COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: August 11, 2025

TO: Agricultural Advisory Committee

FROM: Michael Schaller, Planning Staff, 650/363-1849

SUBJECT: Consideration of a Coastal Development Permit, Planned Agricultural Development Permit and Use Permit, to drill six municipal water wells to replace existing wells in the Pilarcitos Canyon wellfield, in the unincorporated El Granada area of San Mateo County. This project is appealable to the California Coastal Commission.

County File Number: PLN2025-00126 (Coastside County Water District)

PROPOSAL

The applicant, Coastside County Water District (CCWD), is proposing to construct six new wells, associated reinforced concrete pads, piping, valves and appurtenances, and connections to an adjacent raw water transmission pipeline. The new well field will include variable frequency drives and network connections to integrate with the District's existing Supervisory Control and Data Acquisition (SCADA) system.

A typical well site will include a new well, drilled to a depth of approximately 50-65 feet below grade, a new 6-foot by 24.5-foot concrete well pad, the well pump and piping, electrical control boxes and an antenna. The concrete pad will rise to a height of approximately 6 inches above grade. The well piping will rise to a height of about 4 feet above the well pad, the electrical boxes will rise to about 5 feet above the well pad, and the antenna will rise to about 15 feet above the well pad. The new well pads will be adjacent to or overlap the existing well pads to be demolished. The new wellbore will be located about 10 to 15 feet from the existing wellbore.

Project construction and implementation will occur over approximately 4-5 months. This construction phase includes site mobilization, initial clearing, and grading of the site; demolition of the existing wells and equipment; drilling of the well boreholes and installation of the well casing and gravel pack; installation of well pads, equipment, piping, and appurtenance; testing; and startup. Five of the existing wells will be destroyed and abandoned in accordance with County and State regulations, and the drilling permit. One of the existing wells (Well 4A) will be converted to a monitoring well. The replacement wells will be located near the existing wells where practicable and, in some cases, further away from Pilarcitos Creek. No trees or riparian vegetation are planned for removal.

CCWD provides treated water to the City of Half Moon Bay and to nearby unincorporated San Mateo County communities. The District is heavily reliant on the San Francisco Public Utilities Commission's (SFPUC) Pilarcitos Reservoir for its water supply. CCDW also relies upon its Pilarcitos Wellfield for supplemental water supply. Due to concerns for seismic safety, the SFPUC is modifying reservoir operations, which will have immediate and substantial water supply consequences for the District. Meanwhile, the District's Pilarcitos wells are nearing the end of their useful life and becoming prohibitively costly to maintain. Thus, with Pilarcitos Reservoir water supply curtailments imminent, CCWD needs to replace its Pilarcitos wells in order to maintain water supply reliability and to control costs.

DECISION MAKER

Planning Commission

QUESTIONS FOR THE AGRICULURAL ADVISORY COMMITTEE

1. Will the proposal have a negative effect on surrounding agricultural uses? If yes, can any conditions of approval be recommended to minimize the impact?

2. What decision do you recommend that the Planning Commission take with respect to this application?

BACKGROUND

Report Prepared By: Michael Schaller, Senior Planner

Applicant/Owner: Coastside County Water District

Location: Pilarcitos Creek Road, Half Moon Bay. Approximately one mile north of the intersection of Pilarcitos Creek Road and Highway 92/HMB Road.

APN(s): 056-370-080

Parcel Size: 299 acres

Existing Zoning: Planned Agricultural Development (PAD)

General Plan Designation: Agriculture

Local Coastal Plan Designation: Agriculture

Williamson Act: Not contracted

Existing Land Use: Open Space

Flood Zone: Zone X (area of minimal flooding), Community Panel 06081C0145E; effective October 16, 2012.

Environmental Evaluation: CCWD has assumed the role of lead agency. As such, they have filed a Categorical Exemption under Section 15302(c) of the California Environmental Quality Act (see Attachment E).

Setting: The Project area includes six existing shallow wells which comprise the existing wellfield along the top of bank of an approximately 0.49-mile-long reach of Pilarcitos Creek. Each existing well is set within a concrete well pad (varying between 25 and 100 square feet in size) and has a corresponding 4-inch water pipe which extends under Pilarcitos Creek Road, connecting to the District's 18-inch raw water transmission pipeline. Adjacent uses in the vicinity include Santa's Tree Farm to the south and undeveloped riparian corridor and coastal scrub habitats to the north, east and west within a one-quarter mile radius of the Project area.

Will the project be visible from a public road?

No. The existing well field is approximately .5 mile from the nearest public access point on Pilarcitos Creek Road.

Will any habitat or vegetation need to be removed for the project?

No. The existing and proposed well sites are in dirt pull out areas along Pilarcitos Creek Road.

Is there prime soil on the project site?

According to the County's GIS, the soils on site are not listed as "Prime Soils" and there are no adjacent agricultural fields.

DISCUSSION

A. KEY ISSUES

Planning staff has reviewed this proposal and has concluded the following:

1. Compliance with Planned Agricultural District (PAD) Regulations:

Section 6353 - *Uses Permitted Subject To The Issuance Of A Planned Agricultural Permit*. This policy outlines permitted used on non-prime agriculturally zoned lands. The project site is zoned Planned Agricultural Development (PAD), however, the soils on site are not listed as "Prime Soils" and there are no adjacent agricultural fields. Public infrastructure, such as the District's proposed wells, are not listed as allowed uses on

"lands suitable for agriculture". However, Chapter 24 (Use Permits) of the Zoning Regulations allows the County to issue a Use Permit for necessary public infrastructure projects when found necessary for the public health and safety.

Section 6355 - *Substantive Criteria For Issuance Of A Planned Agricultural Permit*. Each application for conversion of PAD zoned land must be found consistent with the following criteria:

a. General Criteria

(1) *The encroachment of all development upon land which is suitable for agricultural use shall be minimized*. The area within Pilarcitos Canyon that the well field is located is very narrow and bounded by Pilarcitos Creek and its riparian corridor on one side and Pilarcitos Canyon Road on the other, leaving a very narrow band of relatively flat land to utilize for agriculture. The soils in the project area are not designated as prime soils by the USDA soil survey. While the project site is classified as Agriculture on the Local Coastal Program (LCP) land use maps, it is questionable whether agriculture could be economically viable at this location. There is no history of agricultural activity at the project site since the adoption of the LCP in 1982.

(2) *All development permitted on a site shall be clustered*. The nature of the project dictates that the six wells are unevenly spaced along the fringes of Pilarcitos Creek Road in order to avoid over-drafting from each other. Each well location is in a roadside area devoid of vegetation and of limited utility to economically farm.

b. Water Supply Criteria

Adequate and sufficient water supplies needed for agricultural production and sensitive habitat protection in the watershed are not diminished. The proposed replacement wells will not change the amount of groundwater that the District is allowed to pump under their permit from the State Water Resources Control Board, nor when that pumping may occur. This project does not expand or increase the amount of water that CCWD is licensed to pump from Pilarcitos Canyon.

c. Criteria for the Conversion of Lands Suitable for Agriculture and Other Land

All lands suitable for agriculture and other lands within a parcel shall not be converted to uses permitted by a Planned Agricultural Permit unless all of the following criteria are met:

(1) *All agriculturally unsuitable lands on the parcel have been developed or determined to be undevelopable*. As stated above, the locations of the existing and replacement wells are unsuitable for agriculture due to the proximity of riparian habitat immediately adjacent to each site and the limited area where each one is located. There is no evidence that agriculture has been practiced in these small roadside pullouts since the adoption of the County's LCP in 1982.

(2) *Clearly defined buffer areas are developed between agricultural and non-agricultural uses*. There are no agricultural uses near the well locations. The nearest agricultural use (Christmas tree farm) is approximately 850 feet away and separated by a ridge.

(3) *The productivity of any adjacent agricultural lands is not diminished, including the ability of the land to sustain dry farming or animal grazing*. As discussed above, there is over 850 feet of separation between the nearest replacement well location and the nearest active agriculture field. There is no evidence to suggest that construction and use of the replacement wells will diminish or inhibit adjacent agricultural operations.

(4) *Public service and facility expansions and permitted uses do not impair agricultural viability, either through increased assessment costs or degraded air and water quality*. The parcel on which the replacement wells are proposed is owned by the Coastside County Water District. All new improvements will occur on this parcel. There is no evidence to suggest that these improvements will affect the assessed value of adjacent agriculturally zoned lands. There is also no evidence to suggest that the construction and operation of the replacement wells will negatively impact water or air quality as long as the proposed conditions of approval are implemented as required by project approval.

2. Compliance with Local Coastal Program (LCP) Policies:

Staff has determined that the proposed development conforms to all applicable LCP Policies, specifically:

a. Locating and Planning New Development

Policy 1.25 (*Protection of Archaeological/Paleontological Resources*). This policy requires an archaeological reconnaissance of project sites when they are in areas of potentially high sensitivity. The applicant has retained ESA Consulting to assist them with this project submittal. An ESA archaeologist conducted both a records search and a field survey of the project area in preparation of this application. The records search indicated there are no previously recorded pre-contact Native American or historic-era archaeological resources recorded within the Project area or within 0.5 mile. The field assessment identified no cultural resources within the Project area. The consultant's assessment is that the dynamic landform, previous ground disturbance, and the distance to known archaeological resources suggest that the Project area has a relatively low potential for the presence of pre-contact archaeological resources and that the Project area's sensitivity for pre-contact and historic-era archaeological resources is low. However, the consultant acknowledged that there is always the potential for resources to be discovered during project construction. To address that potential, the consultant has proposed Conditions No. 11 and No. 12 in Attachment A.

b. Public Works Component

Policy 2.6 (*Capacity Limits*). This policy limits development or expansion of public works facilities to a capacity which does not exceed that needed to serve buildout of the Local Coastal Program. The applicant has a License for Diversion and Use of Water from the State Water Resources Control Board (Division of Water Rights) (see Attachment F) that limits the amount of water that can be pumped by the total well field:

"One and five-tenths (1.5) cubic feet per second, to be diverted from November 1 of each year to March 31 of the succeeding year. The total amount diverted under this License and under any existing rights of licensee in the sources named as of the date of issuance of this License shall not exceed 1.5 cubic feet per second. The maximum amount diverted under this License shall not exceed 360 acre-feet per year."

CCWD was granted this Diversion permit in 1976, prior to the adoption of the County's LCP. The applicant is not proposing to increase the amount of water pumped under this permit. As such, there will be no change in the current LCP certified capacity limit for this water source. This project does not expand or increase the amount of water that CCWD is licensed to pump from Pilarcitos Canyon.

c. Agriculture Component

The County Zoning Regulations are the implementing plan for the Local Coastal Program. As such, Chapter 21A of the zoning regulations mirrors this Agriculture Component of the LCP, but with greater detail. Analysis of the project against the LCP's agriculture policies will be discussed below in Section 3 of this staff report.

d. Sensitive Habitats Component

Policy 7.3 (*Protection of Sensitive Habitats)*. This policy prohibits any land use or development which would have a significant adverse impact on sensitive habitat areas. Additionally, development in areas adjacent to sensitive habitats shall be sited and designed to prevent impacts that could significantly degrade the sensitive habitats. All uses shall be compatible with the maintenance of biologic productivity of the habitats.

The proposed replacement wells will be located near the existing wells where practicable, and, in some cases, further away from Pilarcitos Creek than the existing wells. The applicant has proposed a number of best management practices and conservation measures to protect sensitive habitats, which have been included as Conditions Nos. 2-10 in Attachment A. Included is a prohibition on trimming or removal of trees and riparian vegetation associated with Pilarcitos Creek, as well as a prohibition on any project associated equipment entering the Creek. To protect water quality, the applicant shall implement Stormwater Pollution Prevention measures. With inclusion of these measures, Staff believes the project is compliant with Policy 7.3.

Policy 7.11 (*Establishment of Buffer Zones (for Riparian Corridors))*. This policy requires a 50 feet buffer zone (from the edge of riparian vegetation) for all perennial creeks. As discussed in the settings section, there is no riparian or other sensitive habitat at either existing or proposed well locations. Each existing and proposed well location is located within disturbed roadside turnouts adjacent to but outside of the riparian corridor (defined as the limit of riparian vegetation), however, all locations are within the required buffer zone for perennial streams. Policy 7.12 outlines the permitted uses in Riparian buffer

zones, which includes necessary water supply projects. As discussed above, the District is highly dependent upon water deliveries from SFPUC. Those deliveries will be reduced for the foreseeable future while the SFPUC analyzes potential alterations to the Pilarcitos Dam. To make up for the reduction in supply, the District must rely upon their existing resources to a greater extent. Thus, the need for the replacement of the well field to ensure a continued, adequate water supply for the residents within the District's service area.

Policy 7.13 (*Performance Standards in Buffer Zones (for Riparian Corridors))*. This policy requires permitted uses in buffer zones to: (1) minimize removal of vegetation; (2) conform to natural topography to minimize erosion potential; (3) make provisions (i.e., catch basins) to keep runoff and sedimentation from exceeding pre-development levels. As discussed previously, the applicant will implement a number of preventative measures including a prohibition on trimming or removing trees and riparian vegetation and no equipment used in support of Project implementation will enter the riparian habitat or Pilarcitos Creek. Erosion control measures (e.g., silt fencing, coir wattles) will be implemented to prevent any soil or other materials from entering any nearby aquatic habitat and will be installed between the work area(s) and adjacent aquatic habitat to prevent soil from eroding or falling into the sensitive habitat area. Only natural burlap, coir, or jute wrapped fiber rolls will be used. At Project completion after approximately four months, the District will restore areas disturbed during Project construction to their approximate pre-project conditions. All exposed or disturbed soils will be re-covered by gravel or other existing non-vegetative surface cover material.

e. <u>Visual Resources Component</u>

Policy 8.6 (*Streams, Wetlands and Estuaries)*. This policy requires development to be setback from the edge of streams and other natural waterways a sufficient distance to preserve the visual character of the waterway. It also prohibits structural development which would adversely affect the visual quality of perennial streams and associated riparian habitat, except for those permitted by Sensitive Habitats Component Policies.

As discussed above, the replacement wells are a necessary water supply project which is a permitted use in riparian buffer zones. The new wells will be located near the existing wells as much as possible, and in some cases, further away from Pilarcitos Creek. It should be noted that this part of Pilarcitos Creek Road is private and not accessible, either physically or visually, to the general public. The

replacement wells and infrastructure will not result in a new visual impact visible to the public.

3. Compliance with the Williamson Act:

The project parcel is not under a Williamson Act contract.

ATTACHMENTS

A. Project Plans
B. Supplemental Application Materials
C. Application Appendices
D. CEQA Categorical Exemption
E. Water Diversion License 10598

County of San Mateo - Planning and Building Department

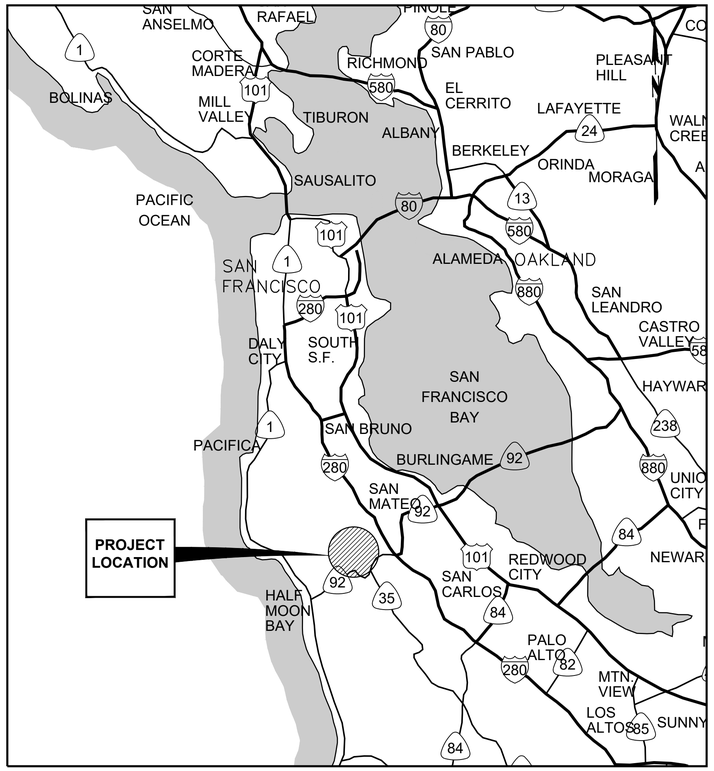
ATTACHMENT A

PILARCITOS WELLFIELD REPLACEMENT PROJECT

COASTSIDE COUNTY WATER DISTRICT

HALF MOON BAY, CA

MARCH 2025

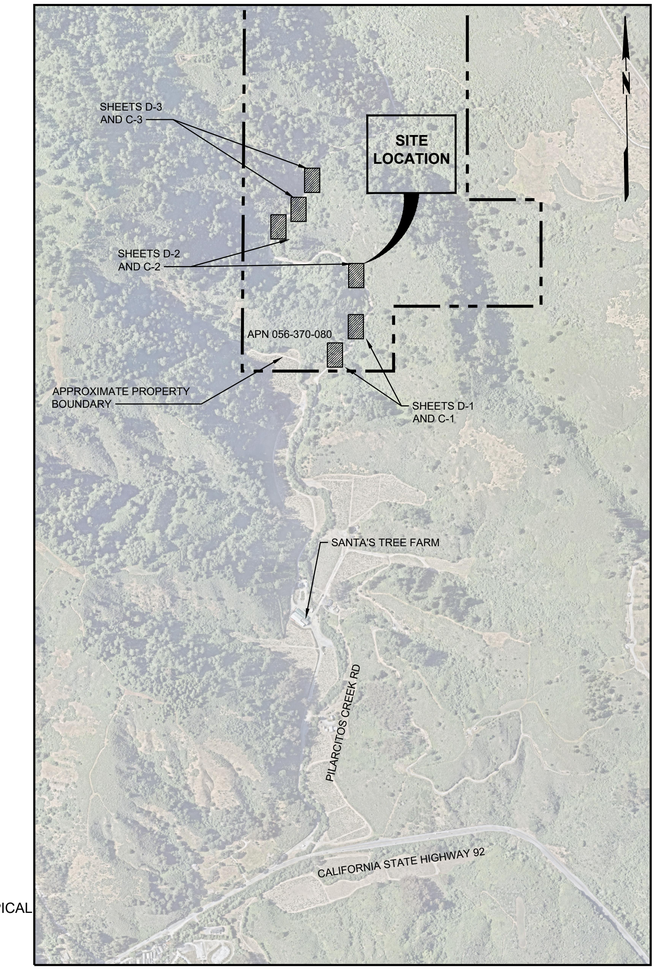


LOCATION MAP

NO SCALE

DRAWING LIST

SHEET NUMBER	SHEET DESCRIPTION	SHEET TITLE
1	G-1	TITLE SHEET, LOCATION MAP, AND DRAWING LIST
2	G-2	GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND LEGEND
3	D-1	DEMOLITION PLAN, WELLS 1 AND 3
4	D-2	DEMOLITION PLAN, WELLS 3A AND 4A
5	D-3	DEMOLITION PLAN, WELLS 4 AND 5
6	C-1	PLAN, PILARCITOS WELLS 1 AND 3
7	C-2	PLAN, PILARCITOS WELLS 3A AND 4A
8	C-3	PLAN, PILARCITOS WELLS 4 AND 5
9	C-4	CONSTRUCTION DETAILS - 1
10	C-5	CONSTRUCTION DETAILS - 2
11	C-6	CONSTRUCTION BEST MANAGEMENT PRACTICES
12	C-7	EXCLUSION FENCING PLAN AND DETAIL
13	GS-1	STRUCTURAL GENERAL NOTES - 1
14	GS-2	STRUCTURAL GENERAL NOTES - 2
15	GS-3	STRUCTURAL STANDARD DETAILS
16	S-1	STRUCTURAL PLAN AND DETAILS
17	M-1	MECHANICAL PLAN, WELL PUMP AND PIPING
18	M-2	MECHANICAL DETAILS
19	GE-1	ELECTRICAL SYMBOLS AND ABBREVIATIONS
20	GE-2	ELECTRICAL INSTALLATION DETAILS
21	E-1	WELL SINGLE LINE DIAGRAM AND GROUNDING SCHEMATIC - TYPICAL
22	E-2	WELL POWER AND SIGNAL PLAN - TYPICAL
23	E-3	WELL PUMP VFD CONTROL SCHEMATIC
24	GI-1	INSTRUMENTATION SYMBOLS AND ABBREVIATIONS
25	GI-2	INSTRUMENTATION INSTALLATION DETAILS
26	I-1	WELL P&ID - TYPICAL
27	I-2	CONTROL PANEL ELEVATION
28	I-3	SCADA SYSTEM NETWORK DIAGRAM
29	I-4	SAMPLE WIRING DIAGRAMS



VICINITY MAP

NO SCALE

100% DESIGN / BID SET

CONTACT 811 BEFORE YOU DIG
811
SAFE DIGGING PARTNER

REGISTERED PROFESSIONAL ENGINEER
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PILARCITOS WELLFIELD REPLACEMENT PROJECT
HALF MOON BAY, CALIFORNIA
TITLE SHEET, LOCATION MAP, AND DRAWING LIST

	DATE	APPRD	DESCRIPTION	REV

DATE: MAR 2025
SCALE: AS SHOWN
DRAWN: NC
DESIGNED: TC
APPROVED: JS
JOB NO.: B80108.39

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

SHEET NUMBER
G-1
1 OF 29

Path: G:\EKI_CONSTRUCTION_DWGS\B80108.01 (CIP PROJECTS)\B80108.39_Pilarcitos_Wells Filename: B80108.39_G-1.dwg Plot Date: April 23, 2025 - 4:31 PM CADD User: Nicole Chapman

GENERAL NOTES

1. EXISTING UTILITIES SHOWN ON THESE PLANS ARE BASED ON AVAILABLE INFORMATION AND ARE NOT GUARANTEED TO BE EITHER ACCURATE NOR COMPLETE. EXISTING UTILITY MAINS ARE SHOWN; NOT ALL LATERALS FOR EXISTING UTILITIES ARE SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY EXACT UTILITY LOCATION. THIS VERIFICATION SHALL BE COORDINATED BY THE CONTRACTOR WITH THE APPROPRIATE UTILITY COMPANY AS REQUIRED. FIELD VERIFY BY POTHOLING AND PHYSICALLY EXPOSING THE LOCATION AND ELEVATION OF ALL EXISTING UNDERGROUND UTILITY SYSTEMS AND INDIVIDUAL SERVICES CROSSING THE ALIGNMENT OF THE NEW WATER LINE AS PART OF THE POTHOLING REPORT DESCRIBED IN THE SPECIFICATIONS. CALL U.S.A. (UNDERGROUND SERVICE ALERT) FOR UTILITY LOCATION AT LEAST 48 HOURS BEFORE DIGGING. PHONE 1-800-227-2600 (OR DIAL 811).
2. THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF THE SAN MATEO COUNTY'S MUNICIPAL REGIONAL PERMIT (MRP) NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AND SHALL FOLLOW STORM WATER BEST MANAGEMENT PRACTICES AS SPECIFIED IN SAN MATEO'S STANDARD SPECIFICATIONS & PROJECT SPECIFICATIONS.
3. THE CONTRACTOR SHALL AT ALL TIMES MAINTAIN ADEQUATE DRAINAGE PATTERNS AT THE SITE. WATER SHALL NOT BE ALLOWED TO POND OR STAND DUE TO CONTRACTOR ACTIVITY.
4. PROTECT ALL EXISTING UTILITIES DURING CONSTRUCTION. DAMAGE TO EXISTING UTILITIES RESULTING FROM THE CONTRACTOR'S CONSTRUCTION ACTIVITIES SHALL BE REPAIRED BY THE CONTRACTOR, AT THE CONTRACTOR'S EXPENSE.
5. THE CONTRACTOR'S WORK INCLUDES ALL INCIDENTAL AND APPURTENANT WORK NECESSARY TO PROVIDE A COMPLETE AND FULLY-FUNCTIONING FACILITY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ANY ACTIVITIES OTHER THAN THOSE LISTED IN THE BID SCHEDULE WITHOUT AN AUTHORIZED CHANGE ORDER.
6. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, EQUIPMENT, APPURTENANCES, AND APPARATUS NOT SPECIFICALLY MENTIONED ON THE PLANS OR SPECIFICATIONS, BUT WHICH ARE NECESSARY TO COMPLETE THE CONTRACTED WORK AND PROVIDE A FULLY-FUNCTIONING INSTALLATION READY FOR FULL-TIME OPERATION.
7. THE CONTRACTOR SHALL SATISFY ITSELF AS TO THE EXISTING CONDITIONS PRIOR TO BIDDING THE PROJECT.
8. ALL EXCESS EXCAVATED MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE HANDLED, TRANSPORTED, AND DISPOSED FROM THE SITE IN ACCORDANCE WITH LAWS AND REGULATIONS AT THE CONTRACTOR'S EXPENSE. CONTRACTOR MAY ASSUME, FOR BIDDING PURPOSES ONLY, THAT EXCAVATED SOIL IS NON-HAZARDOUS. HOWEVER, SUCH ASSUMPTION DOES NOT RELIEVE CONTRACTOR'S FULL AND COMPLETE RESPONSIBILITY FOR COMPLYING WITH LAWS AND REGULATIONS, INCLUDING CHARACTERIZATION OF EXCESS MATERIAL FOR MANAGEMENT AND DISPOSAL. THE CONTRACTOR SHALL PROMPTLY NOTIFY AND CONFER WITH ENGINEER IF ANY EVIDENCE OF SOIL CONTAMINATION IS OBSERVED.
9. UNLESS OTHERWISE SHOWN ALL NEW BURIED PIPES SHALL HAVE A MINIMUM COVER OF 36 INCHES.
10. THE CONTRACTOR SHALL RESTORE ALL DAMAGED, REMOVED, OR OTHERWISE DISTURBED WALLS, FENCES, SERVICES, UTILITIES, IMPROVEMENTS, OR FEATURES OF WHATEVER NATURE DUE TO CONTRACTOR WORK AT NO ADDITIONAL COST TO THE OWNER. UNLESS OTHERWISE NOTED, ALL PAVEMENT, GUTTERS, WALKS, FENCES AND OTHER SURFACE IMPROVEMENTS THAT ARE DISTURBED OR DAMAGED BY CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITIONS BY CONTRACTOR, AT THE CONTRACTOR'S EXPENSE.
11. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 12" VERTICAL CLEARANCE BETWEEN PROPOSED WATER MAINS AND ALL CROSSING UTILITIES.
12. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
13. AT CONNECTIONS TO EXISTING BURIED PIPE, CONTRACTOR SHALL EXPOSE THE EXISTING PIPE AND VERIFY LOCATIONS, INVERT, MATERIALS, AND DIMENSIONS. THE CONTRACTOR SHALL FURNISH ALL NECESSARY COUPLINGS, FITTINGS, APPURTENANCES, TOOLS, AND LABOR TO COMPLETE THE CONNECTIONS WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT, AT NO ADDITIONAL COST TO THE OWNER.
14. THRUST BLOCKS SHALL BE CONSTRUCTED AT ALL BENDS, TEES, REDUCERS, VALVES, BLIND FLANGES, CAPS, AND PLUGS PER DISTRICT STANDARDS WHETHER OR NOT THEY ARE SPECIFICALLY SHOWN ON THE PLANS.
15. THE CONTRACTOR SHALL CONTROL DUST AT ALL TIMES AS OFTEN AS NECESSARY DURING CONSTRUCTION, AS REQUIRED BY THE OWNER REPRESENTATIVE.
16. WHEN UTILITY CONFLICTS ARE ENCOUNTERED, INSTALL WATER LINE ABOVE OR BELOW EX UTILITY PER DETAIL 3/C-4. WATER LINE SHALL BE INSTALLED ABOVE SANITARY SEWER, UNLESS APPROVED IN ADVANCE BY ENGINEER.
17. CONTRACTOR SHALL INSTALL ANY NECESSARY FITTINGS, COUPLINGS, AND APPURTENANCES TO CONNECT DISSIMILAR PIPE MATERIALS.
18. ALL PIPING UNDER THE CONE OF INFLUENCE OF STRUCTURES OR CONCRETE SLABS SHALL BE CONCRETE ENCASED PER TYPICAL DETAIL 4/C-5 UNLESS NOTED OTHERWISE, THE CONE OF INFLUENCE IS DEFINED WITH A 1:1 SLOPE FROM THE EXTERIOR LOWER CORNER OF THE STRUCTURAL FOOTING.
19. DIMENSIONS AND TOP ELEVATIONS OF ALL CONCRETE EQUIPMENT PADS SHOWN SHALL BE COMPARED WITH THE DIMENSIONS AND ANCHORAGE NEEDS FOR THE FAVORABLY REVIEWED EQUIPMENT PRIOR TO FORMING AND REBAR FABRICATION. CONTRACTOR SHALL INCREASE OR DECREASE EQUIPMENT PAD DIMENSIONS AS REQUIRED TO FIT EQUIPMENT PROVIDED AT NO ADDITIONAL COST TO THE CLIENT. CONFIRM LAYOUT CHANGES WITH THE ENGINEER FOR DIMENSION CHANGES GREATER THAN 6 INCHES IN ANY DIRECTION.
20. ALL COUPLINGS SHALL BE RESTRAINED UNLESS SPECIFICALLY NOTED OTHERWISE.
21. NO DRILLING OR OTHER NOISE PRODUCING ACTIVITIES (>70 DB) SHALL OCCUR AT WELL SITES 4, 4A, AND 5 BEFORE SEPTEMBER 15 (DURING THE MARBLED MURRELET NESTING SEASON). BEFORE SEPTEMBER 15, NO CONSTRUCTION ACTIVITIES SHALL OCCUR AT ANY SITE WITHIN ONE HOUR AFTER SUNRISE OR ONE HOUR BEFORE SUNSET.
22. A MINIMUM OF 3 EXISTING OR NEW WELLS SHALL BE OPERATIONAL IN-HAND AT ANY GIVEN TIME AFTER OCTOBER 15.

SURVEY CONTROL NOTES

HORIZONTAL DATUM
NORTH AMERICAN DATUM OF 1983 (NAD83).

COORDINATE SYSTEM
COORDINATES SHOWN HEREON ARE GROUND COORDINATES BASED ON THE CALIFORNIA COORDINATE SYSTEM OF 1983 (CCS83), ZONE III.

VERTICAL DATUM
NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

POINT NUMBER	X	Y	ELEVATION	DESCRIPTION
1	2012978.528	6014514.333	275.7	60D NAIL
2	2013105.627	6014656.05	276.051	60D NAIL
3	2013242.662	6014751.26	279.353	60D NAIL
11	2012462.067	6015254.898	264.15	60D NAIL
12	2012248.737	6015350.391	266.53	60D NAIL
13	2012581.045	6015159.546	265.674	60D NAIL
21	2011963.059	6015196.534	259.72	60D NAIL
22	2011766.109	6015057.108	260.524	60D NAIL
23	2011810.594	6015077.113	260.333	60D NAIL

UTILITY NOTES

PHYSICAL ITEMS SHOWN ON THIS SURVEY ARE LIMITED TO THOSE SURFACE ITEMS VISIBLE AS OF THE DATE OF THIS SURVEY. SUBSURFACE OBJECTS, IF ANY, ARE NOT SHOWN, WITH THE EXCEPTION OF UNDERGROUND UTILITY LINES. NO WARRANTY IS IMPLIED AS TO THE EXACT LOCATION OF THESE LINES OR AS TO THE COMPLETENESS OF THE UTILITY INFORMATION SHOWN HEREON. SAID SUBSURFACE OBJECTS MAY INCLUDE, BUT ARE NOT LIMITED TO, CONCRETE FOOTINGS, SLABS, SHORING, STRUCTURAL PILES, UTILITY VAULTS, PIPING, UNDERGROUND TANKS, ADDITIONAL UNDERGROUND UTILITY LINES, TELECOMMUNICATION LINES, FIBER OPTIC LINES AND ANY OTHER SUBSURFACE STRUCTURES OR FACILITIES NOT REVEALED BY A SURFACE INSPECTION ON THE DATE THAT THE FIELD WORK FOR THIS SURVEY WAS PERFORMED.

MONUMENT NOTES

PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ON THIS SITE, IT IS ADVISED THAT ALL INVOLVED PARTIES REVIEW SECTION 8771 AND SECTION 8725 OF THE BUSINESS AND PROFESSIONS CODE AND SECTION 605 OF THE CALIFORNIA PENAL CODE TO ENSURE THAT MONUMENT CONSERVATION HAS BEEN PROPERLY ADDRESSED.

SURVEY NOTES

THIS SURVEY MAP WAS COMPILED FROM A TOPOGRAPHIC SURVEY DONE IN NOVEMBER, 2024. ANY CHANGES OR IMPROVEMENTS MADE TO THE PROPERTY AFTER THESE DATES MAY NOT BE SHOWN ON THIS SURVEY.

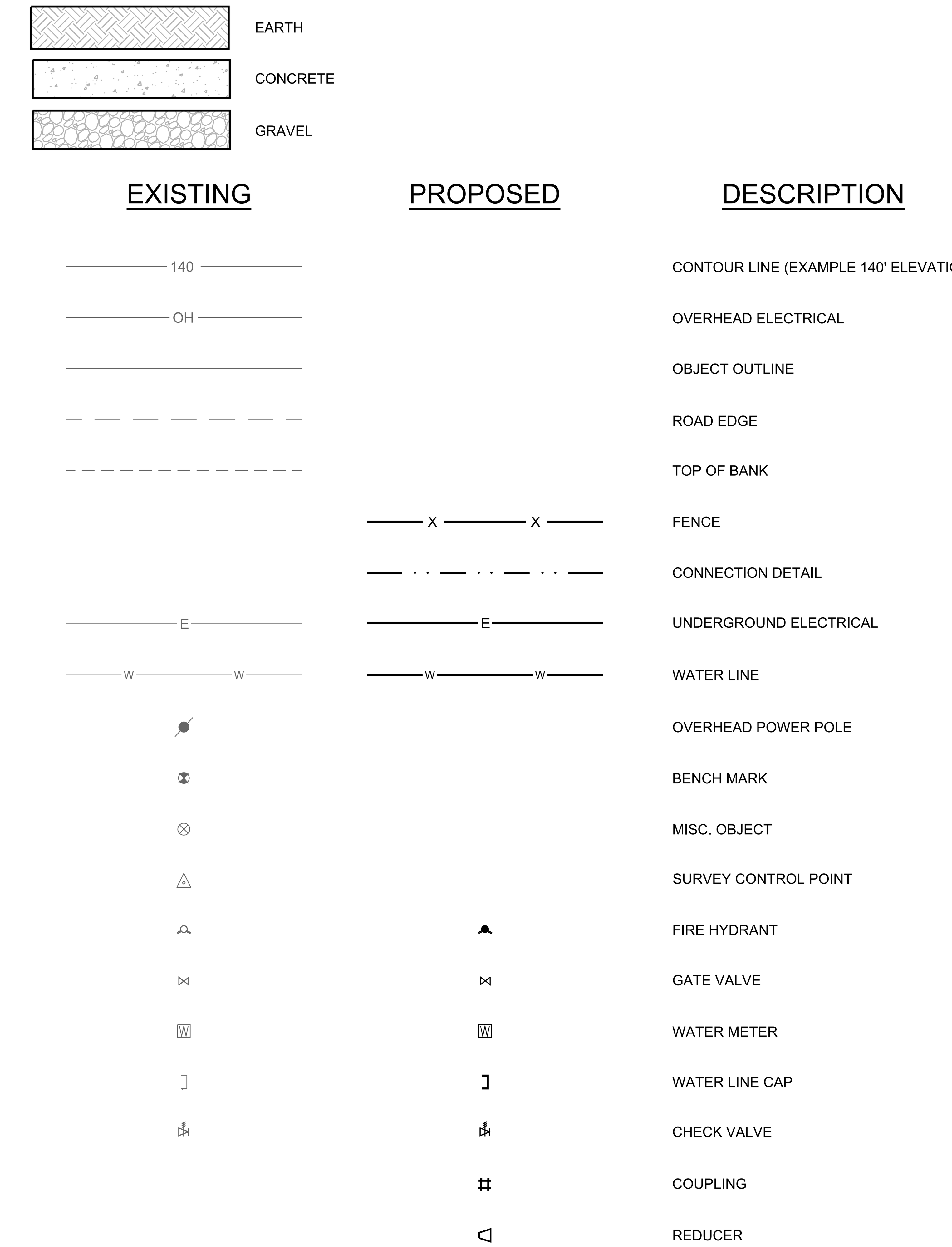
100% DESIGN / BID SET

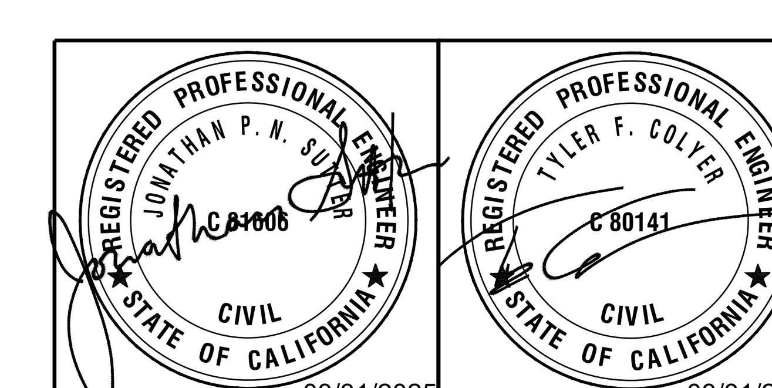
ABBREVIATIONS

(A)	ABANDON
ACI	AMERICAN CONCRETE INSTITUTE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
APPROX	APPROXIMATE
APN	ASSESSOR'S PARCEL NUMBER
ARV	AIR RELEASE VALVE
CIP	CAST IRON PIPE
CO	CLEANOUT
CONC	CONCRETE
CPLG	COUPLING
DB	DECIBELS
DH	DRILL HOLE
DET	DETAIL
DI	DUCTILE IRON
DIA.	DIAMETER
DIP	DUCTILE IRON PIPE
DIM	DIMENSION
DW	DRINKING (POTABLE) WATER
(E)	EXISTING
E	EASTING
EA	EACH
ELEV.	ELEVATION
ELEC	ELECTRICAL
EOP	EDGE OF PAVEMENT
FCA	FLANGED COUPLING ADAPTER
FH	FIRE HYDRANT
FIG	FIGURE
FL	FLANGE
FM	FLOW METER
FT	FEET
FT BGS	FEET BELOW GROUND SURFACE
GA	GAGE
GAL	GALLON
GALV	GALVANIZED
GCP	GROUND CONTROL POINT
GIS	GEOGRAPHIC INFORMATION SYSTEM
GPM	GALLONS PER MINUTE
GR	GRADE
GS	GALVANIZED STEEL
GV	GATE VALVE
H	HEIGHT
HORIZ	HORIZONTAL
HP	HORSE POWER
HR	HOUR
I.D.	INSIDE DIAMETER
IN.	INCHES
INV.	INVERT
JB	JUNCTION BOX
L	LEFT
MAX	MAXIMUM
MIN	MINIMUM
MJ	MECHANICAL JOINT
N	NORTHING
(N)	NEW
NTS	NOT TO SCALE
INV.A.	OUTSIDE DIAMETER
OFF	OFFSET
OH	OVERHEAD
PL	PLASTIC
PRV	PRESSURE RELIEF VALVE
PSIG	POUNDS PER SQUARE INCH, GAUGE
PT	POINT
PW	POTABLE WATER
QTY	QUANTITY
R	RIGHT
ROW	RIGHT-OF-WAY
R.C.	RELATIVE COMPACTION
RC(P)	REINFORCED CONCRETE (PIPE)
RED	REDUCER
REINF	REINFORCED(ING)
REQD	REQUIRED
RPP	REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTOR
S	SOUTH
SCH	SCHEDULE
SD	STORM DRAIN
SPEC(S)	SPECIFICATION(S)
SSMH	SANITARY SEWER MANHOLE
SS	SANITARY SEWER
SST	STAINLESS STEEL
STA.	STATION
STL	STEEL
TOP	TOP OF PIPE
TEMP	TEMPORARY
TOC	TOP OF CONCRETE
TYP.	TYPICAL
UG	UNDERGROUND
VIF	VERIFY IN FIELD
VFD	VARIABLE FREQUENCY DRIVE
VOL	VOLUME
W	WATER
W/	WITH
WM	WATER METER
WS	WELDED STEEL

REFERENCE SYMBOLS

GENERAL LEGEND





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PILARCITOS WELLFIELD REPLACEMENT PROJECT
HALF MOON BAY, CALIFORNIA

GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND LEGEND

REV	DESCRIPTION	APPR'D	DATE

DATE: MAR 2025
SCALE: AS SHOWN
DRAWN: NC
DESIGNED: TC
APPROVED: JS
JOB NO.: B80108.39

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"
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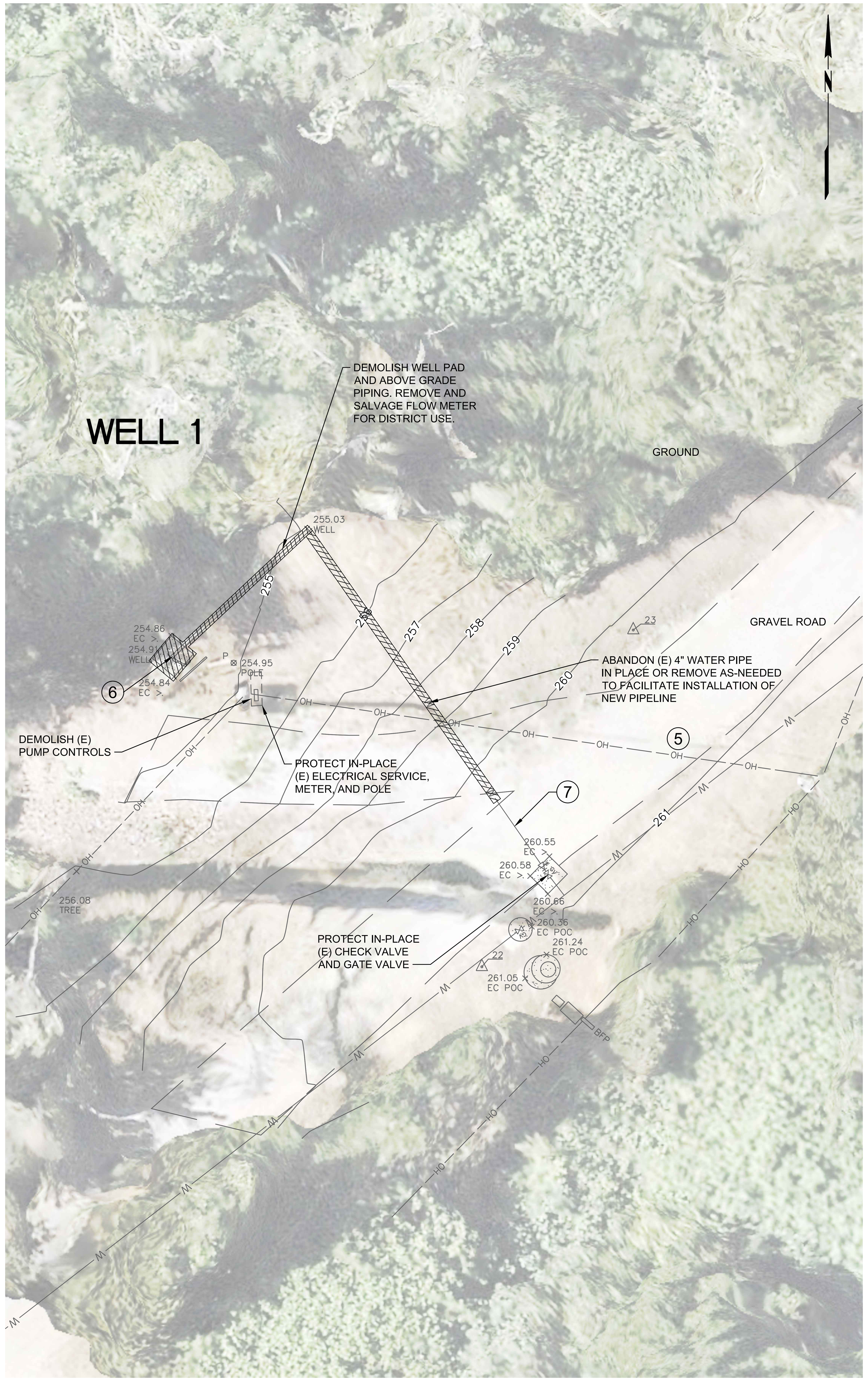
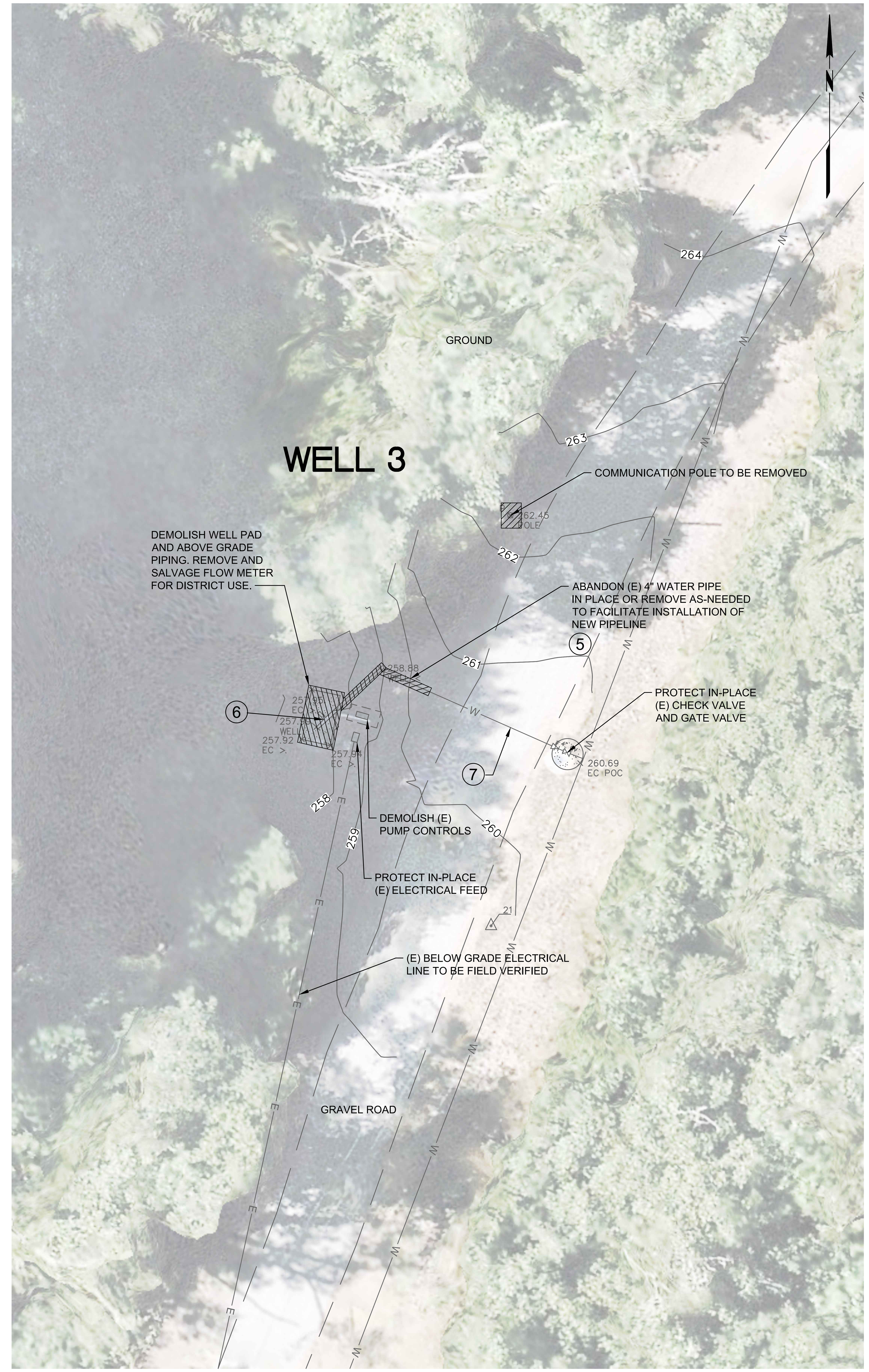
SHEET NUMBER
G-2



PLAN, WELL 1



PLAN, WELL 3

0 5 10 20 30
SCALE: 1"=10'

100% DESIGN / BID SET

CONSTRUCTION NOTES:

1. LOCATIONS OF ALL UNDERGROUND PIPING AND ELECTRICAL CONDUITS TO BE FIELD VERIFIED BY CONTRACTOR.
2. PROTECT ALL ELECTRICAL CONDUITS UP TO EXISTING METER IN PLACE.
3. SCHEDULE SHUTDOWN OF UTILITIES, INCLUDING DE-ENERGIZING ELECTRICAL, WITH OWNER PRIOR TO PROCEEDING WITH DEMOLITION.
4. REMOVE AND PROPERLY DISPOSE OF DEMOLITION DEBRIS, TRASH, RUBBISH, AND ANY MISCELLANEOUS MATERIALS IN ACCORDANCE WITH THE SPECIFICATIONS.
5. CAP AND PLUG EACH END OF INACTIVE WATER PIPES TO BE ABANDONED IN PLACE PER DETAIL 1/C-4.
6. DEMOLISH (E) WELL PER SPECIFICATION 33 11 13.
7. INSTALL TEMPORARY CAP AND PROTECT IN-PLACE (E) 4" WATER PIPE. CONNECT TO (N) 4" WATER PIPE AS DETAILED ON SHEETS C-1, C-2, AND C-3.

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PILARCITOS WELLFIELD REPLACEMENT PROJECT
HALF MOON BAY, CALIFORNIA

DEMOLITION PLAN, WELLS 1 AND 3

REV	DESCRIPTION	APPR'D	DATE

DATE: MAR 2025
SCALE: AS SHOWN
DRAWN: NC
DESIGNED: TC
APPROVED: JS
JOB NO.: B80108.39

VERIFY SCALE
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0 1"
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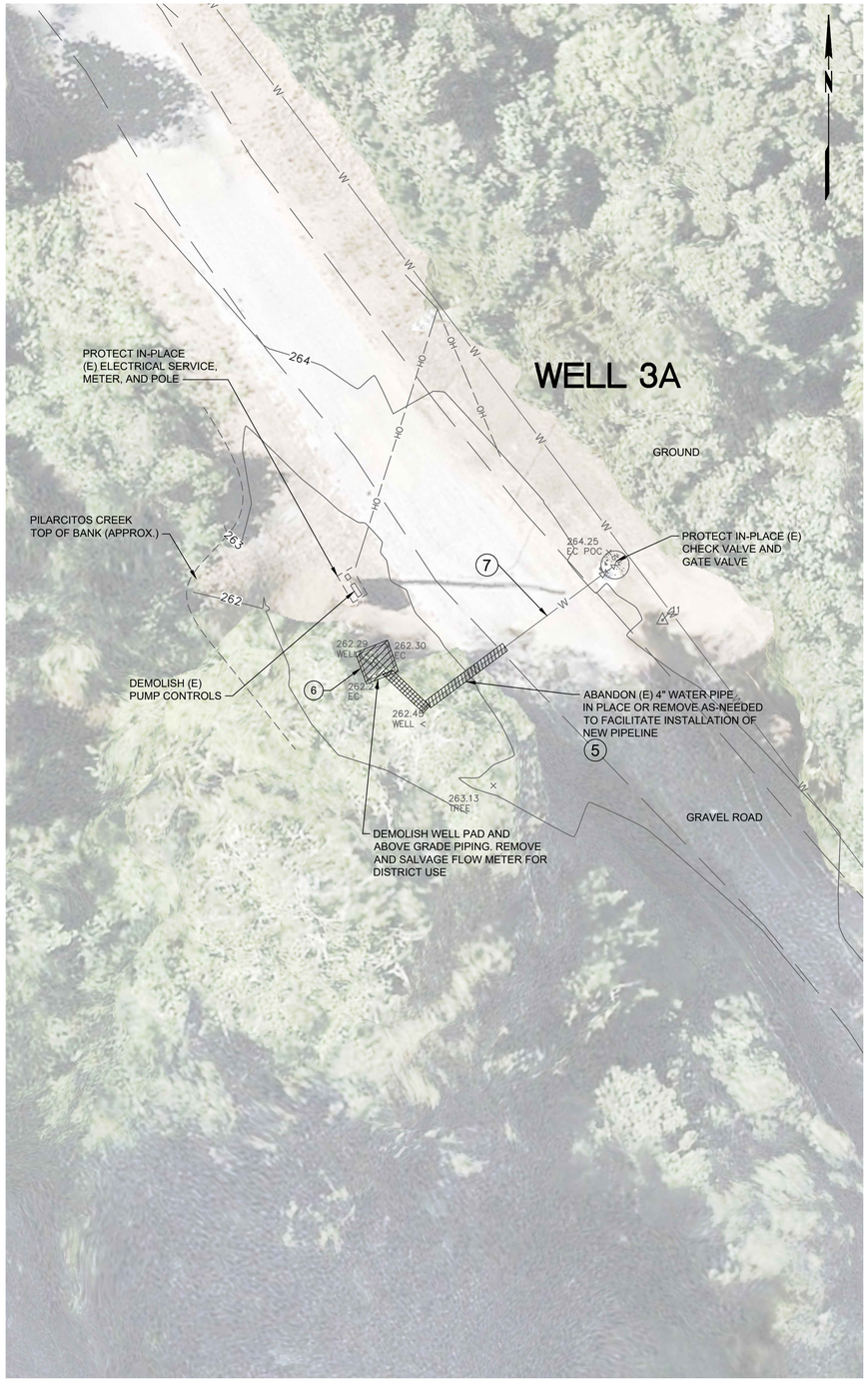
REGISTERED PROFESSIONAL ENGINEER JONATHAN P. N. SUTTER 81006 CIVIL STATE OF CALIFORNIA 03/31/2025
100% DESIGN / BID SET

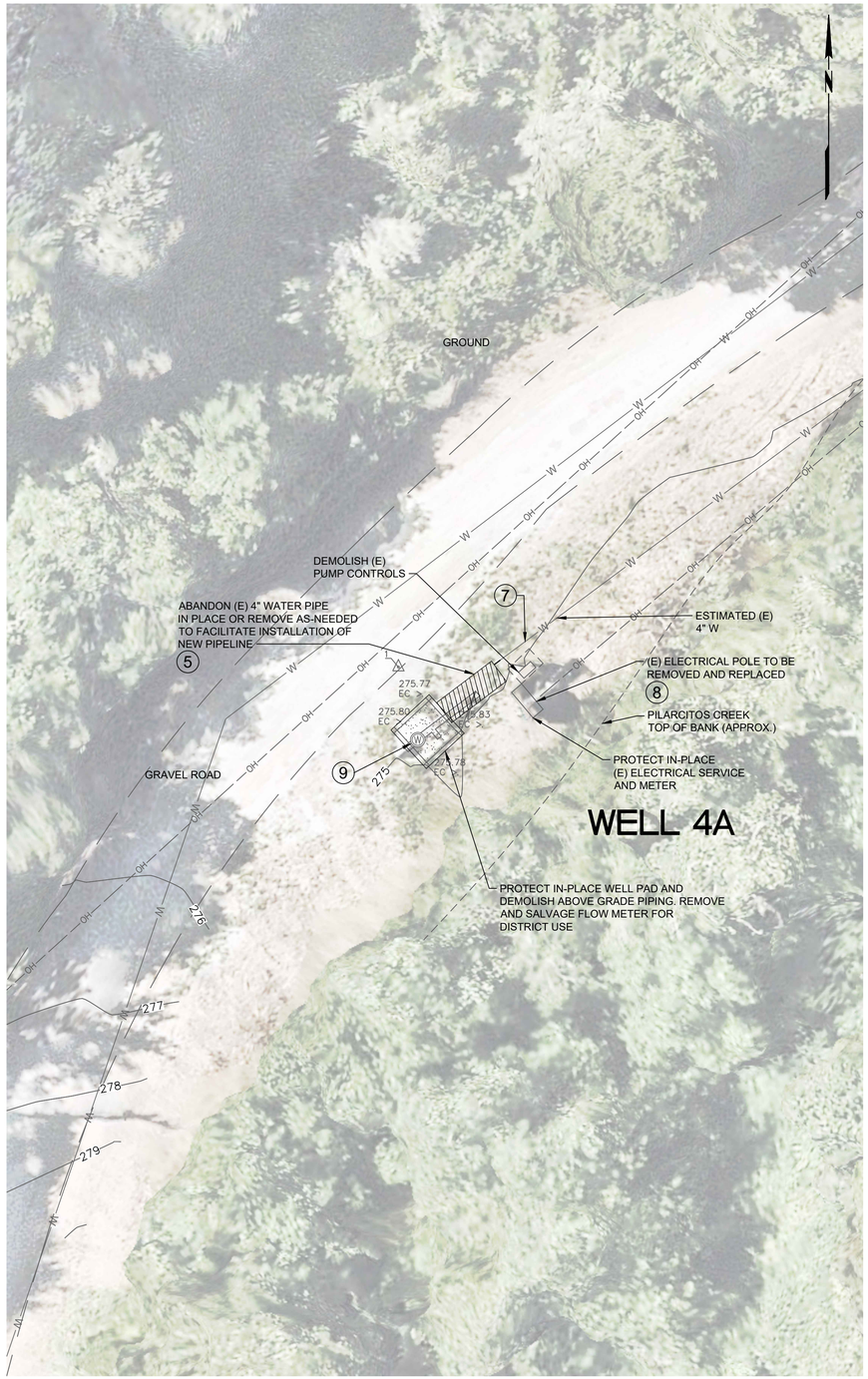
REGISTERED PROFESSIONAL ENGINEER TYLER F. COLYER C 80141 CIVIL STATE OF CALIFORNIA 03/31/2025
100% DESIGN / BID SET

SHEET NUMBER
D-1

Path: G:\EKI_CONSTRUCTION_DWGS\B80108.01 (CIP PROJECTS)\B80108.39_Pilarcitos_Wells Filename: B80108.39_Demolition_V2.dwg Plot Date: March 31, 2025 - 11:50 AM CADD User: Nicole Chapman



PLAN, WELL 3A



PLAN, WELL 4A

0 5 10 20 30
SCALE: 1"=10'

100% DESIGN / BID SET

CONSTRUCTION NOTES:

1. LOCATIONS OF ALL UNDERGROUND PIPING AND ELECTRICAL CONDUITS TO BE FIELD VERIFIED BY CONTRACTOR.
2. PROTECT ALL ELECTRICAL CONDUITS UP TO EXISTING METER IN PLACE.
3. SCHEDULE SHUTDOWN OF UTILITIES, INCLUDING DE-ENERGIZING ELECTRICAL, WITH OWNER PRIOR TO PROCEEDING WITH DEMOLITION.
4. REMOVE AND PROPERLY DISPOSE OF DEMOLITION DEBRIS, TRASH, RUBBISH, AND ANY MISCELLANEOUS MATERIALS IN ACCORDANCE WITH THE SPECIFICATIONS.
5. CAP AND PLUG EACH END OF INACTIVE WATER PIPES TO BE ABANDONED IN PLACE PER DETAIL 1/C-4.
6. DEMOLISH (E) WELL PER SPECIFICATION 33 11 13.
7. INSTALL TEMPORARY CAP AND PROTECT IN-PLACE (E) 4" WATER PIPE. CONNECT TO (N) 4" WATER PIPE AS DETAILED ON SHEETS C-1, C-2, AND C-3.
8. COORDINATE WITH DISTRICT AND PG&E FOR DE-ENERGIZATION OF (E) ELECTRICAL SERVICE AT WELL 4A PRIOR TO PERFORMING WORK RELATED TO POLE REPLACEMENT.
9. CONVERT (E) WELL TO MONITORING WELL BY PLACING PVC ACCESS CAP ON WELL WITH 2" PORTS FOR MANUAL MEASUREMENTS.
10. AT WELL 4A, REFERENCE TIME RESTRICTIONS LOCATED ON SHEET G-2, NOTE 21, AS WELL AS SPECIFICATION 01 41 00 (ENVIRONMENTAL REQUIREMENTS).

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PILARCITOS WELLFIELD REPLACEMENT PROJECT
HALF MOON BAY, CALIFORNIA

DEMOLITION PLAN, WELLS 3A AND 4A

	DESCRIPTION	APPR'D	DATE
REV			

DATE: MAR 2025
SCALE: AS SHOWN
DRAWN: NC
DESIGNED: TC
APPROVED: JS
JOB NO.: B80108.39

VERIFY SCALE
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0 1"
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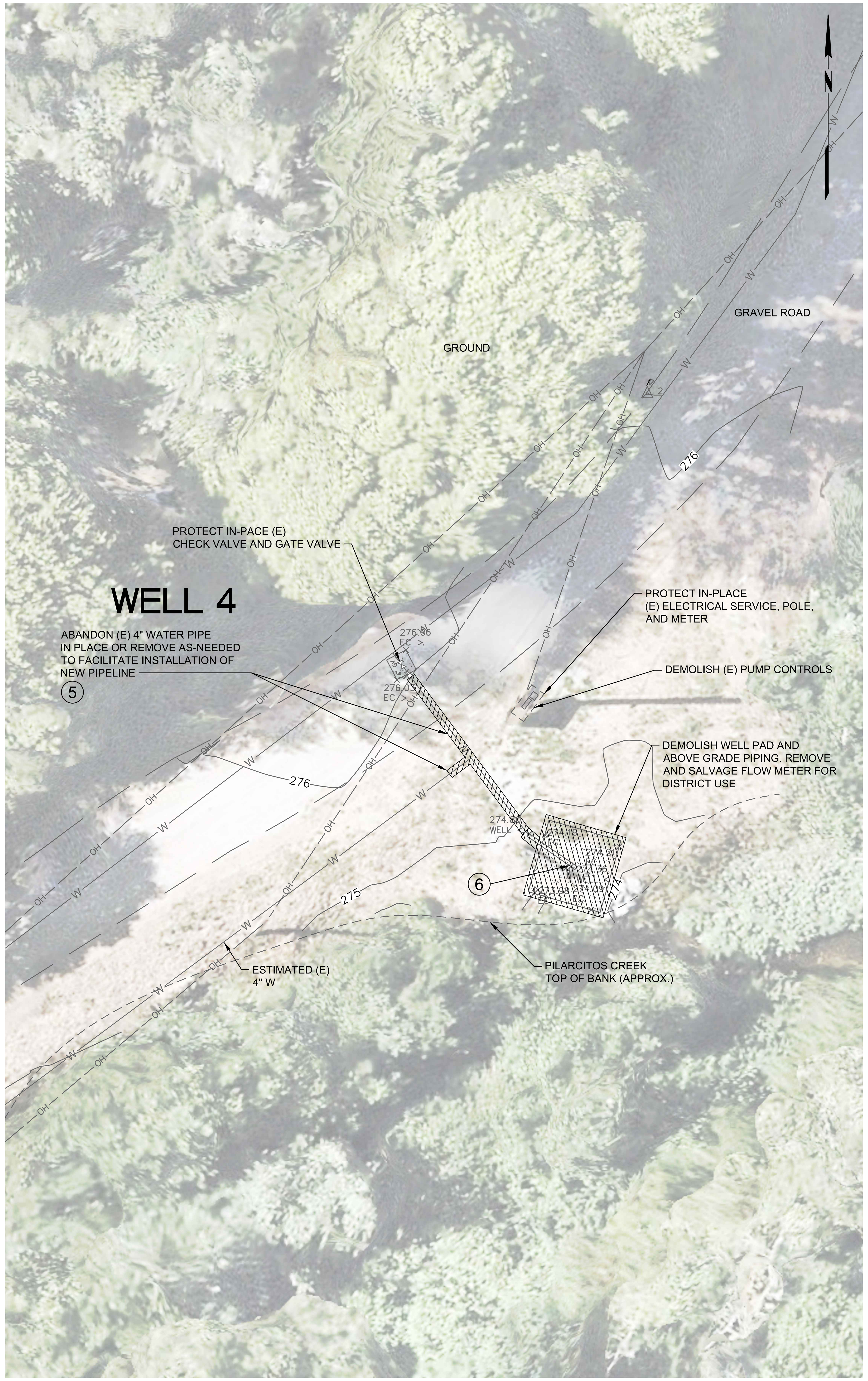
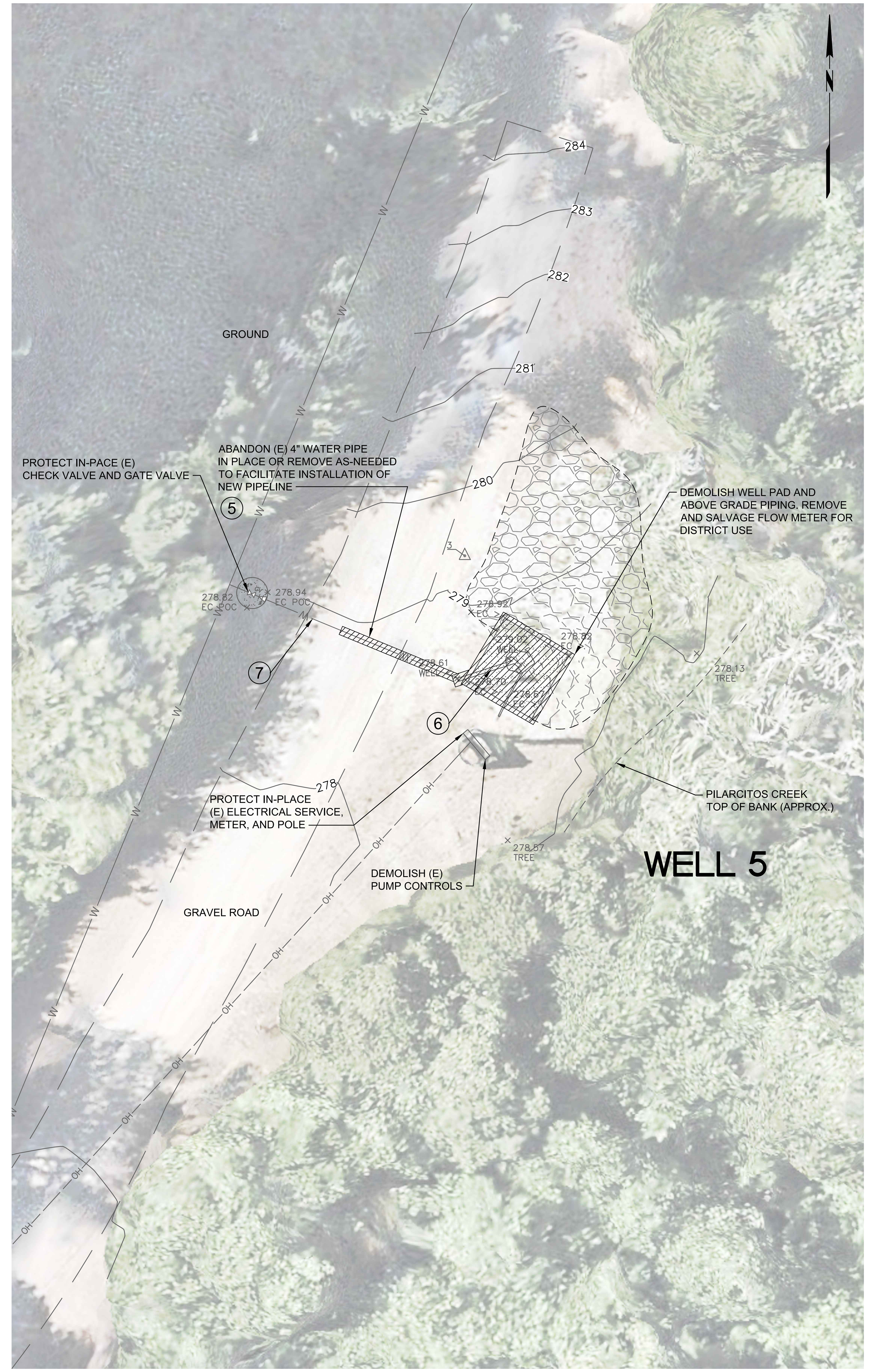
SHEET NUMBER
D-2
4 OF 29

REGISTERED PROFESSIONAL ENGINEER
JONATHAN P. N. JACOBS
C-80108
CIVIL
STATE OF CALIFORNIA
03/31/2025
100% DESIGN / BID SET

REGISTERED PROFESSIONAL ENGINEER
TYLER F. COLYER
C-80141
CIVIL
STATE OF CALIFORNIA
03/31/2025
100% DESIGN / BID SET



PLAN, WELL 4



PLAN, WELL 5

0 5 10 20 30
SCALE: 1"=10'

100% DESIGN / BID SET

CONSTRUCTION NOTES:

1. LOCATIONS OF ALL UNDERGROUND PIPING AND ELECTRICAL CONDUITS TO BE FIELD VERIFIED BY CONTRACTOR.
2. PROTECT ALL ELECTRICAL CONDUITS UP TO EXISTING METER IN PLACE.
3. SCHEDULE SHUTDOWN OF UTILITIES, INCLUDING DE-ENERGIZING ELECTRICAL, WITH OWNER PRIOR TO PROCEEDING WITH DEMOLITION.
4. REMOVE AND PROPERLY DISPOSE OF DEMOLITION DEBRIS, TRASH, RUBBISH, AND ANY MISCELLANEOUS MATERIALS IN ACCORDANCE WITH THE SPECIFICATIONS.
5. CAP AND PLUG EACH END OF INACTIVE WATER PIPES TO BE ABANDONED IN PLACE PER DETAIL 1/C-4.
6. DEMOLISH (E) WELL PER SPECIFICATION 33 11 13.
7. INSTALL TEMPORARY CAP AND PROTECT IN-PLACE (E) 4" WATER PIPE. CONNECT TO (N) 4" WATER PIPE AS DETAILED ON SHEETS C-1, C-2, AND C-3.
8. AT WELLS 4 AND 5, REFERENCE TIME RESTRICTIONS LOCATED ON SHEET G-2, NOTE 21, AS WELL AS SPECIFICATION 01 41 00 (ENVIRONMENTAL REQUIREMENTS).

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PILARCITOS WELLFIELD REPLACEMENT PROJECT
HALF MOON BAY, CALIFORNIA

DEMOLITION PLAN, WELLS 4 AND 5

REV	DESCRIPTION	APPR'D	DATE

DATE:	MAR 2025
SCALE:	AS SHOWN
DRAWN:	NC
DESIGNED:	TC
APPROVED:	JS
JOB NO.:	B80108.39

VERIFY SCALE
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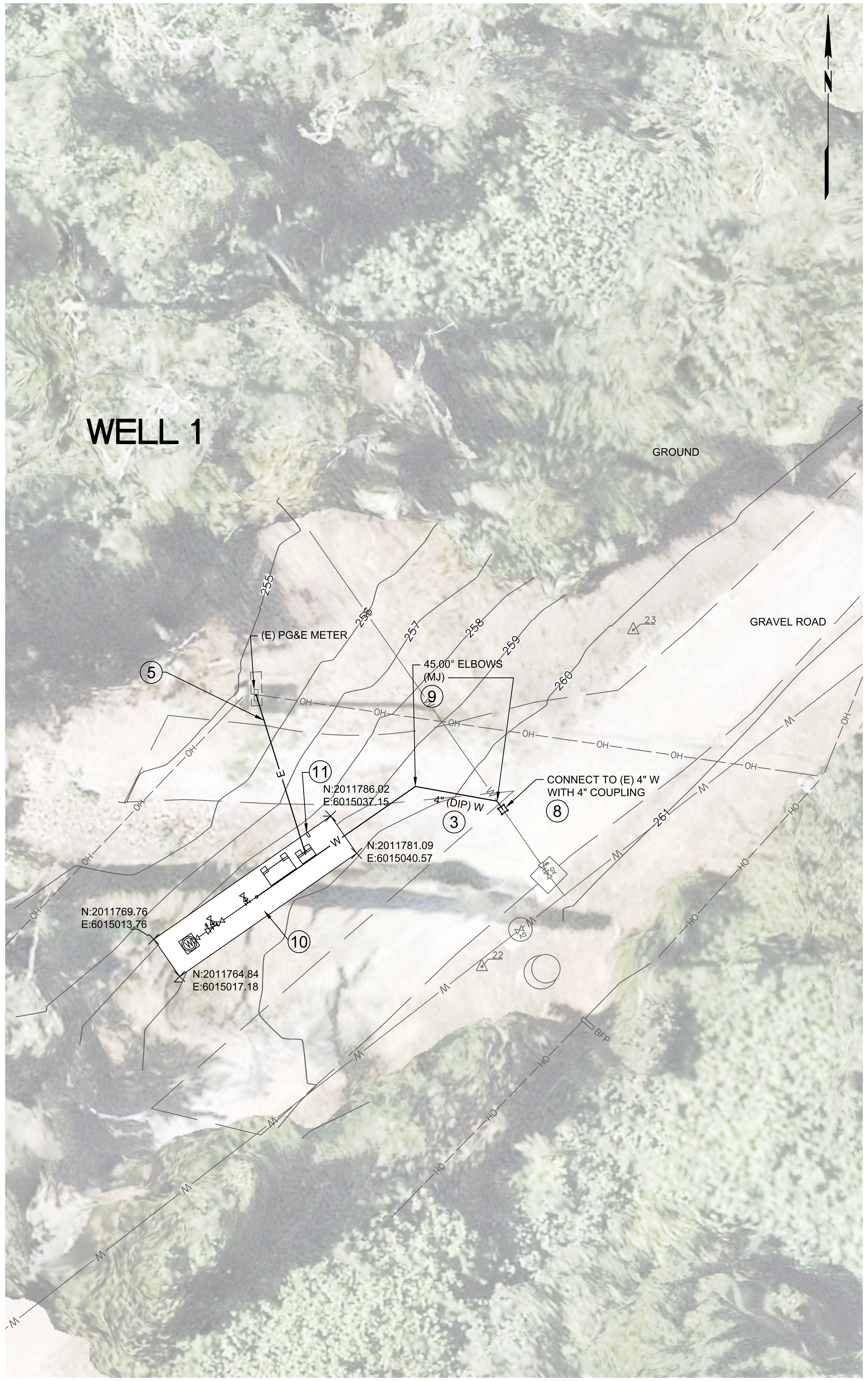
REGISTERED PROFESSIONAL ENGINEER JONATHAN P. N. CIVIL STATE OF CALIFORNIA 03/31/2025
100% DESIGN / BID SET

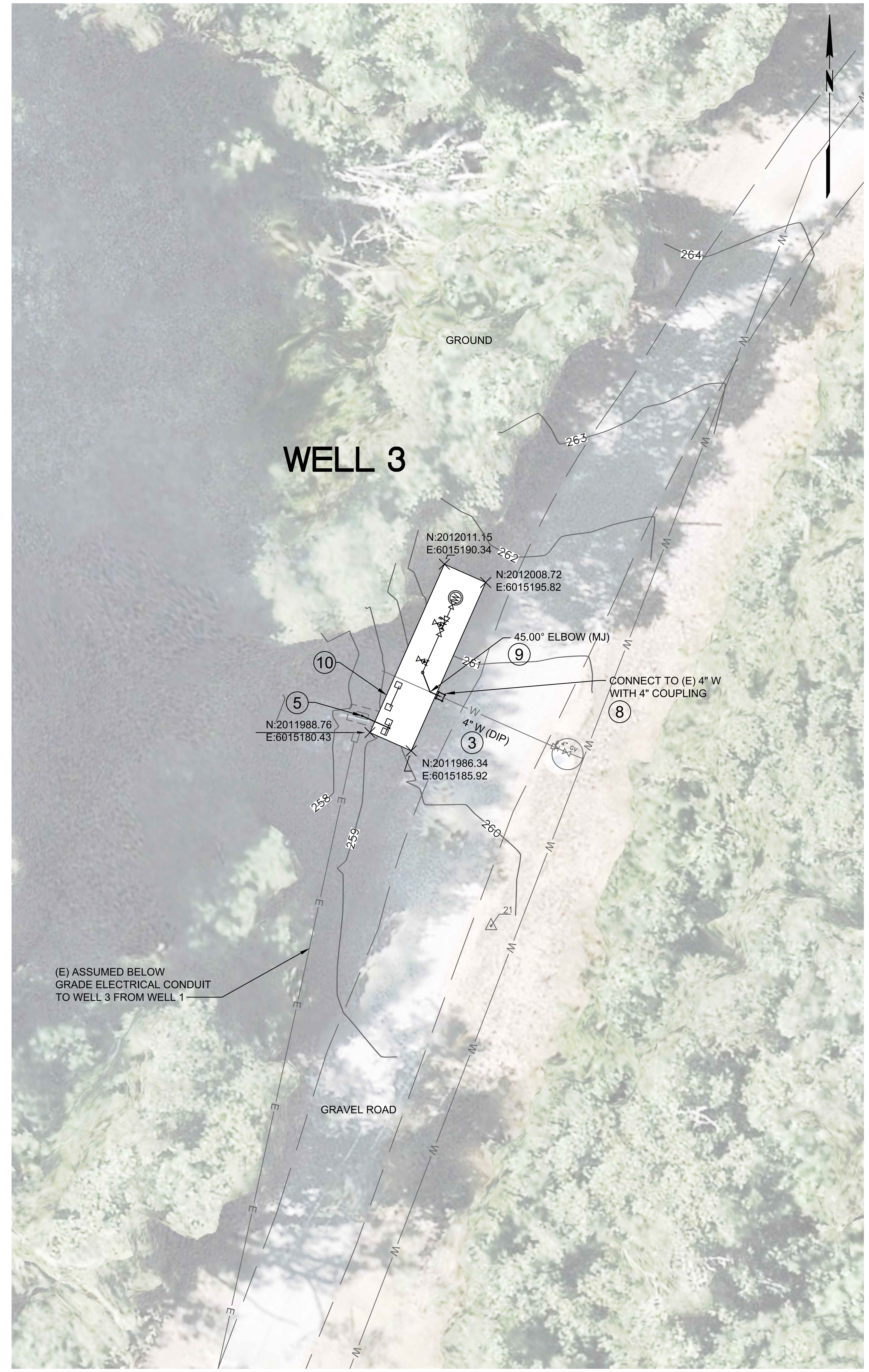
REGISTERED PROFESSIONAL ENGINEER TYLER F. COLYER C 80141 CIVIL STATE OF CALIFORNIA 03/31/2025
100% DESIGN / BID SET

SHEET NUMBER
D-3

Path: G:\EKI_CONSTRUCTION_DWGS\B80108.01 (CIP PROJECTS)\B80108.39_Pilarcitos_Wells Filename: B80108.39_Demolition_V2.dwg Plot Date: March 31, 2025 - 11:50 AM CADD User: Nicole Chapman



PLAN, WELL 1



PLAN, WELL 3

0 5 10 20 30
SCALE: 1"=10'

100% DESIGN / BID SET

CONSTRUCTION NOTES:

1. ALL LOCATIONS AND DEPTHS OF (E) UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR POTHOLING AND VERIFYING SIZES, DEPTHS, AND LOCATIONS OF ALL UTILITIES. ANY CHANGES TO THESE PLANS AND SPECIFICATIONS SHALL BE APPROVED BY THE ENGINEER OR OWNER REPRESENTATIVE.
2. CONTRACTOR SHALL PROTECT ALL EXISTING FEATURES LOCATED OUTSIDE OF LIMITS OF WORK.
3. INSTALL (N) WATER LINE BY OPEN TRENCH PER DETAIL CC-01/C-4, CC-02/C-4, OR CC-03/C-4.

   IF THERE ARE UTILITY CONFLICTS, INSTALL (N) WATER LINE PER DETAIL 3/C-4.
4. ALL DUCTILE IRON PIPE JOINTS SHALL BE RESTRAINED. IN ADDITION, DUCTILE IRON PIPE JOINTS SHALL BE RESTRAINED MECHANICAL JOINTS WITHIN 3-FEET OF ALL CONCRETE ENCASEMENTS.
5. BURIED ELECTRICAL CONDUIT PER DETAIL 26023/GE-2. CONDUIT STUB UPS PER DETAIL 26107/GE-2.
6. AT CONNECTIONS TO EXISTING BURIED PIPE, CONTRACTOR SHALL EXPOSE THE EXISTING PIPE AND VERIFY LOCATIONS, DEPTH, MATERIALS, AND DIMENSIONS OF EXISTING PIPE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY COUPLINGS, FITTINGS, APPURTENANCES, TOOLS, AND LABOR TO COMPLETE THE CONNECTIONS WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT, AT NO ADDITIONAL COST TO THE OWNER.
7. UNLESS SHOWN OTHERWISE, MINIMUM PIPE COVER SHALL BE 3-FEET. INSTALL PIPE AND VALVES PER OWNER STANDARD DETAILS. SEE SHEETS C-4 AND C-5.
8. TIE-INS TO EXISTING SYSTEMS SHALL BE MADE WITHOUT INTERRUPTION OF EXISTING SERVICE UNLESS NOTED OTHERWISE IN THE DRAWINGS OR SPECIFICATIONS. IF REQUIRED, CONTRACTOR SHALL SUBMIT A SCHEDULE OF INTERRUPTION OF SERVICE IN ACCORDANCE WITH THE SPECIFICATIONS.
9. INSTALL THRUST BLOCKS ON ALL FITTINGS PER DETAIL CC-22/C-4.
10. AT EACH WELL SITE, CONTRACTOR SHALL SMOOTH GRADE BETWEEN EDGE OF CONCRETE PAD AND THE EXISTING SITE ELEVATIONS. GRADE TO DRAIN AWAY FROM THE CONCRETE PADS.
11. INSTALL 120V RECEPTACLE IN PROTECTED LOCATION ON CONCRETE PAD. SEE ELECTRICAL DRAWINGS.

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PILARCITOS WELLFIELD REPLACEMENT PROJECT
HALF MOON BAY, CALIFORNIA

PLAN, PILARCITOS WELLS 1 AND 3

REV	DESCRIPTION	APPR'D	DATE

DATE:	MAR 2025
SCALE:	AS SHOWN
DRAWN:	NC
DESIGNED:	TC
APPROVED:	JS
JOB NO.:	B80108.39

VERIFY SCALE
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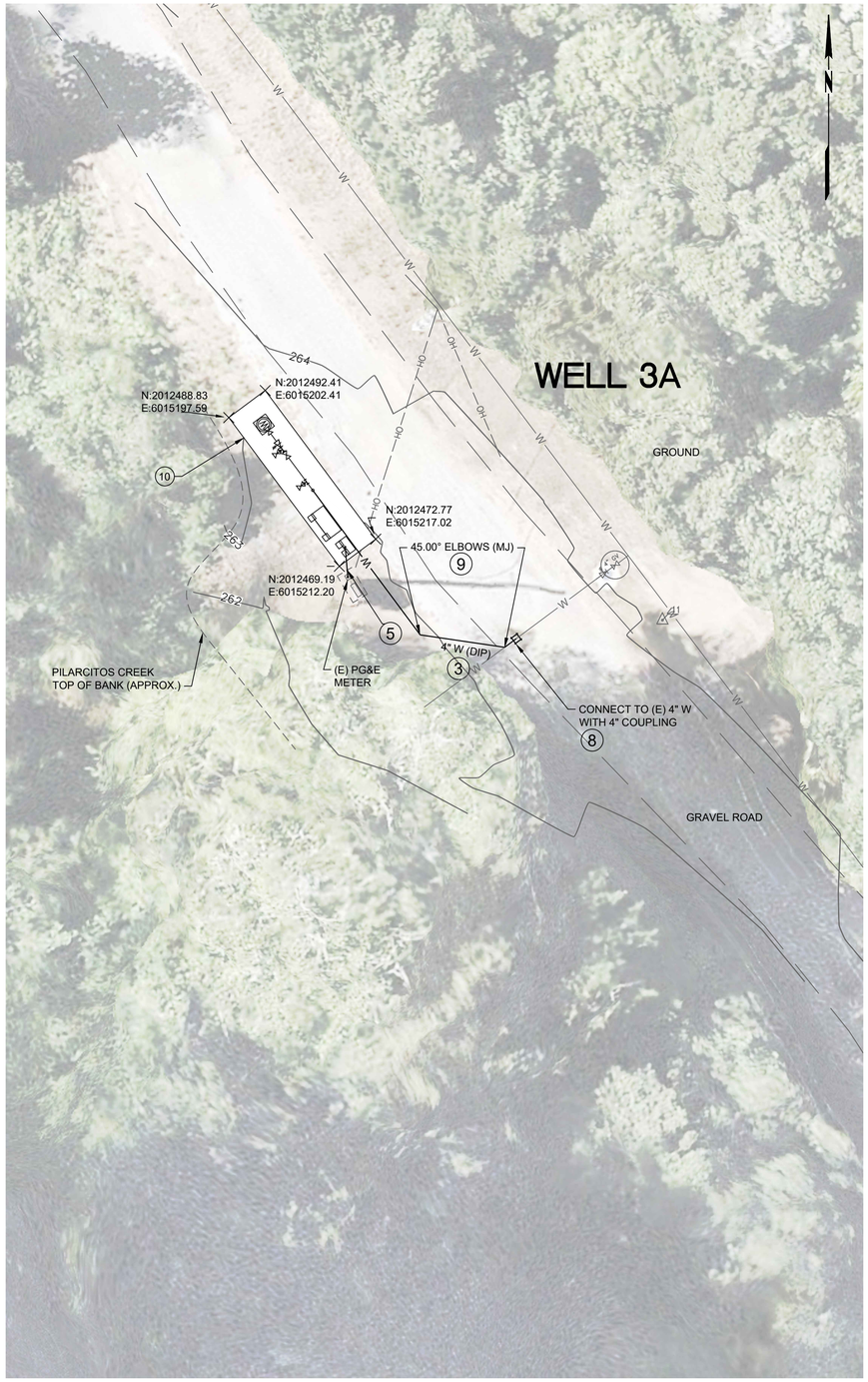
REGISTERED PROFESSIONAL ENGINEER — JONATHAN P. N. SUTTER — C 81008 — CIVIL — STATE OF CALIFORNIA — 03/31/2025
100% DESIGN / BID SET

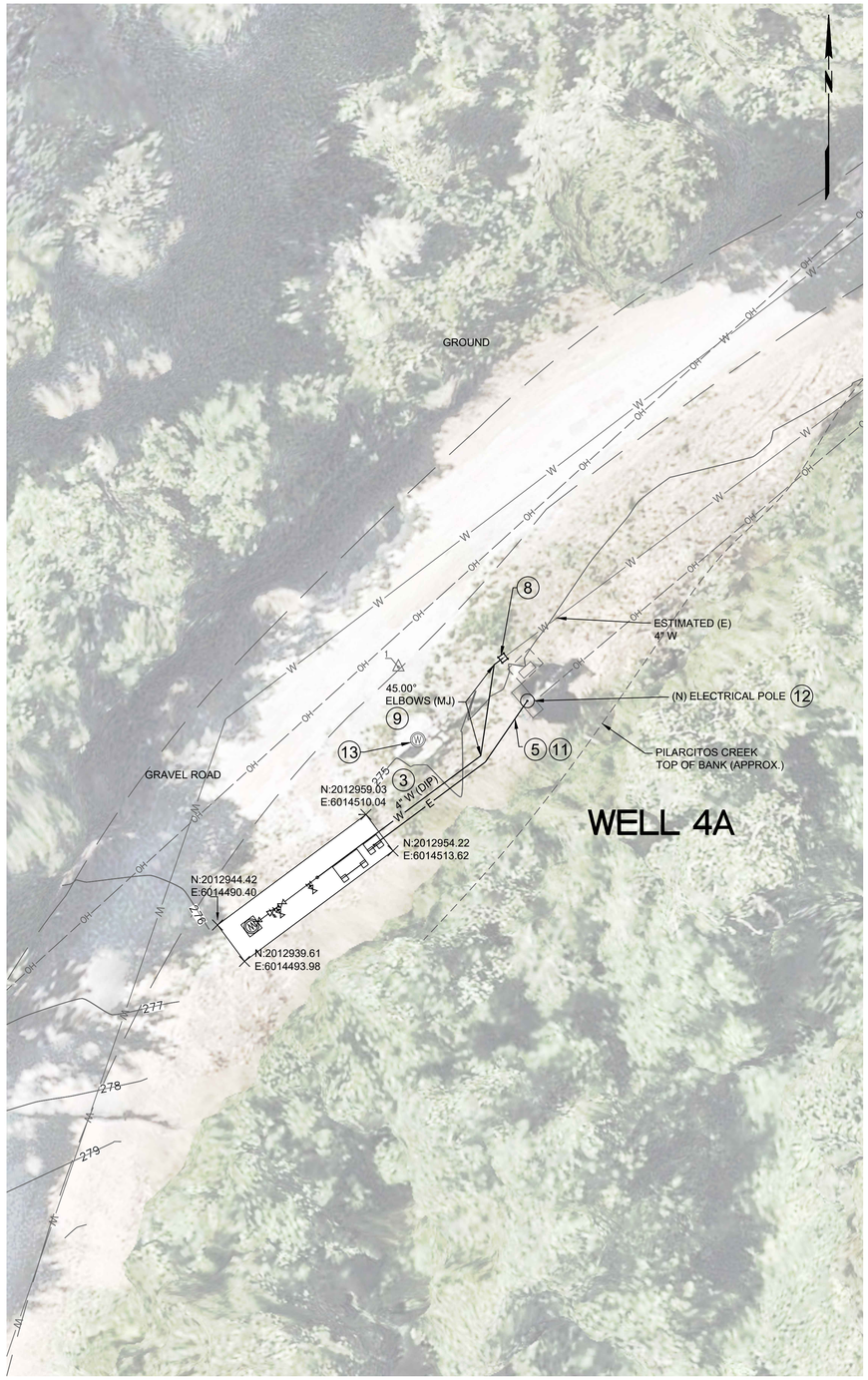
REGISTERED PROFESSIONAL ENGINEER — TYLER F. COLYER — C 80141 — CIVIL — STATE OF CALIFORNIA — 03/31/2025
100% DESIGN / BID SET

SHEET NUMBER
C-1

Path: G:\EKI_CONSTRUCTION_DWGS\B80108.01 (CIP PROJECTS)\B80108.39_Pilarcitos_Wells Filename: B80108.39_C-Sheets.dwg Plot Date: March 31, 2025 - 11:50 AM CADD User: Nicole Chapman



PLAN, WELL 3A



PLAN, WELL 4A

SCALE: 1"=10'

100% DESIGN / BID SET

CONSTRUCTION NOTES:

1. ALL LOCATIONS AND DEPTHS OF (E) UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR POTHOLING AND VERIFYING SIZES, DEPTHS, AND LOCATIONS OF ALL UTILITIES. ANY CHANGES TO THESE PLANS AND SPECIFICATIONS SHALL BE APPROVED BY THE ENGINEER OR OWNER REPRESENTATIVE.
2. CONTRACTOR SHALL PROTECT ALL EXISTING FEATURES LOCATED OUTSIDE OF LIMITS OF WORK.
3. INSTALL (N) WATER LINE BY OPEN TRENCH PER DETAIL CC-01/C-4, CC-02/C-4, OR CC-03/C-4.

   IF THERE ARE UTILITY CONFLICTS, INSTALL (N) WATER LINE PER DETAIL 3/C-4
4. ALL DUCTILE IRON PIPE JOINTS SHALL BE RESTRAINED. IN ADDITION, DUCTILE IRON PIPE JOINTS SHALL BE RESTRAINED MECHANICAL JOINTS WITHIN 3-FEET OF ALL CONCRETE ENCASEMENTS.
5. BURIED ELECTRICAL CONDUIT PER DETAIL 26023/GE-2. CONDUIT STUB UPS PER DETAIL 26107/GE-2
6. AT CONNECTIONS TO EXISTING BURIED PIPE, CONTRACTOR SHALL EXPOSE THE EXISTING PIPE AND VERIFY LOCATIONS, DEPTH, MATERIALS, AND DIMENSIONS OF EXISTING PIPE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY COUPLINGS, FITTINGS, APPURTENANCES, TOOLS, AND LABOR TO COMPLETE THE CONNECTIONS WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT, AT NO ADDITIONAL COST TO THE OWNER.
7. UNLESS SHOWN OTHERWISE, MINIMUM PIPE COVER SHALL BE 3-FEET. INSTALL PIPE AND VALVES PER OWNER STANDARD DETAILS. SEE SHEETS C-4 AND C-5.
8. TIE-INS TO EXISTING SYSTEMS SHALL BE MADE WITHOUT INTERRUPTION OF EXISTING SERVICE UNLESS NOTED OTHERWISE IN THE DRAWINGS OR SPECIFICATIONS. IF REQUIRED, CONTRACTOR SHALL SUBMIT A SCHEDULE OF INTERRUPTION OF SERVICE IN ACCORDANCE WITH THE SPECIFICATIONS.
9. INSTALL THRUST BLOCKS ON ALL FITTINGS PER DETAIL CC-22/C-4.
10. AT EACH WELL SITE, CONTRACTOR SHALL SMOOTH GRADE BETWEEN EDGE OF CONCRETE PAD AND THE EXISTING SITE ELEVATIONS. GRADE TO DRAIN AWAY FROM THE CONCRETE PADS.
11. RADIO ANTENNA TO BE INSTALLED 15 FEET UP (N) ELECTRICAL POLE AND CONNECTED TO (N) CONDUIT RUN. SEE ELECTRICAL SHEETS.
12. (E) PG&E METER TO BE REMOVED FROM (E) ELECTRICAL POLE AND INSTALLED ON (N) REPLACEMENT POLE. (N) ANTENNA TO BE INSTALLED 15 FEET ABOVE GRADE ON (N) POLE.
13. (E) WELL 4A TO BE CONVERTED TO MONITORING WELL AND BE PROTECTED IN PLACE DURING CONSTRUCTION. PLACE PVC ACCESS CAP WITH 2" PORTS FOR MANUAL MEASUREMENTS ON (E) WELL.
14. AT WELL 4A, REFERENCE TIME RESTRICTIONS LOCATED ON SHEET G-2, NOTE 21, AS WELL AS SPECIFICATION 01 41 00 (ENVIRONMENTAL REQUIREMENTS).

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PILARCITOS WELLFIELD REPLACEMENT PROJECT

HALF MOON BAY, CALIFORNIA

PLAN, PILARCITOS WELLS 3A AND 4A

DATE	DESCRIPTION	REV	APPRD	DATE

DATE: MAR 2025
SCALE: AS SHOWN
DRAWN: NC
DESIGNED: TC
APPROVED: JS
JOB NO.: B80108.39

VERIFY SCALE
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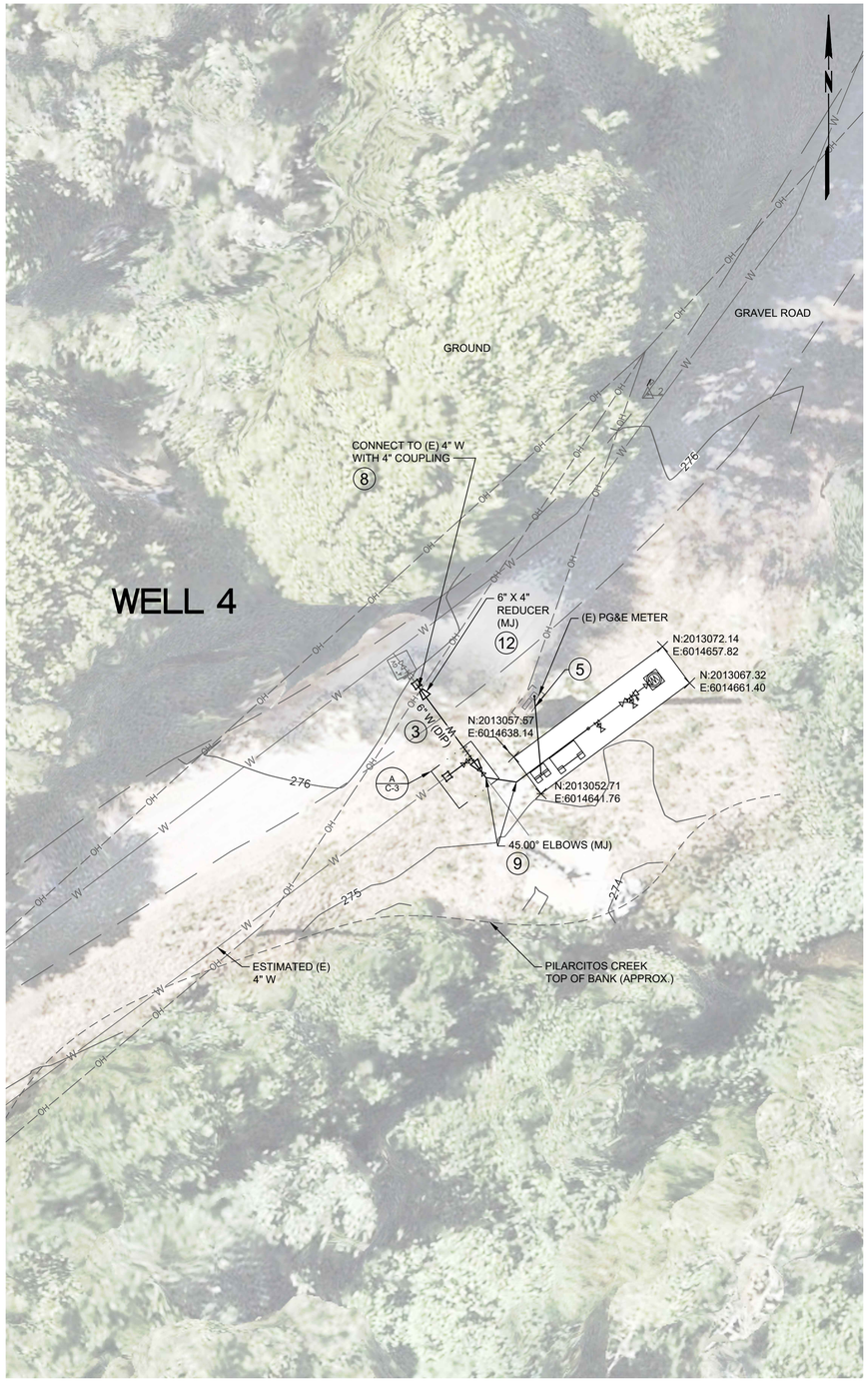
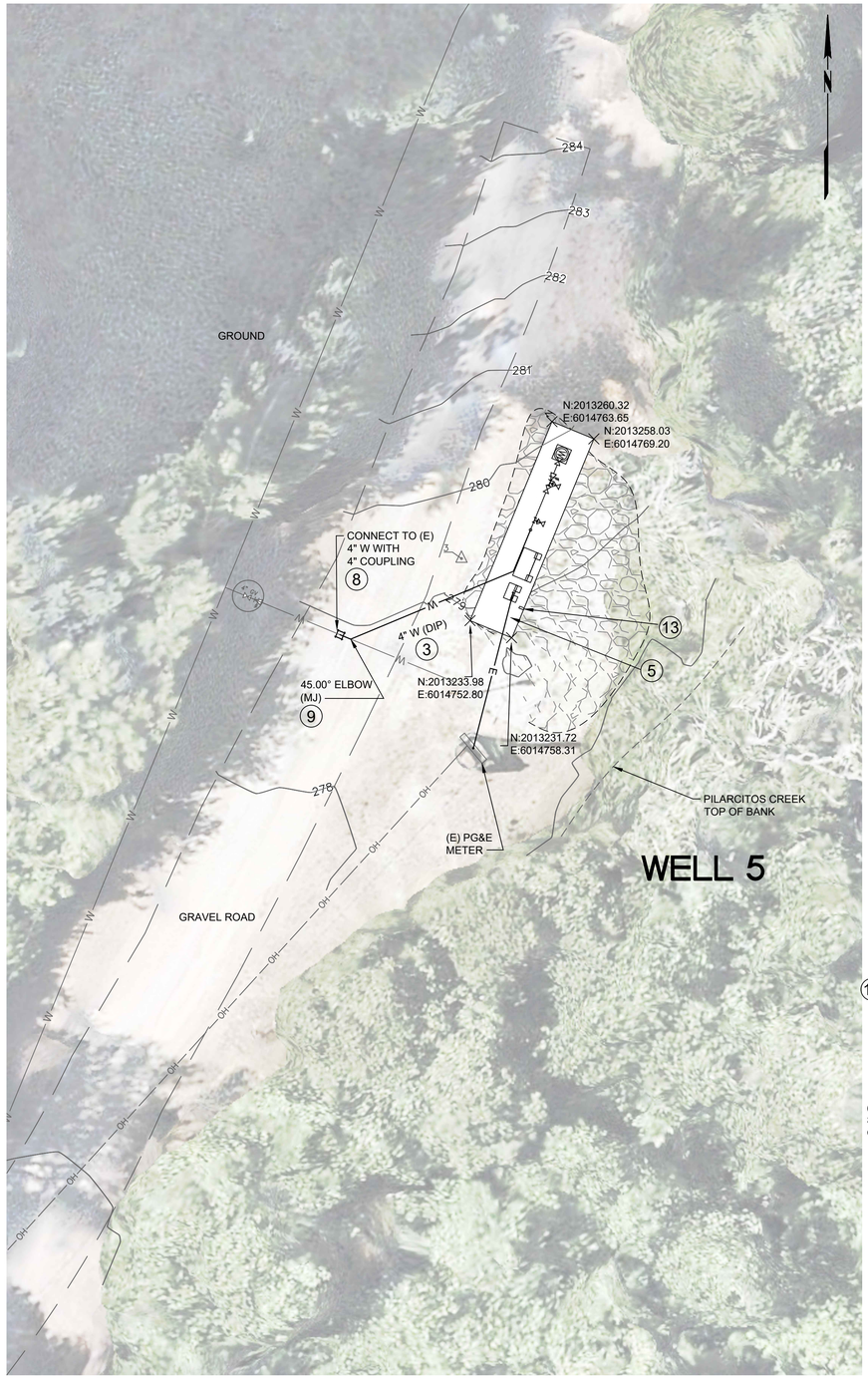
REGISTERED PROFESSIONAL ENGINEER — JONATHAN P. N. NG — C 84008 — CIVIL — STATE OF CALIFORNIA — 03/31/2025
100% DESIGN / BID SET

REGISTERED PROFESSIONAL ENGINEER — TYLER F. COLYER — C 80141 — CIVIL — STATE OF CALIFORNIA — 03/31/2025
100% DESIGN / BID SET

SHEET NUMBER
C-2
7 OF 29



PLAN, WELL 4



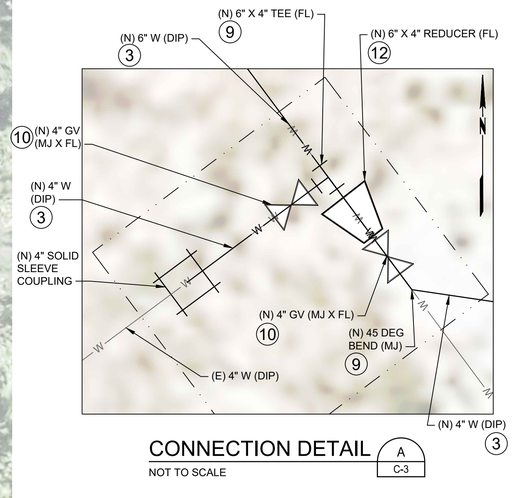
PLAN, WELL 5

0 5 10 20 30
SCALE: 1"=10'

CONSTRUCTION NOTES:

1. ALL LOCATIONS AND DEPTHS OF (E) UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR POTHOLING AND VERIFYING SIZES, DEPTHS, AND LOCATIONS OF ALL UTILITIES. ANY CHANGES TO THESE PLANS AND SPECIFICATIONS SHALL BE APPROVED BY THE ENGINEER OR OWNER REPRESENTATIVE.
2. CONTRACTOR SHALL PROTECT ALL EXISTING FEATURES LOCATED OUTSIDE OF LIMITS OF WORK.
3. INSTALL (N) WATER LINE BY OPEN TRENCH PER DETAIL CC-01/C-4, CC-02/C-4, OR CC-03/C-4.

   IF THERE ARE UTILITY CONFLICTS, INSTALL (N) WATER LINE PER DETAIL 3/C-4
4. ALL DUCTILE IRON PIPE JOINTS SHALL BE RESTRAINED. IN ADDITION, DUCTILE IRON PIPE JOINTS SHALL BE RESTRAINED MECHANICAL JOINTS WITHIN 3-FEET OF ALL CONCRETE ENCASEMENTS.
5. BURIED ELECTRICAL CONDUIT PER DETAIL 26023/GE-2. CONDUIT STUB UPS PER DETAIL 26107/GE-2
6. AT CONNECTIONS TO EXISTING BURIED PIPE, CONTRACTOR SHALL EXPOSE THE EXISTING PIPE AND VERIFY LOCATIONS, DEPTH, MATERIALS, AND DIMENSIONS OF EXISTING PIPE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY COUPLINGS, FITTINGS, APPURTENANCES, TOOLS, AND LABOR TO COMPLETE THE CONNECTIONS WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT, AT NO ADDITIONAL COST TO THE OWNER.
7. UNLESS SHOWN OTHERWISE, MINIMUM PIPE COVER SHALL BE 3-FEET. INSTALL PIPE AND VALVES PER OWNER STANDARD DETAILS. SEE SHEETS C-4 AND C-5.
8. TIE-INS TO EXISTING SYSTEMS SHALL BE MADE WITHOUT INTERRUPTION OF EXISTING SERVICE UNLESS NOTED OTHERWISE IN THE DRAWINGS OR SPECIFICATIONS. IF REQUIRED, CONTRACTOR SHALL SUBMIT A SCHEDULE OF INTERRUPTION OF SERVICE IN ACCORDANCE WITH THE SPECIFICATIONS.
9. INSTALL THRUST BLOCKS ON ALL FITTINGS PER DETAIL CC-22/C-4
10. INSTALL GATE VALVE PER DETAIL CC-09/C-4.
11. AT EACH WELL SITE, CONTRACTOR SHALL SMOOTH GRADE BETWEEN EDGE OF CONCRETE PAD AND THE EXISTING SITE ELEVATIONS. GRADE TO DRAIN AWAY FROM THE CONCRETE PADS.
12. INSTALL REDUCER ANCHOR BLOCK PER DETAIL 4/C-5.
13. INSTALL 120V RECEPTACLE IN PROTECTED LOCATION ON CONCRETE PAD. SEE ELECTRICAL DRAWINGS.
14. AT WELL 4 AND 5, REFERENCE TIME RESTRICTIONS LOCATED ON SHEET G-2, NOTE 21, AS WELL AS SPECIFICATION 01 41 00 (ENVIRONMENTAL REQUIREMENTS).



CONNECTION DETAIL A/C-3

NOT TO SCALE

100% DESIGN / BID SET

eki environment & water
2001 JUNIPERO SERRA BOULEVARD, SUITE 300
DALY CITY, CALIFORNIA 94014
(650) 292-9100 • FAX (650) 552-9012

PILARCITOS WELLFIELD REPLACEMENT PROJECT

HALF MOON BAY, CALIFORNIA

PLAN, PILARCITOS WELLS 4 AND 5

	DATE	APPR'D	DESCRIPTION	REV

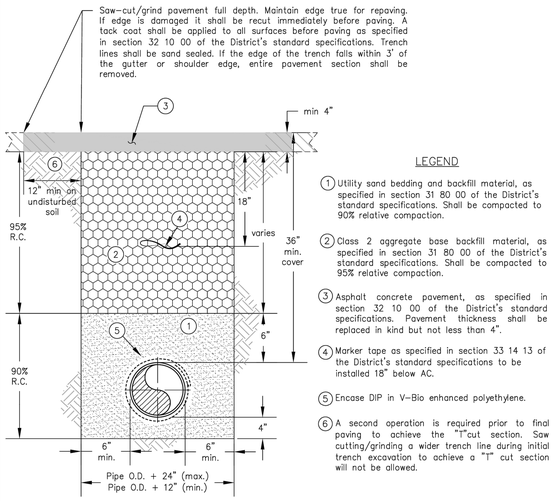
DATE: MAR 2025
SCALE: AS SHOWN
DRAWN: NC
DESIGNED: TC
APPROVED: JS
JOB NO.: B80108.39

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY
0 1"

REGISTERED PROFESSIONAL ENGINEER JONATHAN P. N. JACOBS C 80108 CIVIL STATE OF CALIFORNIA 03/31/2025
100% DESIGN / BID SET

REGISTERED PROFESSIONAL ENGINEER TYLER F. COLYER C 80141 CIVIL STATE OF CALIFORNIA 03/31/2025
100% DESIGN / BID SET

SHEET NUMBER
C-3
8 OF 29



LEGEND

1. Utility sand bedding and backfill material, as specified in section 31 80 00 of the District's standard specifications. Shall be compacted to 90% relative compaction.
2. Class 2 aggregate base backfill material, as specified in section 31 80 00 of the District's standard specifications. Shall be compacted to 95% relative compaction.
3. Asphalt concrete pavement, as specified in section 32 10 00 of the District's standard specifications. Pavement thickness shall be replaced in kind but not less than 4".
4. Marker tape as specified in section 33 14 13 of the District's standard specifications to be installed 18" below AC.
5. Encase DIP in V-Bio enhanced polyethylene.
6. A second operation is required prior to final paving to achieve the "T"cut section. Saw cutting/grinding a wider trench line during initial trench excavation to achieve a "T" cut section will not be allowed.

Note:
Replace existing tracer wire if damaged during trenching operation.

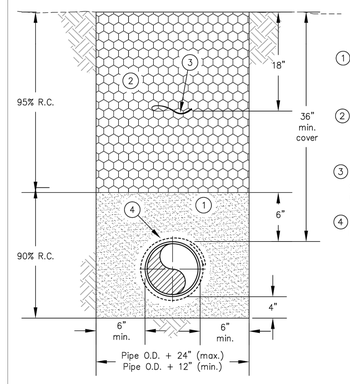
TRENCH SECTION - TYPE A
PAVED SURFACES

REV. 05/2018

COASTSIDE COUNTY WATER DISTRICT
766 MAIN STREET
HALF MOON BAY, CA

Approved by:
David Dickson, General Manager

STD. NO. CC-01



LEGEND

1. Utility sand bedding and backfill material, as specified in section 31 80 00 of the District's standard specifications. Shall be compacted to 90% relative compaction.
2. Class 2 aggregate base backfill material, as specified in section 31 80 00 of the District's standard specifications. Shall be compacted to 95% relative compaction.
3. Marker tape as specified in section 33 14 13 of the District's standard specifications to be installed 18" below AC.
4. Encase DIP with V-Bio enhanced polyethylene.

Note:
Replace existing tracer wire if damaged during trenching operation.

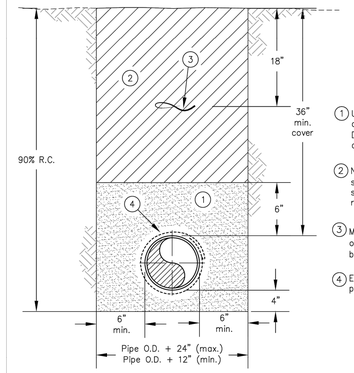
TRENCH SECTION - TYPE B
GRAVELED AREAS / ROAD SHOULDERS

REV. 05/2018

COASTSIDE COUNTY WATER DISTRICT
766 MAIN STREET
HALF MOON BAY, CA

Approved by:
David Dickson, General Manager

STD. NO. CC-02



LEGEND

1. Utility sand bedding and backfill material, as specified in section 31 80 00 of the District's standard specifications. Shall be compacted to 90% relative compaction.
2. Native backfill material, as specified in section 31 80 00 of the District's standard specifications. Shall be compacted to 95% relative compaction.
3. Marker tape as specified in section 33 14 13 of the District's standard specifications to be installed 18" below AC.
4. Encase DIP with V-Bio enhanced polyethylene.

Note:
Replace existing tracer wire if damaged during trenching operation.

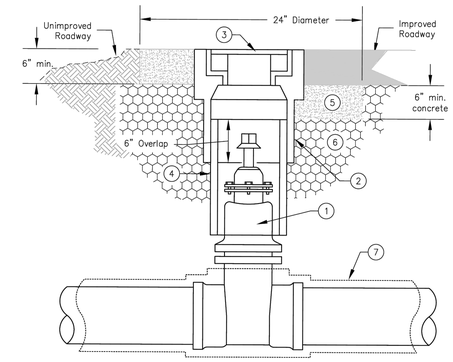
TRENCH SECTION - TYPE C
UNIMPROVED AREA

REV. 05/2018

COASTSIDE COUNTY WATER DISTRICT
766 MAIN STREET
HALF MOON BAY, CA

Approved by:
David Dickson, General Manager

STD. NO. CC-03



LEGEND

1. Gate valve, Mueller No. A-2362 with Type 316 SS bolts and nuts, and 2" square bronze operation nut. Steam seal shall be O-ring type. Valve stem shall be made of ASTM B98-C66100/H02 (Everdur) bar stock material; EPDM rubber; machined release groove below operating nut; and stuffing box aligned with the direction of the pipe. If coating on gate valve is damaged during the installation, it should be repaired using Mueller Epoxy Kit No. 280089 to the satisfaction of the District. Valve shall be set plumb.
2. Traffic valve box, Christy Concrete No. G05TBOX.
3. Cast iron traffic cover inscribed "WATER", Christy Concrete No. G05CT.
4. SDR 35 PVC pipe riser - 8" minimum diameter.
5. 2,000 psi high early strength. Asphalt shall be placed on top of concrete collar, same day.
6. Backfill material, aggregate base per road surface, see Detail CC-01.
7. Encase DIP in V-Bio enhanced polyethylene. Wrap excess film with 10-mil pipe tape.

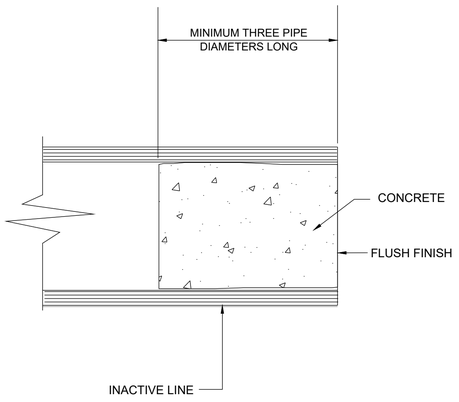
GATE VALVE ASSEMBLY

REV. 05/2018

COASTSIDE COUNTY WATER DISTRICT
766 MAIN STREET
HALF MOON BAY, CA

Approved by:
David Dickson, General Manager

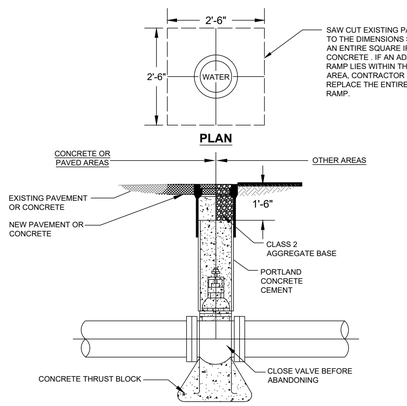
STD. NO. CC-09



CUT AND PLUG INACTIVE LINE

1 / C-4

NOT TO SCALE



NOTES:

1. REMOVE VALVE BOX AND LID. CUT AND REMOVE PORTION OF RISER LOCATED ABOVE 18" BELOW GRADE.
2. FILL RISER WITH 1.5 SACK CONTROL DENSITY FILL TO 18" BELOW GRADE FOR UNIMPROVED AREAS, TO THE BOTTOM OF EXISTING PAVEMENT FOR PAVED AREAS, AND TO THE SURFACE FOR CONCRETE AREAS.
3. REPAIR SURFACE IN KIND FOR PAVED OR CONCRETE AREAS. REPLACE TOPSOIL IN UNPAVED AREAS.

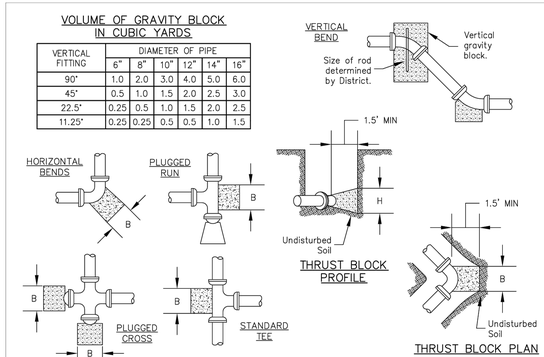
VALVE ABANDONMENT

2 / C-4

NOT TO SCALE

VOLUME OF GRAVITY BLOCK IN CUBIC YARDS

VERTICAL FITTING	DIAMETER OF PIPE					
	6"	8"	10"	12"	14"	16"
90°	1.0	2.0	3.0	4.0	5.0	6.0
45°	0.5	1.0	1.5	2.0	2.5	3.0
22.5°	0.25	0.5	1.0	1.5	2.0	2.5
11.25°	0.25	0.25	0.5	0.5	1.0	1.5



DIMENSIONS OF THRUST BLOCKS IN FEET

HORIZONTAL FITTING	DIAMETER OF PIPE											
	6"		8"		10"		12"		14"		16"	
	B	H	B	H	B	H	B	H	B	H	B	H
90°	1'-9"	1'-9"	2'-3"	2'-3"	2'-9"	2'-9"	3'-3"	3'-3"	3'-9"	3'-9"	4'-3"	4'-3"
45°	1'-0"	1'-0"	1'-6"	1'-6"	2'-0"	2'-0"	2'-6"	2'-6"	3'-0"	3'-0"	3'-6"	3'-6"
22.5°	1'-0"	0'-6"	1'-0"	0'-8"	1'-6"	0'-8"	1'-6"	1'-0"	1'-6"	1'-6"	2'-0"	1'-6"
11.25°	1'-0"	0'-6"	1'-0"	0'-6"	1'-0"	0'-6"	1'-0"	0'-8"	1'-8"	0'-8"	1'-5"	1'-0"
PLUG/TEE	1'-3"	1'-3"	1'-9"	1'-9"	2'-3"	2'-3"	2'-9"	2'-9"	3'-3"	3'-3"	3'-9"	3'-9"

NOTES:

1. Use 2,000 psi high early strength concrete.
2. All thrust blocks and gravity blocks shall bear against undisturbed earth.
3. Encased DI pipe in 8 mil. linear low-density polyethylene film.
4. Maintain a minimum clearance of 2" between the thrust block reinforcing steel and pipe.
5. Concrete not to extend beyond the face of the bell.
6. Thrust block shall encompass at least one-half of the outside diameter of the pipe.
7. Flanges, bolts, and nuts shall be kept clear of concrete.
8. Dimensions above include use of mechanical restraints on pipe.
9. If groundwater is presented, thrust block dimensions shall be determined by the District.
10. Thrust block dimensions shall be doubled if used on non-restrained connections.

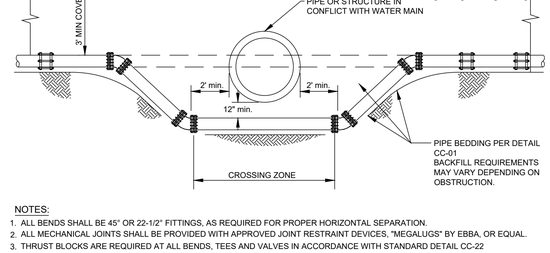
THRUST RESTRAINT - THRUST BLOCK DETAILS

REV. 05/2018

COASTSIDE COUNTY WATER DISTRICT
766 MAIN STREET
HALF MOON BAY, CA

Approved by:
David Dickson, General Manager

STD. NO. CC-22



NOTES:

1. ALL BENDS SHALL BE 45° OR 22-1/2° FITTINGS, AS REQUIRED FOR PROPER HORIZONTAL SEPARATION.
2. ALL MECHANICAL JOINTS SHALL BE PROVIDED WITH APPROVED JOINT RESTRAINT DEVICES, "MEGALUGS" BY EBBA, OR EQUAL.
3. THRUST BLOCKS ARE REQUIRED AT ALL BENDS, TEES AND VALVES IN ACCORDANCE WITH STANDARD DETAIL CC-22
4. NEW WATER MAINS SHALL NOT BE INSTALLED IN THE SAME TRENCH AS, AND SHALL BE AT LEAST 10 FT. HORIZONTALLY FROM AND ONE FOOT VERTICALLY ABOVE, ANY PARALLEL SANITARY SEWER LINE. WATER MAIN SHALL BE ENCAPSOLATED WITH CONCRETE OR CDF IF CROSSING UNDER SANITARY SEWER LINE.
5. NEW WATER MAINS SHALL BE INSTALLED AT LEAST 4 FEET HORIZONTALLY FROM, AND ONE FOOT VERTICALLY ABOVE, ANY PARALLEL STORM DRAINAGE PIPELINE. WATER MAIN SHALL BE ENCAPSOLATED WITH CONCRETE OR CDF IF CROSSING UNDER STORM DRAINAGE PIPELINE.
6. IF CROSSING A SANITARY OR STORM DRAINAGE PIPELINE, A NEW WATER MAIN SHALL BE CONSTRUCTED NO LESS THAN 45 DEGREES TO AND AT LEAST ONE FOOT ABOVE THAT PIPELINE. NO CONNECTION JOINTS SHALL BE MADE IN THE WATER MAIN WITHIN EIGHT HORIZONTAL FEET OF THE SANITARY OR STORM DRAINAGE PIPELINE.
7. NEW WATER MAINS SHALL NOT BE INSTALLED WITHIN 100 HORIZONTAL FEET OF THE NEAREST EDGE OF ANY SANITARY LANDFILL, WASTEWATER DISPOSAL POND, OR HAZARDOUS WASTE DISPOSAL SITE, OR WITHIN 25 FEET OF THE NEAREST EDGE OF ANY CESSPOOL, SEPTIC TANK, SEWAGE LEACH FIELD, SEEPAGE PIT, UNDERGROUND HAZARDOUS MATERIALS.

UTILITY CROSSING

3 / C-4

NOT TO SCALE

100% DESIGN / BID SET

REGISTERED PROFESSIONAL ENGINEER — JONATHAN P.N. SUTTER — C 80008 — CIVIL — STATE OF CALIFORNIA — 03/31/2025

100% DESIGN / BID SET

REGISTERED PROFESSIONAL ENGINEER — TYLER F. COLYER — C 80141 — CIVIL — STATE OF CALIFORNIA — 03/31/2025

100% DESIGN / BID SET

ekI environment & water
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DALY CITY, CALIFORNIA 94014
(650) 292-9100 • FAX (650) 552-9012

PILARCITOS WELLFIELD REPLACEMENT PROJECT

HALF MOON BAY, CALIFORNIA

CONSTRUCTION DETAILS - 1

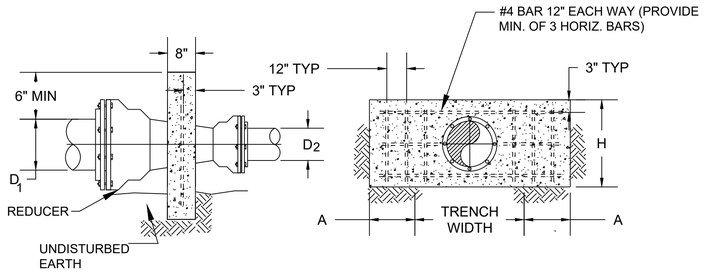
DESCRIPTION	APPRD	DATE

DATE:	MAR 2025
SCALE:	AS SHOWN
DRAWN:	NC
DESIGNED:	TC
APPROVED:	JS
JOB NO.:	B80108.39
REV	

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

SHEET NUMBER
C-4
9 OF 29

Path: G:\EKI_CONSTRUCTION_DWGS\B80108.01 (CIP PROJECTS)\B80108.39_Pilarcitos_Wells Filename: B80108.39_DetailsSheets.dwg Plot Date: March 31, 2025 - 11:53 AM CADD User: Nicole Chapman



ANCHOR BLOCK FOR REDUCERS

REDUCER SIZE D_1 X D_2	H (FT.)	A (FT.)
20" X 16"	3.0	3.5
16" X 12"	2.5	3.0
16" X 10"	3.0	3.5
16" X 8"	4.0	3.5
16" X 6"	4.5	3.5
12" X 10"	1.5	2.0
12" X 8"	2.0	2.5
12" X 6"	2.0	3.5
10" X 8"	1.5	2.0
8" X 6"	1.0	2.0
8" X 4"	1.0	3.0
6" X 4"	1.0	1.5

REDUCER ANCHOR BLOCK

NOT TO SCALE

4
C-5

100% DESIGN / BID SET

ekl environment & water
2001 JUNIPERO SERRA BOULEVARD, SUITE 300
DALY CITY, CALIFORNIA 94014
(650) 292-9100 • FAX (650) 552-9012

PILARCITOS WELLFIELD REPLACEMENT PROJECT

HALF MOON BAY, CALIFORNIA

CONSTRUCTION DETAILS - 2

	DATE	DESCRIPTION	APPRD
REV			

DATE: MAR 2025
SCALE: AS SHOWN
DRAWN: NC
DESIGNED: TC
APPROVED: JS
JOB NO.: B80108.39

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

SHEET NUMBER
C-5
10 **OF** 29

REGISTERED PROFESSIONAL ENGINEER
JONATHAN P. N. SUN
C 80108
CIVIL
STATE OF CALIFORNIA
03/31/2025
100% DESIGN / BID SET

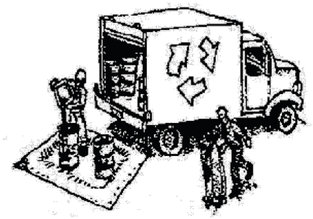
REGISTERED PROFESSIONAL ENGINEER
TYLER F. COLYER
C 80141
CIVIL
STATE OF CALIFORNIA
03/31/2025
100% DESIGN / BID SET

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

Construction Best Management Practices (BMPs)

Construction projects are required to implement the stormwater best management practices (BMP) on this page, as they apply to your project, all year long.

Materials & Waste Management



Non-Hazardous Materials

- ❑ Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or if not actively being used within 14 days.
- ❑ Use (but don't overuse) reclaimed water for dust control.

Hazardous Materials

- ❑ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state and federal regulations.
- ❑ Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecast.
- ❑ Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- ❑ Arrange for appropriate disposal of all hazardous wastes.

Waste Management

- ❑ Cover waste disposal containers securely with tarps at the end of every work day and during wet weather.
- ❑ Check waste disposal containers frequently for leaks and to make sure they are not overfilled. Never hose down a dumpster on the construction site.
- ❑ Clean or replace portable toilets, and inspect them frequently for leaks and spills.
- ❑ Dispose of all wastes and debris properly. Recycle materials and wastes that can be recycled (such as asphalt, concrete, aggregate base materials, wood, gyp board, pipe, etc.)
- ❑ Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.

Construction Entrances and Perimeter

- ❑ Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- ❑ Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking.

Equipment Management & Spill Control

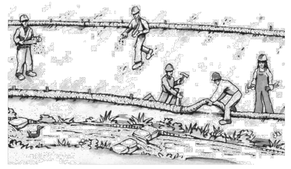
Maintenance and Parking

- ❑ Designate an area, fitted with appropriate BMPs, for vehicle and equipment parking and storage.
- ❑ Perform major maintenance, repair jobs, and vehicle and equipment washing off site.
- ❑ If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- ❑ If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters.
- ❑ Do not clean vehicle or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment.

Spill Prevention and Control

- ❑ Keep spill cleanup materials (e.g., rags, absorbents and cat litter) available at the construction site at all times.
- ❑ Inspect vehicles and equipment frequently for and repair leaks promptly. Use drip pans to catch leaks until repairs are made.
- ❑ Clean up spills or leaks immediately and dispose of cleanup materials properly.
- ❑ Do not hose down surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/or rags).
- ❑ Sweep up spilled dry materials immediately. Do not try to wash them away with water, or bury them.
- ❑ Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- ❑ Report significant spills immediately. You are required by law to report all significant releases of hazardous materials, including oil. To report a spill: 1) Dial 911 or your local emergency response number, 2) Call the Governor's Office of Emergency Services Warning Center, (800) 852-7550 (24 hours).

Earthmoving

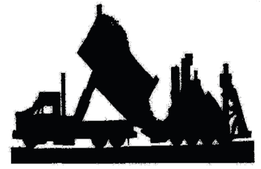


- ❑ Schedule grading and excavation work during dry weather.
- ❑ Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- ❑ Remove existing vegetation only when absolutely necessary, and seed or plant vegetation for erosion control on slopes or where construction is not immediately planned.
- ❑ Prevent sediment from migrating offsite and protect storm drain inlets, gutters, ditches, and drainage courses by installing and maintaining appropriate BMPs, such as fiber rolls, silt fences, sediment basins, gravel bags, berms, etc.
- ❑ Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.

Contaminated Soils

- ❑ If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board:
  - Unusual soil conditions, discoloration, or odor.
  - Abandoned underground tanks.
  - Abandoned wells
  - Buried barrels, debris, or trash.

Paving/Asphalt Work

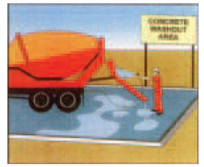


- ❑ Avoid paving and seal coating in wet weather or when rain is forecast, to prevent materials that have not cured from contacting stormwater runoff.
- ❑ Cover storm drain inlets and manholes when applying seal coat, tack coat, slurry seal, fog seal, etc.
- ❑ Collect and recycle or appropriately dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters.
- ❑ Do not use water to wash down fresh asphalt concrete pavement.

Sawcutting & Asphalt/Concrete Removal

- ❑ Protect nearby storm drain inlets when saw cutting. Use filter fabric, catch basin inlet filters, or gravel bags to keep slurry out of the storm drain system.
- ❑ Shovel, abosorb, or vacuum saw-cut slurry and dispose of all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!).
- ❑ If sawcut slurry enters a catch basin, clean it up immediately.

Concrete, Grout & Mortar Application

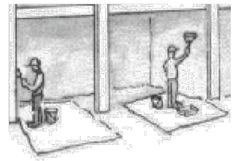


- ❑ Store concrete, grout, and mortar away from storm drains or waterways, and on pallets under cover to protect them from rain, runoff, and wind.
- ❑ Wash out concrete equipment/trucks offsite or in a designated washout area, where the water will flow into a temporary waste pit, and in a manner that will prevent leaching into the underlying soil or onto surrounding areas. Let concrete harden and dispose of as garbage.
- ❑ When washing exposed aggregate, prevent washwater from entering storm drains. Block any inlets and vacuum gutters, hose washwater onto dirt areas, or drain onto a bermed surface to be pumped and disposed of properly.

Landscaping

- ❑ Protect stockpiled landscaping materials from wind and rain by storing them under tarps all year-round.
- ❑ Stack bagged material on pallets and under cover.
- ❑ Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.

Painting & Paint Removal



Painting Cleanup and Removal

- ❑ Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- ❑ For water-based paints, paint out brushes to the extent possible, and rinse into a drain that goes to the sanitary sewer. Never pour paint down a storm drain.
- ❑ For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste.
- ❑ Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up or collected in plastic drop cloths and disposed of as trash.
- ❑ Chemical paint stripping residue and chip and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste. Lead based paint removal requires a state certified contractor.

Dewatering

- ❑ Discharges of groundwater or captured runoff from dewatering operations must be properly managed and disposed. When possible send dewatering discharge to landscaped area or sanitary sewer. If discharging to the sanitary sewer call you local wastewater treatment plant.
- ❑ Divert run-on water from offsite away from all disturbed areas.
- ❑ When dewatering, notify and obtain approval from the local municipality before discharging water to a street gutter or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- ❑ In areas of known or suspected contamination, call your local agency to determine whether the ground water must be tested. Pumped groundwater may need to be collected and hauled off-site for treatment and proper disposal.

Storm drain polluters may be liable for fines of up to $10,000 per day!

100% DESIGN / BID SET

eki environment & water
2001 JUNIPERO SERRA BOULEVARD, SUITE 300
DALY CITY, CALIFORNIA 94014
(650) 292-9100 • FAX (650) 552-9012

PILARCITOS WELLFIELD REPLACEMENT PROJECT
HALF MOON BAY, CALIFORNIA

CONSTRUCTION BEST MANAGEMENT PRACTICES

REV	DESCRIPTION	APPRD	DATE

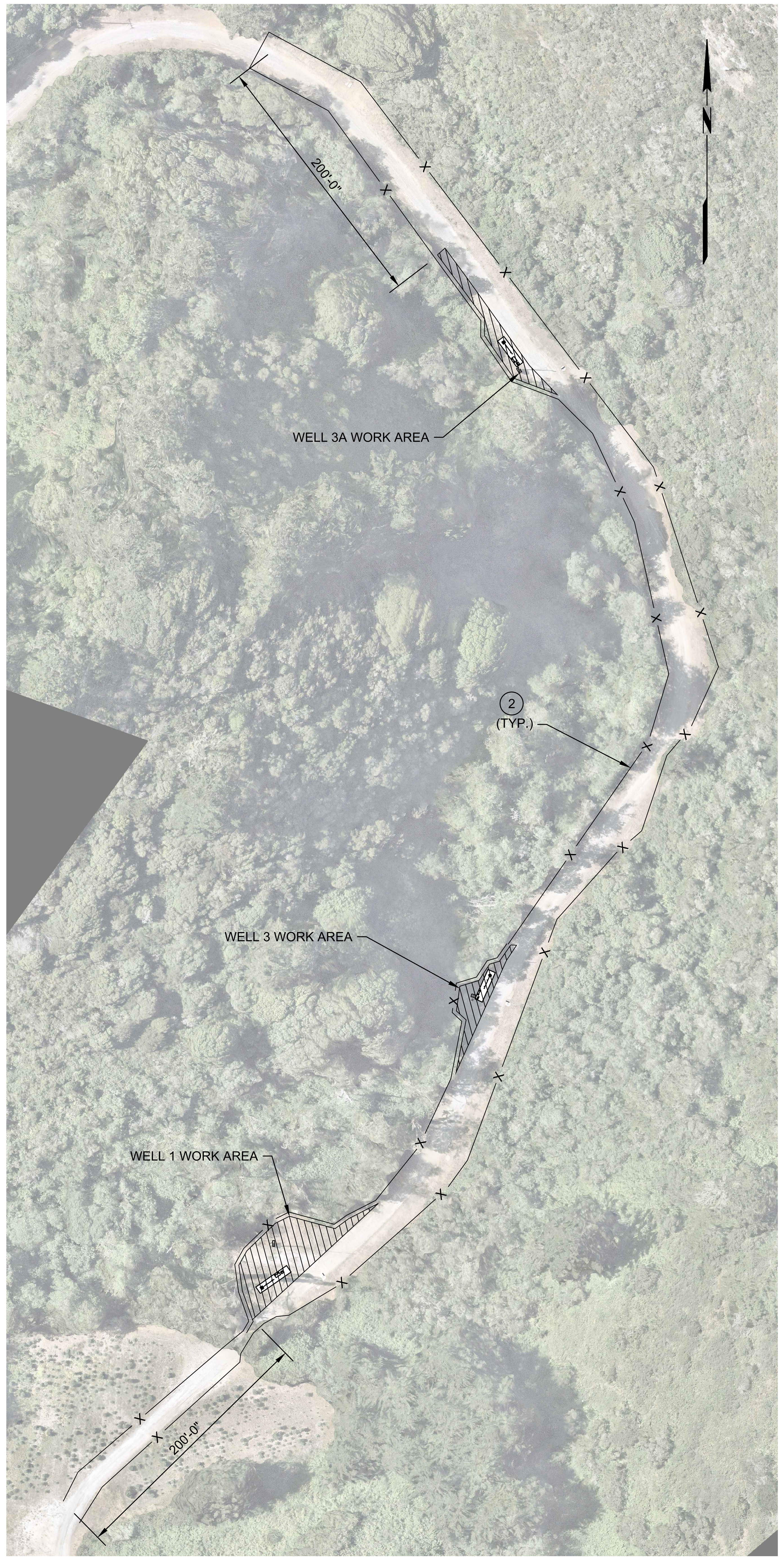
DATE: MAR 2025
SCALE: AS SHOWN
DRAWN: NC
DESIGNED: TC
APPROVED: JS
JOB NO.: B80108.39

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REGISTERED PROFESSIONAL ENGINEER
JONATHAN P. N. JARVIS
CIVIL
STATE OF CALIFORNIA
03/31/2025
100% DESIGN / BID SET

REGISTERED PROFESSIONAL ENGINEER
TYLER F. COLYER
C 80141
CIVIL
STATE OF CALIFORNIA
03/31/2025
100% DESIGN / BID SET

SHEET NUMBER
C-6
11 OF 29



PLAN, WELLS 1, 3, AND 3A

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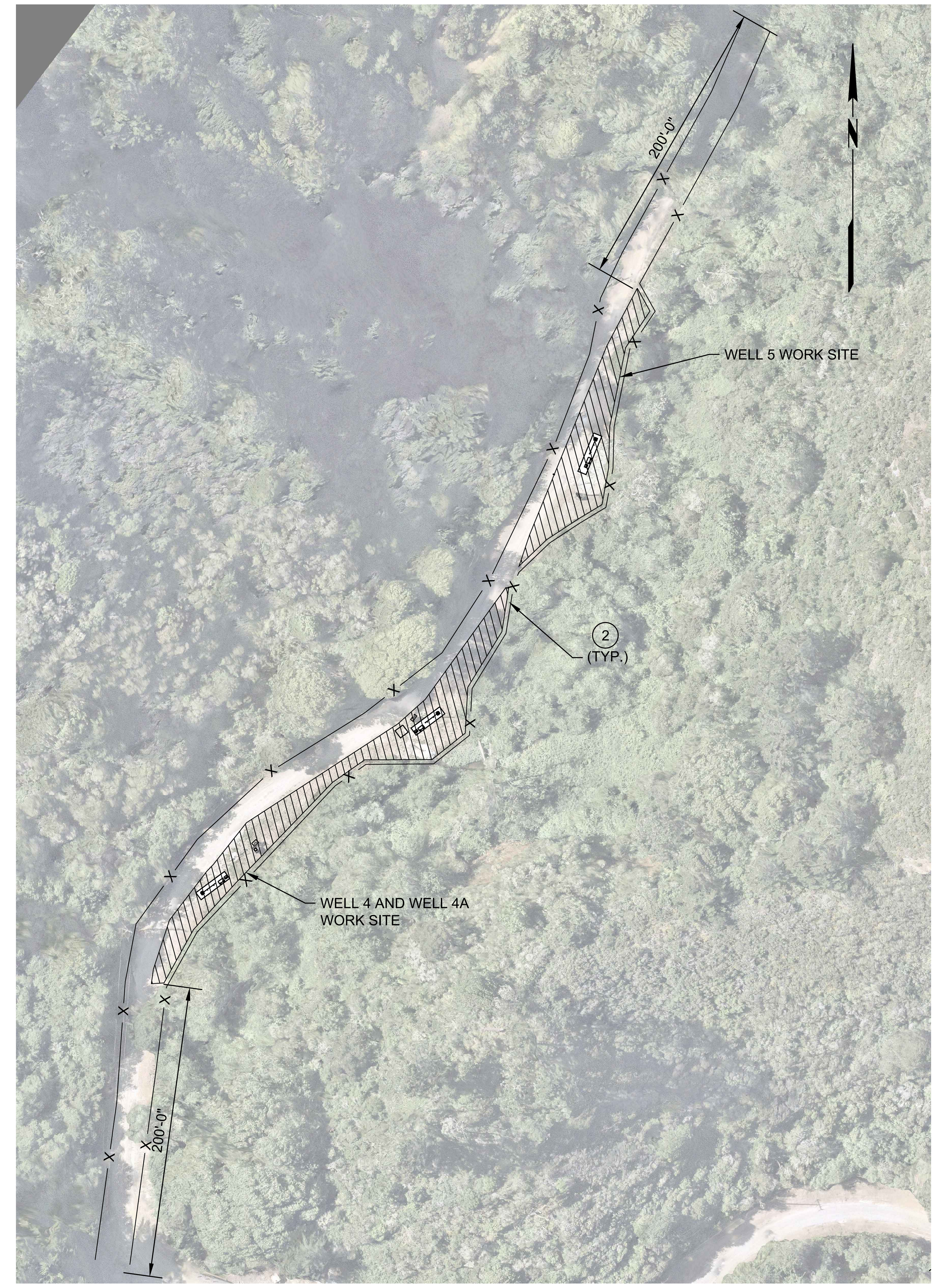
SCALE: 1"=70'



PLAN, WELLS 4A, 4, AND 5

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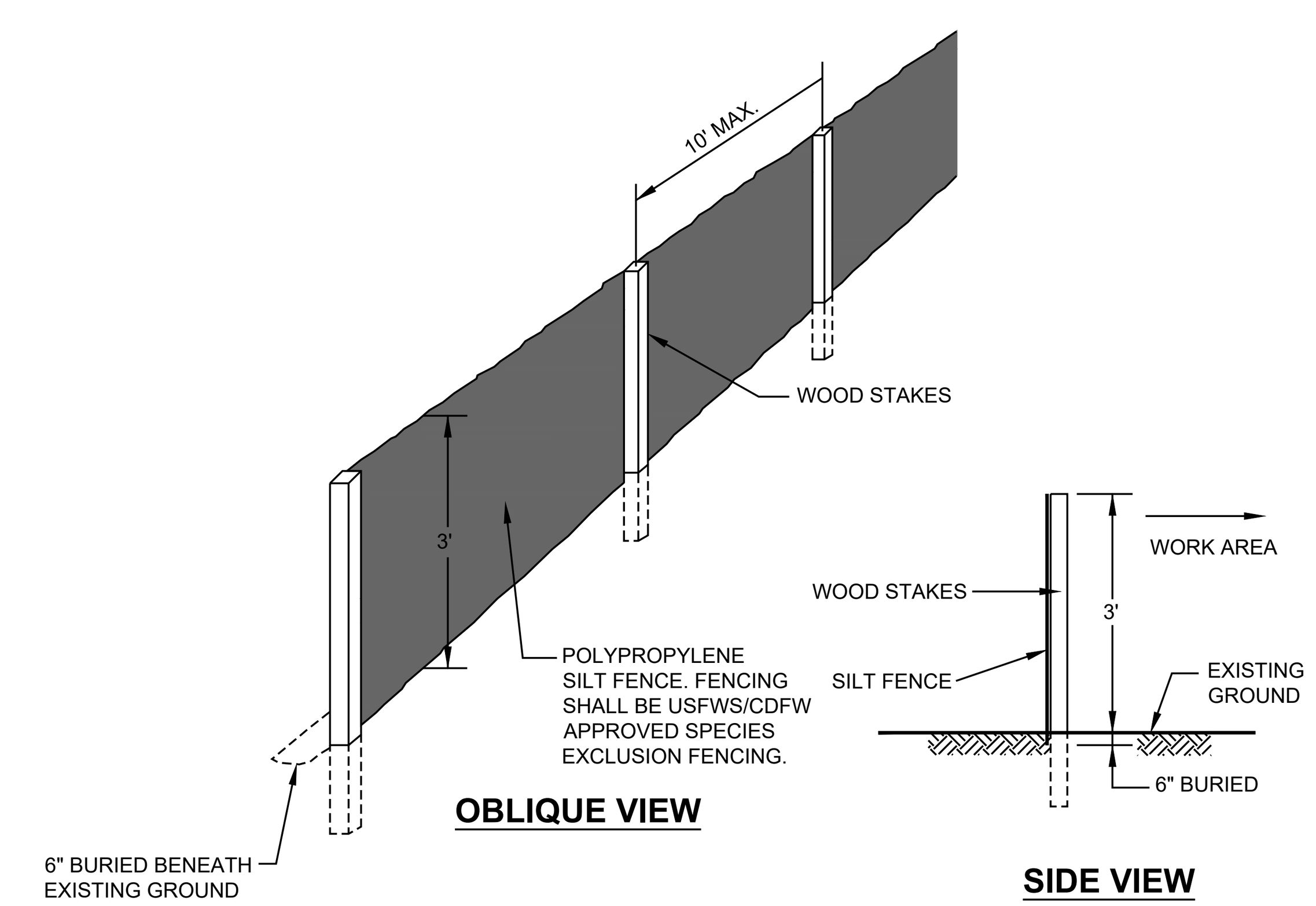
SCALE: 1"=70'



TEMPORARY WILDLIFE EXCLUSION FENCING

NOT TO SCALE

5 / C-7

CONSTRUCTION NOTES:

1. ALL LOCATIONS ARE APPROXIMATE.
2. TEMPORARY WILDLIFE EXCLUSION FENCING SHALL BE INSTALLED PER SPECIFICATION 01410 ENVIRONMENTAL REQUIREMENTS AND PER DETAIL 5/C-7 AS DIRECTED BY A QUALIFIED BIOLOGIST PROVIDED BY THE DISTRICT.
3. WILDLIFE EXCLUSION FENCING SHALL EXTEND 200 FEET BEYOND ANY WORK OR STAGING AREAS ON BOTH SIDES OF THE ROAD.
4. WORK AREAS ARE APPROXIMATE. CONTRACTOR SHALL WORK WITH THE DISTRICT TO DETERMINE STAGING AREAS FOR WELL DRILLING. CONTRACTOR SHALL PROVIDE ACCESS FOR VEHICULAR TRAFFIC ON ROAD WITHIN 1 HOUR OF REQUEST BY THE DISTRICT. A MINIMUM 10-FOOT WIDE ROAD LAND SHALL BE RESTORED AT THE END OF EACH WORK DAY.

100% DESIGN / BID SET

REGISTERED PROFESSIONAL ENGINEER — JONATHAN P. N. SUTTER — C 81008 — CIVIL — STATE OF CALIFORNIA — 03/31/2025

100% DESIGN / BID SET

REGISTERED PROFESSIONAL ENGINEER — TYLER F. COLYER — C 80141 — CIVIL — STATE OF CALIFORNIA — 03/31/2025

100% DESIGN / BID SET

eki environment & water
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PILARCITOS WELLFIELD REPLACEMENT PROJECT
HALF MOON BAY, CALIFORNIA

EXCLUSION FENCING PLAN AND DETAIL

REV	DESCRIPTION	APPR'D	DATE

DATE:	MAR 2025
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SHEET NUMBER
C-7
12 **OF** 29

Path: G:\EKI_CONSTRUCTION_DWGS\B80108.01 (CIP PROJECTS)\B80108.39_Pilarcitos_Wells Filename: B80108.39_Exclusion_Fencing.dwg Plot Date: March 31, 2025 - 11:54 AM CADD User: Nicole Chapman

STRUCTURAL NOTES

GENERAL

1. ALL STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE CIVIL, ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND SHOP DRAWINGS AND THE PROJECT SPECIFICATIONS (IF ANY).
2. CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE 2022 EDITION CALIFORNIA BUILDING CODE (CBC). THE CBC SHALL GOVERN EXCEPT WHERE OTHER APPLICABLE CODES OR THESE DOCUMENTS ARE MORE RESTRICTIVE.
3. NOTHING SHOWN OR OMITTED FROM THESE DOCUMENTS SHALL RELIEVE THE CONTRACTOR FROM FULL COMPLIANCE WITH ALL APPLICABLE CODES AND ORDINANCES.
4. THE CONTRACTOR ALONE IS RESPONSIBLE FOR JOB SITE SAFETY. SITE REVIEW OF THE CONSTRUCTION BY THE ENGINEER IS TO DETERMINE CONFORMANCE WITH THE PLANS AND SPECIFICATIONS. IT DOES NOT ENCOMPASS SAFETY PROCEDURES OR OPERATIONS.
5. WITHOUT EXCLUSION OF ANY REFERENCE IN THE CONSTRUCTION DOCUMENTS TO ANY RULE OR REGULATION, THE ENGINEER IS NOT ASSUMING ANY PROVISIONS OF SUPERVISION OF CONSTRUCTION METHODS OR PROCESSES.
6. STRUCTURES HAVE BEEN DESIGNED FOR OPERATIONAL LOADS ON THE COMPLETED STRUCTURES. DURING CONSTRUCTION, BRACING OR SHORING SHALL SUPPORT STRUCTURES WHEREVER EXCESSIVE CONSTRUCTION LOADS MAY OCCUR.
7. WRITTEN DIMENSIONS SHALL BE USED FOR CONSTRUCTION. DO NOT SCALE DRAWINGS.
8. STRUCTURAL DIMENSIONS CONTROLLED BY OR RELATED TO MECHANICAL AND/OR ELECTRICAL EQUIPMENT SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
9. DIMENSIONS INDICATED WITH AN * SHALL BE COORDINATED WITH MECHANICAL AND/OR ELECTRICAL DRAWINGS AND EQUIPMENT SUPPLIED.
10. ALL DIMENSIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR. SHOULD CONFLICTS OR INTERFERENCE OCCUR, THEY SHALL BE RESOLVED WITH THE ENGINEER. EXISTING FIELD CONDITIONS AT VARIANCE WITH THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE ANY WORK IS PERFORMED.
11. USE PERTINENT STANDARD DETAILS SHOWN, EVEN THOUGH THEY MAY NOT BE CALLED OUT AT LOCATIONS WHERE THEY APPLY.
12. CONDITIONS NOT SPECIFICALLY SHOWN OR INDICATED SHALL BE CONSTRUCTED SIMILAR TO DETAILS SHOWN FOR THE RESPECTIVE MATERIALS OR CONDITIONS AFTER PRIOR APPROVAL FROM THE ENGINEER OF RECORD.

DEFERRED SUBMITTALS

1. THE FOLLOWING PORTIONS OF THE PROJECT ARE DEFERRED SUBMITTAL ITEMS. DEFERRED SUBMITTALS LISTED BELOW ARE THE RESPONSIBILITY OF THE CONTRACTOR. DEFERRED SUBMITTAL ITEMS HAVE NOT BEEN DESIGNED BY THE ENGINEER OF RECORD. REFER TO CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION.

   a) ANTENNA AND ANTENNA SUPPORT
   b) EQUIPMENT ANCHORAGE, NOT SPECIFICALLY DETAILED
   c) PIPE SUPPORTS
   d) CONDUIT SUPPORTS
2. UNLESS OTHERWISE NOTED, DEFERRED SUBMITTAL ITEMS SHALL BE STAMPED AND SIGNED BY A PROFESSIONAL CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA.
3. DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE DISTRICT FOR APPROVAL DURING THE CONSTRUCTION PHASE OF THE PROJECT.
4. DEFERRED SUBMITTAL ITEMS SHALL NOT BE FABRICATED UNTIL THE ENGINEER OF RECORD HAS REVIEWED THE SUBMITTAL DOCUMENTS AND INDICATED THAT THEY HAVE BEEN REVIEWED AND THAT THEY HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS.
5. DEFERRED SUBMITTAL ITEMS SHALL NOT BE FABRICATED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN FAVORABLY REVIEWED BY THE DISTRICT.

DESIGN LOADS

APPLICABLE TO PILARCITOS WELLS 1, 3, 3A, 4, 4A, AND 5

1. LIVE LOADS:

USE OR OCCUPANCY	UNIFORM LOAD (psf)
EXTERIOR CONCRETE PAD	250

2. WIND:

BASIC WIND SPEED V_{ult} (3-SECOND GUST):	98 MPH
RISK CATEGORY:	III
WIND EXPOSURE CATEGORY:	C
INTERNAL PRESSURE COEFFICIENT	N/A
C&C PRESSURES FOR DEFERRED SUBMITTALS	N/A

3. SEISMIC:

SEISMIC IMPORTANCE FACTOR (I_E)	1.25
RISK CATEGORY:	III
MAPPED SPECTRAL RESPONSE ACCELERATIONS:	S_S = 2.273g, S_1 = 0.242g
SITE CLASS	D = DEFAULT
SPECTRAL RESPONSE COEFFICIENTS:	S_{DS} = 0.949g, S_{D1} = SEE NOTE (1)
SEISMIC DESIGN CATEGORY:	F

(1) SEE ASCE/SEI 7-16, SECTION 11.4.8

4. SNOW:

GROUND SNOW LOAD (P_g):	0 PSF

SPECIAL INSPECTION

1. SPECIAL INSPECTION SHALL BE CONDUCTED IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN CHAPTER 17 OF THE CBC. UNLESS OTHERWISE NOTED IN THE PROJECT SPECIFICATIONS, SPECIAL INSPECTION SHALL BE PROVIDED BY AND PAID FOR BY THE DISTRICT. THE FOLLOWING ITEMS, AS A MINIMUM, SHALL RECEIVE SPECIAL INSPECTION:

ITEM	STRUCTURAL STEEL INSPECTIONS AND VERIFICATION	FREQUENCY	
		CONTINUOUS	PERIODIC
1.	MATERIAL VERIFICATION OF STRUCTURAL STEEL:	---	---
	A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.		X
	B. MANUFACTURERS' CERTIFIED MILL TEST REPORTS.		X
2.	MATERIAL VERIFICATION OF WELD FILLER MATERIALS:	---	---
	A. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS.		X
	B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.		X
3.	INSPECTION OF WELDING:	---	---
	A. STRUCTURAL STEEL:	---	---
	1) SINGLE-PASS FILLET WELDS ≤ 5/16"		X

ITEM	CONCRETE INSPECTIONS AND VERIFICATION	FREQUENCY	
		CONTINUOUS	PERIODIC
1.	INSPECTION OF REINFORCING STEEL AND PLACEMENT.		X
2.	INSPECTION OF ANCHORS CAST IN CONCRETE.		X
3.	INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.	X	
4.	VERIFYING USE OF REQUIRED DESIGN MIX.		X
5.	AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	
6.	INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	
7.	INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.		X
8.	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.		X

ITEM	FOUNDATION INSPECTIONS AND VERIFICATION	FREQUENCY	
		CONTINUOUS	PERIODIC
	SOILS		
1.	VERIFY MATERIALS USED, LAYERED THICKNESSES AND COMPACTION OF BACK FILLS.	X	

SPECIAL INSPECTION NOTATION:

"X" DENOTES EITHER CONTINUOUS OR PERIODIC INSPECTIONS.
"---" DENOTES AN ACTIVITY THAT IS EITHER A ONE TIME ACTIVITY OR ONE WHOSE FREQUENCY IS DEFINED IN SOME OTHER MANNER

DEFINITIONS:
CONTINUOUS - SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS PRESENT WHEN AND WHERE THE WORK TO BE INSPECTED IS BEING PERFORMED (CBC, SECTION 202)

PERIODIC - SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS INTERMITTENTLY PRESENT WHERE THE WORK TO BE INSPECTED IS BEING PERFORMED (CBC, SECTION 202)

SPECIAL INSPECTOR - A QUALIFIED PERSON EMPLOYED OR RETAINED BY THE DISTRICT AND APPROVED BY THE AUTHORITY HAVING JURISDICTION AS HAVING THE COMPETENCE NECESSARY TO INSPECT A PARTICULAR TYPE OF CONSTRUCTION REQUIRING SPECIAL INSPECTION.

CONCRETE REINFORCING

1. REINFORCING STEEL SHALL CONFORM TO THE LATEST EDITION OF ASTM SPECIFICATION A706 OR A615, GRADE 60.
2. REINFORCING STEEL FABRICATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF CRSI MANUAL OF STANDARD PRACTICE.
3. REINFORCING SHALL HAVE THE FOLLOWING CLEAR CONCRETE COVER, UNLESS OTHERWISE NOTED ON THE DRAWINGS.

CONDITION	COVER (INCHES)
UNFORMED SURFACES IN CONTACT WITH EARTH	3
FORMED SURFACES EXPOSED TO EARTH, WATER AND/OR WEATHER	2
OTHER LOCATIONS	2

4. SPLICED BARS SHALL HAVE A MINIMUM CLASS B CONTACT LAP AS SPECIFIED IN THE LATEST EDITION OF ACI 315 DETAILING MANUAL AND ACI 318 UNLESS OTHERWISE NOTED ON THE DRAWINGS. WHERE SHOWN ON THE DRAWINGS, ld = DEVELOPMENT LENGTH AS DEFINED IN THE STANDARD DETAILS OF THESE DRAWINGS. HOOKS OF REINFORCING STEEL SHALL COMPLY WITH ACI 318.
5. WRITTEN SPACING AND LOCATION OF REINFORCING SHALL TAKE PRECEDENCE OVER DEPICTED SPACING AND LOCATION.
6. UNLESS OTHERWISE NOTED ON THE DRAWINGS, REINFORCING BARS SHOWN TERMINATING WITH A HOOK SHALL BE FABRICATED WITH A STANDARD HOOK AS DEFINED WITHIN ACI 318. WHERE SECTION THICKNESS DOES NOT ALLOW FOR FULL HOOK EXTENSION, TILT HOOK UNTIL HOOK FITS. ALTERNATIVELY CONTRACTOR MAY USE 180° HOOK OR TWO SMALLER HOOKED BARS OF EQUIVALENT AREA OF STEEL.
7. IN CASES WHERE REINFORCING BARS CANNOT BE EXTENDED AS FAR AS REQUIRED DUE TO THE LIMITED EXTENT OF THE ADJACENT CONCRETE STRUCTURE, THE BARS SHALL EXTEND AS FAR AS POSSIBLE AND BE TERMINATED WITH A STANDARD HOOK.

CONCRETE

1. REINFORCED CONCRETE SHALL CONFORM TO ACI 318.
2. PORTLAND CEMENT SHALL CONFORM TO ASTM C150 TYPE II. ONE BRAND OF CEMENT SHALL BE USED THROUGHOUT THE WORK.
3. USE OF UP TO 25% POZZOLAN (FLY, ASH, CLASS F) CONTENT OF TOTAL CEMENTITIOUS MATERIAL IS PERMITTED.
4. USE OF GRANULATED GROUND BLAST FURACE SLAG (GGBFS) IN THE CONCRETE IS NOT PERMISSIBLE.
5. ALL AGGREGATES SHALL CONFORM TO ASTM C33. THE MAXIMUM SIZE AGGREGATE SHALL BE 1 INCH. USE OF RECYCLED CONCRETE, AGGREGATE OR OTHER RECYCLABLE MATERIALS IS NOT PERMISSIBLE.
6. MIXING WATER SHALL BE POTABLE WATER FREE FROM INJURIOUS AMOUNTS OF ACID, ALKALI, OR OTHER HARMFUL SUBSTANCES. WATER SHALL BE OBTAINED FROM LOCAL UTILITY COMPANY MAINS UNLESS THE ENGINEER APPROVES ANOTHER SOURCE.
7. AIR ENTRAINING ADMIXTURES SHALL CONFORM TO ASTM C260.
8. CURING COMPOUNDS SHALL CONFORM TO ASTM C309.
9. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE MINIMUM REQUIREMENTS LISTED BELOW. CEMENT CONTENT SHALL BE INCREASED OVER THAT LISTED IF REQUIRED TO OBTAIN THE LISTED COMPRESSIVE STRENGTH.

LOCATION	MIN 28 DAY STRENGTH (psi)	MIN CEMENT CONTENT (lbs)	SLUMP (in)
STRUCTURAL CONCRETE	4,000	560	3-5

10. ALL CONCRETE SHALL BE TRANSIT MIXED IN ACCORDANCE WITH ASTM C194, EXCEPT THAT SMALL BATCHES OF 1/2 CUBIC YARD OR LESS MAY BE MIXED ON THE SITE.
11. TRANSIT MIXED CONCRETE SHALL BE MIXED FOR NOT LESS THAN 10 MINUTES TOTAL, OF WHICH NOT LESS THAN 3 MINUTES SHALL BE ON THE SITE JUST PRIOR TO PLACEMENT. MIXING SHALL BE CONTINUOUS WITH NO INTERRUPTIONS FROM THE TIME THE TRUCK IS FILLED UNTIL THE TIME IT IS EMPTIED. CONCRETE SHALL BE PLACED WITHIN ONE HOUR OF THE TIME WATER IS FIRST ADDED. TRANSIT MIXED CONCRETE SHALL NOT EXCEED A TEMPERATURE OF 90 DEGREES FAHRENHEIT WITHOUT APPROVAL OF THE ENGINEER.
12. CONSTRUCTION JOINTS SHALL NOT BE PLACED AT LOCATIONS OTHER THAN THOSE SHOWN ON THE DRAWINGS WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
13. ALL EXPOSED CORNERS OF CONCRETE SHALL HAVE 3/4" MINIMUM CHAMFER, UNLESS NOTED OTHERWISE.
14. BEFORE PLACING CONCRETE, MIXING, CONVEYING, FINISHING EQUIPMENT, FORMS AND REINFORCING SHALL BE WELL CLEANED.
15. CONCRETE SHALL BE CONVEYED FROM MIXER TO FINAL LOCATION AS RAPIDLY AS POSSIBLE BY METHODS PREVENTING SEPARATION OF THE INGREDIENTS. DEPOSIT CONCRETE AS NEARLY AS POSSIBLE IN FINAL POSITION TO AVOID REHANDLING.
16. WHEN REDESIGN OF THE CONCRETE MIX IS REQUIRED FOR PUMPING, SUCH REDESIGN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
17. VIBRATION SHALL BE BY MEANS OF MECHANICAL VIBRATORS IN DIRECT CONTACT WITH THE CONCRETE, AND NOT BY VIBRATING THE FORMS OR REINFORCING. VIBRATION SHALL CONTINUE UNTIL WATER SHOWS THE FIRST SIGNS OF RISING.

100% DESIGN / BID SET

eki environment & water
2001 JUNIPERO SERRA BOULEVARD, SUITE 300
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(650) 292-9100 • FAX (650) 552-9012
TJC and ASSOCIATES, INC.

PILARCITOS WELLFIELD REPLACEMENT PROJECT
HALF MOON BAY, CALIFORNIA

STRUCTURAL GENERAL NOTES I

REV	DESCRIPTION	APPRVD	DATE
-			

DATE: MARCH 2025
SCALE: NTS
DRAWN: BV
DESIGNED: RJM
APPROVED: -
JOB NO.: B80108.39

VERIFY SCALE
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REGISTERED PROFESSIONAL ENGINEER
RICHARD J. MAYFIELD
S 4439
Exp. 12/31/25
STRUCTURAL
STATE OF CALIFORNIA
3/11/25

100% DESIGN SUBMITTAL

SHEET NUMBER
GS1
13 OF 29

SOIL PARAMETERS (ALL)

1. ALLOWABLE SOIL BEARING CAPACITY:

FOUNDATION TYPE	ALLOWABLE BEARING CAPACITY (1) FOR DL + LL
MAT FOUNDATION	1,500 psf

(1) ALLOWABLE BEARING VALUES MAY BE INCREASED BY 1/3 FOR LOAD CASES INCLUDING WIND AND/OR SEISMIC.
(2) PRESUMPTIVE LOAD BEARING VALUES, CBC TABLE 1806.2; USCS "CL".

2. LATERAL EARTH PRESSURES:

SOIL CONDITION	AT REST (1) (pcf)		ACTIVE (1) (pcf)		PASSIVE (1) (pcf)	
	w/o GW (2)	w/ GW (2)	w/o GW (2)	w/ GW (2)	w/o GW (2)	w/ GW (2)
CLASS 2 AGG. BASE	55	93	35	83	300	210
USCS "CL" MATERIAL	100	145	--	--	100	70

(1) EQUIVALENT FLUID DENSITY
(2) GROUNDWATER (GW) TABLE AT GRADE.

3. COEFFICIENT OF COHESION:

AS LIMITED BY SECTION 1806.3.2 OF 130PSF MAY BE ADDED TO PASSIVE RESISTANCE COHESION VALUE.

CONCRETE FINISHING, CURING AND PATCHING

1. FINAL TROWELING OF THE WALL PANELS SHALL BE DONE WITH A STEEL TROWEL EXCEPT WHERE DRAWINGS SPECIFICALLY CALL FOR ANOTHER TYPE OF FINISH.
2. FINISHED SURFACES OF ALL PANELS SHALL BE TRUE AND FLAT IN ACCORDANCE WITH ELEVATIONS AND SLOPES SHOWN ON THE DRAWINGS. THE MAXIMUM VARIATION ALLOWED FROM THE SPECIFIED SLOPES AND SURFACES SHALL BE 1/8 INCH WITH NOT MORE THAN 1/8-INCH VARIATION IN ANY 10-FOOT LENGTH.
3. CONCRETE PANELS SHALL BE CURED BY MEANS OF AN APPROVED CURING COMPOUND APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
4. AT CAST-IN-PLACE WALLS, FORMS SHALL NOT BE REMOVED UNTIL CONCRETE HAS SET ADEQUATELY TO PREVENT DAMAGE DURING AND AFTER REMOVAL.
5. IMMEDIATELY AFTER FORM REMOVAL, FORM TIES SHALL BE REMOVED FROM EXPOSED SURFACES AND HOLES AND OTHER VOIDS SHALL BE POINTED FLUSH WITH MORTAR COMPOSED OF ONE PART PORTLAND CEMENT AND TWO PARTS SAND. FINS, BURRS, ETC. SHALL BE REMOVED WHILE THE CONCRETE IS STILL GREEN. VOIDS, POCKETS, AND HONEYCOMBS WHICH WOULD EITHER WEAKEN CONCRETE OR DISFIGURE EXPOSED SURFACES SHALL BE SIMILARLY PATCHED. IF, IN THE ENGINEER'S OPINION, HONEYCOMBING IS SUCH THAT THE STRENGTH OF THE STRUCTURE IS IMPAIRED, WHOLE SECTIONS OF THE WORK MAY BE REQUIRED BY THE ENGINEER TO BE REMOVED AND REPLACED AS DIRECTED, AT THE CONTRACTOR'S EXPENSE.

SITE WORK

1. EXCAVATION FOR PADS AS SHOWN ON THE DRAWINGS:
THE BOTTOMS OF ALL EXCAVATIONS SHALL BE LEVEL, TAMPED FIRM, CLEAN AND FREE FROM ALL DEBRIS OR FOREIGN MATTER.
2. OVER-EXCAVATION SHALL EXTEND LATERALLY BEYOND THE OUTSIDE EDGE OF FOOTINGS BY A MINIMUM OF 1/2 THE DEPTH OF OVER-EXCAVATION BELOW THE FOOTING OR 12-INCHES.
3. WHERE PRACTICABLE, SIDES OF FOOTINGS SHALL BE CUT NEAT AND CONCRETE POURED DIRECTLY AGAINST THE EXCAVATION. IF FORMING IS REQUIRED, THE TRENCHES SHALL BE EXCAVATED WIDE ENOUGH TO PERMIT THE ERECTION AND REMOVAL OF FORMS.
4. THE BOTTOM OF ALL EXCAVATIONS SHALL BE SCARIFIED TO A DEPTH OF 8 INCHES, MOISTURE CONDITIONED TO WITHIN 5 PERCENT (±1 PERCENT) OVER THE OPTIMUM MOISTURE CONTENT, AND COMPACTED TO A LEAST 89 PERCENT (±1 PERCENT) RELATIVE COMPACTION.
5. CLASS 2 AGGREGATE BASEROCK SHALL CONSIST OF MATERIAL FREE FROM DEBRIS AND ORGANIC OR OTHER DELETERIOUS MATERIALS. BACKFILL MATERIAL SHALL BE PLACED IN 8-INCH LAYERS, LEVELED, RAMMED AND TAMPED IN PLACE. COMPACTION OF ALL LAYERS SHALL BE A MINIMUM OF 95 PERCENT MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D1557.

CONCRETE ANCHORS

1. POST-INSTALLED CONCRETE ANCHORS, INCLUDING ADHESIVE AND EXPANSION ANCHORS, SHALL CONFORM TO MANUFACTURER'S RECOMMENDATIONS AND THE APPROPRIATE EVALUATION REPORT. ANCHORS WITHOUT A CURRENT ICC-ES ESR, IAPMO-UES ER OR EQUAL SHALL NOT BE USED.
2. UNLESS OTHERWISE INDICATED, ALL ADHESIVE AND EXPANSION ANCHORS FOR INSTALLATION IN CONCRETE SHALL HAVE SATISFIED THE REQUIREMENTS OF THE SIMULATED SEISMIC TESTS OF ACI 355.4 OR ACI 355.2, NO SUBSTITUTION SHALL BE ALLOWED.
3. CONTRACTOR SHALL LOCATE EXISTING REBAR USING NON-DESTRUCTIVE METHODS PRIOR TO DRILLING HOLES FOR POST-INSTALLED ANCHORS. ADJUST SPACING OF ANCHORS TO MISS EXISTING REINFORCING. TOTAL NUMBER OF ANCHORS PROVIDED SHALL BE EQUAL TO THAT SHOWN ON THE DRAWINGS.
4. ADHESIVE ANCHORS SHALL CONSIST OF A TWO-COMPONENT RESIN ADHESIVE. THE PACKAGES CONTAINING EACH COMPONENT SHALL BE ATTACHED TO A DISPENSING MANIFOLD. AN AUGER STYLE NOZZLE SHALL BE ATTACHED FOR PROPER MIXING OF THE ADHESIVE COMPONENTS. WHERE THREADED RODS ARE REQUIRED, RODS SHALL CONFORM TO ASTM A193 GRADE B7. WHERE STAINLESS STEEL IS CALLED FOR ON THE DRAWINGS, STAINLESS STEEL SHALL BE TYPE 316.

STRUCTURAL AND MISCELLANEOUS STEEL

1. STRUCTURAL SHAPES, PLATES AND BARS SHALL CONFORM TO ASTM A36, UNLESS OTHERWISE NOTED.
2. STRUCTURAL W-SHAPES SHALL CONFORM TO ASTM A992, GRADE 50.
3. STRUCTURAL STEEL TUBES SHALL CONFORM TO ASTM A500, GRADE B.
4. STRUCTURAL STEEL PIPE SHALL CONFORM TO ASTM A53, TYPE S, GRADE B.
5. MACHINE BOLTS (MB) SHALL CONFORM TO ASTM A307.
6. NUTS SHALL BE HEAVY HEX IN ACCORDANCE WITH ANSI B8.2.1.1.
7. ALL STRUCTURAL STEEL SHALL BE FABRICATED, ERECTED AND CONNECTED IN COMPLIANCE WITH THE LATEST AISC MANUAL.
8. UNLESS OTHERWISE NOTED, ALL BOLTS SHALL BE 3/4 INCH DIAMETER MEETING THE REQUIREMENTS OF ASTM A325. BOLTS SHALL BE TIGHTENED USING THE TURN-OF-THE-NUT METHOD.
9. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE STRUCTURAL WELDING CODE, AWS (D1.1). ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS.
10. WELDING ELECTRODES SHALL MEET THE MINIMUM REQUIREMENTS OF E70XX.
11. ALL METAL FABRICATIONS SHALL RECEIVE A SHOP COAT OF RUST INHIBITIVE PAINT MEETING FEDERAL SPECIFICATION TT-P-86, TYPE III.
12. WHERE BUTT WELDS ARE SHOWN, MATERIAL SHALL BE GROUND TO A BEVEL AND WELD SHALL BE FULL PENETRATION.
13. ALL BOLT HOLES SHALL BE PUNCHED OR DRILLED (REAMED). BURNING OF HOLES IS NOT ACCEPTABLE.
14. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW BY THE ENGINEER PRIOR TO FABRICATION.

GALVANIZING

1. UNLESS OTHERWISE NOTED, ALL STRUCTURAL STEEL PLATES, BARS, AND FABRICATED ASSEMBLIES SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123 EXCEPT THAT THE WEIGHT OF ZINC COATING SHALL AVERAGE NOT LESS THAN 1.2 OUNCES PER SQUARE FOOT OF ACTUAL SURFACE AREA WITH NO INDIVIDUAL SPECIMEN HAVING A COATING WEIGHT LESS THAN 1.0 OUNCES PER SQUARE FOOT.
2. THE GALVANIZING PROCESS SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF ASTM A384. ANY GALVANIZED PART(S) THAT BECOME WARPED AS A RESULT OF THE GALVANIZING PROCESS AND/OR HANDLING SHALL BE STRAIGHTENED OR REPLACED AT NO ADDITIONAL EXPENSE TO THE DISTRICT.
3. ALL MEMBERS TO BE GALVANIZED SHALL BE THOROUGHLY CLEANED OF RUST AND SCALE PRIOR TO GALVANIZING.
4. CARBON STEEL BOLTS, ANCHOR BOLTS, NUTS AND SIMILAR THREADED FASTENERS, AFTER BEING PROPERLY CLEANED, SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM F2329.
5. UNLESS OTHERWISE NOTED, ALL BOLTED CONNECTIONS FOR GALVANIZED MEMBERS SHALL BE GALVANIZED.
6. GALVANIZED BOLTS SHALL NOT BE REUSED. RETIGHTENING BOLTS THAT MAY HAVE BEEN LOOSENED FOR THE INSTALLATION OF ADJACENT BOLT(S) SHALL NOT BE CONSIDERED TO BE A REUSE AND SHALL BE RETIGHTENED.
7. REPAIR TO DAMAGED COATING:
   a) THE MAXIMUM AREA THAT SHALL BE REPAIRED SHALL COMPLY WITH APPLICABLE SECTIONS OF ASTM A123.
   b) REPAIR AREAS BY ONE OF THE APPROVED METHODS IN ACCORDANCE WITH ASTM A780 WHENEVER DAMAGE WIDTH EXCEEDS 1/16 INCH. MINIMUM THICKNESS REQUIREMENTS FOR THE REPAIR SHALL BE AS DESCRIBED IN ASTM A123.
   c) FIELD REPAIRS TO GALVANIZING SHALL BE MADE USING "ZRC GALVILITE," "GLAVA-GUARD," OR APPROVED EQUAL. REPAIR MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

ABBREVIATIONS:

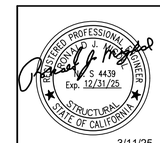
Ø	DIAMETER
°F	DEGREES - FAHRENHEIT
°C	DEGREES - CELSIUS
AB	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
ADDL	ADDITIONAL
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI	AMERICAN IRON AND STEEL INSTITUTE
AITC	AMERICAN INSTITUTE OF TIMBER CONSTRUCTION
AL	ALUMINUM
ALT	ALTERNATE(ING)
APPROX	APPROXIMATE(LY)
AR	ANCHOR ROD
ARND	AROUND
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASTM	ASTM INTERNATIONAL
ATR	ALL-THREADED ROD
AWS	AMERICAN WELDING SOCIETY
B TO B	BACK TO BACK
BLDG	BUILDING
BLK	BLOCK(ING)
BM	BEAM
BN	BOUNDARY NAILING
B.O.	BOTTOM OF
BOT	BOTTOM
BRG	BEARING
BTWN	BETWEEN
CBC	CALIFORNIA BUILDING CODE
C/C	CENTER TO CENTER
CHKD	CHECKERED
CIRC	CIRCUMFERENTIAL
CJ	CONSTRUCTION JOINT
CL	CENTERLINE
CLG	CEILING
CLKG	CAULKING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CRS	COURSE(S)
CRSI	CONCRETE REINFORCING STEEL INSTITUTE
CSK	COUNTERSINK
CTJ	CONTROL JOINT
CTR	CENTER (ED)
D	DEEP, DEPTH
d	PENNY
d_b	BAR DIAMETER
DBL	DOUBLE
DEMO	DEMOLITION
DET	DETAIL
DF	DOUGLAS FIR
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DL	DEAD LOAD
DN	DOWN
DO.	DITTO
DP	DAMPROOFING
DR	DRAIN
DWG(S)	DRAWING(S)
DWL(S)	DOWEL(S)
(E)	EXISTING
EA	EACH
EB	EXPANSION BOLT
ECC	ECCENTRIC
ED	EQUIPMENT DRAIN
EF	EACH FACE
EL	ELEVATION
EMBED	EMBEDMENT
EN	EDGE NAILING
EOR	ENGINEER OF RECORD
EQ	EQUAL (LY)
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ES	EACH SIDE
ESR	EVALUATION SERVICE REPORT
ETC	ETCETERA
EW	EACH WAY
EXP	EXPANSION
EXP JT	EXPANSION JOINT
EXST	EXISTING
EXT	EXTERIOR
EY	EPOXY
f'c	CONCRETE COMPRESSIVE STRENGTH
f'm	MASONRY PRISM STRENGTH
FAB	FABRICATE (OR, ED)
FD	FLOOR DRAIN
FDN	FOUNDATION
FHMS	FLATHEAD MACHINE SCREW
FHWS	FLATHEAD WOOD SCREW
FIG	FIGURE
FIN	FINISH (ED)
FL	FLOOR
FLEX	FLEXIBLE
FO	FACE OF
FRP	FIBERGLASS REINFORCED PLASTIC
FTG	FOOTING
FURN	FURNISHED
GA	GAGE
GALV	GALVANIZED
GALVS	GALVANIZED STEEL
GLB	GLUE LAMINATED BEAM
GR	GUARD RAIL
GRTG	GRATING
H.A.S.	HEADED ANCHOR STUD
HD	HAND
HDR	HEADER
HDWD	HARDWOOD
HGR	HANGER
HGT	HEIGHT
HM	HOLLOW METAL
HOR	HORIZONTAL
HP	HIGH POINT
HR	HANDRAIL
HS	HIGH STRENGTH
IAMPO	INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICALS
ICC	INTERNATIONAL CODE COUNCIL
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
I.F.	INSIDE FACE
INT	INTERIOR
I.P.S.	IRON PIPE SIZE
JB	JUNCTION BAR
JT	JOINT
JT FLR	JOINT FILLER
LBS	POUNDS
Ld	DEVELOPMENT LENGTH
Ldh	DEVELOPMENT LENGTH STANDARD HOOK
LG	LONG
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LNTL	LINTEL
LONG.	LONGITUDINAL
LP	LOW POINT
Ls	CLASS B TENSION CONTACT LAP SPLICE
LT	LEFT
LW	LIGHTWEIGHT
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MCJ	MASONRY CONTROL JOINT
MFR	MANUFACTURER
MIN	MINIMUM
MO	MASONRY OPENING
MTL	METAL
NAAMM	NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS
NIC	NOT IN CONTRACT
NOM	NOMINAL
NSG	NON-SHRINK GROUT
NTS	NOT TO SCALE
O/E	OR EQUAL
OC	ON CENTER
OD	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
OPNG(S)	OPENING(S)
OPP	OPPOSITE
OPP HD	OPPOSITE HAND
OPT	OPTION (AL)
PCF	POUNDS PER CUBIC FOOT
PJF	PREMOLDED JOINT FILLER
PL	PLATE
PLYWD	PLYWOOD
PM	PRESSED METAL
PRCST	PRECAST
PREFAB	PRE-FABRICATED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT
PT	PRESSURE TREATED
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
PWT	PREFABRICATED WOOD TRUSS
R	RISER
RAD	RADIUS
RC	REINFORCED CONCRETE
RD	ROOF DRAIN
REF	REFERENCE / REFER
REINF	REINFORCE (D, ING)
REQD	REQUIRED
REV	REVISION
RM	ROOM
RO	ROUGH OPENING
RT	RIGHT
SB	SOLID BLOCKING
SCHED	SCHEDULE
SECT	SECTION
SHT	SHEET
SIM	SIMILAR
SL	SLOPE
SLNT	SEALANT
SP	SPACE (S, ED)
SPEC	SPECIFICATION, SPECIFIED
SQ	SQUARE
SQ-FT	SQUARE-FEET
SS	STAINLESS STEEL
SSMH	SANITARY SEWER MANHOLE
STD	STANDARD
STIF	STIFFENER
STIR.	STIRRUP (S)
STL	STEEL
STRUC	STRUCTURE (S, URAL)
STWY	STAIRWAY
SYM	SYMMETRICAL
T	TREAD (S)
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TD	TRENCH DRAIN
THD	THREADED
THK	THICK (NESS)
TJ	TOOLED JOINT
T.O.	TOP OF
TOC	TOP OF CONCRETE
TOS	TOP OF STEEL
T.O.W.	TOP OF WALL
TPER	THERMOPLASTIC ELASTOMERIC RUBBER
TRNSV	TRANSVERSE
TYP	TYPICAL
UES	UNIFORM EVALUATION SERVICES
UON	UNLESS OTHERWISE NOTED
VERT	VERTICAL
VIF	VERIFY IN FIELD
VR	VAPOR RETARDER
W	WIDE
W/	WITH
WF	WIDE FLANGE
W/O	WITHOUT
WD	WIDTH / WOOD
WP	WORKING POINT
WPG	WATERPROOFING
WS	WATERSTOP
WT	WEIGHT
WWF	WELDED WIRE FABRIC

ABBREVIATION NOTES:

1. ABBREVIATIONS AND DESIGNATIONS FOR STEEL MEMBERS MAY BE FOUND IN THE CURRENT STEEL CONSTRUCTION MANUAL BY AISC.
2. ABBREVIATIONS OF TECHNICAL SOCIETIES AND TRADE ASSOCIATIONS MAY BE FOUND IN THE SPECIFICATIONS
3. WELDING SYMBOLS AND ABBREVIATIONS MAY BE FOUND IN AWS 2.4.
4. ABBREVIATIONS LISTED ARE FOR USE WITH STRUCTURAL DRAWINGS ONLY. SOME ABBREVIATIONS LISTED MAY NOT BE USED ON THE PLANS.

LEGEND:

CLASS 2 AGGREGATE BASE



3/11/25

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TJC and ASSOCIATES, INC.

PILARCITOS WELLFIELD REPLACEMENT PROJECT
HALF MOON BAY, CALIFORNIA

STRUCTURAL GENERAL NOTES II, ABBREVIATIONS AND LEGEND

REV	DESCRIPTION	APPRD	DATE

DATE: MARCH 2025
SCALE: NTS
DRAWN: BV
DESIGNED: RJM
APPROVED: -
JOB NO.: B80108.39

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"
IF NOT, ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

SHEET NUMBER
GS2
14 OF 29

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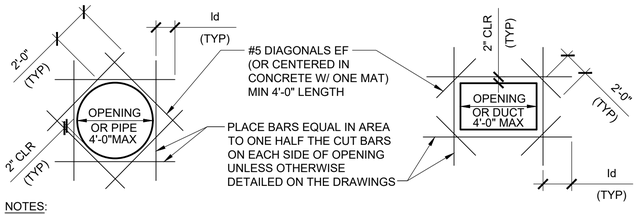


NOTES:

1. PROVIDE STANDARD HOOK IF INDICATED LENGTH IS NOT POSSIBLE.
2. REINFORCING STEEL IS TO BE CARRIED ACROSS ALL CONSTRUCTION JOINTS.
3. DETAIL IS TYPICAL FOR ALL OPENINGS GREATER THAN 10 INCHES AND LESS THAN OR EQUAL TO 4 FEET IN THE LARGER DIMENSION IN CONCRETE WALLS AND SLABS UNLESS OTHERWISE DETAILED ON THE DRAWINGS.
4. TRIM BARS ARE NOT REQUIRED AT AN OPENING EDGE PARALLEL TO AND WITHIN 6 INCHES OF A WALL OR BEAM.

ADDITIONAL TRIM REINFORCEMENT AT OPENINGS

DETAIL 03025 VAR
NTS

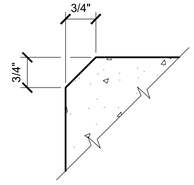
BAR SIZE	4000 PSI CONCRETE				
	ld (INCHES)		ls (INCHES)		ldh
	TOP BAR	OTHER	TOP BAR	OTHER	(INCHES)
#3	19	15	25	20	8
#4	25	20	33	26	10
#5	31	24	41	32	12
#6	37	29	49	38	15
#7	54	42	71	55	17
#8	62	48	81	63	19
#9	70	54	91	71	22
#10	79	61	103	80	25

NOTES:

1. ld: DEVELOPMENT LENGTH FOR A STRAIGHT REINFORCING BAR IN TENSION.
   ls: CLASS B TENSION CONTACT LAP SPLICE LENGTH.
   ldh: DEVELOPMENT LENGTH FOR STANDARD HOOKS IN TENSION.
2. LAP SPLICES SHALL BE CLASS B TENSION CONTACT LAP SPLICES TYPICAL, UNLESS OTHERWISE NOTED ON DRAWINGS.
3. TOP BAR IS ANY HORIZONTAL BAR WITH MORE THAN 12" CONCRETE CAST IN ONE LIFT BENEATH THE BAR, INCLUDING BUT NOT LIMITED TO, HORIZONTAL BARS CAST IN WALLS.
4. SPLICES IN HORIZONTAL BARS SHALL BE STAGGERED.
5. UNLESS OTHERWISE DETAILED ON THE DRAWINGS, SPLICES IN TWO CURTAINS SHALL NOT OCCUR IN THE SAME LOCATION.

LAP SPLICE LENGTH

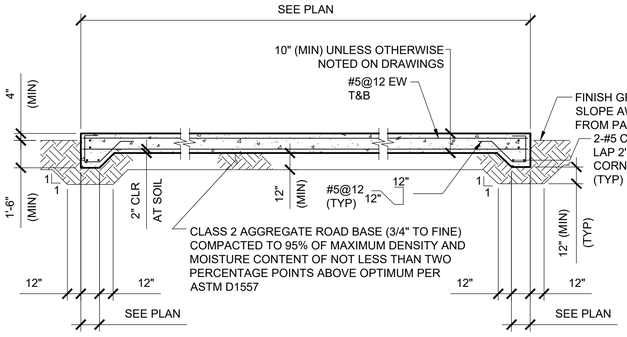
DETAIL 03026 VAR
NTS



UON ON DRAWINGS

CONCRETE CHAMFER

DETAIL 03028 VAR
NTS



EXTERIOR EQUIPMENT SLAB

DETAIL 03075 VAR
NTS

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PILARCITOS WELLFIELD REPLACEMENT PROJECT
HALF MOON BAY, CALIFORNIA

STRUCTURAL STANDARD DETAILS

DATE	DESCRIPTION	APPRVD	DATE

REV	
-	

DATE: MARCH 2025
SCALE: NTS
DRAWN: BV
DESIGNED: RJM
APPROVED: -
JOB NO.: B80108.39

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REGISTERED PROFESSIONAL ENGINEER
RICHARD J. MAYFIELD
No. S 4439
Exp. 12/31/25
STRUCTURAL
STATE OF CALIFORNIA

3/11/25
100% DESIGN SUBMITTAL

SHEET NUMBER
GS3
15 OF 29

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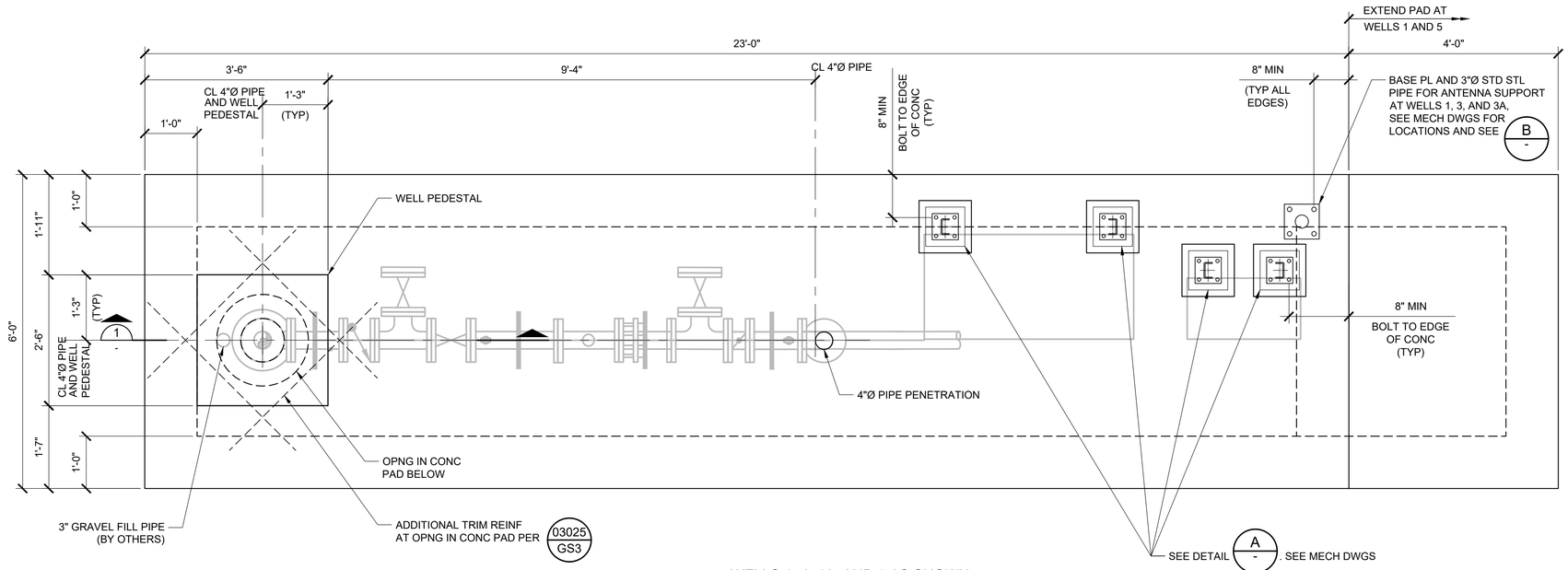
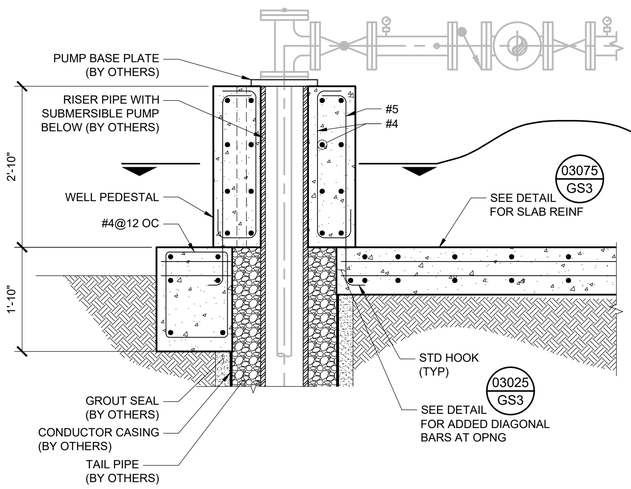
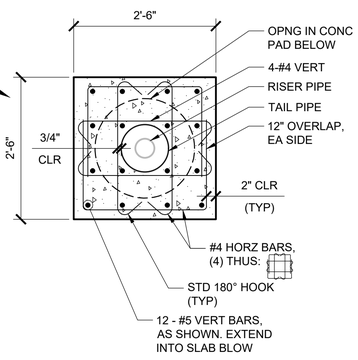


WELLS 1, 4, 4A, AND 5 AS SHOWN
WELLS 3 AND 3A OPP HD

CONCRETE PAD PLAN

SCALE: 3/4"=1'-0"

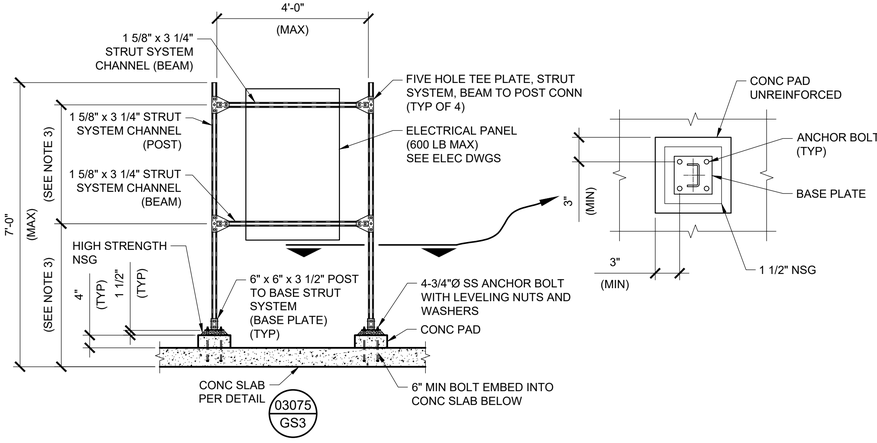




WELL PEDESTAL

SECTION 1

SCALE: 3/4"=1'-0"



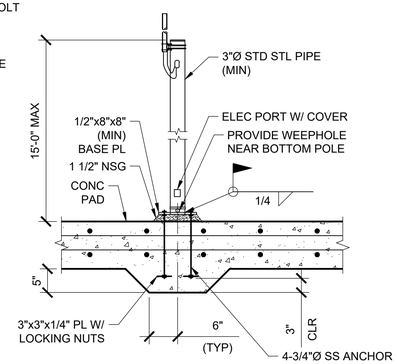
NOTES:

1. STRUCTURAL ELEMENTS SHALL BE PREFABRICATED STEEL STRUT SYSTEMS SUCH AS EATON B-LINE, UNISTRUT OR APPROVED EQUAL. CHANNEL ELEMENTS SHALL NOT HAVE SLOTTED HOLE PATTERN.
2. UNLESS OTHERWISE NOTED, USE 1/2"Ø (MIN.) THROUGH BOLTS FOR STRUT SYST. CONNECTION FITTINGS.
3. BEAM LOCATION TO BE COORDINATED WITH ELECTRICAL PANEL MANUFACTURER.
4. UNLESS OTHERWISE NOTED, ALL MATERIAL SHALL BE TYPE 316 STAINLESS STEEL.

ELECTRICAL PANEL MOUNTING STAND ON SLAB

DETAIL A

SCALE: NTS



DETAIL B

SCALE: 3/4"=1'-0"

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PILARCITOS WELLFIELD REPLACEMENT PROJECT
HALF MOON BAY, CALIFORNIA

STRUCTURAL PLAN AND DETAILS

DATE	APPR'D	DESCRIPTION	REV

DATE: MARCH 2025
SCALE: AS SHOWN
DRAWN: BV
DESIGNED: RJM
APPROVED: -
JOB NO.: B80108.39

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REGISTERED PROFESSIONAL ENGINEER — Robert J. Mitchell — No. S 4439 Exp. 12/31/25 — STRUCTURAL — STATE OF CALIFORNIA

3/11/25

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SHEET NUMBER
S1
16 OF 29

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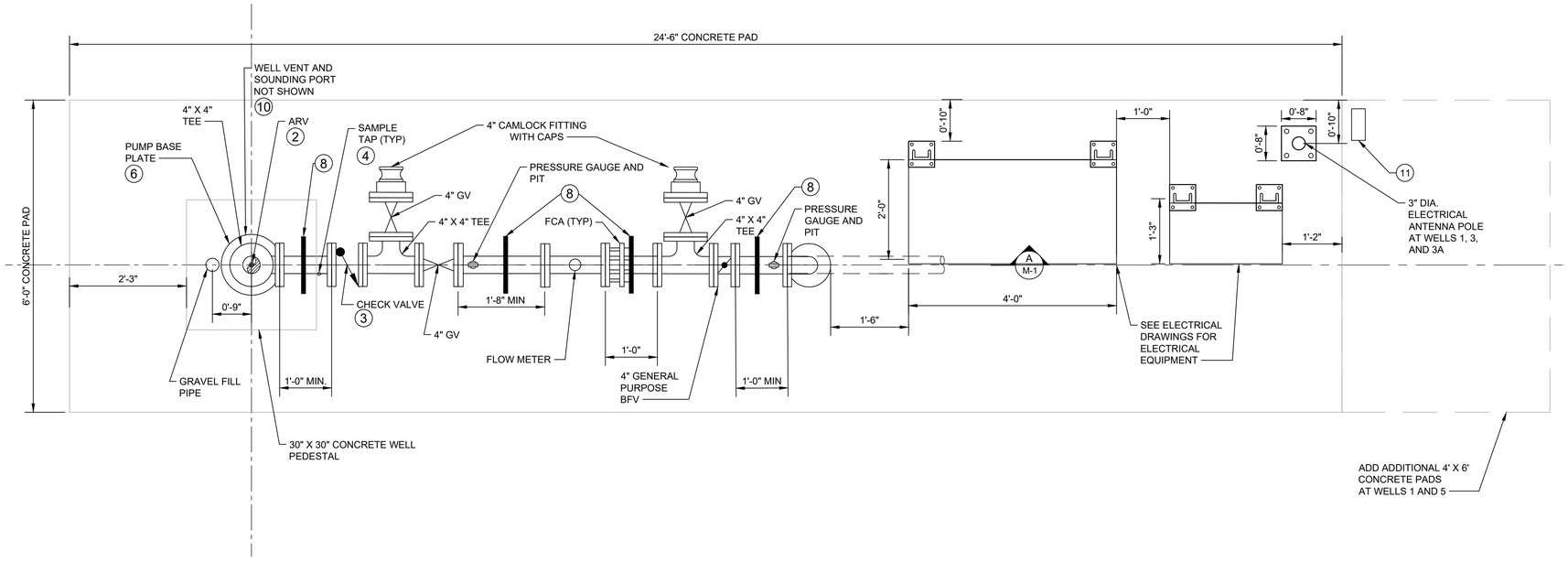
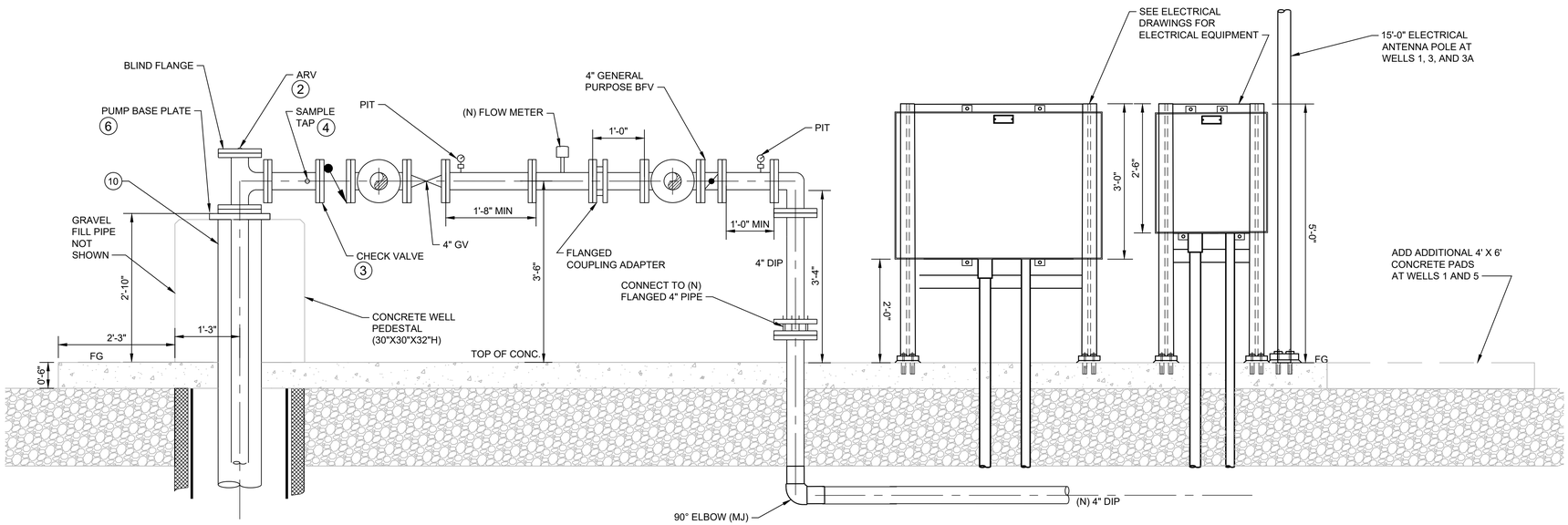


WELL PUMP PIPING PLAN

SCALE: 3/4" = 1'-0"

1 / M-1



WELL PUMP AND PIPING SECTION

SCALE: 3/4" = 1'-0"

A / M-1

HORIZONTAL SCALE: 3/4" = 1'-0"
VERTICAL SCALE: 3/4" = 1'-0"
(20X VERTICAL EXAGGERATION)

100% DESIGN / BID SET

CONSTRUCTION NOTES

1. CONTRACTOR SHALL DESIGN, LOCATE, AND INSTALL ALL PIPE SUPPORTS IN ACCORDANCE WITH STRUCTURAL SPECIFICATIONS AND DRAWINGS.
2. INSTALL AIR RELEASE VALVES AS INDICATED. ALL AIR RELEASE VALVES SHALL BE 1-INCH UNLESS OTHERWISE NOTED. FOR AIR RELEASE VALVES, SEE DETAIL 4 / M-2. PROVIDE BOSS FOR PIPE TAPS IN ACCORDANCE WITH AWWA C151.
3. PUMP DISCHARGE CHECK VALVE SHALL BE APCO SERIES 600 OR APPROVED EQUAL.
4. FOR PIPE TAPS, PROVIDE 1-INCH TAPS USING BRONZE DOUBLE STRAP SADDLE, IP OUTLET WITH CORP STOP, IPXIP. PROVIDE INSULATING BUSHING AT SADDLE. IF SPECIFIED AS A SAMPLE TAP, SEE DETAIL 5 / M-2.
5. CONTRACTOR SHALL FIELD VERIFY DIMENSIONS, PIPELINE ELEVATIONS, PIPELINE CONNECTIONS, AND INSTALLATION REQUIREMENTS.
6. WELL PUMP SUPPLIER SHALL BE RESPONSIBLE FOR DESIGNING THE WELL PUMP BASE PLATE IN ACCORDANCE WITH SPECIFICATION 33 11 36.
7. SEE SPECIFICATION 33 11 36 FOR WELL CONSTRUCTION DETAILS. CONTRACTOR TO FIELD VERIFY COMPATIBILITY BETWEEN WELL AND IMPROVEMENTS SHOWN IN THESE DRAWINGS.
8. SEE PIPE SUPPORT DETAIL 1 / M-2, DETAIL 2 / M-2. NO TOP PIPE STRAP DETIAL 2.
9. ALL ABOVE GRADE VALVES SHALL BE EQUIPPED WITH HAND-TURN WHEELS. GATE VALVES SHALL HAVE RISING STEMS.
10. INSTALL SOUNDING TUBE AND WELL VENT PER DETAIL 3 / M-2.
11. LOCATION OF 120V RECEPTACLE AT WELLS 1 AND 5. CONTRACTOR TO FIELD LOCATE.

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PILARCITOS WELLFIELD REPLACEMENT PROJECT

HALF MOON BAY, CALIFORNIA

MECHANICAL PLAN, WELL PUMP AND PIPING

					DATE
					APPRD
					DESCRIPTION
					REV

DATE: MAR 2025
SCALE: AS SHOWN
DRAWN: NC
DESIGNED: TC
APPROVED: JS
JOB NO.: B80108.39

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0 1"
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SHEET NUMBER
M-1
17 OF 29

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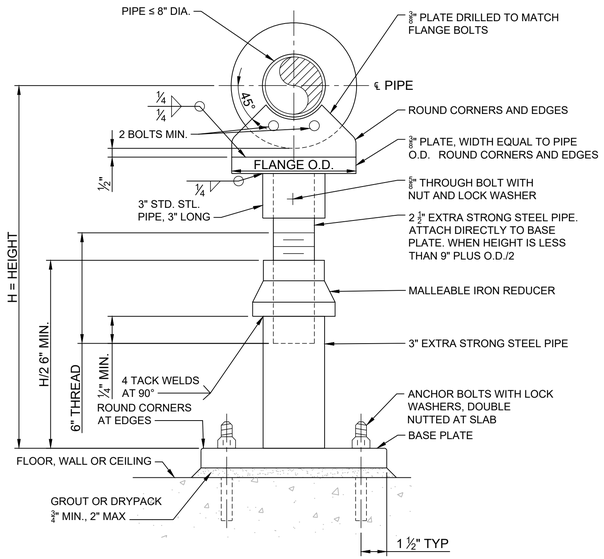
03/31/2025
100% DESIGN / BID SET

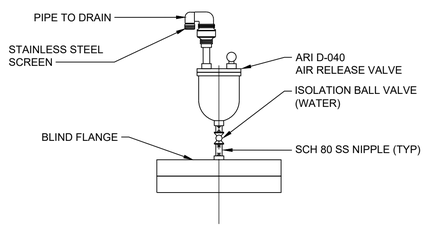
REGISTERED PROFESSIONAL ENGINEER — TYLER F. COLYER — C 80141 — CIVIL — STATE OF CALIFORNIA
03/31/2025
100% DESIGN / BID SET



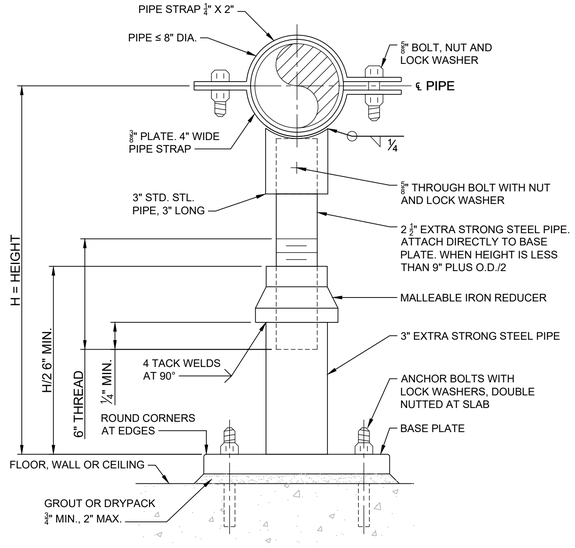
LOCATION	H (MAX.)	MEMBER	
		BASE PLATE	ANCHOR BOLTS
FLOOR	4'-6"	3/8"x12"x12"	4-5/8"
CEILING	4'-0"	5/8"x12"x12"	4-3/4"
WALL	1'-6"	5/8"x12"x12"	4-3/4"

NOTES:
1. AS AN ALTERNATE, IF ADJUSTMENT IS NOT NECESSARY, DELETE 2 ½" PIPE AND REDUCER AND WELD 3" STEEL PIPE DIRECTLY TO ⅜" PLATE ATTACHED TO PIPE FLANGE.
2. DO NOT CUT OR WELD AFTER GALVANIZING.
3. PIPE SUPPORT MAY BE ORIENTED IN ANY DIRECTION.

PIPE SUPPORT 1
NOT TO SCALE — M-2



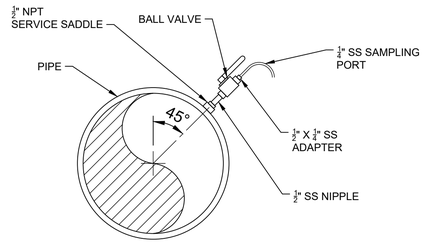
TYPICAL AIR RELEASE VALVE 4
NOT TO SCALE — M-2



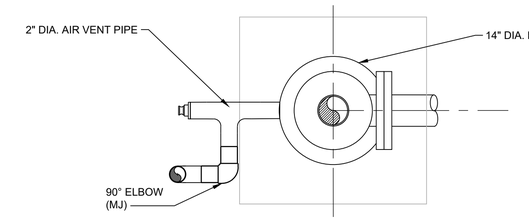
LOCATION	H (MAX.)	MEMBER	
		BASE PLATE	ANCHOR BOLTS
FLOOR	4'-6"	3/8"x12"x12"	4-5/8"
CEILING	4'-0"	5/8"x12"x12"	4-3/4"
WALL	1'-6"	5/8"x12"x12"	4-3/4"

NOTES:
1. AS AN ALTERNATE, IF ADJUSTMENT IS NOT NECESSARY, DELETE 2 ½" PIPE AND REDUCER AND WELD 3" STEEL PIPE DIRECTLY TO BOTTOM OF STRAP.
2. DO NOT CUT OR WELD AFTER GALVANIZING.
3. PIPE SUPPORT MAY BE ORIENTED IN ANY DIRECTION.
4. FOR USE IN CORROSIVE ENVIRONMENTS, SUPPORTS AND APPARATUSES SHALL BE TYPE 316 STAINLESS STEEL.

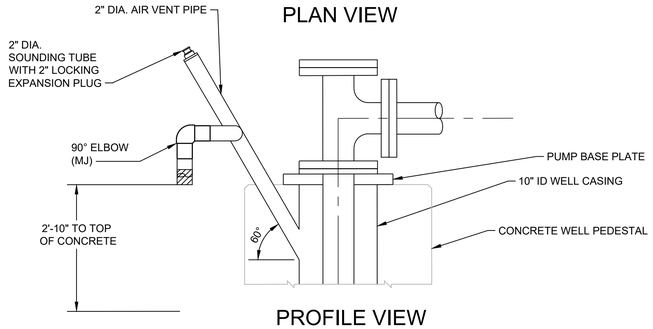
PIPE SUPPORT 2
NOT TO SCALE — M-2



TYPICAL SAMPLE TAP 5
NOT TO SCALE — M-2



PLAN VIEW



PROFILE VIEW

NOTES:
1. BUG SCREENS SHALL BE PLACED ON AIR VENT PIPE.
2. BASE PLATE, GRAVEL FEED FILL PIPE, AND DISCHARGE ASSEMBLY NOT SHOWN.
3. SOUNDING TUBE SHALL BE WELDED TO THE OUTSIDE OF THE WELL CASING.
4. DESIGN SHALL BE IN CONFORMANCE WITH ALL APPLICABLE CODES AND REGULATIONS AS LISTED IN SPECIFICATIONS.

SOUNDING TUBE AND WELL VENT 3
NOT TO SCALE — M-2

100% DESIGN / BID SET

ekI environment & water
2001 JUNIPERO SERRA BOULEVARD, SUITE 300
DALY CITY, CALIFORNIA 94014
(650) 292-9100 • FAX (650) 552-9012

PILARCITOS WELLFIELD REPLACEMENT PROJECT

HALF MOON BAY, CALIFORNIA

MECHANICAL DETAILS

REV	DESCRIPTION	APPRD	DATE

DATE: MAR 2025
SCALE: AS SHOWN
DRAWN: NC
DESIGNED: TC
APPROVED: JS
JOB NO.: B80108.39

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

SHEET NUMBER
M-2
18 OF 29

REGISTERED PROFESSIONAL ENGINEER — JONATHAN P. N. SUN — C 81008 — CIVIL — STATE OF CALIFORNIA — 03/31/2025
100% DESIGN / BID SET

REGISTERED PROFESSIONAL ENGINEER — TYLER F. COLYER — C 80141 — CIVIL — STATE OF CALIFORNIA — 03/31/2025
100% DESIGN / BID SET

County of San Mateo - Planning and Building Department

ATTACHMENT B

Coastal Development Permit Supplemental Information

1. Project Summary

The Coastside County Water District ("CCWD" or "the District") provides treated water to the City of Half Moon Bay and to nearby unincorporated San Mateo County communities. The District is heavily reliant on the San Franciso Public Utilities Commission's Pilarcitos Reservoir for its water supply. The District also relies upon its Pilarcitos Wellfield for supplemental water supply. Due to concerns for seismic safety, the SFPUC is modifying reservoir operations, which will have immediate and substantial water supply consequences for the District. Meanwhile, the District's Pilarcitos wells are nearing the end of their useful life and becoming prohibitively costly to maintain. Thus, with Pilarcitos Reservoir water supply curtailments imminent, the District needs to replace its Pilarcitos wells in order to maintain water supply reliability and to control costs. Under the Project, the District would replace six wells "in kind" by offsetting the new wells from the existing wells and abandoning the old wells (Project area). One of the old wells would also be converted to a monitoring well. The Project would not expand production capacity over that of the existing wells.

The following information is provided as additional or supporting information to that provided in the San Mateo County (County) Planning and Building Department's Coastal Development Permit (CDP) application forms, submitted for the Project. This application presents a description of the Project location and activities; evaluates the potential for Project activities to adversely affect biological resources, cultural resources, and water quality; and explains why the Project would not conflict with applicable Local Coastal Program policies.

Supplemental Project information is provided in the order of the questions presented in the CDP application forms. Additional materials are included in Appendices A through D. These appendices include best management practices and conservation measures that are proposed as part of the Project (Appendix A), a table of special-status species considered in the Project area (Appendix B), Representative Photographs of the Site (Appendix C), the existing water diversion license for the wells (Appendix D), the Categorical Exclusion prepared pursuant to the California Environmental Quality Act (CEQA) (Appendix E), and the Project plans (Appendix F).

2. Project Background

The District purchases approximately 75 percent of its water supply from the San Francisco Public Utilities Commission (SFPUC). The remaining 25 percent of the District's water supply is produced locally from wells and surface water. Thus, the District is highly reliant on SFPUC water.

Water from SFPUC is primarily supplied from SFPUC's Pilarcitos Reservoir. CCWD also has facilities to pump water directly from Upper Crystal Springs Reservoir (UCSR) by operating the District's Crystal Springs Pump Station (CSPS), if needed. However, the District relies on supply from Pilarcitos Reservoir to the extent it is available due to the high operating costs and complexity associated with operating

CSPS. In addition, the District has periodically experienced water quality issues with water pumped from the deep intake from UCSR.

The District operates shallow wells in the Pilarcitos Creek Wellfield, located in Pilarcitos Creek Canyon, between Pilarcitos Reservoir and Highway 92. The Pilarcitos wells are considered points of diversion from Pilarcitos Creek, and pumping is governed by the District's License 10598 (Appendix D). The license restricts total aggregate pumping from the wellfield to 1.5 cubic feet second at any given time and limits the total amount pumped to 360 acre-feet between November 1 and March 31 (no pumping is allowed outside of this window).

The SFPUC has completed assessments of Pilarcitos Dam and its associated facilities, which concluded that significant deformation and settlement of the dam embankment are anticipated during a magnitude 8.0 earthquake on the San Andreas Fault. Based upon this analysis, and in consultation with the Department of Water Resources, Division of Safety of Dams, the SFPUC implemented a 14-foot reservoir reduction, which is expected to reduce the risk of the dam overtopping after a significant earthquake. The SFPUC reduced the operating level of the reservoir by 15 feet on September 3, 2024.

While SFPUC is considering potential future modifications to the dam and associated watershed facilities, the reservoir reductions will have an immediate and substantial impact on the District's water supply options. To maintain service, the District will need to increase reliance on the higher cost UCSR and its groundwater wells, including especially its Pilarcitos wells. At the same time, the Pilarcitos wells are nearing the end of their useful life, are no longer capable of producing their design capacity, and are becoming prohibitively expensive to maintain.

Reliability of the Pilarcitos wells is critical due to the SFPUC's projected decrease in supply from Pilarcitos Reservoir. Thus, the District is undertaking the Pilarcitos Wellfield Replacement Project to improve the reliability of the water supply and reduce future maintenance costs. The Project will allow the District to optimize its use under these existing water rights. The Project will not, however, increase well production or distribution capacity.

3. Project Location and Site Conditions

The Project area is located in unincorporated San Mateo County, California within the United States Geologic Survey (USGS) Montara Mountain 7.5-minute quadrangle (**Figure 1**) approximately 2.75 miles northeast of the City of Half Moon Bay. The Project area includes six existing shallow wells which comprise the existing wellfield along the top of bank of an approximately 0.49-mile (2,568 feet) long reach of Pilarcitos Creek (**Figure 2**). All six wells are located on Assessor's Parcel Number (APN) 056-370-080, an approximately 310-acre parcel which is owned by CCWD. Each existing well is set within a concrete well pad (varying between 25 and 100 square feet in size) and has a corresponding 4-inch water pipe which extends under Pilarcitos Creek Road, connecting to the District's 18-inch raw water transmission pipeline. Photographs of site conditions are presented in Appendix C. The raw water transmission pipeline conveys the combined flow from Pilarcitos Reservoir, CSPS, and the Pilarcitos wells to the District's Nunes Water Treatment Plant. Adjacent uses in the vicinity include Santa's Tree Farm to the south and undeveloped riparian corridor and coastal scrub habitats to the north, east and west within a one-quarter mile radius of the Project area.

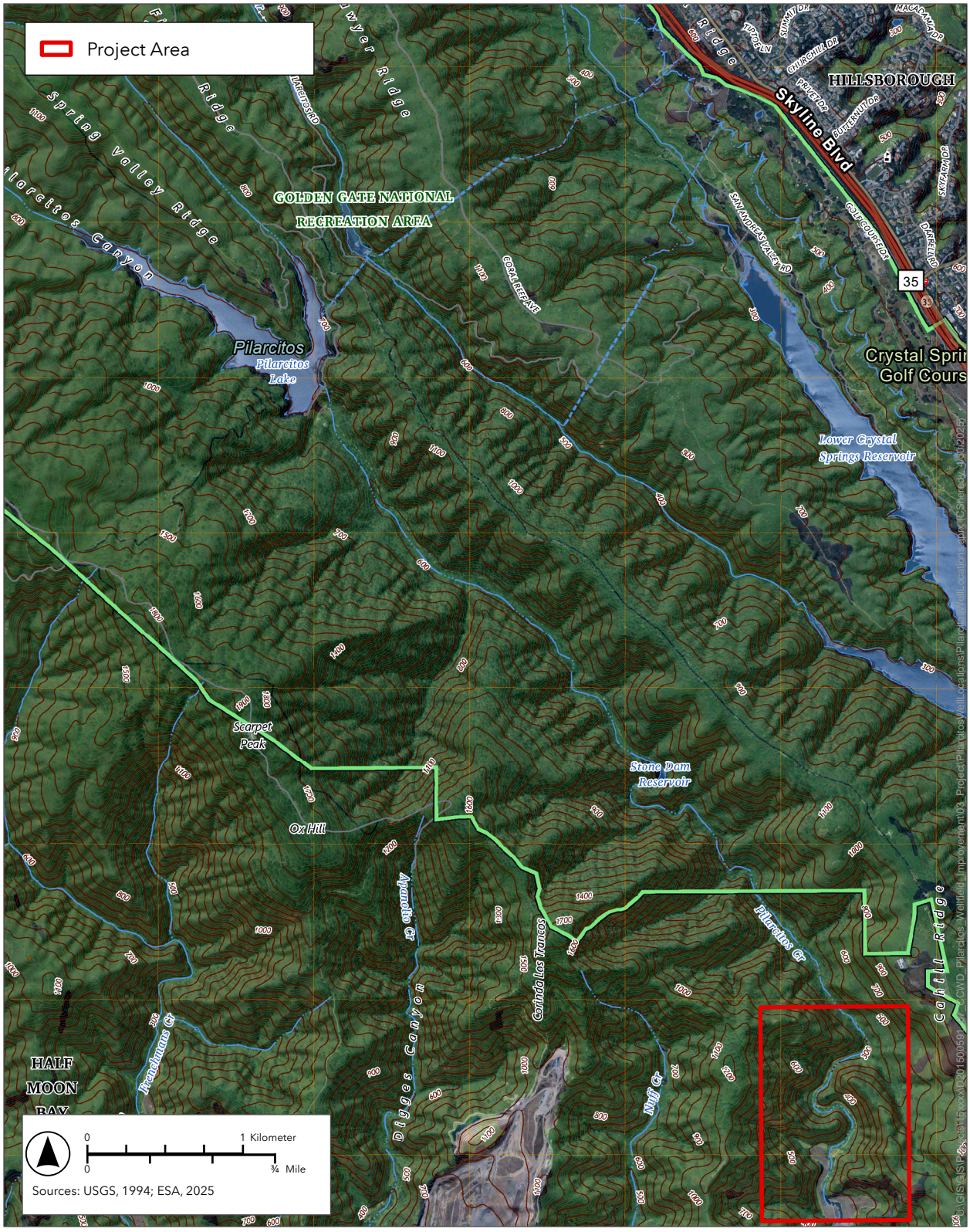


Figure 1
CCWD Pilarcitos Creek Wellfields Replacement Project
7.5-Minute USGS Topographic Map (Montara Mountain Quadrangle)
San Mateo County, CA

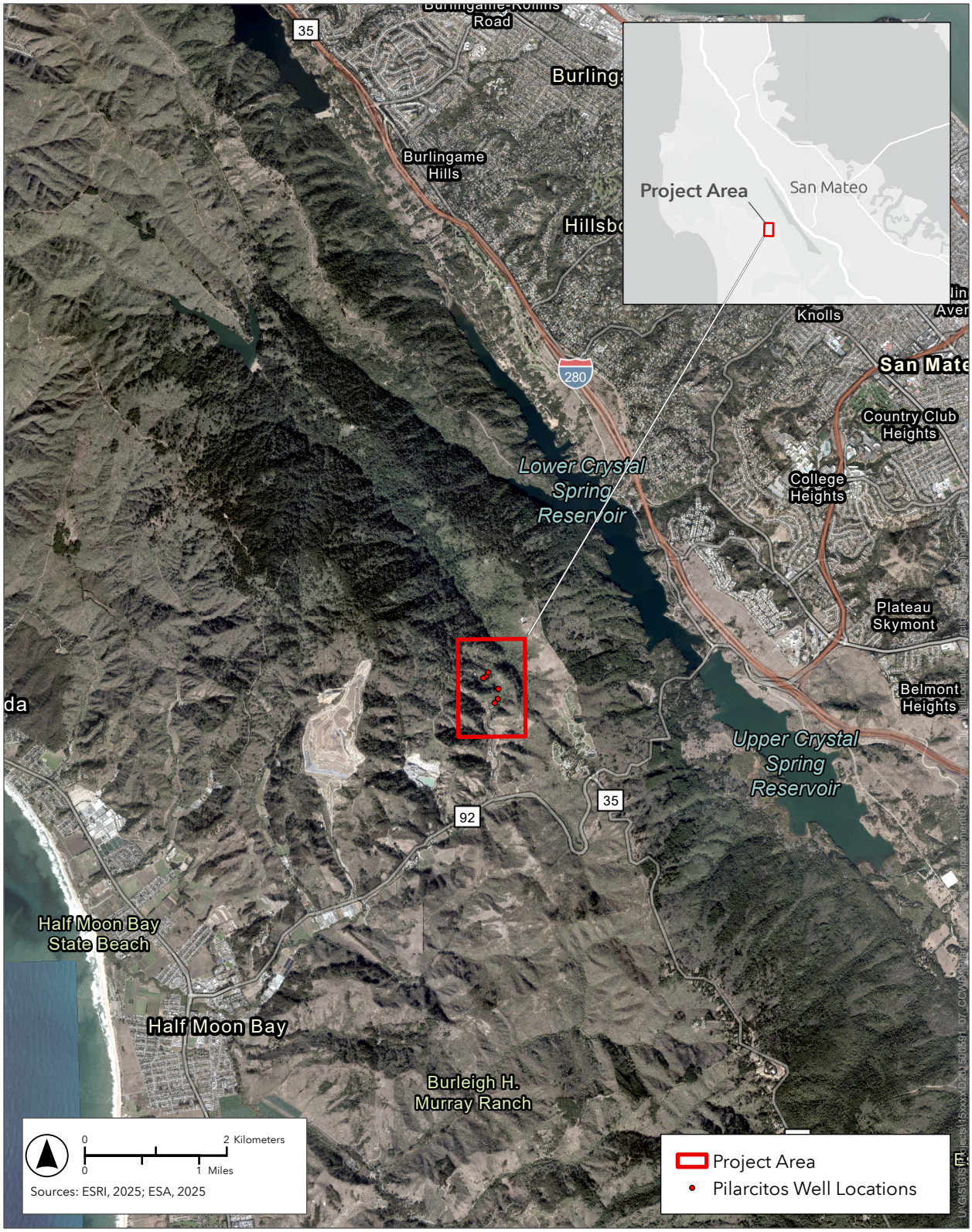


Figure 2
CCWD Pilarcitos Creek Wellfields Replacement Project
Project Location
San Mateo County, CA

4. Project Description

The Project would include (1) the construction of the six new wells, associated reinforced concrete pads, piping, valves and appurtenances, and connections to the raw water transmission pipeline; and (2) the addition of variable frequency drives and network connections to integrate with the District's existing Supervisory Control and Data Acquisition (SCADA) system. The Project would ensure continued, reliable water service to District customers and make future operation and maintenance activities easier and less impactful to the creeks and adjacent communities.

A typical well site would include a new well, drilled to a depth of approximately 50-65 feet below grade, a new 6-foot by 24.5-foot concrete well pad, the well pump and piping, electrical control boxes and an antenna. The concrete pad would rise to a height of approximately 6 inches above grade. The well piping would rise to a height of about 4 feet above the well pad, the electrical boxes would rise to about 5 feet above the well pad, and the antenna would rise to about 15 feet above the well pad. The new well pads would be adjacent to or overlap the existing well pads to be demolished. The new wellbore would be located about 10 to 15 feet from the existing wellbore. See Appendix F for design details.

Project Construction

Project construction and implementation would occur over approximately 4-5 months. This construction phase includes site mobilization, initial clearing and grading of the site; demolition of the existing wells and equipment; drilling of the well boreholes and installation of the well casing and gravel pack; installation of well pads, equipment, piping, and appurtenance; testing; and startup. Five of the existing wells would be destroyed and abandoned in accordance with County and State regulations, and the drilling permit. One of the existing wells (Well 4A) would also be converted to a monitoring well.

The replacement wells would be located near the existing wells where practicable and, in some cases, further away from Pilarcitos Creek. No trees or riparian vegetation are planned for removal.

Drilling and initial construction of each production well is anticipated to take approximately one working day.

A truck-mounted air-rotary drill rig would be used to advance boreholes for the replacement wells. Compressed air (and potentially water) would cool the drill bit and transport the cuttings to the surface during drilling operations. The produced materials from the drilling process would be conveyed through a discharge pipe or hose into a cyclone where cuttings would be separated from air used for circulation. If certain unstable borehole conditions are encountered, mud-rotary drilling and/or continuous activity may be required during installation of well casing, filter pack, and annular seal, to avoid collapse of the borehole.

As the borehole is advanced, a casing hammer would be used to drive a temporary casing into the borehole. After the borehole is drilled and temporary casing set, the permanent well would be constructed within the temporary casing, after which the temporary casing would be removed. The well casing and screen would serve as a housing for the well pump and as a vertical conduit for water flowing upward from the aquifer to the pump intake. The remaining annular space around the screen would be backfilled with clean graded sand and topped with a sand-cement grout seal after the well casing and screen is run

into the temporary casing. The temporary casing would be removed as the annular space is filled. The well would be grouted (sealed) from just above the top of the well screen up to the surface. Following well construction, the well would be developed (prepared for operation) using a bailer, pumps and surge blocks to remove drilling mud from the casing and filter pack, and to establish a hydraulic connection between the well screen and the aquifer.

The water produced during development would be discharged into temporary separation tanks to allow solids to settle prior to discharge of water according to the District's National Pollutant Discharge Elimination System permit. Settled solids will be disposed of at an offsite location. Typical construction equipment for well installation and development would consist of a drill rig, boom truck or crane, backhoe, air compressor, forklift, electrical generator, storage tanks, welding equipment, and miscellaneous support vehicles. The Project would not expand existing water utility services.

After the new wells are installed, the well pumps and other equipment, piping, appurtenances, electrical and controls equipment, and pads would be installed. After the system is tested, the piping would be connected to the existing 18-inch transmission main. The operations of the system would be tested during startup.

Best Management Practices and Conservation Measures

The Project is intended to maintain water supply reliability and control costs of its local water supply near Pilarcitos Creek for the District and its customers. The Project is not anticipated to have any substantial adverse environmental effects. However, since the Project would be constructed in areas near sensitive biological resources, cultural resources, and hydrological and water quality resources, CCWD has developed best management practices (BMPs) and conservation measures (see Appendix A) that would be implemented as part of the Project. These measures, included in Appendix A, are activities or actions that would be undertaken by the contractor during Project construction.

5. Environmental Considerations

This section presents analyses of potential Project effects on biological resources, cultural resources, and water quality.

Biological Resources

ESA biologists[1] performed a reconnaissance pedestrian survey of the Project sites (the study area) December 3, 2024, to characterize biological resources. Prior to the survey, ESA queried the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB)[2] records and reviewed the Calflora database for a 3-mile radius around the study area and obtained the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) list for the study

[1] Tierra Groff (CDFW-approved qualified biologist, biological monitor for California red-legged frog) and Nicole Ibanez (CDFW-approved qualified biologist, qualified botanist, biological monitor; CDFW Plant Collecting Permit (2018(a)-16-107-v) holder and CDFW Scientific Collecting Permit (SC-7617) holder).

[2] The term "special-status" species includes those species that are listed and receive specific protection defined in federal or state endangered species legislation, as well as species not formally listed as Threatened or Endangered, but designated as "Rare" or "Sensitive" on the basis of adopted policies and expertise of state resource agencies or organizations, or local agencies such as counties, cities, and special districts.

area.[3,4,5] The pedestrian survey allowed for complete visual coverage of study area aquatic resources and habitat suitable for special-status species, such as sensitive plant species, ground nesting birds, and aquatic breeding and upland refugia habitat for reptiles and amphibians. The study area vegetation communities and wildlife habitats were characterized as primarily mixed coniferous forest and mixed riparian forest, with one aquatic resource – Pilarcitos Creek (**Figure 3**). Soils within the Project area are predominantly alluvial Soquel loam (sloping, eroded).[6]

Pilarcitos Creek parallels the proposed wellfield replacement locations. The creek contains perennial flows and a relatively contiguous, dense overstory, dominated by native trees, primarily willow (*Salix* sp.) and oak (*Quercus* sp.). Upslope of the creek is dominated by redwoods (*Sequoia sempervirens*). The lower shrub and herbaceous layer include a mix of native and non-native species in a less contiguous distribution. Bank erosion from winter storm flows has resulted in a consistent, sediment-laden channel bed within the study area. Wrack and vegetative stormflow debris occur at various segments within the creek bed. Uplands of the study area consist of an unpaved access road, sparsely vegetated (ruderal) areas (immediately surrounding the wellfield locations), with peripheral, native woodlands.

Analysis of study area habitat conditions with special-status species database query results reveals the potential for three special-status plant species and four special-status animal species to occur based on species' habitat requirements and recorded presence in the region. **Table B-1** and **Table B-2** in **Appendix B** present special-status plant and animal species (respectively) with records documented in CNDDB within 3 miles of the Project area, or identified on the IPaC list, evaluated for their potential to occur in the study area. These tables list all species evaluated for their potential presence, species' federal and/or state protective status, provides a description of their suitable habitat, and includes a determination of the species' potential presence in the study area.

[3] California Natural Diversity Database (CNDDB). 2024. Biogeographic Data Branch, Department of Fish and Wildlife. Sacramento, California. Accessed December 2024.

[4] Calflora. 2024. Information on California plants for education, research and conservation, with data contributed by public and private institutions and individuals, including the Consortium of California Herbaria. [web application]. 2024. Berkeley, California: The Calflora Database [a non-profit organization]. Available online at: https://www.calflora.org/. Accessed December 2024.

[5] United States Fish and Wildlife Service (USFWS), 2024. List of Threatened and Endangered Species that May Occur In Your Proposed Project Location Or May Be Affected By Your Proposed Project. Unofficial Species List. Coastside County Water District Pilarcitos Wellfield Improvement Project. Project Code: 2025-0035418. Species list generated December 23, 2024.

[6] U.S Department of Agriculture Natural Resources Conservation Service Web Soil Survey. Available online at: https://websoilsurvey.nrcs.usda.gov/. Accessed April 2025.

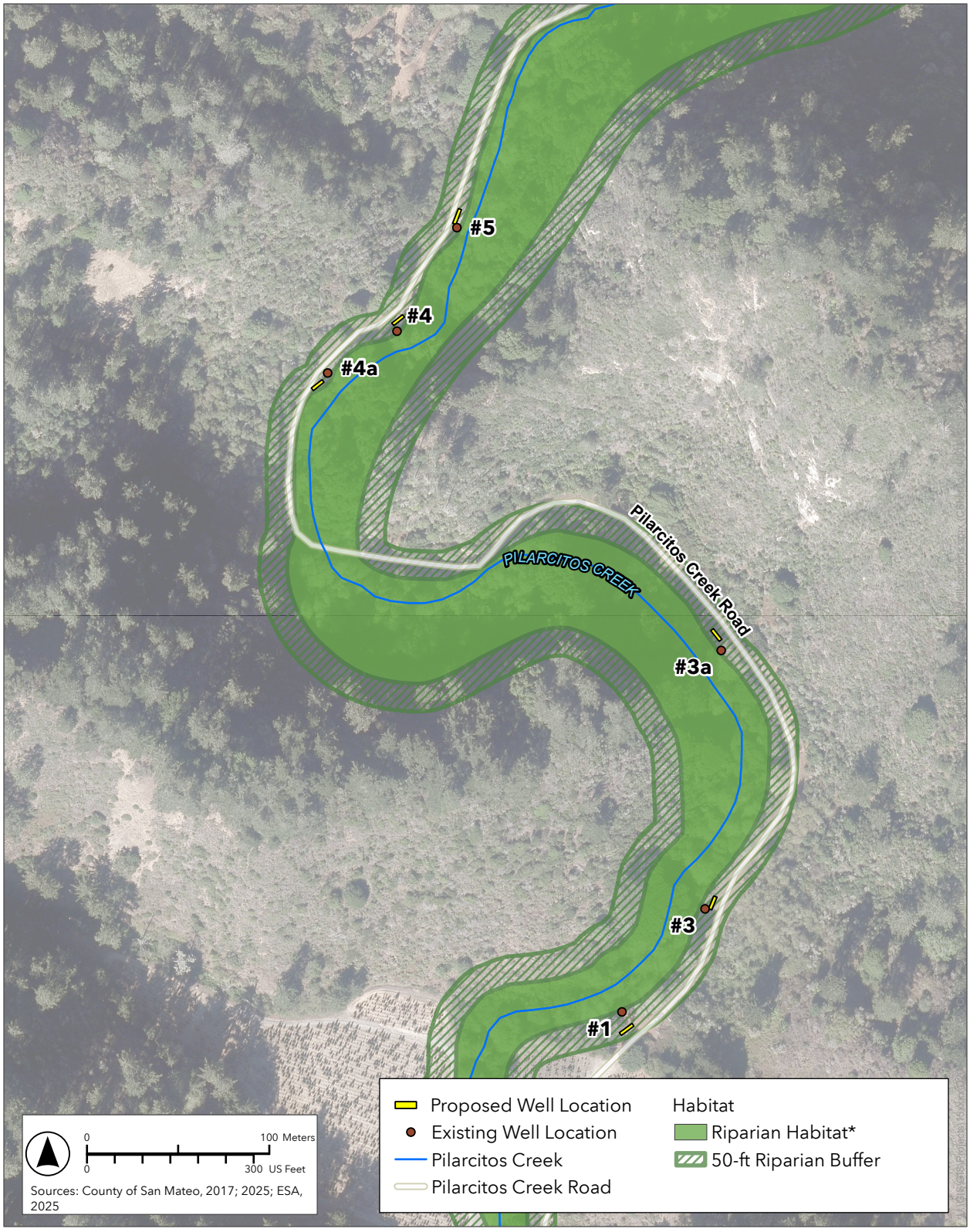


Figure 2
CCWD Pilarcitos Creek Wellfields Replacement Project
Sensitive Habitats Map
San Mateo County, CA

*Riparian habitat was approximated using the following data sources: San Mateo County's Midcoast Local Coastal Program (LCP) sensitive habitats map, USFWS riparian imagery, Google Earth Imagery, County of San Mateo streams data and 2017 aerial imagery.

In summary, San Mateo woolly sunflower (*Eriophyllum latilobum*),[7] western leatherwood (*Dirca occidentalis*),[8] and San Francisco collinsia (*Collinsia multicolor*)[9] all have moderate potential to occur[10] in the study area due to the presence of suitable habitat and numerous records within 3 miles of the study area. The District will conduct a pre-construction plant survey according to **BMP-BIO-5 (see Appendix A),** and if special-status plant species are found and cannot be avoided, the District will prepare a mitigation and monitoring plan that offsets the special-status plant impacts of the Project and ensures that there is no net loss of individuals or area of occupied habitat, whichever is more relevant to the impacted species.

The study area contains suitable habitat for California red-legged frog (*Rana draytonii*; CRLF) and the Project is located within USFWS-designated critical habitat for this species.[11] The CNDDB documents occurrence records in reaches of Pilarcitos Creek within the study area for CRLF. The Pilarcitos Creek riparian corridor provides suitable habitat for San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*); however, no middens were observed during the December 2024 field survey.[12] Steelhead – central California coast Distinct Population Segment (*Oncorhynchus mykiss irideus*)[13] is known to occur in tributaries to Pilarcitos Creek, and the creek is part of NMFS-designated critical habitat. There are known marbled murrelet (*Brachyramphus marmoratus*)[14] nesting sites upstream of the wellfield improvement locations, and the Project would be near USFWS-designated critical habitat for this species. Suitable nesting trees were observed throughout the study area. Numerous migratory birds could also use the study area trees, other vegetation, or ground burrows for nesting (**Figure 4**).

These special-status species and nesting birds are afforded protection under federal and/or State laws, including the federal and State endangered species acts, the Migratory Bird Treaty Act, and the California Fish and Game Code. CCWD is required to comply with all applicable laws and regulations protecting these species, in addition to best management practices to protect fish, wildlife, and plant resources.

In the absence of biological resources protection measures, the type of work required for the Project, including equipment transport and mobilization, ground disturbance, and drilling could have direct and indirect adverse effects on special-status species through habitat modification or accidental 'take'[15,16] of individual animals.

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7 San Mateo woolly sunflower is listed as endangered under FESA and CESA and has a California Rare Plant Rank (CRPR) of 1B.1.

8 Western leatherwood has a CRPR 1B.2 rank.

9 San Francisco collinsia has a CRPR 1B.2 rank.

10 A species was designated as having a "moderate" potential for occurrence if (1) there is low to moderate quality habitat present within the study area or immediately adjacent areas; and (2) the study area is within the known range of the species, even though the species was not observed during biological surveys.

11 CRLF is listed as threatened under the federal Endangered Species Act (FESA) and identified as a California Department of Fish and Wildlife (CDFW) Species of Special Concern (SSC).

12 San Francisco dusky-footed woodrat is identified as a CDFW SSC.

13 Steelhead – central California coast distinct population segment is listed as threatened under FESA and a CDFW SSC.

14 Marbled murrelet is listed as threatened under FESA and under the state Endangered Species Act (CESA).

15 Take under FESA is defined as "Harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." 16 U.S.C., §1532 (19).

16 Take under CESA is defined as "Hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Fish & G. Code, §8.

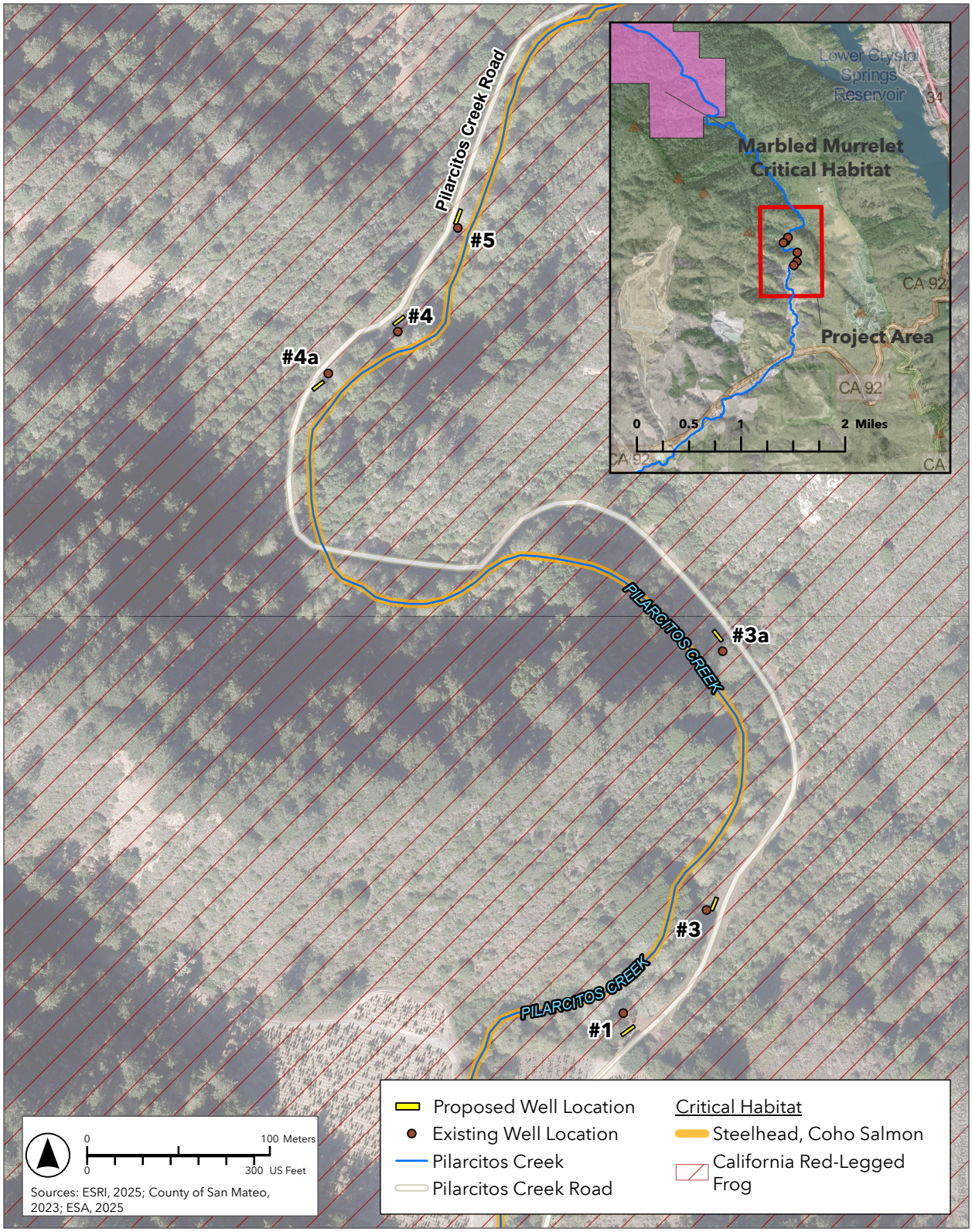

Figure 4
CCWD Pilarcitos Creek Wellfields Replacement Project
Critical Habitat Map
San Mateo County, CA

Similarly, noise and visual disturbance associated with such activities could disrupt birds nesting in the Project vicinity during the nesting season (January 15 – August 15). The disruption of nesting migratory or native birds is not permitted under the federal Migratory Bird Treaty Act or the California Fish and Game Code, as it could constitute unauthorized take.

However, the Project is designed to occur in disturbed uplands that are regularly maintained and avoid direct disturbance to sensitive habitats where special-status species could be present. The Project would avoid impacts on sensitive habitats, including aquatic resources of Pilarcitos Creek and associated riparian corridors by locating the proposed wells adjacent to their existing footprints in developed uplands and ruderal areas. The Project includes CCWD's conservation measures to minimize or avoid entirely potential impacts on biological resources during Project implementation. Such measures include mandatory training of construction personnel to identify sensitive environmental resources in the Project vicinity (e.g., aquatic resources, sensitive habitat areas, and special-status plants and animals with potential to occur on-site, nesting birds, etc.) and educate personnel of their protective status, along with implementation of specific conservation measures such as erecting exclusionary fencing around work areas, conducting pre-construction surveys and biological monitoring during construction, implementing water quality and other general BMPs to ensure resource protection, installing erosion control measures to secure disturbed soils post-construction (e.g., application of native seed and tackifier outside of agricultural fields), and requiring additional protection measures during Project implementation. The full text of these measures is presented in **Appendix A** (see **BMP-BIO-1** through **BMP-BIO-9)**. Through Project design, implementation of the above-described BMPs and conservation measures, and compliance with State and federal resource protection laws and regulations, the Project would not be expected to "take" special-status species or otherwise result in substantial adverse effects on biological resources.

Cultural Resources

An ESA archaeologist conducted a records search at the Northwest Information Center ("NWIC") of the California Historical Resources Information System on November 19, 2024 (File No. 24-0744). The purpose of the records search was to (1) determine whether known cultural resources have been recorded within or adjacent to the Project area; (2) assess the likelihood for unrecorded cultural resources to be present based on historical references and the distribution of nearby sites; and (3) develop a context for the identification and preliminary evaluation of cultural resources.

The records search indicated there are no previously recorded pre-contact Native American or historic-era archaeological resources recorded within the Project area or within 0.5 mile. There are no known resources that are eligible for listing in the National Register of Historic Places (National Register) or the California Register of Historical Resources (California Register), nor are there known resources that have not been evaluated. Therefore, there are no known historical resources in the Project area.

ESA's record search was augmented by a field survey of the Project area on December 3, 2024. The purpose of the field survey was to evaluate the potential for unrecorded cultural resources to occur within the Project area. The field assessment identified no cultural resources within the Project area.

ESA also conducted a review of the following sources of historic maps and aerial photography: USGS topographic quadrangles, U.S. Bureau of Land Management General Land Office plat maps, land ownership maps, and historic aerials. The Project area is north of Highway 92 along Pilarcitos Creek,

west of Lower Crystal Springs Reservoir and northeast of Half Moon Bay. The land that includes the wells was owned by Michael Torpey by 1894[17] and was passed down to his daughter and other children by 1927.[18] Michael and his wife were Irish immigrants and had at least seven children. They lived in San Mateo in 1880,[19] but by 1900[20] they had moved their family to San Francisco. It is unclear if the Torpey family ever developed or farmed on the land around the Project area. The road that follows Pilarcitos Creek and turns east up the slope approximately 0.3-mile north of the wells, was constructed by 1941.[21] The Project area has historically not been developed except for construction of the road.

The underlying geology of the Project alignment consists of Holocene-age alluvial and colluvial deposits formed within and adjacent to the Pilarcitos Creek channel.[22] Soils in the Project alignment are dominated by sloping and eroded Soquel loam along the banks and rough broken land of unweathered bedrock on the surface at the base of Pilarcitos Creek.[23]

Based on the Holocene age of the soils in the Project area, there is the potential for buried pre-contact archaeological deposits within paleosols in undisturbed portions of the Project area.[24] However, the Project area is located within an extremely steep canyon with very little stable flat land due to high creek flows and the narrowness of the valley at the base of the canyon. No pre-contact or indigenous resources have been previously identified within 0.5-mile of the Project Area. Additionally, the Project area is within and adjacent to existing wells and therefore the soil in the immediate Project area has been disturbed by the original construction of the well and the adjacent road. Therefore, the likelihood of intact archaeological resources in this context is significantly lessened. The dynamic landform, previous ground disturbance, and the distance to known archaeological resources suggest that the Project area has a relatively low potential for the presence of pre-contact archaeological resources.

There is also no evidence of historic-era agricultural use or habitation of the Project area besides the construction of the adjacent road. The historic aerial and map imagery review did not identify any features within the Project area that could represent buried historic-era archaeological resources such as artifact-filled wells or privies.[25, 26] Based on this review, the potential for presence of unrecorded, or previously unknown, historic-era archaeological resources is low. This analysis concludes that the Project area's sensitivity for pre-contact and historic-era archaeological resources is low.

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17 Bromfield, D., 1894. Official Map of San Mateo County, Schmidt Label & Litho. Co., San Francisco.

18 Kneese, Geo. A., 1927. Official Map of San Mateo County.

19 U.S. Census Bureau, 1880. 1880 United States Federal Census, California, San Mateo, Township 4.

20 U.S. Census Bureau, 1900. 1900 United States Federal Census, California, San Francisco, District 0124.

21 NETR (Nationwide Environmental Title Research), 2024. Available: https://historicaerials.com/viewer, accessed December 2024.

22 Pampeyan, E.H., 1994. *Geologic map of the Montara Mountain and San Mateo 7.5' quadrangles, San Mateo County, California*, Prepared by U.S. Geological Survey.

23 USDA (U.S. Department of Agriculture), 2024. Natural Resources Conservation Service Web Soil Survey, Version 3.4, http://websoilsurvey.sc.egov.usda.gov/app/WebSoilSurvey.aspx, December 16, 2024.

24 Rosenthal et al., 2004. Rosenthal, Jeffrey S., and Jack Meyer, Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways: Volume III: Geoarchaeological Study, Landscape Evolution and the Archaeological Record of Central California. Prepared by Far Western Anthropological Research Group, Inc., Davis, CA, Prepared for Caltrans District 10, Stockton, 2004.

25 NETR (Nationwide Environmental Title Research), 2024. Available: https://historicaerials.com/viewer, accessed December 2024.

26 Northwest Information Center (NWIC), 2024. Records Search File No. File No. 24-0744. On file, ESA, November 19, 2024.

For these reasons discussed above and considering BMPs and conservation measures **BMP-CUL-1** and **BMP-CUL-2** in **Appendix A**, substantial adverse effects on cultural resources would not occur.

Hydrology and Water Quality

The Project would result in a disturbance of less than one acre. After the well replacements, the Project area would be restored to the existing grade. Given that the Project would not disturb greater than one acre, the CCWD would not be required to obtain coverage under the State Water Resources Control Board's ("SWRCB") Construction General Permit (2022-0057-DWQ). However, CCWD would implement similar BMPs as those required under Local Coastal Program (LCP) Appendix 1.A, Minimum Stormwater Pollution Prevention Requirements.[27] For instance, BMP-BIO-4 includes equipment storage and maintenance measures designed to prevent inadvertent discharges of oil, grease, or fuels (among other pollutants), and provisions for immediate cleaning and disposal of leaked materials (see Appendix A). Through the implementation of these BMPs, the Project would not have an adverse water quality impact.

Pilarcitos Creek is not listed by the San Francisco Bay Regional Water Quality Control Board ("RWQCB") as impaired. The Project would not result in substantial adverse effects on hydrology or water quality.

6. Environmental Review Checklist

The following explanations are provided in response to the Environmental Information Disclosure Form's Environmental Review Checklist questions for which the Project would result in a "yes" answer.

1h. Does this project involve construction in a sensitive habitat?

Yes, the Project would include decommissioning of existing wells and construction of new wells, in or adjacent to existing riparian canopy.

2b. Will the project involve exterior construction within 100 feet of a stream?

Yes, the existing wellfield is located adjacent to the bank of Pilarcitos Creek, approximately 20 feet from the top of the bank. Replacement wells will be adjacent to existing well locations and will be located further upland from Pilarcitos Creek and the existing wells where practicable. (see Figure 3).

2f. Will the project involve any work within a stream, riparian corridor or shoreline?

No. The Project will include limited ground disturbance within an area adjacent to and outside of the Pilarcitos Creek riparian corridor. As discussed in Section 4, *Project Description*, no trees or riparian vegetation are planned for removal. Consistency with LCP policies regarding riparian corridor protections are discussed in Section 7 below.

[27] County of San Mateo, 2021. Local Coastal Program Policies. Available: https://www.smcgov.org/planning/local-coastal-program. Accessed April 25, 2025.

County of San Mateo - Planning and Building Department

ATTACHMENT C

COASTSIDE COUNTY WATER DISTRICT WELLFIELD IMPROVEMENT PROJECT

Best Management Practices and Conservation Measures

Biological Resources

BMP-BIO-1: Worker Environmental Awareness Program Training

A qualified biologist will develop and implement a project-specific Worker Environmental Awareness Program (WEAP) training that will be attended by all construction personnel prior to beginning work on-site. Interpretation will be provided for non-English speaking workers, if needed, and the same instruction will be provided for any new workers prior to their performing activities on-site. The training could consist of a recorded presentation that could be reused for new personnel. The WEAP training will generally include but not be limited to the following:

1. Applicable state and federal laws, environmental regulations, project permit conditions, and penalties for non-compliance;
2. Information on special-status animal species with potential to occur at or in the vicinity of the project site , their habitat, the importance of these species and their habitat, the general measures that are being implemented to conserve these species as they relate to the project, and the boundaries within which the project construction will occur, avoidance measures, and a protocol for encountering such species including a communication chain;
3. Pre-construction surveys and biological monitoring requirements associated with each phase of work and at each project site;
4. Known sensitive resource areas in the project vicinity that are to be avoided and/or protected (e.g., Pilarcitos Creek) as well as approved project work areas; and
5. Best management practices (BMPs) and their location on the project site for erosion control and/or species exclusion.

BMP-BIO-2: Biological Monitor(s) On-Site with Stop Work Authorization

A qualified biologist or biological monitor will be on site daily during initial site disturbance, exclusion fence installation, and ground disturbance (including drilling) to document compliance with conservation measures and avoid or minimize impacts on sensitive species and their habitat. The qualified biologist may decide to reduce monitoring to spot checks after completion of initial heavy construction (including earth disturbance and use of construction vehicles/equipment) activities. The qualified biologist or biological monitor will be authorized to stop construction if necessary to protect fish and wildlife resources which will be allowed to disperse from the work site of their own volition. If any sensitive,

federal or State listed threatened or endangered species, or Species of Special Concern are found (injured, dead, or alive and unable to leave the project area under its own volition) the biologist will halt work and contact the District and its contractor who will contact the appropriate regulatory agency (e.g., CDFW/USFWS/NOAA-NMFS) immediately.

Qualified biologists and biological monitors are defined as follows:

- A qualified biologist is an individual experienced with biological monitoring, who is able to recognize the species in the project area, and who is familiar with the habits and behavior of those species. Qualified biologists will have a minimum of five years of academic training and professional experience in the biological sciences and related resource management activities as it pertains to this project.
- A biological monitor is an individual experienced with construction level biological monitoring, who is able to recognize species in the Project area, and who is familiar with the habits and behavior of those species. Biological monitors will have academic and professional experience in biological sciences and related resource management activities as it pertains to this Project.

BMP-BIO-3: Wildlife Exclusion Fencing

The District will install temporary exclusion fencing around key project boundaries adjacent to suitable habitat for sensitive federal or State listed threatened or endangered species or Species of Special Concern to ensure isolation of project activities from sensitive aquatic resources and habitat. Exclusion fencing installation and monitoring will adhere to the following practices:

- Fencing locations and design will be determined in consultation with the qualified biologist. Fenced areas may be fitted with gates to allow access during active construction. Gates must be closed at the end of the workday to exclude wildlife from fenced areas.
- Fencing will be installed immediately prior to the start of construction activities under the supervision of a qualified biologist.
- Temporary exclusion fencing will be continuously maintained until all construction activities are completed.
- The qualified biologist or biological monitor will conduct daily inspections of the fenced areas prior to the commencement of heavy construction activities.
- If the biological monitor determines that sensitive species are not within these excluded work areas, equipment or materials may be moved and project activities may commence.
- Fencing within established roadways is not required.

The fence will be of a material and design that meets standards for species exclusion fencing typically approved by USFWS and/or CDFW, including a minimum height of 3 feet above ground surface (when installed), with an additional 4 to 6 inches of fence material buried such that species cannot crawl under the fence. Silt fencing of a size that meets these above- and below-ground dimensions, installed with wooden support stakes facing the work area is acceptable.

BMP-BIO-4: General Conservation Measures during Construction

The District and its contractor will implement the following general measures while working in project sites during construction to prevent and minimize impacts on special-status species, aquatic resources, and sensitive habitat areas:

- Ground disturbance and construction footprints will be minimized to the greatest degree feasible.
- Project-related vehicles will observe a 15 mile-per-hour speed limit on unpaved roads in the project site.
- No firearms or pets will be allowed on the project site.
- The project contractor will provide closed garbage containers for the disposal of all food-related trash items. All garbage will be collected daily from the project site and placed in a closed, wildlife-proof container from which garbage will be removed weekly. Construction personnel will not feed or otherwise attract fish or wildlife to the project site.
- If vehicle or equipment maintenance is necessary, it will be performed in designated upland staging areas (not at creek work sites), and spill kits containing cleanup materials will be available on-site. Maintenance activity and fueling must occur at least 100 feet from all aquatic resources.
- Equipment will be maintained to prevent the leakage of vehicle fluids such as gasoline, oils, or solvents, and a spill response plan will be developed. Hazardous materials such as fuels, oils, or solvents, will be stored in sealable containers in a designated location that is at least 50 feet from aquatic resources.
- As necessary, erosion control measures will be implemented to prevent any soil or other materials from entering any nearby aquatic habitat. Erosion control (e.g., silt fencing, coir wattles) will be installed between the work area(s) and adjacent aquatic habitat to prevent soil from eroding or falling into the sensitive habitat area. Sediment control measures will be furnished, constructed, maintained, and later removed. Plastic monofilament of any kind (including those labeled as biodegradable, photodegradable, or UV-degradable) will not be used. Only natural burlap, coir, or jute wrapped fiber rolls will be used.
- Disturbance or removal of vegetation will be kept to the minimum necessary to complete project related activities. Trimming or removal of trees and riparian vegetation associated with Pilarcitos Creek is prohibited. No equipment used in support of project implementation (e.g., excavator) will enter the riparian habitat or Pilarcitos Creek.
- Upon completion of construction, the District will restore areas disturbed during project construction to their approximate pre-project conditions. All exposed or disturbed soils will re-covered by gravel or other existing non-vegetative surface cover material, or be planted with a native species seed mix appropriate for the area disturbed (e.g., erosion control mix), free from seeds of noxious or invasive weed species, and applied at a rate which ensure establishment. Seeding placed after October 15 will be applied by hydroseeding or will be covered with broadcast straw, jute netting, coconut fiber blanket, weed-free mulch or a similar erosion control method.
- Project personnel will be required to report immediately any harm, injury, or mortality of a listed species (federal or state) during construction, including entrapment, to the construction foreman, qualified biologist, and District staff. Project personnel will provide verbal notification to the USFWS Endangered Species Office in Sacramento, California, and/or to the local CDFW warden or biologist (as applicable) within 1 working day of the incident. Project personnel will follow up with written notification to the appropriate agencies within 5 working days of the incident. The District or its

consultant will record all special-status species observations on California Natural Diversity Data Base (CNDDB) field sheets and send them to the CDFW/USFWS

- The spread of invasive non-native plant species and plant pathogens will be avoided or minimized by implementing the following measures:
  - Construction equipment will arrive at the project clean and free of soil, seed, and plant parts to reduce the likelihood of introducing new weed species.
  - Any imported fill material, soil amendments, gravel, or other materials required for construction and/or restoration activities that will be placed within the upper 12 inches of the ground surface will be free of vegetation and plant material.
  - Certified weed-free imported erosion control materials (or rice straw in upland areas) will be used exclusively, if possible.
  - To reduce the movement of invasive weeds into uninfested areas, the project contractor will stockpile topsoil removed during excavation and will subsequently reuse the stockpiled soil for re-establishment of disturbed project areas.

BMP-BIO-5: Conservation Measures for Sensitive Plants

A qualified botanist will conduct a pre-construction survey within the project boundaries for the special-status plant species identified as having at least moderate potential to occur within the study area. These species include San Mateo woolly sunflower (*Eriophyllum latilobum*),[1] San Francisco collinsia (*Collinsia multicolor*),[2] and western leatherwood (*Dirca occidentalis*).[3]

If special-status plant species are found and cannot be avoided, the District will prepare a mitigation and monitoring plan that offsets the special-status plant impacts of the project and ensures that there is no net loss of individuals or area of occupied habitat- whichever is more relevant to the impacted species. The mitigation and monitoring plan will be prepared before the start of any construction activities in the special-status plant species area. This plan will describe the methods and specify success criteria and monitoring period for transplanted plants and related long-term protection and management of transplanted plants. This mitigation will be implemented by the District.

If federal- or State-listed species are identified during floristic survey, the District will mark these plants for avoidance and comply with the federal and State Endangered Species Acts, as described below.

1. If special-status plant populations(s) are identified during floristic survey and can be avoided during project implementation, it will be clearly marked in the field by a qualified botanist and avoided during construction activities. Before ground clearing or ground disturbance, all on-site construction personnel will be instructed as to the species' presence and the importance of avoiding impacts to this species and its habitat.
2. If special-status plant populations cannot be avoided, the District will consult with USFWS and/or CDFW as appropriate to coordinate relocation of special-status plants or compensation if relocation is not determined to be a feasible or successful option by a qualified biologist:
   i. To the extent feasible, special-status plants that would be impacted by the project will be relocated within local suitable habitat. This can be done either through salvage and transplanting

[1] San Mateo woolly sunflower is a perennial herb listed as endangered under the federal Endangered Species Act (FESA) and California Endangered Species Act (CESA) and has a California Rare Plant Rank (CRPR) of 1B.1 and blooms May – June.

[2] San Francisco collinsia is an annual herb with a CRPR 1B.2 rank which blooms March – May.

[3] Western leatherwood is a shrub with a CRPR 1B.2 rank which blooms November – March.

or by collection and propagation of seeds or other vegetative material. Any plant relocation will be done under the supervision of a qualified botanist or restoration ecologist.

ii. Compensation for temporary or permanent loss of special-status plant occurrences, in the form of land purchase or restoration, will be provided in a way that compensates for the lost individuals and habitat at a ratio of 1:1 or greater. Compensatory measures will be determined on a case-by-case basis and (for listed species) in consultation with the resource agencies. Compensation for loss of special-status plant populations typically involves the purchase and permanent stewardship of known occupied habitat or the restoration and reintroduction of populations in degraded, unoccupied habitat. Restoration or reintroduction may be located on- or offsite.

In either case the District will prepare a Mitigation and Monitoring Plan for relocated special-status plants or to compensate for the loss of special-status plant species. The plan will detail relocation methods or appropriate replacement ratios and methods for implementation, success criteria, monitoring and reporting protocols, and contingency measures that will be implemented if the initial mitigation fails. The plan will be developed in consultation with the appropriate agencies prior to the start of local construction activities. At a minimum, success criteria will require any mitigation to provide equal or better habitat and populations than the impacted area.

BMP-BIO-6: Conservation Measures for California Red-legged Frog

A qualified biologist will survey the work sites 2 weeks before the onset of construction for CRLF to determine presence (and life stage) of these species within portions of Pilarcitos Creek within the project area. Additionally, a qualified biologist will conduct a pre-construction survey of the project work areas for CRLF immediately prior to the start of construction activities. The surveys will consist of walking the project limits and within the project sites that contain suitable habitat to ascertain presence of this species.

- The specific methods for decontamination will follow USFWS (2005) and USGS (2015) protocols, respectively. These protocols describe field equipment maintenance, disinfection, and field hygiene procedures designed to minimize potential spread of pathogens to amphibians.
- CRLF individuals will not be disturbed if encountered during project implementation but allowed to disperse from project areas unharmed and of their own volition while all work outside the fenced areas is halted within 50 feet of individuals.
- If a CRLF is not dispersing on its own volition, the on-site biologist will monitor the frog while work continues, as long as the on-site biologist can ensure the safety of the frog. The qualified biologist will immediately inform the construction manager that work should be halted or modified (in the case of a buffer or non-dispersing individual), if necessary, to avert avoidable take of listed species.

A qualified biologist (or qualified biological monitor) will monitor project work areas that provide suitable habitat for CRLF as described for BMP-BIO-2. The biologist will have the authority to stop construction activities and develop alternative work practices, in consultation with construction personnel (and resource agencies as appropriate), if construction activities are likely to affect CRLF.

- All excavations of a depth of 8 inches or greater will be covered at the end of each workday, or escape ramps will be installed at a 3:1 grade to allow wildlife that fall in a means to escape. If escape ramps cannot be provided, then holes or trenches will be covered with plywood or other hard material.
- Any pipes or similar materials greater than 4 inches in diameter will be capped or stored at the end of each day, so as to prevent listed species from using these as temporary refuges, and becoming trapped or otherwise negatively affected.

- Vehicles or equipment parked overnight at the project staging areas or project sites adjacent creeks will be inspected for harboring species each morning by the qualified biological monitor before vehicles or equipment are moved.

BMP-BIO-7: Protection Measures for Nesting Birds

The following measures will be implemented to protect nesting birds and their nests during the nesting season (January 15 – August 15) during construction:

1. Prior to any ground disturbance during the nesting season, a qualified biologist will conduct a pre-construction nesting survey 7 days prior to the start of such activities or after any construction breaks of 14 days or more. Surveys will be performed for the individual project well sites, vehicle and equipment staging areas, and suitable habitat within 250-feet to locate any active passerine (perching bird) nests and within 500-feet of these individual sites to locate any active raptor (birds of prey) nest sites.

2. If active nests or nest trees presumed to be occupied are located during the pre-construction nesting bird surveys or identified prior to or during project construction, the biologist will evaluate if the schedule of construction activities could affect the active nests and the following measures will be implemented based on their determination:

    a. If construction is not likely to affect the active nest, construction may proceed without restriction; however, a qualified biologist will regularly monitor the nest at a frequency determined appropriate for the surrounding construction activity to confirm there is no adverse effect. Spot-check monitoring frequency would be determined on a nest-by-nest basis considering the particular construction activity, duration, proximity to the nest, and physical barriers which may screen activity from the nest. The qualified biologist may revise his/her determination at any time during the nesting season in coordination with the District.

    b. If it is determined that construction may affect the active nest, the qualified biologist will establish a no-disturbance buffer around the nest(s) and all project work would halt within the buffer until a qualified biologist determines the nest is no longer in use. Typically, these buffer distances are 250 feet for passerines and 500 feet for raptors; however, the buffers may be adjusted if an obstruction, such as a building, is within line-of-sight between the nest and construction. Buffer distances for nesting marbled murrelet will initially be 200 meters (656 feet) from the project site.

        For special-status bird species (i.e., fully protected, endangered, threatened, species of special concern), a District representative, supported by the wildlife biologist, will coordinate with CDFW (and USFWS for FESA–protected species nests such as marbled murrelet) regarding modifying nest buffers, prohibiting construction within the buffer, and modifying or restricting construction activities until nesting is complete.

    c. Modifying nest buffer distances, allowing certain construction activities within the buffer, and/or modifying construction methods in proximity to active nests of all other non-listed species protected under the MBTA and California Fish and Game Code will be done at the discretion of the qualified biologist and in coordination with the District staff.

    d. Any work that must occur within established no-disturbance buffers around active nests will be monitored by a qualified biologist. If adverse effects in response to project work within the buffer are observed and could compromise the nest, work within the no-disturbance buffer(s) will halt until the nest occupants have fledged.

3. Birds that begin nesting within the project site and survey buffers amid construction activities will be assumed to be habituated to construction-related or similar noise and disturbance levels and no work exclusion zones will be established around active nests in these cases; however, should birds nesting nearby begin to show disturbance associated with construction activities, no-disturbance buffers will be established as determined by the qualified wildlife biologist

BMP-BIO-8: Protection Measures for Marbled Murrelet

Tree removal, tree trimming, ground vegetation removal and ground disturbance (including well drilling) will occur outside of the marbled murrelet breeding season (February 1 to September 15), to the extent feasible. If these activities cannot be avoided during bird breeding season, the below measures will apply:

i. A qualified marbled murrelet biologist will conduct a habitat assessment of the Project area prior to construction. The habitat assessment will include a review of the workplan and biological databases and will include up to two site visits. The qualified marbled murrelet biologist will determine if protocol level surveys are required for the Project area based on the habitat assessment.

ii. The District will work with the qualified marbled murrelet biologist to determine the appropriate avoidance and minimization efforts according to USFWS guidelines and the habitat assessment survey results. These avoidance and minimization efforts could include noise suppression, additional monitoring, no-disturbance buffers, etc.

BMP-BIO-9: Conservation Measures for San Francisco Dusky-Footed Woodrat

A qualified wildlife biologist will conduct a pre-construction survey for San Francisco dusky-footed woodrat middens prior to the start of construction in suitable habitat within and surrounding the project footprint proximate to Pilarcitos Creek, staging areas, and access roads. Active middens identified during surveys within the project sites, staging areas, or along access roads will be flagged as a sensitive resource and avoided during construction.

Cultural Resources

BMP-CUL-1: Conservation Measures for Subsurface Resources

In the unlikely event that subsurface resources are identified during ground disturbing activities, project personnel will comply with PRC Section 21083.2(i), which requires the lead agency to make provisions for archaeological resources accidentally discovered during construction. An immediate evaluation will be conducted by a qualified archaeologist, and if the find is determined to be a unique archaeological resource or a historical resource, then it must be avoided. If avoidance is not feasible, the resource will be recovered and treated accordingly. Construction will be allowed in other areas while the archaeological mitigation takes place.

BMP-CUL-2: Conservation Measures for Human Remains

In the unlikely event that ground disturbing activities identify undiscovered human remains, project personnel will comply with Government Code Section 27460 et seq., which requires ground disturbing activities to halt until the County Coroner can determine whether the remains are subject to the provisions

of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner, and cause of death; and the required recommendations concerning the treatment and disposition of the human remains have been made. Pursuant to California Health and Safety Code Section 7050.5, the coroner will make a determination within 48 hours of notification of the discovery of the human remains. If the coroner determines that the remains are not subject to their authority and recognizes or has reason to believe that they are those of a Native American, the coroner will contact the Native American Heritage Commission within 24 hours.

Appendix B.

Special-Status Species Considered in the Project Area

Table B-1 (Special-Status Plant Species) and **Table B-2 (Special-Status Animal Species)**, below, present special-status species with records documented in CNDDB within 3- miles of the Pilarcitos Creek Wellfield Improvement Project (Project) area,[1] or identified on the IPaC list,[2] evaluated for their potential to occur in the study area. Tables B-1 and B-2 list all species evaluated for their potential presence, species' federal and/or state protective status, provides a description of their suitable habitat, and includes a determination of the species' potential presence.[3]

Tables B-1 and B-2 indicates the likelihood of occurrence of each identified species based on a review of the biological literature of the region, information presented in previous environmental documentation, and an evaluation of the habitat conditions within the study areas.

- A species' potential to occur was designated "none" if (1) its specific habitat requirements (e.g., serpentine grasslands, as opposed to grasslands occurring on other soils) are not present; or (2) it is presumed to be extirpated from the area or region based on the best scientific information available.

- A species was designated as having a "low" potential for occurrence if (1) its known current distribution or range is outside of the study area; or (2) only limited or marginally suitable habitat is present within the study area.

- A species was designated as having a "moderate" potential for occurrence if (1) there is low to moderate quality habitat present within the study area or immediately adjacent areas; and (2) the study area is within the known range of the species, even though the species was not observed during biological surveys.

- A species was designated as having a "high" potential for occurrence if (1) moderate to high quality habitat is present within the study area; and (2) the study area is within the known range of the species.

- A species was designated as "present" if species is known to occur in the study area either through (1) direct observation or (2) documentation of species' records in CNDDB or other scientific database located in contiguous habitat within or immediately adjacent to the study area.

1 California Natural Diversity Database (CNDDB). 2024. Biogeographic Data Branch, Department of Fish and Wildlife. Sacramento, California. Accessed December 2024.

2 United States Fish and Wildlife Service (USFWS), 2024. List of Threatened and Endangered Species that May Occur In Your Proposed Project Location Or May Be Affected By Your Proposed Project. Unofficial Species List. Coastside County Water District Pilarcitos Wellfield Improvement Project. Project Code: 2025-0035418. Species list generated December 23, 2024.

3 Calflora. 2024. Information on California plants for education, research and conservation, with data contributed by public and private institutions and individuals, including the Consortium of California Herbaria. [web application]. 2024. Berkeley, California: The Calflora Database [a non-profit organization]. Available online at: https://www.calflora.org/. Accessed December 2024.

TABLE B-1
SPECIAL-STATUS PLANT SPECIES CONSIDERED IN THE PROJECT AREA

Common Name *Scientific Name*	Federal/State Status	CNPS Status	Habitat and Blooming Period	Potential to Occur
arcuate bushmallow *Malacothamnus arcuatus*	-/-	1B.2	Shrub species found in chaparral, cismontane woodland. Gravelly alluvium. Occurs at elevations 1-735 m. Blooms April – September.	**None.** No suitable habitats or soils occur in the study area. Four CNDDB records occur within 3-miles of the study area.
bent-flowered fiddleneck *Amsinckia lunaris*	-/-	1B.2	Annual herb found in cismontane woodland, valley and foothill grassland, and coastal bluff scrub. Occurs at elevations 3-795 m. Blooms March – June.	**None.** No suitable habitats occur in the study area. Four CNDDB records occur within 3-miles of the study area.
Choris' popcornflower *Plagiobothrys chorisianus var. chorisianus*	-/-	1B.2	Annual herb found in chaparral, coastal scrub, coastal prairie. Mesic sites. Occurs at elevations 5-705 m. Blooms March – June.	**None.** No suitable habitats occur in the study area. Three CNDDB records occur within 3-miles of the study area.
coastal marsh milk-vetch *Astragalus pycnostachyus var. pycnostachyus*	-/-	1B.2	Perennial herb found in coastal dunes, marshes and swamps, and coastal scrub. Mesic sites in dunes or along streams or coastal salt marshes. Occurs at elevations 0-155 m. Blooms April – October.	**None.** No suitable habitats occur in the study area. One CNDDB record occurs within 3-miles of the study area.
Crystal Springs lessingia *Lessingia arachnoidea*	-/-	1B.2	Annual herb found in coastal sage scrub, valley and foothill grassland, cismontane woodland. Grassy slopes on serpentine; sometimes on roadsides. Occurs at elevations 90-200 m. Blooms July – October.	**None.** No suitable habitats or soils occur in the study area. Five CNDDB records occur within 3-miles of the study area.
fountain thistle *Cirsium fontinale var. fontinale*	FE/SE	1B.1	Perennial herb found in valley and foothill grassland, chaparral, cismontane woodland, and meadows and seeps. Serpentine seeps and grassland. Occurs at elevations 45-185 m. Blooms May – October.	**None.** No suitable habitats or soils occur in the study area. One CNDDB record occurs within 3-miles of the study area.
fragrant fritillary *Fritillaria liliacea*	-/-	1B.2	Perennial herb (bulb) found in coastal scrub, valley and foothill grassland, coastal prairie, and cismontane woodland. Often on serpentine; various soils reported though usually on clay, in grassland. Occurs at elevations 3-385 m. Blooms February – April.	**None.** No suitable habitats occur in the study area. Four CNDDB records occur within 3-miles of the study area.
Franciscan onion *Allium peninsulare var. franciscanum*	-/-	1B.2	Perennial herb (bulb) found in cismontane woodland and valley and foothill grassland. Clay soils; often on serpentine; sometimes on volcanics. Dry hillsides. Occurs at elevations 5-320 m. Blooms May – June.	**None.** No suitable habitats occur in the study area. Five CNDDB records occur within 3-miles of the study area.
Hickman's cinquefoil *Potentilla hickmanii*	FE/SE	1B.1	Perennial herb found in coastal bluff scrub, closed-cone coniferous forest, meadows and seeps, marshes and swamps. Freshwater marshes, seeps, and small streams in open or forested areas along the coast. Occurs at elevations 5-125 m. Blooms April – August.	**None.** Outside range of known occurrences. No CNDDB records within 3-miles of the study area.
Hillsborough chocolate lily *Fritillaria biflora var. ineziana*	-/-	1B.1	Perennial herb (bulb) found in cismontane woodland, valley and foothill grassland. Probably only on serpentine; most recent site is in serpentine grassland. Occurs at elevations 90-170 m. Blooms March – April.	**None.** No suitable habitats or soils occur in the study area. Two CNDDB records occur within 3-miles of the study area.

TABLE B-1
SPECIAL-STATUS PLANT SPECIES CONSIDERED IN THE PROJECT AREA

Common Name *Scientific Name*	Federal/State Status	CNPS Status	Habitat and Blooming Period	Potential to Occur
Kellogg's horkelia *Horkelia cuneata var. sericea*	-/-	1B.1	Perennial herb found in closed-cone coniferous forest, coastal scrub, coastal dunes, chaparral, old dunes, coastal sandhills, and openings insandy or gravelly soils. Occurs at elevations 5-430 m. Blooms February – July.	**None.** No suitable habitats or soils occur in the study area. One CNDDB record occurs within 3-miles of the study area.
Kings Mountain manzanita *Arctostaphylos regismontana*	-/-	1B.2	Shrub species is found in broadleafed upland forest, chaparral, and north coast coniferous forest. Granitic or sandstone outcrops. Occurs at elevations 240-705 m. Blooms January – April.	**None.** No elevations occur in the study area. One CNDDB record occurs within 3-miles of the study area.
Marin western flax *Hesperolinon congestum*	FT/ST	1B.1	Annual herb found in chaparral, valley and foothill grassland. In serpentine barrens and in serpentine grassland and chaparral. Occurs at elevations 60-400 m. Blooms April – July.	**None.** No suitable habitats occur in the study area. Five CNDDB records occur within 3-miles of the study area.
Monterey clover *Trifolium trichocalyx*	FE/SE	1B.1	Annual herb is found in closed-cone coniferous forest. Openings, burned areas, and roadsides. Sandy soils. Occurs at elevations 105-215 m. Blooms April – June.	**None.** No elevations or soils occur in the study area. No CNDDB records within 3-miles of the study area.
great (Oregon) polemonium *Polemonium carneum*	-/-	2B.2	Perennial herb found in coastal prairie, coastal scrub, and yellow pine forest. Occurs at elevations 15-1525 m. Blooms April – September.	**None.** No suitable habitat occurs in the study area. One historical (1916) CNDDB record occurs within 3-miles of the study area. Record notes that additional fieldwork is necessary to confirm occurrence.
San Francisco campion *Silene verecunda ssp. verecunda*	-/-	1B.2	Perennial herb found in coastal scrub, valley and foothill grassland, coastal bluff scrub, chaparral, and coastal prairie. Often on mudstone or shale; one site on serpentine. Occurs at elevations 30-645 m. Blooms March – June.	**None.** No suitable habitats occur in the study area. One CNDDB record occurs within 3-miles of the study area.
San Francisco collinsia *Collinsia multicolor*	-/-	1B.2	Annual herb found in closed-cone coniferous forest and coastal scrub. On decomposed shale (mudstone) mixed with humus; sometimes on serpentine. Occurs at elevations 10-275 m. Blooms March – May.	**Moderate.** Suitable habitat occurs in the study area. Three CNDDB records occur within 3-miles of the study area. One record (#15) is mapped in the vicinity of Pilarcitos Lake and Canyon from 1900.
San Francisco owl's-clover *Triphysaria floribunda*	-/-	1B.2	Annual herb found in coastal prairie, coastal scrub, valley and foothill grassland. On serpentine and non-serpentine substrate (such as at Pt. Reyes). Occurs at elevations 1-150 m. Blooms April – June.	**None.** No suitable habitats occur in the study area. One CNDDB record occurs within 3-miles of the study area.
San Mateo thorn-mint *Acanthomintha duttonii*	FE/SE	1B.1	Annual herb found in chaparral, and valley and foothill grassland. Uncommon serpentinite vertisol clays; in relatively open areas. Occurs at elevations 50-185 m. Blooms April – June.	**None.** No suitable habitats occur in the study area. Two CNDDB records occur within 3-miles of the study area.

TABLE B-1
SPECIAL-STATUS PLANT SPECIES CONSIDERED IN THE PROJECT AREA

Common Name *Scientific Name*	Federal/State Status	CNPS Status	Habitat and Blooming Period	Potential to Occur
San Mateo woolly sunflower *Eriophyllum latilobum*	FE/SE	1B.1	Perennial herb found in cismontane woodland, coastal scrub, and lower montane coniferous forest. Often on roadcuts; found on and off of serpentine. Occurs at elevations 30-610 m. Blooms May – June.	**Moderate.** Suitable habitat occurs in the study area. Five CNDDB records occur within 3-miles of the study area.
short leaved evax *Hesperevax sparsiflora var. brevifolia*	-/-	1B.2	Annual herb found in coastal bluff scrub, coastal dunes, and coastal prairie. Sandy bluffs and flats. Occurs at elevations 0-640 m. Blooms March – June.	**None.** No suitable habitats occur in the study area. One CNDDB record occurs within 3-miles of the study area.
western leatherwood *Dirca occidentalis*	-/-	1B.2	Shrub species found in broadleafed upland forest, chaparral, closed-cone coniferous forest, cismontane woodland, north coast coniferous forest, riparian forest, and riparian woodland. On brushy slopes, mesic sites; mostly in mixed evergreen and foothill woodland communities. Occurs at elevations 20-640 m. Blooms November – March.	**Moderate.** Suitable habitat occurs in the study area. Eight CNDDB records occur within 3-miles of the study area.
White rayed pentachaeta *Pentachaeta bellidiflora*	FE/SE	1B.1	Annual herb found in valley and foothill grassland, cismontane woodland. Open dry rocky slopes and grassy areas, often on soils derived from serpentine bedrock. Occurs at elevations 35-610 m. Blooms March – May.	**None.** No suitable habitats occur in the study area. One CNDDB record occurs within 3-miles of the study area.
woodland monolopia (woollythreads) *Monolopia gracilens*	-/-	1B.2	Annual herb found in chaparral, valley and foothill grassland, cismontane woodland, broadleafed upland forest, North Coast coniferous forest. Grassy sites, in openings; sandy to rocky soils. Often seen on serpentine after burns, but may have only weak affinity to serpentine. Occurs at elevations 120-975 m. Blooms March – July.	**None.** No suitable elevations occur in the study area. One CNDDB record occurs within 3-miles of the study area.

KEY TO STATUS CODES:

Federal

Candidate = FC
Delisted = FD
Endangered = FE
None = -
Proposed Endangered = FPE
Proposed Threatened = FPT
Threatened = FT

State

Candidate Endangered = SCE
Candidate Threatened = SCT
Delisted = SD
Endangered = SE
None = -
Rare = CR
Threatened = ST
Species of Special Concern = SSC
Fully Protected = FP

Other

CNPS Rank Categories:
1A = Plants presumed extirpated in California and either rare or extinct elsewhere
1B = Plants Rare, Threatened, or Endangered in California and elsewhere
2A = Plants presumed extirpated in California, but more common elsewhere
2B = Plants Rare, Threatened, or Endangered in California, but more common elsewhere
3 = Plants about which more information is needed - A Review List
4 = Plants of limited distribution - A Watch List

CNPS Code Extensions:
.1 = Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)
.2 = Fairly endangered in California (20U+002d80% occurrences threatened)
.3 = Not very endangered in California (less than 20% of occurrences threatened or no current threats known)

Sources: CNPS 2024; USFWS 2024; CDFW 2024

TABLE B-2
SPECIAL-STATUS ANIMAL SPECIES CONSIDERED IN THE PROJECT AREA

Common Name *Scientific Name*	Federal/State Status	Habitat	Potential to Occur
Amphibians			
California red-legged frog *Rana draytonii*	FT/SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	**Present.** Suitable habitat is present in Pilarcitos Creek. 25 CNDDB records occur within 3-miles of the study area, including four in Pilarcitos Creek in the study area.
Birds			
California least tern *Sternula antillarum browni*	FE/SE, FP	Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, land fills, or paved areas.	**None.** No suitable habitat occurs in the study area. No CNDDB records within 3-miles of the study area.
California Ridgway's rail *Rallus obsoletus obsoletus*	FE/SE, FP	Salt water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud-bottomed sloughs.	**None.** No suitable habitat occurs in the study area. No CNDDB records within 3-miles of the study area.
marbled murrelet *Brachyramphus marmoratus*	FT/SE	Species feeds near-shore and nests inland along coast from Eureka to Oregon border and from Half Moon Bay to Santa Cruz. Nests in old-growth redwood-dominated forests, up to six miles inland, often in Douglas-fir.	**Present.** Known nesting sites are located upstream of the study area. Suitable habitat, including nesting trees, is present in the redwood forest of the study area. Study area is nearby designated critical habitat.
saltmarsh common yellowthroat *Geothlypis trichas sinuosa*	-/SSC	Resident of the San Francisco Bay region, in fresh and salt water marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	**None.** No suitable habitat occurs in the study area. Single CNDDB record within 3-miles of the study area is in the riparian habitat of Upper Crystal Spring Reservoir.
western snowy plover *Charadrius nivosus nivosus*	FT/SSC	Species is found on sandy beaches, salt pond levees, and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	**None.** No suitable habitat occurs in the study area. No CNDDB records within 3-miles of the study area.
Fish			
steelhead - central California coast DPS *Oncorhynchus mykiss irideus pop. 8*	FT/SSC	DPS includes all naturally spawned populations of steelhead (and their progeny) in streams from the Russian River to Aptos Creek, Santa Cruz County, California (inclusive). Also includes the drainages of San Francisco and San Pablo Bays.	**Present.** Known to occur in tributaries to Pilarcitos Creek; the creek is part of designated critical habitat. Species is presumed extant in the 2 CNDDB records within 3-miles of the study area.
tidewater goby *Eucyclogobius newberryi*	FE/SSC	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	**None.** No suitable habitat occurs in the study area. No CNDDB records within 3-miles of the study area.

TABLE B-2
SPECIAL-STATUS ANIMAL SPECIES CONSIDERED IN THE PROJECT AREA

Common Name *Scientific Name*	Federal/State Status	Habitat	Potential to Occur
Insects			
Bay checkerspot butterfly *Euphydryas editha bayensis*	FT/-	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. *Plantago erecta* is the primary host plant; *Orthocarpus densiflorus* and *O. purpurscens* are the secondary host plants.	**None.** No suitable habitat occurs in the study area. Two CNDDB records occur within 3-miles of the study area.
Mission blue butterfly *Icaricia icarioides missionensis*	FE/-	Inhabits grasslands of the San Francisco peninsula. hree larval host plants: *Lupinus albifrons*, *L. variicolor*, and *L. formosus*, of which *L. albifrons* is favored.	**None.** No suitable habitat occurs in the study area. No CNDDB records within 3-miles of the study area.
monarch butterfly *Danaus plexippus*	FPT/-	Species' winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. During the breeding season, monarchs lay their eggs on their obligate milkweed host plant (primarily *Asclepia*s spp.).	**None.** No suitable overwintering or breeding habitat occurs in the study area No CNDDB records within 3-miles of the study area.
western bumble bee *Bombus occidentalis*	-/SCE	Meadows and grasslands with abundant floral resources. Nectar plants include species in the following genera: *Melilotus, Cirsium, Trifolium, Centaurea, Chrysothamnus, Eriogonum*	**None.** No habitat occurs in the study area. One CNDDB record occurs within 3-miles of the study area.
Mammals			
salt-marsh harvest mouse *Reithrodontomys raviventris*	FE/SE, FP	Only in the saline emergent wetlands of San Francisco Bay and its tributaries. Pickleweed is primary habitat, but may occur in other marsh vegetation types and in adjacent upland areas. Does not burrow; builds loosely organized nests. Requires higher areas for flood escape.	**None.** No suitable habitat occurs in the study area. No CNDDB records within 3-miles of the study area.
San Francisco dusky-footed woodrat *Neotoma fuscipes annectens*	-/SSC	Forest habitats of moderate canopy and moderate to dense understory. May prefer chaparral and redwood habitats. Constructs nests of shredded grass, leaves and other material. May be limited by availability of nest-building materials.	**High.** Suitable habitat occurs in the study area. Five CNDDB records occur within 3-miles of the study area.
Reptiles			
northwestern pond turtle *Actinemys marmorata*	FPT/SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	**Low.** Marginally suitable aquatic habitat is present, and little suitable upland habitat is present.

TABLE B-2
SPECIAL-STATUS ANIMAL SPECIES CONSIDERED IN THE PROJECT AREA

Common Name *Scientific Name*	Federal/State Status	Habitat	Potential to Occur
San Francisco gartersnake *Thamnophis sirtalis tetrataenia*	FE/SE, FP	Vicinity of freshwater marshes, ponds and slow-moving streams in San Mateo County and extreme northern Santa Cruz County. Prefers dense cover and water depths of at least one foot. Upland areas near water are also very important.	**None.** No suitable habitat occurs in the study area. 23 CNDDB records occur within 3-miles of the study area. Note that these records have suppressed locations and may not represent the actual number of occurrences within 3-miles of the study area. Pilarcitos Creek is too fast flowing and shallow for this species and there is no suitable upland habitat.

KEY TO STATUS CODES:

Federal

Candidate = FC
Delisted = FD
Endangered = FE
None = -
Proposed Endangered = FPE
Proposed Threatened = FPT
Threatened = FT

State

Candidate Endangered = SCE
Candidate Threatened = SCT
Delisted = SD
Endangered = SE
None = -
Rare = CR
Threatened = ST
Species of Special Concern = SSC
Fully Protected = FP

Other

CNPS Rank Categories:
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.3 = Not very endangered in California (less than 20% of occurrences threatened or no current threats known)

Sources: CNPS 2024; USFWS 2024; CDFW 2024

Appendix C.
Representative Photographs

Photo 1. Well Site Photo #1

Photo 2. Well Site Photo #2

Photo 3. Wellfield & Pilarcitos Creek Road

Photo 4. Existing Well, Pilarcitos Creek Wellfield, Pilarcitos Creek Road

Photo 5. Pilarcitos Creek

Photo 6. Pilarcitos Creek and Creek Bank

Photo 7. Existing Well, Wellfield and Pilarcitos Creek Road

Photo 8. Pilarcitos Creek Wellfield

Photo 9. Vegetation along the Project Area

Photo 10. Existing well, canopy along Pilarcitos Wellfield

Photo 11. Pilarcitos Creek Road

Photo 12. Pilarcitos Wellfield

Photo 13. Adjacent Vegetation

Photo 14. Existing Well and Pilarcitos Creek Road

Photo 15. Pilarcitos Creek Road and Pilarcitos Wellfield

Photo 16. Existing Wells, Pilarcitos Wellfield, and adjacent vegetation

County of San Mateo - Planning and Building Department

ATTACHMENT D

Print Form

Notice of Exemption

Appendix E

To: Office of Planning and Research
P.O. Box 3044, Room 113
Sacramento, CA 95812-3044

County Clerk
County of: San Mateo
555 County Center
Redwood City, CA 94063

From: (Public Agency): Coastside County Water District
766 Main Street
Half Moon Bay, CA 94109
(Address)

129142

FILED
SAN MATEO COUNTY
Mar 03 2025
MARK CHURCH, County Clerk
By _____ Deputy Clerk

Project Title: Pilarcitos Wellfield Improvement Project

Project Applicant: Coastside County Water District

Project Location - Specific:

Located ~50 ft of Pilarcitos Creek; Latitude: 37°30'0.71"N, Longitude:122°23'3.03"W

Project Location - City: Half Moon Bay Project Location - County: San Mateo County

Description of Nature, Purpose and Beneficiaries of Project:

The Project would include (1) the construction of six replacement wells, associated reinforced concrete pads, piping, valves and appurtenances, and connections to the raw pipeline; and (2) the addition of variable frequency drives and cellular connections to the existing SCADA system. The Project would ensure continued water service to District customers and make future operation and maintenance activities easier and less impactful to the creeks and adjacent communities.

Name of Public Agency Approving Project: Coastside County Water District

Name of Person or Agency Carrying Out Project: Coastside County Water District

Exempt Status: **(check one):**

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- ☒ Categorical Exemption. State type and section number: section 15302(c)
- ☐ Statutory Exemptions. State code number: _____

Reasons why project is exempt:

The Project involves the "replacement or reconstruction of existing utility systems and/or facilities involving negligible or no expansion of capacity" as a Class 2 exemption. As discussed in the Project Description, the Project would be replacing non-operating wells with wells in-kind. The Project would not have a significant or cumulative impact on the environment. For these reasons, the Project would meet the exemption criteria under CEQA Guidelines section 15302(c).

Lead Agency Contact Person: Darin Sturdivan Area Code/Telephone/Extension: 650-276-0271

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project? Yes No

Signature: Mary Rey Date: Feb 5 2025 Title: General Manager

Signed by Lead Agency Signed by Applicant

Authority cited: Sections 21083 and 21110, Public Resources Code.
Reference: Sections 21108, 21152, and 21152.1, Public Resources Code.

Date Received for filing at OPR: _____

Revised 2011

☐

ESA

575 Market Street
Suite 3700
San Francisco, CA 94105
415.896.5900 phone
415.896.0332 fax

esassoc.com

Memorandum

date	March 6, 2025
to	Jonathan Sutter, EKI Water and Environment, Inc.
from	Eli Davidian, Darcy Kremin and Emily Kline, ESA
subject	Pilarcitos Wellfield Replacement Project

The Coastside County Water District ("CCWD" or "the District") provides treated water to the City of Half Moon Bay ("City") and to nearby unincorporated San Mateo County communities. The Pilarcitos Wellfield Replacement Project (Project) would replace six wells "in kind" by offsetting the new wells from the existing wells and abandoning the old wells. The old wells may also be converted to monitoring wells. This memorandum presents a description of the Project location and activities; evaluates the potential for Project activities to adversely affect biological resources, cultural resources, and water quality; and explains why the Project is exempt from the California Environmental Quality Act ("CEQA") under the Categorical Exemption for the replacement or reconstruction of existing structures or facilities (Class 2).

Project Location

The Project site is located in Half Moon Bay in San Mateo County, California. The site currently includes six existing shallow wells that produce groundwater under the influence of surface water. The wells are considered points of diversion under the District's Pilarcitos Creek water rights. The existing wellfield is located adjacent to the bank of Pilarcitos Creek, approximately 20 feet from the top of the bank. Replacement wells will be located further from Pilarcitos Creek and further upland from the existing wells.

Project Description

The Pilarcitos Wellfield is comprised of six existing shallow wells that produce groundwater under the influence of surface water. The wells are considered points of diversion under the District's Pilarcitos Creek surface water rights. These water rights limit the periods and rates of pumping water from the wellfield. Water produced from the wellfield is conveyed to and treated at the District's Nunes Water Treatment Plant. The District intends to replace all six of these wells "in kind" by offsetting the new wells from the existing wells and abandoning the old wells or converting them to monitoring wells. The Project would include (1) the construction of the six new wells, associated reinforced concrete pads, piping, valves and appurtenances, and connections to the raw pipeline; and (2) the addition of variable frequency drives and network connections to integrate with the District's existing

SCADA system.[1] The Project would ensure continued, reliable water service to District customers and make future operation and maintenance activities easier and less impactful to the creeks and adjacent communities.

The project sites are located within the County's Local Coastal Program (LCP) jurisdiction and would normally require a coastal development permit (CDP) from the Planning and Building Department. The LCP exempts certain types of development from the requirement to obtain. For example, Zoning Regulation Section 6328.5 exempts from the CDP requirements the maintenance, alteration, or addition to existing structures. Exemptions to the CDP are discussed below.

Project Construction

Project construction and implementation would occur over approximately 4-5 months. This construction phase includes site mobilization, initial clearing and grading of the site; demolition of the existing wells and equipment; drilling of the well boreholes and installation of the well casing and gravel pack; installation of well pads, equipment, piping, and appurtenance; testing; and startup. The existing wells may be destroyed and abandoned in accordance with County and State regulations, and the drilling permit. The existing wells may also be converted to monitoring wells.

The replacement wells would be located near the existing wells where practicable, and, in some cases, further away from Pilarcitos Creek. No trees or riparian vegetation are planned for removal. During well replacement, minimal trimming may be required to enable ground visibility for walkover monitoring of the bore locations.

Drilling and basic construction of each production well is anticipated to take approximately one working day each and will require approximately 12 hours. Under some circumstances, using reverse-circulation drilling, continuous activity would be required to avoid collapse of the borehole before the well casing, filter pack, and annular seal are installed.

A truck-mounted mud-rotary drill rig would be used to advance boreholes for the replacement wells. Drilling fluid ("mud"), consisting of a suspension of sodium montmorillonite clay ("bentonite") in water, would cool the drill bit and transport the cuttings to the surface during drilling operations. The mud and cut materials from the drilling process would be conveyed through a discharge pipe or hose into a separator system ("shaker") and mud tank. The shaker and associated system would be used to separate cuttings from the drilling fluid. The mud tank would be used on site to control drilling mud volume and properties during operations.

An initial shallow borehole will be drilled to install permanent conductor casing, which will be grouted in place. Following this process, the primary borehole would be drilled, and the well casing and screen would be installed. The well casing and screen serves as a housing for the well pump and as a vertical conduit for water flowing upward from the aquifer to the pump intake. After casing is run into the borehole, the remaining annular space around the screen will be backfilled with clean graded sand and topped with a sand-cement grout seal. The well casing would be grouted (sealed) from just above the top of the well screen up to the surface.

Following well construction, the well would be prepared for operation using a bailer, pumps and surge blocks to remove drilling mud from the casing and filter pack, and to re-establish a hydraulic connection between the well screen and the aquifer. The mud and water produced during development would be discharged into temporary

[1] SCADA (supervisory control and data acquisition) is a control system architecture comprising computers, networked data communications and graphical user interfaces for high-level supervision of machines and processes.

separation tanks to allow solids to settle prior to discharge of water according to the District's National Pollutant Discharge Elimination System permit. Settled mud solids will be disposed of at an offsite location. Typical construction equipment for well installation and development would consist of a drill rig, boom truck or crane, backhoe, air compressor, forklift, electrical generator, storage tanks, welding equipment, and miscellaneous support vehicles. The Project would not expand existing water utility services.

After the new wells are installed, the well equipment, piping, appurtenances, electrical and controls equipment, and pads would be installed. After the system is tested, the piping would be connected to the existing 18-inch transmission main. The operations of the system would be tested during startup.

Conservation Measures

The Project is intended to ensure continued service and restored water supply near Pilarcitos Creek for CCWD. The Project is not anticipated to have any substantial adverse environmental effects. However, since the Project would be constructed in areas near sensitive biological resources, cultural resources, and hydrological and water quality resources, CCWD has developed best management practices (BMPs) and conservation measures (see Attachment A) that would be implemented as part of the Project. These measures, included in Attachment A, are activities or actions that would be undertaken by the contractor during Project construction.

Environmental Considerations

This section presents analyses of potential Project effects on biological resources, cultural resources, and water quality.

Biological Resources

An ESA biologist performed a reconnaissance pedestrian survey of the Project sites (the study area) December 3, 2024, to characterize biological resources. Prior to the survey, ESA queried the California Department of Fish and Wildlife's ("CDFW") California Natural Diversity Database ("CNDDB")[2] records and reviewed the Calflora database for a 3-mile radius around the study area and obtained the U.S. Fish and Wildlife Service ("USFWS") Information for Planning and Consultation ("IPaC") list for the study area.[3][4][5] The pedestrian survey allowed for complete visual coverage of study area aquatic resources and habitat suitable for special-status species, such as sensitive plant species, ground nesting birds, and aquatic breeding and upland refugia habitat for reptiles and amphibians. The study area vegetation communities and wildlife habitats were characterized as primarily mixed coniferous forest and mixed riparian forest, with one aquatic resource – Pilarcitos Creek.

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[2] The term "special-status" species includes those species that are listed and receive specific protection defined in federal or state endangered species legislation, as well as species not formally listed as Threatened or Endangered, but designated as "Rare" or "Sensitive" on the basis of adopted policies and expertise of state resource agencies or organizations, or local agencies such as counties, cities, and special districts.

[3] California Natural Diversity Database (CNDDB). 2024. Biogeographic Data Branch, Department of Fish and Wildlife. Sacramento, California. Accessed December 2024.

[4] Calflora. 2024. Information on California plants for education, research and conservation, with data contributed by public and private institutions and individuals, including the Consortium of California Herbaria. [web application]. 2024. Berkeley, California: The Calflora Database [a non-profit organization]. Available online at: https://www.calflora.org/. Accessed December 2024.

[5] United States Fish and Wildlife Service (USFWS), 2024. List of Threatened and Endangered Species that May Occur In Your Proposed Project Location Or May Be Affected By Your Proposed Project. Unofficial Species List. Coastside County Water District Pilarcitos Wellfield Improvement Project. Project Code: 2025-0035418. Species list generated December 23, 2024.

Pilarcitos Creek parallels the proposed wellfield replacement locations. The creek contains perennial flows and a relatively contiguous, dense overstory, dominated by native trees, primarily willow (*Salix* sp.) and oak (*Quercus* sp.). Upslope of the creek is dominated by redwoods (*Sequoia sempervirens*). The lower shrub and herbaceous layer include a mix of native and non-native species in a less contiguous distribution. Bank erosion from winter storm flows has resulted in a consistent, sediment-laden channel bed within the study area. Wrack and vegetative stormflow debris occur at various segments within the creek bed. Uplands of the study area consist of an unpaved access road, sparsely vegetated (ruderal) areas (immediately surrounding the wellfield locations), with peripheral, native woodlands.

Analysis of study area habitat conditions with special-status species database query results reveals the potential for three special-status plant species and four special-status animal species to occur based on species' habitat requirements and recorded presence in the region. **Table B-1** and **Table B-2** in **Attachment B** present special-status plant and animal species (respectively) with records documented in CNDDB within 3 miles of the Project area, or identified on the IPaC list, evaluated for their potential to occur in the study area. These tables list all species evaluated for their potential presence, species' federal and/or state protective status, provides a description of their suitable habitat, and includes a determination of the species' potential presence.

In summary, San Mateo woolly sunflower (*Eriophyllum latilobum*)[6], western leatherwood (*Dirca occidentalis*)[7], and San Francisco collinsia (*Collinsia multicolor*)[8] all have moderate potential to occur[9] in the study area due to the presence of suitable habitat and numerous records within 3 miles of the study area. The District will conduct pre-construction plant surveys according to **BMP-BIO-5** (see **Attachment A**), and if special-status plant species are found and cannot be avoided, the District will prepare a mitigation and monitoring plan that offsets the special-status plant impacts of the Project and ensures that there is no net loss of individuals or area of occupied habitat, whichever is more relevant to the impacted species.

The study area contains suitable habitat for California red-legged frog (*Rana draytonii*; CRLF) and the Project is located within designated critical habitat for this species.[10] The CNDDB documents occurrence records in reaches of Pilarcitos Creek within the study area for CRLF. The Pilarcitos Creek riparian corridor provides suitable habitat for San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*); however, no middens were observed during the December 2024 field survey.[11] Steelhead – central California coast Distinct Population Segment (*Oncorhynchus mykiss irideus*)[12] is known to occur in tributaries to Pilarcitos Creek, and the creek is part of designated critical habitat. There are known marbled murrelet (*Brachyramphus marmoratus*)[13] nesting sites upstream of the wellfield improvement locations, and the Project would be near designated critical habitat

6 San Mateo woolly sunflower is listed as endangered under FESA and CESA and has a California Rare Plant Rank (CRPR) of 1B.1.

7 Western leatherwood has a CRPR 1B.2 rank.

8 San Francisco collinsia has a CRPR 1B.2 rank.

9 A species was designated as having a "moderate" potential for occurrence if (1) there is low to moderate quality habitat present within the study area or immediately adjacent areas; and (2) the study area is within the known range of the species, even though the species was not observed during biological surveys.

10 CRLF is listed as threatened under the federal Endangered Species Act (FESA) and identified as a California Department of Fish and Wildlife (CDFW) Species of Special Concern (SSC).

11 San Francisco dusky-footed woodrat is identified as a CDFW SSC.

12 Steelhead – central California coast distinct population segment is listed as threatened under FESA and a CDFW SSC.

13 Marbled murrelet is listed as threatened under FESA and under the state Endangered Species Act (CESA).

for this species. Suitable nesting trees were observed throughout the study area. Numerous migratory birds could also use the study area trees, other vegetation, or ground burrows for nesting.

These special-status species and nesting birds are afforded protection under federal and/or State laws, including the federal and State endangered species acts, the Migratory Bird Treaty Act, and the California Fish and Game Code. CCWD is required to comply with all applicable laws and regulations protecting these species, in addition to best management practices to protect fish, wildlife, and plant resources.

In the absence of biological resources protection measures, the type of work required for the Project, including equipment transport and mobilization, vegetation removal and ground disturbance, and drilling could have direct and indirect adverse effects on special-status species through habitat modification or accidental 'take'[14,15] of individual animals. Similarly, noise and visual disturbance associated with such activities could disrupt birds nesting in the Project vicinity during the nesting season (January 15 – August 15). The disruption of nesting migratory or native birds is not permitted under the federal Migratory Bird Treaty Act or the California Fish and Game Code, as it could constitute unauthorized take.

However, the Project is designed to primarily occur in disturbed uplands and avoid or strategically limit direct disturbance to sensitive habitats where special-status species could be present. The Project would avoid impacts on sensitive habitats, including aquatic resources of Pilarcitos Creek and associated riparian corridors by locating the proposed wells adjacent to their existing footprints in developed uplands and ruderal areas. The Project includes CCWD's conservation measures to minimize or avoid entirely potential impacts on biological resources during Project implementation. Such measures include mandatory training of construction personnel to identify sensitive environmental resources in the Project vicinity (e.g., aquatic resources, sensitive habitat areas, and special-status plants and animals with potential to occur on-site, nesting birds, etc.) and educate personnel of their protective status, along with implementation of specific conservation measures such as erecting exclusionary fencing around work areas, conducting pre-construction surveys and biological monitoring during construction, implementing water quality and other general BMPs to ensure resource protection, installing erosion control measures to secure disturbed soils post-construction (e.g., application of native seed and tackifier outside of agricultural fields), and requiring additional protection measures during Project implementation. The full text of these measures is presented in **Attachment A** (see **BMP-BIO-1** through **BMP-BIO-9)**. Through Project design, implementation of the above-described BMPs and conservation measures, and compliance with State and federal resource protection laws and regulations, the Project would not be expected to "take" special-status species or otherwise result in substantial adverse effects on biological resources.

Cultural Resources

An ESA archaeologist conducted a records search at the Northwest Information Center ("NWIC") of the California Historical Resources Information System on November 19, 2024 (File No. 24-0744). The purpose of the records search was to (1) determine whether known cultural resources have been recorded within or adjacent to the Project area; (2) assess the likelihood for unrecorded cultural resources to be present based on historical

[14] Take under FESA is defined as "Harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." 16 U.S.C., §1532 (19).

[15] Take under CESA is defined as "Hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Fish & G. Code, §8.

references and the distribution of nearby sites; and (3) develop a context for the identification and preliminary evaluation of cultural resources.

The records search indicated there are no previously recorded pre-contact Native American or historic-era archaeological resources recorded within the Project area or within 0.5 mile. There are no known resources that are eligible for listing in the National Register of Historic Places (National Register) or the California Register of Historical Resources (California Register), nor are there known resources that have not been evaluated. Therefore, there are no known historical resources in the Project area.

ESA's record search was augmented by a field survey of the Project area on December 3, 2024. The purpose of the field survey was to evaluate the potential for unrecorded cultural resources to occur within the Project area. The field assessment identified no cultural resources within the Project area.

ESA also conducted a review of the following sources of historic maps and aerial photography: USGS topographic quadrangles, U.S. Bureau of Land Management General Land Office plat maps, land ownership maps, and historic aerials. The Project area is north of Highway 92 along Pilarcitos Creek, west of Lower Crystal Springs Reservoir and northeast of Half Moon Bay. The land that includes the wells was owned by Michael Torpey by 1894[16] and was passed down to his daughter and other children by 1927[17]. Michael and his wife were Irish immigrants and had at least seven children. They lived in San Mateo in 1880[18], but by 1900[19] they had moved their family to San Francisco. It is unclear if the Torpey family ever developed or farmed on the land around the Project area. The road that follows Pilarcitos Creek and turns east up the slope approximately 0.3-mile north of the wells, was constructed by 1941[20]. The Project area has historically not been developed except for construction of the road.

The underlying geology of the Project alignment consists of Holocene-age alluvial and colluvial deposits formed within and adjacent to the Pilarcitos Creek channel[21]. Soils in the Project alignment are dominated by sloping and eroded Soquel loam along the banks and rough broken land of unweathered bedrock on the surface at the base of Pilarcitos Creek[22].

Based on the Holocene age of the soils in the Project area, there is the potential for buried pre-contact archaeological deposits within paleosols in undisturbed portions of the Project area[23]. However, the Project area is located within an extremely steep canyon with very little stable flat land due to high creek flows and the narrowness of the valley at the base of the canyon. No pre-contact or indigenous resources have been previously identified within 0.5-mile of the Project Area. Additionally, the Project Area is within and adjacent to existing wells and therefore the soil in the immediate Project area has been disturbed by the original construction of the

16 Bromfield, D., 1894. Official Map of San Mateo County, Schmidt Label & Litho. Co., San Francisco.

17 Kneese, Geo. A., 1927. Official Map of San Mateo County.

18 U.S. Census Bureau, 1880. 1880 United States Federal Census, California, San Mateo, Township 4.

19 U.S. Census Bureau, 1900. 1900 United States Federal Census, California, San Francisco, District 0124.

20 NETR (Nationwide Environmental Title Research), 2024. Available: https://historicaerials.com/viewer, accessed December 2024.

21 Pampeyan, E.H., 1994. *Geologic map of the Montara Mountain and San Mateo 7.5' quadrangles, San Mateo County, California*, Prepared by U.S. Geological Survey.

22 USDA (U.S. Department of Agriculture), 2024. Natural Resources Conservation Service Web Soil Survey, Version 3.4, http://websoilsurvey.sc.egov.usda.gov/app/WebSoilSurvey.aspx, December 16, 2024.

23 Rosenthal et al., 2004. Rosenthal, Jeffrey S., and Jack Meyer, Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways: Volume III: Geoarchaeological Study, Landscape Evolution and the Archaeological Record of Central California. Prepared by Far Western Anthropological Research Group, Inc., Davis, CA, Prepared for Caltrans District 10, Stockton, 2004.

well and the adjacent road. Therefore, the likelihood of intact archaeological resources in this context is significantly lessened. The dynamic landform, previous ground disturbance, and the distance to known archaeological resources suggests that the Project area has a relatively low potential for the presence of pre-contact archaeological resources.

There is also no evidence of historic-era agricultural use or habitation of the Project area besides the construction of the adjacent road. The historic aerial and map imagery review did not identify any features within the Project area that could represent buried historic-era archaeological resources such as artifact-filled wells or privies[24] [25]. Based on this review, the potential for presence of unrecorded, or previously unknown, historic-era archaeological resources is low. This analysis concludes that the Project area's sensitivity for pre-contact and historic-era archaeological resources is low.

For these reasons discussed above and considering BMPs and conservation measures **BMP-CUL-1** and **BMP-CUL-2** in **Attachment A**, substantial adverse effects on cultural resources would not occur.

Hydrology and Water Quality

The Project would result in a disturbance of less than one acre. After the well replacements, the Project area would be restored to the existing grade. Given that the Project would not disturb greater than one acre, the CCWD would not be required to obtain coverage under the State Water Resources Control Board's ("SWRCB") Construction General Permit (2022-0057-DWQ). However, CCWD would implement similar BMPs as those required under the Stormwater Pollution Prevention Plan ("SWPPP"). For instance, **BMP-BIO-4** includes equipment storage and maintenance measures designed to prevent inadvertent discharges of oil, grease, or fuels (among other pollutants), and provisions for immediate cleaning and disposal of leaked materials (see Attachment A). Through the implementation of these BMPs, the Project would not have an adverse water quality impact.

Pilarcitos Creek is not listed by the San Francisco Bay Regional Water Quality Control Board ("RWQCB") as impaired. The Project would not result in substantial adverse effects on hydrology or water quality.

CEQA Exemptions

CEQA Guidelines section 15302(c) exempts projects that involve the "replacement or reconstruction of existing utility systems and/or facilities involving negligible or no expansion of capacity" as a Class 2 exemption. As discussed in the Project Description, the Project would be replacing aging wells with new wells in-kind. The Project would not increase or expand the well capacity and would only restore and improve the wellfield's functionality. Over the past several months, CCWD has prepared detailed plans for the Project. With the aforementioned BMPs and conservation measures for biological, cultural, and hydrologic resources, the Project would not have a significant or cumulative impact on the environment. For these reasons, the Project would meet the exemption criteria under CEQA Guidelines section 15302(c).

Exemption or Exclusion from a Coastal Development Permit

The proposed Project is located in a Coastal Zone; however, given that the Project would restore functionality of aging wells in a wellfield, the Project would qualify for an exemption from the coastal development permit

[24] NETR (Nationwide Environmental Title Research), 2024. Available: https://historicaerials.com/viewer, accessed December 2024.

[25] Northwest Information Center (NWIC), 2024. Records Search File No. File No. 24-0744. On file, ESA, November 19, 2024.

requirements of the County's Local Coastal Program.. Under the San Mateo County Zoning Regulations Section 6328.5(d), the Project would be exempt given that it is a repair or maintenance activity. The Project would not result in an addition to, or enlargement or expansion of, the object of those repair or maintenance activities. The Project would replace aging wells in-kind and would therefore not enlarge or expand the capacity of the wells. As discussed above, the Project would not involve substantial adverse environmental impacts. BMPs and conservation measures discussed above would be implemented to minimize or reduce any residual environmental impacts.

Given that the Project would be located entirely within the existing wellfield, would implement BMPs to minimize potential environmental effects, and would not increase the capacity of the wellfield, the Project would be exempt from a Coastal Development Permit under Section 6328.5(d).

Attachments

Attachment A. Best Management Practices and Conservation Measures
Attachment B. Special Status Species Considered in the Project Area
Attachment C. Representative Photographs

County of San Mateo - Planning and Building Department

ATTACHMENT E

STATE OF CALIFORNIA
THE RESOURCES AGENCY
STATE WATER RESOURCES CONTROL BOARD
DIVISION OF WATER RIGHTS

License for Diversion and Use of Water

APPLICATION 16498 PERMIT 11494 LICENSE 10598

THIS IS TO CERTIFY, *That* COASTSIDE COUNTY WATER DISTRICT
766 MAIN STREET, HALF MOON BAY, CALIFORNIA 94019

HAS *made proof as of* JULY 20, 1973 *(the date of inspection) to the satisfaction of the State Water Resources Control Board of a right to the use of the water of* (1)(2)(3)(4) AND (6) PILARCITOS CREEK AND (5) AN UNNAMED STREAM IN SAN MATEO COUNTY
tributary to (1)(2)(3)(4) AND (6) PACIFIC OCEAN AND (5) PILARCITOS CREEK THENCE PACIFIC OCEAN

for the purpose of MUNICIPAL AND DOMESTIC USES
under Permit 11494 *of the Board and that the right to the use of this water has been perfected in accordance with the laws of California, the Regulations of the Board and the permit terms; that the priority of this right dates from* AUGUST 3, 1955 *and that the amount of water to which this right is entitled and hereby confirmed is limited to the amount actually beneficially used for the stated purposes and shall not exceed* ONE AND FIVE-TENTHS (1.5) CUBIC FEET PER SECOND, TO BE DIVERTED FROM NOVEMBER 1 OF EACH YEAR TO MARCH 31 OF THE SUCCEEDING YEAR. THE TOTAL AMOUNT DIVERTED UNDER THIS LICENSE AND UNDER ANY EXISTING RIGHTS OF LICENSEE IN THE SOURCES NAMED AS OF THE DATE OF ISSUANCE OF THIS LICENSE SHALL NOT EXCEED 1.5 CUBIC FEET PER SECOND. THE MAXIMUM AMOUNT DIVERTED UNDER THIS LICENSE SHALL NOT EXCEED 360 ACRE-FEET PER YEAR.

THE POINTS OF DIVERSION OF SUCH WATER ARE LOCATED:

(1) SOUTH 800 FEET AND WEST 250 FEET FROM NE CORNER OF SECTION 10, T5S, R5W, MDB&M, BEING WITHIN NE1/4 OF NE1/4 OF SAID SECTION 10,
(2) NORTH 1,300 FEET AND EAST 300 FEET FROM SW CORNER OF SECTION 11, T5S, R5W, MDB&M, BEING WITHIN SW1/4 OF SW1/4 OF SAID SECTION 11,
(3) NORTH 300 FEET AND EAST 1,100 FEET FROM SW CORNER OF SECTION 11, T5S, R5W, MDB&M, BEING WITHIN SW1/4 OF SW1/4 OF SAID SECTION 11,
(4) NORTH 100 FEET AND EAST 1,000 FEET FROM SW CORNER OF SECTION 11, T5S, R5W, MDB&M, BEING WITHIN SW1/4 OF SW1/4 OF SAID SECTION 11,
(5) SOUTH 1,200 FEET AND WEST 1,000 FEET FROM NE CORNER OF SECTION 10, T5S, R5W, MDB&M, BEING WITHIN NE1/4 OF NE1/4 OF SAID SECTION 10, AND
(6) NORTH 600 FEET AND EAST 1000 FEET FROM SW CORNER OF SECTION 11, T5S, R5W, MDB&M, BEING WITHIN SW1/4 OF SW1/4 OF SAID SECTION 11..

A DESCRIPTION OF LANDS OR THE PLACE WHERE SUCH WATER IS PUT TO BENEFICIAL USE IS AS FOLLOWS:

WITHIN COASTSIDE COUNTY WATER DISTRICT, AS SHOWN ON MAP FILED WITH STATE WATER RESOURCES CONTROL BOARD.

LICENSEE SHALL, PRIOR TO NOVEMBER 1 OF EACH YEAR, FURNISH THE STATE WATER RESOURCES CONTROL BOARD A CERTIFIED COPY OF ITS PUMPING RECORDS ALONG WITH ANY OTHER REPORT THE BOARD FEELS NECESSARY TO SHOW THAT AMOUNT AND SEASON SET FORTH IN THIS LICENSE HAVE NOT BEEN VIOLATED.

THE QUANTITY OF WATER DIVERTED UNDER THIS LICENSE IS SUBJECT TO MODIFICATION BY THE STATE WATER RESOURCES CONTROL BOARD, IF, AFTER NOTICE TO THE LICENSEE AND AN OPPORTUNITY FOR HEARING, THE BOARD FINDS THAT SUCH MODIFICATION IS NECESSARY TO MEET WATER QUALITY OBJECTIVES IN WATER QUALITY CONTROL PLANS WHICH HAVE BEEN OR HEREAFTER MAY BE ESTABLISHED OR MODIFIED PURSUANT TO DIVISION 7 OF THE WATER CODE. NO ACTION WILL BE TAKEN PURSUANT TO THIS PARAGRAPH UNLESS THE BOARD FINDS THAT (1) ADEQUATE WASTE DISCHARGE REQUIREMENTS HAVE BEEN PRESCRIBED AND ARE IN EFFECT WITH RESPECT TO ALL WASTE DISCHARGES WHICH HAVE ANY SUBSTANTIAL EFFECT UPON WATER QUALITY IN THE AREA INVOLVED, AND (2) THE WATER QUALITY OBJECTIVES CANNOT BE ACHIEVED SOLELY THROUGH THE CONTROL OF WASTE DISCHARGES.

Licensee shall allow representatives of the Board and other parties, as may be authorized from time to time by the Board, reasonable access to project works to determine compliance with the terms of this license.

All rights and privileges under this license, including method of diversion, method of use and quantity of water diverted are subject to the continuing authority of the Board in accordance with law and in the interest of the public welfare to prevent waste, unreasonable use, unreasonable method of use or unreasonable method of diversion of said water.

This continuing authority of the Board may be exercised by imposing specific requirements over and above those contained in this license with a view to minimizing waste of water and to meeting the reasonable water requirements of licensee without unreasonable draft on the source. Licensee may be required to implement such programs as (1) reusing or reclaiming the water allocated; (2) restricting diversions so as to eliminate agricultural tailwater or to reduce return flow; (3) suppressing evaporation losses from water surfaces; (4) controlling phreatophytic growth; and (5) installing, maintaining, and operating efficient water measuring devices to assure compliance with the quantity limitations of this license and to determine accurately water use as against reasonable water requirements for the authorized project. No action will be taken pursuant to this paragraph unless the Board determines, after notice to affected parties and opportunity for hearing, that such specific requirements are physically and financially feasible and are appropriate to the particular situation.

Reports shall be filed promptly by licensee on appropriate forms which will be provided for the purpose from time to time by the Board.

The right hereby confirmed to the diversion and use of water is restricted to the point or points of diversion herein specified and to the lands or place of use herein described.

This license is granted and licensee accepts all rights herein confirmed subject to the following provisions of the Water Code:

Section 1625. Each license shall be in such form and contain such terms as may be prescribed by the Board.

Section 1626. All licenses shall be under the terms and conditions of this division (of the Water Code).

Section 1627. A license shall be effective for such time as the water actually appropriated under it is used for a useful and beneficial purpose in conformity with this division (of the Water Code) but no longer.

Section 1628. Every license shall include the enumeration of conditions therein which in substance shall include all of the provisions of this article and the statement that any appropriator of water to whom a license is issued takes the license subject to the conditions therein expressed.

Section 1629. Every licensee, if he accepts a license does so under the conditions precedent that no value whatsoever in excess of the actual amount paid to the State therefor shall at any time be assigned to or claimed for any license granted or issued under the provisions of this division (of the Water Code), or for any rights granted or acquired under the provisions of this division (of the Water Code), in respect to the regulation by any competent public authority of the services or the price of the services to be rendered by any licensee or by the holder of any rights granted or acquired under the provisions of this division (of the Water Code) or in respect to any valuation for purposes of sale to or purchase, whether through condemnation proceedings or otherwise, by the State or any city, city and county, municipal water district, irrigation district, lighting district, or any political subdivision of the State, of the rights and property of any licensee, or the possessor of any rights granted, issued, or acquired under the provisions of this division (of the Water Code).

Section 1630. At any time after the expiration of twenty years after the granting of a license, the State or any city, city and county, municipal water district, irrigation district, lighting district, or any political subdivision of the State shall have the right to purchase the works and property occupied and used under the license and the works built or constructed for the enjoyment of the rights granted under the license.

Section 1631. In the event that the State, or any city, city and county, municipal water district, irrigation district, lighting district, or political subdivision of the State so desiring to purchase and the owner of the works and property cannot agree upon the purchase price, the price shall be determined in such manner as is now or may hereafter be provided by law for determining the value of property taken in eminent domain proceedings.

Dated: MAR 10 1976

STATE WATER RESOURCES CONTROL BOARD

[signature]

Chief, Division of Water Rights