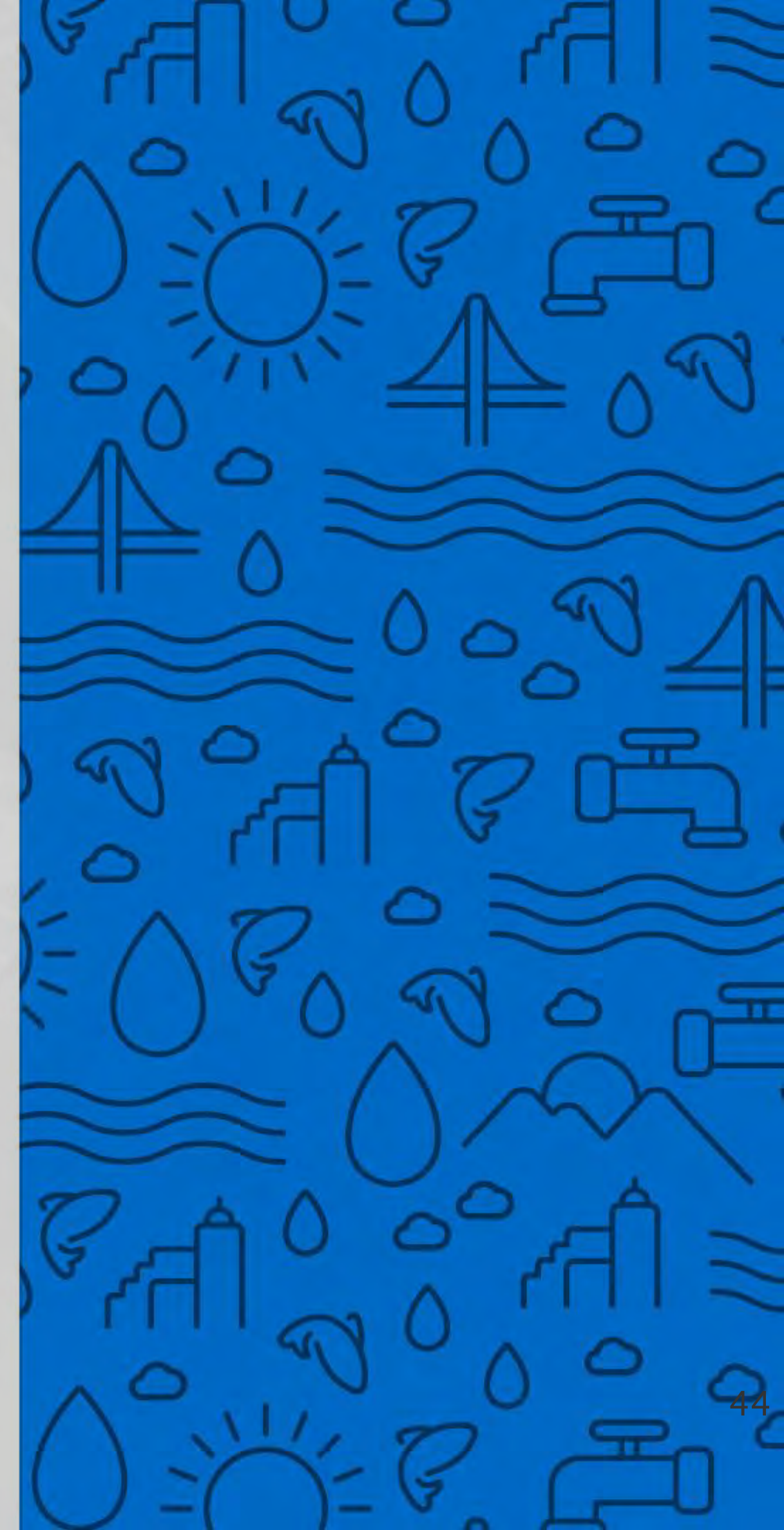
View 5 – Christopher Court (Year 5)



View 5 – Christopher Court (Year 10)



Environmental Review Process and Schedule



What is an Environmental Impact Report (EIR)?

EIR required under...

the California Environmental Quality Act (CEQA)

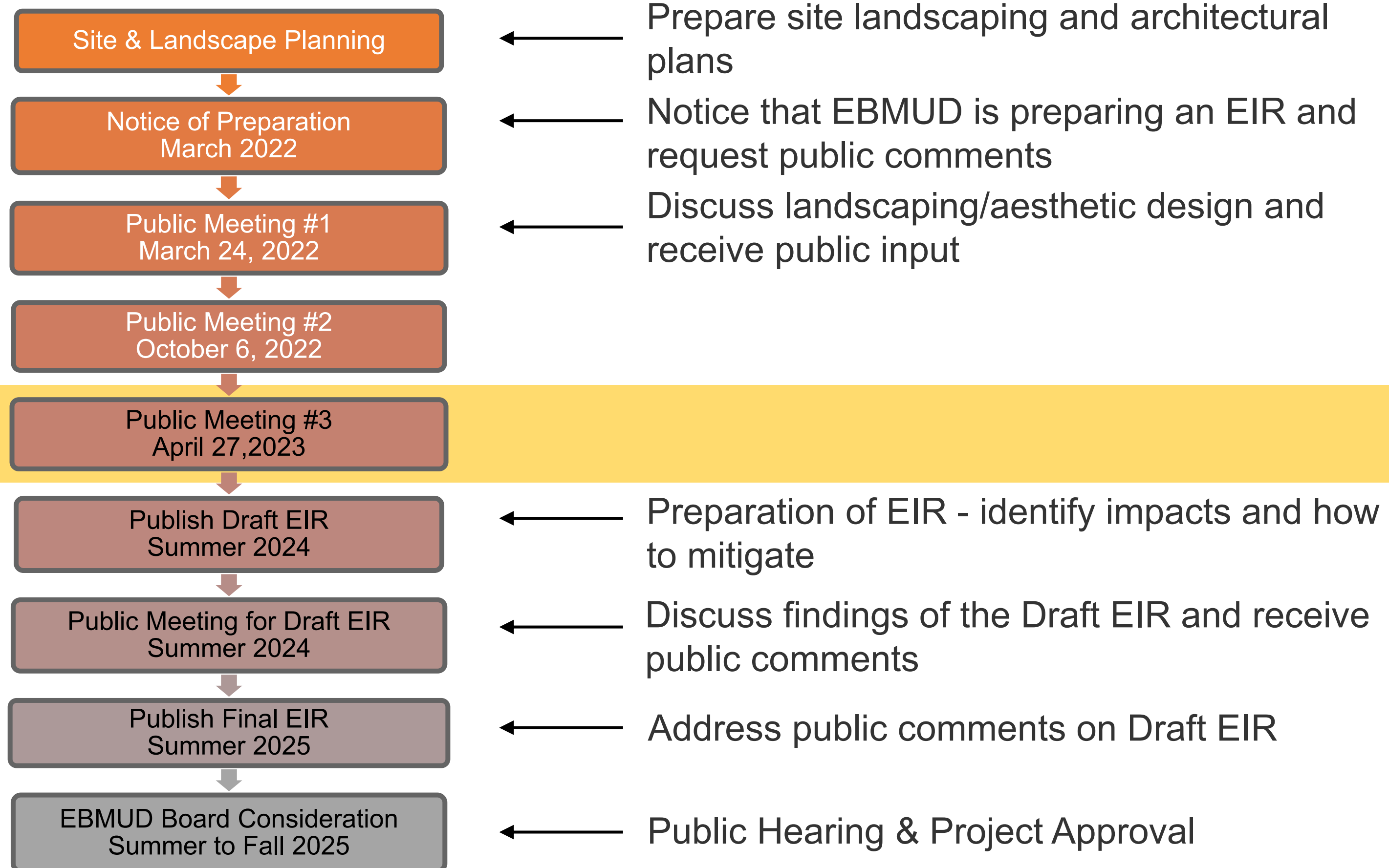
EIR required when...

there is potential that a project may have significant impacts

EIR purpose:

To inform the public of the environmental consequences of projects

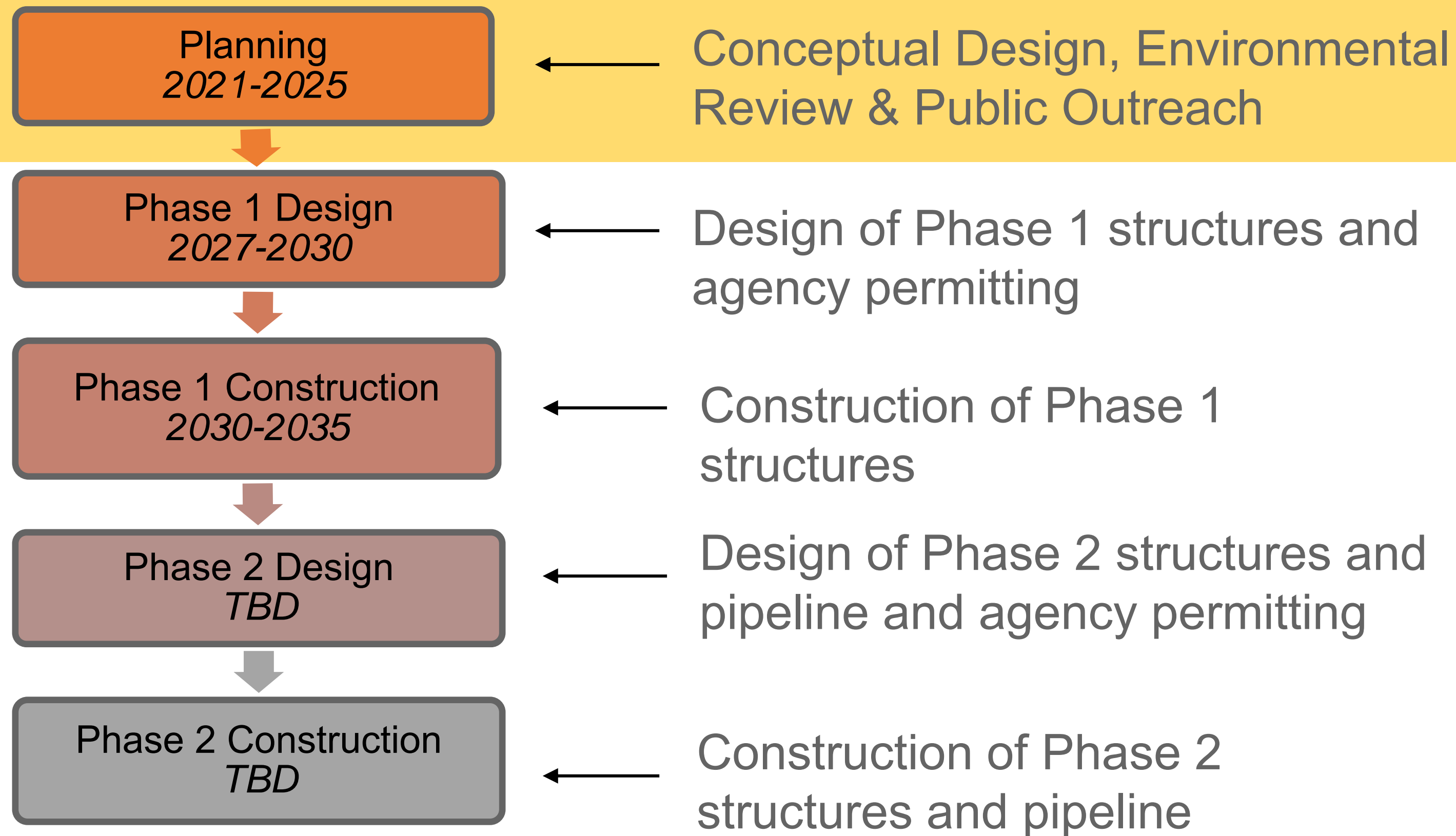
Environmental Review Schedule



Environmental categories evaluated in EIR

- Aesthetics
- Air Quality
- Biological Resources
- Cultural/Historical Resources
- Energy
- Geology
- Greenhouse Gases
- Hazards
- Hydrology/Water Quality
- Noise
- Traffic
- Wildfire

Project Schedule



Next Steps

- Receive feedback from tonight's public meeting
- Prepare the Draft Environmental Impact Report to be released Summer 2024

For more information and comments

More information can be found at the

Project Website:

www.ebmud.com/sowtp

Questions and Comments:

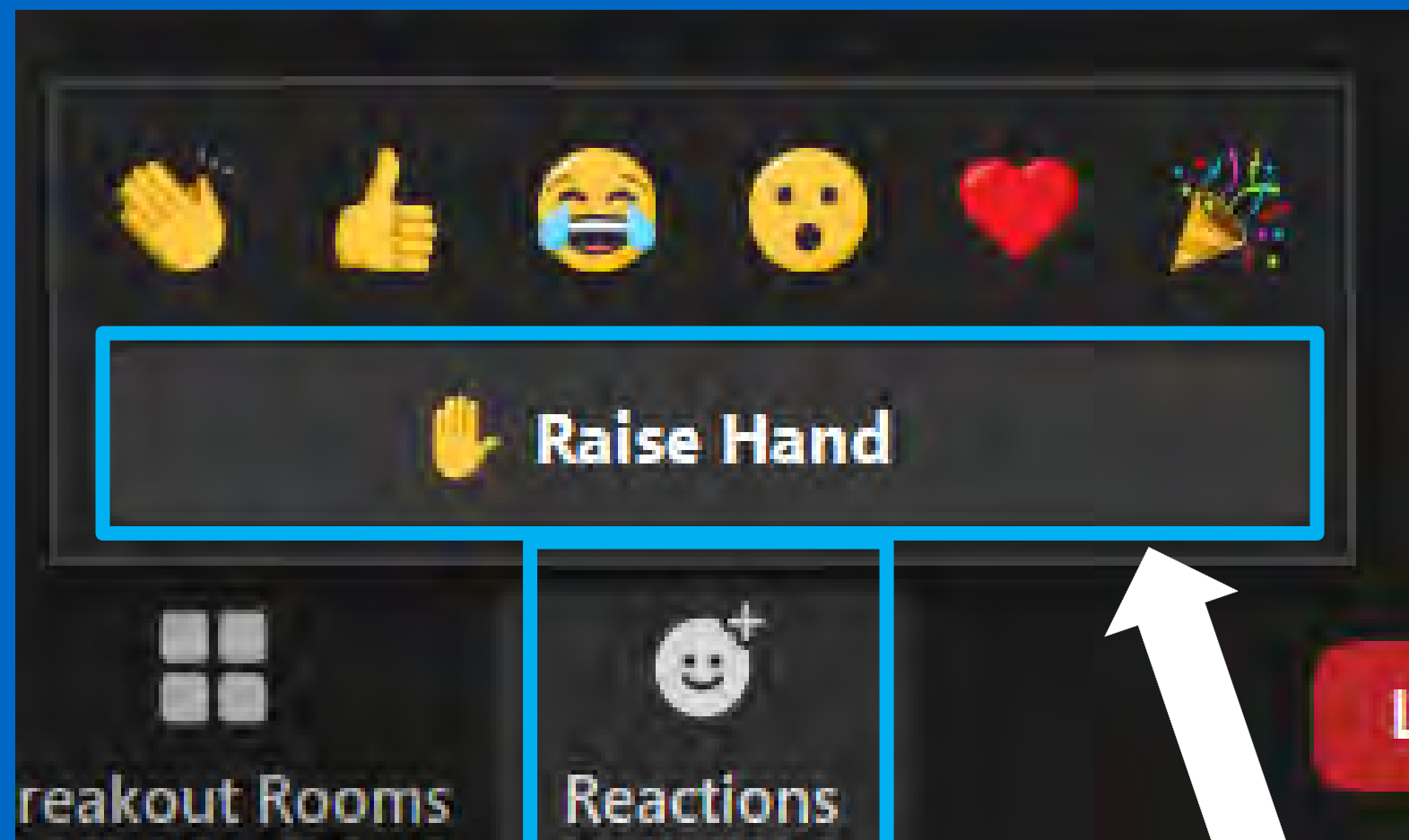
sowtp.improvements@ebmud.com

Or by mail:

Stella Tan, Project Manager
East Bay Municipal Utility District
375 Eleventh Street, MS 701
Oakland, CA 94607-4240

Questions & Comments

Use Q&A or raise hand function



**FLOWING
INTO
THE
FUTURE**

EAST BAY MUNICIPAL UTILITY DISTRICT
SOBRANTE WATER TREATMENT PLANT
RELIABILITY IMPROVEMENT PROJECT
AESTHETICS CONCEPTUAL DESIGN
REPORT

Appendix E: Conceptual Cost Estimate

FINAL | March 2024





Saylor
Consulting

CONCEPT ESTIMATE (AACE CLASS 4)

SOBRANTE WTP IMPROVEMENTS, MAINTENANCE BUILDING

5500 AMEND RD, EI SOBRANTE, CA 94803

SCG JOB NUMBER:

22-042

June 29, 2022

PREPARED FOR

PANORAMA ENVIRONMENTAL, INC.

BY SAYLOR CONSULTING GROUP



PROJECT: **SOBRANTE WTP IMPROVEMENTS, MAINTENANCE BUILDING**
LOCATION: **5500 AMEND RD, EI SOBRANTE, CA 94803**
CLIENT: **PANORAMA ENVIRONMENTAL, INC.**
DESCRIPTION: **CONCEPT ESTIMATE (AACE CLASS 4)**

JOB NUMBER: **22-042**
PREPARED BY: **IS, TC, AH**
BID DATE: **ASSUME 2026**
ESTIMATE DATE: **6/29/2022**

CONTENTS

SECTION	DESCRIPTION	PAGE
I	PREFACE AND NOTES TO THE ESTIMATE	3
II	SUMMARY OF THE ESTIMATE	10
III	BUILDING	12
IV	SITWORK	24



PROJECT: **SOBRANTE WTP IMPROVEMENTS, MAINTENANCE BUILDING**
LOCATION: **5500 AMEND RD, EI SOBRANTE, CA 94803**
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DESCRIPTION: **CONCEPT ESTIMATE (AACE CLASS 4)**

JOB NUMBER: **22-042**
PREPARED BY: **IS, TC, AH**
CHECKED BY: **BSS**
ESTIMATE DATE: **6/29/2022**

SECTION I

PREFACE AND NOTES TO THE ESTIMATE



PROJECT: **SOBRANTE WTP IMPROVEMENTS, MAINTENANCE BUILDING**
 LOCATION: **5500 AMEND RD, EI SOBRANTE, CA 94803**
 CLIENT: **PANORAMA ENVIRONMENTAL, INC.**
 DESCRIPTION: **CONCEPT ESTIMATE (AAEC CLASS 4)**

JOB NUMBER: **22-042**
 PREPARED BY: **IS, TC, AH**
 BID DATE: **ASSUME 2026**
 ESTIMATE DATE: **6/29/2022**

PREFACE AND NOTES TO THE ESTIMATE

1.0 PROJECT SYNOPSIS

1.1 TYPE OF STUDY:

CONCEPT ESTIMATE (AAEC CLASS 4)

The definition of a Class 4 Estimate is defined in AAEC International Recommended Practice No 18R-97

ESTIMATE CLASS	Primary Characteristics		Secondary Characteristic	
	MATURITY LEVEL OF PROJECT DEFINITION DELIVERABLES Expressed as % of complete definition	END USAGE Typical purpose of estimate	METHODOLOGY Typical estimating method	EXPECTED ACCURACY RANGE Typical variation in low and high ranges
Class 5	0% to 2%	Concept screening	Capacity factored, parametric models, judgement, or analogy	L: -20% to -50% H: +30% to +100%
Class 4	1% to 15%	Study of feasibility	Equipment factored or parametric models	L: -15% to -30% H: +20% to +50%
Class 3	10% to 40%	Budget authorization or control	Semi-detailed unit costs with assembly level line items	L: -10% to -20% H: +10% to +30%
Class 2	30% to 75%	Control or bid/tender	Detailed unit cost with forced detailed take-off	L: -5% to -15% H: +5% to +20%
Class 1	65% to 100%	Check estimate or bid/tender	Detailed unit cost with detailed take-off	L: -3% to -10% H: +3% to +15%

CLASS 4 ESTIMATE	
<p>Description: Class 4 estimates are generally prepared based on limited information and subsequently have fairly wide accuracy ranges. They are typically used for project screening, determination of feasibility, concept evaluation, and preliminary budget approval. Typically, engineering is from 1% to 15% complete, and would comprise at a minimum the following: plant capacity, block schematics, indicated layout, process flow diagrams (PFDs) for main process systems, and preliminary engineered process and utility equipment lists.</p> <p>Level of Project Definition Required: 1% to 15% of full project definition.</p> <p>End Usage: Class 4 estimates are prepared for a number of purposes, such as but not limited to, detailed strategic planning, business development, project screening at more developed stages, alternative scheme analysis, confirmation of economic and/or technical feasibility, and preliminary budget approval or approval to proceed to next stage.</p>	<p>Estimating Methodology: Class 4 estimates virtually always use stochastic estimating methods such as equipment factors, Lang factors, Hand factors, Chilton factors, Peters-Timmerhaus factors, Guthrie factors, the Miller method, gross unit costs/ratios, and other parametric and modeling techniques.</p> <p>Expected Accuracy Range: Typical accuracy ranges for Class 4 estimates are -15% to -30% on the low side, and +20% to +50% on the high side, depending on the technological complexity of the project, appropriate reference information, and the inclusion of an appropriate contingency determination. Ranges could exceed those shown in unusual circumstances.</p> <p>Alternate Estimate Names, Terms, Expressions, Synonyms: Screening, top-down, feasibility, authorization, factored, pre-design, pre-study.</p>



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PREFACE AND NOTES TO THE ESTIMATE

1.2 **PROJECT DESCRIPTION:**

Construction Type: 11B

Foundation Type: Concrete spread footings & 12" thick mat slab

Exterior Wall Type: CIP concrete, mtl panel siding, storefront

Roof Type: Standing seam mtl roofing on structural stl framing

Stories Below Grade: None

Stories Above Grade: One

Sitework: Retaining walls, fencing, paving, landscape plantings, irrigation.

Plumbing System: Conventional restrooms / showers

Mechanical System: Forced air system in shops. HVAC split system in offices & support areas

Fire Protection System: Fire sprinkler system

Electrical Service:

- Incoming power, Allowance as it will come from another part of the site
- Transformer (if the job warrants it)
- Lighting & controls & emergency lighting
- Convenience power
- Equipment connections. See equipment matrix. Owner will provide all equipment. We allow for the connection

- Security
- Data/Telcom
- Fire alarms
- Outside lighting on the bldg. façade

1.3 **GENERAL NOTES REGARDING PROJECT:**

The project is a maintenance facility bldg comprising approximately 14,000 gsf of workshop & 3,600 gsf of office & support area. It is expected that the project will be constructed in 2026.

The owner will provide & install all equipment throughout. This Estimate allows for electrical & plumbing connections and etc.

Procurement is Design - Bid - Build.



PROJECT: **SOBRANTE WTP IMPROVEMENTS, MAINTENANCE BUILDING**
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 BID DATE: **ASSUME 2026**
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PREFACE AND NOTES TO THE ESTIMATE

2.0 **DEFINITIONS**

2.1 **ESTIMATE OF COST:**

An Estimate of Cost is prepared from a survey of the quantities of work - items prepared from written or drawn information provided at the concept phase, working drawing or bid-documents stage of the design. Historical costs, information provided by contractors and suppliers, plus judgmental evaluation by the Estimator are used as appropriate as the basis for pricing. Allowances as appropriate will be included for items of work which are not indicated on the design documents provided that the Estimator is made aware of them, or which, in the judgment of the Estimator, are required for completion of the work. We cannot, however, be responsible for items or work of an unusual nature of which we have not been informed.

2.2 **BID:**

An offer to enter a contract to perform work for a fixed sum, to be completed within a limited period of time.

3.0 **BIDS & CONTRACTS**

3.1 **MARKET CONDITIONS:**

In the current market conditions for construction, our experience shows the following results on competitive bids, as a differential from Saylor Consulting Group final estimates:

Number of Bids	Percentage Differential
1	+25 to 100%
2 - 3	+10 to 25%
4 - 5	0 to +10%
6 - 7	0 to -10%
8 or more	-10 to -20%

Accordingly, it is extremely important to ensure that a minimum of 4 to 5 valid bids are received. Since SCG has no control over the bid process, there is no guarantee that proposals, bids or construction cost will not vary from our opinions or our estimate.



PROJECT: **SOBRANTE WTP IMPROVEMENTS, MAINTENANCE BUILDING**
 LOCATION: **5500 AMEND RD, EI SOBRANTE, CA 94803**
 CLIENT: **PANORAMA ENVIRONMENTAL, INC.**
 DESCRIPTION: **CONCEPT ESTIMATE (AAE CLASS 4)**

JOB NUMBER: **22-042**
 PREPARED BY: **IS, TC, AH**
 BID DATE: **ASSUME 2026**
 ESTIMATE DATE: **6/29/2022**

PREFACE AND NOTES TO THE ESTIMATE

4.0 ESTIMATE DOCUMENTS

4.1 This Estimate has been compiled from the following documents and information supplied:

DRAWINGS:

Architectural
A001 - A801. 20 dwgs
Perspective dwgs. 4 dwgs

Mechanical
Narrative only

Landscaping
1 dwg

Structural
1 dwg

Plumbing
none

Accessibility Standards
none

Civil
none

Electrical
none. Verbal instructions on scope

Other
none

SPECIFICATIONS / PROJECT MANUAL:

Architectural, HVAC, Landscape narrative

COSTS PROVIDED BY OTHERS:

None

4.2 The user is cautioned that significant changes in the scope of the project, or alterations to the project documents after completion of the concept estimate (aace class 4) can cause major cost changes. In these circumstances, Saylor Consulting Group should be notified and an appropriate adjustment made to the concept estimate (aace class 4).

5.0 GROSS SQUARE FEET

BUILDING	GSF
BUILDING	17,600
TOTAL GROSS SQUARE FEET	17,600
SITEWORK	150,519

6.0 WAGE RATES

6.1 This Estimate is based on prevailing wage-rates and conditions currently applicable in 5500 AMEND RD, EI SOBRANTE, CA 94803.



PROJECT: **SOBRANTE WTP IMPROVEMENTS, MAINTENANCE BUILDING**
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PREFACE AND NOTES TO THE ESTIMATE

7.0 **PRORATE ADDITIONS TO THE ESTIMATE**

7.1 **GENERAL CONDITIONS:** **7.00%**

An allowance based on 7.00% of the construction costs subtotal has been included for Contractor's General Conditions.

7.2 **CONTINGENCY:** **15.00%**

An Allowance of 15% on the construction costs is allowed for a contingency sum.

NOTE: This allowance is intended to provide a Design Contingency sum only, for use during the design process. It is not intended to provide for a Construction Contingency sum.

7.3 **ESCALATION:** **24.00%**

An allowance of 24.00% has been included in this estimate for construction material & labor cost escalation up to the anticipated mid-point of construction, based on the following assumptions:

Construction start date:	ASSUMED 2026
Construction period:	12 MO
Mid-point of construction:	MID 2026
Annual escalation rate: (average)	6.00%
Allowance for escalation:	24.00% (4 yr x 6%)

No allowance has been made for Code Escalation or Technological Escalation.

7.4 **PHASING ALLOWANCE:** **0.00%**

No phasing in this Project.

7.5 **BONDS & INSURANCE:** **2.00%**

An allowance of 2.00% of the construction cost subtotal is included to provide for the cost of Payment and Performance Bonds, if required.

7.6 **CONTRACTOR'S FEE:** **6.00%**

An allowance based on 6.00% of the construction cost subtotal is included for Contractor's office Overhead and Profit. Office overhead of the contractor is always included with the fee.

All field overhead of the contractor is included in the General Conditions section of the estimate.



PROJECT: **SOBRANTE WTP IMPROVEMENTS, MAINTENANCE BUILDING**
LOCATION: **5500 AMEND RD, EI SOBRANTE, CA 94803**
CLIENT: **PANORAMA ENVIRONMENTAL, INC.**
DESCRIPTION: **CONCEPT ESTIMATE (AACE CLASS 4)**

JOB NUMBER: **22-042**
PREPARED BY: **IS, TC, AH**
BID DATE: **ASSUME 2026**
ESTIMATE DATE: **6/29/2022**

PREFACE AND NOTES TO THE ESTIMATE

8.0 SPECIAL NOTES PERTAINING TO THIS ESTIMATE

8.1 **SPECIFIC INCLUSIONS:**

Concept electrical prices. See div 26
5 ton bridge crane. Not listed on OFOI equipment list
See Estimate detail

8.2 **SPECIFIC EXCLUSIONS:**

The following items are specifically excluded from this estimate:

All design fees, CM fees, owners costs.
Sitework, roads, paving, apron workspaces other than the listed areas of landscaping
All equipment OFOI
All furniture, other than the allowance for misc casement in div 6. See also div 10.
Work stations excluded. Assume work stations will have integral electrical & data
Hazmat
Soil Remediation, other than that listed in landscape narrative
Independent Inspections
Building Permit



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CHECKED BY: **BSS**
ESTIMATE DATE: **6/29/2022**

SECTION II

SUMMARY OF THE ESTIMATE

SAYLOR CONSULTING GROUP

PROJECT: **SOBRANTE WTP IMPROVEMENTS, MAINTENANCE BUILDING**
 LOCATION: **5500 AMEND RD, EI SOBRANTE, CA 94803**
 CLIENT: **PANORAMA ENVIRONMENTAL, INC.**
 DESCRIPTION: **CONCEPT ESTIMATE (AACE CLASS 4)**
SUMMARY OF THE ESTIMATE

JOB NO: **22-042**
 PREPARED BY: **IS, TC, AH**
 CHECKED BY: **BSS**
 DATE: **6/29/2022**
 GSF: **17,600**

CONCEPT ESTIMATE (AACE CLASS 4)

DIV #	DESCRIPTION	QTY	UNIT	UNIT COST	TOTALS
SUMMARY OF THE ESTIMATE					
1.00	BUILDING	17,600	GSF	790.03	\$ 13,904,579
2.00	SITWORK	150,519	SF	25.16	\$ 3,787,149
	TOTAL PROJECT COSTS			25.16	\$ 17,691,728
	PRORATES INCLUDED IN ABOVE COSTS				
	General Conditions	7.00%			
	General Requirements	4.00%			
	Design Contingency	15.00%			
	Escalation to Mid 2026	24.00%			
	Phasing Allowance. None				
	Bonds / Insurance	2.00%			
	Contractors Fee	6.00%			

Competitive Bidding

The prices in this Estimate are based on Competitive Bidding. Competitive Bidding is receiving responsive bids from at least five (5) or more General Contractors and three (3) or more responsive bids from Major Subcontractors or Trades. Major Subcontractors are Structural Steel, Landscape, internal finishing work, Mechanical, Plumbing and Electrical Subcontractors.

Without Competitive Bidding, Contractor bids can and have ranged from 25%-to 100% over the prices in this Estimate, depending on the size of the job.

We urge you to notify your client of the existing bidding climate, and work with them to ensure that the project is adequately publicized so that they can get the minimum number of bids for competitive bidding.



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SECTION III

BUILDING

PROJECT: **SOBRANTE WTP IMPROVEMENTS, MAINTENANCE BUILDING**
 LOCATION: **5500 AMEND RD, EI SOBRANTE, CA 94803**
 CLIENT: **PANORAMA ENVIRONMENTAL, INC.**
 DESCRIPTION: **CONCEPT ESTIMATE (AACE CLASS 4)
 BUILDING**

JOB NO: **22-042**
 PREPARED BY: **IS, TC, AH**
 CHECKED BY: **BSS**
 DATE: **6/29/2022**
 BLDG GSF: **17,600**
 SITE AREA: **150,519**

BUILDING

DIV #	DESCRIPTION	QTY	UNIT	UNIT COST	TOTALS
SUMMARY OF THE ESTIMATE					
1.00	GENERAL REQUIREMENTS			19.27	\$ 339,163
3.00	CONCRETE			91.78	\$ 1,615,392
5.00	METALS			27.12	\$ 477,347
6.00	WOOD & PLASTICS			5.00	\$ 88,000
7.00	THERMAL AND MOISTURE PROTECTION			62.66	\$ 1,102,755
8.00	DOORS & WINDOWS			28.02	\$ 493,085
9.00	FINISHES			47.61	\$ 838,020
10.00	SPECIALTIES			5.73	\$ 100,770
11.00	EQUIPMENT			-	NONE
12.00	FURNISHINGS			2.09	\$ 36,732
13.00	SPECIAL CONSTRUCTION			5.11	\$ 90,000
21.00	FIRE SUPPRESSION			7.75	\$ 136,400
22.00	PLUMBING			16.08	\$ 282,942
23.00	HEATING, VENTILATION, AND AIR CONDITIONING			43.75	\$ 769,989
25.00	INTEGRATED AUTOMATION			6.00	\$ 105,600

PROJECT: **SOBRANTE WTP IMPROVEMENTS, MAINTENANCE BUILDING**
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 SITE AREA: **150,519**

BUILDING

DIV #	DESCRIPTION	QTY	UNIT	UNIT COST	TOTALS
26.00	ELECTRICAL			94.59	\$ 1,664,756
27.00	COMMUNICATIONS			11.44	\$ 201,350
28.00	ELECTRONIC SAFETY & SECURITY			20.80	\$ 366,102
31.00	EARTHWORK			6.24	\$ 109,824
	TOTAL DIRECT COSTS	17,600	GSF	501.04	\$ 8,818,226
	PRORATES (INDIRECT COSTS)				
	General Conditions	7.00%			\$ 617,276
	Design Contingency	15.00%			\$ 1,322,734
	Escalation to Mid 2026	24.00%			\$ 2,116,374
	Phasing Allowance. None				
	SUB-TOTAL	17,600	GSF	731.51	\$ 12,874,610
	Bonds / Insurance	2.00%			\$ 257,492
	Contractors Fee	6.00%			\$ 772,477
	TOTAL PROJECT COSTS	17,600	GSF	790.03	\$ 13,904,579

PROJECT: **SOBRANTE WTP IMPROVEMENTS, MAINTENANCE BUILDING**
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 SITE AREA: **150,519**

BUILDING

DIV #	DESCRIPTION	QTY	UNIT	UNIT COST	TOTALS
ESTIMATE DETAIL					
1.0	GENERAL REQUIREMENTS MISC GENERAL REQUIREMENTS. 4% OF DIRECT COSTS	1	LS	339,162.55	339,163
	SUBTOTAL 1.0			19.27	\$ 339,163
3.0	CONCRETE				
	FOUNDATIONS				
	BLDG PLATFORM. CONC FOUNDATIONS INCL EXC, CONC, F/W, REBAR	17,600	GSF	18.00	316,800
	OUTDOOR AREA. CONC FOUNDATIONS INCL EXC, CONC, F/W, REBAR	704	SF	12.00	8,448
	EXTERIOR STAIRCASE FOUNDATIONS #VALUE!	6	CY	550.00	3,300
	CONC MAT SLAB, 9" THICK, REINFORCING BWBF	18,304	SF	30.00	549,120
	FINISH CONC SURFACE	18,304	SF	0.80	14,643
	CJ'S	18,304	SF	1.50	27,456
	WATERPROOF MEMBRANE	18,304	SF	1.10	20,134
	EMBEDS	27	EA	900.00	24,300
	MISC FLOOR CURBS	1	LS	7,500.00	7,500
	STRUCTURE				
	CIP CONC WALL PANELS INCL JOINTING	7,054	SF	85.00	599,590
	DECK				
	DECK OVER PAINT/ GRNDS WORK AREA	588	SF	75.00	44,100
	SUBTOTAL 3.0			91.78	\$ 1,615,392

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BUILDING

DIV #	DESCRIPTION	QTY	UNIT	UNIT COST	TOTALS
5.0	METALS				
	STRUCTURAL STL COLS @ SHOP AREA.	2	TON	5,500.00	11,000
	OPEN WEB STEEL TRUSSES @ SHOP AREAS	1,806	LF	45.00	81,270
	STRUCTURAL STL FRAMING AT OFFICE AREA	18	TON	5,500.00	99,000
	BRB FRAME @ OFFICE AREA	3	EA	12,000.00	36,000
	ADDITIONAL STL FRAMING @ ROOF MECH AREAS	1	LS	10,000.00	10,000
	MTL ROOF DECKING	18,491	SF	7.00	129,437
	EXTERIOR GALV STL STAIRCASE	7,000	LBS	6.00	42,000
	MISC MTL FABRICATIONS THROUGHOUT	18,304	LBS	3.75	68,640
	SUBTOTAL 5.0			27.12	\$ 477,347
6.0	WOOD & PLASTICS				
	MISC CASEWORK THROUGHOUT NOT SUPPLIED WITH EQUIPMENT	17,600	GSF	5.00	88,000
	SUBTOTAL 6.0			5.00	\$ 88,000
7.0	THERMAL AND MOISTURE PROTECTION				
	EXTERIOR WALL ASSEMBLY, MTL STUD EXT WALL FRAMING INSULATION, PREFINISHED MTL RIBBED WALL CLADDING	4,719	SF	70.00	330,330
	STANDING SEAM MTL ROOF, RIGID INSULATION	18,491	SF	25.00	462,275
	MISC ROOF SHEETMETAL, FLASHINGS, CAPS, DOWNSPOUTS, GUTTERS	18,491	SF	10.00	184,910
	ROOF CHANGE OF LEVEL AT LINE H	68	LF	100.00	6,800
	FRAMED ROOF EAVES SOFFIT & CLADDING	1,260	SF	40.00	50,400
	PARAPET LINING, PLY & SHEETMETAL CLADDING	995	SF	60.00	59,700
	WALK SURFACE TO ROOFTOP MECH AREA	1	LS	7,500.00	7,500
	SOFFIT @ MUD & VEST	28	SF	30.00	840
	SUBTOTAL 7.0			62.66	\$ 1,102,755

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BUILDING

DIV #	DESCRIPTION	QTY	UNIT	UNIT COST	TOTALS
8.0	DOORS & WINDOWS				
	EXTERIOR				
	STOREFRONT	1,461	SF	70.00	102,270
	GLASS FRAMED CLERESTORY	1,762	SF	90.00	158,580
	WINDOWS	67	SF	65.00	4,355
	WINDOWS	30	SF	65.00	1,950
	12'W X10'H ROLL UP PREFINISHED DOOR, ELECTRIC	8	EA	6,750.00	54,000
	ENTRY DOOR & SIDE LIGHT, VESTIBULE	1	EA	8,000.00	8,000
	ENTRY DOOR & SIDE LIGHT, MUD RM	1	EA	6,000.00	6,000
	EXIT DOOR & OVERLIGHT, 3'W X 10' H	8	EA	6,500.00	52,000
	SINGLE EXIT DOOR, 3070	4	EA	3,750.00	15,000
	PAIR EXIT DOOR, 6070	2	EA	5,000.00	10,000
	INTERIOR				
	SINGLE DOOR, FRAME, HARDWARE	13	EA	2,200.00	28,600
	PAIR DOORS, FRAME, HARDWARE	3	EA	4,000.00	12,000
	PAIR CUPBOARD SLIDING DOORS	2	EA	3,000.00	6,000
	TOILET DOORS, FRAME, HARDWARE	7	EA	2,500.00	17,500
	GLAZED WALL	306	SF	55.00	16,830
	SUBTOTAL 8.0			28.02	\$ 493,085
9.0	FINISHES				
	CIP CONC WALL PANELS. NO FINISH ALLOWED				
	PAINT EXPOSED STL OPEN WEB ROOF TRUSSES, SHOPS	1,806	LF	4.00	7,224
	FUR BRB STRUCTURAL STL FRAME, DRYWALL & PAINT	3	EA	4,500.00	13,500
	FUR STRUCTURAL STL COLUMNS, DRYWALL & PAINT. OFFICES	322	LF	45.00	14,490
	FUR STRUCTURAL STL COLUMNS, PLY & PAINT. SHOPS	80	LF	55.00	4,400
	PAINT DOORS & FRAMES	2,151	SF	2.00	4,302
	PAINT EXT STL STAIRCASE	6,000	LBS	0.15	900

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BUILDING

DIV #	DESCRIPTION	QTY	UNIT	UNIT COST	TOTALS
	CEILINGS				
	ACT	2,417	SF	7.00	16,919
	GYP	1,520	SF	19.00	28,880
	CEMENT PLASTER	458	SF	14.00	6,412
	NO CEILING FINISH. EXPOSED. CLEAN ONLY	13,205	SF	0.50	6,603
	FLOORS				
	CONC FLOOR SEALER	11,714	SF	1.00	11,714
	RESILIENT SHEET FLOORING	3,937	SF	11.00	43,307
	CERAMIC TILE	1,107	SF	24.00	26,568
	RUBBER FLOORING	637	SF	16.00	10,192
	NO FINISH, EXPOSED	205	SF		
	MOISTURE BARRIER	4,574	SF	5.00	22,870
	WALLS				
	PAINT	29,971	SF	1.25	37,464
	CERAMIC TILE	2,103	SF	20.00	42,060
	PARTITIONS				
	MTL STUD, INSULATION, GYP BS	7,905	SF	20.00	158,100
	MTL STUD, INSULATION, IMPACT RESISTANT LINING BS.	11,396	SF	28.00	319,088
	FURRING & GYP @ INTERIOR OF EXTERIOR WALLS. OFFICES	1,337	SF	12.00	16,044
	FURRING & GYP @ SHOPS ABOVE CIP CONC	578	SF	28.00	16,184
	MISC CAULK / SEAL / FIRESAFING THROUGHOUT	17,600	GSF	0.75	13,200
	MISC PAINTING THROUGHOUT	17,600	GST	1.00	17,600
	SUBTOTAL 9.0			47.61	\$ 838,020
10.0	SPECIALTIES				
	LAVATORIES	1	EA	4,500.00	4,500
	RESTROOM SPECIALTIES	1	LS	20,000.00	20,000
	LOCKERS	32	EA	400.00	12,800
	LOCKER BENCH	36	LF	80.00	2,880
	SIGNAGE THROUGHOUT	17,600	SF	0.40	7,040
	EXTERIOR BLDG SIGNAGE	1	LS	750.00	750
	OTHER MISC BLDG SPECIALTIES	17,600	GSF	3.00	52,800
	SUBTOTAL 10.0			5.73	\$ 100,770

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BUILDING

DIV #	DESCRIPTION	QTY	UNIT	UNIT COST	TOTALS
11.0	EQUIPMENT ALL OFOI. SEE EQUIPMENT SCHEDULE				-
	SUBTOTAL 11.0			-	NONE
12.0	FURNISHINGS EXTERIOR WINDOW SHADES INTERIOR WINDOW SHADES	1,461 306	SF SF	22.00 15.00	32,142 4,590
	SUBTOTAL 12.0			2.09	\$ 36,732
13.0	SPECIAL CONSTRUCTION 5 TON BRIDGE CRANE & SUPPORT STRUCTURE	1	LS	90,000.00	90,000
	SUBTOTAL 13.0			5.11	\$ 90,000
21.0	FIRE SUPPRESSION ALLOW FOR WET PROTECTION	17,600	SF	7.75	136,400
	SUBTOTAL 21.0			7.75	\$ 136,400
22.0	PLUMBING				
	EQUIPMENT WATER HEATER WITH CIRCULATION PUMP AND EXPANSION TANK	1	EA	9,750.00	9,750
	FIXTURES				
	WATER CLOSETS	4	EA	2,975.00	11,900
	LAVATORIES	4	EA	2,750.00	11,000
	SHOWERS	3	EA	3,250.00	9,750
	SINKS, UTILITY WITH SOLIDS TRAPS	5	EA	3,750.00	18,750
	KITCHEN/BREAKROOM SINK WITH DISPOSER	1	EA	3,000.00	3,000
	DRINKING FOUNTAIN WITH BOTTLE FILLER	1	EA	3,450.00	3,450
	JANITOR SINK	1	EA	3,175.00	3,175
	FLOOR SINKS/DRAINS WITH TRAP PRIMERS	15	EA	2,700.00	40,500

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BUILDING

DIV #	DESCRIPTION	QTY	UNIT	UNIT COST	TOTALS
	ROUGH-INS/PIPING				
	ROUGH AT FIXTURES	19	EA	2,500.00	47,500
	MISC UTILITY CONNECTIONS; WASHER/DRYER, WET WORK STATION, ETC	1	LS	5,000.00	5,000
	CHEMICAL RESISTANT PIPING	120	LF	47.50	5,700
	ALLOW FOR SAMPLING BOX	1	EA	2,500.00	2,500
	COMPRESSED AIR PIPING SYSTEM IN GROUNDS	1	LS	4,750.00	4,750
	GAS PIPING WITH EMERG SHUTOFF STATION	1	LS	7,500.00	7,500
	CONDENSATE DRAIN PIPING	280	LF	37.00	10,360
	PLUMBING RELATED COSTS				
	TEST PLUMBING SYSTEMS	40	HRS	150.00	6,000
	SEISMIC BRACING	17,600	SF	2.00	35,200
	G&A AND FEE	20%		235,785.00	47,157
	SUBTOTAL 22.0			16.08	\$ 282,942
23.0	HEATING, VENTILATION, AND AIR CONDITIONING				
	EQUIPMENT				
	HEATING & VENTILATION EQUIPMENT	10,300	SF	7.65	78,795
	VRF SPLIT SYSTEMS	6,300	SF	9.50	59,850
	EXHAUST SYSTEMS	17,600	SF	3.75	66,000
	DUST COLLECTION SYSTEM	1	LS	25,000.00	25,000
	VENT HOOD EXHAUST WITH CONTROLS	1	LS	17,500.00	17,500
	DUCTWORK AND DISTRIBUTION				
	GALVANIZED DUCTWORK WITH INSULATION AND AIR OUTLETS	14,750	LBS	19.75	291,313
	FIRE/SMOKE & VOLUME DAMPERS	1	LS	15,000.00	15,000
	REFRIGERATION PIPING	17,600	SF	1.75	30,800
	PLUMBING RELATED COSTS				
	TEST AND BALANCE	60	HRS	150.00	9,000
	SEISMIC BRACING	17,600	SF	2.75	48,400
	G&A AND FEE	20%		641,657.50	128,332
	SUBTOTAL 23.0			43.75	\$ 769,989

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BUILDING

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25.0	INTEGRATED AUTOMATION ALLOW FOR CONTROLS	17,600	SF	6.00	105,600
	SUBTOTAL 25.0			6.00	\$ 105,600
26.0	ELECTRICAL				
	DISTRIBUTION				
	MAIN SWITCHBOARD, 489/277V, 1200A	1	EA	54,000.00	54,000
	480/277V PANELBOARDS	1	LS	38,370.00	38,370
	TRANSFORMERS	1	LS	20,135.00	20,135
	208/120V DISTRIBUTION BOARDS	1	LS	76,500.00	76,500
	208/120V PANELBOARDS	17,600	SF	3.10	54,560
	SWITCHBOARD HOUSEKEEPING PADS	3	EA	3,500.00	10,500
	TRANSFORMER PADS	2	EA	500.00	1,000
	FEEDERS	17,600	SF	12.00	211,200
	UPS	1	EA	35,000.00	35,000
	EMERGENCY POWER, ALLOWANCE	17,600	SF	5.30	93,280
	EMPTY CONDUITS FOR FUTURE PV SYSTEM IF REQUIRED	1	LS	10,000.00	10,000
	GROUNDING	17,600	SF	1.50	26,400
	LIGHTNING PROTECTION- ASSUME NOT REQUIRED				
	EQUIPMENT CONNECTIONS				
	CONNECT HVAC, PLUMBING EQUIPMENT	17,600	SF	5.00	88,000
	CONNECT OWNER-FURNISHED MAINTENANCE EQUIPMENT	17,600	SF	5.00	88,000
	CONNECT ROLL-UP DOORS	7	EA	2,500.00	17,500
	CONNECT BRIDGE CRANES	1	EA	3,500.00	3,500
	CABLE TRAY				
	ALLOWANCE FOR 18" TRAY, ELBOWS, TEES, HANGERS	380	LF	65.00	24,700
	USER CONVENIENCE POWER				
	OUTLETS, GFCI OUTLETS, FLOOR OUTLETS, CORD REELS, WP OUTLETS ETC.	17,600	SF	15.00	264,000

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DIV #	DESCRIPTION	QTY	UNIT	UNIT COST	TOTALS
	LIGHTING AND CONTROLS				
	SUPPLY, INSTALL LIGHT FIXTURES	17,600	SF	13.00	228,800
	LIGHTING CONDUIT, WIRE	4,260	LF	17.90	76,254
	LIGHTING CONTROLS	17,600	SF	6.00	105,600
	MISC. ELECTRICAL				
	TESTING	1	LS	15,272.99	15,273
	SEISMIC BRACING	1	LS	38,182.48	38,182
	COORDINATION WITH OTHER TRADES	1	LS	38,182.48	38,182
	SUPERVISION, PROJECT MANAGEMENT	1	LS	45,818.97	45,819
	SUBTOTAL 26.0			94.59	\$ 1,664,756
27.0	COMMUNICATIONS				
	VOICE/DATA				
	OUTLET BOXES, CONDUIT TO TRAY	17,600	SF	3.00	52,800
	JACKS, HORIZONTAL CABLE	17,600	SF	7.00	123,200
	FIRE STOP	1	LS	2,000.00	2,000
	AUDIO VISUAL				
	ALLOWANCE FOR EQUIPMENT, CONDUIT/CABLING IN MEETING ROOM	1	LS	10,000.00	10,000
	MISC. COMMUNICATIONS				
	TESTING	1	LS	1,780.00	1,780
	SEISMIC BRACING	1	LS	1,780.00	1,780
	COORDINATION WITH OTHER TRADES	1	LS	4,450.00	4,450
	SUPERVISION, PROJECT MANAGEMENT	1	LS	5,340.00	5,340
	SUBTOTAL 27.0			11.44	\$ 201,350

PROJECT: **SOBRANTE WTP IMPROVEMENTS, MAINTENANCE BUILDING**
 LOCATION: **5500 AMEND RD, EI SOBRANTE, CA 94803**
 CLIENT: **PANORAMA ENVIRONMENTAL, INC.**
 DESCRIPTION: **CONCEPT ESTIMATE (AACE CLASS 4)
 BUILDING**

JOB NO: **22-042**
 PREPARED BY: **IS, TC, AH**
 CHECKED BY: **BSS**
 DATE: **6/29/2022**
 BLDG GSF: **17,600**
 SITE AREA: **150,519**

BUILDING

DIV #	DESCRIPTION	QTY	UNIT	UNIT COST	TOTALS
28.0	ELECTRONIC SAFETY & SECURITY				
	FIRE ALARM DEVICES, CONTROL PANELS, CONDUIT/CABLE	17,600	SF	8.00	140,800
	ACCESS CONTROL DOOR CONTACTS, REX, CARD READERS, CONNECTIONS TO ELECTRIFIED DOOR HARDWARE, CONTROL PANELS, CONDUIT/CABLE	17,600	SF	5.50	96,800
	VIDEO SURVEILLANCE CAMERAS, MOUNTS, CONTROL/MONITORING EQUIPMENT, CONDUIT, CABLE	17,600	SF	5.85	102,960
	MISC. COMMUNICATIONS				
	TESTING	1	LS	3,405.60	3,406
	SEISMIC BRACING	1	LS	3,405.60	3,406
	COORDINATION WITH OTHER TRADES	1	LS	8,514.00	8,514
	SUPERVISION, PROJECT MANAGEMENT	1	LS	10,216.80	10,217
	SUBTOTAL 28.0			20.80	\$ 366,102
31.0	EARTHWORK GRADING & PREPARE BLDG PLATFORM INCL CLEAR & GRUB	18,304	SF	6.00	109,824
	SUBTOTAL 31.0			6.24	\$ 109,824



PROJECT: **SOBRANTE WTP IMPROVEMENTS, MAINTENANCE BUILDING**
LOCATION: **5500 AMEND RD, EI SOBRANTE, CA 94803**
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DESCRIPTION: **CONCEPT ESTIMATE (AACE CLASS 4)**

JOB NUMBER: **22-042**
PREPARED BY: **IS, TC, AH**
CHECKED BY: **BSS**
ESTIMATE DATE: **6/29/2022**

SECTION IV

SITWORK

SAYLOR CONSULTING GROUP

PROJECT: SOBRANTE WTP IMPROVEMENTS, MAINTENANCE BUILDING	JOB NO: 22-042
LOCATION: 5500 AMEND RD, EI SOBRANTE, CA 94803	PREPARED BY: IS, TC, AH
CLIENT: PANORAMA ENVIRONMENTAL, INC.	CHECKED BY: BSS
DESCRIPTION: CONCEPT ESTIMATE (AACE CLASS 4)	DATE: 6/29/2022
SITWORK	BLDG PLATFORM: 18,304
	SITE AREA: 150,519

CONCEPT ESTIMATE (AACE CLASS 4)

DIV #	DESCRIPTION	QTY	UNIT	UNIT COST	TOTALS
SUMMARY OF THE ESTIMATE					
1.00	GENERAL REQUIREMENTS			0.87	\$ 130,838
2.00	EXISTING CONDITIONS			0.17	\$ 25,000
31.00	EARTHWORK			3.00	\$ 451,557
32.00	EXTERIOR IMPROVEMENTS			9.70	\$ 1,460,709
33.00	UTILITIES			2.22	\$ 333,690
	TOTAL DIRECT COSTS	18,304		131.22	\$ 2,401,794
	PRORATES (INDIRECT COSTS)				
	General Conditions	7.00%			\$ 168,126
	Design Contingency	15.00%			\$ 360,269
	Escalation to Mid 2026	24.00%			\$ 576,431
	Phasing Allowance. None				
	SUB-TOTAL	18,304		191.58	\$ 3,506,619
	Bonds / Insurance	2.00%			\$ 70,132
	Contractors Fee	6.00%			\$ 210,397
	TOTAL PROJECT COSTS	18,304		206.90	\$ 3,787,149

SAYLOR CONSULTING GROUP

PROJECT: SOBRANTE WTP IMPROVEMENTS, MAINTENANCE BUILDING	JOB NO: 22-042
LOCATION: 5500 AMEND RD, EI SOBRANTE, CA 94803	PREPARED BY: IS, TC, AH
CLIENT: PANORAMA ENVIRONMENTAL, INC.	CHECKED BY: BSS
DESCRIPTION: CONCEPT ESTIMATE (AACE CLASS 4) SITEWORK	DATE: 6/29/2022
	BLDG PLATFORM: 18,304
	SITE AREA: 150,519

CONCEPT ESTIMATE (AACE CLASS 4)

DIV #	DESCRIPTION	QTY	UNIT	UNIT COST	TOTALS
ESTIMATE DETAIL					
1.0	GENERAL REQUIREMENTS				
	EROSION CONTROL	1	LS	40,000.00	40,000
	MISC GENERAL REQUIREMENTS. 4% OF DIRECT COSTS	1	LS	90,838.23	90,838
	SUBTOTAL 1.0				\$ 130,838
2.0	EXISTING CONDITIONS				
	ALLOWANCE FOR MISC REMOVALS / DEMO	1	LS	25,000.00	25,000
	SUBTOTAL 2.0			1.37	\$ 25,000
31.0	EARTHWORK				
	GRADING & PREPARE SITE AREAS INCL CLEAR & GRUB	150,519	SF	3.00	451,557
	SUBTOTAL 31.0			24.67	\$ 451,557
32.0	EXTERIOR IMPROVEMENTS				
	PRICING BASED ON NARRATIVE WHICH DIFFERS TO DWG.				
	DECOMPOSED GRANITE PAVING	1,080	SF	4.00	4,320
	RETAINING WALL, VERA-LOK 12" THICK, 595 LF X 4' H	2,380	SF	18.00	42,840
	FENCE, EBMUD SECURITY CHAIN LINK. 44"D FOOTING, 8'H CL, 2'V ARM WITH 6 ROWS BARBED WIRE	1,670	LF	332.00	554,440
	ALLOWANCE FOR VEH GATE	1	EA	4,500.00	4,500
	ALLOWANCE FOR PEDESTRIAN GATE	1	EA	1,200.00	1,200
	FENCE, OMEGA 8'H, ANTI CLIMB MESH, 8" H CONC CURB.	925	LF	393.00	363,525
	ALLOWANCE FOR PEDESTRIAN GATE	1	EA	4,000.00	4,000
	BIOTREATMENT SOILS (BIORETENTION BASIN)	8,835	SF	24.00	212,040
	MULCH	3,400	SF	4.00	13,600

SAYLOR CONSULTING GROUP

PROJECT: SOBRANTE WTP IMPROVEMENTS, MAINTENANCE BUILDING	JOB NO: 22-042
LOCATION: 5500 AMEND RD, EI SOBRANTE, CA 94803	PREPARED BY: IS, TC, AH
CLIENT: PANORAMA ENVIRONMENTAL, INC.	CHECKED BY: BSS
DESCRIPTION: CONCEPT ESTIMATE (AACE CLASS 4)	DATE: 6/29/2022
SITWORK	BLDG PLATFORM: 18,304
	SITE AREA: 150,519

CONCEPT ESTIMATE (AACE CLASS 4)

DIV #	DESCRIPTION	QTY	UNIT	UNIT COST	TOTALS
	TREE, 24" BOX	14	EA	1,400.00	19,600
	TREE 36" BOX	14	EA	2,300.00	32,200
	SCRUB, 15 GAL @ 6" OC	1,800	SF	40.00	72,000
	PERENNIAL PLANTING , 5 GAL @3' OC	1,600	SF	9.00	14,400
	HYDROSEED	127,204	SF	0.45	57,242
	DRIP IRRIGATION	13,400	SF	2.00	26,800
	TREE BUBBLERS	56	EA	42.00	2,352
	CONTROLLER	1	EA	4,000.00	4,000
	MASTER SHUT OFF VALVE	1	EA	450.00	450
	MAINLINE, SCH 40	1,400	LF	11.00	15,400
	ZONE VALVES	24	EA	350.00	8,400
	FLOW SENSOR	1	EA	650.00	650
	RAIN SENSOR	1	EA	1,500.00	1,500
	CONNECTIONS	1	EA	750.00	750
	BACK FLOW PREVENTOR. NOT LISTED BUT ALLOW.	1	EA	4,500.00	4,500
	SUBTOTAL 32.0			79.80	\$ 1,460,709
33.0	UTILITIES				
	ALLOWANCE FOR UTILITIES. STORMWATER, CEMETERY SEWER, FIRE WATER AND DOMESTIC WATER	1	EA	50,000.00	50,000
	POWER				
	ACCESS EXISTING SWITCHGEAR, ADD BREAKER (IF REQUIRED) TO SERVE NEW MAINTENANCE FACILITY, ALLOW 1200A	1	EA	23,890.00	23,890
	PROVIDE NEW INCOMING POWER DUCT BANK (ASSUME FROM EXISTING POWER BUILDING)	160	LF	705.00	112,800
	COMMUNICATIONS				
	CONNECTIONS TO CENTRAL SYSTEMS, ALLOW	200	LF	427.00	85,400
	SITE LIGHTING				
	PARKING, LANDSCAPE LIGHTING	1	LS	40,000.00	40,000
	MISC. ELECTRICAL				
	TRENCHING, BACKFILL	360	LF	25.00	9,000
	CONCRETE ENCASE DUCT BANKS	360	LF	35.00	12,600
	SUBTOTAL 33.0			18.23	\$ 333,690



Cost Estimate Memorandum

To: Saylor Consulting

From: MWA Architects
135 Main St. Suite 550
San Francisco, CA 94105

Project/No: 202025 EBMUD Sobrante Water Treatment Plant

General Conditions

1. Foundation
 - Structural concrete mat slab reinforced with 2 layers of reinforcing, each way. Continuous grade beams used at the perimeter of the building. Total area is 18,304 sf.
2. Structural System
 - Structural framing will consist of wide flange columns in the Office and Support area. In the maintenance shop and storage area, exterior walls will consist of cast-in-place concrete. Interior structure consists of wide flange columns. Non-structural walls will be gyp bd. over light gauge metal framing. See diagram for locations.
 - It is assumed that there will be 3 BRB framing supports for lateral bracing in the office area, see diagram for locations.
 - In low roof area, wide flange beams will span between columns. In high roof area, bar joists will span between girders supported by steel columns or concrete pilasters. See plan.
3. Exterior Materials
 - Exterior walls to be broom-finished or smooth-finished cast-in-place concrete in high roof area. Low roof area exterior walls to be concealed fastener metal panel rainscreen system with light gauge metal stud infill.
 - Roof system will consist of double-lock mechanically seamed standing seam metal with 5" rigid insulation and metal decking spanning to steel framing members. Roof surface to be low-glare, textured matte finish.



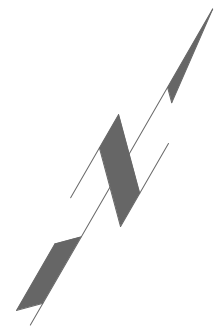
mwa architects





SAN FRANCISCO OAKLAND PORTLAND

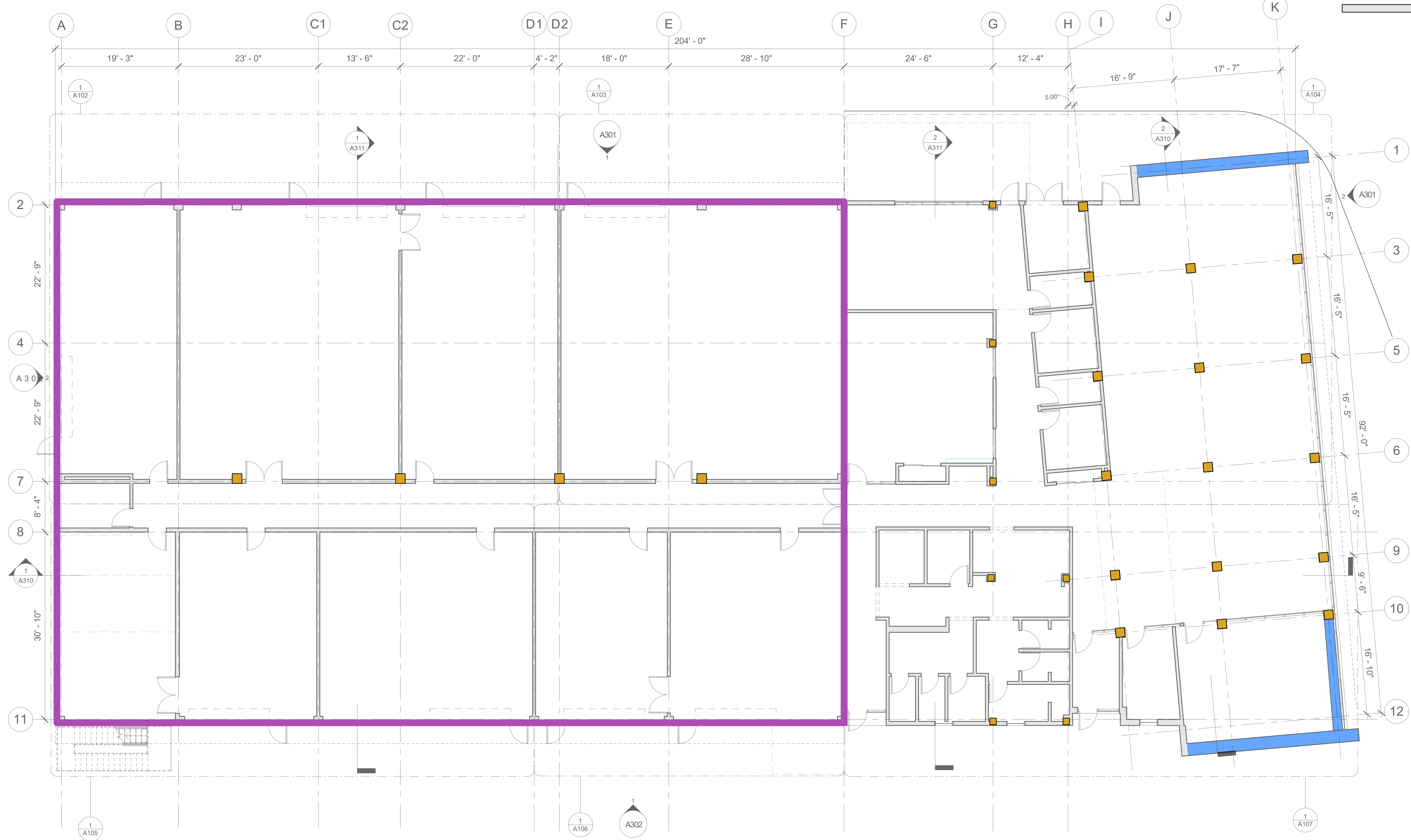
- Glazing to be storefront system with aluminum framing and low-E insulated glazing. Double-paned, bird-safe glazing to be used.
- 4. Mechanical Systems
 - The mechanical system will consist of a forced air system for the maintenance shops (10,300 sf) and a split system for the office and support areas (6,800 sf). HVAC systems will be all-electric. Both will provide heating and cooling.
- 5. Exterior Canopy Structure
 - Steel canopy structure with standing seam metal roofing and three sides of prefinished metal panel cladding, uninsulated (425 SF x 12'H)

Exclusions

- Site paving, curbs, striping
- Maintenance equipment indicated on plans (to be furnished by owner)
- Other buildings and process facilities indicated on site plan



-  CAST IN PLACE CONCRETE WALL
-  WIDE FLANGE STEEL FRAMING
-  BRB FRAMING
-  GYP BD OVER LIGHT GAUGE STEEL FRAME





EAST BAY MUNICIPAL UTILITIES DISTRICT
 SOBRANTE WATER TREATMENT PLANT
 5500 AMEND ROAD
 EL SOBRANTE, CA 94803

NOTES

OCCUPANCY LOAD SCHEDULE						
ROOM NAME	ROOM NUMBER	AREA	OCCUPANCY			
			GROUP	FUNCTION OF SPACE	LOAD FACTOR	OCCUPANT NUMBER
GROUNDS WORK AREA	001	178 SF	F-1 (OUTDOOR)	INDUSTRIAL	150 SF	2
PAINT WORK AREA	002	280 SF	F-1 (OUTDOOR)	INDUSTRIAL	150 SF	2
PATIO	003	385 SF	OUTDOORS	OUTDOORS	-	-
ELECTRICAL STORAGE	004	96 SF	OUTDOORS	OUTDOORS	-	-
CARPENTRY BONEYARD	005	425 SF	OUTDOORS	OUTDOORS	-	-
VESTIBULE	101	89 SF	B	BUSINESS	150 SF	1
DOCUMENT REVIEW & STORAGE	102	276 SF	B	BUSINESS	150 SF	3
MEETING ROOM	103	476 SF	B	BUSINESS	15 SF	25
OFFICE	104	130 SF	B	BUSINESS	150 SF	1
WORKSTATIONS	105	2166 SF	B	BUSINESS	150 SF	14
MUD ROOM	106	165 SF				
LOCKER ROOM	107	865 SF				
PRIVACY/LACTATION ROOM	108	63 SF				
CORRIDOR	109	587 SF	B	BUSINESS	150 SF	6
HEALTH & WELLNESS	110	637 SF	B	EXERCISE ROOM	50 SF	12
EMERGENCY SUPPLIES	111	48 SF	B	BUSINESS	150 SF	1
JANITOR	112	53 SF	B	BUSINESS	150 SF	1
IT/TELECOM	113	100 SF	B	MECHANICAL EQUIPMENT	300 SF	1
ELECTRICAL	114	100 SF	B	MECHANICAL EQUIPMENT	300 SF	1
MECHANICAL	115	105 SF	B	MECHANICAL EQUIPMENT	300 SF	1
KITCHEN/ BREAK ROOM	116	498 SF	B	BUSINESS	150 SF	4
SHOP CORRIDOR	117	798 SF	F-1	BUSINESS	150 SF	7
ELECTRICAL SHOP	118	874 SF	F-1	INDUSTRIAL	150 SF	6
INSTRUMENTATION	119	2077 SF	F-1	INDUSTRIAL	150 SF	14
ELECTRICAL STORAGE	120	674 SF	F-1	STORAGE	300 SF	3
MECHANICAL STORAGE	121	1158 SF	F-1	STORAGE	300 SF	4
CARPENTRY	122	1090 SF	F-1	INDUSTRIAL	150 SF	8
MECHANICAL SHOP	123	1622 SF	F-1	INDUSTRIAL	150 SF	11
PAINT	124	703 SF	F-1	INDUSTRIAL	150 SF	5
GROUNDS	125	871 SF	F-1	INDUSTRIAL	150 SF	6
RESTROOM	126	85 SF	F-1	BUSINESS	150 SF	1
TOTALS		AREA: 17676 SF			OCCUPANTS: 160	

APPLICABLE CODES AND STANDARDS	
• 2019 CALIFORNIA BUILDING CODE:	• 2019 CALIFORNIA ENERGY CODE
• 2019 CALIFORNIA ELECTRICAL CODE	• 2019 CALIFORNIA FIRE CODE
• 2019 CALIFORNIA MECHANICAL CODE	• CALOSHA
• 2019 CALIFORNIA PLUMBING CODE	• CONTRA COSTA COUNTY MUNICIPAL CODE
• 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE	

CODE REVIEW				
ITEM	SOURCE	RESPONSE		COMMENTS
1	BUILDING DESCRIPTION	1 STORY ABOVE GROUND LEVEL PROPOSED HEIGHT: 25' ABOVE GRADE PROPOSED AREA (GSF): 17,600 SF		
2	OCCUPANCY	CBC SECTION	BUILDING AREA	OCC. TYPE
	OCCUPANCY GROUPS	304.1	OFFICE AND SUPPORT SPACES	B
		306.3	SHOPS	F-1
		311.1	STORAGE	S-1
3	BUILDING HEIGHT/OCCUPANCY	ALLOWED		PROVIDED
	ALLOWABLE HEIGHT	CBC TABLE 504.3	B, F, S, OCCUPANCY TYPE II B SPRINKLERED 75' ABOVE GRADE PLANE	25' ABOVE GRADE
	ALLOWABLE STORIES	CBC TABLE 504.4	B OCCUPANCY TYPE II B SPRINKLERED 4 STORIES ABOVE GRADE PLANE F-1 OCCUPANCY TYPE II B SPRINKLERED 3 STORIES ABOVE GRADE PLANE S-1 OCCUPANCY TYPE II B SPRINKLERED 3 STORIES ABOVE GRADE PLANE	1 STORY
	ALLOWABLE AREA	CBC TABLE 506.2	B OCCUPANCY TYPE II B S1 92,000 SF F-1 OCCUPANCY TYPE II B S1 62,000 SF S-1 OCCUPANCY TYPE II B S1 70,000 SF	$(B) 7,864 + (F-1) 8,009 + (S-1) 1,900 = .25 < 1$ 92,000 + 62,000 + 70,000
	OCCUPANCY SEPARATIONS	CBC TABLE 508.4	B, F-1, S-1 NO RATED OCCUPANCY SEPARATION REQUIRED	NO SEPARATION BUILDING WILL BE EQUIPPED AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA 13
4	FIRE RESISTIVE REQUIREMENTS	REQUIRED		PROVIDED
	CONSTRUCTION TYPE	CBC SECTION 602.5	TYPE II B NON-COMBUSTIBLE	TYPE II B
	BUILDING ELEMENTS	CBC TABLE 601	PRIMARY STRUCTURAL FRAME: 0 HOURS	0 HOURS
			BEARING WALLS (INT & EXT): 0 HOURS	0 HOURS
			NO-BEARING WALLS (INT & EXT): 0 HOURS	0 HOURS
			FLOOR CONSTRUCTION: 0 HOURS	0 HOURS
			ROOF CONSTRUCTION: 0 HOURS	0 HOURS
	EXTERIOR WALLS	CBC TABLE 602	TYPE II B CONSTRUCTION, GROUP F-1, S-1 OCCUPANCY (MOST RESTRICTIVE) WHERE FIRE SEPARATION DISTANCE >10 FEET: 0 HOURS	15' MIN.
5	FIRE PROTECTION	REQUIRED		PROVIDED
	FIRE PROTECTION	CBC SECTION 903	FIRE PROTECTION REQUIRED FOR OCCUPANCIES B, F-1, S-1 > 5,000 SF*	BUILDING WILL BE EQUIPPED AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA 13
	FIRE EXTINGUISHERS	CBC SECTION 906	PORTABLE FIRE EXTINGUISHERS SHALL BE INSTALLED FOR OCCUPANCIES B, F-1, S-1	PROVIDED *PER CONTRA COSTA COUNTY CODE CH. 722-2.004 AMENDMENTS
6	MEANS OF EGRESS	REQUIRED		PROVIDED
	OCCUPANCY LOAD FACTOR	CBC TABLE 1004.1.2	SEE OCCUPANCY LOAD SCHEDULE	SEE OCCUPANCY LOAD SCHEDULE
	ESTIMATED OCCUPANT LOAD BY ROOM		SEE OCCUPANCY LOAD SCHEDULE	SEE OCCUPANCY LOAD SCHEDULE
	REQUIRED CORRIDOR WIDTH	CBC SECTION 1005.1	MIN. WIDTH = 44"	44"
	NUMBER OF EXITS	CBC TABLE 1006.3.1, TABLE 1006.3.2	2 EXITS	2 EXITS
	MAX. COMMON PATH OF EGRESS TRAVEL	CBC TABLE 1006.3.2	B, F, S OCCUPANCY: 100' (SPRINKLERED)	85'
	EXIT ACCESS TRAVEL DISTANCE	CBC TABLE 1017.2	B OCCUPANCY: 300', F-1: 250', S-1: 250' (SPRINKLERED)	120'
	SEPARATION OF EXITS	CBC SECTION 1007.1.1 EXCEPTION 2	TWO EXITS MUST BE PLACED A DISTANCE APART EQUAL TO NOT LESS THAN 1/3 OF THE LENGTH OF THE MAXIMUM OVERALL DIAGONAL DIMENSION OF THE BUILDING, WHERE THE BUILDING IS EQUIPPED WITH AN AUTOMATIC SPRINKLER SYSTEM	150' > 1/3*227
7	PLUMBING FIXTURES	OCCUPANCY COUNT		REQUIRED
	CALCULATED FIXTURE COUNT	CPC TABLE 422.1, TABLE A	B = 39.3	M: 20 F: 20
			F-1 = 4	M: 2 F: 2
			S-1 = .38	M: 1 F: 1
			TOILET: M: 1 F: 2 LAVATORY: M: 1 F: 1 URINAL: M: 1 DRINKING FOUNTAIN: 0	TOILET: 3 UNISEX LAVATORY: 2 UNISEX URINAL: 1 DRINKING FOUNTAIN: 1
8	ACCESSIBILITY	SPACES ACCESSIBLE PER CBC 11B. MACHINERY SPACES FREQUENTED ONLY BY SERVICE PERSONNEL FOR MAINTENANCE, REPAIR, OR OCCASIONAL MONITORING OF EQUIPMENT ARE NOT REQUIRED TO COMPLY WITH ACCESSIBILITY REQUIREMENTS OR TO BE ON AN ACCESSIBLE ROUTE. PER CBC 11B-203.5		

All drawings and written material appearing herein constitute original and unpublished work of the architects and may not be duplicated, used or disclosed without written consent of the Architect.

ARCHITECT

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SHEET TITLE
CODE REVIEW

SOWTP MAINTENANCE BUILDING

Scale	MWA Project No.:
Drawn DE	202025
Designed TG	Sheet
Checked GR	A001
Issue Date 11/16/2021	

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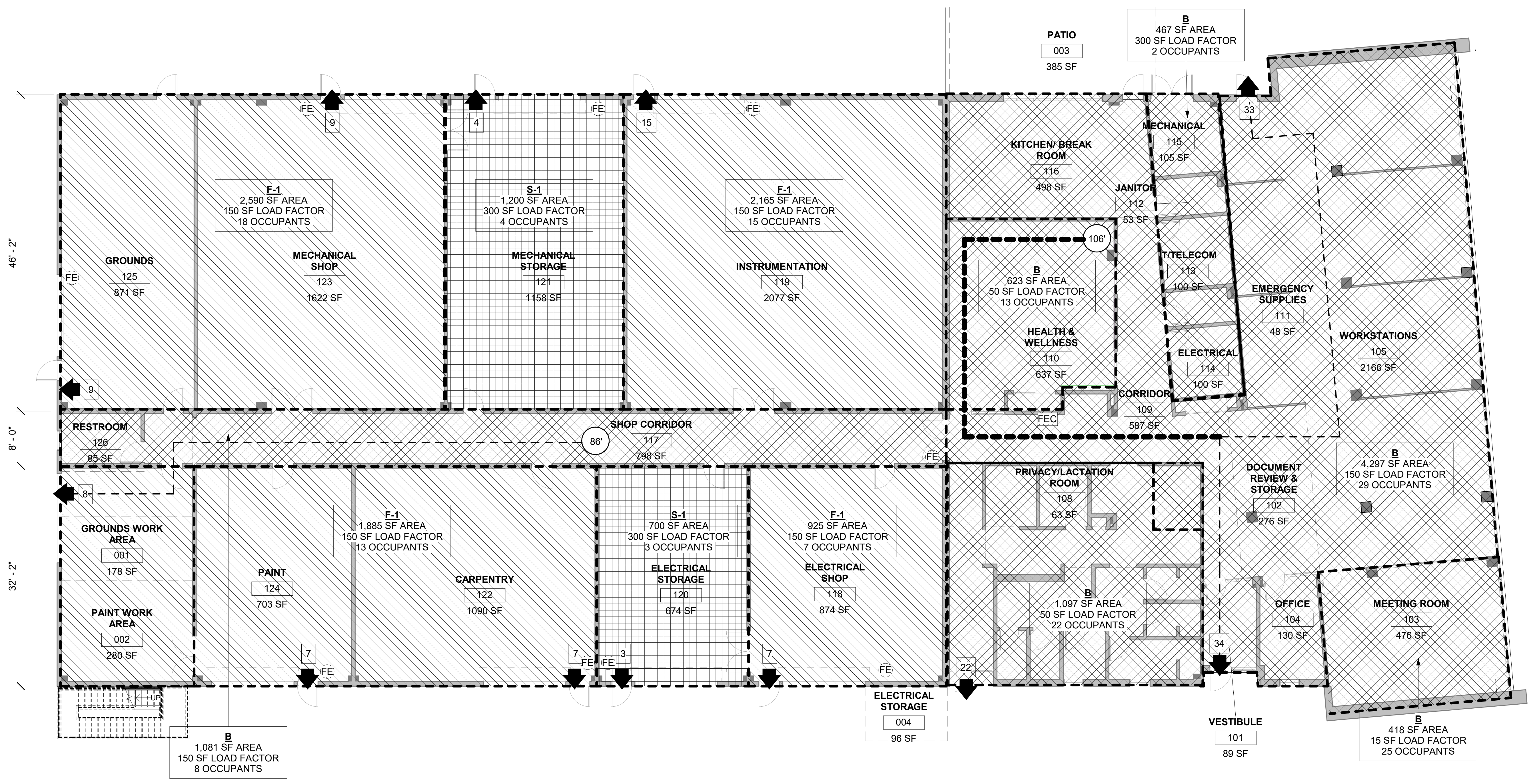
SHEET TITLE
CODE PLAN

SOWTP MAINTENANCE BUILDING

Scale	As indicated	MWA Project No.:	202025
Drawn	DE	Sheet	
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		A002

LEGEND

XX → OCCUPANT LOAD	- - - - PATH OF TRAVEL	F-1 ← OCCUPANCY TYPE
⊙ (XX) REMOTE POINT (BEGIN EGRESS)	●●●● COMMON PATH OF TRAVEL	← AREA
▨ B OCCUPANCY	- - - - AREA LINE BOUNDARY	← LOAD FACTOR
▧ F-1 OCCUPANCY	FE FIRE EXTINGUISHER CABINET	← OCCUPANT (S)
▩ S-1 OCCUPANCY	FEC FIRE EXTINGUISHER	



1 CODE PLAN
 1/8" = 1'-0"



EAST BAY MUNICIPAL UTILITIES DISTRICT
SOBRANTE WATER TREATMENT PLANT
5500 AMEND ROAD
EL SOBRANTE, CA 94803

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ARCHITECT

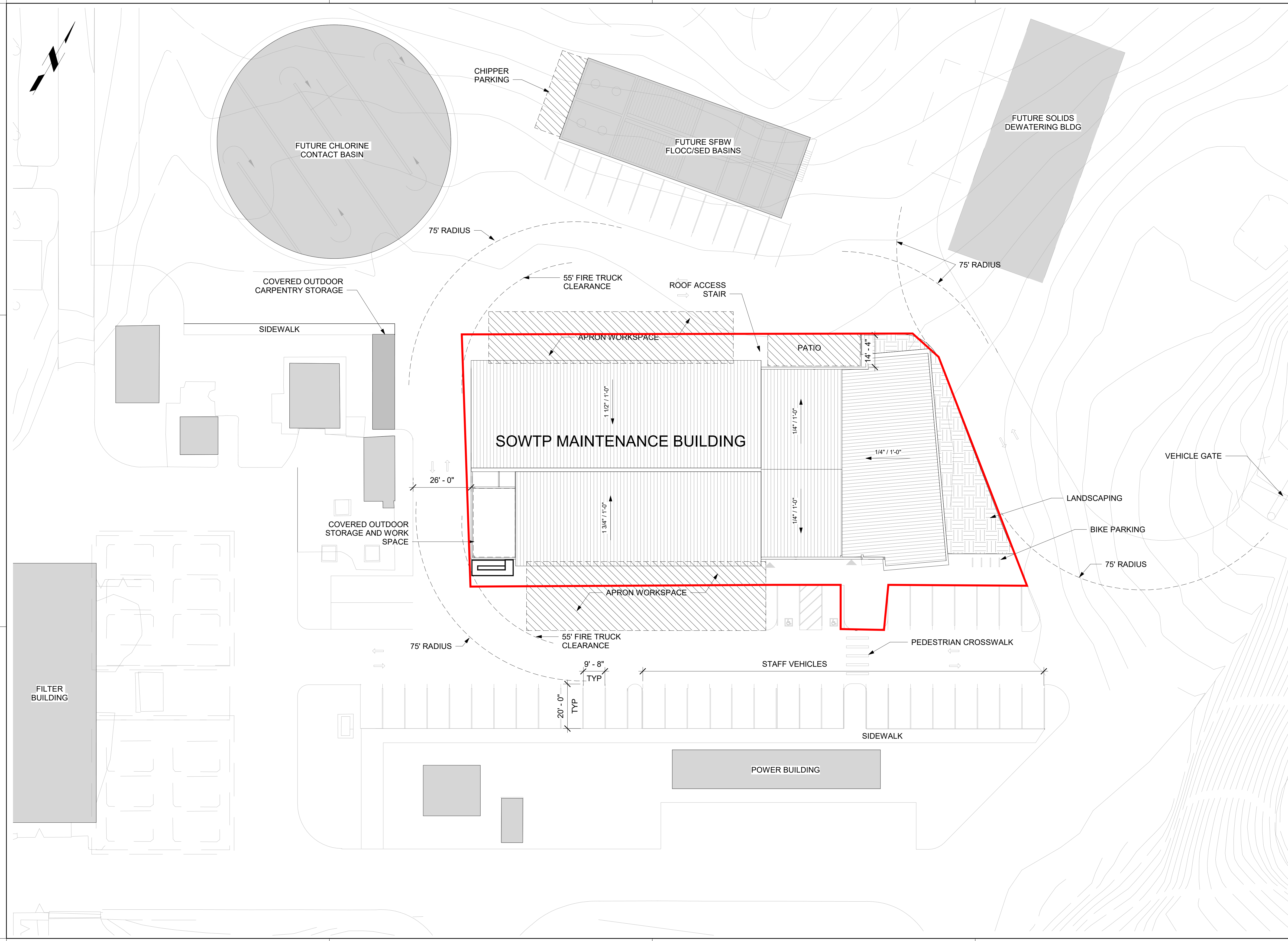


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SHEET TITLE
SITE PLAN

SOWTP MAINTENANCE BUILDING

Scale	1" = 20'-0"	MWA Project No.:	202025
Drawn	DE	Sheet	
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		A100



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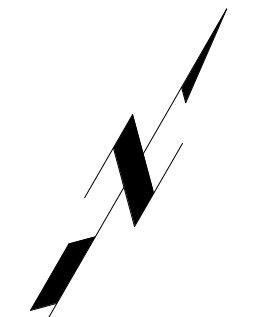


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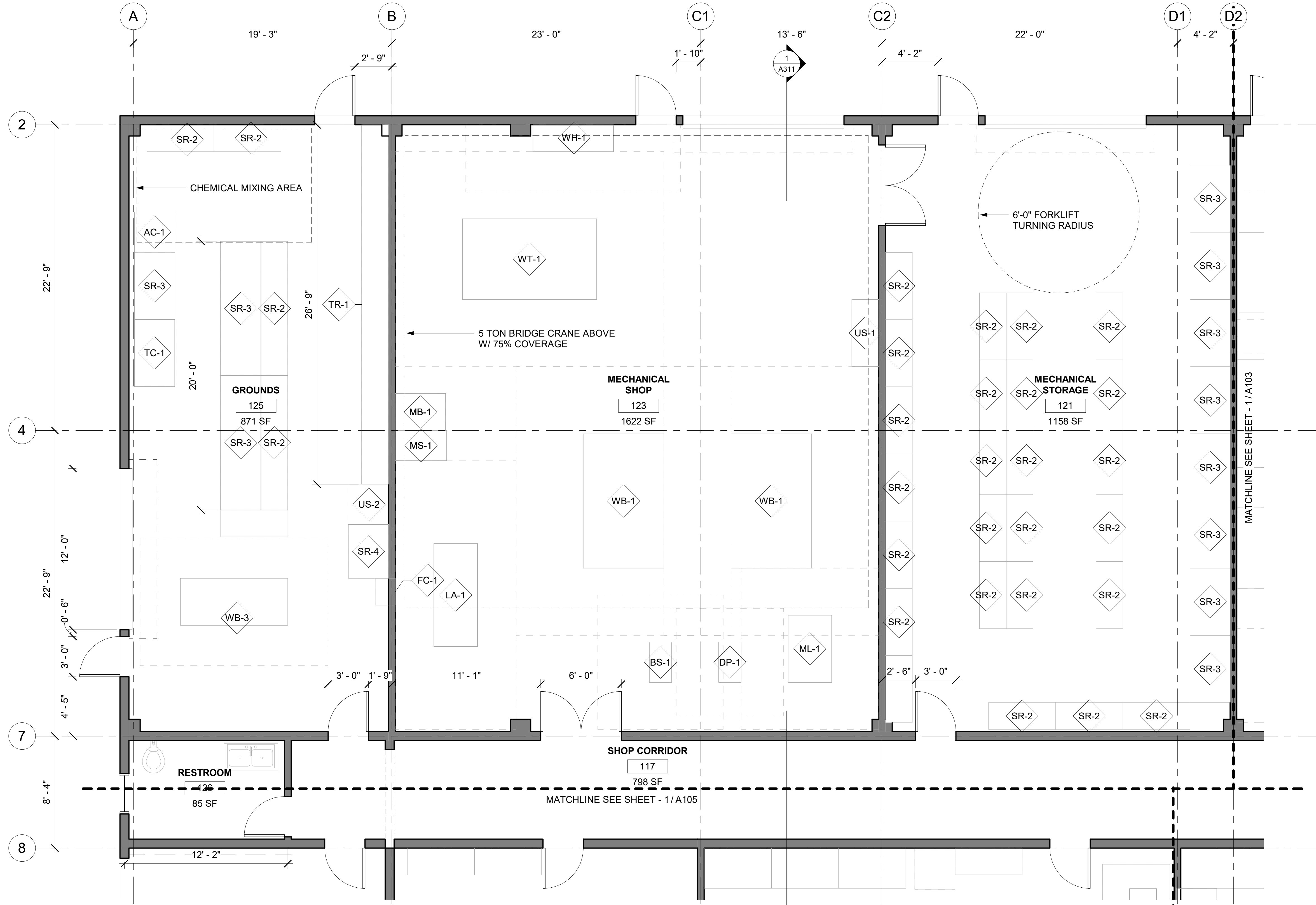
SHEET TITLE
OVERALL PLAN

SOWTP MAINTENANCE BUILDING

Scale	1/8" = 1'-0"	MWA Project No.:	202025
Drawn	DE	Sheet	A101
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		

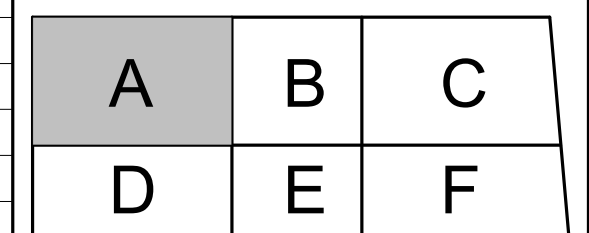


NOTES



EQUIPMENT SCHEDULE	
LABEL	EQUIPMENT NAME
AC-1	AIR COMPRESSOR
BS-1	BAND SAW
BS-2	BAND SAW/ CHOP SAW
BT-1	LARGE BREAKER TESTER
BT-2	SMALL CIRCUIT BREAKER TESTER
CB-1	CONDUIT BENDER
CS-1	CHARGING STATION
CT-1	CONDUIT THREADER
DC-1	DUST COLLECTION SYSTEM
DP-1	DRILL PRESS
DW-1	DISHWASHER
EL-1	ELLIPTICAL
ER-1	ELECTRIC RANGE
FC-1	FLAMMABLE CABINET
FR-1	REFRIGERATOR
FR-2	ICE MAKER
FS-1	FITNESS SYSTEM
JC-1	JIB CRANE
LA-1	LATHE
MB-1	SHEET METAL BRAKE
ML-1	MILL
MS-1	SHEET METAL SHEAR
SA-1	MITER SAW
SB-1	STATIONARY BIKE
SR-1	STORAGE RACK
SR-2	STORAGE RACK
SR-3	LARGE ITEM STORAGE RACK
SR-4	STORAGE RACK
ST-1	STORAGE CABINET
TC-1	TOOL CHEST
TE-1	TREADMILL
TG-1	TABLE GRINDER
TG-2	TABLE GRINDER
TR-1	TOOL RACK
TS-1	TABLE SAW
US-1	UTILITY SINK
US-2	UTILITY SINK
US-3	KITCHEN SINK
US-4	BOOT WASH
VH-1	VENT HOOD
WB-2	WORKTABLE
WB-3	WORKTABLE
WB-4	WORKTABLE
WB-5	WORKTABLE
WF-1	WATER FOUNTAIN
WH-1	WELDING HOOD
WR-1	WEIGHT BENCH
WS-2	WET WORK STATION
WS-3	TEST STATION
WT-1	WORKTABLE
YSI-1	YSI PROFILER

KEY PLAN



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SHEET TITLE

AREA PLAN A

SOWTP MAINTENANCE BUILDING

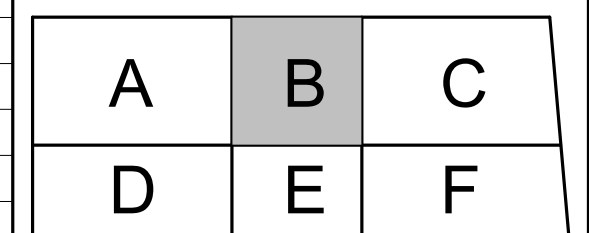
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Designed	TG		
Checked	GR		
Issue Date	11/16/2021		



EAST BAY MUNICIPAL UTILITIES DISTRICT
 SOBRANTE WATER TREATMENT PLANT
 5500 AMEND ROAD
 EL SOBRANTE, CA 94803

NOTES

KEY PLAN



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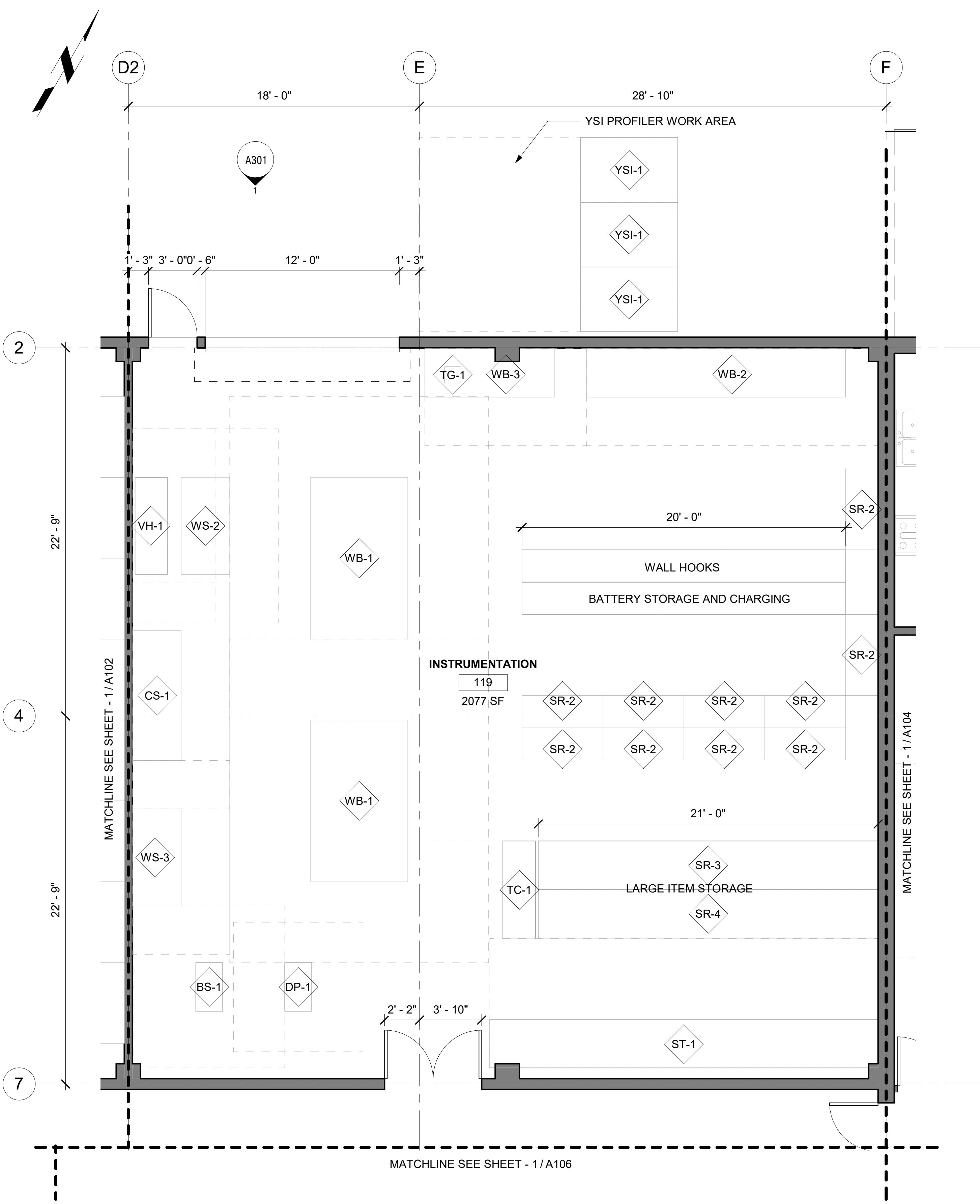


SHEET TITLE
 AREA PLAN B

SOWTP MAINTENANCE BUILDING

Scale	1/4" = 1'-0"	MWA Project No.:	202025
Drawn	DE	Sheet	A103
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		

EQUIPMENT SCHEDULE	
LABEL	EQUIPMENT NAME
AC-1	AIR COMPRESSOR
BS-1	BAND SAW
BS-2	BAND SAW/ CHOP SAW
BT-1	LARGE BREAKER TESTER
BT-2	SMALL CIRCUIT BREAKER TESTER
CB-1	CONDUIT BENDER
CS-1	CHARGING STATION
CT-1	CONDUIT THREADER
DC-1	DUST COLLECTION SYSTEM
DP-1	DRILL PRESS
DW-1	DISHWASHER
EL-1	ELLIPTICAL
ER-1	ELECTRIC RANGE
FC-1	FLAMMABLE CABINET
FR-1	REFRIGERATOR
FR-2	ICE MAKER
FS-1	FITNESS SYSTEM
JC-1	JIB CRANE
LA-1	LATHE
MB-1	SHEET METAL BRAKE
ML-1	MILL
MS-1	SHEET METAL SHEAR
SA-1	MITER SAW
SB-1	STATIONARY BIKE
SR-1	STORAGE RACK
SR-2	STORAGE RACK
SR-3	LARGE ITEM STORAGE RACK
SR-4	STORAGE RACK
ST-1	STORAGE CABINET
TC-1	TOOL CHEST
TE-1	TREADMILL
TG-1	TABLE GRINDER
TG-2	TABLE GRINDER
TR-1	TOOL RACK
TS-1	TABLE SAW
US-1	UTILITY SINK
US-2	UTILITY SINK
US-3	KITCHEN SINK
US-4	BOOT WASH
VH-1	VENT HOOD
WB-2	WORKTABLE
WB-3	WORKTABLE
WB-4	WORKTABLE
WB-5	WORKTABLE
WF-1	WATER FOUNTAIN
WH-1	WELDING HOOD
WR-1	WEIGHT BENCH
WS-2	WET WORK STATION
WS-3	TEST STATION
WT-1	WORKTABLE
YSI-1	YSI PROFILER

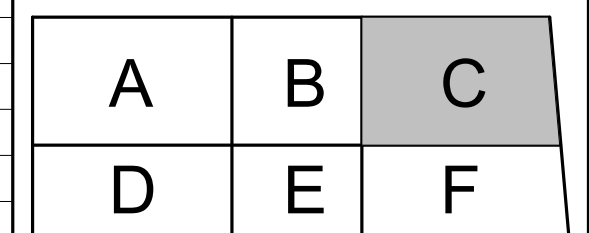




EAST BAY MUNICIPAL UTILITIES DISTRICT
 SOBRANTE WATER TREATMENT PLANT
 5500 AMEND ROAD
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NOTES

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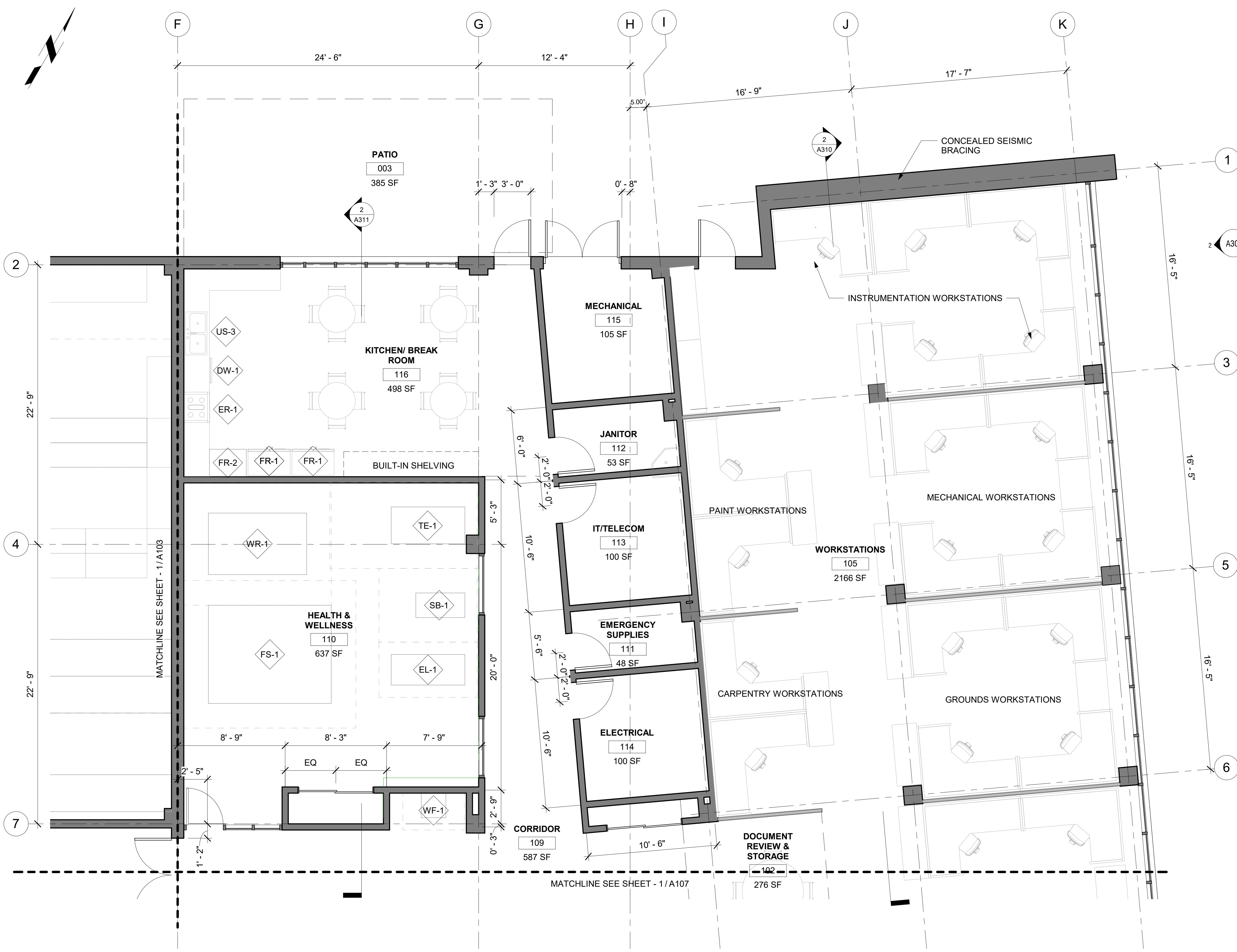


SHEET TITLE
AREA PLAN C

SOWTP MAINTENANCE BUILDING

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Drawn	DE	Sheet	A104
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		

EQUIPMENT SCHEDULE	
LABEL	EQUIPMENT NAME
AC-1	AIR COMPRESSOR
BS-1	BAND SAW
BS-2	BAND SAW/ CHOP SAW
BT-1	LARGE BREAKER TESTER
BT-2	SMALL CIRCUIT BREAKER TESTER
CB-1	CONDUIT BENDER
CS-1	CHARGING STATION
CT-1	CONDUIT THREADER
DC-1	DUST COLLECTION SYSTEM
DP-1	DRILL PRESS
DW-1	DISHWASHER
EL-1	ELLIPTICAL
ER-1	ELECTRIC RANGE
FC-1	FLAMMABLE CABINET
FR-1	REFRIGERATOR
FR-2	ICE MAKER
FS-1	FITNESS SYSTEM
JC-1	JIB CRANE
LA-1	LATHE
MB-1	SHEET METAL BRAKE
ML-1	MILL
MS-1	SHEET METAL SHEAR
SA-1	MITER SAW
SB-1	STATIONARY BIKE
SR-1	STORAGE RACK
SR-2	STORAGE RACK
SR-3	LARGE ITEM STORAGE RACK
SR-4	STORAGE RACK
ST-1	STORAGE CABINET
TC-1	TOOL CHEST
TE-1	TREADMILL
TG-1	TABLE GRINDER
TG-2	TABLE GRINDER
TR-1	TOOL RACK
TS-1	TABLE SAW
US-1	UTILITY SINK
US-2	UTILITY SINK
US-3	KITCHEN SINK
US-4	BOOT WASH
VH-1	VENT HOOD
WB-2	WORKTABLE
WB-3	WORKTABLE
WB-4	WORKTABLE
WB-5	WORKTABLE
WF-1	WATER FOUNTAIN
WH-1	WELDING HOOD
WR-1	WEIGHT BENCH
WS-2	WET WORK STATION
WS-3	TEST STATION
WT-1	WORKTABLE
YSI-1	YSI PROFILER



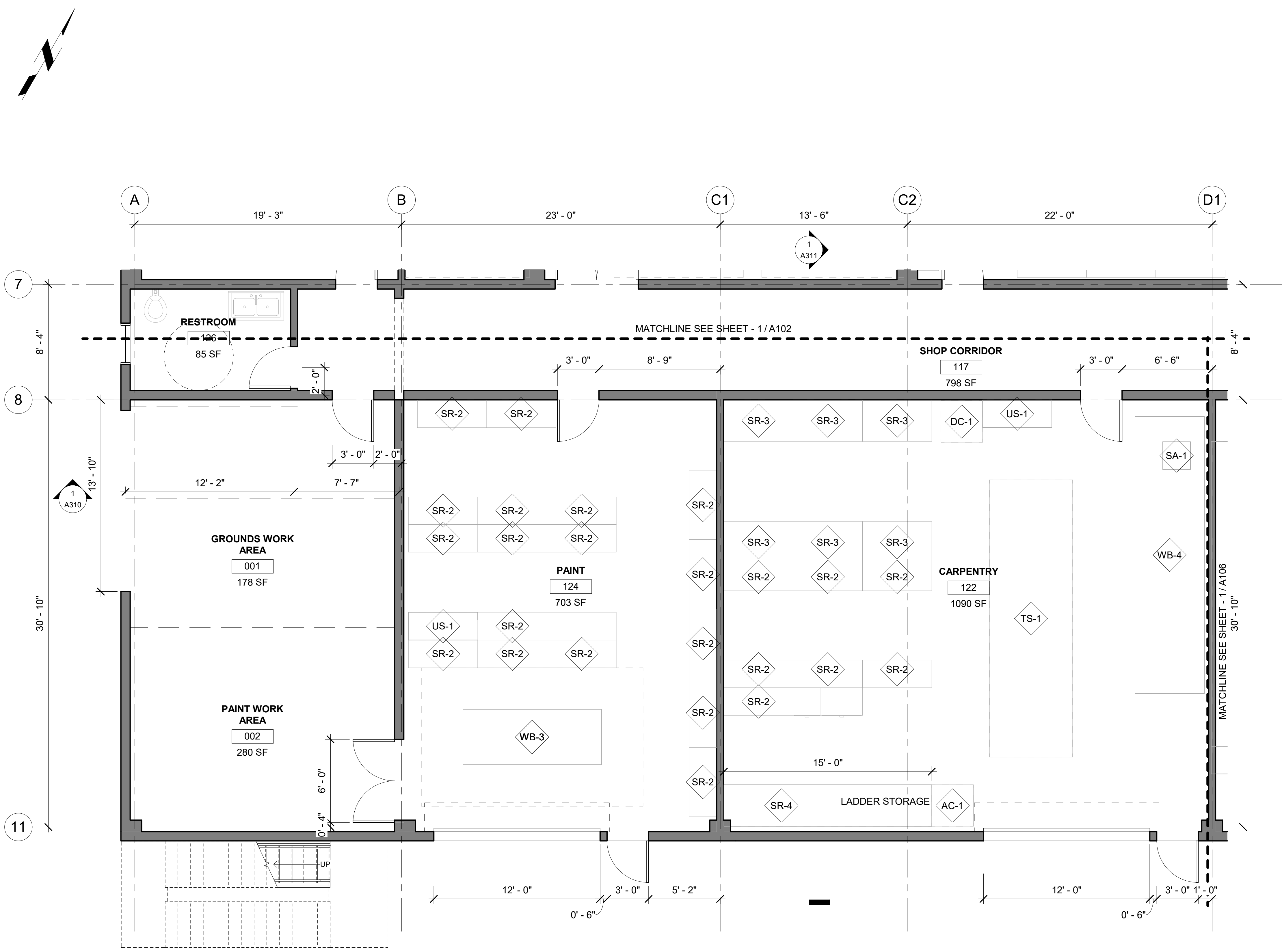
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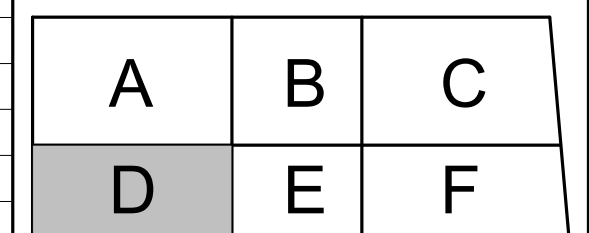
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3
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6

NOTES



EQUIPMENT SCHEDULE	
LABEL	EQUIPMENT NAME
AC-1	AIR COMPRESSOR
BS-1	BAND SAW
BS-2	BAND SAW/ CHOP SAW
BT-1	LARGE BREAKER TESTER
BT-2	SMALL CIRCUIT BREAKER TESTER
CB-1	CONDUIT BENDER
CS-1	CHARGING STATION
CT-1	CONDUIT THREADER
DC-1	DUST COLLECTION SYSTEM
DP-1	DRILL PRESS
DW-1	DISHWASHER
EL-1	ELLIPTICAL
ER-1	ELECTRIC RANGE
FC-1	FLAMMABLE CABINET
FR-1	REFRIGERATOR
FR-2	ICE MAKER
FS-1	FITNESS SYSTEM
JC-1	JIB CRANE
LA-1	LATHE
MB-1	SHEET METAL BRAKE
ML-1	MILL
MS-1	SHEET METAL SHEAR
SA-1	MITER SAW
SB-1	STATIONARY BIKE
SR-1	STORAGE RACK
SR-2	STORAGE RACK
SR-3	LARGE ITEM STORAGE RACK
SR-4	STORAGE RACK
ST-1	STORAGE CABINET
TC-1	TOOL CHEST
TE-1	TREADMILL
TG-1	TABLE GRINDER
TG-2	TABLE GRINDER
TR-1	TOOL RACK
TS-1	TABLE SAW
US-1	UTILITY SINK
US-2	UTILITY SINK
US-3	KITCHEN SINK
US-4	BOOT WASH
VH-1	VENT HOOD
WB-2	WORKTABLE
WB-3	WORKTABLE
WB-4	WORKTABLE
WB-5	WORKTABLE
WF-1	WATER FOUNTAIN
WH-1	WELDING HOOD
WR-1	WEIGHT BENCH
WS-2	WET WORK STATION
WS-3	TEST STATION
WT-1	WORKTABLE
YSI-1	YSI PROFILER

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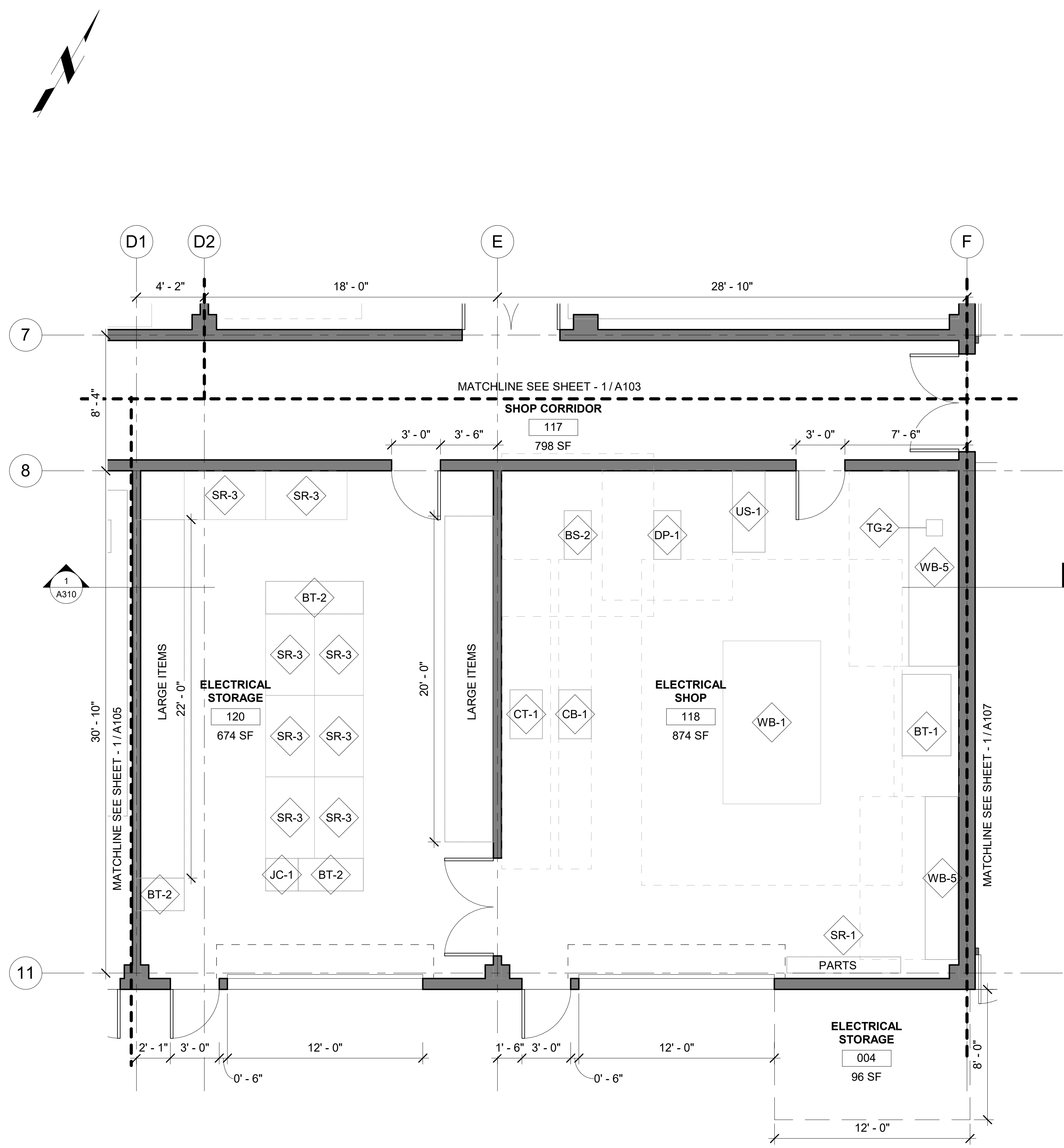
SHEET TITLE

AREA PLAN D

SOWTP MAINTENANCE BUILDING

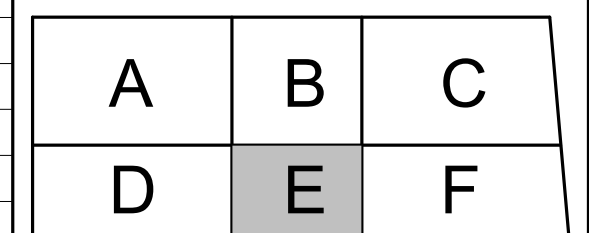
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Drawn	DE	Sheet	A105
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		

NOTES



EQUIPMENT SCHEDULE	
LABEL	EQUIPMENT NAME
AC-1	AIR COMPRESSOR
BS-1	BAND SAW
BS-2	BAND SAW/ CHOP SAW
BT-1	LARGE BREAKER TESTER
BT-2	SMALL CIRCUIT BREAKER TESTER
CB-1	CONDUIT BENDER
CS-1	CHARGING STATION
CT-1	CONDUIT THREADER
DC-1	DUST COLLECTION SYSTEM
DP-1	DRILL PRESS
DW-1	DISHWASHER
EL-1	ELLIPTICAL
ER-1	ELECTRIC RANGE
FC-1	FLAMMABLE CABINET
FR-1	REFRIGERATOR
FR-2	ICE MAKER
FS-1	FITNESS SYSTEM
JC-1	JIB CRANE
LA-1	LATHE
MB-1	SHEET METAL BRAKE
ML-1	MILL
MS-1	SHEET METAL SHEAR
SA-1	MITER SAW
SB-1	STATIONARY BIKE
SR-1	STORAGE RACK
SR-2	STORAGE RACK
SR-3	LARGE ITEM STORAGE RACK
SR-4	STORAGE RACK
ST-1	STORAGE CABINET
TC-1	TOOL CHEST
TE-1	TREADMILL
TG-1	TABLE GRINDER
TG-2	TABLE GRINDER
TR-1	TOOL RACK
TS-1	TABLE SAW
US-1	UTILITY SINK
US-2	UTILITY SINK
US-3	KITCHEN SINK
US-4	BOOT WASH
VH-1	VENT HOOD
WB-2	WORKTABLE
WB-3	WORKTABLE
WB-4	WORKTABLE
WB-5	WORKTABLE
WF-1	WATER FOUNTAIN
WH-1	WELDING HOOD
WR-1	WEIGHT BENCH
WS-2	WET WORK STATION
WS-3	TEST STATION
WT-1	WORKTABLE
YSI-1	YSI PROFILER

KEY PLAN



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SHEET TITLE
AREA PLAN E

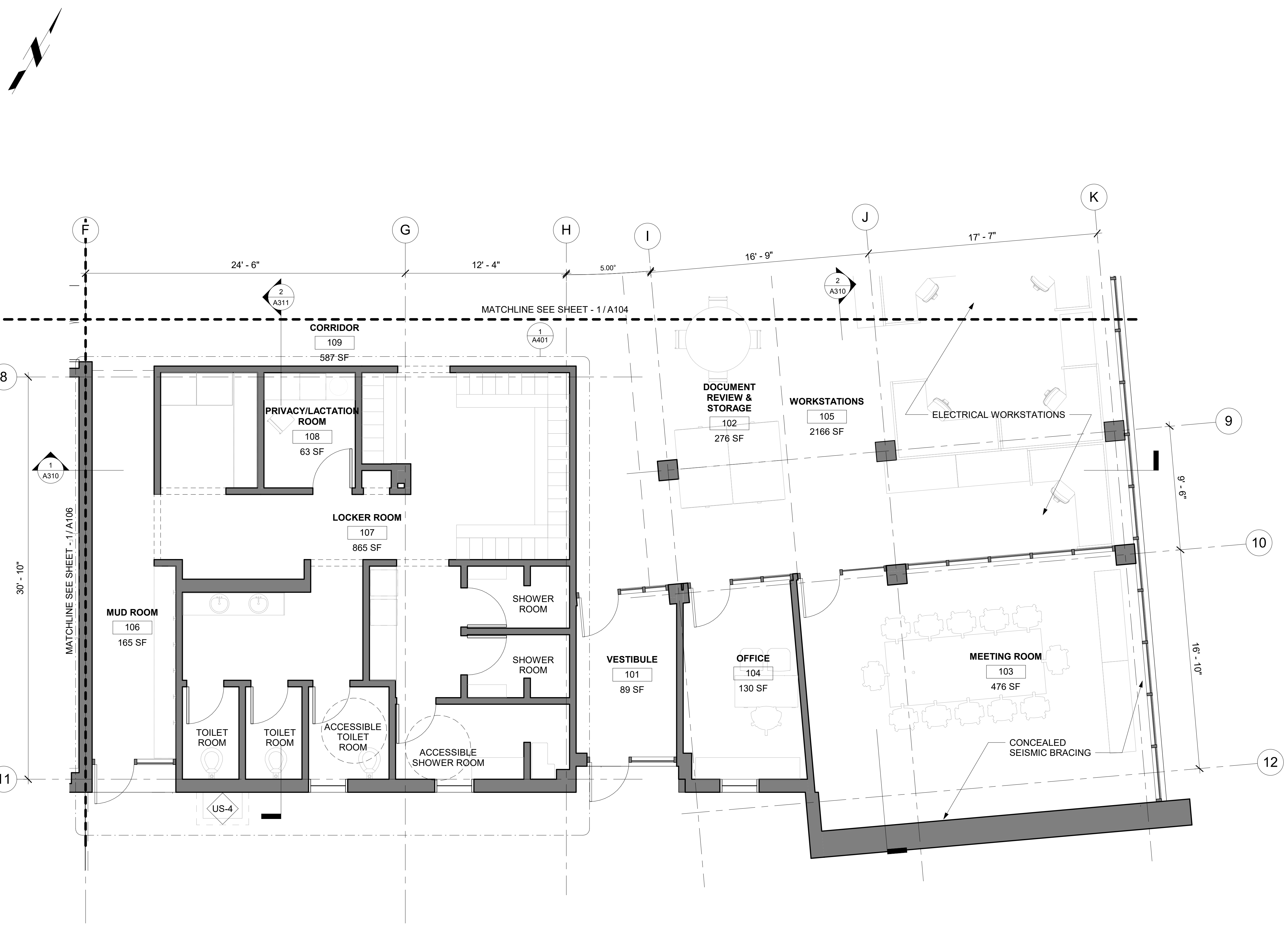
SOWTP MAINTENANCE BUILDING

Scale	1/4" = 1'-0"	MWA Project No.:	202025
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Designed	TG		
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Issue Date	11/16/2021		



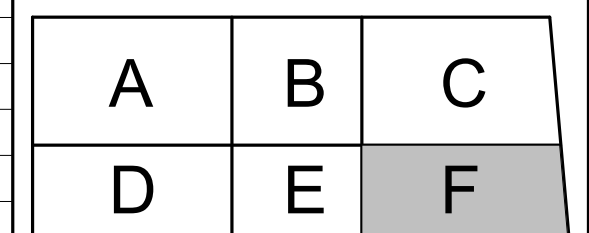
EAST BAY MUNICIPAL UTILITIES DISTRICT
 SOBRANTE WATER TREATMENT PLANT
 5500 AMEND ROAD
 EL SOBRANTE, CA 94803

NOTES



EQUIPMENT SCHEDULE	
LABEL	EQUIPMENT NAME
AC-1	AIR COMPRESSOR
BS-1	BAND SAW
BS-2	BAND SAW/ CHOP SAW
BT-1	LARGE BREAKER TESTER
BT-2	SMALL CIRCUIT BREAKER TESTER
CB-1	CONDUIT BENDER
CS-1	CHARGING STATION
CT-1	CONDUIT THREADER
DC-1	DUST COLLECTION SYSTEM
DP-1	DRILL PRESS
DW-1	DISHWASHER
EL-1	ELLIPTICAL
ER-1	ELECTRIC RANGE
FC-1	FLAMMABLE CABINET
FR-1	REFRIGERATOR
FR-2	ICE MAKER
FS-1	FITNESS SYSTEM
JC-1	JIB CRANE
LA-1	LATHE
MB-1	SHEET METAL BRAKE
ML-1	MILL
MS-1	SHEET METAL SHEAR
SA-1	MITER SAW
SB-1	STATIONARY BIKE
SR-1	STORAGE RACK
SR-2	STORAGE RACK
SR-3	LARGE ITEM STORAGE RACK
SR-4	STORAGE RACK
ST-1	STORAGE CABINET
TC-1	TOOL CHEST
TE-1	TREADMILL
TG-1	TABLE GRINDER
TG-2	TABLE GRINDER
TR-1	TOOL RACK
TS-1	TABLE SAW
US-1	UTILITY SINK
US-2	UTILITY SINK
US-3	KITCHEN SINK
US-4	BOOT WASH
VH-1	VENT HOOD
WB-2	WORKTABLE
WB-3	WORKTABLE
WB-4	WORKTABLE
WB-5	WORKTABLE
WF-1	WATER FOUNTAIN
WH-1	WELDING HOOD
WR-1	WEIGHT BENCH
WS-2	WET WORK STATION
WS-3	TEST STATION
WT-1	WORKTABLE
YSI-1	YSI PROFILER

KEY PLAN



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SHEET TITLE

AREA PLAN F

SOWTP MAINTENANCE BUILDING

Scale	1/4" = 1'-0"	MWA Project No.:	202025
Drawn	DE	Sheet	A107
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		



EAST BAY MUNICIPAL UTILITIES DISTRICT
SOBRANTE WATER TREATMENT PLANT
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EL SOBRANTE, CA 94803

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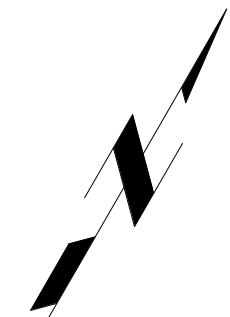
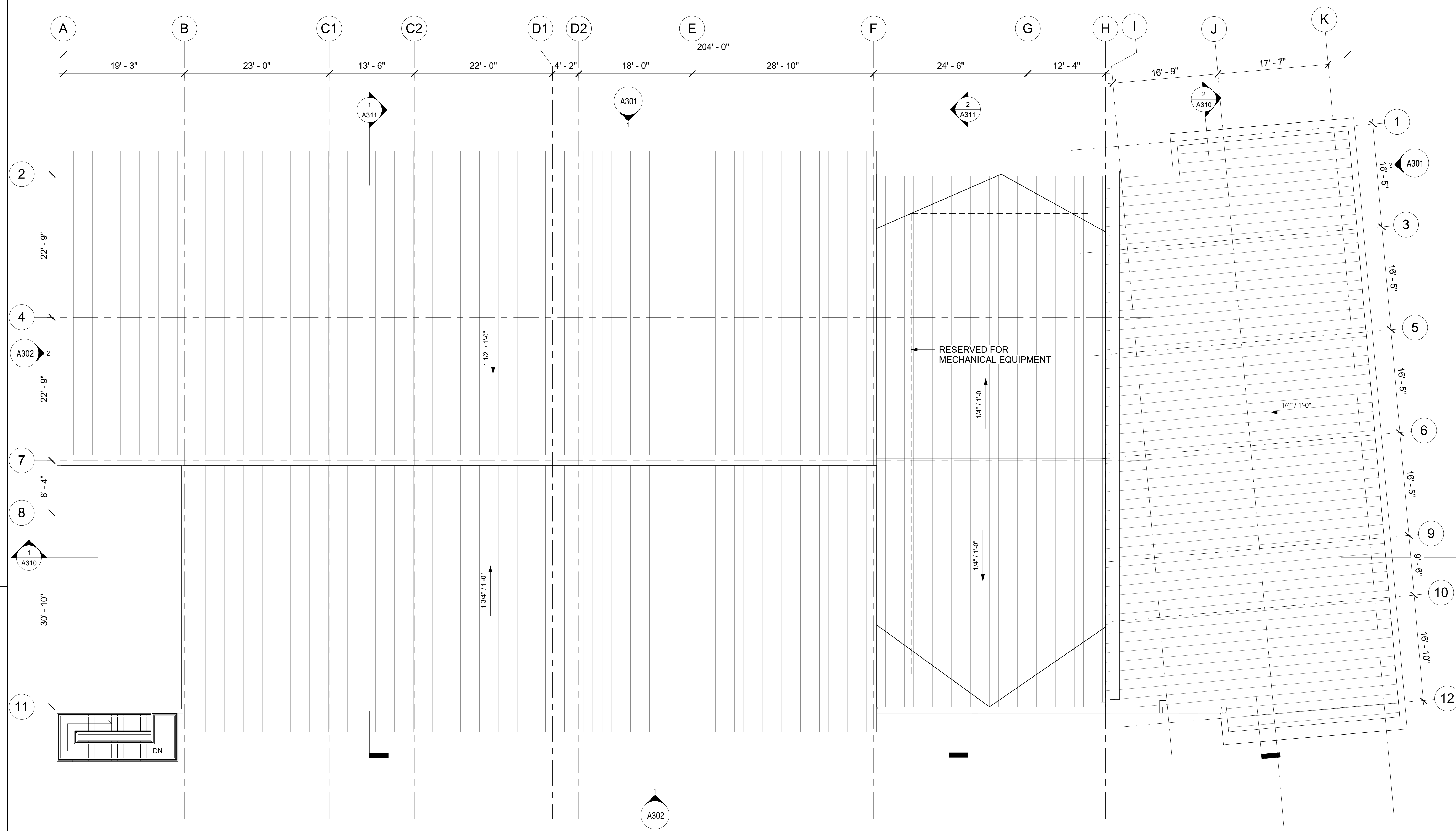


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SHEET TITLE
ROOF PLAN

SOWTP MAINTENANCE BUILDING

Scale	1/8" = 1'-0"	MWA Project No.:	202025
Drawn	DE	Sheet	A110
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		



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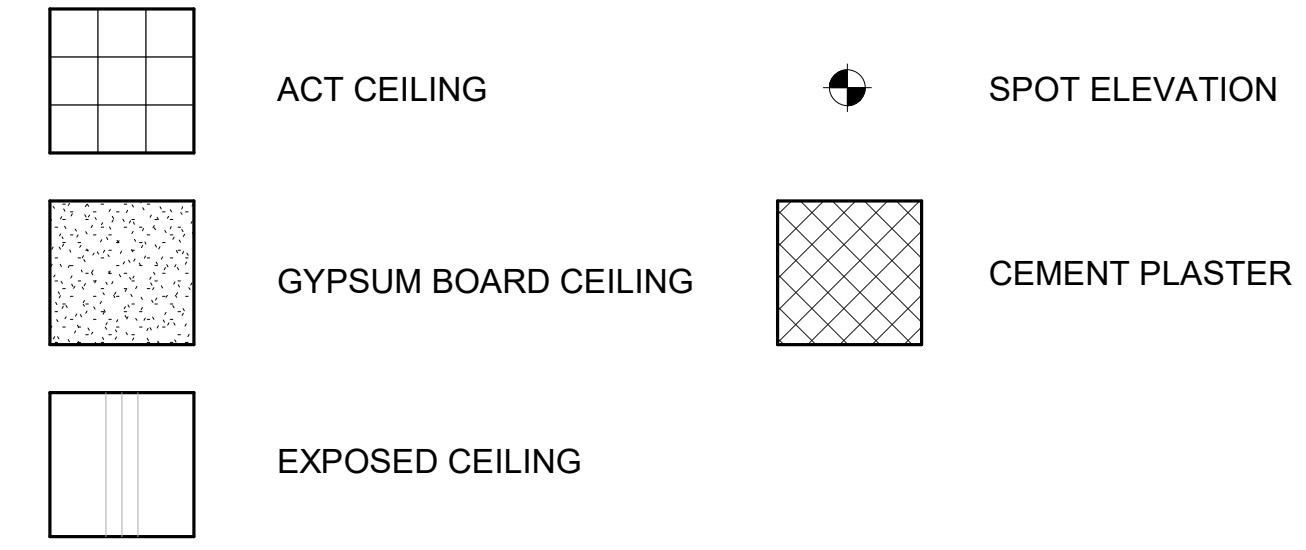
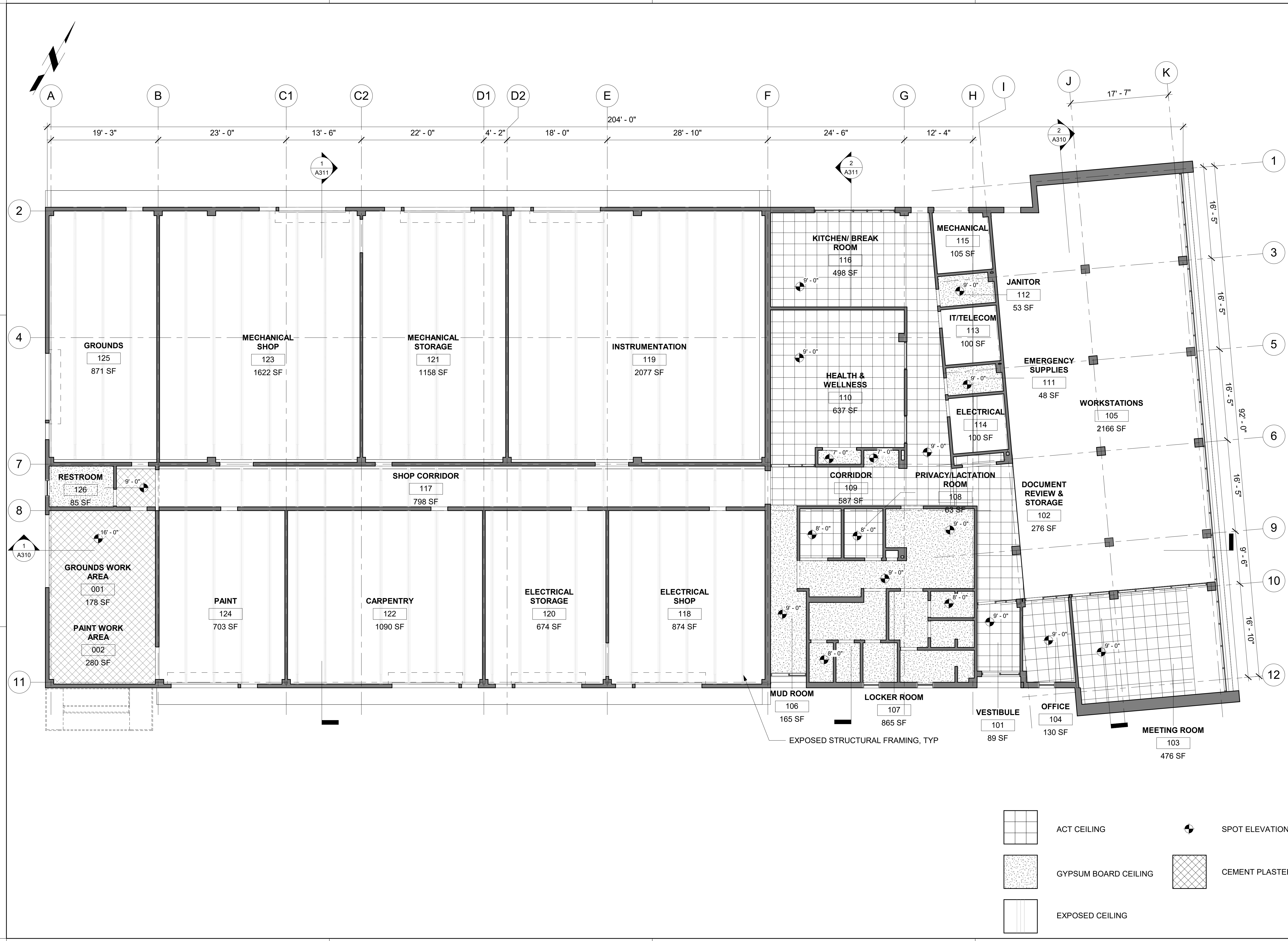


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SHEET TITLE
REFLECTED CEILING PLAN

SOWTP MAINTENANCE BUILDING

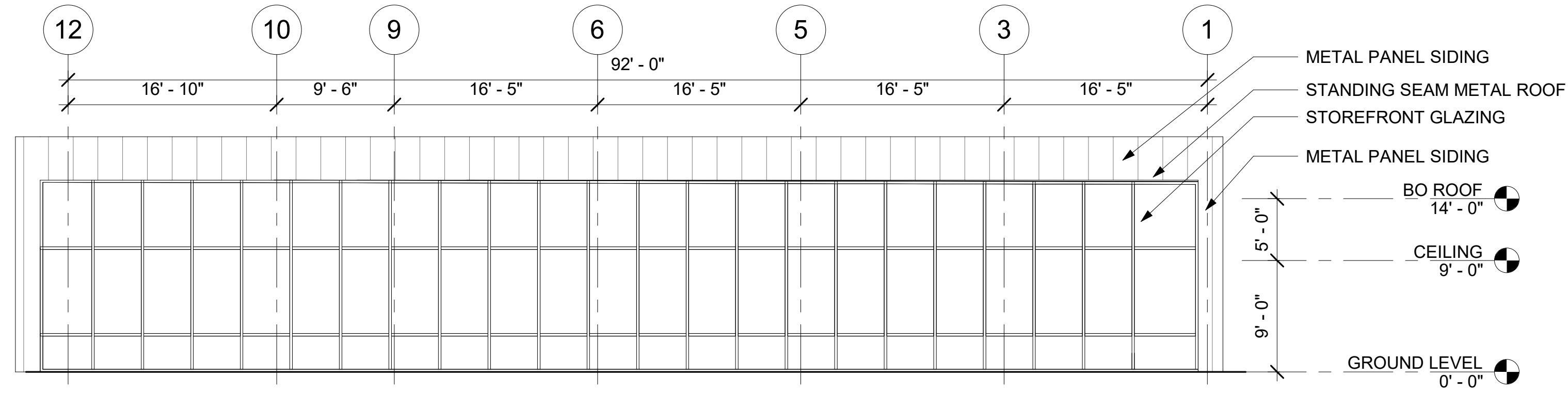
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Issue Date	11/16/2021		A201



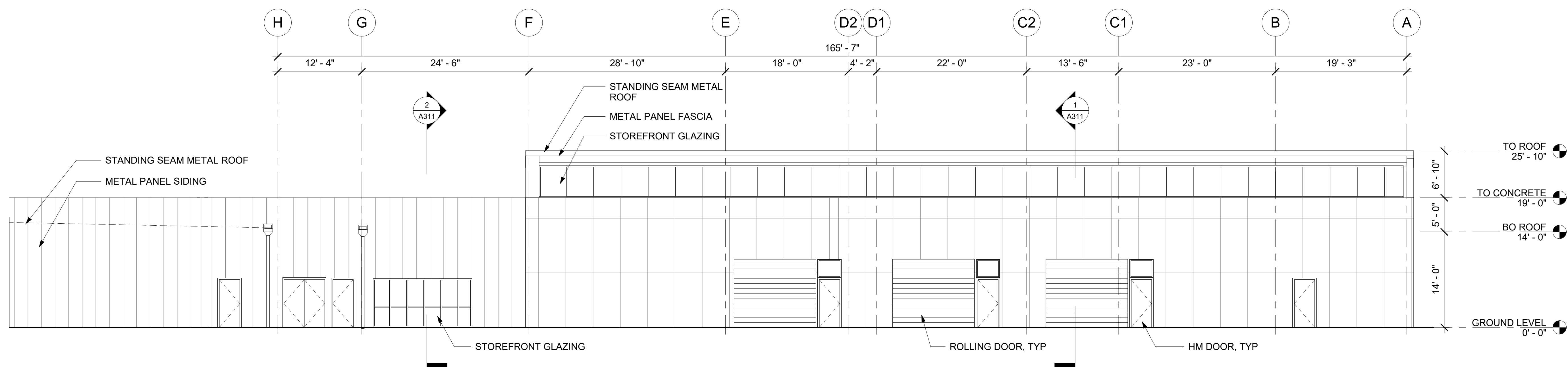


EAST BAY MUNICIPAL UTILITIES DISTRICT
 SOBRANTE WATER TREATMENT PLANT
 5500 AMEND ROAD
 EL SOBRANTE, CA 94803

NOTES



2 NORTH ELEVATION
 1/8" = 1'-0"



1 WEST ELEVATION
 1/8" = 1'-0"

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SHEET TITLE

BUILDING ELEVATIONS

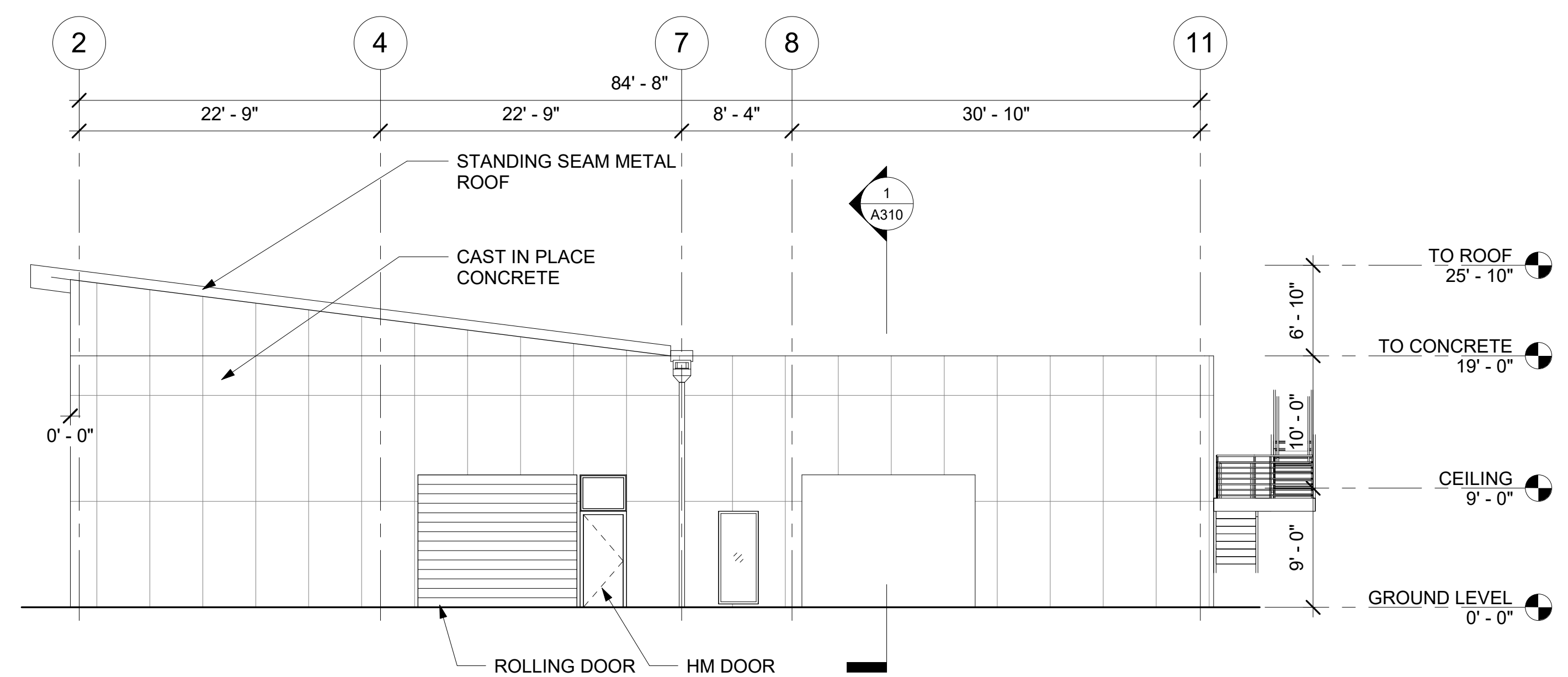
SOWTP MAINTENANCE BUILDING

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Drawn	DE	Sheet	A301
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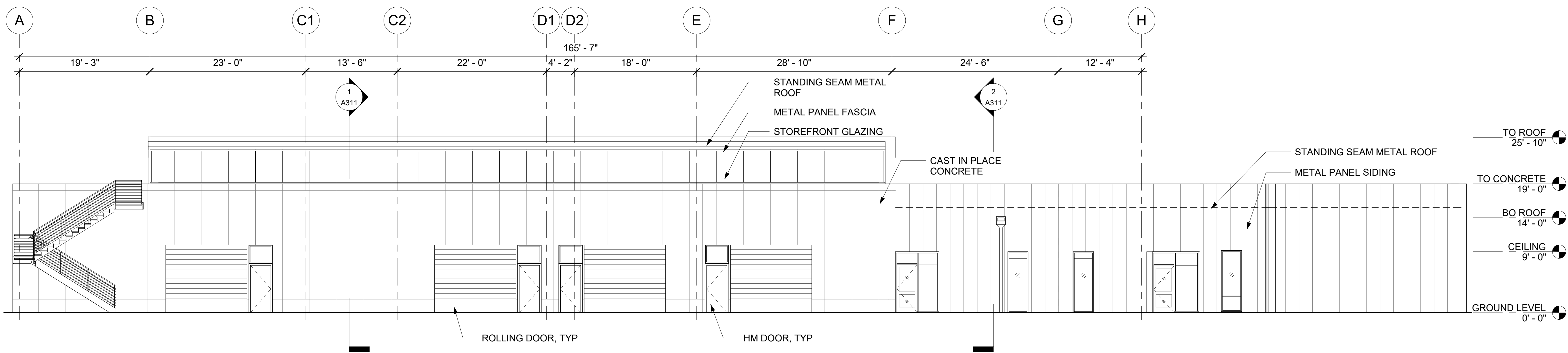


EAST BAY MUNICIPAL UTILITIES DISTRICT
 SOBRANTE WATER TREATMENT PLANT
 5500 AMEND ROAD
 EL SOBRANTE, CA 94803

NOTES



2 SOUTH ELEVATION
 1/8" = 1'-0"



1 EAST ELEVATION
 1/8" = 1'-0"

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SHEET TITLE
BUILDING ELEVATIONS

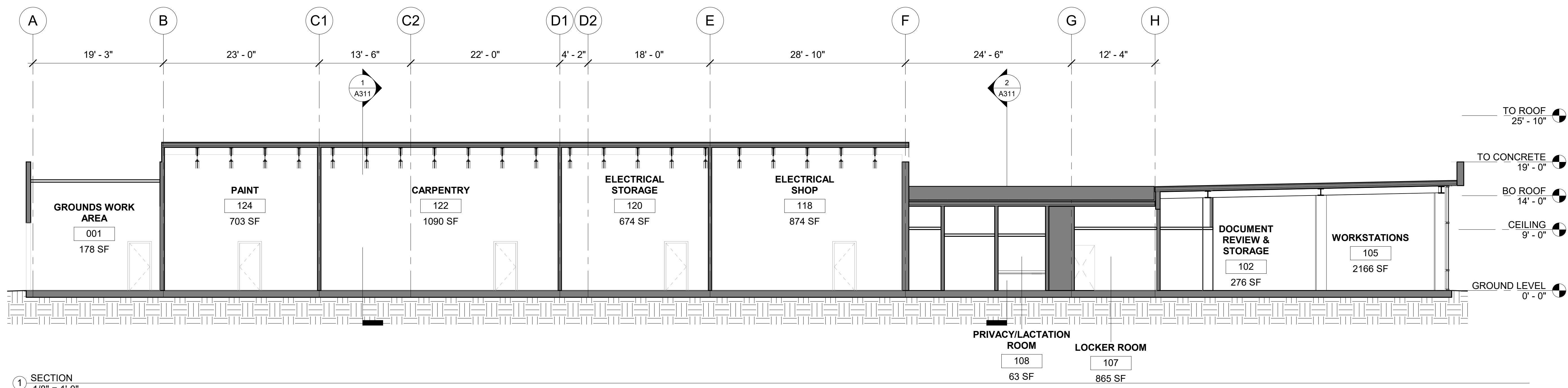
SOWTP MAINTENANCE BUILDING

Scale	1/8" = 1'-0"	MWA Project No.:	202025
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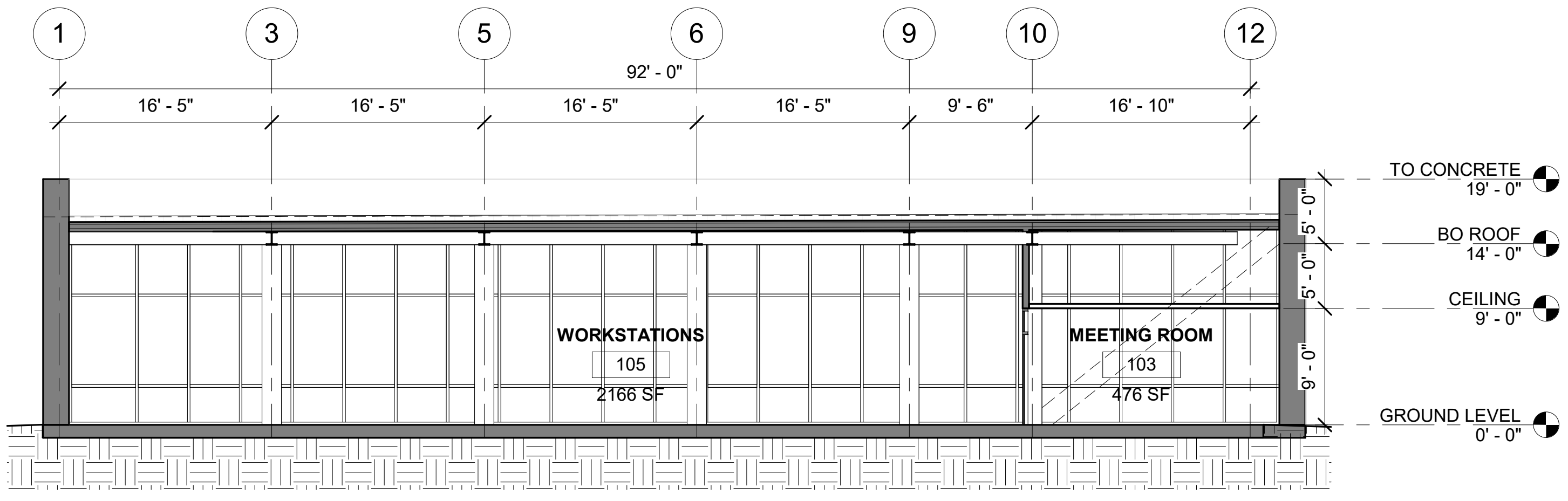


EAST BAY MUNICIPAL UTILITIES DISTRICT
SOBRANTE WATER TREATMENT PLANT
5500 AMEND ROAD
EL SOBRANTE, CA 94803

NOTES



1 SECTION
1/8" = 1'-0"



2 SECTION
1/8" = 1'-0"

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SHEET TITLE
BUILDING SECTIONS

SOWTP MAINTENANCE BUILDING

Scale	1/8" = 1'-0"	MWA Project No.:	202025
Drawn	DE	Sheet	
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		

A310

NOTES

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ARCHITECT

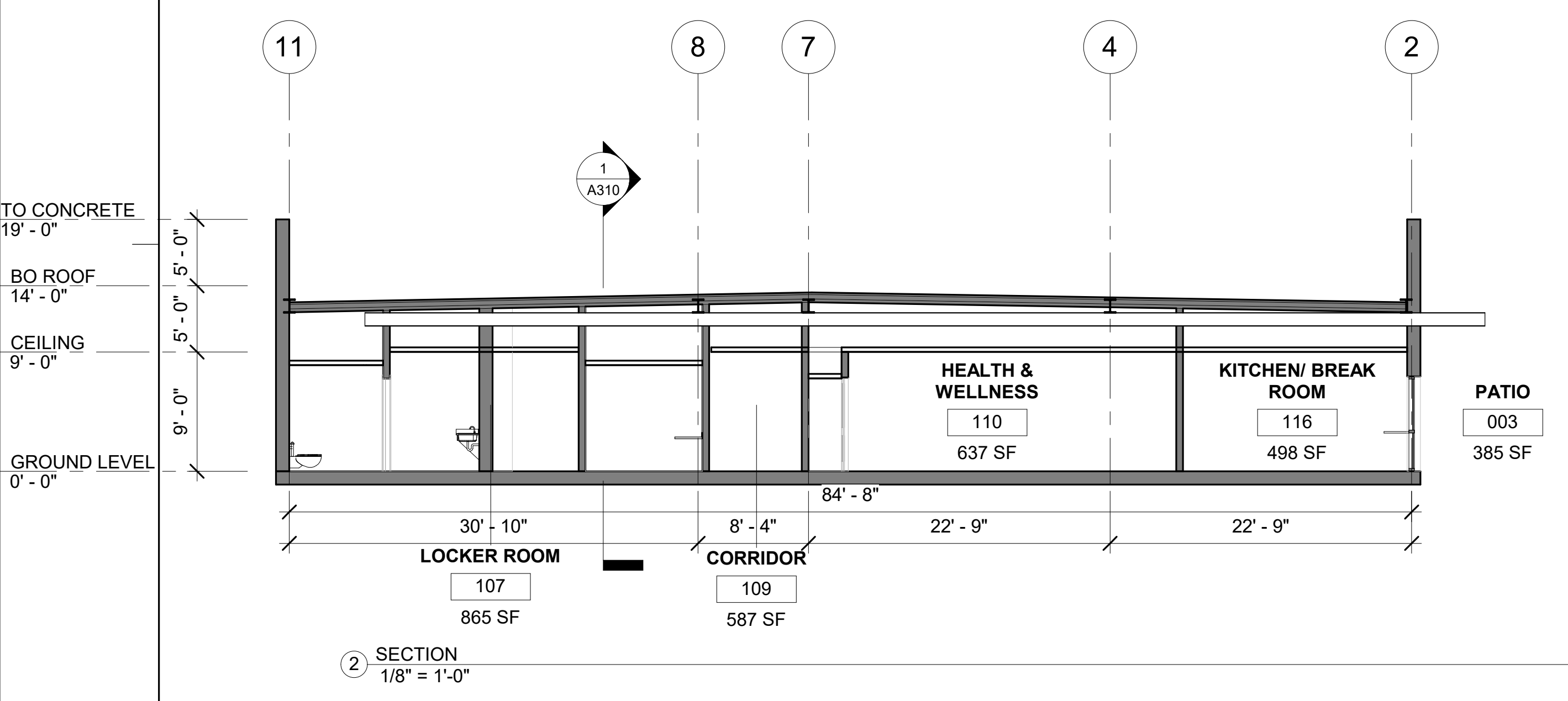
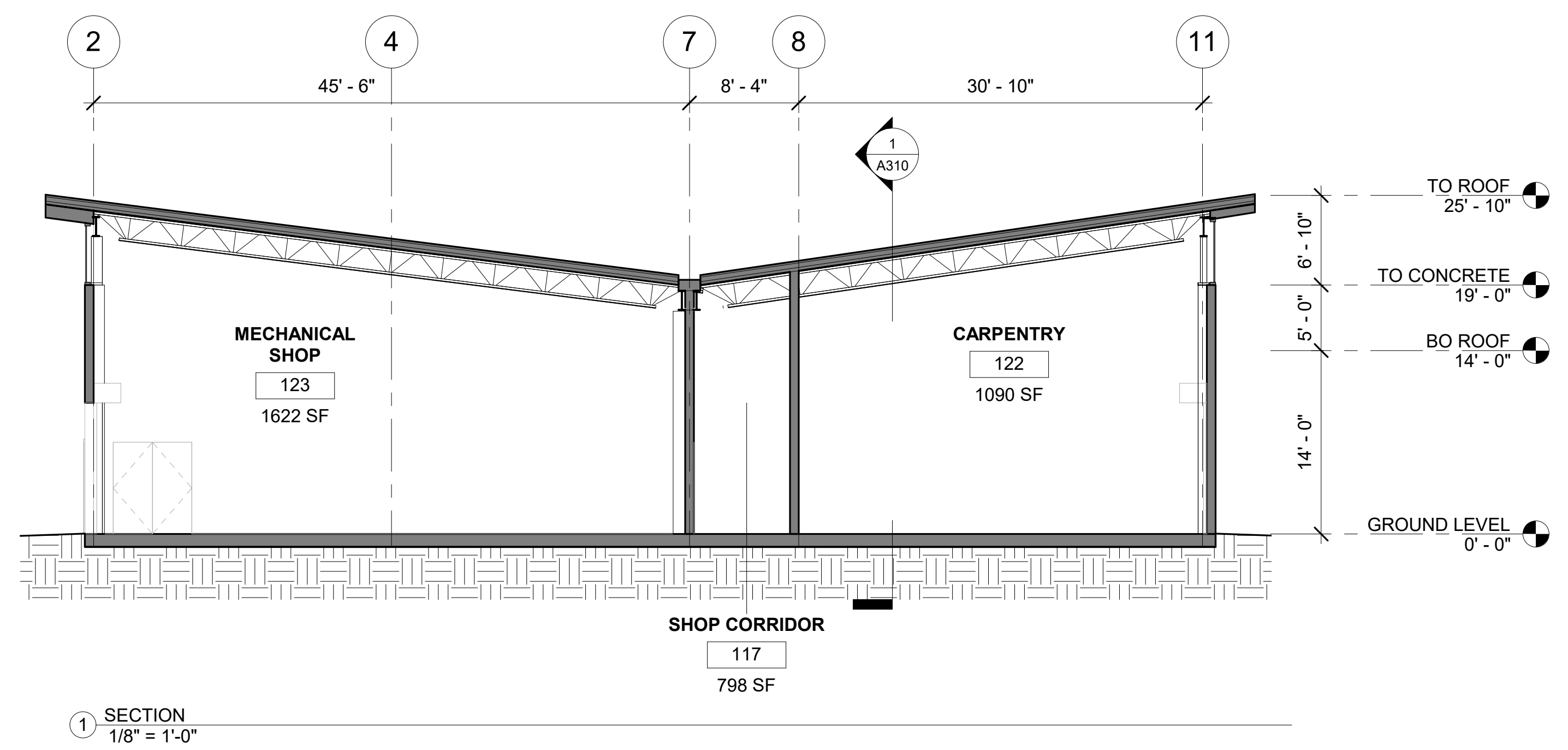
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 SAN FRANCISCO, CA 94105
 T: (415)957 2750
 F: (415)957 2780

SHEET TITLE
 BUILDING SECTIONS

SOWTP MAINTENANCE BUILDING

Scale	1/8" = 1'-0"	MWA Project No.:	202025
Drawn	DE	Sheet	
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		

A311



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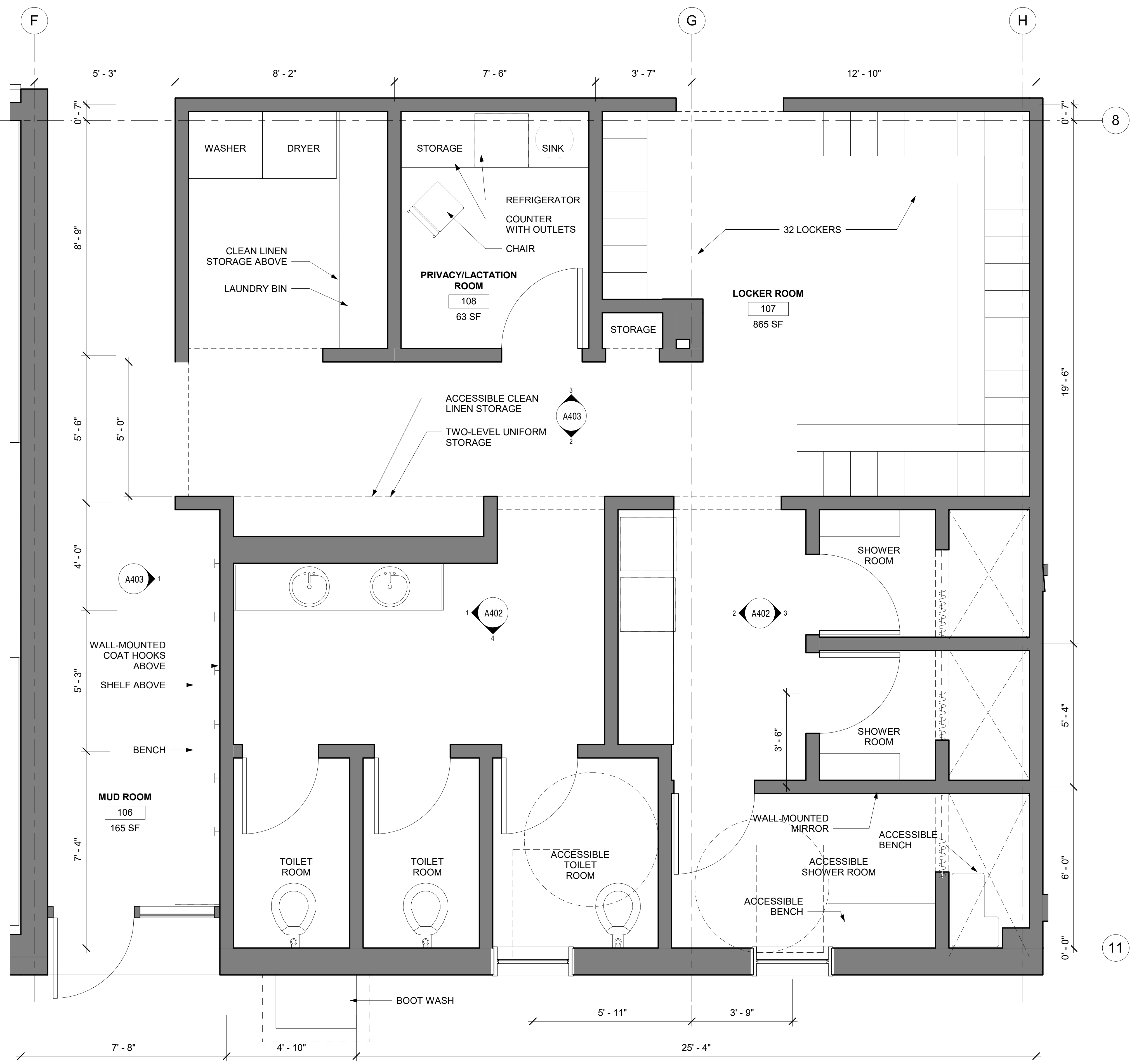
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SHEET TITLE

ENLARGED DRAWINGS - LOCKER ROOM

SOWTP MAINTENANCE BUILDING

Scale	1/2" = 1'-0"	MWA Project No.:	202025
Drawn	DE	Sheet	
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		A401

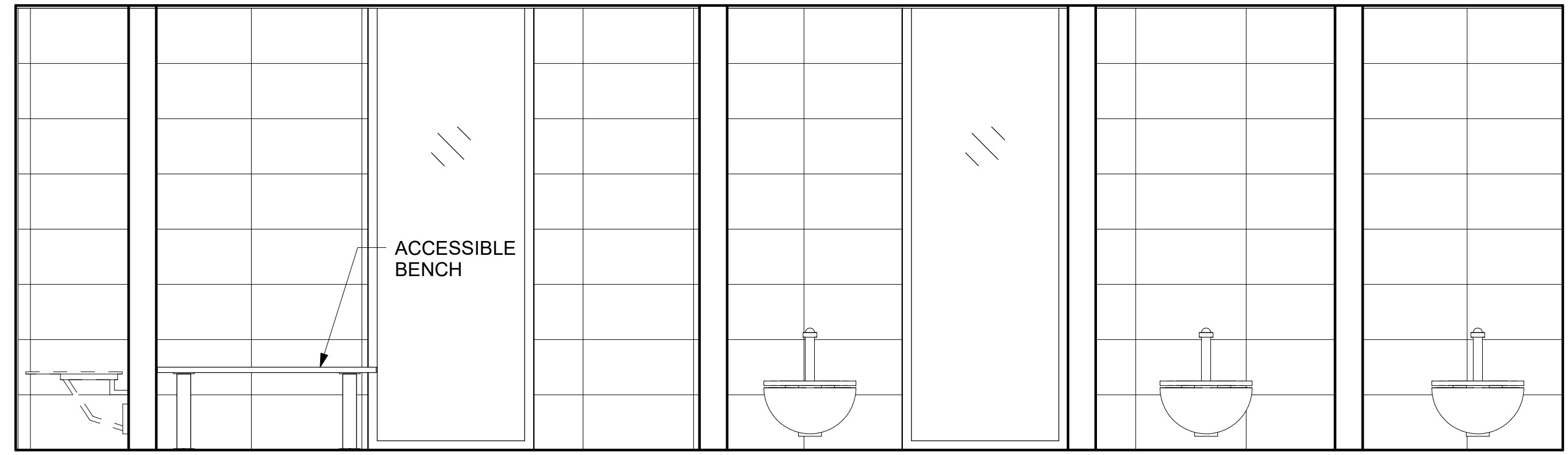


1 ENLARGED - LOCKER ROOM
1/2" = 1'-0"

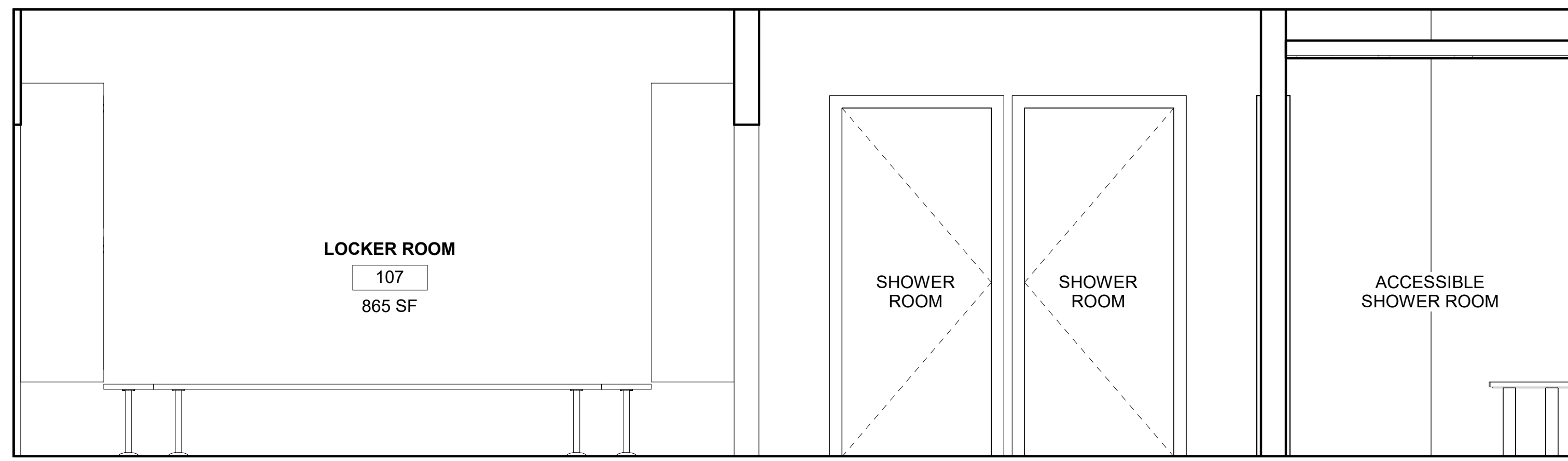


EAST BAY MUNICIPAL UTILITIES DISTRICT
SOBRANTE WATER TREATMENT PLANT
5500 AMEND ROAD
EL SOBRANTE, CA 94803

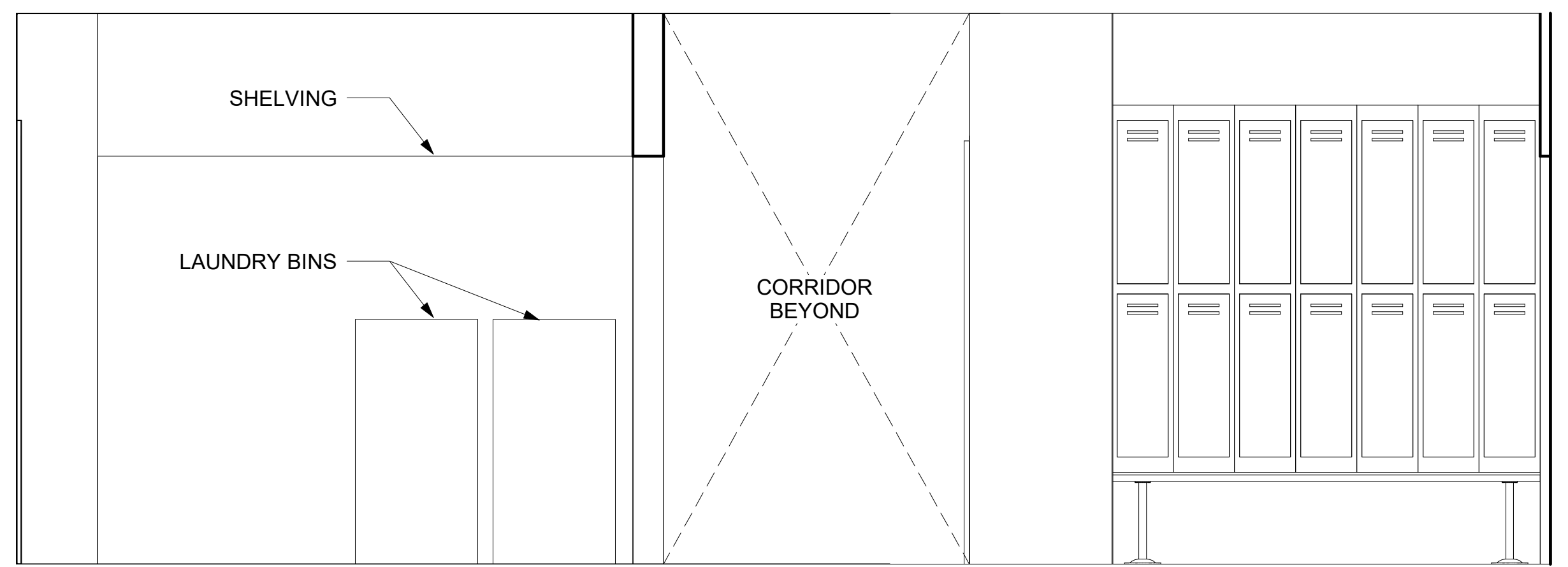
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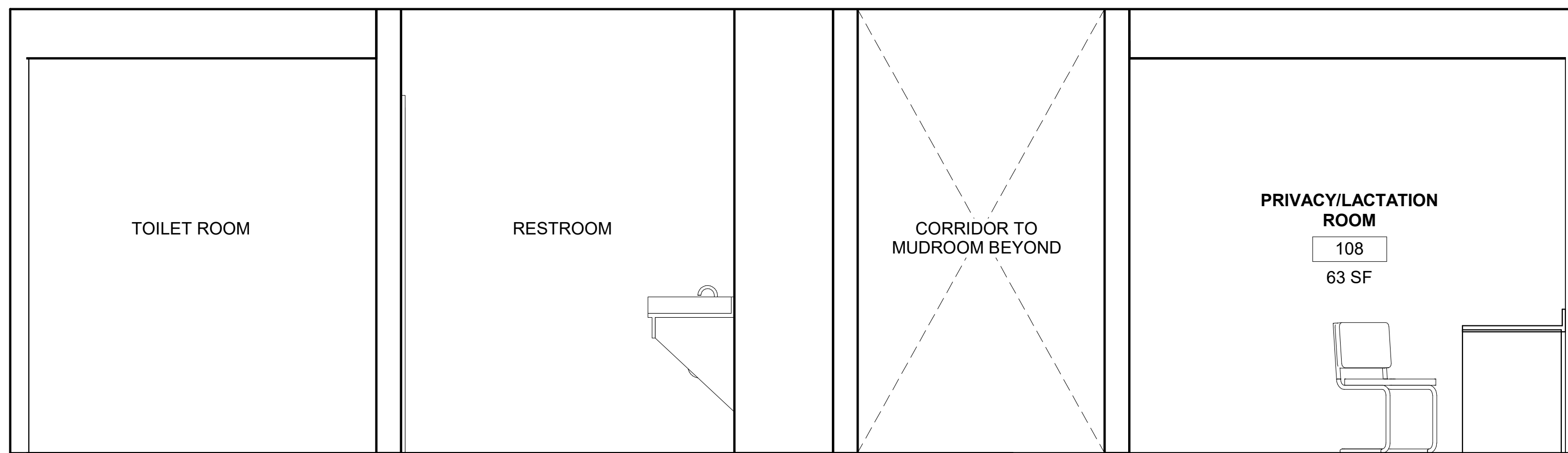
4 LOCKER AREA EAST
1/2" = 1'-0"



3 INTERIOR ELEVATION - LOCKER ROOM
1/2" = 1'-0"



2 INTERIOR ELEVATION - LOCKER ROOM
1/2" = 1'-0"



1 INTERIOR ELEVATION - RESTROOM
1/2" = 1'-0"

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SHEET TITLE

ENLARGED
DRAWINGS -
LOCKER ROOM

SOWTP MAINTENANCE BUILDING

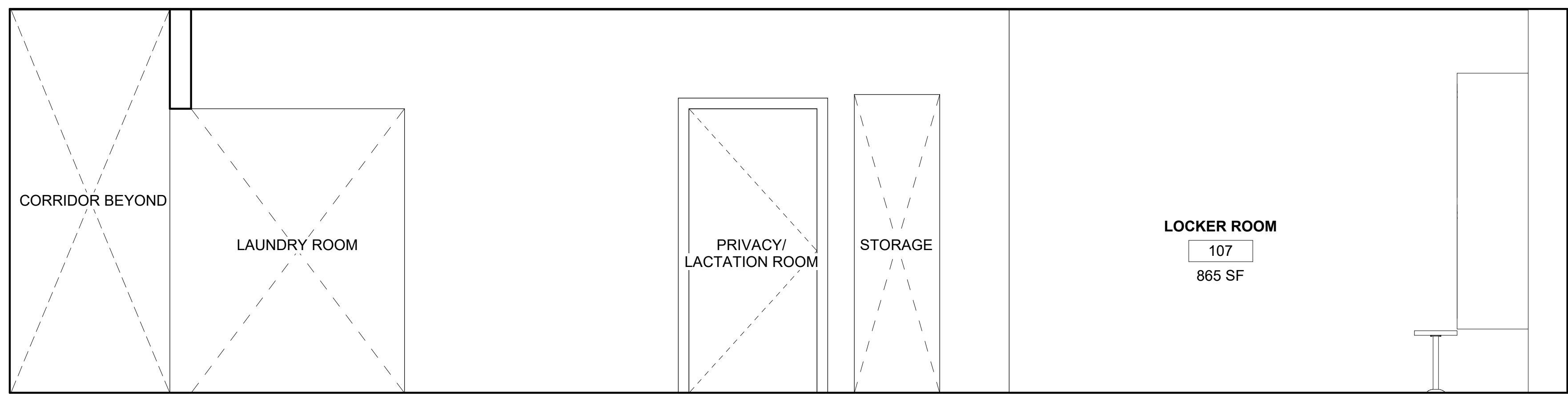
Scale	1/2" = 1'-0"	MWA Project No.:	202025
Drawn	DE	Sheet	
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		

A402

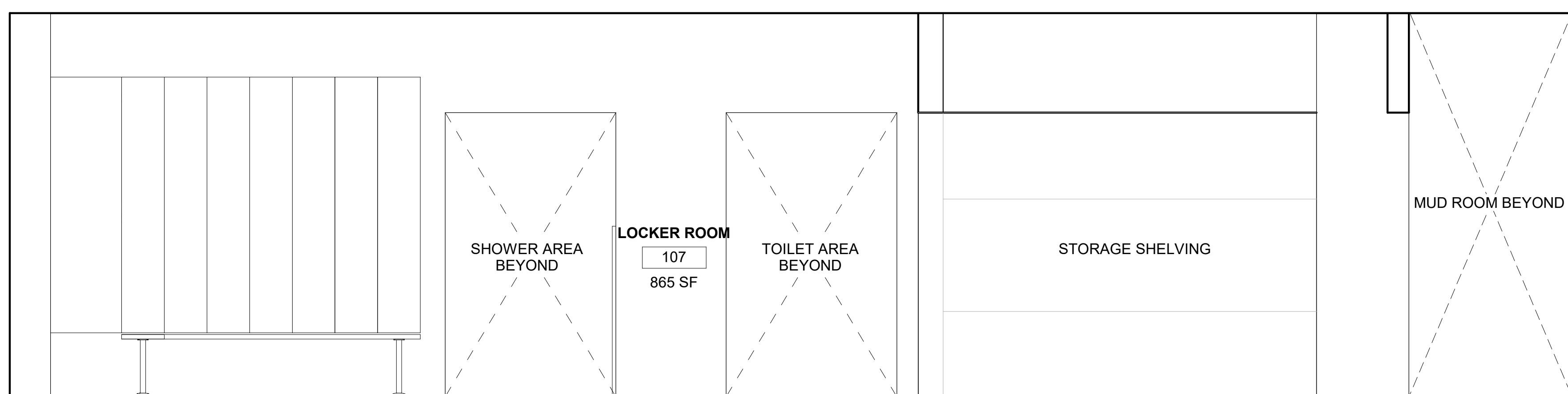


EAST BAY MUNICIPAL UTILITIES DISTRICT
SOBRANTE WATER TREATMENT PLANT
5500 AMEND ROAD
EL SOBRANTE, CA 94803

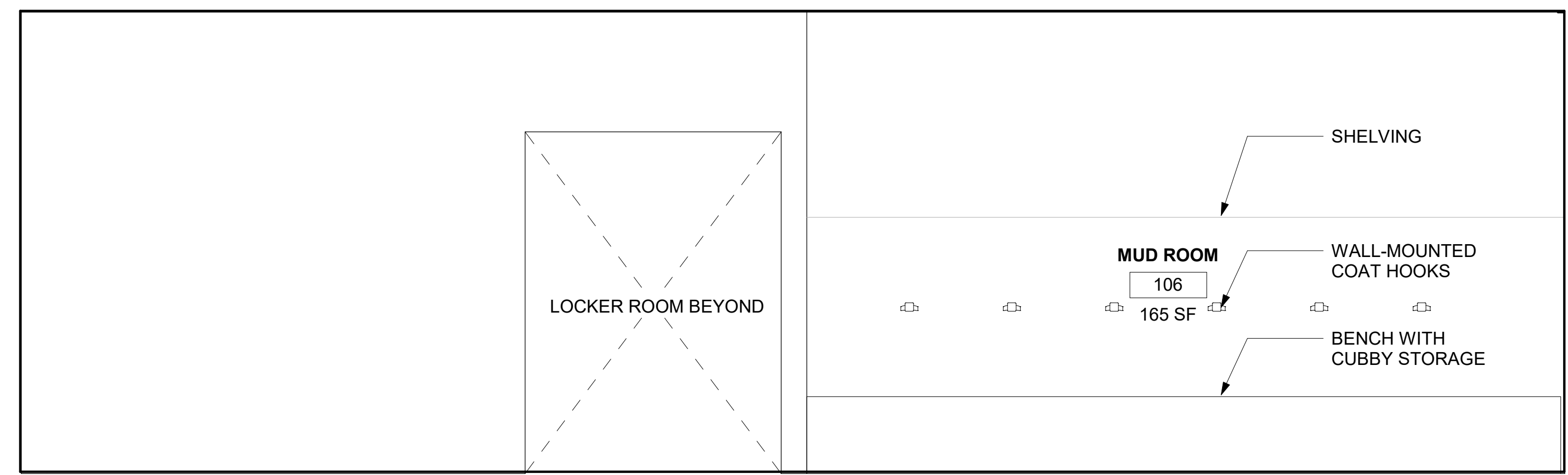
NOTES



3 INTERIOR ELEVATION - CORRIDOR
1/2" = 1'-0"



2 INTERIOR ELEVATION - CORRIDOR
1/2" = 1'-0"



1 INTERIOR ELEVATION - MUDROOM
1/2" = 1'-0"

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SHEET TITLE
ENLARGED DRAWINGS - LOCKER ROOM

SOWTP MAINTENANCE BUILDING

Scale	1/2" = 1'-0"	MWA Project No.:	202025
Drawn	DE	Sheet	A403
Designed	TG		
Checked	GR		
Issue Date	11/16/2021		

EQUIPMENT SCHEDULE

TRADE	CODE	DESCRIPTION	#	SIZE	(N)/(E)	CLEARANCE	MOBILE/FIXED	NOTES
MECHANICAL	WB-1	WORKTABLE		2 6'X10'	EXISTING	5' ALL AROUND	FIXED	
MECHANICAL	WT-1	WELDING TABLE		1 6'X10'	EXISTING	5' ALL AROUND	FIXED	
MECHANICAL	WH-1	WELDING HOOD		1 6'X2'	NEW	5' EACH SIDE, 3' FRONT	FIXED	
MECHANICAL	DP-1	DRILL PRESS		1 2'X3'	EXISTING	8'X8'	FIXED	
MECHANICAL	ML-1	MILL		1 3'X5'	EXISTING	12'X12'	FIXED	
MECHANICAL	BS-1	BAND SAW		1 24" X 19"	EXISTING	10'X10'	FIXED	
MECHANICAL	LA-1	LATHE		1 4'X8'	EXISTING	9'X20'	FIXED	
MECHANICAL	MS-1	SHEET METAL SHEAR		1 4'X3'	NEW			
MECHANICAL	MB-1	SHEET METAL BRAKE		1 4'X3'	NEW			
GROUPS	WB-3	WORK BENCH		2 4'X10'	NEW	3' ALL AROUND		IN EACH STORAGE AREA, CHEMICAL AND TOOL STORAGE
GROUPS	AC-1	AIR COMPRESSOR		1 25 GAL	NEW			NEAR TOOL STORAGE
GROUPS	FC-1	FLAMMABLE STORAGE CABINET		1 30 GAL	NEW			
GROUPS	TR-1	TOOL RACKS		2 10'	NEW			FOR POWER TOOLS WITH SPILL CONTAINMENT
ELECTRICAL	BT-1	BREAKER TESTER		1 3' X 5'	EXISTING	4' X 8'		
ELECTRICAL	WB-1	WORKTABLE		2 6'X10'	NEW	5' ALL AROUND	FIXED	
ELECTRICAL	CB-1	CONDUIT BENDER		1 10" X 10"	EXISTING	44" FRONT, SIDE	FIXED	
ELECTRICAL	BT-2	SMALL CIRCUIT BREAKER TESTER		1 3' X 3'	EXISTING	3' X 4'		
ELECTRICAL	CT-1	CONDUIT THREADER		1 2'X3'	EXISTING	3' X 19'	MOBILE	
ELECTRICAL	DP-1	DRILL PRESS		1 2'X3'	EXISTING	4' X 8'		
ELECTRICAL	BS-2	BAND SAW/ CHOP SAW		1 24" X 19"	NEW	3' X 15'	MOBILE	
ELECTRICAL	RT-1	RELAY TESTING EQUIPMENT		1 3' X 6'	EXISTING	3' X 6'		MOUNTED TO WORKBENCH SPACE
ELECTRICAL	JC-1	JIB CRANE		1	NEW			
INSTRUMENT	WS-2	WET WORK STATION		1 3' X 6'	NEW	3' AROUND	FIXED	DOUBLE BASIN UTILITY SINK WITH SUFFICIENT COUNTER SPACE AND DRAWERS TO WORK ON WQ ANALYZERS
INSTRUMENT	WS-3	TEST STATION		1 3'X8"	NEW	3' AROUND	FIXED	WALL SPACE AND BENCH AREA TO PERMANENTLY MOUNT RTUS, PLCS, RADIOS, AND VARIOUS FIELD EQUIPMENT
INSTRUMENT	YSI-1	YSI PROFILER		3 4'X6'	EXISTING	10'X12"	MOBILE	STORAGE AND WORK SPACE
INSTRUMENT	TC-1	ROLLAWAY TOOL CHEST AND TOP BOX		1 2'X6'	NEW	5' IN FRONT	MOBILE	
INSTRUMENT	CS-1	CHARGING STATION		3'X6"	NEW	5' IN FRONT	FIXED	POWER TOOLS AND TEST EQUIPMENT
INSTRUMENT	TG-1	TABLE GRINDER		1'X1'	NEW			
INSTRUMENT	WB-1	WORKTABLE		2 6'X10'	NEW	5' ALL AROUND	FIXED	
INSTRUMENT	DP-1	DRILL PRESS		1 2'X3'	NEW	4' X 8'		
INSTRUMENT	BS-1	BAND SAW/ CHOP SAW		1 24" X 19"	NEW	3' X 15'		
INSTRUMENT	VH-1	VAPOR HOOD		1 6'X2'	NEW	5' EACH SIDE, 3' FRONT		
INSTRUMENT	WB-2	WORK BENCH		3'X16'	NEW	6'X20'	FIXED	ALONG THE WALL WITH SHELVING AND LIGHTING
INSTRUMENT	ST-1	STORAGE CABINETS		3'X24'X8'	NEW	8'X24'	FIXED	FLOOR TO CEILING LISTA CABINETS / DRAWERS / SHELVING
CARPENTRY	SA-1	MITER SAW		1 2'X2'	NEW	5' X 20'	FIXED	INCORPORATED INTO 20' WORK BENCH
CARPENTRY	TS-1	TABLE SAW		1	NEW	6' X 20'	MOBILE	
CARPENTRY	AC-1	AIR COMPRESSOR		1 25 GAL	NEW	3' X 3'	FIXED	MIN 30 GAL
CARPENTRY	DC-1	DUST COLLECTION SYSTEM		1	NEW	OVER HEAD AND WALL MOUNT	FIXED	
SUPPORT	WR-1	WEIGHT BENCH		1 5'X8'	NEW	2'-6" X 2'	FIXED	
SUPPORT	FS-1	FITNESS SYSTEM		1 8'X10'	NEW	2' ALL AROUND	FIXED	
SUPPORT	TE-1	TREADMILL		1 6'X3'	NEW	2' EACH SIDE, 5' AT REAR	FIXED	
SUPPORT	SB-1	STATIONARY BIKE		1 4'X3'	NEW	2' EACH SIDE, 3' AT REAR	FIXED	
SUPPORT	EL-1	ELLIPTICAL		1 6'X2'-6"	NEW	1' EACH SIDE	FIXED	
SUPPORT	GR-1	GAS RANGE		1 30"	NEW		FIXED	
SUPPORT	DW-1	DISHWASHER		1 30"	NEW		FIXED	
SUPPORT	FR-1	REFRIGERATOR		2 4'X2'	NEW		FIXED	
SUPPORT	FR-2	ICE MAKER		1 2'X3'	NEW		FIXED	
SUPPORT	US-3	KITCHEN SINK		1 42"X21"	NEW		FIXED	
SUPPORT	US-4	BOOT WASH		1 3'X2'	NEW		FIXED	
STORAGE	SR-1	PARTS STORAGE		1'X7'	NEW		FIXED	
STORAGE	SR-2	STORAGE RACK		2'X5'	NEW		FIXED	
STORAGE	SR-3	STORAGE RACK		3'X5'	NEW		FIXED	
STORAGE	SR-4	LARGE ITEM STORAGE		3' DEEP	NEW	WIDTH VARIES	FIXED	

ROOM FINISH SCHEDULE

ROOM #	ROOM NAME	WALL	FLOOR	CEILING	CEILING HEIGHT	NOTES
001	GROUPS WORK AREA	-	FS-1	CP-1	9' - 0"	
002	PAINT WORK AREA	-	FS-1	CP-1	9' - 0"	
003	PATIO	-	FS-1	-		
004	ELECTRICAL STORAGE	-	FS-1	-		
005	CARPENTRY BONEYARD	-	FS-1	-		
101	VESTIBULE	PT-1	RSF-1	GWB	9' - 0"	
102	DOCUMENT REVIEW & STORAGE	PT-1	RSF-1	EXP		
103	MEETING ROOM	PT-1	RSF-1	ACT	9' - 0"	
104	OFFICE	PT-1	RSF-1	ACT	9' - 0"	
105	WORKSTATIONS	PT-1	RSF-1	EXP		
106	MUD ROOM					
107	LOCKER ROOM					
108	PRIVACY/LACTATION ROOM					
109	CORRIDOR	PT-1	RSF-1	ACT/GWB PT-2	9' - 0"	
110	HEALTH & WELLNESS	PT-1	RFT-1	ACT	9' - 0"	
111	EMERGENCY SUPPLIES	PT-1	RSF-1	GWB	8' - 0"	
112	JANITOR	CT-1/PT-1	CT-2	GWB	8' - 0"	
113	IT/TELECOM	PT-1	RSF-1	EXP		
114	ELECTRICAL	PT-1	EXP	EXP		
115	MECHANICAL	PT-1	EXP	EXP		
116	KITCHEN/ BREAK ROOM	PT-1	RSF-1	ACT	9' - 0"	
117	SHOP CORRIDOR	PT-1	FS-1	EXP		
118	ELECTRICAL SHOP	EXP	FS-1	EXP		
119	INSTRUMENTATION	EXP	FS-1	EXP		
120	ELECTRICAL STORAGE	EXP	FS-1	EXP		
121	MECHANICAL STORAGE	EXP	FS-1	EXP		
122	CARPENTRY	EXP	FS-1	EXP		
123	MECHANICAL SHOP	EXP	FS-1	EXP		
124	PAINT	EXP	FS-1	EXP		
125	GROUPS	EXP	FS-1	EXP		
126	RESTROOM	CT-1	CT-2	GWB	9' - 0"	

FINISH SCHEDULE LEGEND

- WALLS**
 - NO WALLS
 PT-1 PAINTED GYPSUM BOARD
 CT-1 CERAMIC TILE
- FLOORING**
 FS-1 CONCRETE FLOOR SEALER
 RSF-1 RESILIENT SHEET FLOORING
 CT-2 CERAMIC TILE
 RFT-1 RUBBER FLOOR TILE
- CEILINGS**
 - NO CEILING
 EXP EXPOSED
 ACT ACOUSTIC CEILING TILE
 GWB PAINTED GYPSUM BOARD
 PT-2 PAINTED
 CP-1 CEMENT PLASTER



EAST BAY MUNICIPAL UTILITIES DISTRICT
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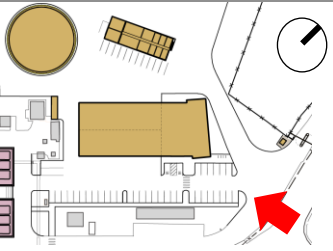
SHEET TITLE

SCHEDULES

SOBWP MAINTENANCE BUILDING

Scale	MWA Project No.:
Drawn DE	202025
Designed TG	Sheet
Checked GR	A801
Issue Date 11/16/2021	

MAINTENANCE BUILDING AERIAL



HVAC EQUIPMENT AND STAIR

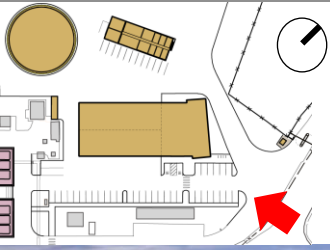
MAINTENANCE SHOPS AND STORAGE

PRIMARY ENTRY

OFFICE AND SUPPORT SPACES



MAINTENANCE BUILDING PRIMARY VIEW



CONCRETE STRUCTURE
WITH STEEL ROOF TRUSS

STANDING SEAM
METAL ROOF

RIBBED METAL WALL PANELS OVER
STRUCTURAL STEEL FRAMING

ALUMINUM FRAMED
STOREFRONT GLASS



