



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

San Diego Regional Water Quality Control Board

July 27, 2016

Certified Mail – Return Receipt Requested

Article Number: 7011 0470 0002 8961 9818

Mr. Mike Thornton
San Elijo Joint Powers Authority
2695 Manchester Avenue
Cardiff by the Sea, CA 92007

In reply/refer to:
R9-2016-0040:821413:amonji

**Subject: Clean Water Act Section 401 Water Quality Certification No. R9-2016-0040
for the San Elijo Land Outfall Replacement Project**

Mr. Thornton:

Enclosed find Clean Water Act Section 401 Water Quality Certification No. R9-2016-0040 (Certification) issued by the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) in response to the application submitted by the San Elijo Joint Powers Agency (San Elijo JPA) for the **San Elijo Land Outfall Replacement Project** (Project). A description of the Project and Project location can be found in the Certification and site maps which are included as attachments to the Certification.

The San Elijo JPAs enrolled under State Water Resources Control Board Order No. 2003-017-DWQ as a condition of the Certification and is required to implement and comply with all terms and conditions of the Certification in order to ensure that water quality standards are met for the protection of wetlands and other aquatic resources. Failure to comply with this Certification may subject San Elijo JPA to enforcement actions by the San Diego Water Board including administrative enforcement orders requiring San Elijo JPA to cease and desist from violations or to clean up waste and abate existing or threatened conditions of pollution or nuisance; administrative civil liability in amounts of up to \$10,000 per day per violation; referral to the State Attorney General for injunctive relief; and, referral to the District Attorney for criminal prosecution.

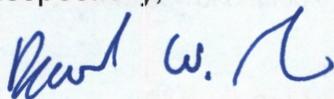
Please submit all reports and information required under this Certification in electronic format via e-mail to SanDiego@waterboards.ca.gov. Documents over 50 megabytes will not be accepted via e-mail and must be placed on a disc and delivered to the San Diego Water Board, 2375 Northside Drive, San Diego, CA 92108. Each electronic document must be submitted as a single file, in Portable Document Format (PDF), and converted to text searchable format using Optical Character Recognition (OCR). All electronic documents must include scanned copies of all signature pages; electronic signatures will not be accepted. Electronic documents submitted to the San Diego Water Board must include the following identification numbers in the header or subject line: Certification No. R9-2016-0040:821413:amonji.

HENRY ABARBANEL, PH.D., CHAIR | DAVID GIBSON, EXECUTIVE OFFICER

2375 Northside Drive, Suite 100, San Diego, California 92108-2700 | www.waterboards.ca.gov/sandiego

For questions or comments regarding the Certification, please contact Alan Monji by telephone at (619) 521-3968 or by email at Alan.Monji@waterboards.ca.gov.

Respectfully,



DAVID W. GIBSON
Executive Officer

Enclosure:

Clean Water Act Section 401 Water Quality Certification No. R9-2016-0040 for the San Elijo Land Outfall Replacement Project

DWG:jgs:db:eb:atm

cc:

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State Water Resources Control Board, Division of Water Quality
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Tech Staff Information	
Certification No.	R9-2016-0040
Party ID	39664
Reg. Meas. ID	404473
Place ID	821413
Person ID	75818
WDID	9 000002978

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

2375 Northside Drive, Suite.100, San Diego, CA 92108
Phone (619) 516-1990 • Fax (619) 516-1994
<http://www.waterboards.ca.gov/sandiego/>

Clean Water Act Section 401 Water Quality Certification
and Waste Discharge Requirements
for Discharge of Dredged and/or Fill Materials

**PROJECT: San Elijo Land Outfall Replacement
Certification Number R9-2016-0040
WDID: 9000002978**

Reg. Meas. ID: 404473 Place ID: 821413 Party ID: 39664 Person ID: 75818
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**APPLICANT: San Elijo Joint Powers Authority
2695 Manchester Avenue
Cardiff by the Sea, CA 92007**

ACTION:

<input type="checkbox"/> Order for Low Impact Certification	<input type="checkbox"/> Order for Denial of Certification
<input checked="" type="checkbox"/> Order for Technically-conditioned Certification	<input type="checkbox"/> Enrollment in Isolated Waters Order No. 2004-004-DWQ
<input checked="" type="checkbox"/> Enrollment in SWRCB GWDR Order No. 2003-017-DWQ	

PROJECT DESCRIPTION

An application dated January 21, 2016 was submitted by the San Elijo Joint Powers Authority (hereinafter Applicant), for Water Quality Certification pursuant to section 401 of the Clean Water Act (United States Code (USC) Title 33, section 1341) for the proposed San Elijo Land Outfall Replacement Project (Project). The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) deemed the application to be complete on June 9, 2016. The Applicant proposes to discharge dredged or fill material to waters of the United States and/or State associated with construction activity at the Project site. The Applicant has also applied for a Clean Water Act section 404 permit from the United States Army Corps of Engineers for the Project (USACE File No. 2015-00553-RRS).

The Project is located in the Cardiff-by-the-Sea community within the City of Encinitas, San Diego County, California at 2695 Manchester Avenue. The Project center reading is located at 33.011439 and -117.274960. The Applicant has paid all required application fees for this Certification in the amount of \$675.00. On an annual basis, the Applicant must also pay all active discharge fees and post discharge monitoring fees, as appropriate¹. On June 9, 2016,

¹ The Applicant must pay an annual active discharge fee each fiscal year or portion of a fiscal year during which discharges occur until the San Diego Water Board or the State Water Resources Control Board (State Water Board) issues a Notice of Completion of Discharges Letter to the Applicant. The Applicant must also pay an annual post-discharge monitoring fee each fiscal year or portion of a fiscal year commencing with the first fiscal year following the fiscal year in which the San Diego Water Board or the State Water Board issued a Notice of Completion of Discharges Letter to the Applicant, but continued water quality monitoring or compensatory mitigation monitoring is required. The Applicant must pay the annual post-discharge monitoring fee each fiscal year until the San Diego Water Board or the State Water Board issues a Notice
(footnote continued on next page)

the San Diego Water Board provided public notice of the Project application pursuant to California Code of Regulations, title 23, section 3858 by posting information describing the Project on the San Diego Water Board's web site and providing a period of twenty-one days for public review and comment. No comments were received.

The Applicant proposes to replace the existing San Elijo land outfall pipeline that runs from the San Elijo Water Reclamation Facility (SEWRF) to the existing ocean outfall to the Pacific Ocean. The land portion of the outfall system consists of approximately 800 linear feet (LF) of 30-inch diameter polyvinyl chloride (PVC) pipeline that was installed in 1999 and extends southward from the SEWRF to just north of Manchester Avenue. From there, the land outfall extends approximately 2,500 LF across Manchester Avenue, underneath San Elijo Lagoon in a southwest trending alignment with a 30-inch diameter asbestos cement (AC) pipeline that was installed in 1965. The existing AC pipe of the land outfall is over 50 years old and is nearing the end of its service life. The ocean outfall portion of the outfall system extends approximately 8,000 LF out into the Pacific Ocean. No work under this Certification is proposed for the ocean outfall portion.

The Applicant proposes to replace the land outfall portion of the pipe that is comprised of the 50-year old AC pipe and thereby reduce the potential for wastewater spills or releases from the land outfall. The land outfall replacement pipe will consist of 30-inch inside diameter (either high density polyethylene [HDPE] or fusible polyvinyl chloride [fPVC]) pipeline that would extend west from the existing PVC outfall system at the SEWRF within the existing SEWRF access road. The pipe would extend west approximately 80 LF from the connection point, under the access road, and across an existing concrete flood control channel. Construction of this segment of the pipe will occur within an open trench and may require temporary removal of an approximately 50-foot section of the existing concrete-lined flood control channel. Following installation of the pipe, the portion of the channel that will be removed will either be replaced in kind, or an existing triple box culvert would be extended approximately 50 feet to the north. Additionally, a new connection to the existing Escondido outfall regulator structure would be installed within the driveway to the San Elijo Lagoon Nature Center (Nature Center) across the street from the SEWRF. Impacts to the concrete lined flood control channel are estimated to be 0.012 acres.

Other pipeline work within the trench, includes: (1) replacement of the existing AC Cardiff Pump Station Force Main with a 10-inch diameter ductile iron (DI) pipe, (2) installation of a 10-inch diameter DI pipe that would extend generally parallel to the proposed regulator structure pipeline to connect with an existing above grade DI pipe, and (3) removal of an existing 200-foot-long, 10-inch diameter DI pipe mounted on the inside wall of the existing box culvert.

West of the channel, the proposed outfall pipe alignment will turn southwestward for approximately 2,500 LF underneath Manchester Avenue, the Nature Center parking lot, San Elijo Lagoon, the railroad tracks, Coast Highway 101, and connect to the existing ocean outfall located at the Cardiff State Beach. Installation of this segment of the pipe will be conducted utilizing horizontal directional drilling (HDD), a trenchless construction method. The HDD is not

(footnote continued from previous page)

of Project Complete Letter to the Applicant. Additional information regarding fees can be found electronically at the following location:
http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/dredgefillcalculator.xlsx

expected to have temporary or permanent impacts to San Elijo Lagoon or Cardiff State Beach. The maximum depth of HDD is 65 feet underneath the lagoon.

Construction will occur in a single phase over a total duration of approximately four months, beginning with installation of 60-inch casing pipe and launching of the HDD pilot bore at the beach side. It is anticipated that directional drilling and reaming will be completed in approximately six to eight weeks.

The Project application includes a description of the design objective, operation, and degree of treatment expected to be attained from equipment, facilities, or activities (including construction and post-construction BMPs) to treat waste and reduce runoff or other effluents which may be discharged. The Applicant reported that the Project incorporates various design features set forth below to avoid or reduce the potential for sewage wastewater releases from the replacement land outfall to waters of the United States and/or State:

1. The high density polyethylene material used to construct the land outfall pipe will have a high strength to density ratio that is highly resistant to corrosion. The materials selection, overall pipeline design, and pipeline manufacturing process will greatly reduce the risk of pipeline failure.
2. The pipe joints will be heat fused through a thermal welding process and will be tested prior to installing the pipe. The process will be conducted under tight specification requirements and will be inspected by the Applicant and the design engineer for conformance with specifications. The integrity of the pipeline and joints will be further inspected by camera following installation.

Compliance with the Certification conditions will help ensure that construction and post-construction discharges from the Project will not cause on-site or off-site downstream erosion, damage to downstream properties, or otherwise damage stream habitats in violation of water quality standards in the Water Quality Control Plan for the San Diego Basin (9) (Basin Plan).

Project construction will avoid any permanent impacts to waters of the United States and/or State. Project construction will temporarily impact 0.012 acre (50 linear feet) of non-wetland (concrete lined channel) waters of the United States and/or State. The Applicant reports that the Project purpose cannot be practically accomplished in a manner which would avoid or result in less adverse impacts to aquatic resources considering all potential practicable alternatives, such as the potential for alternate available locations, designs, reductions in size, configuration or density.

Additional Project details are provided in Attachments 1 through 4 of this Certification.

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Attachments:

1. Definitions
2. Project Location Maps
3. Project Site Plans
4. CEQA Mitigation Monitoring and Reporting Program

I. STANDARD CONDITIONS

Pursuant to section 3860 of title 23 of the California Code of Regulations, the following three standard conditions apply to all water quality certification actions:

- A. This Certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to section 13330 of the Water Code and chapter 28, article 6 (commencing with title 23, section 3867), of the California Code of Regulations.
- B. This Certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility and requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent Certification application was filed pursuant to California Code of Regulations title 23, section 3855 subdivision (b), and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
- C. This Certification action is conditioned upon total payment of any fee required under title 23, chapter 28 (commencing with section 3830) of California Code of Regulations and owed by the applicant.

II. GENERAL CONDITIONS

- A. **Term of Certification.** Water Quality Certification No. R9-2016-0040 (Certification) shall expire upon a) the expiration or retraction of the Clean Water Act section 404 (33 USC Title 33, section 1344) permit issued by the U.S. Army Corps of Engineers for this Project, or b) five (5) years from the date of issuance of this Certification, whichever occurs first.
- B. **Duty to Comply.** The Applicant must comply with all conditions and requirements of this Certification. Any Certification noncompliance constitutes a violation of the Water Code and is grounds for enforcement action or Certification termination, revocation and reissuance, or modification.
- C. **General Waste Discharge Requirements.** The requirements of this Certification are enforceable through Water Quality Order No. 2003-0017-DWQ, *Statewide General Waste Discharge Requirements for Discharges of Dredged or Fill Material that have Received State Water Quality Certification* (Water Quality Order No. 2003-0017-DWQ). This provision shall apply irrespective of whether a) the federal permit for which the Certification was obtained is subsequently retracted or is expired, or b) the Certification is expired. Water Quality Order No. 2003-0017-DWQ is accessible at:

http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/generalorders/go_wdr401regulated_projects.pdf.

- D. **Project Conformance with Application.** All water quality protection measures and BMPs described in the application and supplemental information for water quality

certification are incorporated by reference into this Certification as if fully stated herein. Notwithstanding any more specific conditions in this Certification, the Applicant shall construct, implement and comply with all water quality protection measures and BMPs described in the application and supplemental information. The conditions within this Certification shall supersede conflicting provisions within the application and supplemental information submitted as part of this Certification action.

- E. Project Conformance with Water Quality Control Plans or Policies.** Notwithstanding any more specific conditions in this Certification, the Project shall be constructed in a manner consistent with the Basin Plan and any other applicable water quality control plans or policies adopted or approved pursuant to the Porter Cologne Water Quality Act (Division 7, commencing with Water Code Section 13000) or section 303 of the Clean Water Act (33 USC section 1313). The Basin Plan is accessible at:

http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/index.shtml

- F. Project Modification.** The Applicant must submit any changes to the Project, including Project operation, which would have a significant or material effect on the findings, conclusions, or conditions of this Certification, to the San Diego Water Board for prior review and written approval. If the San Diego Water Board is not notified of a significant change to the Project, it will be considered a violation of this Certification.
- G. Certification Distribution Posting.** During Project construction, the Applicant must maintain a copy of this Certification at the Project site. This Certification must be available at all times to site personnel and agencies. A copy of this Certification shall also be provided to any contractor or subcontractor performing construction work, and the copy shall remain in their possession at the Project site.
- H. Inspection and Entry.** The Applicant must allow the San Diego Water Board or the State Water Resources Control Board, and/or their authorized representative(s) (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents as may be required under law, to:
1. Enter upon the Project premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Certification;
 2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Certification;
 3. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Certification; and
 4. Sample or monitor, at reasonable times, for the purposes of assuring Certification compliance, or as otherwise authorized by the Clean Water Act or Water Code, any substances or parameters at any location.

- I. **Enforcement Notification.** In the event of any violation or threatened violation of the conditions of this Certification, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under State law. For purposes of section 401(d) of the Clean Water Act, the applicability of any State law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Certification.
- J. **Certification Actions.** This Certification may be modified, revoked and reissued, or terminated for cause including but not limited to the following:
 1. Violation of any term or condition of this Certification;
 2. Monitoring results indicate that continued Project activities could violate water quality objectives or impair the beneficial uses of San Elijo Lagoon and the Pacific Ocean;
 3. Obtaining this Certification by misrepresentation or failure to disclose fully all relevant facts;
 4. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; and
 5. Incorporation of any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act.

The filing of a request by the Applicant for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Certification condition.

- K. **Duty to Provide Information.** The Applicant shall furnish to the San Diego Water Board, within a reasonable time, any information which the San Diego Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Certification or to determine compliance with this Certification.
- L. **Property Rights.** This Certification does not convey any property rights of any sort, or any exclusive privilege.
- M. The Applicant shall operate and maintain the land outfall in accordance with the requirements of Order No. R9-2010-0087, NPDES No. CA0107999, *Waste Discharge Requirements for the San Elijo Joint Powers Authority, San Elijo Water Reclamation Facility Discharge to the Pacific Ocean Via the San Elijo Ocean Outfall* and any reissuance. Any volume of waste discharged from the replaced land outfall to waters of the United States and/or State due to overflow, spill, release, or diversion of wastewater except as authorized under an NPDES Permit is prohibited.
- N. The Applicant shall operate and maintain the publicly owned/operated sanitary sewer system in accordance with the requirements of Order No. R9-2007-00005, *Waste*

Discharge Requirements for Sewage Collection Agencies in the San Diego Region. Any volume of sanitary sewer overflows (SSOs) from the sanitary sewer system to waters of the United States and/or State due to overflow, spill, release, or diversion of wastewater except as authorized under this WDR Permit is prohibited.

- O. **Petitions.** Any person aggrieved by this action of the San Diego Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with the California Code of Regulations, title 23, sections 3867 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Certification. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

III. CONSTRUCTION BEST MANAGEMENT PRACTICES

- A. **Approvals to Commence Construction.** The Applicant shall not commence Project construction until all necessary federal, State, and local approvals are obtained.
- B. **Personnel Education.** Prior to the start of the Project, and annually thereafter, the Applicant must educate all personnel on the requirements in this Certification, pollution prevention measures, spill response measures, and BMP implementation and maintenance measures.
- C. **Spill Containment Materials.** The Applicant must, at all times, maintain appropriate types and sufficient quantities of materials on-site to contain any spill or inadvertent release of materials that may cause a condition of pollution or nuisance if the materials reach waters of the United States and/or State.
- D. **General Construction Storm Water Permit.** Prior to start of Project construction, the Applicant must, as applicable, obtain coverage under, and comply with, the requirements of State Water Resources Control Board Water Quality Order No. 2009-0009-DWQ, the *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activity*, (General Construction Storm Water Permit) and any reissuance. If Project construction activities do not require coverage under the General Construction Storm Water Permit, the Applicant must develop and implement a runoff management plan (or equivalent construction BMP plan) to prevent the discharge of sediment and other pollutants during construction activities.
- E. **Waste Management.** The Applicant must properly manage, store, treat, and dispose of wastes in accordance with applicable federal, state, and local laws and regulations. Waste management shall be implemented to avoid or minimize exposure of wastes to precipitation or storm water runoff. The storage, handling, treatment, or disposal of waste shall not create conditions of pollution, contamination or nuisance as defined in Water Code section 13050. Upon Project completion, all Project generated debris, building materials, excess material, waste, and trash shall be removed from the Project site(s) for disposal at an authorized landfill or other disposal site in compliance with federal, state and local laws and regulations.

- F. **Waste Management.** Except for a discharge permitted under this Certification, the dumping, deposition, or discharge of trash, rubbish, unset cement or asphalt, concrete, grout, damaged concrete or asphalt, concrete or asphalt spoils, wash water, organic or earthen material, steel, sawdust or other construction debris waste from Project activities directly into waters of the United States and or State, or adjacent to such waters in any manner which may permit its being transported into the waters, is prohibited.
- G. **Downstream Erosion.** Discharges of concentrated flow during construction or after Project completion must not cause downstream erosion or damage to properties or stream habitat.
- H. **Construction Equipment.** All equipment must be washed prior to transport to the Project site and must be free of sediment, debris, and foreign matter. All equipment used in direct contact with surface water shall be steam cleaned prior to use. All equipment using gas, oil, hydraulic fluid, or other petroleum products shall be inspected for leaks prior to use and shall be monitored for leakage. Stationary equipment (e.g., motors, pumps, generator, etc.) shall be positioned over drip pans or other types of containment.
- I. **Process Water.** Water containing mud, silt, or other pollutants from equipment washing or other activities, must not be discharged to waters of the United States and/or State or placed in locations that may be subjected to storm water runoff flows. Pollutants discharged to areas within a stream diversion must be removed at the end of each work day or sooner if rain is predicted.
- J. **Surface Water Diversion.** All surface waters, including ponded waters, must be diverted away from areas of active grading, construction, excavation, vegetation removal, and/or any other activity which may result in a discharge to the receiving water. Diversion activities must not result in the degradation of beneficial uses or exceedance of the receiving water quality objectives. Any temporary dam or other artificial obstruction constructed must only be built from materials such as clean gravel which will cause little or no siltation. Normal flows must be restored to the affected stream immediately upon completion of work at that location.
- K. **Re-vegetation and Stabilization.** All areas that have 14 or more days of inactivity must be stabilized within 14 days of the last activity. The Applicant shall implement and maintain BMPs to prevent erosion of the rough graded areas. After completion of grading, all areas must be re-vegetated with native species appropriate for the area. The re-vegetation palette must not contain any plants listed on the California Invasive Plant Council Invasive Plant Inventory, which can be accessed at <http://www.cal-ipc.org/ip/inventory/>.
- L. **Hazardous Materials.** Except as authorized by this Certification, substances hazardous to aquatic life including, but not limited to, petroleum products, unused cement/concrete, asphalt, and coating materials, must be prevented from contaminating the soil and/or entering waters of the United States and/or State. BMPs must be implemented to prevent such discharges during each Project activity involving

hazardous materials.

- M. **Vegetation Removal.** Removal of vegetation must occur by hand, mechanically, or through application of United States Environmental Protection Agency (USEPA) approved herbicides deployed using applicable BMPs to minimize adverse effects to beneficial uses of waters of the United States and/or State. Discharges related to the application of aquatic pesticides within waters of the United States must be done in compliance with State Water Resources Control Board Water Quality Order No. 2004-0009-DWQ, the *Statewide General National Pollution Discharge Elimination System Permit for the Discharge of Aquatic Weed Control in Waters of the United States*, and any subsequent reissuance as applicable.
- N. **Limits of Disturbance.** The Applicant shall clearly define the limits of Project disturbance to waters of the United States and/or State using highly visible markers such as flag markers, construction fencing, or silt barriers prior to commencement of Project construction activities within those areas.
- O. **On-site Qualified Biologist.** The Applicant shall designate an on-site qualified biologist to monitor Project construction activities within or adjacent to waters of the United States and/or State to ensure compliance with the Certification requirements. The biologist shall be given the authority to stop all work on-site if a violation of this Certification occurs or has the potential to occur. Records and field notes of the biologist's activities shall be kept on-site and made available for review upon request by the San Diego Water Board.
- P. **Beneficial Use Protection.** The Applicant must take all necessary measures to protect the beneficial uses of waters of San Elijo Lagoon. This Certification requires compliance with all applicable requirements of the Basin Plan. If at any time, an unauthorized discharge to surface waters (including rivers or streams) occurs or monitoring indicates that the Project is violating, or threatens to violate, water quality objectives, the associated Project activities shall cease immediately and the San Diego Water Board shall be notified in accordance with Notification Requirement VII.A of this Certification. Associated Project activities may not resume without approval from the San Diego Water Board.
- Q. **Groundwater Dewatering.** If groundwater dewatering is required for the Project, the Applicant shall enroll in and comply with the requirements of San Diego Water Board Order No. R9-2015-0013, NPDES No. CAG919003, *General Waste Discharge Requirements For Groundwater Extraction Discharges to Surface Waters within the San Diego Region* or its successor permit.
- R. **Contingency Plan.** **Prior to the start of construction**, the Applicant will provide a copy of the Inadvertent Returns and Surface Spill Contingency Plan to the San Diego Water Board.
- S. **Material Safety Data Sheets.** **Prior to the start of construction**, the Applicant will provide a copy of Material Safety Data Sheets (MSDSs) for the drilling fluids proposed to be used for this Project to the San Diego Water Board.

IV. POST-CONSTRUCTION BEST MANAGEMENT PRACTICES

- A. **Post-Construction Discharges.** The Applicant shall not allow post-construction discharges from the Project site to cause or contribute to on-site or off-site erosion or damage to properties or stream habitats.

V. PROJECT IMPACTS AND COMPENSATORY MITIGATION

- A. **Project Impact Avoidance and Minimization.** The Project must avoid and minimize adverse impacts to waters of the United States and/or State to the maximum extent practicable. The Applicant has designed the Project so that there are only temporary impacts to waters of the United States and/or State.
- B. **Temporary Project Impact Areas.** The Applicant must restore all areas of temporary impacts and all other areas of temporary disturbance which could result in a discharge or a threatened discharge of pollutants to waters of the United States and/or State. Restoration must include grading of disturbed areas to pre-project contours and re-vegetation with native species. The Applicant must implement all necessary BMPs to control erosion and runoff from areas associated with the Project.

VI. MONITORING AND REPORTING REQUIREMENTS

- A. **Representative Monitoring.** Samples and measurements taken for the purpose of monitoring under this Certification shall be representative of the monitored activity.
- B. **Monitoring Reports.** Monitoring results shall be reported to the San Diego Water Board at the intervals specified in section VI of this Certification.
- C. **Monitoring and Reporting Revisions.** The San Diego Water Board may make revisions to the monitoring program at any time during the term of this Certification and may reduce or increase the number of parameters to be monitored, locations monitored, the frequency of monitoring, or the number and size of samples collected.
- D. **Records of Monitoring Information.** Records of monitoring information shall include:
1. The date, exact place, and time of sampling or measurements;
 2. The individual(s) who performed the sampling or measurements;
 3. The date(s) analyses were performed;
 4. The individual(s) who performed the analyses;
 5. The analytical techniques or methods used; and
 6. The results of such analyses.
- E. **Geographic Information System Data.** The Applicant must submit Geographic Information System (GIS) shape files of the Project impact sites within 30 days of the

start of project. All impact shape files must be polygons. Two GPS readings (points) must be taken on each line of the polygon and the polygon must have a minimum of 10 points. GIS metadata must also be submitted.

F. Annual Project Progress Reports. The Applicant must submit annual Project progress reports describing status of BMP implementation and compliance with all requirements of this Certification to the San Diego Water Board prior to **March 1** of each year following the issuance of this Certification, until the Project has reached completion. The Annual Project Progress Reports must contain monitoring information sufficient to demonstrate how the project is progressing towards accomplishing its objectives and meeting its performance standards. Annual Project Progress Reports must be submitted even if Project construction has not begun. The monitoring period for each Annual Project Progress Report shall be January 1st through December 31st of each year. Annual Project Progress Reports must include, at a minimum, the following:

1. **Project Status and Compliance Reporting.** The Annual Project Progress Report must include the following Project status and compliance information:
 - a. The names, qualifications, and affiliations of the persons contributing to the report;
 - b. The status, progress, and anticipated schedule for completion of Project construction activities including the installation and operational status of best management practices project features for erosion and storm water quality treatment;
 - c. A description of Project construction delays encountered or anticipated that may affect the schedule for construction completion; and
 - d. A description of each incident of noncompliance during the annual monitoring period and its cause, the period of the noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

G. Final Project Completion Report. The Applicant must submit a Final Project Completion Report to the San Diego Water Board **within 30 days of completion of the Project**. The final report must include the following information:

1. Date of construction initiation;
2. Date of construction completion;
3. BMP installation and operational status for the Project;
4. As-built drawings of the Project, no bigger than 11"X17";

5. Photo documentation of implemented post-construction BMPs and all areas of permanent and temporary impacts, prior to and after project construction. Photo documentation must be conducted in accordance with guidelines posted at http://www.waterboards.ca.gov/sandiego/water_issues/programs/401_certification/docs/401c/401PhotoDocRB9V713.pdf. In addition, photo documentation must include Global Positioning System (GPS) coordinates for each of the photo points referenced; and

H. **Reporting Authority.** The submittal of information required under this Certification, or in response to a suspected violation of any condition of this Certification, is required pursuant to Water Code section 13267 and 13383. Civil liability may be administratively imposed by the San Diego Water Board for failure to submit information pursuant to Water Code sections 13268 or 13385.

I. **Electronic Document Submittal.** The Applicant must submit all reports and information required under this Certification in electronic format via e-mail to SanDiego@waterboards.ca.gov. Documents over 50 megabytes will not be accepted via e-mail and must be placed on a disc and delivered to:

California Regional Water Quality Control Board
San Diego Region
Attn: 401 Certification No. R9-2016-0040:821413:amonji
2375 Northside Drive, Suite 100
San Diego, California 92108

Each electronic document must be submitted as a single file, in Portable Document Format (PDF), and converted to text searchable format using Optical Character Recognition (OCR). All electronic documents must include scanned copies of all signature pages; electronic signatures will not be accepted. Electronic documents submitted to the San Diego Water Board must include the following identification numbers in the header or subject line: Certification No. R9-2016-0040:821413:amonji.

J. **Document Signatory Requirements.** All applications, reports, or information submitted to the San Diego Water Board must be signed as follows:

1. For a corporation, by a responsible corporate officer of at least the level of vice president.
2. For a partnership or sole proprietorship, by a general partner or proprietor, respectively.
3. For a municipality, or a state, federal, or other public agency, by either a principal executive officer or ranking elected official.
4. A duly authorized representative may sign applications, reports, or information if:
 - a. The authorization is made in writing by a person described above.

- b. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated activity.
- c. The written authorization is submitted to the San Diego Water Board Executive Officer.

If such authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the Project, a new authorization satisfying the above requirements must be submitted to the San Diego Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative.

- K. **Document Certification Requirements.** All applications, reports, or information submitted to the San Diego Water Board must be certified as follows:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

VII. NOTIFICATION REQUIREMENTS

- A. **Twenty Four Hour Non-Compliance Reporting.** The Applicant shall report any noncompliance which may endanger health or the environment. Any such information shall be provided orally to the San Diego Water Board within **24 hours** from the time the Applicant becomes aware of the circumstances. A written submission shall also be provided within five days of the time the Applicant becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The San Diego Water Board, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.
- B. **Hazardous Substance Discharge.** Except as provided in Water Code section 13271 (b), any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, shall as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the County of San Diego, in accordance with California Health and Safety Code section 5411.5 and the California Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Government Code Title 2, Division 1, Chapter 7, Article 3.7 (commencing with section 8574.17), and immediately notify the State Water Board or the San Diego Water Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of section 13271 of the Water Code

unless the Applicant is in violation of a Basin Plan prohibition.

- C. **Oil or Petroleum Product Discharge.** Except as provided in Water Code section 13272(b), any person who without regard to intent or negligence, causes or permits any oil or petroleum product to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) such person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the California Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan adopted pursuant to Government Code Title 2, Division 1, Chapter 7, Article 3.7 (commencing with section 8574.1). This requirement does not require reporting of any discharge of less than 42 gallons unless the discharge is also required to be reported pursuant to Clean Water Act section 311, or the discharge is in violation of a Basin Plan prohibition.
- D. **Anticipated Noncompliance.** The Applicant shall give advance notice to the San Diego Water Board of any planned changes in the Project which may result in noncompliance with Certification conditions or requirements.
- E. **Commencement of Construction Notification.** The Applicant must notify the San Diego Water Board in writing at least 5 days prior to the start of initial Project construction ground disturbance
- F. **Transfers.** This Certification is not transferable in its entirety or in part to any person or organization except after notice to the San Diego Water Board in accordance with the following terms:
1. **Transfer of Property Ownership:** The Applicant must notify the San Diego Water Board of any change in ownership of the Project area. Notification of change in ownership must include, but not be limited to, a statement that the Applicant has provided the purchaser with a copy of the Section 401 Water Quality Certification and that the purchaser understands and accepts the certification requirements and the obligation to implement them or be subject to liability for failure to do so; the seller and purchaser must sign and date the notification and provide such notification to the San Diego Water Board **within 10 days of the transfer of ownership.**

Upon properly noticed transfers of responsibility, the transferee assumes responsibility for compliance with this Certification and references in this Certification to the Applicant will be interpreted to refer to the transferee as appropriate. Transfer of responsibility does not necessarily relieve the Applicant of responsibility for compliance with this Certification in the event that a transferee fails to comply.

VIII. CALIFORNIA ENVIRONMENTAL QUALITY ACT COMPLIANCE

- A. San Elijo JPA is the Lead Agency under the California Environmental Quality Act (CEQA) (Public Resources Code section 21000, et seq.) section 21067, and CEQA Guidelines (California Code of Regulations, title 14, section 15000 et seq.) section 15367, and has filed a Notice of Determination dated March 8, 2016 for the Final

Mitigated Negative Declaration (FMND) titled *San Elijo Land Outfall Replacement Project* (State Clearing House Number 201611018). The Lead Agency has determined the Project will not have a significant effect on the environment and mitigation measures were made a condition of the Project.

- B. The San Diego Water Board is a Responsible Agency under CEQA (Public Resources Code section 21069; CEQA Guidelines section 15381). The San Diego Water Board has considered the Lead Agency's FMND and finds that the Project as proposed will not have a significant effect on resources within the San Diego Water Board's purview.
- C. The Lead Agency has adopted a mitigation monitoring and reporting program pursuant to Public Resources Code section 21081.6 and CEQA Guidelines section 15097 to ensure that mitigation measures and revisions to the Project identified in the FMND are implemented. The Mitigation Monitoring and Reporting Program (MMRP) is included and incorporated by reference in Attachment 4 to this Certification. The Applicant shall implement the Lead Agency's MMRP described in the FMND, as it pertains to resources within the San Diego Water Board's purview. The San Diego Water Board has imposed additional MMRP requirements as specified in sections V and VI of this Certification.
- D. As a Responsible Agency under CEQA, the San Diego Water Board will file a Notice of Determination in accordance with CEQA Guidelines section 15096 subdivision (i).

IX. SAN DIEGO WATER BOARD CONTACT PERSON

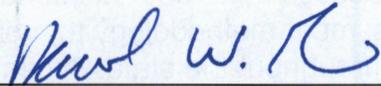
Alan Monji, Environmental Scientist
Telephone: 619-521-3968
Email: Alan.Monji@waterboards.ca.gov

X. WATER QUALITY CERTIFICATION

I hereby certify that the proposed discharge from the **San Elijo Land Outfall Replacement** (Certification No. R9-2016-0040) will comply with the applicable provisions of sections 301 ("Effluent Limitations"), 302 ("Water Quality Related Effluent Limitations"), 303 ("Water Quality Standards and Implementation Plans"), 306 ("National Standards of Performance"), and 307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act. This discharge is also regulated under State Water Board Order No. 2003-0017-DWQ, "*Statewide General Waste Discharge Requirements for Dredged or Fill Discharges that have Received State Water Quality Certification (General WDRs)*," which requires compliance with all conditions of this Water Quality Certification. Please note that enrollment under Order No. 2003-017-DWQ is conditional and, should new information come to our attention that indicates a water quality problem, the San Diego Water Board may issue individual waste discharge requirements at that time.

Except insofar as may be modified by any preceding conditions, all Certification actions are contingent on (a) the discharge being limited to, and all proposed mitigation being completed in strict compliance with, the applicants' Project description and/or the description in this Certification, and (b) compliance with all applicable requirements of the Basin Plan.

I, David W. Gibson, Executive Officer, do hereby certify the forgoing is a full, true, and correct copy of Certification No. R9-2016-0040 issued on July 27, 2016.



DAVID W. GIBSON
Executive Officer
San Diego Water Board

27 July 2016

Date

ATTACHMENT 1

DEFINITIONS

Activity - when used in reference to a permit means any action, undertaking, or project including, but not limited to, construction, operation, maintenance, repair, modification, and restoration which may result in any discharge to waters of the state.

Buffer - means an upland, wetland, and/or riparian area that protects and/or enhances aquatic resource functions associated with wetlands, rivers, streams, lakes, marine, and estuarine systems from disturbances associated with adjacent land uses.

California Rapid Assessment Method (CRAM) - is a wetland assessment method intended to provide a rapid, scientifically-defensible and repeatable assessment methodology to monitor status and trends in the conditions of wetlands for applications throughout the state. It can also be used to assess the performance of compensatory mitigation projects and restoration projects. CRAM provides an assessment of overall ecological condition in terms of four attributes: landscape context and buffer, hydrology, physical structure and biotic structure. CRAM also includes an assessment of key stressors that may be affecting wetland condition and a "field to PC" data management tool (eCRAM) to ensure consistency and quality of data produced with the method.

Compensatory Mitigation Project - means compensatory mitigation implemented by the Applicant as a requirement of this Certification (i.e., applicant -responsible mitigation), or by a mitigation bank or an in-lieu fee program.

Discharge of dredged material – means any addition of dredged material into, including redeposit of dredged material other than incidental fallback within, the waters of the United States and/or State.

Discharge of fill material – means the addition of fill material into waters of the United States and/or State.

Dredged material – means material that is excavated or dredged from waters of the United States and/or State.

Ecological Success Performance Standards – means observable or measurable physical (including hydrological), chemical, and/or biological attributes that are used to determine if a compensatory mitigation project meets its objectives.

Enhancement – means the manipulation of the physical, chemical, or biological characteristics of an aquatic resource to improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Establishment – means the manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist. Creation results in a gain in aquatic resource area.

Fill material – means any material used for the primary purpose of replacing an aquatic area with dry land or of changing the bottom elevation of a water body.

Isolated wetland – means a wetland with no surface water connection to other aquatic resources.

Mitigation Bank – means a site, or suite of sites, where resources (e.g., wetlands, streams, riparian areas) are restored, established, enhanced, and/or preserved for the purpose of providing mitigation for impacts authorized by this Certification.

Preservation - means the removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/ historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/ historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Start of Project Construction - For the purpose of this Certification, "start of Project construction" means to engage in a program of on-site construction, including site clearing, grading, dredging, landfilling, changing equipment, substituting equipment, or even moving the location of equipment specifically designed for a stationary source in preparation for the fabrication, erection or installation of the building components of the stationary source within waters of the United States and/or State.

Uplands - means non-wetland areas that lack any field-based indicators of wetlands or other aquatic conditions. Uplands are generally well-drained and occur above (i.e., up-slope) from nearby aquatic areas. Wetlands can, however, be entirely surrounded by uplands. For example, some natural seeps and constructed stock ponds lack aboveground hydrological connection to other aquatic areas. In the watershed context, uplands comprise the landscape matrix in which aquatic areas form. They are the primary sources of sediment, surface runoff, and associated chemicals that are deposited in aquatic areas or transported through them.

Water quality objectives and other appropriate requirements of state law – means the water quality objectives and beneficial uses as specified in the appropriate water quality control plan(s); the applicable provisions of sections 301, 302, 303, 306, and 307 of the Clean Water Act; and any other appropriate requirement of state law.

Waters of the State - means any surface water or groundwater, including saline waters, within the boundaries of the State. [Water Code section 13050, subd. (e)].

ATTACHMENT 2

LOCATION MAPS AND FIGURES

1. Helix Environmental Planning, Aerial Map, Figure 2
2. Helix Environmental Planning, Jurisdictional Waters and Wetlands, Figure 7
3. Helix Environmental Planning, Impacts to Jurisdictional Waters and Wetlands, Figure 8

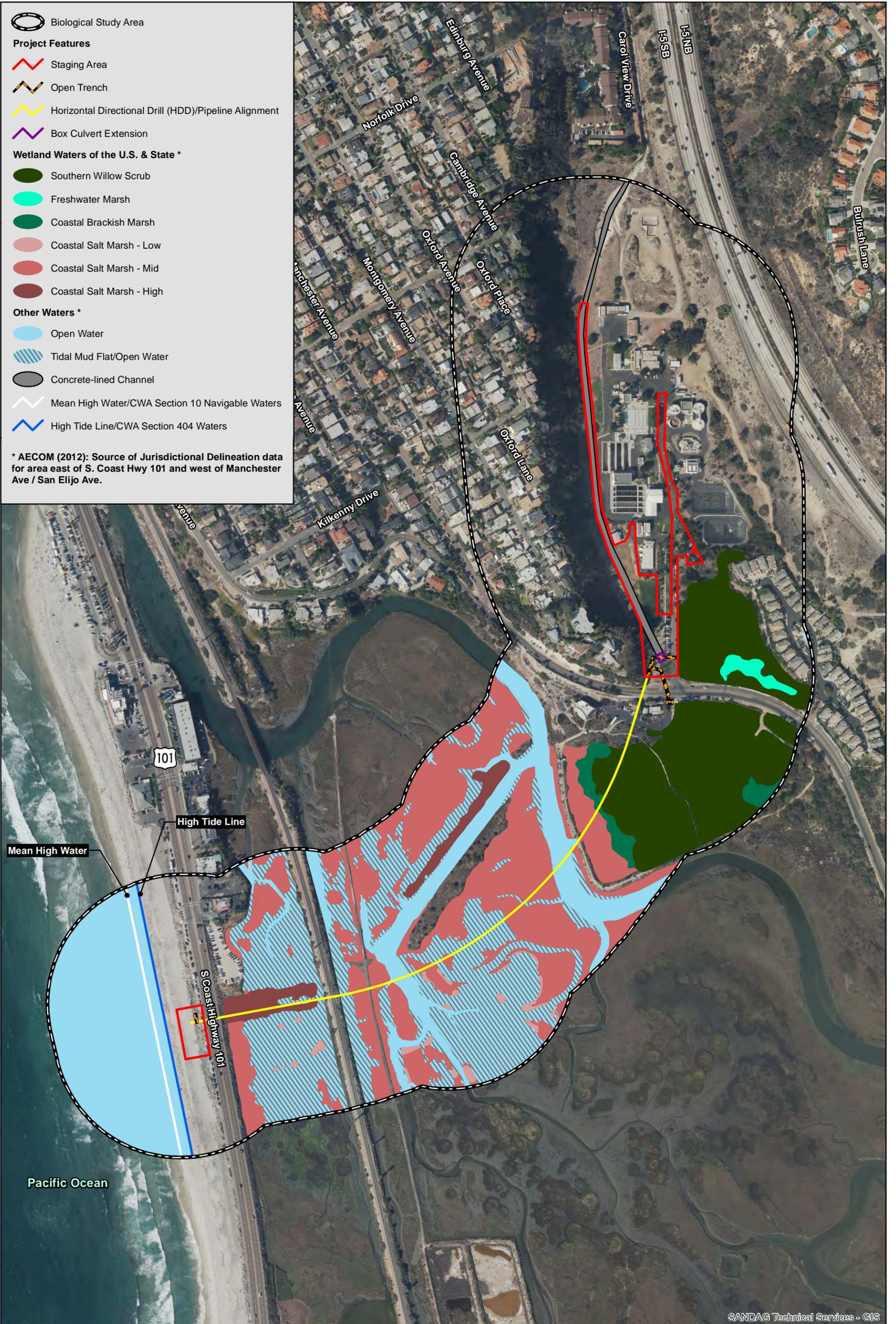


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 Project Alignment

Aerial Map

SAN ELIJO LAND OUTFALL REPLACEMENT



Biological Study Area

Project Features

- Staging Area
- Open Trench
- Horizontal Directional Drill (HDD)/Pipeline Alignment
- Box Culvert Extension

Wetland Waters of the U.S. & State *

- Southern Willow Scrub
- Freshwater Marsh
- Coastal Brackish Marsh
- Coastal Salt Marsh - Low
- Coastal Salt Marsh - Mid
- Coastal Salt Marsh - High

Other Waters *

- Open Water
- Tidal Mud Flat/Open Water
- Concrete-lined Channel
- Mean High Water/CWA Section 10 Navigable Waters
- High Tide Line/CWA Section 404 Waters

* AECOM (2012): Source of Jurisdictional Delineation data for area east of S. Coast Hwy 101 and west of Manchester Ave / San Elijo Ave.

I:\PROJECTS\KIC\KIC-21_SanElijo_LandOutfall\Map\Permitting_Figures\Fig_7_Jurisdictional Waters and Wetlands.mxd KIC-23 11/25/2015 - NG

SANDAG Technical Services - GIS

Jurisdictional Waters and Wetlands

SAN ELIJO LAND OUTFALL REPLACEMENT



I:\PROJECTS\KJC\KJC-21_SanElEljo_LandOutfall\Map\Permitting_Figures\Fig8_Impacts to Jurisdictional Waters and Wetlands.mxd KJC-23 1/19/2016 - NG

Impacts to Jurisdictional Waters and Wetlands

SAN ELIJO LAND OUTFALL REPLACEMENT

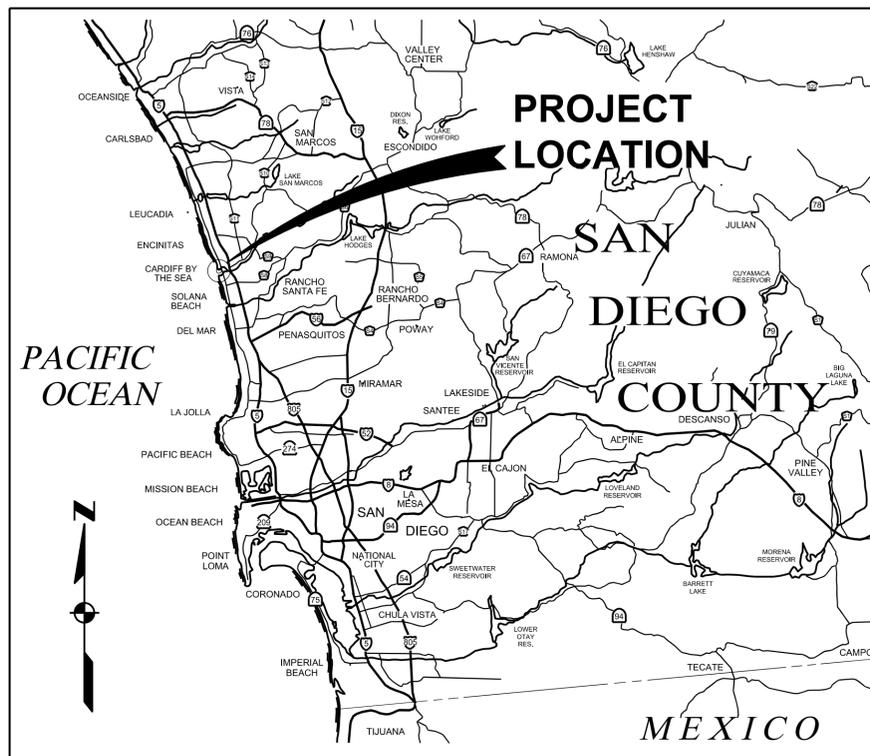
ATTACHMENT 3

PROJECT FIGURES

1. Kennedy/Jenks Consultants, San Elijo Outfall Replacement Project,
Sheets 1-12

SAN ELIJO LAND OUTFALL REPLACEMENT PROJECT

SAN ELIJO JOINT POWERS AUTHORITY, CARDIFF BY THE SEA, CA
JANUARY 2016



VICINITY MAP
0 5 10 MILES (APPROX.)

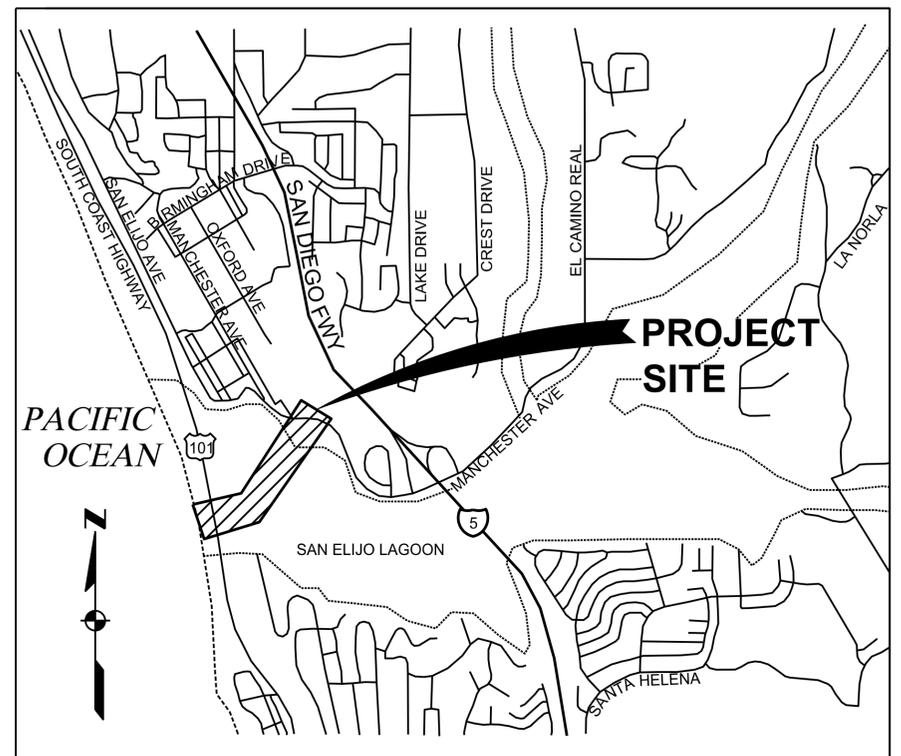
SHEET INDEX

GENERAL SHEETS

- G-1 TITLE SHEET, LOCATION AND VICINITY MAPS
- G-2 LEGEND AND ABBREVIATIONS
- G-3 NOTES - 1
- G-4 NOTES - 2

CIVIL SHEETS

- C-1 KEY PLAN
- C-2 PLAN AND PROFILE STA 0+00 TO 8+50
- C-3 PLAN AND PROFILE STA 8+50 TO 17+50
- C-4 PLAN AND PROFILE STA 17+50 TO 26+88.89
- C-5 PROFILE REGULATOR STRUCTURE TO NEW OUTFALL PIPELINE
- C-6 HDD LAUNCH SITE ENLARGED PLAN
- C-7 HDD RECEIVING SITE ENLARGED PLAN
- C-8 CONTRACTOR STAGING AND STORAGE AREA
- C-9 CONNECTION DETAILS - 1
- C-10 CULVERT DETAILS
- C-11 MISC. DETAILS - 1
- C-12 MISC. DETAILS - 2
- C-13 MISC. DETAILS - 3
- C-14 SAN DIEGO REGIONAL STANDARD DRAWINGS



LOCATION MAP
NTS

BRIAN GLASER 6/9/2005 11:21 AM

P:\2015\1544100_01_SEJPA FINAL Design of Land Outfall Replacement and Permitting\10-Eng\Design\10-02-Contract-Ref\Drawings\K-KU-SIG-TLB-22x34.dwg

Call before you Dig
Avoid cutting underground utility lines. It's costly.

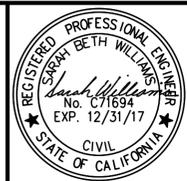
Call
811
OR
1-800-227-2600

**PERMIT SUBMITTAL
NOT FOR CONSTRUCTION**

USE OF DOCUMENTS
THIS DOCUMENT, INCLUDING THE INCORPORATED DESIGNS, IS AN INSTRUMENT OF SERVICE FOR THIS PROJECT AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF KENNEDY/JENKS CONSULTANTS.

NO.	REVISION	DATE	BY

SCALES
0 1"
0 25mm
IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.



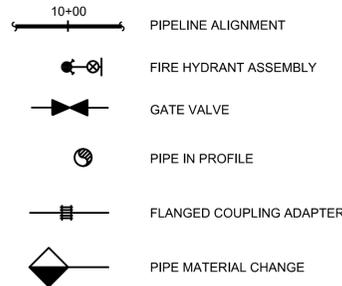
DESIGNED SW
DRAWN BG
CHECKED AS

SAN ELIJO JOINT POWERS AUTHORITY
SAN ELIJO LAND OUTFALL RELACEMENT PROJECT
Kennedy/Jenks Consultants
9665 Granite Ridge Drive, Suite 210 San Diego, CA 92123

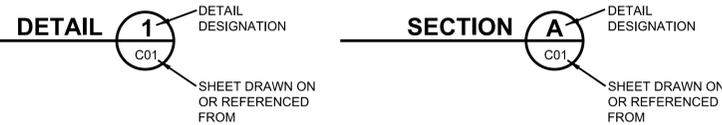
GENERAL
TITLE SHEET, LOCATION AND VICINITY MAPS

JOB NO. 1544100.01
DATE JANUARY, 2016
DRAWING NO. **G-1**
SHEET 1 OF 18

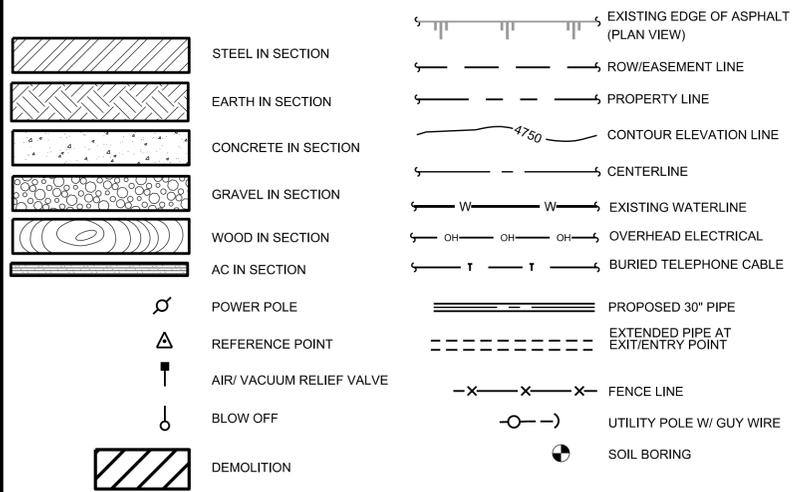
PIPING SYMBOLS



REFERENCE SYMBOLS



GENERAL LEGEND



SURVEY CONTROL POINTS

TOPOGRAPHIC SURVEY WAS PERFORMED BY RIGHT-OF-WAY ENGINEERING, INC. IN MARCH 2015. SURVEY IS DISPLAYED IN STATE PLANE COORDINATE SYSTEM AND NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). SEE C-1 FOR CONTROL POINTS ON MAP.

DESCRIPTION	NORTHING	EASTING	ELEVATION
NO. 1 LEAD AND TACK IN CURB	1 950 127.41	6 248 126.63	21.86
NO. 2 LEAD AND TACK IN CURB	1 950 042.74	6 248 508.90	20.09

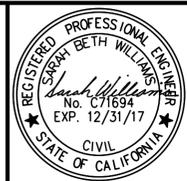
ABBREVIATIONS

ABAND	ABANDONED	H, HT	HEIGHT	T	TELEPHONE
AB, A.B.	AGGREGATE BASE, ANCHOR BOLT	HDD	HORIZONTAL DIRECTIONAL DRILL	T/	TOP
AC, A.C.	ASPHALT CONCRETE	HDPE	HIGH DENSITY POLYETHYLENE	TBM	TEMPORARY BENCHMARK
ACP	ASBESTOS CEMENT PIPE	HORIZ.	HORIZONTAL	T&B	TOP AND BOTTOM
ADDIT.	ADDITIONAL	HTL	HIGH TIDE LINE	T/C, TOC, TC	TOP OF CONCRETE
ADJ.	ADJUSTABLE	ID	INSIDE DIAMETER	TDH	TOTAL DYNAMIC HEAD
AGG	AGGREGATE	IE	INVERT ELEVATION	TEMP	TEMPERATURE
ALUM	ALUMINUM	IN	INCHES	TH	THICKNESS
APPRO.	APPROXIMATELY	INSUL	INSULATION	TOP	TOP OF PAVEMENT
ARCH	ARCHITECTURAL	INV	INVERT	TP	TEST PIT
ASPH	ASPHALT	IPS	IRON PIPE SIZE	TUD	TUOLUMNE UTILITIES DISTRICT
AVG	AVERAGE	L	LENGTH, LINE	T/S, TOS	TOP OF STEEL
ARV	AIR RELEASE VALVE	LL	LIVE LOAD	TYP	TYPICAL
ASSY	ASSEMBLY	LOG	LIP OF GUTTER	T-_P	TYPE ___PIPE
AVRV	AIR/VACUUM RELIEF VALVE	LR	LONG RADIUS	T-_S	TYPE ___SUPPORT
BF	BLIND FLANGE	MAR	MANUAL AIR RELEASE	UD	UNDERDRAIN
BFV	BUTTERFLY VALVE	MAX	MAXIMUM	UNK	UNKNOWN
BLDG	BUILDING	MECH	MECHANICAL	USACE	UNITED STATES ARMY CORP OF ENGINEERS
BM	BEAM, BENCH MARK	MJ	MECHANICAL JOINT	V, VERT	VERTICAL
BO	BLOWOFF	MG	MILLION GALLON	VFD	VARIABLE FREQUENCY DRIVE
BOC	BACK OF CURB	MGD	MILLION GALLONS PER DAY	W	WATER, WELDED, WEST
BOT, BOTT	BOTTOM	MH	MANHOLE	W/	WITH
BV	BALL VALVE	MHW	MEAN HIGH WATER	WCO	WALL CLEANOUT
CALTRANS	(CALIFORNIA DEPARTMENT OF TRANSPORTATION)	MIN	MINIMUM	WMH	WATER MANHOLE
CC, C/C	CENTER TO CENTER	MISC	MISCELLANEOUS	W/O	WITHOUT
CI	CAST IRON	N	NORTH	WTR	WATER
CL, C	CENTERLINE	(N)	NEW	WS	WATER SURFACE
CLSM	CONTROLLED LOW STRENGTH MATERIAL	N.F.C.	NOT FOR CONSTRUCTION	WWF	WELDED WIRE FABRIC
CO	CLEANOUT	N/A	NOT APPLICABLE	#	POUND, NUMBER
COL	COLUMN	NGVD	NATIONAL GEODETIC VERTICAL DATUM	&	AND
CONC	CONCRETE	NIC	NOT IN CONTRACT	@	AT
CONN	CONNECTION	NO.	NUMBER		
CONST	CONSTRUCTION	NPT	NATIONAL PIPE THREAD		
CONT	CONTINUED, (OUS)	NTS	NOT TO SCALE		
CP	CONTROL POINT, CATHODIC PROTECTION				
CPLG	COUPLING				
CTS	CATHODIC TEST STATION				
D	DRAIN	OC	ON CENTER		
DEFL	DEFLECTION	OD	OUTSIDE DIAMETER		
DEPT	DEPARTMENT				
DI	DUCTILE IRON	PC	POINT OF CURVE (BEGIN CURVE)		
DIA, Ø	DIAMETER	PG	PRESSURE GAUGE		
DIM	DIMENSION	PI	POINT OF INTERSECTION		
DIP	DUCTILE IRON PIPE	PL	PLATE		
DL	DEADLOAD	P/L	PROPERTY LINE		
DR	DIAMETER RATIO	PRES(S)	PRESSURE		
DWG(S)	DRAWING(S)	PRV	PRESSURE RELEASE VALVE, PRESSURE REDUCING VALVE		
(E)	EXISTING	PSF	POUNDS PER SQUARE FOOT		
E	ELECTRICAL, EAST	PSI	POUNDS PER SQUARE INCH		
EA	EACH	PT	POINT OF TANGENT (END CURVE)		
ECC	ECCENTRIC	PVC	POLYVINYL CHLORIDE		
EG	EXISTING GROUND	R	RADIUS		
EF	EACH FACE	RCP	REINFORCED CONCRETE PIPE		
EL, ELEV	ELEVATION	RED	REDUCER		
ELL	ELBOW	REINF	REINFORCE(D), (MENT)		
ELEC(T)	ELECTRIC(AL)	REQD	REQUIRED		
EPB	ELECTRICAL PULL BOX	R/W	RIGHT OF WAY		
EQ	EQUAL	S	SEWER, SOUTH		
EXIST, EX	EXISTING	SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION		
EW	EACH WAY	SD	STORM DRAIN		
FC	FLEXIBLE COUPLING	SDMH	STORM DRAIN MANHOLE		
FCA	FLANGE COUPLING ADAPTER	SECT	SECTION		
FH	FIRE HYDRANT	SF	SQUARE FOOT		
FIN	FINISH(ED)	SHT	SHEET		
FL	FLOW LINE	SPEC	SPECIFICATION(S)		
FLR	FLOOR	SQ	SQUARE		
FLG	FLANGE	SS	STAINLESS STEEL, SANITARY SEWER		
FLEX	FLEXIBLE	STA	STATION		
FPVC	FUSIBLE POLYVINYL CHLORIDE	STD	STANDARD		
FT	FOOT	ST(L)	STEEL		
FTG	FOOTING	STR(UCT)	STRUCTUR(E), (AL)		
G	GAS	SV	SOLENOID VALVE		
GA	GAUGE	SYS	SYSTEM		
GALV	GALVANIZED				
GB	GRADE BREAK				
GI	GALVANIZED IRON				
GPM	GALLONS PER MINUTE				
GS	GALVANIZED STEEL				
GV	GATE VALVE				

**PERMIT SUBMITTAL
NOT FOR CONSTRUCTION**

USE OF DOCUMENTS
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NO.	REVISION	DATE	BY



DESIGNED: SW
DRAWN: BG
CHECKED: AS

SAN ELIJO JOINT POWERS AUTHORITY
SAN ELIJO LAND OUTFALL RELACEMENT PROJECT
Kennedy/Jenks Consultants
9665 Granite Ridge Drive, Suite 210 San Diego, CA 92123

**GENERAL
LEGEND AND ABBREVIATIONS**

JOB NO. 1544100.01
DATE JANUARY, 2016
DRAWING NO. **G-2**
SHEET 2 OF 18

GENERAL NOTES

- THIS PROJECT CROSSES THE CITY OF ENCINITAS RIGHT OF WAY. CONTRACTOR SHALL CONFORM TO CITY OF ENCINITAS ENCROACHMENT PERMIT AND REQUIREMENTS.
- THE KNOWN EXISTING BURIED UTILITIES AND PIPELINES ARE SHOWN ON THE DRAWINGS IN THEIR APPROXIMATE LOCATION PER AS-BUILT DRAWINGS. THE CONTRACTOR SHALL "POTHOLE" TO DETERMINE THE ACTUAL LOCATION AND ELEVATION OF ALL EXISTING UTILITIES CROSSING NEW PIPELINES WITHIN 5' AND SUBMIT POTHOLING REPORT TO ENGINEER INDICATING LOCATION, DEPTH AND MATERIAL PRIOR TO EXCAVATION AND HDD.
- NOTIFY ENGINEER AND OWNER A MINIMUM OF 14 DAYS IN ADVANCE PRIOR TO MAKING CONNECTIONS TO THE EXISTING PIPELINE.
- THE CONTRACTOR IS RESPONSIBLE FOR ASSURING THAT ALL PIPELINES, VALVES AND FITTINGS ARE ADEQUATELY RESTRAINED AGAINST JOINT SEPARATION. WHETHER RESTRAINT IS SHOWN ON THE DRAWINGS OR NOT. PROVIDE RESTRAINED JOINTS FOR ALL HORIZONTAL BENDS, WYES, AND BLIND FLANGES AND FOR ALL VERTICAL BENDS. THRUST BLOCK SHOULD BE USED IF INDICATED ON DRAWINGS. IF THRUST BLOCK IS NOT SHOWN, THEN RESTRAINED JOINT SHALL BE USED.
- THE CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL ITEMS DISTURBED DURING CONSTRUCTION BACK TO THEIR ORIGINAL OR BETTER CONDITION.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A REDLINE MARKUP OF AS-CONSTRUCTED DRAWINGS WITHIN 6 WEEKS OF COMPLETION OF THE PROJECT.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING DETAILED DEWATERING PLAN AND ANY REQUIRED DEWATERING AND DISCHARGE PERMITS. THE CONTRACTOR IS RESPONSIBLE FOR ALL ACTIVITIES RELATED TO ADHERENCE TO THE DISCHARGE PERMITS, INCLUDING ANY REQUIRED TESTING AND TREATMENT.
- CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PLANS FOR THE WORK IN MANCHESTER AVE. AND AS REQUIRED BY THE CITY OF ENCINITAS. PLANS SHALL BE SUBMITTED TO THE CITY OF ENCINITAS BY CONTRACTOR AND PLANS ARE SUBJECT TO APPROVAL BY CITY OF ENCINITAS.
- MAINTENANCE OF THE WORK AREA AND ACCESS ROUTES IS THE RESPONSIBILITY OF THE CONTRACTOR. THE WORK AREA AND ACCESS ROUTES SHALL BE MAINTAINED IN A CLEAN CONDITION, FREE FROM OBSTRUCTIONS AND HAZARDS.
- CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING IN THE VICINITY OF OVERHEAD POWER AND COMMUNICATION FACILITIES IN THE WORK AREA.
- EFFECTIVE EROSION CONTROL, DUST CONTROL AND DRAINAGE CONTROL IS REQUIRED AT ALL TIMES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PROTECTION OF ALL WORK AREAS AND DOWNSTREAM FACILITIES FROM EROSION AND SILTATION DURING THE COURSE OF THE WORK. ANY EROSION OR SILTATION DAMAGE RESULTING FROM WORK SHALL BE CORRECTED AT THE SOLE EXPENSE OF THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR PROVIDING STORM WATER POLLUTION PREVENTION PLAN AND EROSION AND SEDIMENTATION CONTROL PLANS.
- EROSION CONTROL SHALL BE KEPT IN PLACE UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED.
- DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE WORK AREA BOUNDARY SHALL BE PERMITTED (EXCEPT FOR TEMPORARY TRAFFIC CONTROL FACILITIES). IF A WORK AREA BOUNDARY IS NOT SHOWN THEN THE WORK AREA BOUNDARY SHALL BE NO FURTHER THAN 8 FEET FROM THE CENTERLINE OF THE OPEN TRENCHED PIPE AND CONTRACTOR SHALL STAY WITHIN THE WORK AREA. EXISTING LANDSCAPING AND OTHER IMPROVEMENTS, IF DISTURBED, SHALL BE RESTORED TO EXISTING CONDITIONS.
- EXISTING OUTFALL PIPELINE AND CARDIFF PUMP STATION FORCE MAIN ARE ASBESTOS CEMENT (AC) PIPE MATERIAL. EXTREME CAUTION SHOULD BE USED WHEN WORKING WITH AC PIPE MATERIAL AND CONTRACTOR SHALL FOLLOW ALL GUIDELINES FOR WORKING ON AND DISPOSAL OF AC PIPE AS OUTLINED IN OSHA, FEDERAL, STATE AND LOCAL STANDARDS.
- CONTRACTOR SHALL SUBMIT BID FOR OUTFALL PIPE MATERIAL OF HDPE OR FUSIBLE PVC ADHERING TO THE FOLLOWING:

MATERIAL	NOMINAL SIZE (IN)	DIAMETER RATIO	OUTSIDE DIAMETER (IN)	MIN WALL THICKNESS (IN)	AVERAGE ID (IN)	SPEC SECTION
HDPE	HDPE	DR 11	36	3.27	29.06	02510
fPVC	fPVC	DR 25	32	1.28	29.29	15065

NOTE: 30" NOTATION ON DRAWINGS REFERS TO APPROXIMATE INSIDE DIAMETER, UNLESS OTHERWISE NOTED.

- THE SUBMISSION AND REVIEW OF ALL SUBMITTALS (ELECTRONIC SUBMITTAL) AS REQUIRED BY THE STANDARD SPECIFICATIONS ARE TO BE ACCOMPLISHED PRIOR TO THE PRE-CONSTRUCTION MEETING WITH THE OWNER'S INSPECTOR.
- CONTRACTOR SHALL REVIEW ALL PROPOSED TRENCH WORK WITH CAL/OSHA. A COPY OF EXEMPTION LETTER OR TRENCHING PERMIT, IF REQUIRED, SHALL BE SUBMITTED TO THE OWNER PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES INCLUDING SHORING, AND SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND WILL NOT BE LIMITED TO NORMAL WORKING HOURS.
- THE CONTRACTOR MUST CALL "DIG ALERT OF SOUTHERN CALIFORNIA" TO HAVE UNDERGROUND SERVICE UTILITIES LOCATED PRIOR TO CONSTRUCTION. THIS CALL WILL BE MADE AT LEAST 2 WORKING DAYS PRIOR TO ANY EXCAVATION BEING PERFORMED IN PUBLIC RIGHT-OF-WAY OR UTILITY EASEMENTS. (DIG ALERT PHONE: 811)
- THE CONTRACTOR SHALL FIELD VERIFY THE DEPTHS OF EXISTING SEWER MAINS THAT CROSS UNDER, AND WITHIN 3 FEET OF, THE PROPOSED PIPELINE BY MEASURING THE DEPTH TO INVERT OF EACH NEAREST MANHOLE LOCATED ON SIDE OF THE PROPOSED PIPELINE.
- THE CONTRACTOR SHALL PROTECT EXISTING UTILITIES THAT CROSS OR PARALLEL THE PROPOSED WORK IN ACCORDANCE WITH THE STANDARDS OF THE UTILITY OWNER, SAN DIEGO REGIONAL STANDARDS OR THE STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTIONS. THE METHOD OF UTILITY SUPPORT OR PROTECTION SHALL BE APPROVED BY THE OWNER. THE MINIMUM VERTICAL SEPARATION BETWEEN CROSSING UTILITIES SHALL BE 1 FOOT UNLESS OTHERWISE APPROVED BY THE OWNER.

GENERAL NOTES CONT.

- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES REQUIRED TO PROTECT ADJACENT PROPERTIES AND IMPROVEMENTS DURING ALL PROJECT OPERATIONS. DAMAGED OR DESTROYED ITEMS SHALL BE REPAIRED OR REPLACED TO THE CONDITION EXISTING PRIOR TO WORK BY THE CONTRACTOR AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MONUMENTATION AND/OR BENCHMARKS WHICH WILL BE DISTURBED OR DESTROYED BY CONSTRUCTION. SUCH POINTS SHALL BE REFERENCED AND REPLACED WITH APPROPRIATE MONUMENTATION BY A LICENSED LAND SURVEYOR OR A REGISTERED CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED BY THE LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER AS REQUIRED BY THE LAND SURVEYOR'S ACT. THE CONTRACTOR SHALL PROTECT ALL EXISTING SURVEY MONUMENTS THAT ARE LOCATED WITHIN 10 FEET OF THE CENTERLINE OF CONSTRUCTION BY COVERING THE MONUMENTS WITH 1-INCH THICK STEEL PLATE DURING EXCAVATION AND BACKFILL OPERATIONS OR SHALL EMPLOY ALTERNATIVE PROTECTION MEASURES NECESSARY TO AVOID DISTURBANCE OR DAMAGE TO THE MONUMENTS. ALTERNATIVE PROTECTION MEASURES SHALL BE SUBMITTED FOR OWNER REVIEW AND APPROVAL IN ACCORDANCE WITH SECTION 01300. THE CAP OF ANY MONUMENT WITHIN THE WORK AREA SHALL BE RAISED TO MATCH FINISHED GRADE.
- THESE DOCUMENTS HAVE BEEN PREPARED FOR A SPECIFIC PROJECT AND SHALL NEITHER BE ALTERED NOR REUSED FOR ANY OTHER PURPOSE. ALSO, THESE DOCUMENTS DO NOT REPRESENT AS-BUILT CONDITIONS. IF THESE DOCUMENTS ARE ALTERED INTENTIONALLY OR UNINTENTIONALLY, OR REUSED WITHOUT THE DESIGN ENGINEER'S WRITTEN APPROVAL, IT WILL BE AT THE SOLE RISK AND RESPONSIBILITY OF THE USER. THE ACT OF ALTERING OR REUSING IS CONSTRUED AS INDEMNIFYING AND HOLDING THE DESIGN ENGINEERING FIRM AND ITS EMPLOYEES HARMLESS FROM ALL CLAIMS, DAMAGES, AND EXPENSES, INCLUDING ATTORNEY FEES, ARISING OUT OF SUCH ACT.
- CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION STAGING AREAS WITH THE SAN ELIJO JOINT POWERS AUTHORITY AT LEAST 14 DAYS PRIOR TO MOBILIZATION.
- ALL SURPLUS EXCAVATED SOIL AND DEBRIS SHALL BE LEGALLY DISPOSED OFF SITE. ALL COSTS FOR TRANSPORTATION AND DISPOSAL SHALL BE INCLUDED IN THEIR APPURTENANT ITEMS OF WORK. CONTRACTOR SHALL DEVELOP HIS/HER OWN APPROXIMATE EARTHWORK QUANTITIES ESTIMATES FOR BIDDING PURPOSES.
- THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE SAN ELIJO JOINT POWERS AUTHORITY, KENNEDY/JENKS CONSULTANTS, ITS EMPLOYEES, OFFICERS, AGENTS, OR SUBCONSULTANTS HARMLESS AGAINST ANY AND ALL CLAIMS BY ANY PARTIES ARISING FROM, OR RELATED TO, ANY AND ALL DAMAGES, INCLUDING LEGAL COSTS AND ATTORNEY'S FEES, RESULTING FROM INTERFERENCE WITH, INTERRUPTION OF, DAMAGE TO, OR ANY AND ALL INJURIES WHICH RESULT FROM DAMAGE CAUSED TO SUBSURFACE INSTALLATION, WHICH IS UNFORSEEN AND DESPITE ENGINEER'S EFFORT DURING THE DESIGN PROCESS WAS NOT LOCATED, EXCEPTING ONLY THE GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF THE ENGINEER IN PROVIDING ITS SERVICES.
- BEST MANAGEMENT PRACTICES (BMPs) TO CONTAIN ACCIDENTAL SPILLS OF HAZARDOUS MATERIALS SHALL BE UTILIZED WHEN PERFORMING MOBILE OR STATIONARY VEHICLE MAINTENANCE OR REFUELING.
- ALL STOCKPILING AND/OR STAGING AREAS DURING CONSTRUCTION SHALL BE LOCATED AS FAR AS PRACTICAL FROM WATER BODIES.
- THE CONTRACTOR SHALL CONTROL DUST TO A NON-NUISANCE LEVEL, AS DETERMINED BY THE ENGINEER, BY APPLICATION OF WATER AND/OR OTHER DUST PALLIATIVES ON ALL DISTURBED AREAS. WATER SHALL NOT BE APPLIED AT A RATE RESULTS IN SURFACE RUNOFF.
- TEMPORARY SILT FENCE SHALL BE INSTALLED TO ENCOMPASS THE LIMITES OF PROJECT IMPACT AREAS (INCLUDING CONSTRUCTION STAGING AREAS AND ACCESS ROUTES) TO PREVENT HABITAT IMPACTS AND PREVENT THE SPREAD OF SILT FROM THE CONSTRUCTION ZONE INTO ADJACENT HABITATS TO BE AVOIDED. ADDITIONALLY, ALL EMPLOYEES OR CONTRACTORS SHALL STRICTLY LIMIT THEIR ACTIVITIES, VEHICLES EQUIPMENT AND CONSTRUCTION MATERIALS TO THE FENCED PROJECT FOOTPRINT. THE TEMPORARY SILT FENCE SHALL BE REMOVED UPON PROJECT COMPLETION.
- WHERE FEASIBLE, THE CONTRACTOR SHALL COVER SOIL STOCKPILES AND EXPOSED (GRADED) SLOPES WITH PLASTIC SHEETING DURING PREDICTED OR ACTUAL INCLEMENT WEATHER CONDITIONS.
- THE CONTRACTOR SHALL PLACE A SILT CURTAIN OR OTHER DRAINAGE CONTROL DEVICE AROUND CONSTRUCTION AREAS TO PROTECT NATURAL DRAINAGE CHANNELS FROM SEDIMENTATION.
- CONTRACTOR SHALL COORDINATE WITH ESCONDIDO & SEJPA FOR SHUT DOWN TO CONNECT TO ESCONDIDO REGULATOR STRUCTURE.

PROJECT OWNERSHIP AND CITY JURISDICTIONS

- ANY USE OF EQUIPMENT UNDER SDG&E LINES SHALL MAINTAIN SDG&E MANDATED MINIMUM SAFETY CLEARANCE FROM THE LINES.
- ALL SEWER, FORCEMAIN, AND SEWER PUMP STATION SHUTDOWNS SHALL BE REQUESTED OF, AND COMPLETED PER THE REQUIREMENTS OF, SEJPA. SEVEN CALENDAR DAYS MINIMUM NOTICE IS REQUIRED.

TIDAL LEVELS, GROUNDWATER, WATER SUPPLY, AND WATER DISPOSAL

- THE CONTRACTOR SHALL NOT BE COMPENSATED ADDITIONALLY FOR ANY CONSTRUCTION RELATED ACTIVITIES NECESSARY TO COMPENSATE FOR VARYING TIDES OR SURFACE AND GROUNDWATER LEVELS.
- UP TO 400,000 GALLONS ONE TIME OF GROUNDWATER FROM DEWATERING, WASTEWATER DRAINED FROM EXISTING PIPELINES TO BE REPLACED, PRESSURE TEST WATER, AND OTHER PROJECT WATERS NEEDING DISPOSAL DURING THE PROJECT MUST FIRST BE DE-SILTED AND MAY THEN BE PUMPED OR TRUCKED FOR DISPOSAL TO THE WESTERLY OUT-OF-SERVICE AERATION BASIN AT THE SEJPA PLANT. SEJPA STAFF WILL PUMP DEPOSITED WATER INTO THE SEJPA PLANT FOR TREATMENT & DISPOSAL. CONTRACTOR SHALL REMOVE AND DISPOSE OF ANY SEDIMENT REMAINING IN THE AERATION BASIN LEAVING THE BASIN THE ORIGINAL FOUND CONDITION.
- DISPOSAL OF PROJECT WATERS TO SEWERS OR SEWER PUMP STATIONS SHALL NOT BE ALLOWED.
- CONTRACTOR MAY AT THEIR OWN COST AND EFFORT ADDITIONALLY ACQUIRE A RWQCB NPDES PERMIT AND COMPLY WITH THOSE PERMIT CONDITIONS FOR DISCHARGE OF GROUNDWATER TO THE SAN ELIJO LAGOON. THERE IS NO ASSURANCE FROM THE OWNER REGARDING ISSUANCE, COST, TIMING, OR REQUIREMENTS OF SUCH A PERMIT.
- GROUNDWATER DEWATERING DISCHARGE SHALL BE ROUTED THROUGH PROPERLY SIZED DESILTING TANKS, AS SUBMITTED BY THE CONTRACTOR FOR APPROVAL BY THE ENGINEER.

ENVIRONMENTAL NOTES

- HABITAT CONDITIONS IN THE VICINITY OF THE PROJECT PIPELINE CORRIDOR MAY BE SUITABLE FOR SPECIAL-STATUS BIRD SPECIES. IN THE EVENT THAT CONSTRUCTION OCCURS DURING THE GENERAL BIRD BREEDING SEASON (JANUARY 15 TO SEPTEMBER 13), THE OWNER WILL RETAIN A QUALIFIED BIOLOGIST TO PERFORM PRE-CONSTRUCTION SURVEYS AND IDENTIFY ANY ACTIVE BIRD NESTS IN THIS AREA. IF NESTING BIRDS ARE FOUND, THE CONTRACTOR SHALL RE-CONFIGURE HIS PROJECT SCHEDULE TO AVOID THE NESTING AREA(S) UNTIL SUCH TIME AS THE BIOLOGIST DEEMS IT APPROPRIATE TO RETURN, OR CONTRACTOR WILL BE REQUIRED TO IMPLEMENT NOISE MITIGATION. NO EXTENSION OF THE OVERALL PROJECT DURATION WILL BE ALLOWED.

CITY OF ENCINITAS NOTES

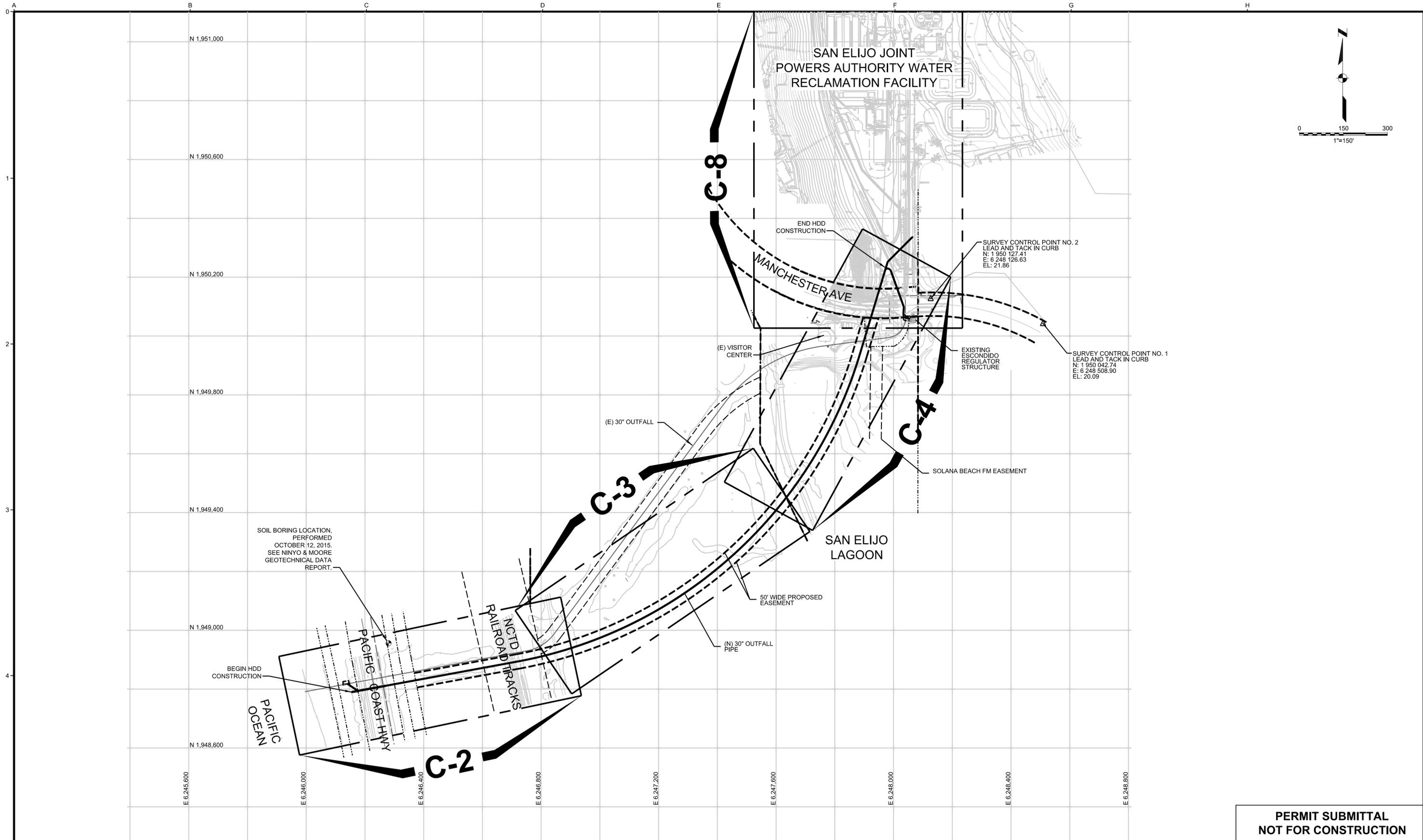
- CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE AND THE CITY OF ENCINITAS FIRE DEPARTMENT, FIRE PREVENTION AT 760-633-2820 AT LEAST 72 HOURS IN ADVANCE OF ANY STREET CLOSURES OR POTABLE WATERLINE SHUTDOWNS. CONTRACTORS SHALL CONTACT COUNTY OF SAN DIEGO SHERIFF'S DEPARTMENT, ENCINITAS STATION AT 760-966-3500 AT LEAST 72 HOURS IN ADVANCE OF ANY STREET CLOSURES OR DETOURS.
- CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE AND THE CITY OF ENCINITAS FIRE DEPARTMENT, FIRE PREVENTION AT 760-633-2820 AT LEAST 72 HOURS IN ADVANCE OF WORK IN MANCHESTER DRIVE. DRIVEWAY ACCESS SHALL BE MAINTAINED CLEAR AND UNOBSTRUCTED AT ALL TIMES.

ASBESTOS MITIGATION NOTES

- ASBESTOS MATERIALS ARE EXPECTED TO BE ENCOUNTERED DURING THE EXCAVATION WORK FOR THIS CONTRACT. EXISTING OUTFALL AND CARDIFF PUMP STATION FORCE MAIN CONTAIN ASBESTOS CEMENT MATERIALS (ACM).
- WHERE KNOWN, THE DRAWINGS INDICATE LOCATION OF ASBESTOS CEMENT PIPE (ACP). HOWEVER, OTHER AREAS AND UTILITIES MAY ALSO CONTAIN ACM.
- PURSUANT TO THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARD IN CFR 1926.1101, THE SEJPA IS TO NOTIFY THE AUTHORIZED REPRESENTATIVE OF ALL CONTRACTORS, SUBCONTRACTORS AND LABOR UNIONS WORKING ON SITE, EITHER IN WRITING OR BY PERSONAL COMMUNICATION OF THE PRESENCE, LOCATION AND QUANTITY OF ASBESTOS CEMENT MATERIALS (ACM) IN THE WORK AREA. IN ADDITION, THE SEJPA SHALL NOTIFY (EITHER VERBALLY OR IN WRITING) THOSE CONTRACTORS, SUBCONTRACTORS AND LABOR UNIONS WORKING ADJACENT TO THE AREA IN WHICH ACMs ARE BEING REMOVED.
- THE SEJPA IS RESPONSIBLE TO NOTIFY ONLY THE ONSITE REPRESENTATIVE OF EACH CONTRACTOR, SUBCONTRACTOR AND LABOR UNION. IT IS THEN THE RESPONSIBILITY OF EACH CONTRACTOR, SUBCONTRACTOR, AND LABOR UNION TO PASS THE INFORMATION TO ITS EMPLOYEES. WITH THE ATTACHED DRAWINGS INDICATING EXISTING ACM, THE CONTRACTOR AND SUBCONSULTANTS ARE HEREBY NOTIFIED.
- THE CONTRACTOR SHALL RETAIN AN ASBESTOS MITIGATION CONSULTANT (AMC) FOR USE WITH THIS WORK. THE CONTRACTOR SHALL ALSO HIRE A MITIGATION CONTRACTOR (MC) TO DO THE ACTUAL WORK ASSOCIATED WITH CUTTING, BREAKING AND REMOVAL OF THE ACM FROM THE SITE.
- ACM MITIGATION WORK APPROACH - THE WORK REQUIRED TO MITIGATE ACM ON THE PROJECT SHALL MEET THE FOLLOWING REQUIREMENTS.
 - PRIOR TO WORK AROUND A KNOWN ACM SOURCE THE CONTRACTOR SHALL NOTIFY THE SEJPA OF ITS SCHEDULE FOR WORKING NEAR THE SOURCE. NOTIFICATION SHALL BE 48 HOURS IN ADVANCE OF ANY WORK NEAR THE ACM.
 - IF ACM IS FOUND OR SUSPECTED TO BE ENCOUNTERED DURING EXCAVATIONS FOR UTILITIES THE CONTRACTOR SHALL STOP WORK IN THAT AREA AND NOTIFY THE SEJPA AS INDICATED ABOVE.
 - EXCAVATION IN THE VICINITY OF THE ACM, UNDER OBSERVATION OF THE AMC, SHALL PROCEED SLOWLY AND CAREFULLY TO AVOID DAMAGE TO THE ACM. EXCAVATION WITHIN THE LAST TWO FEET OF THE ACM SHALL BE PERFORMED BY HAND.
 - UPON FINDING THE ACM, THE CONTRACTOR SHALL EXPOSE THE ACM WITHIN THE AREA OF WORK REQUIRING THE ACM REMOVAL.
 - ONCE EXPOSED THE CONTRACTOR SHALL PROVIDE LABOR AND EQUIPMENT TO BREAK ANY ENCASEMENT AROUND THE ACM INTO MANAGABLE LENGTHS, AND SEPARATE OR BREAK ANY ENCASED ACM INTO MANAGEABLE LENGTHS AS DEFINED BY THE AMC.
 - IF REQUIRED BY THE AMC THE MC SHALL BE CALLED IN TO CUT THE ACM INTO LENGTHS AND OR BREAK THE ACM INTO SMALLER PIECES AS DEFINED BY THE AMC.
 - THE CONTRACTOR SHALL ALSO PROVIDE EQUIPMENT AND LABOR NEEDED TO RAISE THE CUT OR BROKEN SECTIONS OF ACM OUT OF THE TRENCH OR MANHOLE, WHILE THE MC 'BAGS' THE ACM AND PREPARES IT FOR DISPOSAL.
 - THE CONTRACTOR SHALL ALSO PROVIDE THE NECESSARY EQUIPMENT AND LABOR FOR THE FINAL LOADING FOR OFFSITE SHIPMENT OF THE BAGGED ACM.
 - CONTRACTOR IS RESPONSIBLE FOR DISPOSING ACM IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REQUIREMENTS

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							DRAWN				DATE
							BG				JANUARY, 2016
							CHECKED				DRAWING NO.
							AS	Kennedy/Jenks Consultants			G-3
								9665 Granite Ridge Drive, Suite 210 San Diego, CA 92123			SHEET 3 OF 18

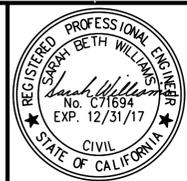


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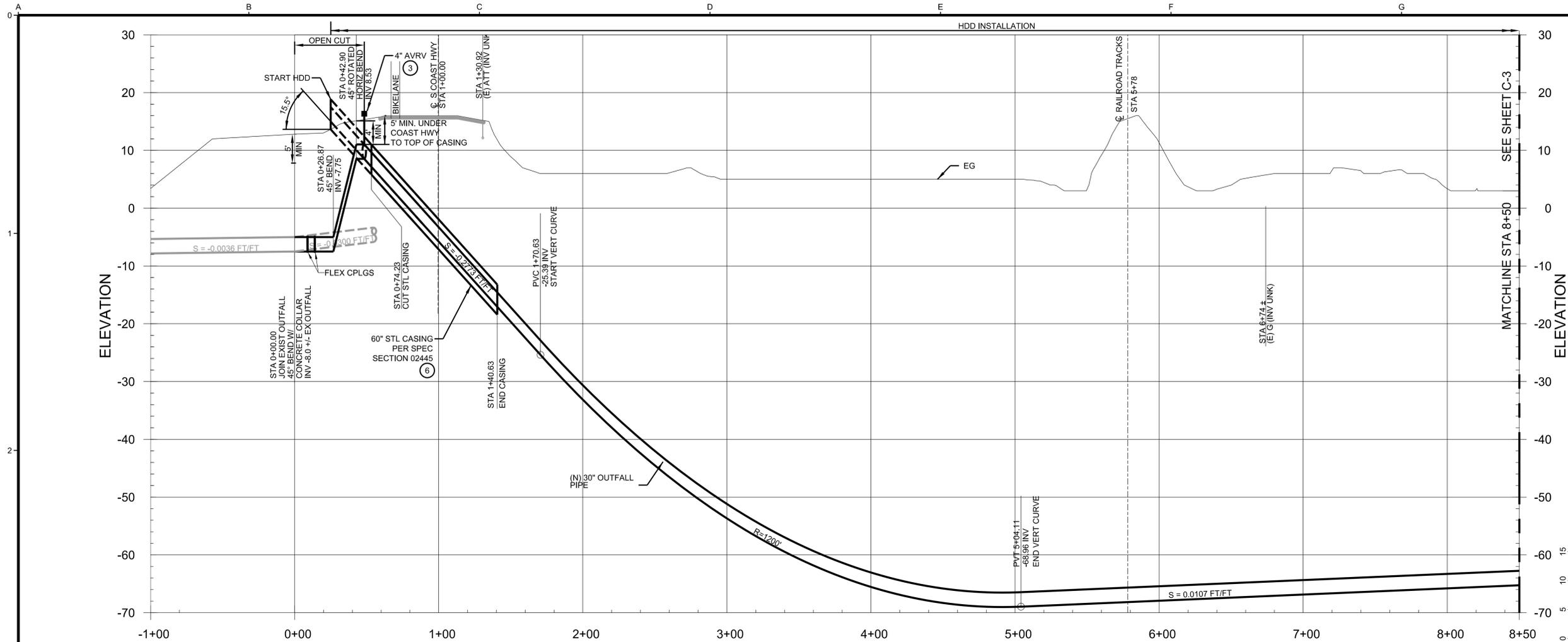


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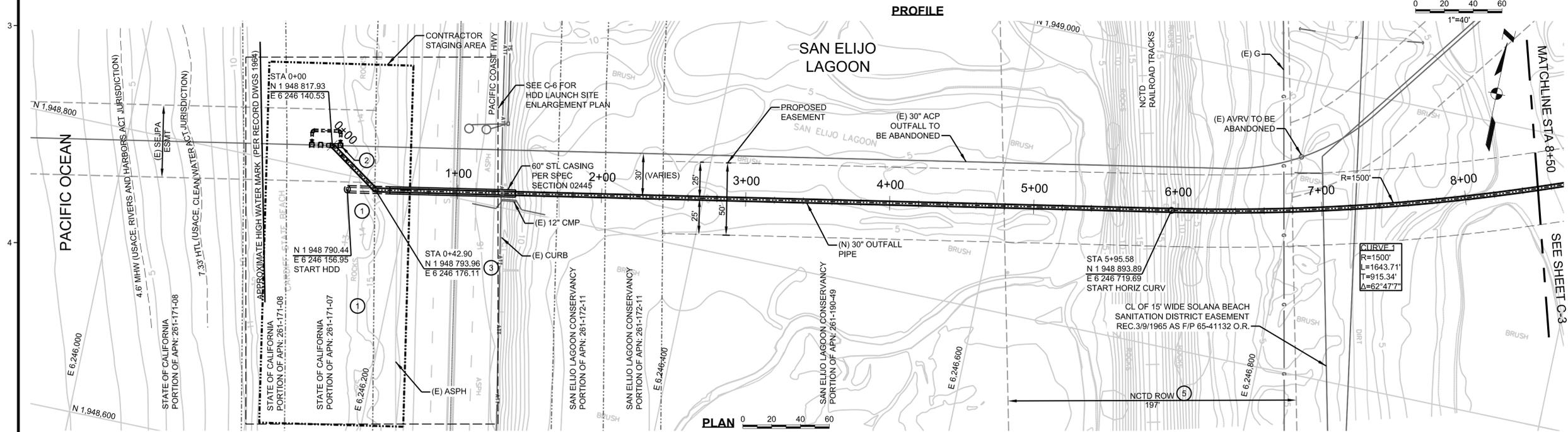
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**CIVIL
KEY PLAN**

JOB NO. 1544100.01
DATE JANUARY, 2016
DRAWING NO. **C-1**
SHEET 5 OF 18



- NOTES:**
- CONTRACTOR TO REMOVE EXISTING LARGE ROCKS ON SURFACE TO EXTENT NECESSARY TO PERFORM WORK AND STOCKPILE. UPON COMPLETION OF WORK, CONTRACTOR SHALL RESTORE TO ORIGINAL CONDITIONS.
 - AFTER INSTALLATION OF NEW OUTFALL AND CONNECTIONS HAVE BEEN COMPLETED, INSPECTED AND ACCEPTED BY OWNER FOR USE, CAP UPSTREAM END OF EXISTING AC PIPELINE WITH CONCRETE PLUG.
 - CONTRACTOR SHALL FURNISH AND INSTALL 4\"/>

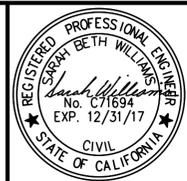


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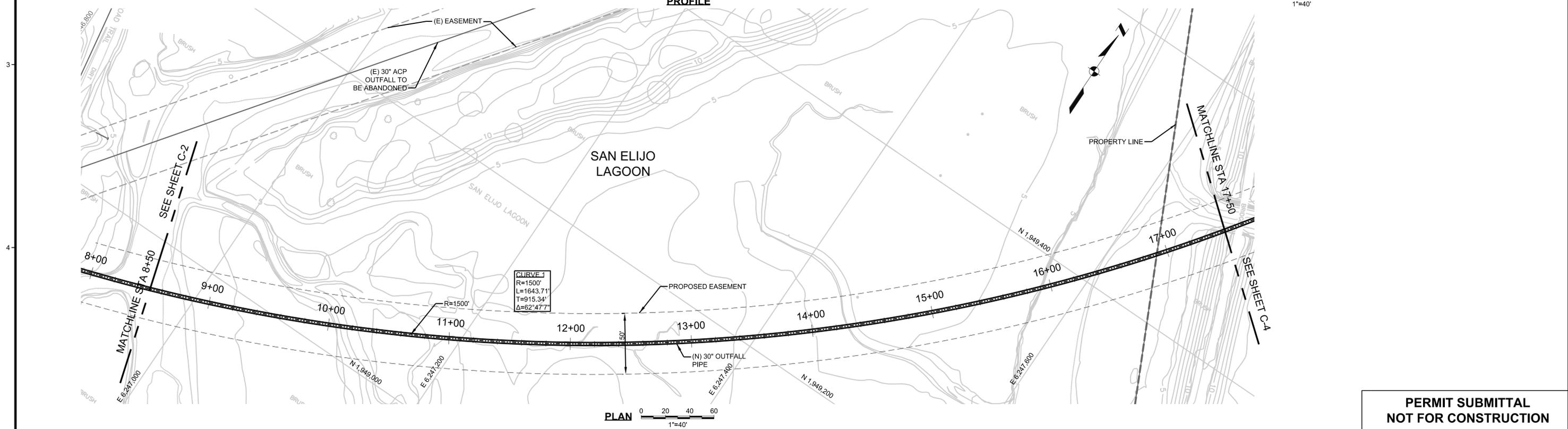
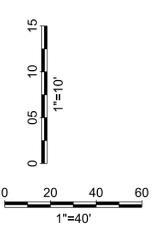
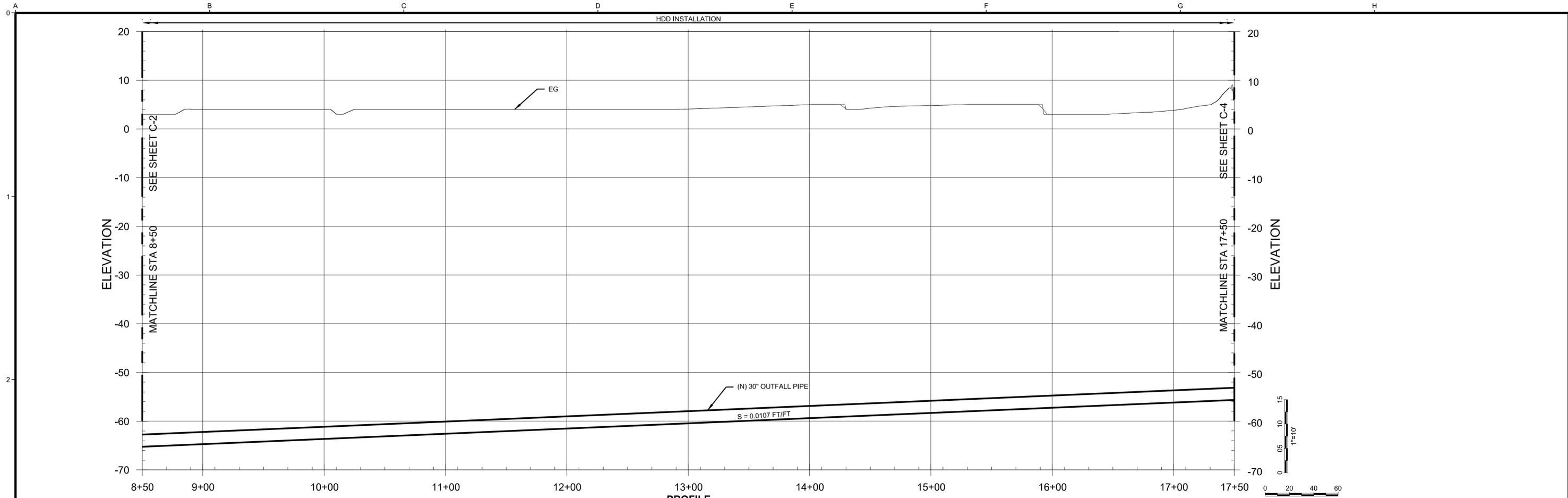


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CIVIL
**PLAN AND PROFILE
STA 0+00 TO 8+50**

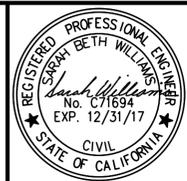
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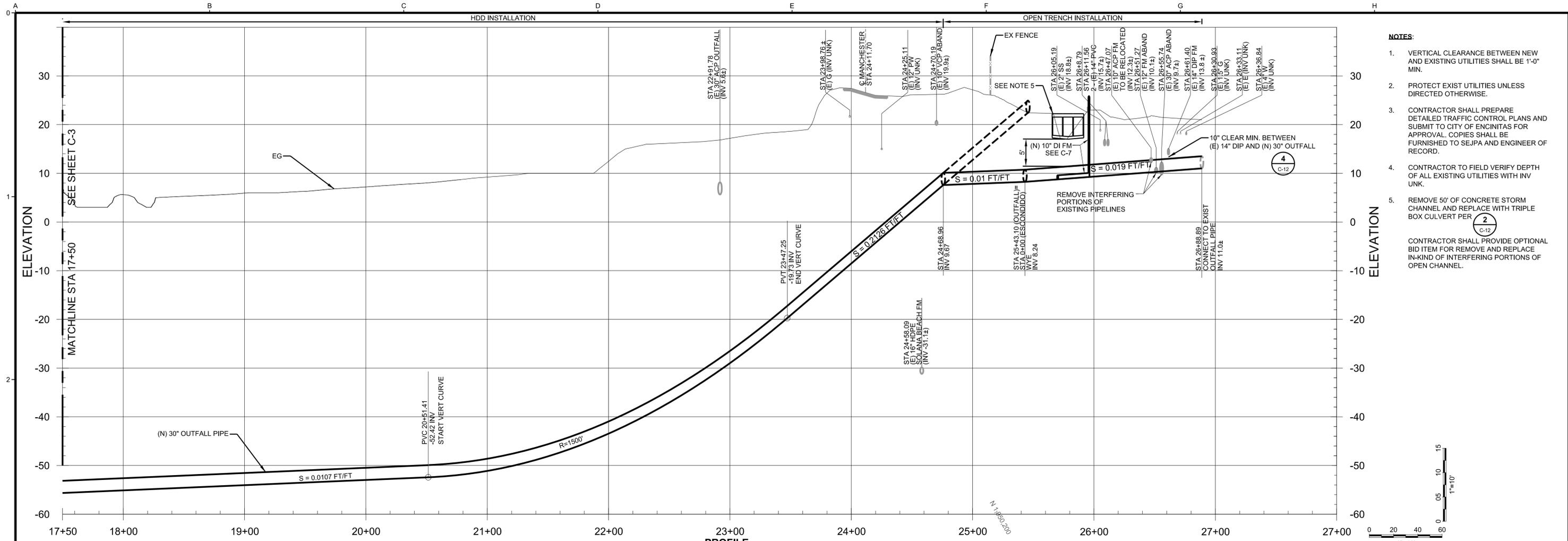
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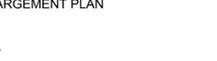
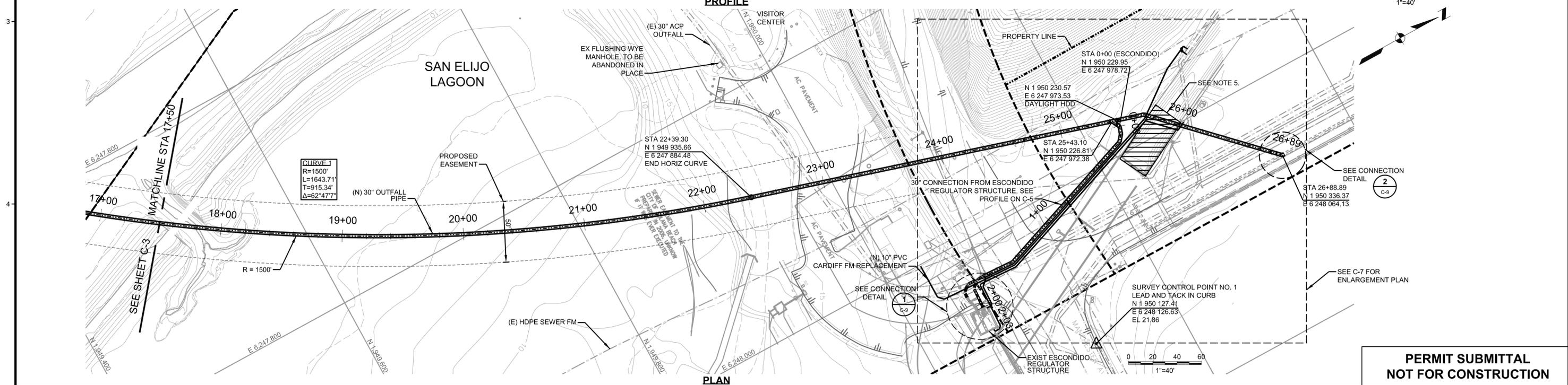
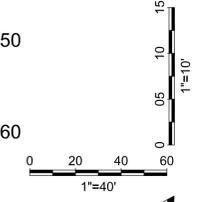
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JOB NO. 1544100.01
 DATE JANUARY, 2016
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 SHEET 7 OF 18

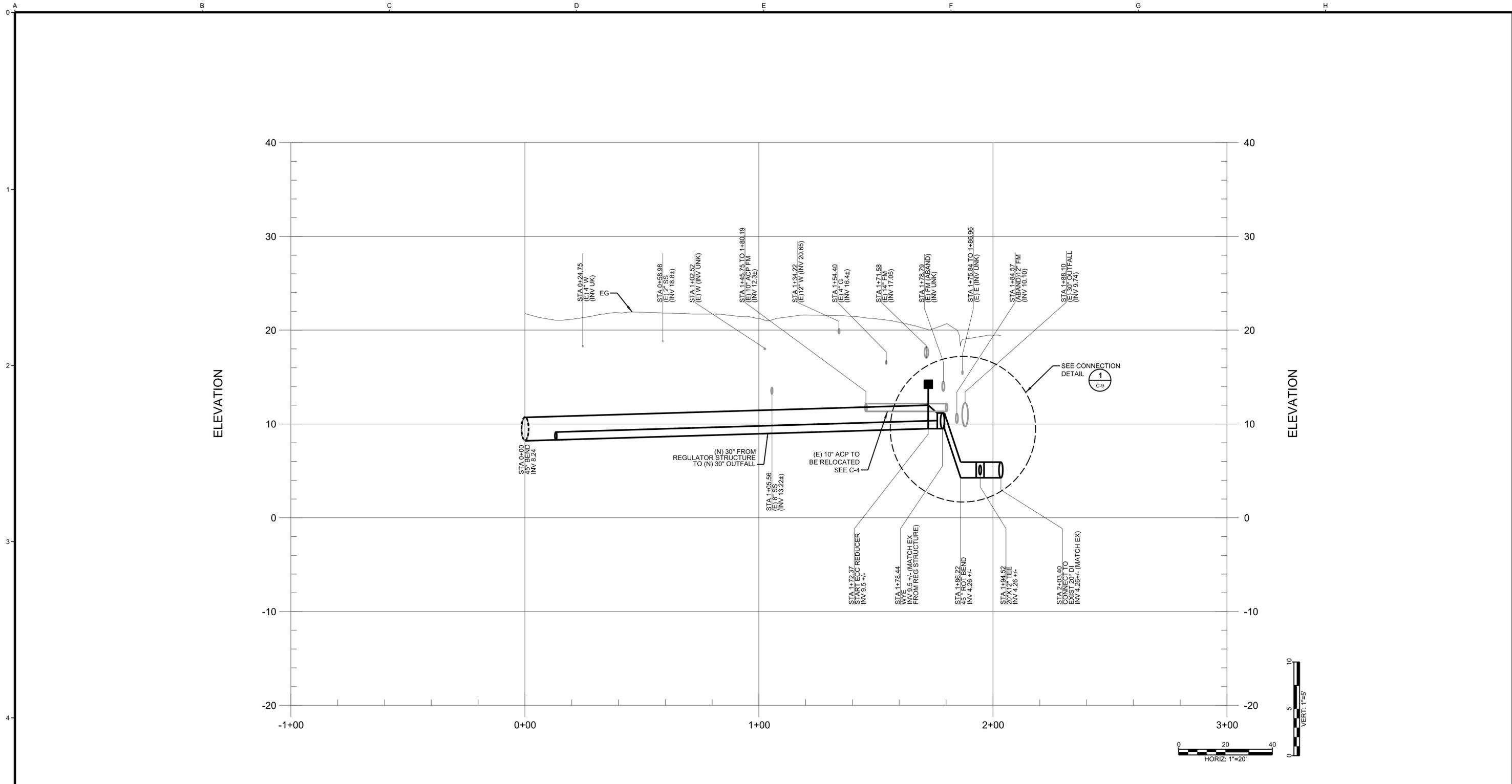


- NOTES:**
- VERTICAL CLEARANCE BETWEEN NEW AND EXISTING UTILITIES SHALL BE 1'-0" MIN.
 - PROTECT EXIST UTILITIES UNLESS DIRECTED OTHERWISE.
 - CONTRACTOR SHALL PREPARE DETAILED TRAFFIC CONTROL PLANS AND SUBMIT TO CITY OF ENCINITAS FOR APPROVAL. COPIES SHALL BE FURNISHED TO SEJPA AND ENGINEER OF RECORD.
 - CONTRACTOR TO FIELD VERIFY DEPTH OF ALL EXISTING UTILITIES WITH INV UNK.
 - REMOVE 50' OF CONCRETE STORM CHANNEL AND REPLACE WITH TRIPLE BOX CULVERT PER  CONTRACTOR SHALL PROVIDE OPTIONAL BID ITEM FOR REMOVE AND REPLACE IN-KIND OF INTERFERING PORTIONS OF OPEN CHANNEL.



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<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>REVISION</th> <th>DATE</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	REVISION	DATE	BY										
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PROFILE A
C-7

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0 25mm
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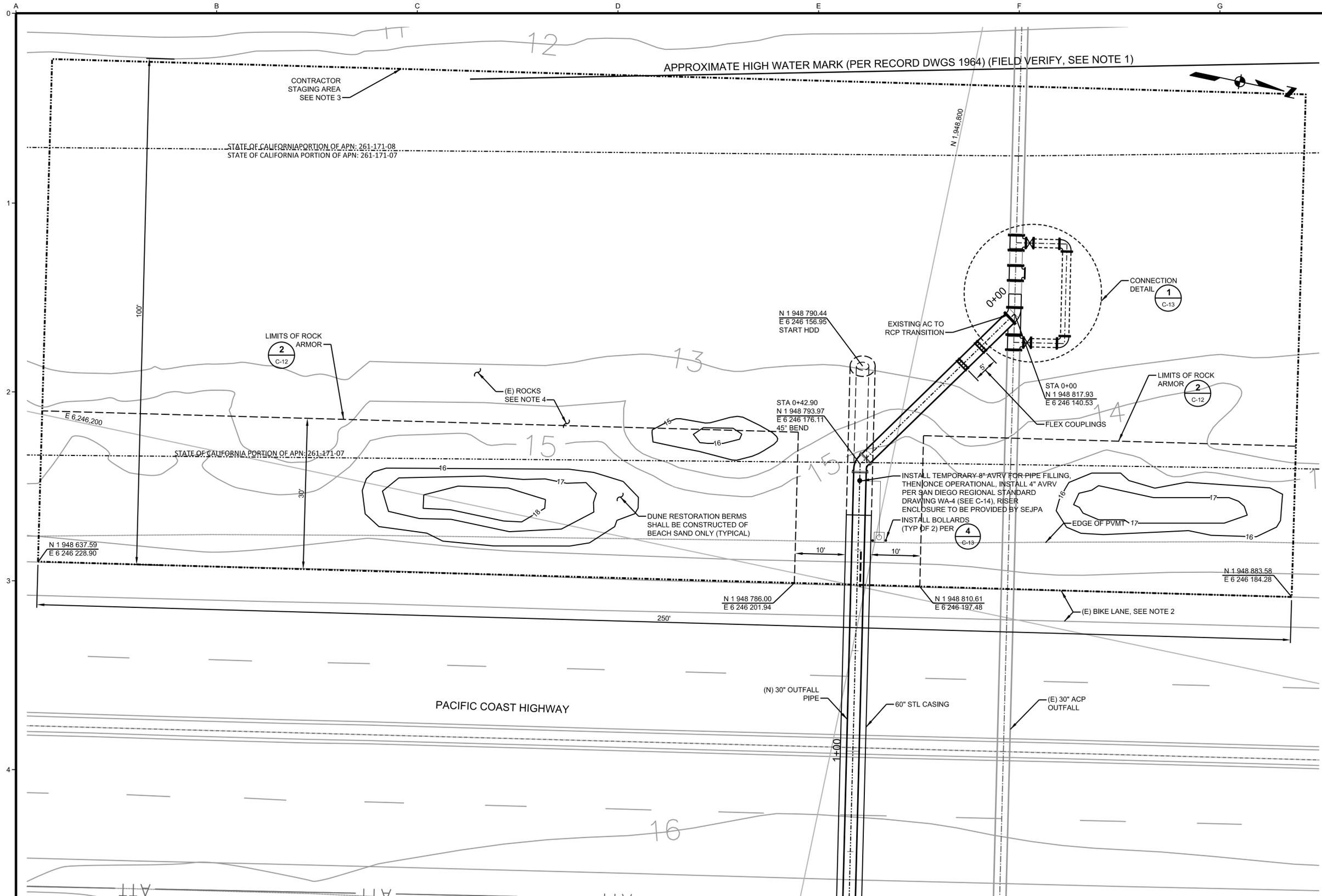


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CIVIL
PROFILE REGULATOR STRUCTURE TO NEW OUTFALL PIPELINE

JOB NO. 1544100.01
DATE JANUARY, 2016
DRAWING NO. **C-5**
SHEET 9 OF 18



- NOTES:**
1. WATER LEVEL LINES ARE APPROXIMATE ONLY, BASED ON AVAILABLE DATA. WATER LEVEL AND WET AREA CAN VARY BASED ON MANY UNPREDICTABLE FACTORS INCLUDING WIND, TOPOGRAPHY, SEASONAL VARIATION, ETC. CONTRACTOR SHALL VERIFY USEABLE WORKING AREA.
 2. EXISTING BIKE LANE SHALL BE KEPT OPEN FOR USE DURING CONSTRUCTION.
 3. PRIOR TO START OF CONSTRUCTION, A SAND BERM SHALL BE INSTALLED AROUND PERIMETER OF THE WORK AREA AND SHALL REMAIN IN PLACE DURING ALL CONSTRUCTION ACTIVITIES. CONTRACTOR TO PROVIDE TEMPORARY FENCING AND 24 HOUR SECURITY OF SITE. LAYDOWN OF EQUIPMENT AND MATERIALS SHALL BE AS CLOSE TO HWY 101 AS FEASIBLE, TO AVOID WATERLINE.
 4. CONTRACTOR TO REMOVE EXISTING LARGE ROCKS ON SURFACE. EXISTING ROCKS WITHIN SIZE REQUIREMENTS OF ROCK ARMOR DETAIL MAY BE REUSED ON SITE. ROCKS NOT REUSED ON SITE SHALL BE DISPOSED OF BY CONTRACTOR.
 5. AFTER INSTALLATION OF NEW OUTFALL AND CONNECTIONS HAVE BEEN COMPLETED, INSPECTED AND ACCEPTED BY OWNER FOR USE, CAP UPSTREAM END OF EXISTING AC PIPELINE WITH CONCRETE PLUG.
 6. GROUNDWATER WILL BE ENCOUNTERED THROUGHOUT CONSTRUCTION. CONTRACTOR TO REFER TO GENERAL NOTES AND SPECIFICATIONS FOR GROUNDWATER HANDLING AND DISCHARGE. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY DISCHARGE PERMITS AND FULFILLING ANY REQUIREMENTS OF SAID PERMITS, INCLUDING ANY REQUIRED TREATMENT OR HAULING.
 7. CONTRACTOR MAY TEMPORARY ACCESS AREA TO WEST OF DELINEATED STAGING AREA DURING TIMES OF LOW TIDE ONLY FOR PURPOSES OF VEHICLE OR RIG MANEUVERING, AND ACCESS SHALL BE TEMPORARY IN NATURE. CONTRACTOR SHALL NOT PERMANENTLY PARK OR STORE ANY MATERIALS BEYOND ACTUAL FIELD VERIFIED HIGH WATER LINE.

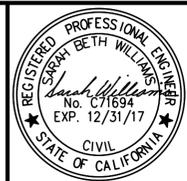
ENLARGED PLAN 0 10 20
1"=10'

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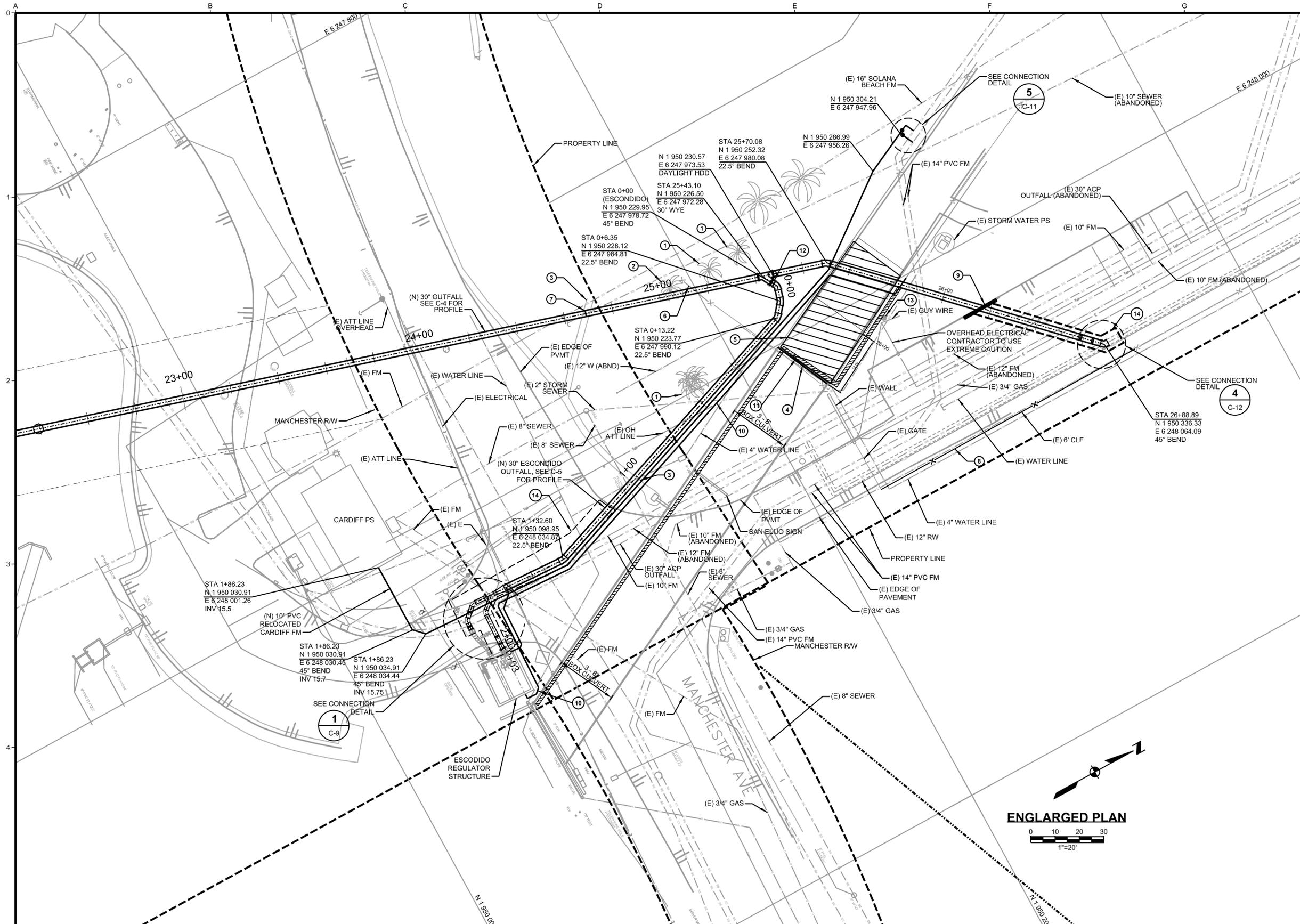


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CIVIL
**HDD LAUNCH SITE
ENLARGED PLAN**

JOB NO. 1544100.01
DATE JANUARY, 2016
DRAWING NO. **C-6**
SHEET 10 OF 18



- NOTES:**
- CONTRACTOR TO DEFLECT JOINTS ALONG NEW ESCODIDO REGULATOR STRUCTURE TO OUTFALL 2.78' BETWEEN STA 0+00 TO STA 1+48.38.
 - CONTRACTOR TO DEFLECT JOINTS ALONG NEW 30" OUTFALL 5.7' BETWEEN STA 26+00 TO STA 26+54.14.
 - CONTRACTOR TO PROVIDE RESTRAINED JOINTS AT ALL DI PIPE WITH BENDS AND THRUST BLOCKS AT ALL HDPE OR FPVC PIPE WITH BENDS.
 - CONTRACTOR SHALL PROVIDE OPTIONAL BID ITEM FOR REMOVE AND REPLACE IN-KIND OF INTERFERING PORTIONS OF OPEN CHANNEL.
 - GROUNDWATER WILL BE ENCOUNTERED THROUGHOUT CONSTRUCTION. CONTRACTOR TO REFER TO GENERAL NOTES AND SPECIFICATIONS FOR GROUNDWATER HANDLING AND DISCHARGE. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY DISCHARGE PERMITS AND FULFILLING ANY REQUIREMENTS OF SAID PERMITS, INCLUDING ANY REQUIRED TREATMENT OR HAULING.
- PROTECT EXISTING TREES
 - REMOVE EXISTING TREES
 - SAWCUT AND REMOVE INTERFERING SECTION OF STORM CULVERT AND REPLACE IN-KIND
 - SAW CUT (E) CONCRETE WITH CLEAN LINES. GRIND OUT EXPOSED REBAR AND CONCRETE PATCH SO NO REBAR IS EXPOSED SEE NOTE 4
 - DEMOLISH AND REMOVE SECTION OF OPEN CHANNEL FOR OPEN PIPE TRENCH INSTALLATION. CONSTRUCT EXTENSION OF TRIPLE BOX CULVERT PER **3** C-10
 - REMOVE AND REPLACE INTERFERING PORTIONS OF FENCE. CONTRACTOR TO MAINTAIN PLANT SITE SECURITY
 - OPEN TRENCH PIPE SECTION JOINS HDD INSTALLED SECTION **4** C-11
 - REPLACE 500 LF OF CLF. SEE C-8 FOR EXTENTS. PER DETAIL **1** C-11
 - REPLACE CURB & GUTTER 10 LF PER DETAIL **2** C-10
 - RELOCATION OF (E) 10" DI PER **2** C-11
 - 1" EXPANSION JOINT **2** C-10
 - 30" BUTTERFLY VALVE
 - PROTECT AND SUPPORT EXIST POWER POLE IN PLACE
 - REPAIR AC PVMT PER **2** C-11

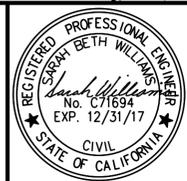
ENLARGED PLAN
0 10 20 30
1"=20'

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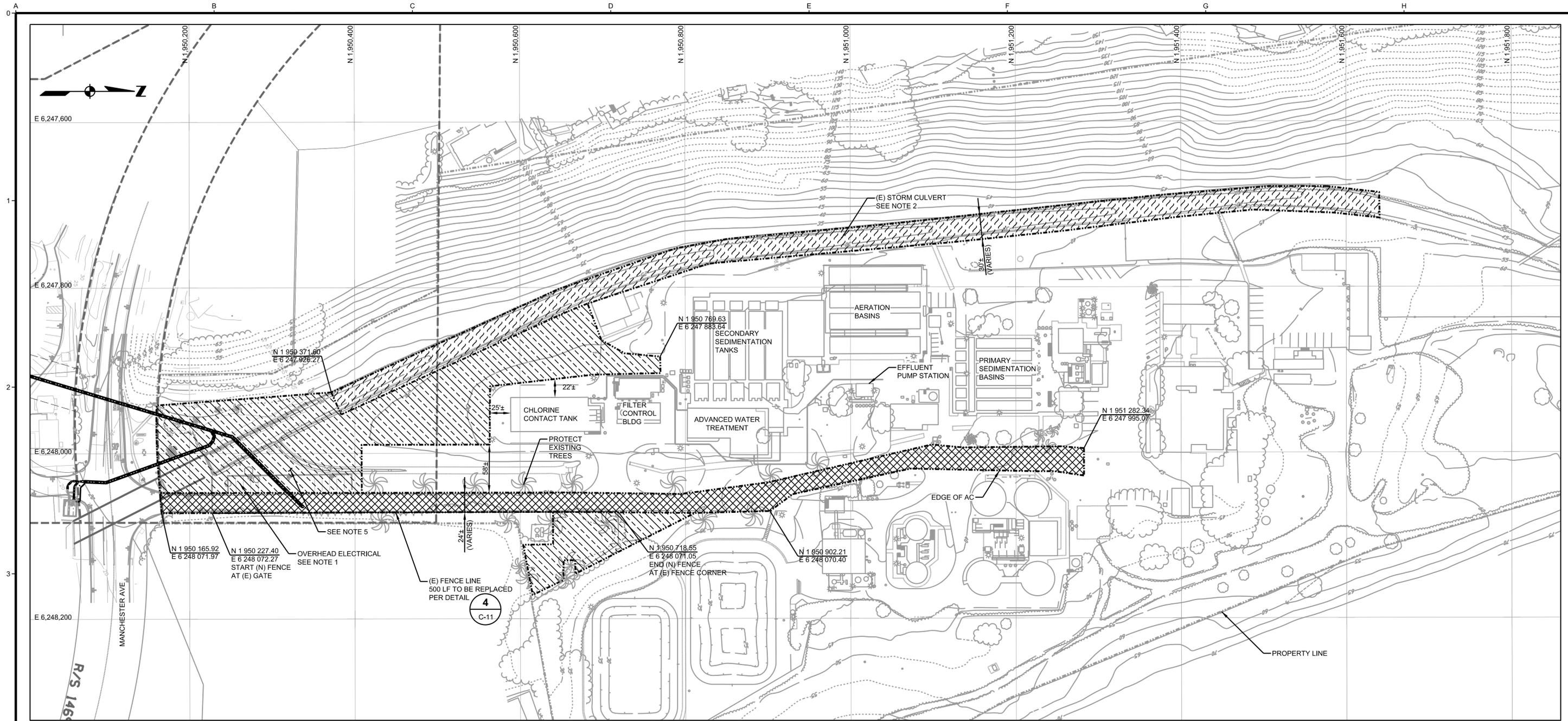


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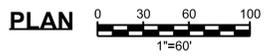
CIVIL
HDD RECEIVING SITE ENLARGED PLAN

JOB NO. 1544100.01
DATE JANUARY, 2016
DRAWING NO. **C-7**
SHEET 11 OF 18



NOTES:

1. USE CAUTION WHEN WORKING IN VICINITY OF OVERHEAD ELECTRICAL.
2. EXISTING STORM CULVERT, PROTECT IN PLACE OR REPLACE IN-KIND. IN CASE OF ANY OBSTRUCTION OF THE DRAINAGE CHANNEL, CONSTRUCT TEMPORARY BYPASS.
3. PLANT DRIVEWAY MAY BE USED FOR LAYDOWN ONLY IF FPVC IS BEING USED. PROVIDE ADEQUATE ONE WAY INGRESS/EGRESS DRIVE PATH AT ALL TIMES.
4. FACILITIES SHALL BE PROTECTED IN PLACE OR REPLACED IN-KIND.
5. MINOR GRADING IN UNPAVED AREAS IS PERMITTED. FINISHED GRADES MUST MATCH EXISTING.
6. KEEP ALL MATERIALS ONSITE NEAT AND TIDY. DO NOT BLOCK ANY BUILDING OR FACILITY ACCESS.
7. ARRANGE SITE ACCESS WITH OWNER TWO (2) WEEKS IN ADVANCE.

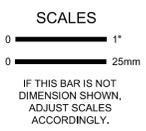


- = CONTRACTOR STAGING AND STORAGE AREA.
- = TEMP STAGING AREA FOR FPVC PIPE LAYBACK ONLY, TO BE UTILIZED FOR MAX. 10 DAYS. CONTRACTOR SHALL MAINTAIN ONE WAY INGRESS/EGRESS DRIVE PATH AT ALL TIMES.
- = TEMP STAGING AREA FOR HDPE PIPE LAYBACK ONLY, TO BE UTILIZED FOR MAX. 10 DAYS. CONTRACTOR SHALL NOT OBSTRUCT CHANNEL.

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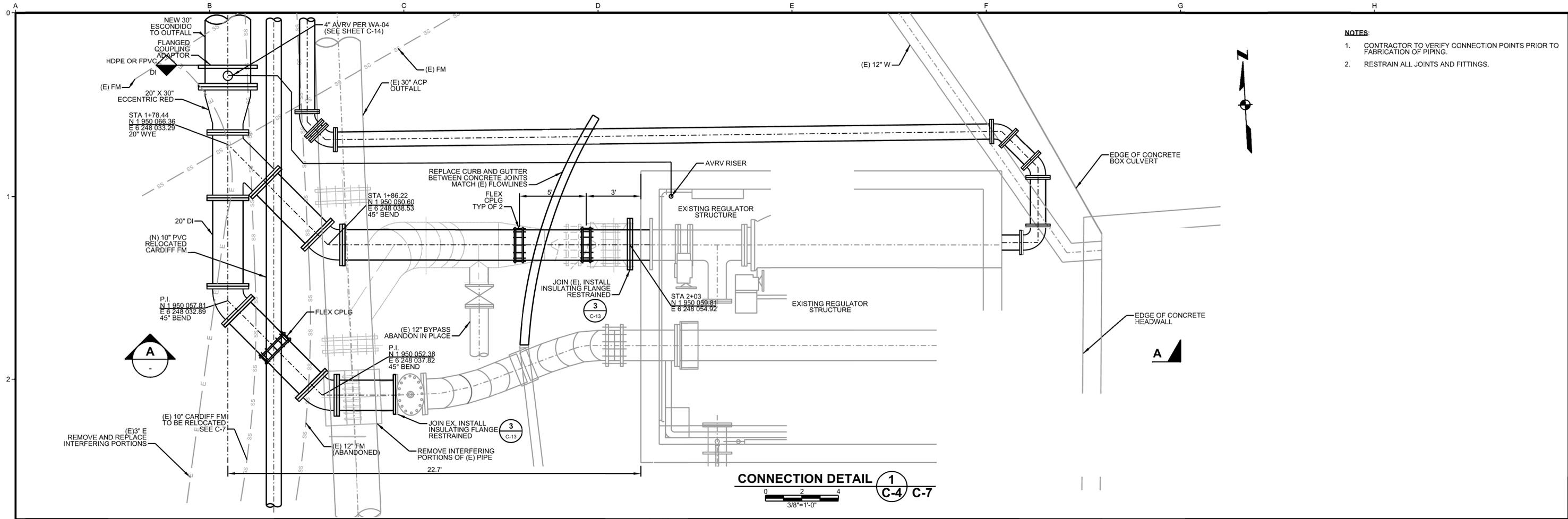


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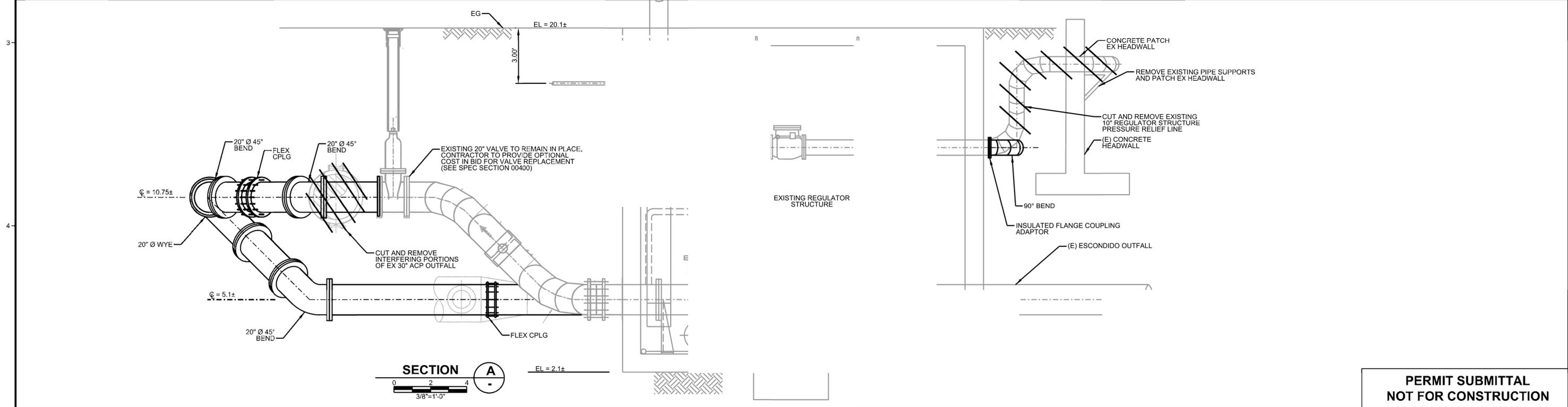
CIVIL
CONTRACTOR STAGING AND STORAGE AREA

JOB NO. 1544100.01
DATE JANUARY, 2016
DRAWING NO. **C-8**
SHEET 12 OF 18



- NOTES:**
1. CONTRACTOR TO VERIFY CONNECTION POINTS PRIOR TO FABRICATION OF PIPING.
 2. RESTRAIN ALL JOINTS AND FITTINGS.

CONNECTION DETAIL 1
C-4 C-7
3/8"=1'-0"



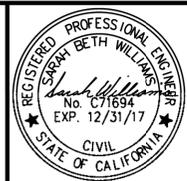
SECTION A
3/8"=1'-0"

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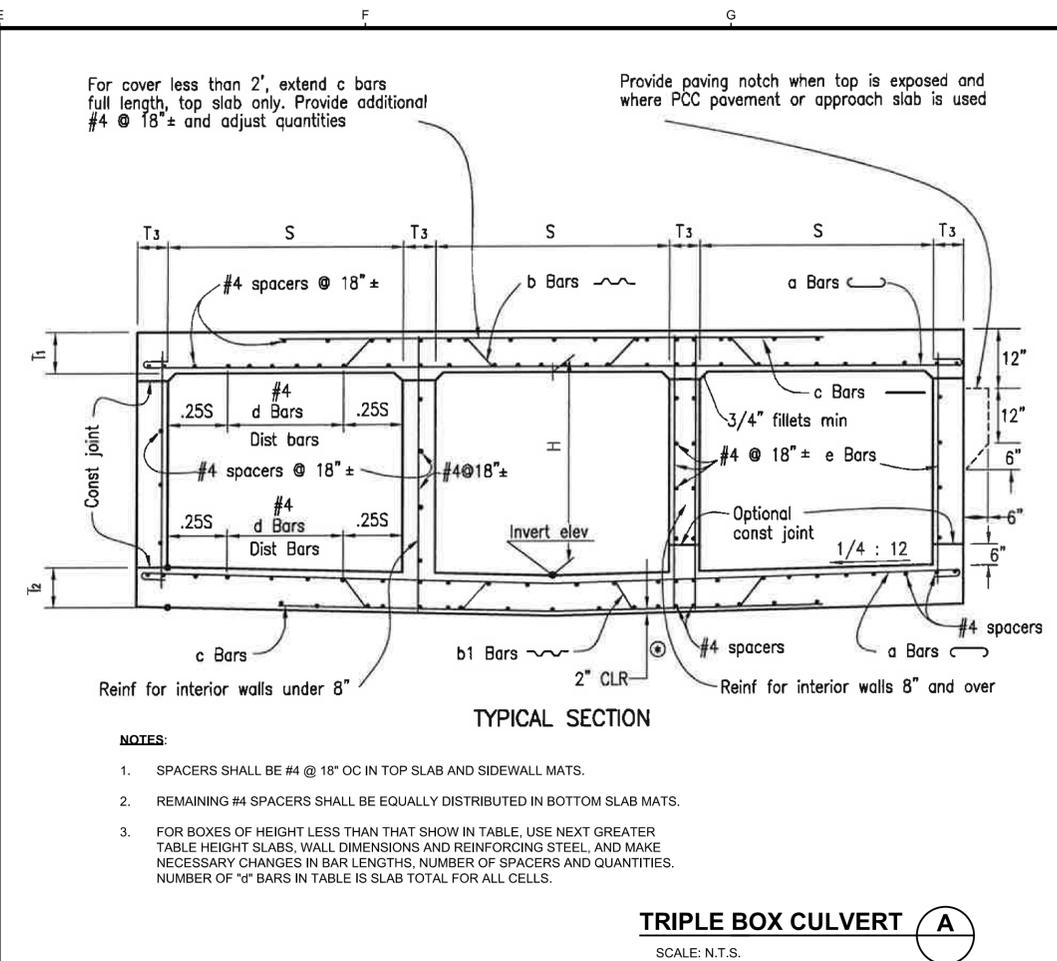
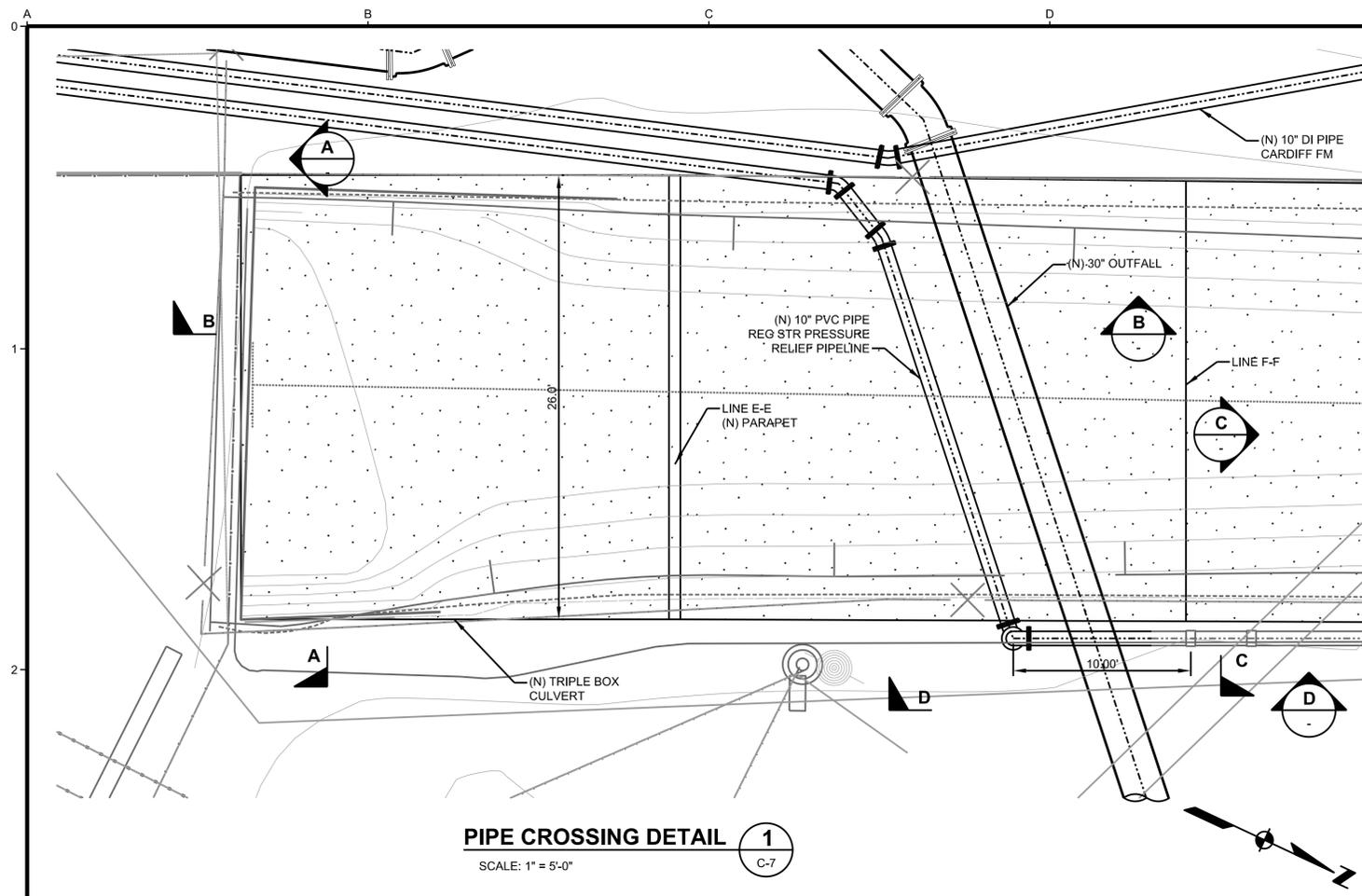


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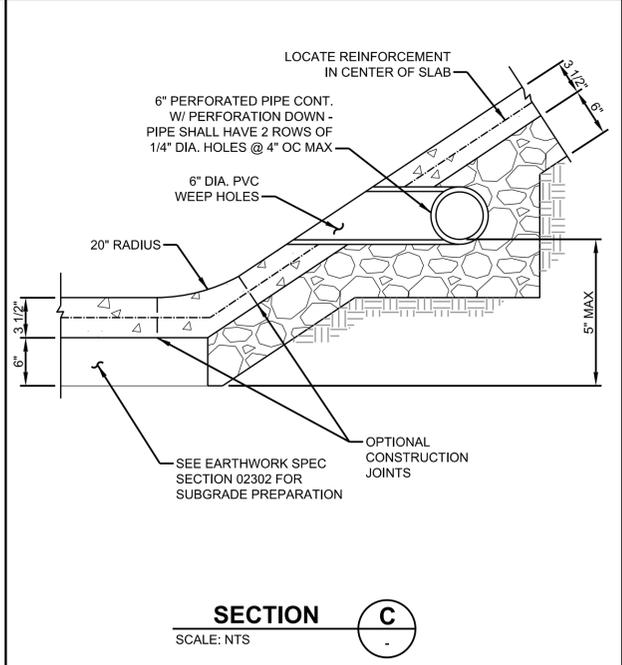
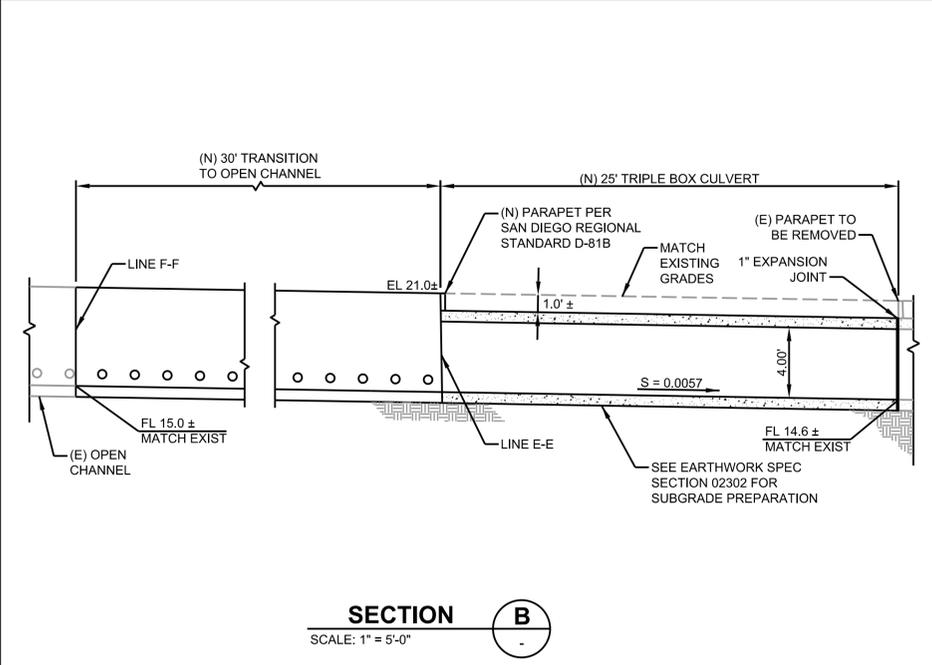
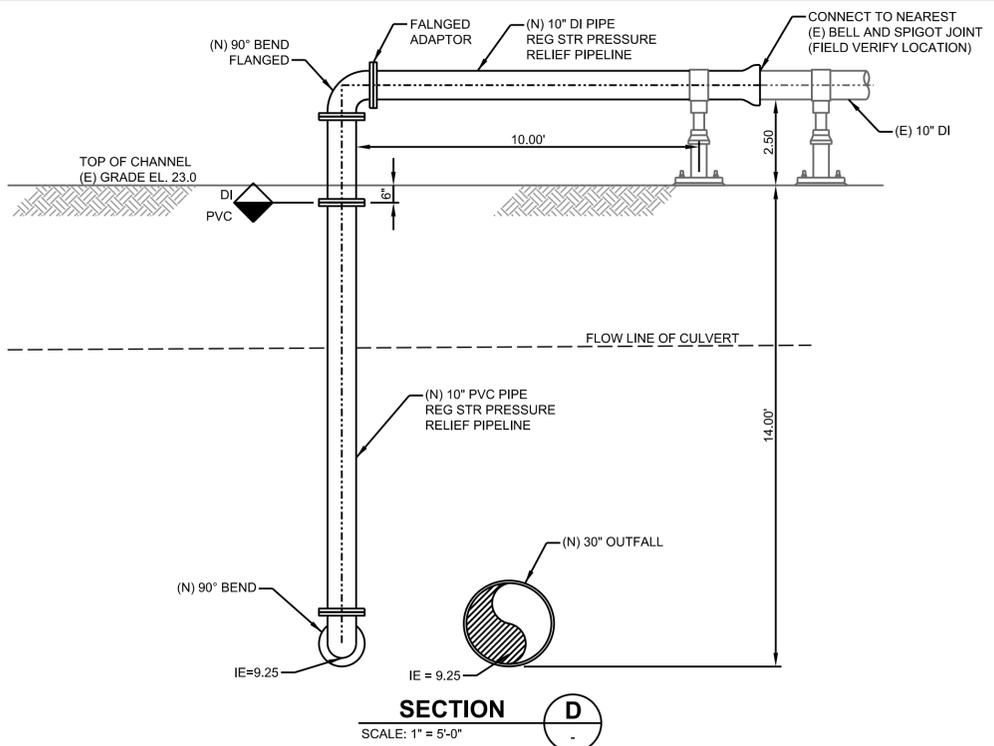
CIVIL
CONNECTION DETAILS - 1

JOB NO. 1544100.01
DATE JANUARY, 2016
DRAWING NO. **C-9**
SHEET 13 OF 18



SPAN = 8'		
HEIGHT	4'	
STRENGTH CLASSIFICATION	A	
MAX FILL OVER TOP	2	
Top Slab	T ₁ 8 1/4	
Bottom Slab	T ₂ 6 1/2	
Sidewalls	T ₃ 6	
Reinforcing Steel	"a" Size Bar #	6
	"a" Spacing	11 1/2
	"a" Length	26-10
	"b" Size Bar #	6
"b" or "b1"	Spacing	11 1/2
	Length "b"	26-5
"c"	Length "b1"	26
	Size Bar #	4
"d" Dist Bars	Spacing	11 1/2
	Length	17
"e" Bars	Top Slab-Tot. No.	24
	Bottom Slab-Tot. No.	12
Spacers	Size Bar #	4
	Spacing	18
Quant.	Number	
Concrete: C.Y. per lin. ft.		1.47
Rein: lbs per lin. ft.		261

- NOTES:**
- SPACERS SHALL BE #4 @ 18" OC IN TOP SLAB AND SIDEWALL MATS.
 - REMAINING #4 SPACERS SHALL BE EQUALLY DISTRIBUTED IN BOTTOM SLAB MATS.
 - FOR BOXES OF HEIGHT LESS THAN THAT SHOW IN TABLE, USE NEXT GREATER TABLE HEIGHT SLABS, WALL DIMENSIONS AND REINFORCING STEEL, AND MAKE NECESSARY CHANGES IN BAR LENGTHS, NUMBER OF SPACERS AND QUANTITIES. NUMBER OF "d" BARS IN TABLE IS SLAB TOTAL FOR ALL CELLS.

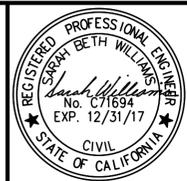


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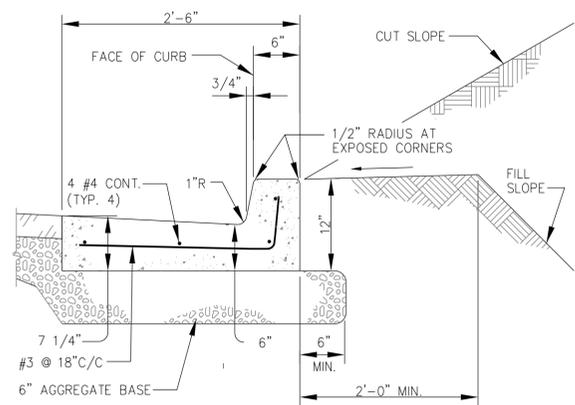


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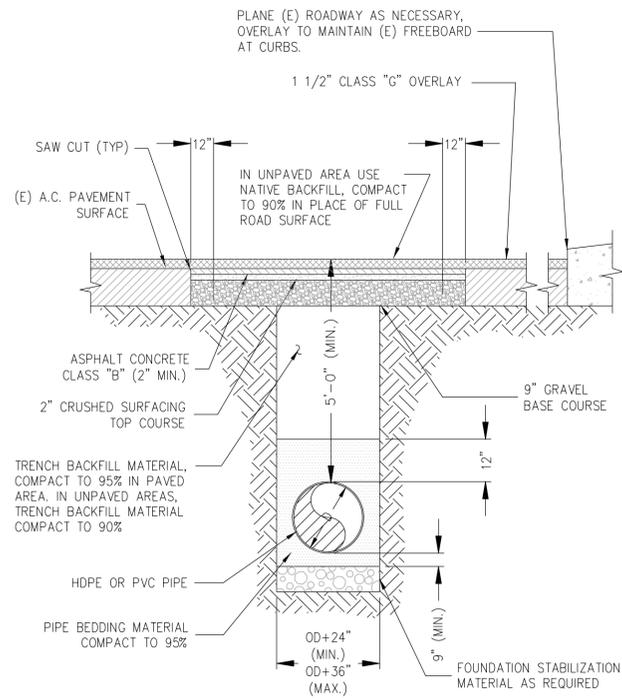
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CIVIL
CULVERT DETAILS

JOB NO. 1544100.01
DATE JANUARY, 2016
DRAWING NO. **C-10**
SHEET 14 OF 18

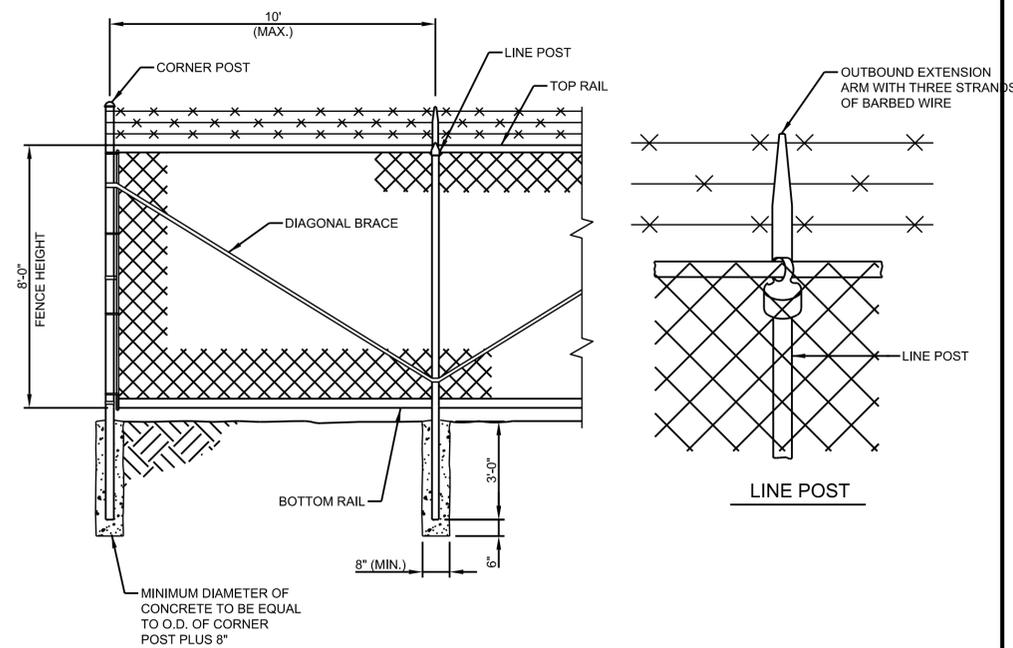


CURB AND GUTTER 1

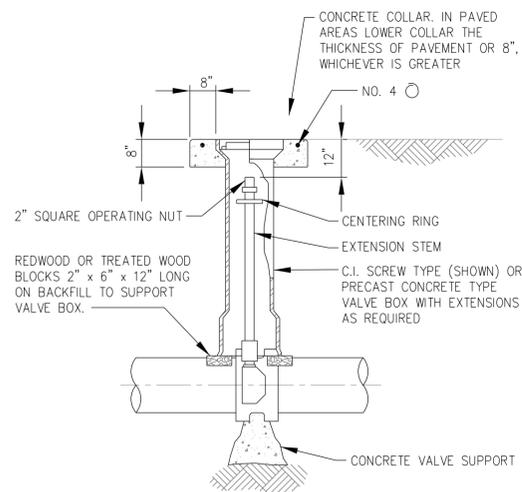


NOTE:
 1. BED THE ENTIRE WIDTH OF THE TRENCH BOX
 2. ADDITIONAL PIPES IN TRENCH SHALL BE SPACED 12" CLEAR WALL TO WALL. TRENCH WIDTH SHALL BE DIMENSION FROM OUTERMOST PIPE WALLS, + 24".

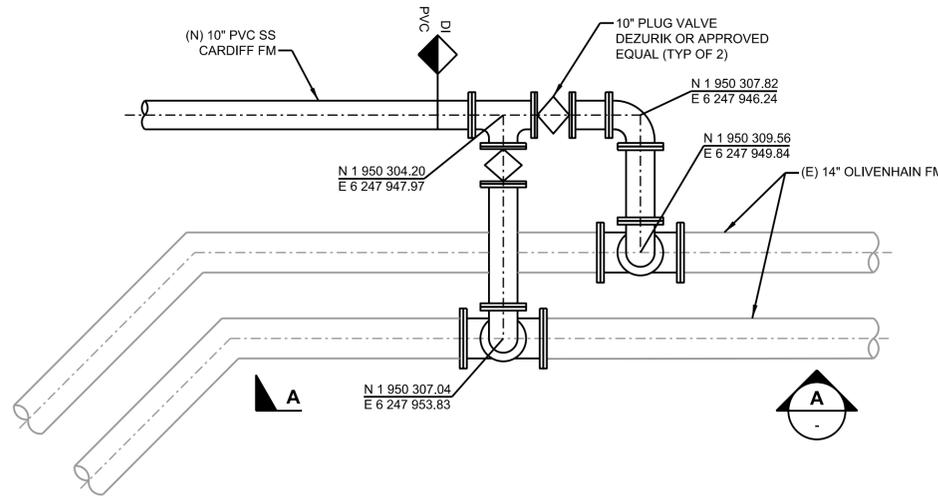
TYPICAL TRENCH 2



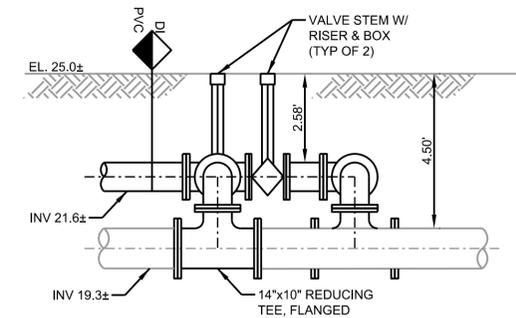
CHAIN LINK FENCE 3



BURIED VALVE WITH RISER 4



PLAN 5



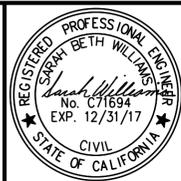
SECTION A

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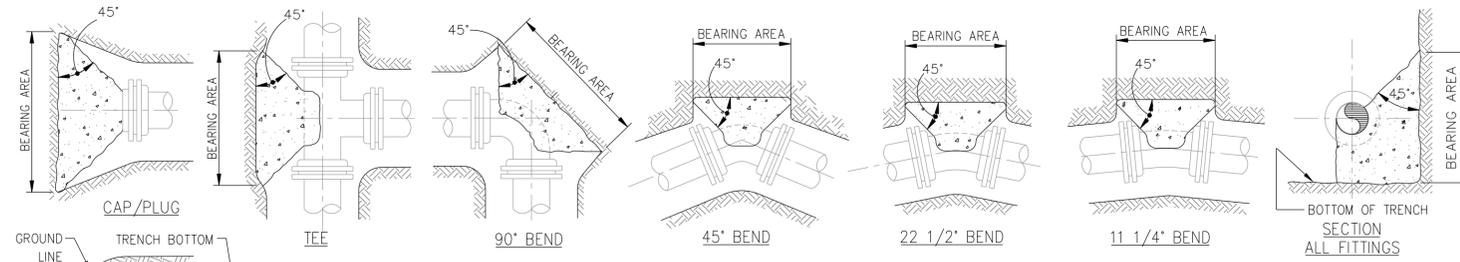


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MISC. DETAILS - 1

JOB NO. 1544100.01
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 DRAWING NO. **C-11**
 SHEET 15 OF 18



PIPE DIAMETER	BEND ANGLE				
	11.25	22.5	45	90/TEE	DEAD END
20-INCH	3.0	5.9	11.5	21.3	15.1
30-INCH	6.7	13.2	26.0	48.0	33.9

NUMBER IN TABLE IS REQUIRED THRUST BLOCK AREA IN SQUARE FEET

- NOTES:**
- ALL CONCRETE BLOCKING SHALL BE POURED AGAINST DRY, UNDISTURBED SUBGRADE. TABLE IS BASED ON 2000 POUNDS PER SQUARE FOOT ALLOWABLE SOIL BEARING. WEAKER SOIL WILL REQUIRE INCREASED BEARING AREA. SEE SOIL BEARING LOAD CHART.
 - KEEP CONCRETE CLEAR OF JOINTS AND ACCESSORIES. USE FORMING AS NECESSARY.
 - HORIZONTAL ANCHOR BLOCKING CONFIGURATIONS FOR FITTINGS NOT SHOWN SHALL HAVE PRIOR APPROVAL.
 - THE SQUARE FOOT AREAS REQUIRED FOR BEARING ARE CALCULATED BY THE FOLLOWING FORMULAS:
 FORMULA AT TEE & CAP OR PLUG:
 $T = PA$
 $T/K = \text{BEARING AREA REQUIRED IN SQUARE FEET}$
 FORMULA AT ALL PIPE BENDS:
 $T = 2PA (\sin 1/2\Delta)$ WHERE $\Delta = \text{THE DEGREE BEND OF THE FITTING.}$
 $T/K = \text{BEARING AREA REQUIRED IN SQUARE FEET}$
 WHERE:
 $T = \text{THRUST IN POUNDS}$
 $P = \text{TEST PRESSURE IN PSI}$
 $A = \text{CROSS-SECTIONAL AREA OF PIPE IN SQUARE INCHES}$
 $K = \text{ASSUMED 2000 PSF SOIL BEARING PRESSURE}$
 - WRAP FITTINGS WITH VISQUEEN PRIOR TO BLOCK POUR.

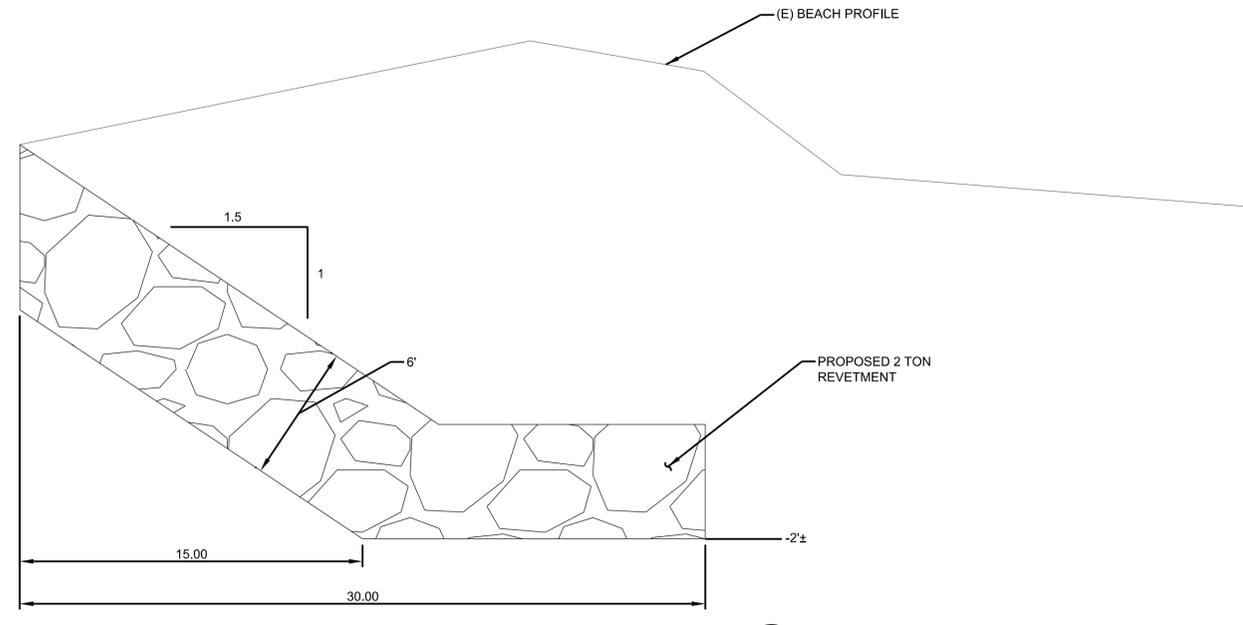
SAFE BEARING LOADS IN LBS/SQ. FT.

THE SAFE SOIL BEARING LOADS SHOWN BELOW ARE FOR HORIZONTAL THRUSTS WHEN THE DEPTH OF COVER OVER PIPE EXCEEDS 3 FEET.

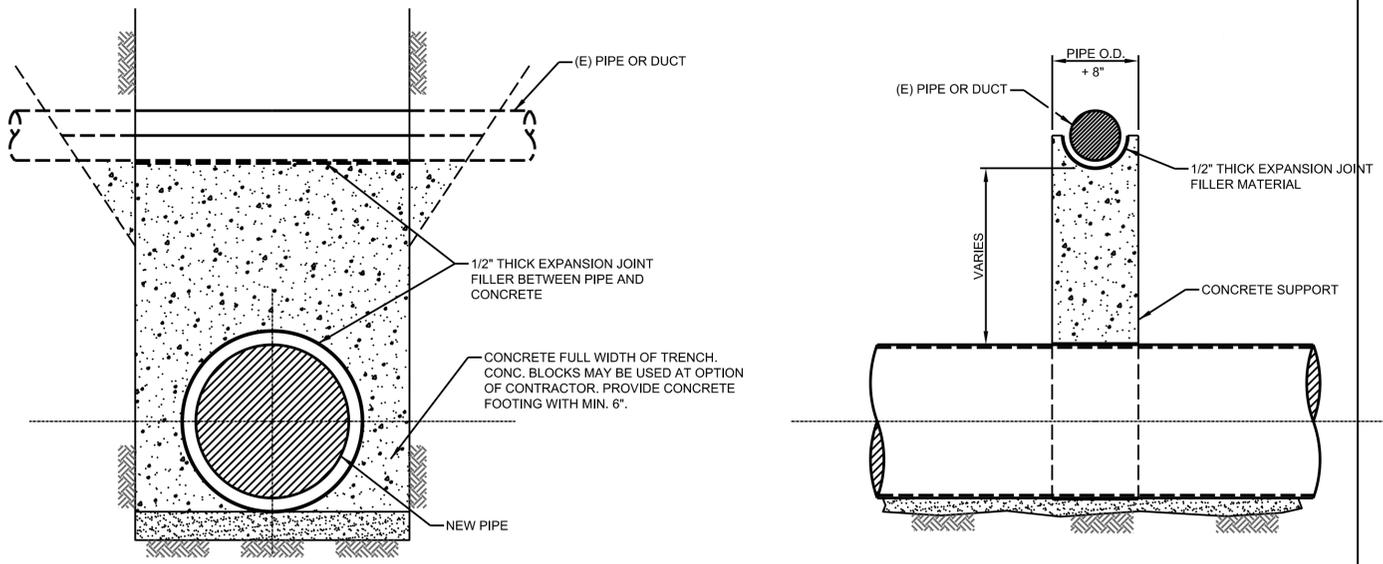
SOIL	SAFE BEARING LOAD LBS/SQ. FT.
MUCK, PEAT, ETC	0
SOFT CLAY, SILT	1,000
SAND, SANDY SILT	2,000
SAND AND GRAVEL	3,000
SAND AND GRAVEL CEMENTED W/CLAY	4,000
HARD SHALE	10,000

IN MUCK OR PEAT, ALL THRUST SHALL BE RESTRAINED BY PILES OR TIE RODS TO SOLID FOUNDATIONS OR BY REMOVAL OF MUCK OR PEAT AND REPLACEMENT WITH BALLAST OF SUFFICIENT STABILITY TO RESIST THRUSTS.

HORIZONTAL THRUST BLOCKING DETAILS 1

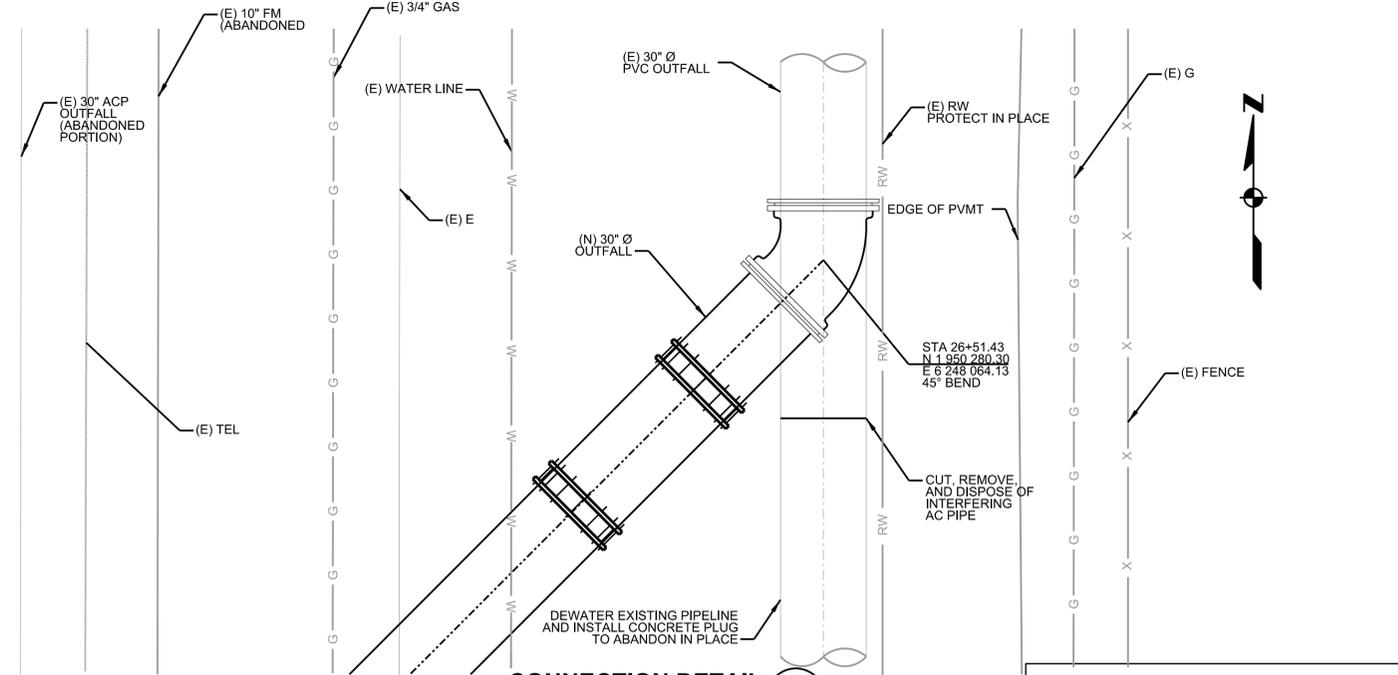


DETAIL 2
SCALE: 1/4" = 1'-0"



- NOTES:**
- UNDERGROUND UTILITY SUPPORTS ARE TO BE PROVIDED WHERE SHOWN ON PLAN OR PROFILE.
 - EXISTING PIPE OR DUCT SHALL BE FIRMLY SUPPORTED DURING INSTALLATION OF NEW PIPE AND SUPPORT.
 - BACKFILL TO BE BROUGHT UP UNIFORMLY ON BOTH SIDES OF CONC. SUPPORT.

UTILITY SUPPORT 3
SCALE: N.T.S.



CONNECTION DETAIL 4
SCALE: 3/8" = 1'-0"

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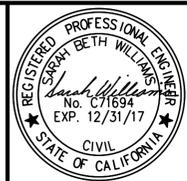
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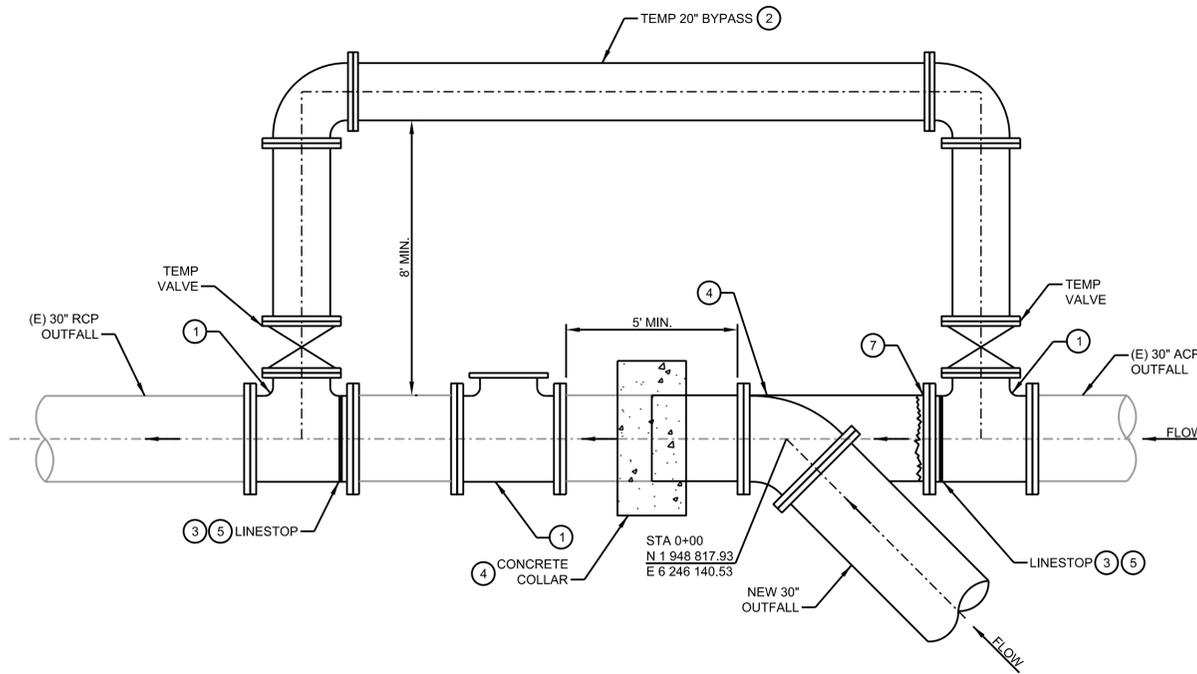
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MISC. DETAILS - 2

JOB NO. 1544100.01
DATE JANUARY, 2016
DRAWING NO. **C-12**
SHEET 16 OF 18



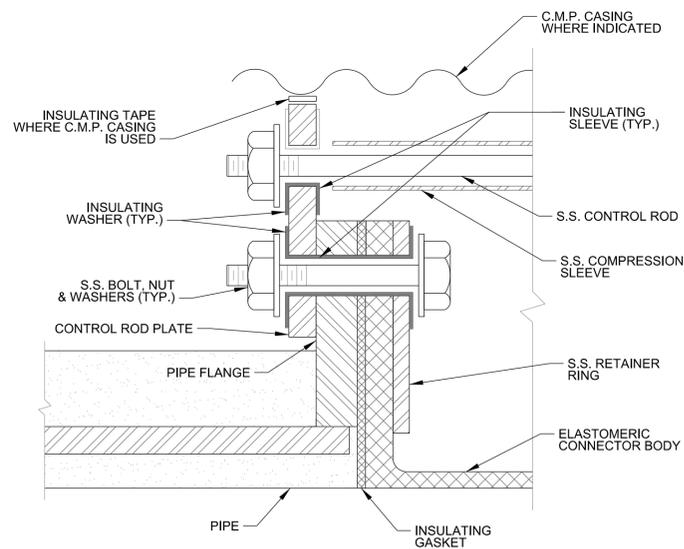
WORK ORDER:

- ① INSTALL 3 TAPPING SLEEVES & VALVES (CLOSED) ON EXISTING OUTFALL.
- ② INSTALL 20" BYPASS & OPEN VALVES.
- ③ INSTALL LINESSTOP INSIDE TEE.
- ④ CUT EXISTING OUTFALL AND CONNECT NEW OUTFALL WITH CONCRETE COLLAR.
- ⑤ REMOVE LINESSTOP TO COMPLETE CONNECTIONS TO OUTFALL (ON PLANT SIDE).
- ⑥ WHEN NEW OUTFALL IS COMPLETE AND IN FULL SERVICE, CLOSE VALVES & REMOVE BYPASS.
- ⑦ INSTALL WELDED FLANGE TO TEE.

HOT TAPPING NOTES:

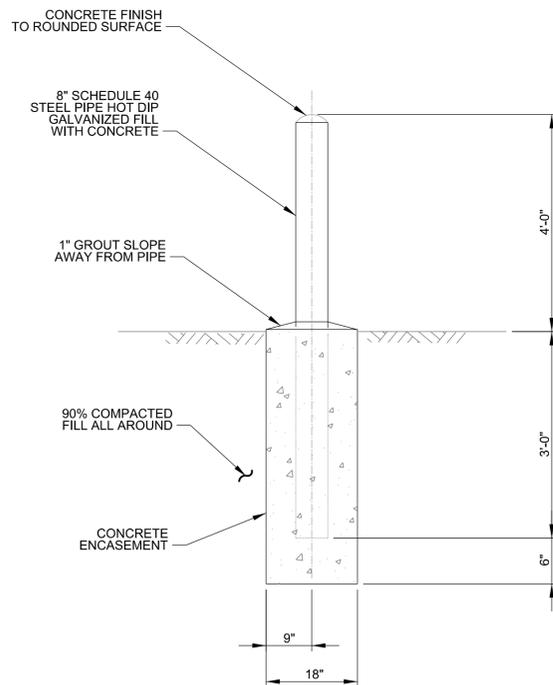
1. PROVIDE TAPPING SLEEVES WHERE SHOWN ON THE DRAWINGS. SLEEVES SHALL BE FULL WRAP STYLE WITH THE OUTLET SET AT THE HORIZONTAL CENTERLINE OF THE TAPPED PIPE.
2. PROVIDE SMITH BLAIR MECHANICAL JOINT TAPPING SLEEVE 623, 30" BY 20" OUTLET WITH AWWA CLASS D FLANGE, OR APPROVED EQUAL. MEASURE EXISTING PIPE CIRCUMFERENCE PRIOR TO ORDERING SLEEVE AND VALVE.
3. PROVIDE AWWA C509 RESILIENT WEDGE NON-RISING STEM TAPPING VALVE RATED FOR 150 PSI WITH FUSION EPOXY COATING FOR THIS PROJECT. AS SPECIFIED BELOW:
 - A. PROVIDE A MUELLER RESILIENT WEDGE NON-RISING STEM (NRS), OR EQUAL. PROVIDE VALVE IN FLANGE BY FLANGE CONFIGURATION WITH BONDING SCREWS. PROVIDE 24-INCH FLANGE AND 24 X 30-INCH HDPE REDUCER WITH 24-INCH FLANGE X MECHANICAL JOINT ADAPTOR SUITABLE FOR NOT LESS THAN 150 PSI WITH 304 STAINLESS STEEL BOLTS AND NUTS AND ANTI-SEIZE COMPOUND.
 - C. THE CONTRACTOR SHALL COORDINATE THE FLANGE DRILLING WITH THE SLEEVE MANUFACTURER SO THAT THE BOLT CIRCLES MATCH.
 - D. PROVIDE 2" RISER STEM WITH 2" OPERATING NUT.
4. WRAP THE ENTIRE ASSEMBLY WITH POLYETHYLENE WRAP PER AWWA C105.
5. RESTRAIN ALL JOINTS OR INSTALL THRUST BLOCKS AS NEEDED.

DETAIL 1
SCALE: 3/8" = 1'-0"
C-2 C-6



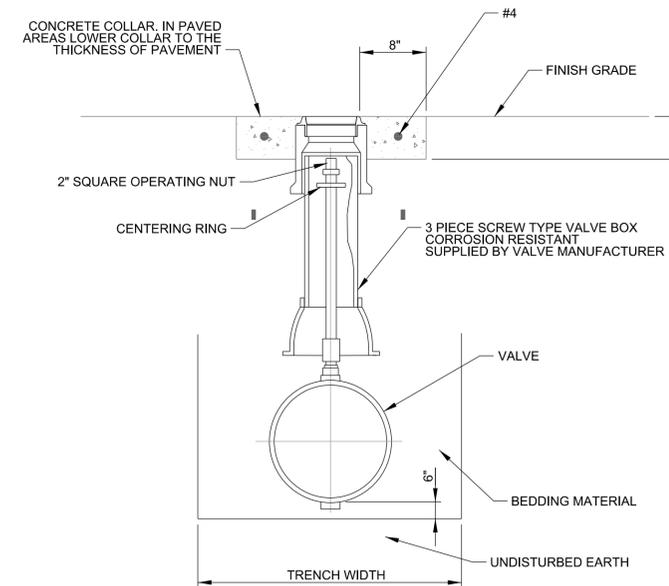
RESTRAINED INSULATED FLANGE

DETAIL 3
SCALE: NO SCALE



TYPICAL BOLLARD

DETAIL 4
SCALE: NO SCALE



TYPICAL BURIED VALVE OPERATOR

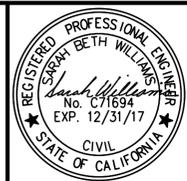
DETAIL 5
SCALE: NO SCALE

**PERMIT SUBMITTAL
NOT FOR CONSTRUCTION**

USE OF DOCUMENTS
THIS DOCUMENT, INCLUDING THE INCORPORATED DESIGNS, IS AN INSTRUMENT OF SERVICE FOR THIS PROJECT AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF KENNEDY/JENKS CONSULTANTS.

NO.	REVISION	DATE	BY

SCALES
0 1" = 25mm
IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.

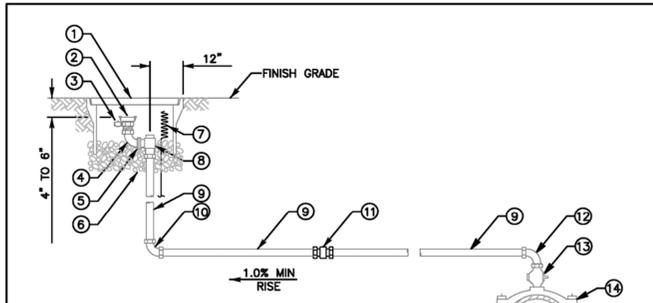


DESIGNED SW
DRAWN BG
CHECKED AS

SAN ELIJO JOINT POWERS AUTHORITY
SAN ELIJO LAND OUTFALL RELACEMENT PROJECT
Kennedy/Jenks Consultants
9665 Granite Ridge Drive, Suite 210 San Diego, CA 92123

CIVIL
MISC. DETAILS - 3

JOB NO. 1544100.01
DATE JANUARY, 2016
DRAWING NO. **C-13**
SHEET 17 OF 18

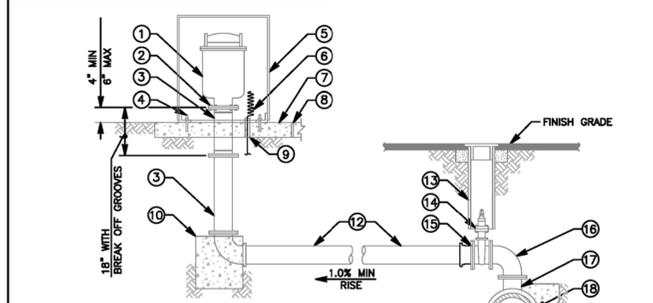


- NOTES:
- REFER TO AGENCY SPECIFICATIONS WHERE APPLICABLE
 - SET TOP OF METER BOX FLUSH WITH SIDEWALK, CURB OR FINISH GRADE
 - LOCATE METER BOX AS SHOWN ON WS-03
 - INSTALL WARNING/IDENTIFICATION TAPE AS SHOWN ON WP-01
 - MANUAL AIR VALVE INSTALLATION AT END OF MAIN TO BE SADDLED 24" FROM END CAP
 - MANUAL AIR VALVE ASSEMBLIES INSTALLED FOR THE USE OF RECYCLED WATER SHALL BE IDENTIFIED AS DESCRIBED IN AGENCY'S SPECIFICATIONS
 - ON STEEL MAINS USE WELD ON COUPLINGS, ON DUCTILE IRON MAINS USE DUCTILE IRON SERVICE SADDLES (INSULATING BUSHINGS ARE REQUIRED)
 - CAM & GROOVE ADAPTER SHALL BE DRILLED AND TAPPED AS REQUIRED FOR THE PRESSURE RELEASE PET COCK
 - MATERIALS SHALL BE SELECTED FROM THE AGENCY'S APPROVED MATERIALS LIST

ITEM NO	SIZE AND DESCRIPTION	ITEM NO	SIZE AND DESCRIPTION
1	POLYMER METER BOX WITH LID 17" x 30", SEE NOTE 3	8	2" BRONZE COMP x FLG ANGLE METER STOP WITH LOCK WING
2	2" CAM & GROOVE ADAPTER x MIPT WITH LOCKING DUST CAP, SEE NOTE 8	9	2" x REQUIRED LENGTH COPPER PIPE TYPE "K" RIGID OR SOFT
3	1/4" PRESSURE PET COCK	10	2" 90° BRONZE COMPRESSION ELL
4	2" 90° BRONZE MIPT x FIPT ELL	11	2" BRONZE COMPRESSION COUPLING COPPER TO COPPER (IF REQUIRED)
5	2" OVAL METER FLANGE FLG x FIPT, WITH GASKET	12	2" 90° BRONZE FIPT x COMP ELL
6	3/8" ROCK 4" TO 6" DEEP	13	2" BRONZE MIPT x MIPT CORPORATION STOP
7	TRACER WIRE (AS REQUIRED), SEE WP-01	14	SIZE x 2" SERVICE SADDLE
		15	WATER MAIN

Revision	By	Approved	Date	SAN DIEGO REGIONAL STANDARD DRAWING RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE T. Stanton R.C.E. 19246 Date DRAWING NUMBER WA-01
ORIGINAL		Kercheval	12/75	
Add Metric		T. Stanton	03/03	
Replaced W-03		J. Tomaszuk	10/04	
Delete Metric	MR	B. KNOLL	03/11	

DETAIL 1
SCALE: NO SCALE

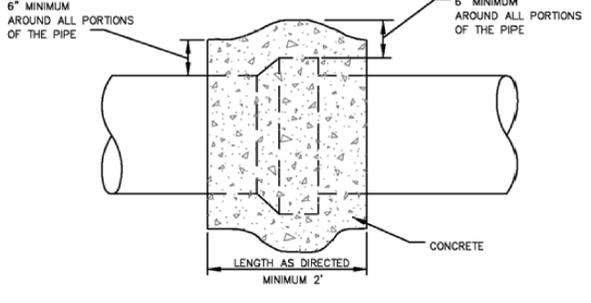
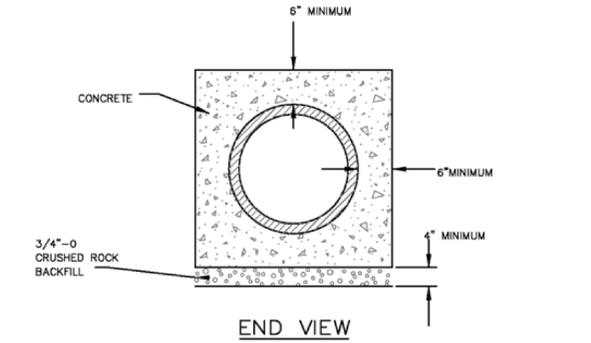


- NOTES:
- REFER TO AGENCY SPECIFICATIONS WHERE APPLICABLE
 - NO DIPS OR LOW SPOTS WILL BE ALLOWED IN PIPING INSTALLATION
 - LOCATE ENCLOSURE AS SHOWN ON WA-06
 - INSTALL WARNING/IDENTIFICATION TAPE AS SHOWN ON WP-01
 - BREAK-AWAY BOLTS SHALL BE 5/8" x 3" WITH 3/8" HOLE DRILLED IN THE SHAFT OF THE BOLT. INSTALL WITH NUTS ON TOP OF THE FLANGE. BOLT SHAFT SHALL BE FILLED WITH SILICONE SEALANT
 - AIR & VACUUM VALVES INSTALLED FOR THE USE OF RECYCLED WATER SHALL BE IDENTIFIED AS DESCRIBED IN AGENCY'S SPECIFICATIONS
 - MATERIALS SHALL BE SELECTED FROM THE AGENCY'S APPROVED MATERIALS LIST

ITEM NO	SIZE AND DESCRIPTION	ITEM NO	SIZE AND DESCRIPTION
1	4" OR 6" AUTOMATIC COMBINATION AIR RELEASE & AIR/VACUUM VALVE ASSEMBLY	10	CONCRETE THRUST/ANCHOR BLOCK SEE WT-01
2	BREAK-AWAY BOLTS, SEE NOTE 5	11	4" OR 6" FLG x MJ/PO 90° BEND
3	4" OR 6" FLANGED 8-BOLT DUCTILE IRON PIPE x REQ'D LENGTH (MAX OF 2 SPOOLS)	12	4" OR 6" C-900 PVC PIPE
4	5/8" x 3" STAINLESS STEEL DROP-IN ANCHORS (3 EA @ 120° APART)	13	GATE WELL WITH CAP SEE WV-01 OR WV-02
5	VALVE ENCLOSURE	14	4" OR 6" FLG x MJ/PO/FLG RWGV
6	TRACER WIRE (AS REQUIRED), SEE WP-01	15	4" OR 6" FLG x MJ/PO ADAPTER (IF REQUIRED)
7	42" x 42" x 6" THICK CONCRETE SLAB	16	4" OR 6" FLANGE 90° BEND
8	COLD JOINT STRIP	17	SIZE x 4" OR 6" MJ/PO/FLG x FLG TEE
9	1" PVC CONDUIT FOR TRACER WIRE INSTALLED 2" ABOVE SLAB	18	WATER MAIN

Revision	By	Approved	Date	SAN DIEGO REGIONAL STANDARD DRAWING RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE T. Stanton R.C.E. 19246 Date DRAWING NUMBER WA-04
ORIGINAL		Kercheval	12/75	
Add Metric		T. Stanton	03/03	
Replaced W-05		J. Tomaszuk	10/04	
Delete Metric	MR	B. KNOLL	03/11	

DETAIL 2
SCALE: NO SCALE



NOTE: CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 3000 PSI AND, 2" TO 4" SLUMP.

RESTRAINED INSULATED FLANGE

DETAIL 3
SCALE: NO SCALE

**PERMIT SUBMITTAL
NOT FOR CONSTRUCTION**

USE OF DOCUMENTS THIS DOCUMENT, INCLUDING THE INCORPORATED DESIGNS, IS AN INSTRUMENT OF SERVICE FOR THIS PROJECT AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF KENNEDY/JENKS CONSULTANTS.	NO. REVISION DATE BY	SCALES 0" = 1" 0" = 25mm IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.		DESIGNED SW	SAN ELIJO JOINT POWERS AUTHORITY SAN ELIJO LAND OUTFALL RELACEMENT PROJECT Kennedy/Jenks Consultants 9665 Granite Ridge Drive, Suite 210 San Diego, CA 92123	CIVIL SAN DIEGO REGIONAL STANDARD DRAWINGS	JOB NO. 1544100.01
				DRAWN BG			DATE JANUARY, 2016
				CHECKED AS		DRAWING NO. C-14	SHEET 18 OF 18

ATTACHMENT 4

CEQA MITIGATION REQUIREMENTS

1. Mitigation Monitoring and Reporting Program for the San Elijo Land Outfall Replacement Project, MMRP Table

Mitigation Measure	Timing	Responsible Party	Completed	Initials	Notes (Optional)
Biological Resources					
<p>BIO-1 If operation of construction equipment starts during the breeding seasons for the coastal California gnatcatcher (March 1 to August 15), least Bell's vireo (March 15 to September 15), Ridgway's rail (February 15 to August 15), western snowy plover (March 1 to September 30), and/or California least tern (March 1 to September 30), pre-construction survey(s) shall be conducted by a USFWS-permitted biologist (as applicable) to determine whether these species occur within the suitable habitat that is located within 500 feet of the construction activities. If it is determined at the completion of pre-construction surveys that active nests belonging to these sensitive species are absent from the potential impact area, construction shall be allowed to proceed. If pre-construction surveys determine the presence of active nests belonging to these sensitive species, then construction shall: (1) be postponed until a permitted biologist determines the nest(s) is no longer active or until after the respective breeding season; or (2) not occur until a temporary noise barrier or berm is constructed at the edge of the development footprint and/or around the piece of equipment to ensure that noise levels are reduced to below 60 A weighted decibels (dBA) or ambient. Decibel output will be confirmed by a qualified noise specialist and intermittent monitoring by a qualified biologist will be required to ensure that conditions have not changed.</p>	<p>Prior to construction/ During construction</p>	<p>SEJPA</p>	<p><input type="checkbox"/></p>	<p>_____</p>	
<p>BIO-2 If initial grading and vegetation removal activities (i.e., earthwork, clearing, and grubbing) must occur during the general bird breeding season for migratory birds and raptors (January 15 through September 15), or during the breeding season for the western snowy plover and California least tern (March 1 to September 30), the project applicant shall retain a qualified biologist to perform a pre-construction survey of potential nesting habitat to confirm the absence of active nests belonging to migratory birds and raptors afforded protection under the MBTA and California FGC. The pre-construction survey shall be performed no more than three days prior to the commencement of the activities. If the qualified biologist determines that no active migratory bird or raptor nests occur, the activities shall be allowed to proceed without any further requirements. If the qualified biologist determines that an active migratory bird or raptor nest is present, no impacts shall occur until the young have fledged the nest and the nest is confirmed to no longer be active, as determined by the qualified biologist.</p>	<p>Prior to construction/ During construction</p>	<p>SEJPA</p>	<p><input type="checkbox"/></p>	<p>_____</p>	

Mitigation Measure	Timing	Responsible Party	Completed	Initials	Notes (Optional)
<p>BIO-3 Prior to construction, the project applicant or construction contractor shall retain a qualified biologist to monitor clearing and/or grubbing activities. The biological monitor shall attend pre-construction meetings and be present during the removal of vegetation to ensure that the approved limits of disturbance are not exceeded and provide periodic monitoring of the impact area including, but not limited to, trenches, stockpiles, storage areas, and protective fencing. Before construction activities occur in areas containing sensitive biological resources, construction workers shall be educated by the biologist to recognize and avoid areas containing sensitive biological resources.</p>	<p>Prior to construction/ During construction</p>	<p>SEJPA</p>	<p><input type="checkbox"/></p>	<p>_____</p>	
<p>BIO-4 Prior to construction, temporary construction fencing shall be installed around the perimeter of the work area located on the beach. Fencing shall remain in place during all construction activities.</p>	<p>Prior to construction/ During construction</p>	<p>SEJPA</p>	<p><input type="checkbox"/></p>	<p>_____</p>	
<p>BIO -5 The construction contractor shall implement BMPs, including but not limited to: maintaining the construction zone free of trash and debris; employing appropriate standard spill prevention practices and clean-up materials; installing and maintaining sediment and erosion control measures; maintaining effective control of fugitive dust; and properly storing, handling, and disposing of all toxins and pollutants including waste materials.</p> <p>Prior to construction, the following notes shall be included on the applicable construction plans to the satisfaction of the SEJPA (or their designee):</p> <ul style="list-style-type: none"> • A qualified biologist shall be on site to monitor vegetation clearing and periodically thereafter to ensure implementation of appropriate resource protection measures. • Dewatering shall be conducted in accordance with standard regulations of the Regional Water Quality Control Board. A permit to discharge water from dewatering activities will be required. • During construction, material stockpiles shall be placed such that they (1) cause minimal interference with on-site drainage patterns, and (2) are outside the high tide line. • Material stockpiles shall be covered when not in use. 	<p>Prior to construction/ During construction</p>	<p>SEJPA</p>	<p><input type="checkbox"/></p>	<p>_____</p>	

Mitigation Measure	Timing	Responsible Party	Completed	Initials	Notes (Optional)
Cultural Resources					
<p>CUL-1 During project construction, a qualified archaeologist and a Native American monitor shall be retained to conduct an archaeological monitoring program. The archaeologist and the Native American monitor shall attend a pre-construction meeting with the contractor to explain the requirements of the monitoring program. The archaeologist and the Native American monitor shall be present to monitor ground-disturbing activities, including brushing/grubbing, grading, and trenching. If cultural material is encountered, the archaeologist and the Native American monitor both shall have the authority to temporarily halt or redirect grading and other ground-disturbing activity while the cultural material is documented and assessed. If cultural material is encountered, the significance of the resources shall be determined by the archaeological Principal Investigator, in consultation with the Native American monitor and SEJPA staff. For significant resources, a recovery program shall be prepared and implemented to mitigate impacts before ground disturbing activities in the area of discovery are resumed. Collected artifacts shall be deposited at an institution with permanent curatorial facilities with accompanying catalog to current repository standards.</p>	During construction	SEJPA	□	—	
<p>CUL-2 During project construction, the project applicant or construction contractor shall be required to retain the services of a paleontologist to implement a paleontological monitoring and recovery program. The paleontologist shall attend the project pre-construction meeting to discuss the excavation plan with the excavation contractor(s). The paleontologist or a paleontological monitor shall be on site during original cutting of previously undisturbed portions of the Del Mar Formation and/or terrace deposits. In the event that fossils are discovered, the project paleontologist shall have the authority to temporarily halt or redirect construction activities in the area of discovery to allow recovery in a timely manner. Collected fossil remains shall be cleaned, sorted, catalogued, and deposited in an appropriate scientific institution such as the San Diego Museum of Natural History.</p>	During construction	SEJPA	□	—	