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: **Pier 1 North Dry Dock Project**
Certification Number R9-2015-0080
WDID: 9000002839

Reg. Meas. ID: 400834
Place ID: 815101
Party ID: 40631
Person ID: 525880

APPLICANT: **BAE Systems San Diego Ship Repair, Inc.**
2205 East Belt Street
San Diego, CA 92113

ACTION:

☐ Order for Low Impact Certification	☐ Order for Denial of Certification
☑ Order for Technically-conditioned Certification	☐ Enrollment in Isolated Waters Order No. 2004-004-DWQ
☑ Enrollment in SWRCB GWDR Order No. 2003-017-DWQ	

PROJECT DESCRIPTION

An application dated April 28, 2015 was submitted by BAE Systems San Diego Ship Repair, Inc. (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 Pier 1 North Dry Dock Project (Project). The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) deemed the application to be complete on September 4, 2015. 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. SPL-2015-00312-RRS).

The Project is located within the City of San Diego, San Diego County, California at 2205 Belt Street. The Project center reading is located at latitude 32.6925 and longitude -117.145278. The Applicant has paid all required application fees for this Certification in the amount of $600.00. On an annual basis, the Applicant must also pay all active discharge fees and post discharge monitoring fees, as appropriate[1]. On September 4, 2015, the San Diego Water

[1] The Applicant shall pay an annual active discharge fee each fiscal year or portion of a fiscal year during which discharges occur until the regional water board or the State Water Resources Control Board (State Water Board) issues a Notice of Completion of Discharges Letter to the discharger. Dischargers shall 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 regional water board or State Water Board issued a Notice of Completion of Discharges Letter to the discharger, but continued water quality monitoring or compensatory mitigation monitoring is required. Dischargers shall pay the annual post-discharge monitoring fee each fiscal year until the regional water board or the State Water Board issues a Notice of Project Complete Letter to the

(footnote continued on next page)

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 an existing wet berth with a new floating dry dock on the north side of BAE Systems' Pier 1 to increase dry dock capacity to facilitate required maintenance of existing and future naval assets and provide additional capacity for commercial vessel dry dock needs that cannot currently be met by existing dry dock capacity. Construction of the floating dry dock infrastructure site improvements consist of the following:

1. Pier 1 North Submerged Wall Construction. An underwater wall and cantilevered king pile installation will be constructed along the existing Pier 1 to protect the strength and integrity of the pier, which will remain in use adjacent to the dry dock sump. The overall length of these underwater improvements is approximately 700 feet from the U.S. Bulkhead Line to the U.S. Pierhead Line.

2. Dry Dock Sump Dredging. The dry dock will require a Bay bottom elevation of -65 feet Mean Lower Low Water (MLLW) to provide sufficient water depth to submerge the floating dry dock and provide a route to enter the dry dock. Dredging is anticipated to generate slightly less than 395,000 cubic yards of sediment and remove an estimated 0.13 acre of eelgrass habitat.[2]

   All sediment approved for ocean disposal will be hauled by scow and disposed of at the LA-5 Ocean Dredged Material Disposal Site (ODMDS), located approximately 13 miles west of the project site (16 nautical miles (nm) of travel). Sediments suitable for marine disposal or reuse will be dredged by clamshell or other means and loaded onto scows for either ocean disposal or reuse in San Diego Bay. Scows will be moved out of the shipyard to the adjacent channel and towed to ocean disposal or the south-bay via tugs. For contaminated sediments, the material will be loaded into a small sealed scow where material will be mixed with Portland cement to aid in drying the mud. The material will then be loaded into lined trucks that will transport material for upland disposal with the anticipated upland receiver site being the Otay Landfill.

   The final disposition of dredged material is approximately as follows:

   a. Approximately 305,000 cubic yards will go to ocean disposal at the LA-5 ODMDS;
   b. Approximately 80,000 cubic yards of material will be reused in the development of eelgrass habitat in the former South Bay Power Plant (SBPP) cooling water intake channel in South San Diego Bay; and

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(footnote continued from previous page)
discharger. Additional information regarding fees can be found electronically at the following location: http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/dredgefillcalculator.xlsx

[2] There is 0.77 acre of eelgrass habitat within the Pier 1 Dry Dock Project footprint that has already been impacted as a result of the Shipyard Sediment Site Cleanup Project. This impact will be mitigated in accordance with the *Waste Discharge Requirements for San Diego Shipyard Sediment Remediation Project, Order No. R9-2013-0093.*

c. Less than 10,000 cubic yards of material will be taken to an upland disposal site.

3. Ramp Wharf Construction. A ramp wharf designed for accessing the dry dock is proposed adjacent to and westward of the bulkhead and would extend from approximately the current bulkhead line to 125 feet into San Diego Bay and have an approximate surface area of 22,088 square feet (including pedestrian and vehicle ramps). The ramp wharf structures will be constructed of a cast-in-place reinforced concrete deck supported by precast concrete piles and will be anchored into the shoreline. The deck support system will require pile driving and will consist of both vertical and batter piles. The batter piles will provide lateral resistance to seismic loads. Along the perimeter of the ramp wharf a concrete curb will be constructed that will control storm water runoff and divert it to existing onshore storm water collection facilities.

4. Mooring Dolphins – Construction and Retrofit. Two mooring dolphins (one new and one retrofit) are proposed to be constructed approximately 344 feet and 890 feet offshore (west) of the U.S. Bulkhead Line to accommodate the mooring of the proposed dry dock. Dimensions of each dolphin will be approximately 26 feet by 33 feet in size and include a 6-foot thick concrete deck. Each dolphin will be supported by 24 concrete 24-inch octagonal piles and outfitted with two 100-ton double bits. The square footage of the proposed new western mooring dolphin is 714 square feet. The easternmost mooring dolphin is proposed to be retrofitted into the existing Pier 1 structure, which will expand the existing area of 345 square feet to 483 square feet (for a total increase of 138 square feet). This expansion entails the installation of three additional 24-inch octagonal piles on the south side of the mooring dolphin. Pile driving will occur as part of the mooring dolphin construction.

5. Floating Dry Dock. The new floating dry dock is approximately 205 feet in width and 851 feet in length (174,455 square feet) with aprons (approximately 16,165 square feet) attached to the dry dock on each end. It is anticipated that the majority of the dry dock will be assembled off-site; however, there will be some additional dry dock assembly work occurring once it is towed into place at the shipyard. The dry dock is being manufactured overseas and is scheduled for delivery in early fall 2016. It will be towed across the Pacific Ocean and into San Diego Bay. The Applicant intends to move the dry dock directly into final berth position upon delivery as there are no existing well suited locations for temporary berthing of the dry dock in San Diego Bay. The dry dock will be put into immediate use upon completion of rigging.

6. Eelgrass Habitat Restoration Site Construction. Sediment dredged from the dry dock sump that is suitable for reuse will be used to create an approximate 7-acre shallow plateau surface within the former SBPP intake channel to support the restoration of eelgrass habitat. The material will be transported via scow and tug a distance of approximately 5.4 miles southward in San Diego Bay to an off-loader. From the off-loader, the material will be hydraulically pumped out and transported via a floating pipeline, an approximate distance of 2,000 to 3,700 feet, to the final placement location within the former intake channel. None of the haul route to the off-loader occurs within eelgrass habitat (Attachment 4, Sheet R-1). A surface to bottom turbidity curtain will fully enclose the restoration site during construction to contain turbidity and keep out green sea turtles and marine mammals.

The proposed project is scheduled to begin in early 2016 and is projected to be completed in 2017.

The Project will result in the placement of a permanently moored vessel (dry dock) and dry dock support structures over waters of San Diego Bay that are equal to 4.91 acres of bay coverage. This coverage area includes two dry dock aprons, the new western mooring dolphin, the mooring dolphin addition, and the ramp wharf (north and south ramp wharfs, intermediary wharf, vehicle ramp, and pedestrian walkways)(Attachment 3, Figure 2). Storm water that falls on the wharf and adjacent shore will be captured in collection tanks. Wharves and finished grades will be designed to direct storm water into drainage piping that will also be pumped into storm water collection tanks. All storm water from landside or waterside facilities will be managed in accordance with *Waste Discharge Requirements for BAE Systems San Diego Ship Repair Inc. Discharge to San Diego Bay* (Order No. R9-2015-0034, NPDES No. CA0109151).

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. Compliance with the Certification conditions will help ensure that waters of the United States and/or State potentially impacted by the Project are protected in accordance with water quality standards in the *Water Quality Control Plan for the San Diego Basin (9)* (Basin Plan).

Project construction will permanently impact 5.04 acres at the Project Site and 8.68 acres at the Eelgrass Habitat Restoration Site, including approximately 240 linear feet of shoreline at the Project Site, of bay 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.

The Applicant reports that compensatory mitigation for the permanent loss of 5.04 acres of jurisdictional waters at the Project Site will be achieved through the enhancement of 5.07 acres of waters of the United States and/or State through restoration of eelgrass habitat and restoration of available open water as a result of removal of occupied surface area coverage from San Diego Bay. All waters of the United States and/or State receiving temporary discharges of fill material will be restored upon removal of the fill. Eelgrass habitat restoration mitigation for discharges of fill material to waters of the United States and/or State will be completed by the Applicant within the former SBPP cooling water intake channel located in the Telegraph hydrologic sub-area (HSA 909.11) within San Diego Bay at a minimum compensation ratio of 1:1 (area mitigated:area impacted) for occupied surface area coverage impacts and 1.2:1 for direct eelgrass habitat impacts. Mitigation ratios are consistent with standards for the types and extent of impacts pursuant to mitigation policies. No compensatory mitigation will be required for the 8.68 acres of permanent fill at the Eelgrass Habitat Restoration Site because it will restore historic bay elevations within San Diego Bay now that SBPP has been closed and removed.

Detailed written specifications and work descriptions for the compensatory mitigation project including, but not limited to, the geographic boundaries of the project, timing, sequence, monitoring, maintenance, ecological success performance standards and provisions for long-term management and protection of the mitigation areas are described in the *Eelgrass Transplant and Monitoring Plan in Support of the BAE Systems San Diego Ship Repair Pier 1 North Drydock Project and San Diego Shipyard Sediment Remediation Project North Shipyard Site, San Diego Bay, California* (Mitigation Plan), dated January 21, 2016. San Diego Water Board acceptance of the Mitigation Plan applies only to the Project described in this Certification and must not be construed as approval for other current or future projects that are planning to use additional acreage at the site for mitigation. The Mitigation Plan is incorporated in this Certification by reference as if set forth herein. The Mitigation Plan provides for implementation of compensatory mitigation which offsets adverse water quality impacts attributed to the Project in a manner that protects and restores the abundance, types and conditions of aquatic resources and supports their beneficial uses. Implementation of the Mitigation Plan will reduce significant environmental impacts to resources within the San Diego Water Board's purview to a less than significant level. Based on all of these considerations, the Mitigation Plan will adequately compensate for the loss of beneficial uses and habitat within waters of the United States and/or State attributable to the Project.

Additional Project details are provided in Attachments 2 through 5 of this Certification.

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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. R9-2015-0080 (Certification) shall expire upon a) the expiration or retraction of the Clean Water Act section 404 (33 USC Title 33, section1344) permit issued by the U.S. Army Corps of Engineers (USACE) 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

The receiving water limitations set forth below for San Diego Bay waters are based on applicable water quality standards contained in the Basin Plan, other water quality control plans and policies and federal regulations and are a required part of this Certification. Project activities shall not cause or contribute to exceedances of these receiving water limitations in San Diego Bay. Compliance with these limitations shall be determined from samples collected at the points of compliance described in the Monitoring Requirements in section VI of this Certification.

1. **Visual**. Floating particulates and grease and oil shall not be visible.

2. **Color**. Waters shall be free of coloration that causes nuisance or adversely affects beneficial uses.

3. **Hydrogen Ion Concentration**. The pH shall not be changed at any time more than 0.2 units from that which occurs naturally.

4. **Hydrogen Ion Concentration**. The pH shall not be depressed below 7.0 nor raised above 9.0.

5. **Turbidity**. If natural turbidity is between 0 to 50 nephelometric turbidity units (NTUs), the maximum increase from dredge activities must not exceed 20 percent of the measured natural turbidity. If natural turbidity is between 51 to 100 NTUs, the maximum increase from dredge activities must not exceed 10 NTUs. If natural turbidity is greater than 100 NTUs, the maximum increase from dredge activities must not exceed 10% above natural background levels.

6. **Dissolved Oxygen**. The dissolved oxygen concentration shall not at any time be depressed more than 10 percent from that which occurs naturally.

7. **Benthic Communities**. Pollutants in sediments shall not be present in quantities that, alone or in combination, are toxic to benthic communities.

8. **Human Health**. Pollutants shall not be present in sediments at levels that will bioaccumulate in aquatic life to levels that are harmful to human health.

9. **Water Quality Objectives**. Water quality objectives applicable to San Diego Bay established in Chapter 3 of the San Diego Water Board's Water Quality Control Plan for the San Diego Basin (Basin Plan) shall not be exceeded.

10. **Priority Pollutant Criteria**. Priority pollutant criteria applicable to San Diego Bay promulgated by the U.S. Environmental Protection Agency (USEPA) through the a) National Toxics Rule (NTR) (40 CFR 131.36 promulgated on December 22, 1992 and amended on May 4, 1995) and b) California Toxics Rule (CTR) (40 CFR 131.38, (65 Fed. Register 31682-31719), adding Section 131.38 to Title 40 of the Code of Federal Regulations, on May 18, 2000) shall not be exceeded.

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 or Compensatory Mitigation site(s) 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 Diego Bay or its tributaries;

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. **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. **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.

H. **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.

I. **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.

J. **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.

Sediment Dredging in Areas Designated for Upland Disposal

K. **Dredge Volume Limit – Upland Disposal.** The volume of sediment designated for upland disposal must not exceed 10,000 cubic yards of sediment.

L. **Sediment Dredging in Areas Designated for Upland Disposal.** All dredging and construction activities under this Certification in areas designated for upland disposal shall be conducted in accordance with the mitigation measures identified in the certified Final *Environmental Impact Report for the Pier 1 North Drydock, Associated Real Estate Agreements and Removal of Cooling Tunnels Project* and in accordance with, but not limited to, the following best management practices:

1. The dredging of contaminated sediment must be conducted using an environmental cable arm clamshell bucket, except where use of this bucket type will not dig the material due to hardness or debris. The clamshell bucket must be entirely closed during dredging activities when withdrawn from San Diego Bay waters and moved to the barge/scow.

2. The clamshell bucket must not be overfilled in order to prevent the spillage of dredged material back in to San Diego Bay waters.

3. Dredging must be conducted to remove dredge material and not stockpile material on the floor of San Diego Bay or level the bottom surface with the clamshell bucket.

4. The drop height from the clamshell bucket into the barge must be controlled to prevent splashing or sloshing of dredged material back into San Diego Bay waters.

5. The swing radius of unloading equipment must be controlled to prevent spillage of dredged material back into San Diego Bay waters.

6. Dredged sediments must be loaded into material barges with watertight compartments and water collection systems to prevent return water from re-entering San Diego Bay.

7. Dredged material barges must not be filled to a point that overflow or spillage could occur. Each material barge must be marked in such a way to allow the operator to visually identify the maximum load point.

8. Load-controlled barge movement, line attachment, and horsepower requirements of tugs and support boats at the project site must be specified to avoid resuspension of sediment and ensure that sea turtles and marine mammals are not injured or harassed through excessive vessel speed or propeller damage. Such measures may include speed restrictions, establishment of off-limit areas, and use of shallow draft vessels.

9. Excess or decanted water from dredged sediments must not be discharged into San Diego Bay.

10. Dredged sediments may be mixed with a cement based reagent (pozzolanics) to facilitate drying and to bind the sediments.

11. The on-shore dredged sediment truck loading area must be designed as a no-discharge facility to prevent dredge water from flowing back into San Diego Bay. The design must also prevent storm water run-on or run-off from adjacent areas from entering the offloading area.

12. At all times during Project construction, storm water in contact with sediment and dredge barge decant water shall be collected in closed-top tanks to prevent infiltration and overflow during a storm event. This would involve the decant and/or storm water being collected in a sump in the operation area, pumped to aboveground tanks, and disposed of either within the sanitary sewer or off site. The storage areas shall be surrounded by a curb, dike, berm, or some other type of secondary containment system. All paved storage areas shall be free of cracks and gaps, and shall be able to contain leaks and overflows until they can be addressed.

13. Prior to discharge to the sanitary sewer system, the dredge sediment decant water must meet the City of San Diego's requirements for discharge of wastewater to the sanitary sewer system. The discharge must comply with any limits on pollutant concentrations, discharge times and flow rates required by the City of San Diego. If the decanted water does not meet City of San Diego's requirements for discharge of wastewater to the sanitary sewer, it must be removed by a licensed waste hauler for treatment and disposal at an authorized site.

M. **Upland Disposal of Dredged Sediments.** Dewatered dredged sediments for upland landfill disposal, classified as nonhazardous, must be transported for disposal at a landfill permitted for accepting this material. It is anticipated that the Otay Sanitary Landfill at 1700 Maxwell Road in Chula Vista, California 91911 will be utilized for disposal of dredged sediments classified as nonhazardous. Dredged sediments classified as hazardous must be transported to a hazardous waste landfill permitted for accepting this material. Currently it is anticipated that the Buttonwillow Hazardous Water Landfill at 2500 West Lokem Road in Buttonwillow, California 93206 will be utilized for disposal of dredged sediments classified as hazardous. Alternative disposal of dredge materials at non-permitted disposal facilities is not authorized by this Certification.

N. **Silt Curtain Deployment for Sediment Dredging in Areas Designated for Upland Disposal.** The Applicant shall deploy and maintain a continuous length of double silt curtains, installed and maintained fully surrounding the active dredge area and around the dredge barge/bucket area in conformance with the following requirements:

1. The silt curtains must be comprised of Type III geotextile material;

2. The silt curtains must restrict the surface visible turbidity plume to the area of construction and dredging and must control and contain the migration of re-suspended sediments at the water surface and at depth;

3. The silt curtains must be supported by floating debris booms in open water areas such as along the bayward side of the dredging areas. Along pier edges the silt curtains may be connected to the pier structure;

4. The bottom of the silt curtains must be weighted with ballast weights or rods affixed to the base of the fabric to resist the natural buoyancy of the silt curtain fabric and lessen its tendency to move in response to currents. The silt curtains shall extend from the bay surface to at least 20 feet into the water column. Where feasible and applicable, the floating silt curtains shall be anchored and deployed from the surface of the water to just above the substrate;

5. If necessary, silt curtains with tidal flaps must be installed to facilitate curtain deployment in areas of higher flow. Air curtains may be used in conjunction with silt curtains to contain re-suspended sediment, enhance worker safety, and allow barges to transit into and out of the work area without the need to open and close silt curtain gates.

6. The silt curtains must be continuously monitored for damage, dislocation or gaps and must be immediately repaired where it is no longer continuous or where it has loosened.

Sediment Dredging in Areas Designated for Ocean Disposal or In-Bay Beneficial Reuse

O. **Dredge Volume Limit – Ocean Disposal or In-Bay Reuse.** The total project volume of sediment removed from areas designated for ocean disposal or in-bay reuse must not exceed 395,000 cubic yards of sediment, less any material that may require upland disposal (up to 10,000 cubic yards).

P. **Sediment Dredging in Areas Designed for Ocean Disposal or In-Bay Reuse.** All dredging and construction activities under this Certification in areas designated for ocean disposal or beneficial reuse must be conducted in accordance with the mitigation measures identified in the certified Final *Environmental Impact Report for the Pier 1 North Drydock, Associated Real Estate Agreements and Removal of Cooling Tunnels Project* and in accordance with, but not limited to, the following best management practices:

1. The dredging must be conducted using a standard clamshell bucket or whenever possible, an environmental cable arm clamshell bucket.

2. The clamshell bucket must not be overfilled in order to prevent the spillage of dredged material back in to San Diego Bay waters.

3. Dredged material shall be not stockpiled on the floor of San Diego Bay.

4. The drop height from the clamshell bucket into the barge must be controlled to prevent splashing or sloshing of dredged material back into San Diego Bay waters.

5. The swing radius of unloading equipment must be controlled to prevent spillage of dredged sediments back into the water.

6. Excess water from dredged sediment suitable for ocean disposal may be decanted and discharged back into San Diego Bay within the confines of the silt curtains.

7. Dredged material barges must not be filled to a point that overflow or spillage could occur. Each material barge must be marked in such a way to allow the operator to visually identify the maximum load point.

8. Load-controlled barge movement, line attachment, and horsepower requirements of tugs and support boats at the Project site must be specified to avoid resuspension of sediment and ensure that sea turtles and marine mammals are not injured or harassed through excessive vessel speed or propeller damage. Such measures may include speed restrictions, establishment of off-limit areas, and use of shallow draft vessels.

9. Dredged material approved by the USACE and the USEPA for ocean disposal shall be transported by barge for disposal at the LA-5 Ocean Dredged Material Disposal Site (LA-5).

In-Bay Placement of Dredge Material Suitable for Beneficial Reuse

Q. **In-Bay Placement of Dredge Material Suitable for Beneficial Reuse.** The Applicant shall place dredged material determined by the USACE and USEPA to be suitable for beneficial reuse for the creation of eelgrass habitat at the former SBPP cooling water intake channel in accordance with the following additional project elements to ensure protection of sensitive resources and water quality outside of the active placement site:

1. The placement site shall be fully contained by a surface to bottom turbidity curtain that is kept in alignment by temporary posts in order to prevent curtain drag over adjacent eelgrass beds. The length of the curtain shall be adequate and the bottom of the curtain shall be weighted to ensure full contact with the bay floor is maintained during all tidal levels.

2. Sediment shall be transported into the placement area by a floating pipeline that shall be inspected at least daily for leaks.

3. Access into and out of the placement area shall be taken by temporarily depressing the floating turbidity curtain and moving vessels over the curtain allowing the curtain to rise to the surface again once vessels have crossed the curtain.

4. The turbidity curtain must be maintained as a full turbidity enclosure and a green sea turtle enclosure. For this reason, the curtain shall not be opened and closed to allow normal transit of vessels in or out of the site and if it is necessary to open the curtain any more than by surface depression of the float line, the Biological Monitor shall conduct full site sweeps to ensure that green sea turtles have not entered the site.

5. The Applicant shall visually monitor disposal operations and areas for excessive turbidity near the transport pipeline or containment barge, and associated sediment placement apparatus. In addition, while active slurry pumping is underway, a Biological Monitor shall be present at the placement site to ensure that no green turtles are within the placement enclosure and that turbidity is adequately controlled to prevent discharge from the site.

6. Visual monitoring of sediment movement and turbidity levels shall be performed by the Applicant during and after sediment placement. Movement of sediment on the site shall be adaptively managed until the sediment is adequately compacted to ensure that movement of sediment off the site is minimized.

R. **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.

S. **Protection of Eelgrass Beds at the Project Site.** A pre-construction eelgrass survey must be completed in accordance with the requirements of the California Eelgrass Mitigation Policy (CEMP; National Marine Fisheries Service 2014) by a qualified biologist, prior to initiation of construction activities at the site. This survey must include both aerial and density characterization of the beds. A post-construction survey must be performed by a qualified biologist within 30 days following project completion to quantify any unanticipated losses to eelgrass habitat. Impacts must then be determined from a comparison of pre- and post-construction survey results. Impacts to eelgrass, if any, must be mitigated through conformance with the CEMP, which defines the mitigation ratio and other requirements to achieve mitigation for significant eelgrass impacts. The Applicant shall also comply with the following requirements:

1. Prior to construction, the boundaries of the eelgrass beds within the Applicant's facility must be staked with ridged PVC markers or self-centering buoys visible at all tide heights. The PVC markers or self-centering buoys must be protected, replaced, and maintained as needed to ensure that they remain in place and properly stake the boundaries of the eelgrass beds.

2. Any turbidity curtains must be kept a minimum of 30 feet away from staked eelgrass beds in order to prevent damage to eelgrass beds from curtain drag or movement.

3. During project and mitigation site work, and regardless of the timing of the dredging or in-Bay placement of fill, the eelgrass beds must be protected with turbidity curtains deployed in a manner to protect eelgrass from excessive dredge or fill generated turbidity or sediment deposition.

T. **California Least Tern.** In-water construction activities are anticipated to be scheduled to occur between September 16 and March 31outside the California least tern nesting season. Should in-water Project activities be conducted during the least tern breeding season, a qualified Biological Monitor familiar with the California least tern and other special status seabirds and waterfowl shall be retained by the Applicant to conduct monitoring within 500 feet of construction activities. The monitor shall be empowered to delay commencing work, and shall do so if terns are actively foraging (e.g., searching and diving) within the work area. Should adverse impacts to terns occur (e.g., agitation or startling during foraging activities), the Biological Monitor shall be empowered to delay or halt construction, and shall do so until California least terns have left the project site.

U. **Green Sea Turtles and Marine Mammals**. The Applicant shall implement the *Pier 1 North Drydock Project Onsite Work Maine Mammal and Green Sea Turtle Impact Avoidance and Contingency Plan*, dated December 23, 2015. A summary of observations shall be reported in the monthly Receiving Water and Visual Observation Monitoring Reports required under section VI.I of this Certification.

V. **Sound Impacts**. The Applicant shall monitor sound pressure levels during pile driving to verify the distance from the pile driving activity at which the 190 decibel root mean squared (dBrms) sound level threshold for marine life injury is not exceeded. Once the distance is determined, the Biological Monitor shall halt pile driving activities should

marine mammals or turtles approach pile driving closer than the 190 dBrms buffer distance. Pile driving shall be initiated with a soft start methodology using low energy blows to initiate driving and ramping up to full hammer energy as outlined in the Mitigation Monitoring and Reporting Program of the certified Final Environmental Impact Report.

W. **Beneficial Use Protection**. The Applicant must take all necessary measures to protect the beneficial uses of waters of San Diego Bay. This Certification requires compliance with all applicable requirements of the Basin Plan. If at any time, an unauthorized discharge to surface waters 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.

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 San Diego Bay habitats.

B. **Storm Drain Inlets.** All storm drain inlet structures within the Project boundaries must be stamped or stenciled (or equivalent) with appropriate language prohibiting non-storm water discharges.

C. **Post-Construction BMP Design.** The Project must be designed to comply with the *Waste Discharge Requirements for BAE Systems San Diego Ship Repair Inc. Discharge to San Diego Bay* (Order No. R9-2015-0034), including BMP plans for storm water pollution prevention. Post-construction BMPs are described in the *BAE Systems BMP Program Manual* (SWMP).

D. **Post-Construction BMP Implementation.** All post-construction BMPs must be constructed, functional, and implemented prior to completion of Project construction, occupancy, and/or planned use, and maintained in perpetuity. The post construction BMPs must include those described in the SWMP, dated August 24, 2015, and any revisions thereto.

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.

B. **Project Impacts and Compensatory Mitigation.** Unavoidable Project impacts to San Diego Bay must not exceed the type and magnitude of impacts described in the table below. At a minimum, compensatory mitigation required to offset unavoidable temporary and permanent Project impacts to waters of the United States and/or State must be achieved as described in the table below:

	Impacts (acres)	Impacts (linear ft.)	Mitigation for Impacts (acres)	Mitigation Ratio (area mitigated :area impacted)	Mitigation for Impacts (linear ft.)	Mitigation Ratio (linear feet mitigated :linear feet impacted)
Permanent Impacts						
San Diego Bay	4.91 Unvegetated bay sediment[1] 0.13 Eelgrass[2] 8.68 Unvegetated bay sediment[3]	240[4]	4.91 Enhancement[5] Estimated 0.16 Enhancement[6] N/A[7]	1:1 1.2:1 N/A[7]	NA[8]	NA[8]

NA – Not Applicable

1. Impacts attributable to dry dock sump dredging and placement of permanently moored vessel (dry dock) and ancillary structures that increase the occupied surface area coverage within San Diego Bay.
2. Direct impacts to eelgrass beds as a result of dredging for the dry dock.
3. Permanent fill to create shallow plateau within the former SBPP intake channel to support the eelgrass habitat restoration project.
4. Length of shoreline affected by the Project.
5. The 4.91 acres of enhancement is comprised of removal of 1.04 acre of existing occupied surface area coverage (Pier 2 and AFDL/Diligence Dry Dock, see Attachment4, Figure 1A) and enhancement of 3.87 acres of eelgrass at the former SBPP intake channel by filling and planting the previously excavated channel.
6. In accordance with CEMP, direct impact to eelgrass will be mitigated at a 1.2:1 mitigation ratio based on pre-construction to post-construction impact assessment evaluations. Eelgrass habitat enhancement will be accomplished at the former SBPP cooling water intake channel.
7. Mitigation is not required for this impact because filling the former SBPP intake channel will restore historic Bay elevations at the Mitigation Site location.
8. Mitigation in linear feet is not required for this impact because the mitigation site is not located adjacent to the bay shoreline. However, the site will provide a contiguous area of additional habitat that is approximately 300 feet wide and approximately 1,650 feet long.

C. **Compensatory Mitigation Plan Implementation.** The Applicant must fully and completely implement the Mitigation Plan; any deviations from, or revisions to, the Mitigation Plan must be pre-approved by the San Diego Water Board.

D. **Performance Standards.** Compensatory mitigation required under this Certification shall be considered achieved once it has met the ecological success performance standards contained in the Mitigation Plan (Mitigation Success Criteria, page 14) to the satisfaction of the San Diego Water Board.

E. **Compensatory Mitigation Site Design.** The compensatory mitigation site(s) shall be designed to be self-sustaining once performance standards have been achieved. This includes minimization of active engineering features (e.g., pumps) and appropriate siting to ensure that natural hydrology and landscape context support long-term sustainability.

F. **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.

G. **Long-Term Management and Maintenance.** The compensatory mitigation site(s) must be managed, protected, and maintained, in perpetuity, in conformance with the long-term management plan and the final ecological success performance standards identified in the Mitigation Plan. The aquatic habitats that comprise the mitigation site(s) must be protected in perpetuity from land-use and maintenance activities that may threaten water quality or beneficial uses within the mitigation area(s) in a manner consistent with the following requirements:

1. Any maintenance activities on the mitigation site(s) that do not contribute to the success of the mitigation site(s) and enhancement of beneficial uses and ecological functions and services are prohibited;

2. Maintenance activities must be limited to the removal of trash and debris, removal of exotic plant species, replacement of dead native plant species, and remedial measures deemed necessary for the success of the compensatory mitigation project;

3. If at any time a catastrophic natural event (e.g., fire, flood) causes damage(s) to the mitigation site(s) or other deficiencies in the compensatory mitigation project, the Applicant must take prompt and appropriate action to repair the damage(s) including replanting the affected area(s) and address any other deficiencies. The San Diego Water Board may require additional monitoring by the Applicant to assess how the compensatory mitigation site(s) or project is responding to a catastrophic natural event.

H. **Timing of Mitigation Site Construction.** The construction of proposed mitigation must be concurrent with project construction and completed no later than 9 months following the earliest time of either the direct impact to eelgrass beds or placement of occupied surface area coverage, or as directed by the CEMP. Delays in implementing mitigation must be compensated for by an increased mitigation implementation in accordance with CEMP requirements of 10% of the cumulative compensatory mitigation for each month of delay.

I. **Mitigation Site(s) Preservation Mechanism. Within 90 days from the issuance of this Certification**, the Applicant must provide the San Diego Water Board with a draft preservation mechanism (e.g. deed restriction, conservation easement, etc.) that will protect all mitigation areas and their buffers in perpetuity. **Within 180 days of the start of Project construction**, the Applicant must submit proof of a completed final preservation mechanism that will protect all mitigation areas and their buffers in perpetuity. The conservation easement, deed restriction, or other legal limitation on the mitigation properties must be adequate to demonstrate that the sites will be maintained without future development or encroachment on the sites which could otherwise reduce the functions and values of the sites for the variety of beneficial uses of waters of the United States and/ or State that it supports. The legal limitation must prohibit, without exception, all residential, commercial, industrial, institutional, and transportation development, and any other infrastructure development that would not maintain or enhance the wetland and streambed functions and values of the sites. The preservation mechanism must clearly prohibit activities that would result in soil disturbance or vegetation removal, other than the removal of non-native vegetation. Other infrastructure development to be prohibited includes, but is not limited to, additional utility lines, maintenance roads, and areas of maintained landscaping for recreation.

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. **Discharge Commencement Notification**. The Applicant must notify the San Diego Water Board in writing **at least 5 days prior to** the start of Project construction.

F. **Geographic Information System Data.** The Applicant must submit Geographic Information System (GIS) shape files of the Project impact sites within 30 days of the completion of project construction and GIS shape files of the Project mitigation sites within 30 days of mitigation installation. All impact and mitigation site 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.

G. **Receiving Water Visual Observation Monitoring.** The Applicant must conduct visual observation monitoring of the Project activities in San Diego Bay prior to, during, and after each period of project construction, as well as during sediment transport to and placement of material at the Eelgrass Habitat Restoration Site. The visual observation monitoring documentation must be included in the Receiving Water and Visual Observation Monitoring Report and Final Project Completion Report.

1. **Parameters.** The following parameters shall be visually monitored immediately outside of the construction area and along the transportation corridor, at the off-loader, along the floating pipeline, and immediately outside of the construction area of the Eelgrass Habitat Restoration Site:

   a. No floating particulates, suspended materials, grease, or oil; and

   b. No significant discoloration of the water surface;

2. **Field Documentation.** All visual observations shall be recorded throughout Project construction activities. In addition to the requirements listed in section VI.D., monitoring field logs shall include observations of water quality conditions including sheen, color, odor, floating particulates, and surface visible turbidity plume. Logs shall also include weather conditions, such as wind speed/direction and cloud cover; and

3. **Response Actions.** If the condition of the silt curtain is observed to be damaged, has become dislocated, or has gaps where a visible turbidity plume is forming outside of the silt curtain at the Project Site or Eelgrass Habitat Restoration Site, at the off-loader, or along the floating pipeline, a response action shall be taken immediately to correct the situation. Response actions may include, but are not limited to, work stoppage until silt curtain repair is completed, implementation of operational modifications, and/or implementation of additional BMPs (e.g., a second silt curtain). Response actions, if needed, shall be documented in the monitoring field log.

H. **Receiving Water Quality Monitoring**. The Applicant shall conduct at least weekly receiving water monitoring during construction activities at both the Project Site and the Eelgrass Habitat Restoration Site to verify that applicable water quality standards for pH, dissolved oxygen and turbidity are not violated outside of the construction areas. The monitoring plan shall contain the following elements:

1. **Monitoring Stations**. During each monitoring event, water quality parameters including turbidity, dissolved oxygen, and pH shall be measured at five stations at the Project Site and three stations at the Eelgrass Habitat Restoration Site. Monitored water quality measurements shall be compared to "ambient" San Diego Bay reference measurements outside the construction area. Four of the Project Site stations and two of the Eelgrass Habitat Restoration Site stations shall be compliance stations and one station at each of the Project Site and Eelgrass Habitat Restoration Site shall be a reference stations. Monitoring station positions shall be located using a Global Position System (GPS) accurate to within ±3 meters. Station descriptions are as follows:

   a. ***Compliance Stations***. Four monitoring stations at the Project Site and two stations at the Eelgrass Habitat Restoration Site shall be located evenly along an arc located 500 feet from the edge of the construction area to capture all tidal and current conditions.

      Project Site. Two of the compliance stations shall be located nearshore on the north and south sides along the 500-foot compliance arc, approximately the same distance from shore as the construction activity. Two additional offshore compliance stations shall be located on the north and south sides of the 500-foot compliance arc. The locations shall be adjusted in the field to better target a visible turbidity plume, if a visible plume is observed;

      Eelgrass Habitat Restoration Site. The two compliance stations shall be located on the north and south sides of the Restoration Site at a distance of 500 feet. The locations shall be adjusted in the field to better target a visible turbidity plume, if a visible plume is observed;

   b. **Reference *Station***. One reference station for each of the Project and Eelgrass Habitat Restoration Sites shall be located 1,000 feet from the construction activity in the direction of the head of the bay and beyond the influence of construction activities. Natural turbidity, dissolved oxygen, and pH shall be determined through measurements at the reference station. A reference station shall be monitored during every event, because the turbidity water quality objective is based on an acceptably small increase in the vicinity of the construction activity relative to ambient reference levels. The location of the reference station shall remain the same for all monitoring events;

2. **Water Quality Measurements**. Monitored water quality measurements for turbidity, dissolved oxygen, and pH at the Compliance Stations shall be compared to Reference Station measurements outside the construction area. Water quality measurements shall be collected from a depth of 10 feet below the water surface at each of the stations. Monitoring depths shall be determined using a depth finder with an accuracy of ±0.5 feet. Water quality shall be monitored using instrumentation capable of measuring dissolved oxygen (DO), pH, and turbidity (in nephelometric turbidity units (NTU's));

3. **Monitoring Frequency**. Water quality monitoring at all Compliance and Reference Stations shall be conducted on a weekly basis after pile driving activities have been underway for at least 30 minutes. After the commencement of dredging activities, water quality monitoring at all Compliance and Reference Stations shall be conducted once daily after dredging activities have been underway for at least 1 hour. Monitoring may be reduced to weekly sampling if no water quality exceedances are observed after 3 consecutive days of monitoring. During weekly water column monitoring (after 3 consecutive days without an exceedance), all water quality parameters will be measured during one monitoring event per week. Monitoring frequency will return to daily if an exceedance of the Receiving Water Limitations described in section II.E of this Certification is observed.;

4. **Sample Integrity**. The integrity of each water sample collected shall be maintained from the time of collection to the point of data reporting. Proper record keeping and chain of custody (COC) procedures shall be implemented to allow samples to be traced from collection to final disposition. After collection of water samples, documentation on various logs and forms shall be required to adequately identify and catalog sample information; and

5. **Compliance Criteria**. Receiving Water Limitations are provided in section II.E of this Certification. The point of compliance with these receiving water limitations shall be located 500 feet from the edge of the construction area. The construction area is defined as the area(s) occupied by the dredging barge(s), the sediment scow(s), pile driving equipment and silt curtains, and other associated work activities.

I. **Response Actions to Monitoring Results**. In the event that visual observations or water quality monitoring described in section II.E of this Certification indicate an exceedance of an applicable Receiving Water Limitation described in Section III of this Certification, the Applicant shall implement the additional or enhanced operational or engineering BMPs described below:

1. Evaluate the concurrent measurements at background and compliance monitoring stations and supporting visual evidence to determine whether the exceedance is caused by construction activities or by other ambient conditions in San Diego Bay (e.g., wind waves, boat wakes, barge/ship traffic, and storm inflow).

2. Immediately re-take measurements at background and compliance stations.

3. If the exceedance is confirmed, immediately notify the dredge contractor to immediately modify operations or implement additional BMPs to mitigate the exceedance. Operational modifications may include, but are not limited to the following modifications implemented individually or in combination:

   a. Adjust the sequence and/or speed of dredging and disposal operations;

   b. Reposition dredge operations in such a way as to ensure future exceedances do not occur;

c. Fix, maintain, and/or upgrade floating silt curtains; and

d. Modify, either on a temporary or permanent basis, dredge equipment (such as the dredging bucket size or type).

4. Re-evaluate field measurements at all relevant stations 30 minutes later, after additional BMPs or operational modifications are implemented.

5. If the receiving water limitation exceedance continues to persist, even with additional BMPs, determine and implement more aggressive BMPs or operational modifications that resolve the exceedance or stop work to further assess the source of the exceedance, identify effective mitigation measures, and allow the water column to recover.

J. **Receiving Water and Visual Observation Monitoring Report**. The Applicant shall prepare monitoring reports that contain the results of receiving water quality and visual observation monitoring activities for each week of that month. The reports must be submitted no later than 30 days following each calendar month of in-water construction and must include:

1. The following identification numbers in the header or subject line: Certification No. R9-2015-00080, PIN 815101;

2. The names, qualifications, and affiliations of the persons contributing to the report;

3. A summary table of the monitoring results with a comparison to receiving water limitation compliance criteria;

4. An evaluation, interpretation, and tabulation of the visual observations required under section VI.G and water quality data required under section VI.H including interpretations and conclusions as to whether applicable receiving water limitations were attained at each monitoring station;

5. A summary of observation monitoring for green sea turtles and marine mammals as required in section III.U.;

6. A description of each incident of non-compliance 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 steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and

7. For any weekly monitoring period in which no pile driving or dredging activities were conducted, the monitoring report must still be submitted and include a statement certifying that no pile driving or dredging activities occurred during the monitoring period.

K. **Annual Project Progress Reports.** The Applicant must submit annual Project progress reports describing status of BMP implementation, compensatory mitigation, 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 compensatory mitigation monitoring information sufficient to demonstrate how the compensatory mitigation 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.

2. **Compensatory Mitigation Monitoring Reporting.** Mitigation monitoring information must be submitted as part of the Annual Project Progress Report for a period of <u>not less than five years</u>, sufficient to demonstrate that the compensatory mitigation project has accomplished its objectives and met ecological success performance standards contained in the Mitigation Plan. Monitoring shall be conducted in accordance with the standards of the CEMP (NMFS 2014). Following Project implementation the San Diego Water Board may reduce or waive compensatory mitigation monitoring requirements upon a determination that performance standards have been achieved. Conversely the San Diego Water Board may extend the monitoring period beyond five years upon a determination that the performance standards have not been met or the compensatory mitigation project is not on track to meet them. The Annual Project Progress Report must include the following compensatory mitigation monitoring information:

a. Names, qualifications, and affiliations of the persons contributing to the report;

b. An evaluation, interpretation, and tabulation of the parameters being monitored, including the results of the Mitigation Plan monitoring program, and all quantitative and qualitative data collected in the field;

c. Monitoring data interpretations and conclusions as to how the compensatory mitigation project(s) is progressing towards meeting performance standards and whether the performance standards have been met;

d. A description of the progress toward implementing a plan to manage the compensatory mitigation project after performance standards have been achieved to ensure the long term sustainability of the resource in perpetuity, including a discussion of long term financing mechanisms, the party responsible for long term management, and a timetable for future steps;

e. Qualitative and quantitative comparisons of current mitigation conditions with pre-construction conditions and previous mitigation monitoring results;

f. As-built drawings of the compensatory mitigation project site(s), no bigger than 11”X17”; and

g. A survey report documenting boundaries of the compensatory mitigation site(s).

L. **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. A summary of visual observations required under section VI.G of this Certification and water quality data required under section VI.H of this Certification, collected during all construction activities completed during the course of the Project and a summary of any response actions taken; and

6. The pre- and post- construction eelgrass surveys, as applicable, required under section III.S of this Certification, including a description of any additional actions that will be taken by the Applicant to mitigate for impact to eelgrass habitat beyond what is expected.

M. **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.

N. **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. R9-2015-0080:PIN 815101
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. R9-2015-0080:PIN 815101.

O. **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.

P. **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. **Caulerpa Taxifolia.** The Applicant must conduct a surveillance-level survey for *Caulerpa taxifolia*, in accordance with the requirements in the National Marine Fisheries Service's *Caulerpa* Control Protocol (version 4), dated February 25, 2008, not more than 90 days before the initiation of construction to determine presence/absence of this species within the immediate vicinity of the project. If *Caulerpa taxifolia* is identified during a survey, or at any other time before, during, or within 120 days following completion of authorized activities, both National Marine Fisheries Service and California Department of Fish and Wildlife must be contacted within 24 hours of first noting the occurrence. In the event *Caulerpa taxifolia* is detected, all disturbing activity must cease until such time as the infestation has been isolated and treated, or the risk of spread from the disturbing activity is eliminated in accordance with the Caulerpa Control Protocol.

C. **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.

D. **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.

E. **Anticipated Noncompliance**. The Applicant shall give advance notice to the San Diego Water Board of any planned changes in the Project or the Compensatory Mitigation project which may result in noncompliance with Certification conditions or requirements.

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.**

2. **Transfer of Mitigation Responsibility:** Any notification of transfer of responsibilities to satisfy the mitigation requirements set forth in this Certification must include a signed statement from an authorized representative of the new party (transferee) demonstrating acceptance and understanding of the responsibility to comply with and fully satisfy the mitigation conditions and agreement that failure to comply with the mitigation conditions and associated requirements may subject the transferee to enforcement by the San Diego Water Board under Water Code section 13385, subdivision (a). Notification of transfer of responsibilities meeting the above

conditions must be provided to the San Diego Water Board **within 10 days of the transfer date.**

3. **Transfer of Post-Construction BMP Maintenance Responsibility:** The Applicant assumes responsibility for the inspection and maintenance of all post-construction structural BMPs until such responsibility is legally transferred to another entity. At the time maintenance responsibility for post-construction BMPs is legally transferred the Applicant must submit to the San Diego Water Board a copy of such documentation and must provide the transferee with a copy of a long-term BMP maintenance plan that complies with manufacturer specifications. The Applicant must provide such notification to the San Diego Water Board within **10 days** of the transfer of BMP maintenance responsibility.

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. The San Diego Unified Port District 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 November 18, 2015, for the Final Environmental Impact Report (FEIR) titled *Final Environmental Impact Report for the Pier 1 North Drydock, Associated Real Estate Agreements and Removal of Cooling Tunnels Project* (State Clearing House Number 2014041071). 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 FEIR and finds that the Project as proposed will have a significant effect on resources within the San Diego Water Board's purview.

C. The San Diego Water Board has required mitigation measures as a condition of this Certification to avoid or reduce the environmental effects of the Project to resources within the Board's purview to a less than significant level.

D. 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 FEIR are implemented. The Mitigation Monitoring and Reporting Program (MMRP) is included and incorporated by reference in Attachment 5 to this Certification. The Applicant shall implement the Lead Agency's MMRP described in the FEIR, 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.

E. 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

Lisa Honma, Environmental Scientist
Telephone: 619-521-3367
Email: Lisa.Honma@waterboards.ca.gov

X. WATER QUALITY CERTIFICATION

I hereby certify that the proposed discharge from the Pier 1 North Dry Dock Project (Certification No. R9-2015-0080) 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. R9-2015-0080 issued on January 22, 2016.

David W. Gibson

DAVID W. GIBSON
Executive Officer
San Diego Water Board

22 January 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.

ATTACHMENT 2
PROJECT LOCATION MAPS

Figure 3.1 – Regional Location
Figure 1 – Project Vicinity Map
Figure 1-2 – Shipyard Sediment Cleanup Area, Pier 1N Dry Dock Dredging

LSA

LEGEND

Project Location

FIGURE 3.1

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0 1000 2000

FEET

SOURCE: Bing Maps (2012); BAE Systems (6/2014)

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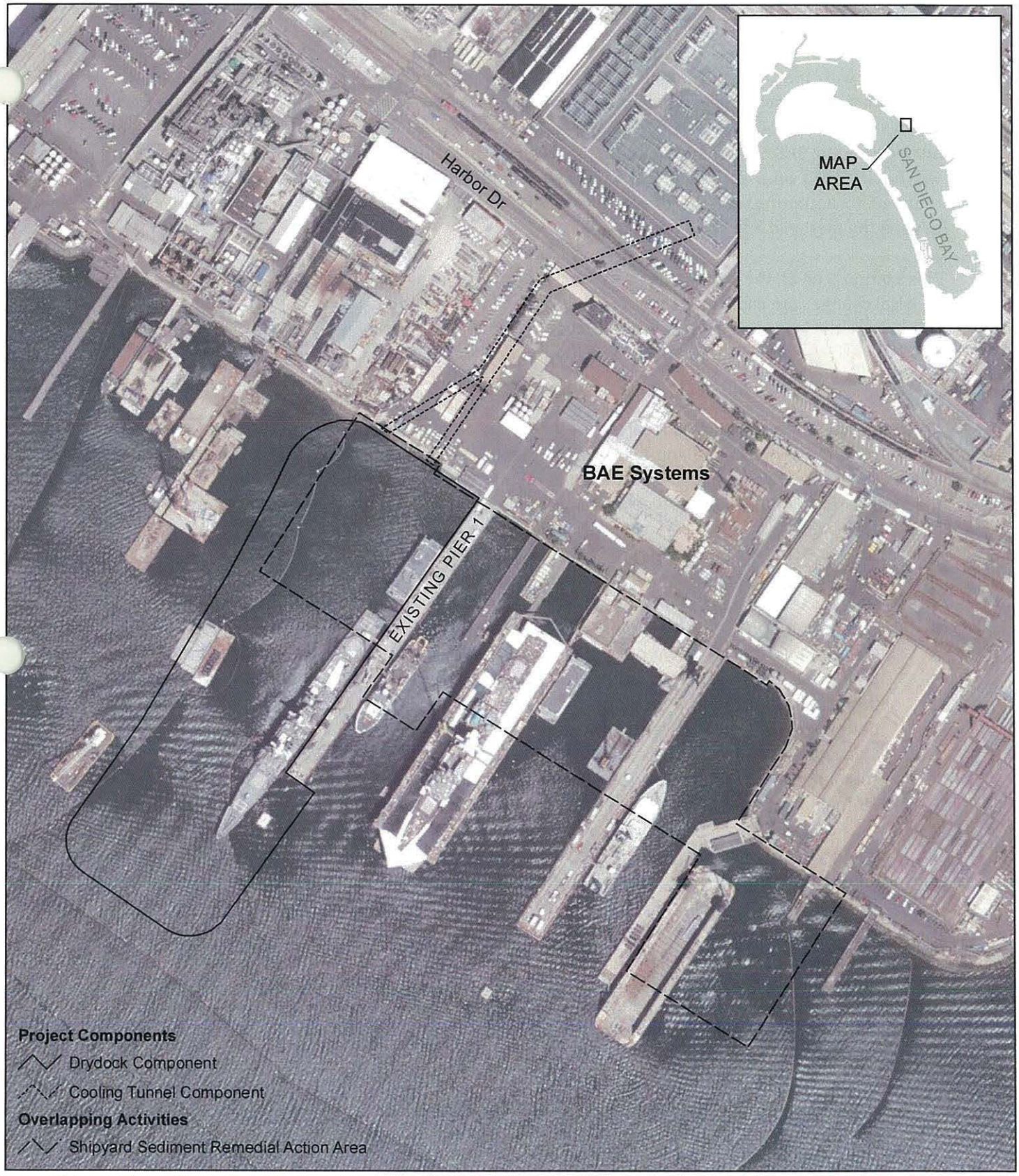
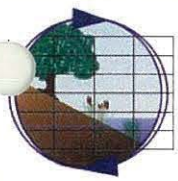
Pier 1 North Drydock Project

Regional Location





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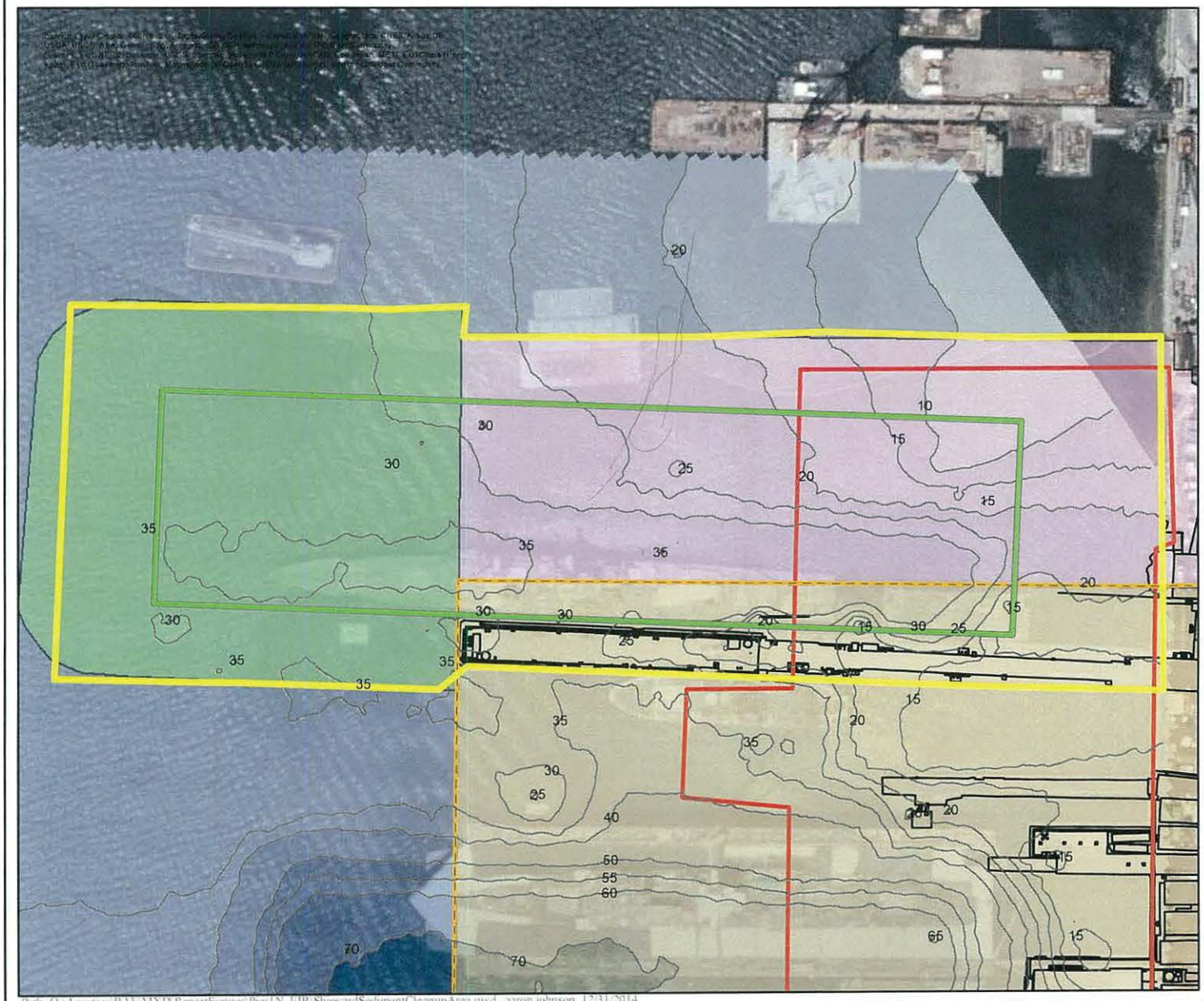
Project Vicinity Map

BAE Systems Pier 1 North Drydock Project

Figure 1



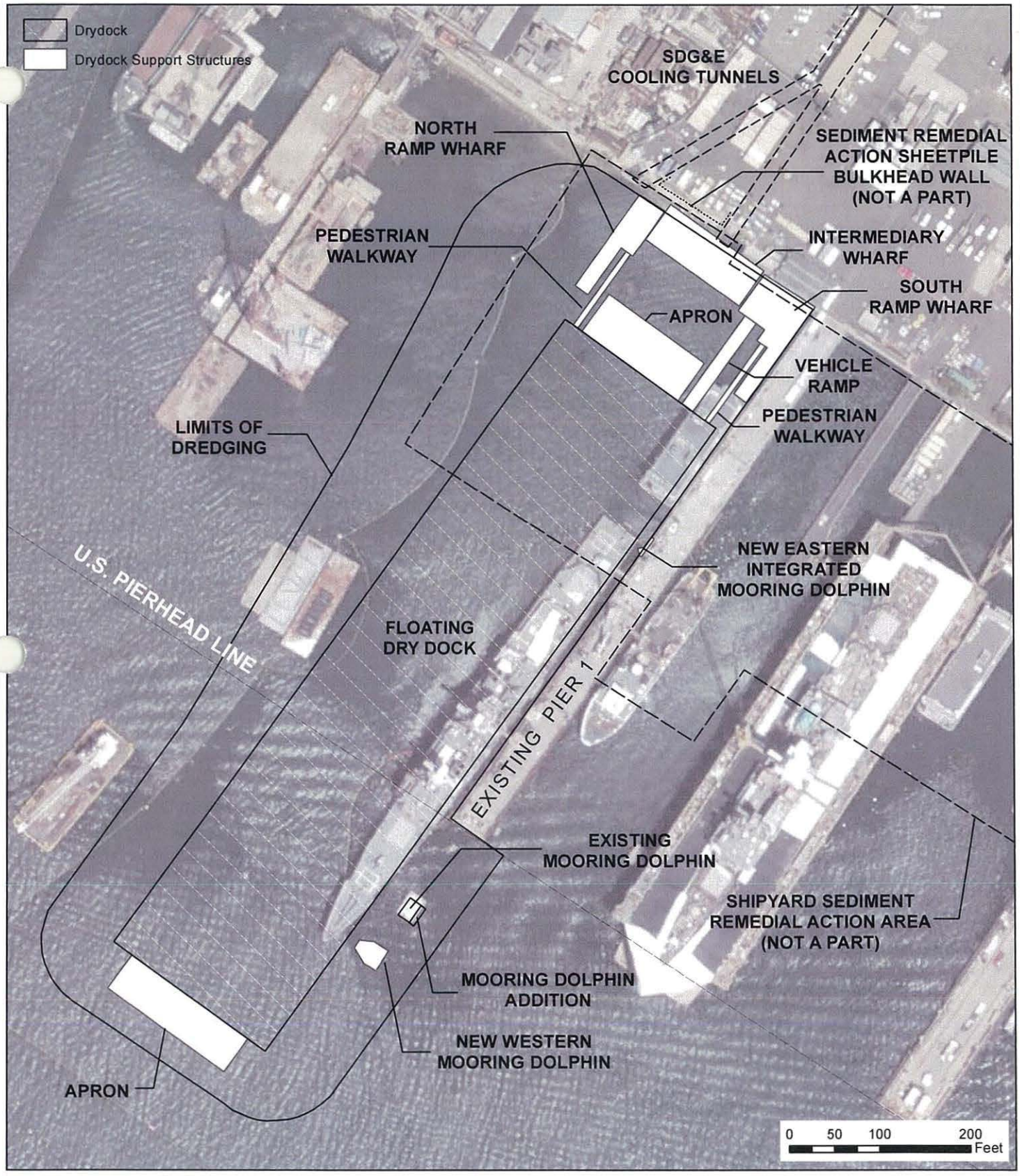
Shipyard Sediment Cleanup Area
Pier 1N Dry Dock Dredging
BAE Systems San Diego Ship Repair
San Diego Bay

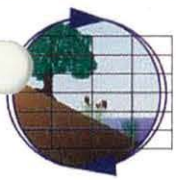
1 inch = 150 feet
0 75 150 Feet

FIGURE
1-2

ATTACHMENT 3
PROJECT SITE PLANS

Figure 2 – Project Features
Figure 3 – Baseline Eelgrass Survey Results
Construction Plans for Pier 1 North Dry Dock Dredging Project, Sheets T-1, G-1, and C-1 to C-10





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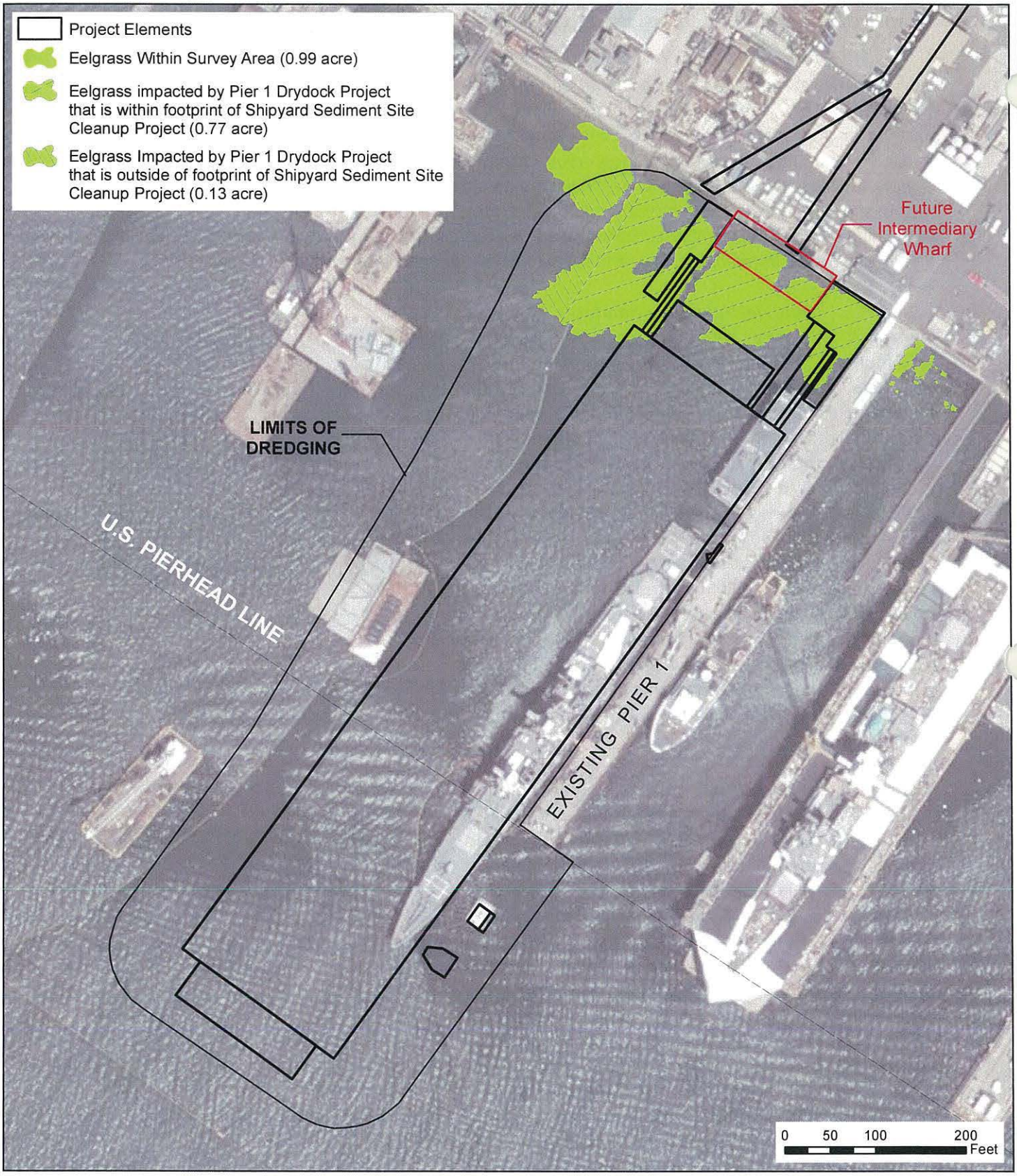
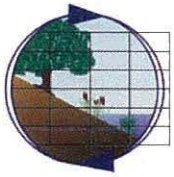
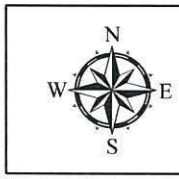
Project Features

BAE Systems Pier 1 North Drydock Project

Figure 2







Baseline Eelgrass Survey Results

BAE Systems Pier 1 North Drydock Project

Figure 3

Merkel & Associates, Inc.

PIER 1 NORTH - DRY DOCK DREDGING PROJECT

BAE SYSTEMS - SAN DIEGO SHIP REPAIR

VICINITY MAP

NOTE: BASE MAP PREPARED FROM ESRI, 2015.

DRAWING INDEX

SHEET SEQUENCE	SHEET NO.	SHEET TITLE
1	T-1	COVER SHEET
2	G-1	GENERAL NOTES AND SEDIMENT HAUL ROUTES
3	C-1	DRY DOCK PLAN AND EXISTING FACILITIES
4	C-2	PRE-DREDGING PIER 1 TRENCH
5	C-3	DRY DOCK DREDGE PLAN
6	C-4	DREDGING CROSS-SECTIONS (1)
7	C-5	DREDGING CROSS-SECTIONS (2)
8	C-6	DREDGING CROSS-SECTIONS (3)
9	C-7	DREDGING CROSS-SECTIONS (4)
10	C-8	DREDGING CROSS-SECTIONS (5)
11	C-9	DREDGING CROSS-SECTIONS (6)
12	C-10	DREDGING CROSS-SECTIONS (7)
13	R-1	SOUTH BAY EELGRASS RESTORATION SITE ACCESS ROUTE
14	R-2	SOUTH BAY EELGRASS RESTORATION SITE PLAN VIEW: SEDIMENT PLACEMENT PLAN
15	R-3	SOUTH BAY EELGRASS RESTORATION SITE: CROSS-SECTIONS
16	R-4	SPECIAL ENVIRONMENTAL NOTES

ONE INCH
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

ANCHOR QEA

CONSTRUCTION PLANS

REGISTERED PROFESSIONAL ENGINEER
MICHAEL P. WHELAN
No. C69833
Exp. 6/30/16
9-11-2015
CIVIL
STATE OF CALIFORNIA

REVISIONS

REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: T MERRITTS/K KING
DRAWN BY: M PRATSCHNER
CHECKED BY: M WHELAN
APPROVED BY: J VERDUIN
SCALE: AS INDICATED
DATE: SEPTEMBER 11, 2015

PIER 1 NORTH DRY DOCK DREDGING PROJECT

COVER SHEET

T-1

SHEET NO. 1 OF 16

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Sep 15, 2015 12:11pm mpratschner

GENERAL CONSTRUCTION NOTES:

1. CONTRACT DOCUMENTS REFER TO THESE DRAWINGS, CONSTRUCTION PERMITS AND TECHNICAL SPECIFICATIONS.
2. CHANGES TO THE SPECIFICATIONS AND/OR CONSTRUCTION SHOWN ON THESE DRAWINGS SHALL NOT BE MADE WITHOUT APPROVAL FROM THE ENGINEER.
3. CONTRACTOR SHALL FURNISH ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY TO COMPLETE ALL WORK AS INDICATED ON THE CONTRACT DOCUMENTS.
4. CONTRACTOR SHALL VISIT THE JOB SITE AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS, AND CONFIRM THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION.
5. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
6. THE CONTRACTOR SHALL RECEIVE, IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
7. THE CONTRACTOR SHALL OPERATE ALL EQUIPMENT AND INSTALL ALL MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE BY THE ENGINEER OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
8. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.
9. CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
10. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THIS CONTRACT.
11. CONTRACTOR SHALL KEEP JOB SITE AREA CLEAN AND HAZARD-FREE. CONTRACTOR SHALL DISPOSE OF ALL DIRT, DEBRIS, AND RUBBISH FOR DURATION OF THE WORK. UPON COMPLETION OF WORK, CONTRACTOR SHALL REMOVE ALL MATERIAL AND EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY.
12. NOTES AND DETAILS ON THE CONTRACT DOCUMENTS SHALL TAKE PRECEDENCE OVER GENERAL NOTES HEREON.
13. DIMENSION CALLOUTS SHALL TAKE PRECEDENCE OVER SCALES SHOWN ON THE CONTRACT DOCUMENTS.
14. THE CONTRACT DOCUMENTS REPRESENT THE FINISHED SITE CONDITIONS. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION.
15. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT SITE CONDITIONS, EXISTING STRUCTURES, WORKERS, AND THE PUBLIC DURING CONSTRUCTION.
16. TRAFFIC CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR THROUGHOUT THE DURATION OF THE PROJECT AND SUBJECT TO ALL LOCAL, STATE, AND/OR FEDERAL REGULATIONS.
17. ALL WORK SHALL SATISFY CONDITIONS AND REQUIREMENTS OF LOCAL, STATE, AND FEDERAL PERMITS, AS APPLICABLE. IN CASES WHERE CONDITIONS AND/OR REQUIREMENTS VARY FROM PERMIT TO PERMIT, THE MOST STRINGENT CONDITION AND/OR REQUIREMENT SHALL BE EMPLOYED.
18. INFORMATION DISPLAYED, INCLUDING PROPERTY BOUNDARIES, IS BASED ON AVAILABLE RECORDS PROVIDED BY BAE SYSTEMS. THE CONTRACTOR IS TO VERIFY ALL SITE AND UTILITY INFORMATION PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER PRIOR TO COMMENCING WORK.
19. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO COMMENCING WORK IN ACCORDANCE WITH STATE AND LOCAL REQUIREMENTS.
20. UNLESS NOTED OTHERWISE, ALL DEMOLISHED STRUCTURES MATERIAL AND DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL FACILITY OR RECYCLING FACILITY IN ACCORDANCE WITH APPLICABLE FEDERAL AND STATE LAWS AND REGULATORS GOVERNING DISPOSAL.

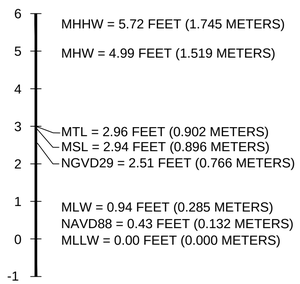
GENERAL CONSTRUCTION NOTES: (CONT.)

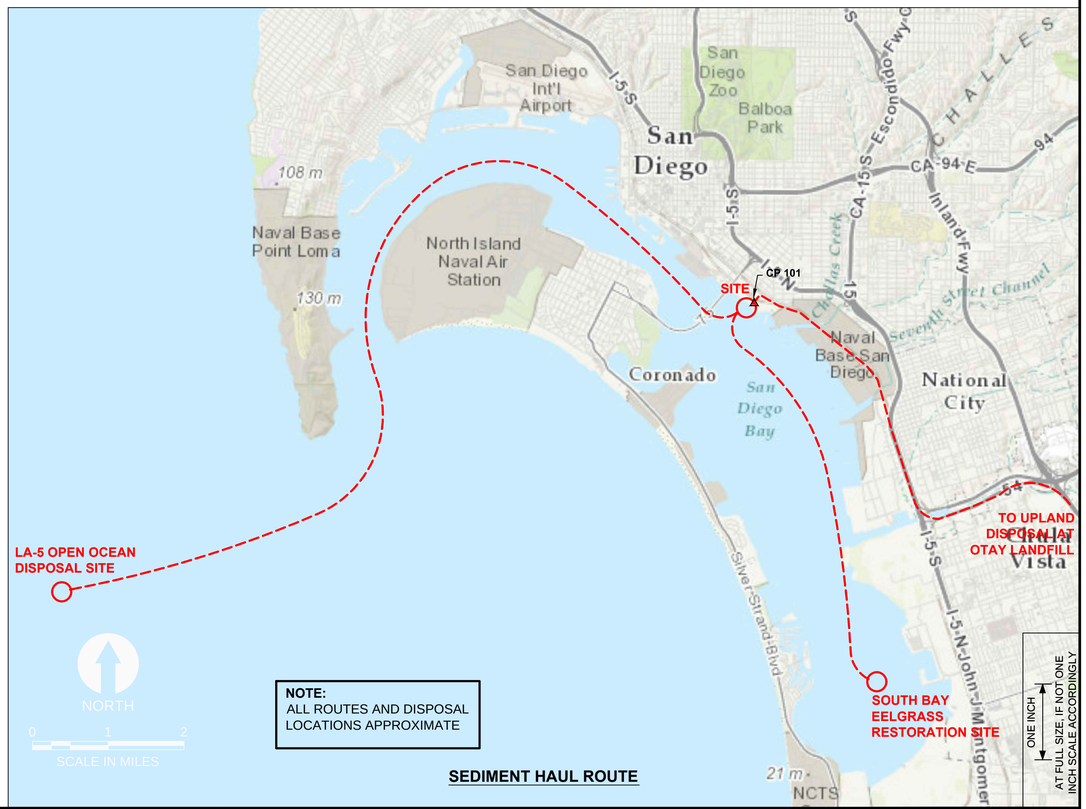
21. CERTAIN ELEMENTS OF IN-WATER WORK ARE SUBJECT TO ENVIRONMENTAL CLOSURE WINDOW - ALLOWABLE IN-WATER WORK DATES ARE PROVIDED IN THE SPECIFICATIONS.
22. CONTRACTOR SHALL PROVIDE THE ENGINEER WITH ALL APPLICABLE PRE-CONSTRUCTION SUBMITTALS, SUBJECT TO OWNER AND ENGINEER APPROVAL, PRIOR TO COMMENCING WORK. ADDITIONAL SUBMITTAL REQUIREMENTS ARE PROVIDED IN THE SPECIFICATIONS
23. CONTRACTOR SHALL PROTECT IN-PLACE ALL STRUCTURES, UTILITIES, AND OBJECTS. ANY DAMAGE TO ITEMS SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
24. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF THE SIZE AND LOCATION OF ALL EXISTING ABOVE AND UNDERGROUND UTILITIES. EXISTING UTILITIES SHOWN HAVE BEEN OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL UTILITY LOCATIONS NOT SHOWN. CARE SHOULD BE TAKEN TO AVOID DAMAGE OR DISTURBANCE TO EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED BY HIS ACTIVITIES.
25. NO IN-WATER STOCKPILING OF SEDIMENT OR DEBRIS IS ALLOWED.
26. CONTRACTOR SHALL COMPLETE DREDGING ACTIVITIES AS SHOWN ON DRAWINGS AND DESCRIBED IN THE SPECIFICATIONS.
27. CONTRACTOR SHALL MAINTAIN COMPLIANCE WITH ALL REGULATORY PERMITS THROUGHOUT THE COURSE OF THE PROJECT.

CONTROL POINT	NORTHING	EASTING	ELEVATION IN FT (MLLW)	SHEET NO.
CP 101	1832671.67	6287091.1	15.23	G-1

PROJECT DATUMS:

1. HORIZONTAL DATUM: CALIFORNIA STATE PLANE, ZONE 6, NAD 83, U.S. FEET.
2. IN WATER VERTICAL DATUM: MEAN LOWER LOW WATER (MLLW).
3. UPLAND VERTICAL DATUM: MLLW.
4. UPLAND TOPOGRAPHY PROVIDED BY SHIPYARD, DATED MARCH 08, 2013; VERIFIED BY ENVIRONMENTAL DATA SOLUTIONS APRIL 10-11, 2013 IN SMA AREA ONLY. PIER 1 LOCATION PROVIDED BY SOUTHLAND SURVEYING SURVEY DATED MAY 2015.
5. BATHYMETRY SHOWN WITHIN THE REMEDIAL BOUNDARIES WAS PERFORMED BY ETRAC INC., ON MAY 4, 2015 AND APRIL 30, 2015.





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Sep 15, 2015 12:16pm mpratschner

ANCHOR QEA

CONSTRUCTION PLANS

REGISTERED PROFESSIONAL ENGINEER — MICHAEL P. WHELAN — No. C69833 Exp. 6/30/16 — CIVIL — STATE OF CALIFORNIA

REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

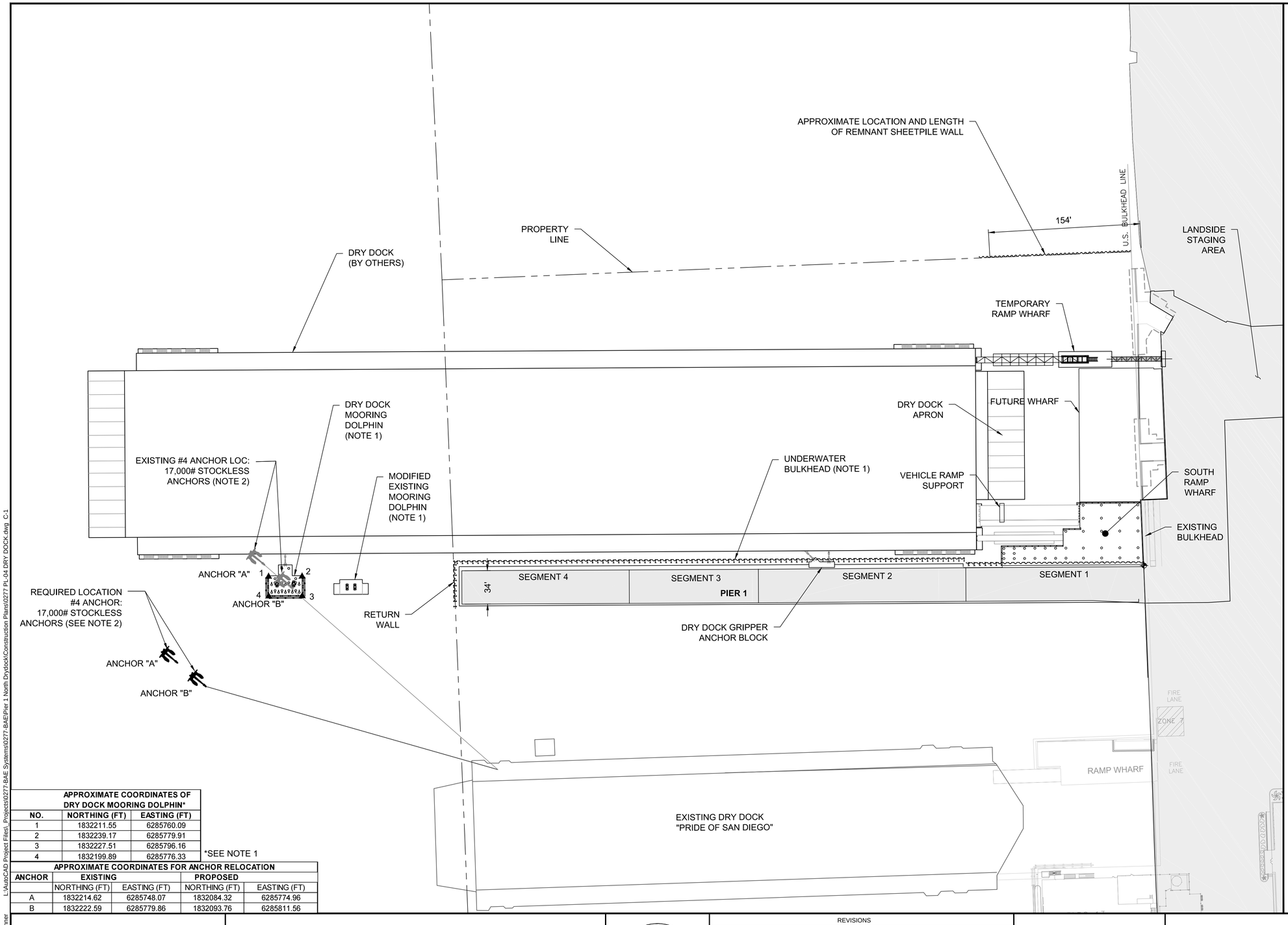
DESIGNED BY: T MERRITTS
DRAWN BY: M PRATSCHNER
CHECKED BY: M WHELAN
APPROVED BY: J VERDUIN
SCALE: AS INDICATED
DATE: SEPTEMBER 11, 2015

PIER 1 NORTH DRY DOCK DREDGING PROJECT

GENERAL NOTES AND SEDIMENT HAUL ROUTE

G-1

SHEET NO. 2 OF 16



NOTES:

1. FINAL STRUCTURAL DETAILS FOR DRY DOCK AND SUPPORTING STRUCTURAL ELEMENTS PROVIDED BY ACCOMPANYING TRITON ENGINEERS' STRUCTURAL DRAWINGS (PIER 1 NORTH - LARGE DRY DOCK PROJECT".
2. CONTRACTOR TO LOCATE AND REMOVE EXISTING ANCHORS AS PART OF (OR PRIOR TO) DREDGING. PRIOR TO THIS ACTIVITY, BAE SYSTEMS WILL DISCONNECT THE CHAINS THAT CONNECT ANCHORS TO THE EXISTING PRIDE OF SAN DIEGO DRY DOCK, AND WILL AFFIX BUOYS (OR SIMILAR) SO THE CHAINS CAN BE LOCATED LATER BY THE CONTRACTOR. AFTER REMOVED, THE CONTRACTOR SHALL RE-INSTALL THE ANCHORS IMMEDIATELY AT THE REQUIRED ANCHOR LOCATIONS. THE ANCHORS ARE TO BE BURIED TO A DEPTH OF APPROXIMATELY 5 FEET BELOW MUDLINE, AND COVERED WITH THE EXCAVATED MATERIAL. THE FINAL SEDIMENT SURFACE AT THE PROPOSED LOCATIONS SHALL BE NO HIGHER THEN -35 FEET MLLW. AFTER RE-INSTALLATION, THE CONTRACTOR SHALL RETRIEVE THE CHAINS FOR RECONNECTION BY BAE SYSTEMS.

APPROXIMATE COORDINATES OF DRY DOCK MOORING DOLPHIN*

NO.	NORTHING (FT)	EASTING (FT)
1	1832211.55	6285760.09
2	1832239.17	6285779.91
3	1832227.51	6285796.16
4	1832199.89	6285776.33

*SEE NOTE 1

APPROXIMATE COORDINATES FOR ANCHOR RELOCATION

ANCHOR	EXISTING		PROPOSED	
	NORTHING (FT)	EASTING (FT)	NORTHING (FT)	EASTING (FT)
A	1832214.62	6285748.07	1832084.32	6285774.96
B	1832222.59	6285779.86	1832093.76	6285811.56

ONE INCH
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

ANCHOR QEA

CONSTRUCTION PLANS

REGISTERED PROFESSIONAL ENGINEER MICHAEL P. WHELAN No. C69833 Exp. 6/30/16 CIVIL STATE OF CALIFORNIA

REVISIONS				
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DESIGNED BY: T MERRITTS
DRAWN BY: M PRATSCHNER
CHECKED BY: M WHELAN
APPROVED BY: J VERDUIN
SCALE: 1" = 50'
DATE: SEPTEMBER 11, 2015

PIER 1 NORTH DRY DOCK DREDGING PROJECT

DRY DOCK PLAN AND EXISTING FACILITIES

C-1

SHEET NO. 3 OF 16

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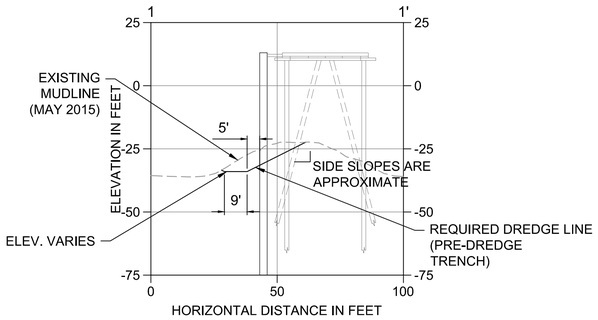

1 / C-2 DETAIL - PRE-DREDGE TRENCH
NOT TO SCALE

NOTES:
1. TRENCH DAYLIGHT LINES PROVIDED ARE APPROXIMATE AND MAY NOT REFLECT THE ACTUAL SLOUGHING OF SEDIMENT WHICH MAY OCCUR. THE CONTRACTOR SHALL NOT DREDGE SIDE SLOPES UNDER PIER, BUT SHALL REMOVE ANY SLOUGHED MATERIAL THAT MAY ACCUMULATE WITHIN THE TRENCH FOOTPRINT.
2. PRE-DREDGING PIER 1 TRENCH SHALL BE EXCAVATED PRIOR TO INSTALLING THE UNDERWATER BULKHEAD (WHICH IS DETAILED IN ACCOMPANYING STRUCTURAL DRAWINGS BY TRITON ENGINEERS). THE TRENCH IS NOT DEPICTED ON THE CROSS-SECTIONS (SHEETS C-5 THROUGH C-11).

U.S. PIERHEAD LINE

PROPERTY LINE

LANDSIDE STAGING AREAS

PRE-DREDGE TRENCH

ELEV. -36 FT (MLLW)

ELEV. -34 FT (MLLW)

C-2 1

ELEV. -34 FT (MLLW)

NOTE 1

PIER 1

UNDERWATER BULKHEAD (TO BE INSTALLED FOLLOWING PRE-DREDGE TRENCH)

FIRE LANE

ZONE 7

FIRE LANE

RAMP WHARF

LEGEND:

- -35 — REQUIRED DREDGE LINE MAJOR CONTOUR (5' INTERVAL)
- REQUIRED DREDGE LINE MINOR CONTOUR (1' INTERVAL)
- ▲# DREDGE CONTROL POINT
- -40 — EXISTING MAJOR CONTOUR (5' INTERVAL)
- -38 — EXISTING MINOR CONTOUR (1' INTERVAL)
- LEASE HOLD LINE/BOUNDARY BETWEEN WESTERN AND EASTERN DREDGE AREAS
- LAND OR ABOVE-WATER SURFACE
- PREVIOUS REMEDIAL DREDGING LIMITS

NORTH

0 50 100
SCALE IN FEET

ONE INCH
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

DREDGE CONTROL POINTS		
NO.	NORTHING (FT)	EASTING (FT)
1	1832370.08	6285851.65
2	1832578.94	6286001.89
3	1832573.69	6286009.20
4	1832372.14	6285864.21
5	1832353.65	6285889.98
6	1832346.34	6285884.73

ANCHOR QEA

CONSTRUCTION PLANS

REGISTERED PROFESSIONAL ENGINEER MICHAEL P. WHELAN No. C69833 Exp. 6/30/16 CIVIL STATE OF CALIFORNIA

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DRAWN BY: M PRATSCHNER
CHECKED BY: M WHELAN
APPROVED BY: J VERDUIN
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DATE: SEPTEMBER 11, 2015

PIER 1 NORTH DRY DOCK DREDGING PROJECT

PRE-DREDGING PIER 1 TRENCH

C-2

SHEET NO. 4 OF 16

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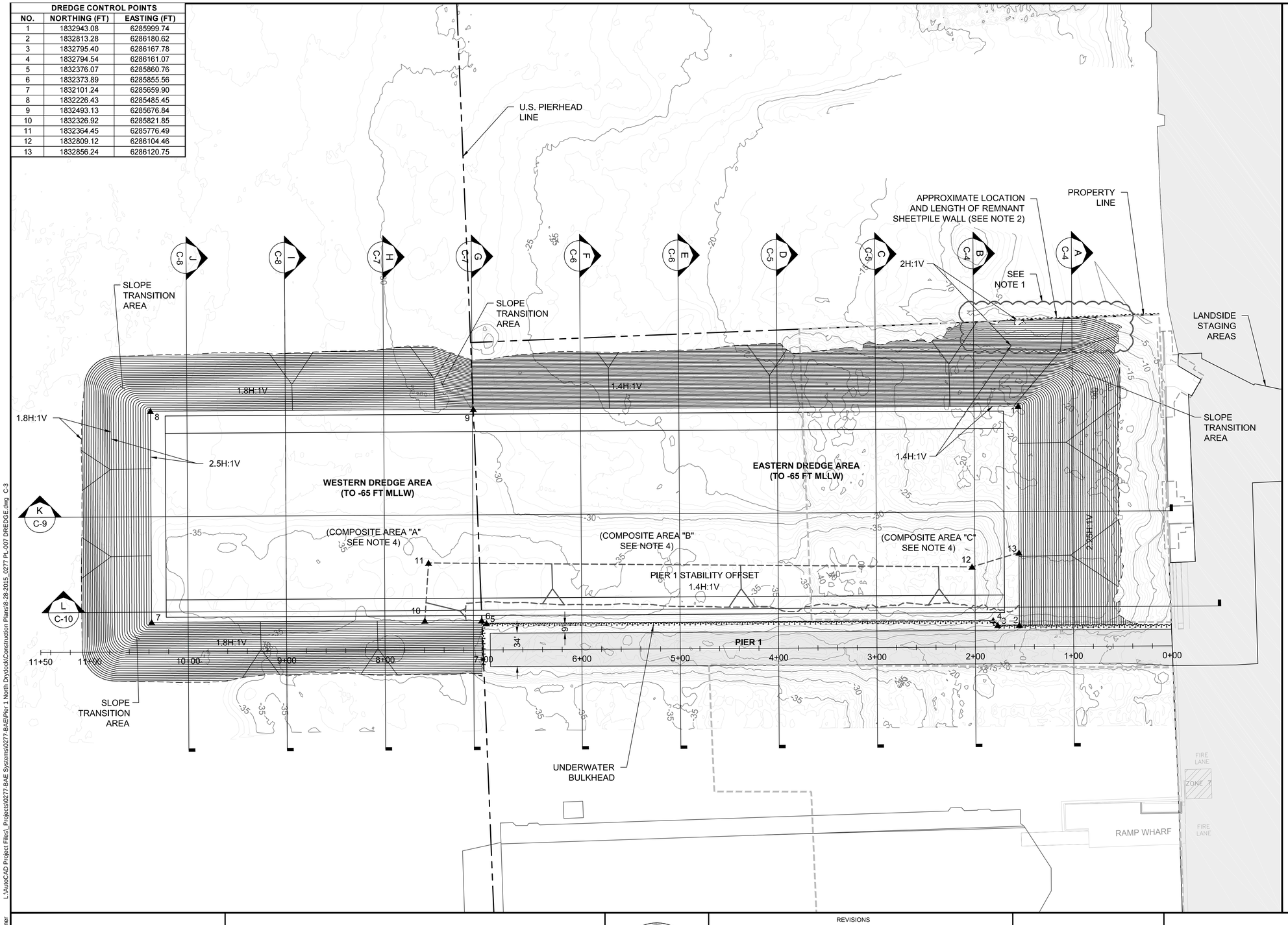
DREDGE CONTROL POINTS		
NO.	NORTHING (FT)	EASTING (FT)
1	1832943.08	6285999.74
2	1832813.28	6286180.62
3	1832795.40	6286167.78
4	1832794.54	6286161.07
5	1832376.07	6285860.76
6	1832373.89	6285855.56
7	1832101.24	6285659.90
8	1832226.43	6285485.45
9	1832493.13	6285676.84
10	1832326.92	6285821.85
11	1832364.45	6285776.49
12	1832809.12	6286104.46
13	1832856.24	6286120.75



NOTES:

1. THE SIDE SLOPE IN THIS AREA IS INCLINED AT AN ANGLE THAT MAY LEAD TO SLOUGHING, RAVELING, OR MOVEMENT DURING OR AFTER CONSTRUCTION WORK. DURING CONSTRUCTION, CONTRACTOR SHALL BE PREPARED FOR ADDITIONAL MATERIAL REMOVAL, IF NECESSARY, ON OR AT THE BASE OF SLOPE, AS DISCUSSED IN THE TECHNICAL SPECIFICATIONS. FOLLOWING CONSTRUCTION, BAE SYSTEMS WILL PERFORM MATERIAL REMOVAL AND/OR MAINTENANCE DREDGING AS NEEDED IF MATERIAL SLOUGHING OR MOVEMENT OCCURS.
2. AS THE STRUCTURAL CAPACITIES OF THE REMNANT SHEETPILE WALL ARE UNKNOWN, THE CONTRACTOR SHALL NOT DIG DEEPER THEN THE DESIGN GRADES OR CONTACT THE REMNANT SHEETPILE WALL WITH THEIR EQUIPMENT. UNDER THESE CIRCUMSTANCES, THEY WILL NOT BE HELD LIABLE FOR MOVEMENT OF THE REMNANT SHEETPILE WALL OR SLOUGH FROM OUTSIDE THE NORTHERN PROPERTY LINE.
3. FOLLOWING COMPLETION OF THE PRE-DREDGING PIER 1 TRENCH (SHEET C-2), DREDGING SHALL NOT OCCUR WITHIN THE PIER 1 STABILITY OFFSET UNTIL THE UNDERWATER BULKHEAD AND ALL STRUCTURAL COMPONENTS ARE COMPLETED ADJACENT TO PIER.
4. COMPOSITE AREA "A" IS THE AREA BETWEEN THE U.S. PIERHEAD LINE AND THE WESTERN LIMITS OF DREDGE PRISM. COMPOSITE AREA "B" IS THE AREA BETWEEN THE U.S. PIERHEAD LINE AND THE PREVIOUS REMEDIAL DREDGING LIMITS. COMPOSITE AREA "C" IS THE AREA BETWEEN THE PREVIOUS REMEDIAL DREDGING LIMITS AND THE EASTERN LIMITS OF THE DREDGE PRISM.

LEGEND:

- -35- REQUIRED DREDGE LINE MAJOR CONTOUR (5' INTERVAL)
- REQUIRED DREDGE LINE MINOR CONTOUR (1' INTERVAL)
- ▲# DREDGE CONTROL POINT
- -40- EXISTING MAJOR CONTOUR (5' INTERVAL)
- -38- EXISTING MINOR CONTOUR (1' INTERVAL)
- LEASE HOLD LINE/BOUNDARY BETWEEN WESTERN AND EASTERN DREDGE AREAS
- LAND OR ABOVE-WATER SURFACE
- PREVIOUS REMEDIAL DREDGING LIMITS

NORTH

0 50 100
SCALE IN FEET

ONE INCH
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

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CONSTRUCTION PLANS

REGISTERED PROFESSIONAL ENGINEER MICHAEL P. WHELAN No. C69833 Exp. 6/30/16 CIVIL STATE OF CALIFORNIA

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CHECKED BY: M WHELAN
APPROVED BY: J VERDUIN
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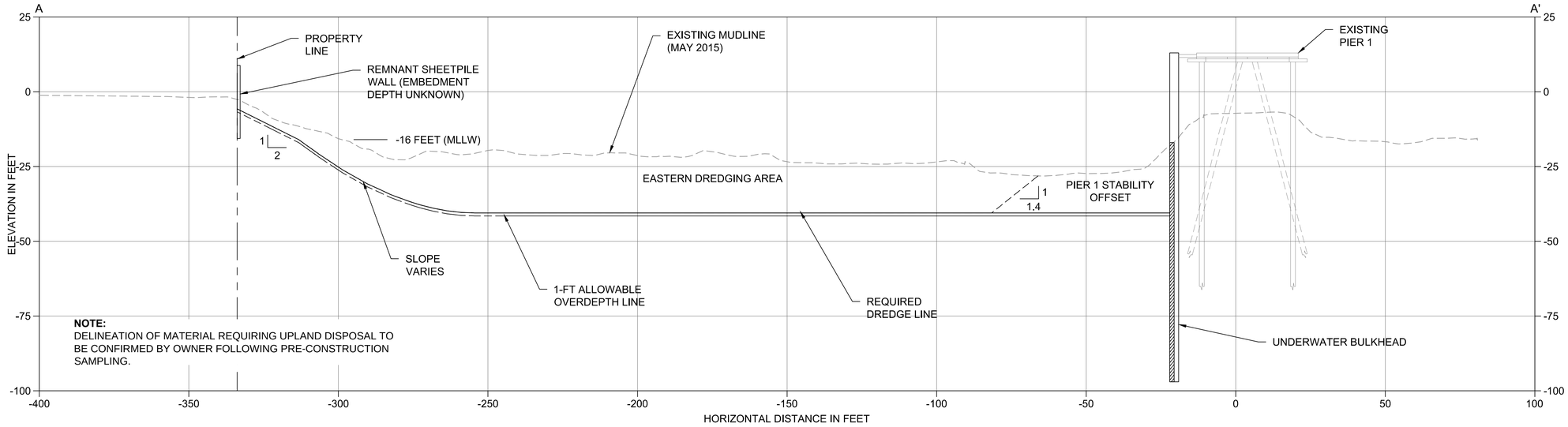
PIER 1 NORTH DRY DOCK DREDGING PROJECT

DRY DOCK DREDGE PLAN

C-3

SHEET NO. 5 OF 16



A / C-3 SECTION
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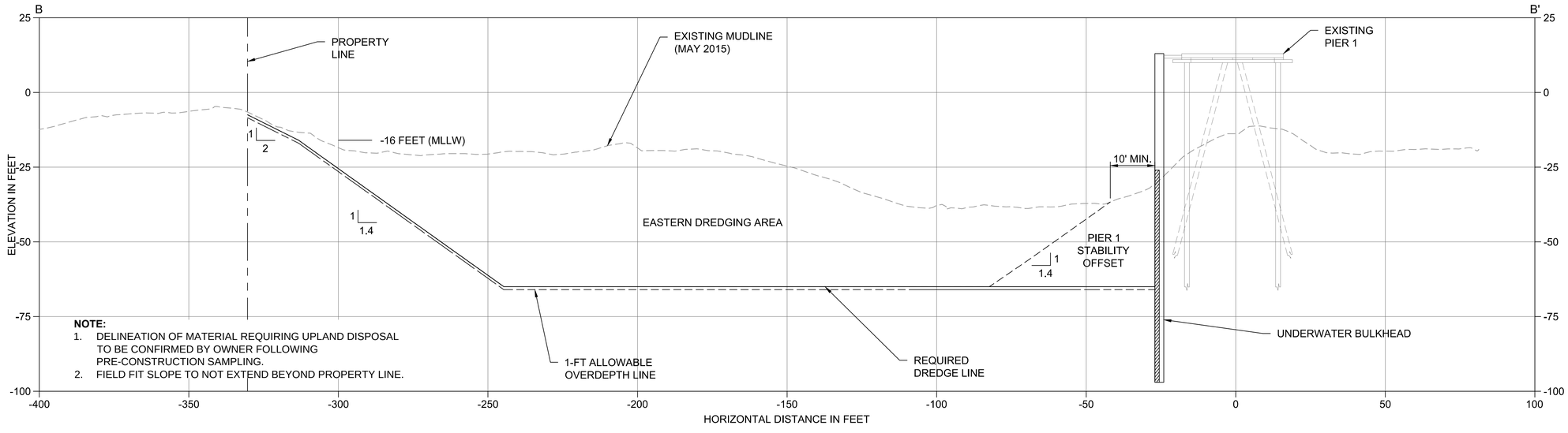
VERT. SCALE: 1" = 20'



B / C-3 SECTION
HORIZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 20'

LEGEND:

- REQUIRED DREDGE LINE
- 1-FT ALLOWABLE OVERDEPTH LINE
- EXISTING MUDLINE

ONE INCH
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

L:\AutoCAD Project Files_Projects\0277-BAE Systems\0277-BAE\Pier 1 North Drydock\Construction Plans\8-28-2015_0277 PL-007 DREDGE.dwg C-4
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Exp. 6/30/16
CIVIL
STATE OF CALIFORNIA

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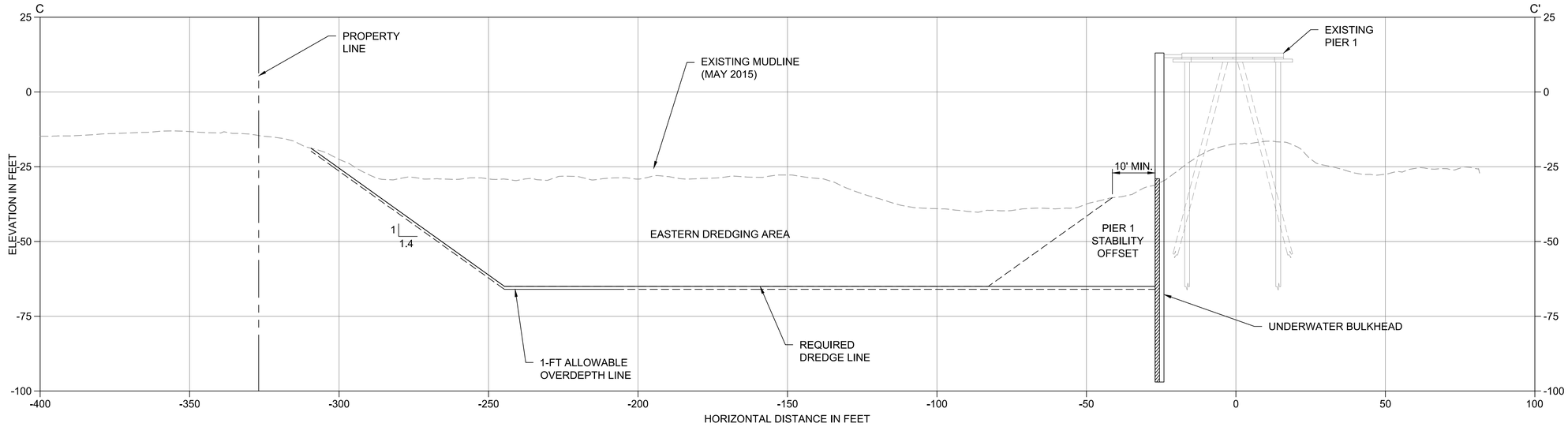
CHECKED BY: M WHELAN
APPROVED BY: J VERDUIN
SCALE: 1" = 20'
DATE: SEPTEMBER 11, 2015

PIER 1 NORTH DRY DOCK DREDGING PROJECT

DREDGING CROSS-SECTIONS (1)

C-4

SHEET NO. 6 OF 16



C-3 **SECTION**
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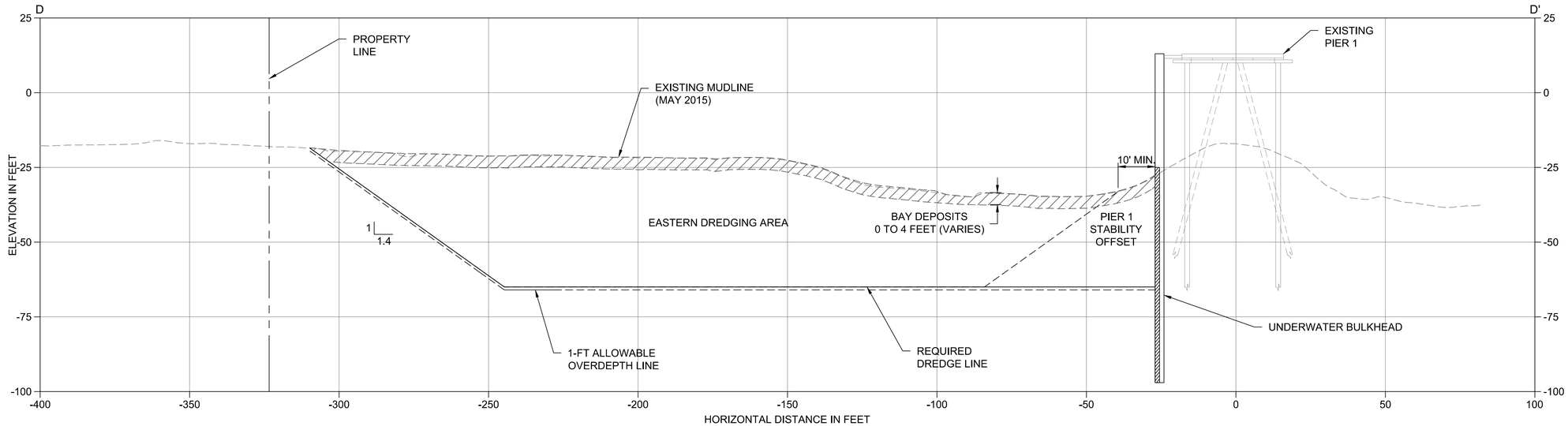
VERT. SCALE: 1" = 20'



D
C-3 **SECTION**
HORIZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 20'

NOTE:
DELINEATION OF MATERIAL REQUIRING UPLAND DISPOSAL TO BE CONFIRMED BY OWNER FOLLOWING PRE-CONSTRUCTION SAMPLING.

LEGEND:

- REQUIRED DREDGE LINE
- 1-FT ALLOWABLE OVERDEPTH LINE
- EXISTING MUDLINE

ONE INCH
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

ANCHOR QEA

CONSTRUCTION PLANS

REGISTERED PROFESSIONAL ENGINEER
MICHAEL P. WHELAN
No. C69833
Exp. 6/30/16
CIVIL
STATE OF CALIFORNIA

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APPROVED BY: J VERDUIN
SCALE: 1" = 20'
DATE: SEPTEMBER 11, 2015

PIER 1 NORTH DRY DOCK DREDGING PROJECT

DREDGING CROSS-SECTIONS (2)

C-5

SHEET NO. **7** OF **16**

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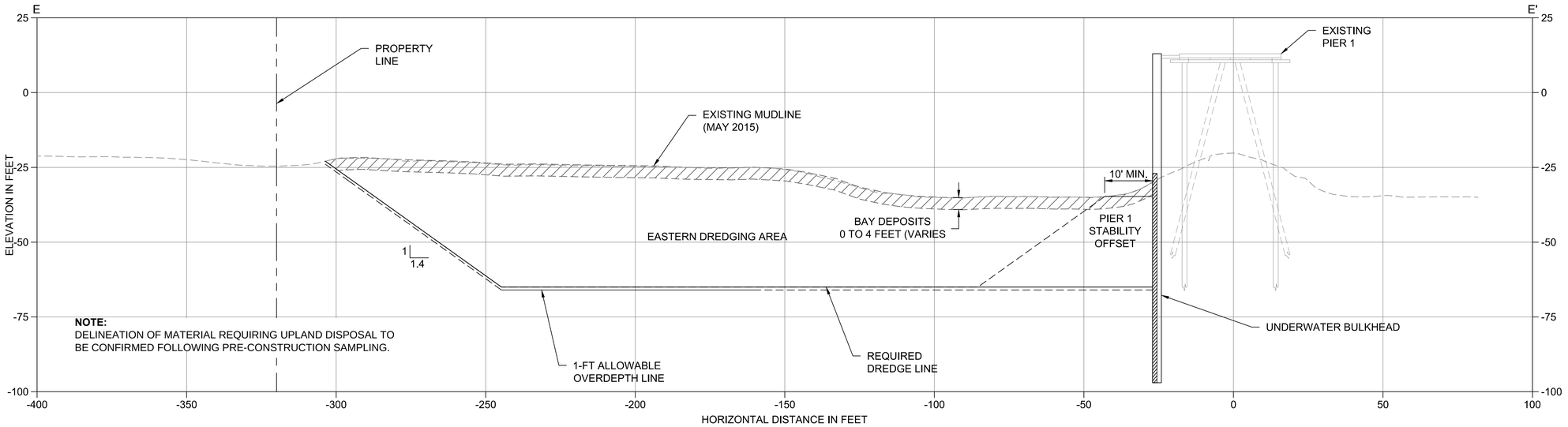

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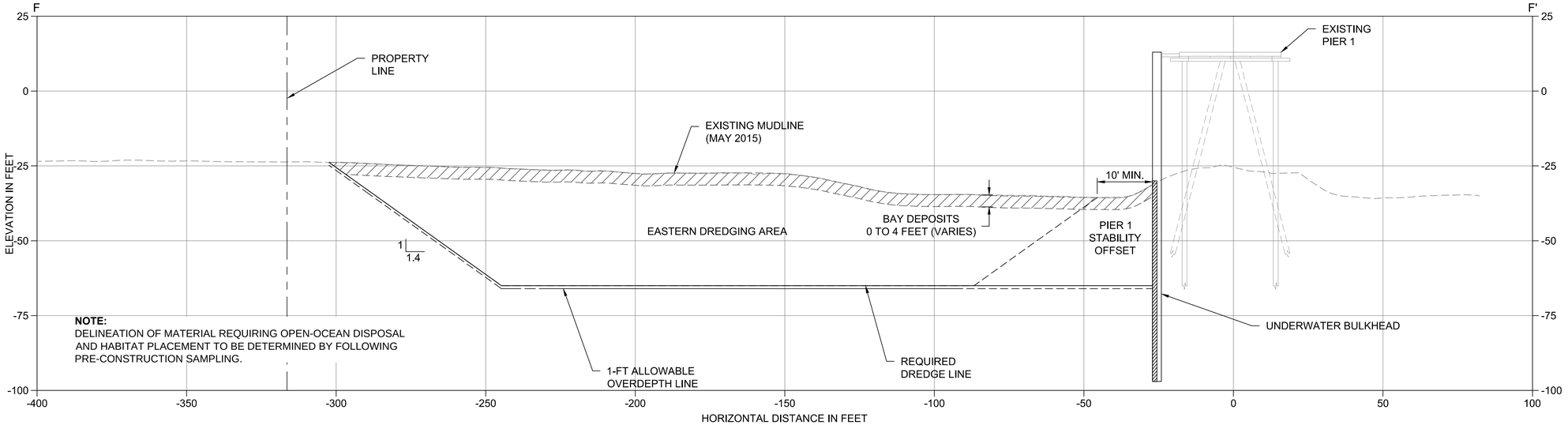

F/C-3 SECTION
HORIZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 20'

LEGEND:

- REQUIRED DREDGE LINE
- 1-FT ALLOWABLE OVERDEPTH LINE
- EXISTING MUDLINE

ONE INCH
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

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CIVIL
STATE OF CALIFORNIA

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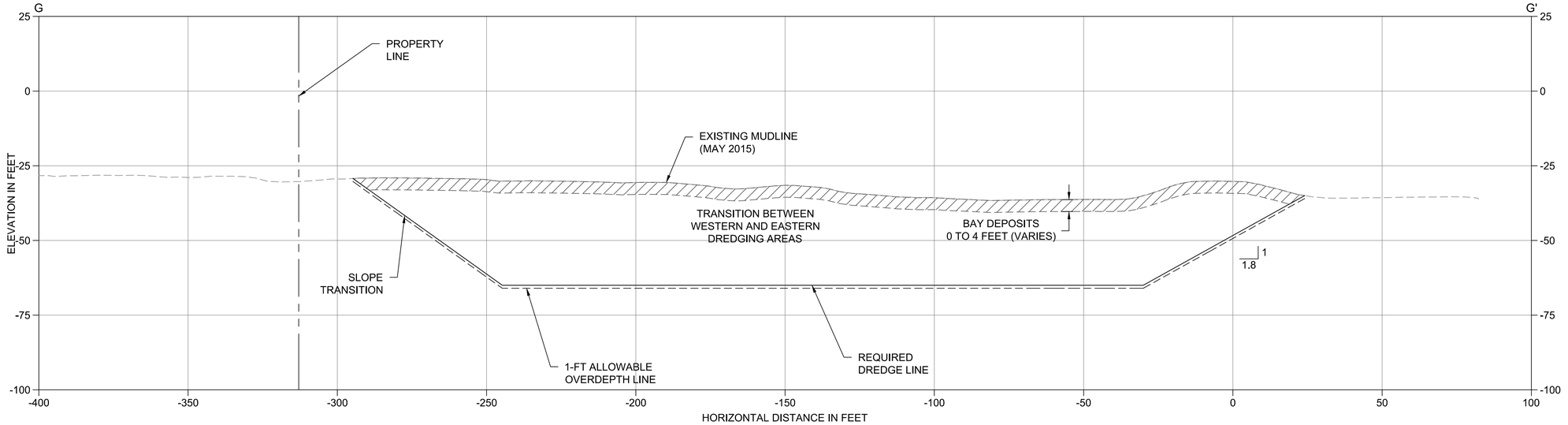
DRAWN BY: M PRATSCHNER
CHECKED BY: M WHELAN
APPROVED BY: J VERDUIN
SCALE: 1" = 20'
DATE: SEPTEMBER 11, 2015

PIER 1 NORTH DRY DOCK DREDGING PROJECT

DREDGING CROSS-SECTIONS (3)

C-6

SHEET NO. 8 OF 16



G C-3 SECTION
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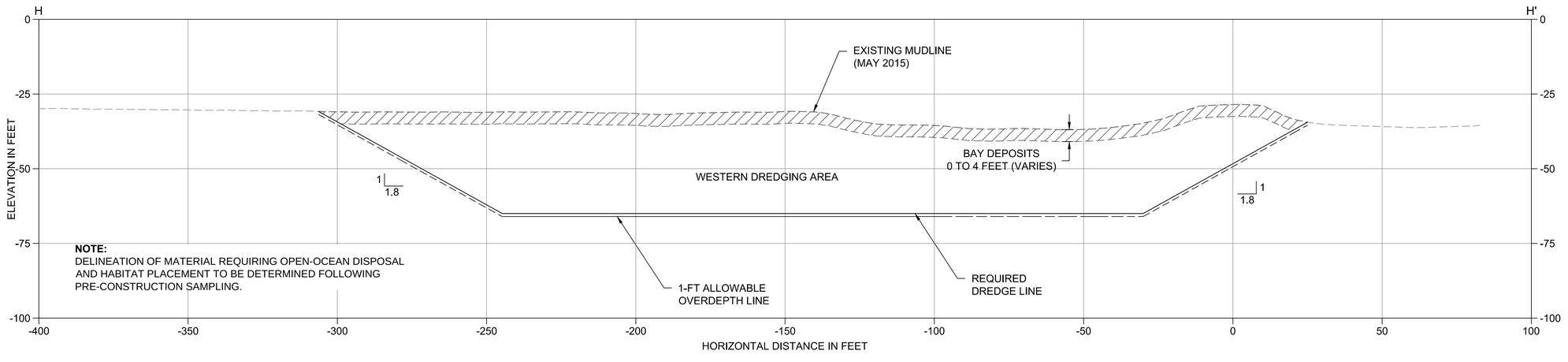
VERT. SCALE: 1" = 20'



H C-3 SECTION
HORIZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 20'

LEGEND:

- REQUIRED DREDGE LINE
- 1-FT ALLOWABLE OVERDEPTH LINE
- EXISTING MUDLINE

ONE INCH
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

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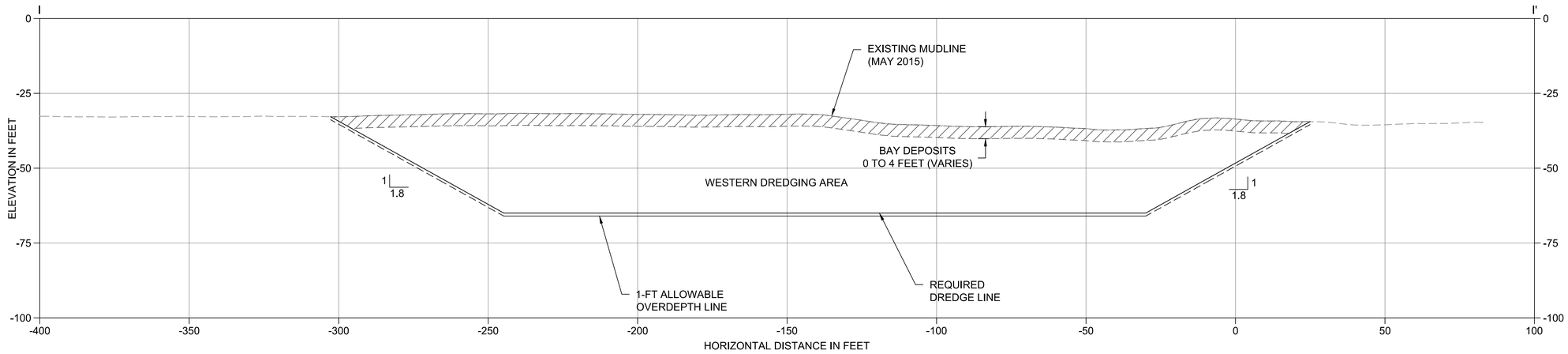
DATE: SEPTEMBER 11, 2015

PIER 1 NORTH DRY DOCK DREDGING PROJECT

DREDGING CROSS-SECTIONS (4)

C-7

SHEET NO. 9 OF 16



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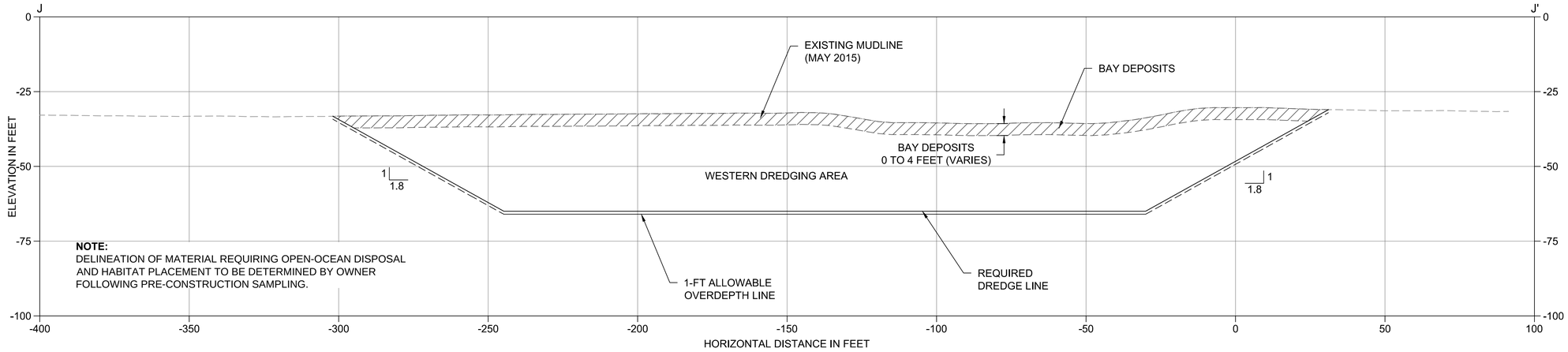

J / C-3 SECTION
HORIZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 20'

LEGEND:

- REQUIRED DREDGE LINE
- 1-FT ALLOWABLE OVERDEPTH LINE
- EXISTING MUDLINE

ONE INCH
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

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CONSTRUCTION PLANS

REGISTERED PROFESSIONAL ENGINEER
MICHAEL P. WHELAN
No. C69833
Exp. 6/30/16
9-11-2015
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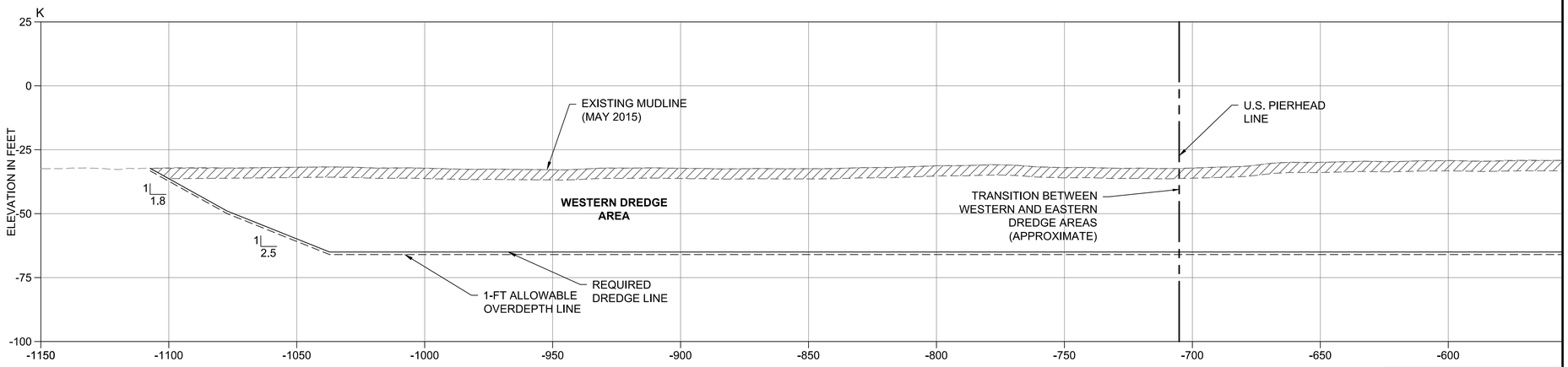
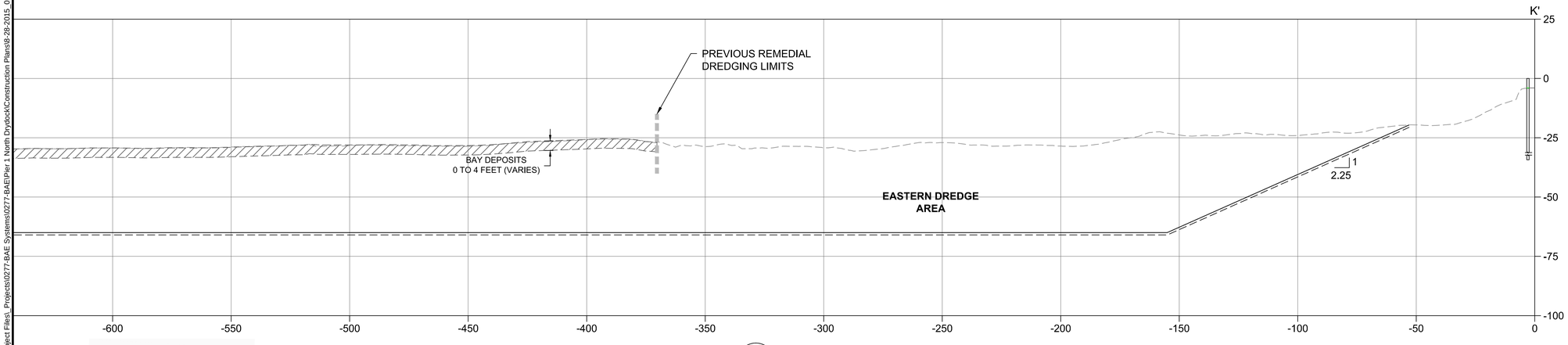
PIER 1 NORTH DRY DOCK DREDGING PROJECT

DREDGING CROSS-SECTIONS (5)

C-8

SHEET NO. **10** OF **16**





K / C-3 SECTION
HORIZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 20'

HORIZONTAL DISTANCE IN FEET

LEGEND:

- REQUIRED DREDGE LINE
- 1-FT ALLOWABLE OVERDEPTH LINE
- EXISTING MUDLINE

ONE INCH
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

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Exp. 6/30/16
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STATE OF CALIFORNIA

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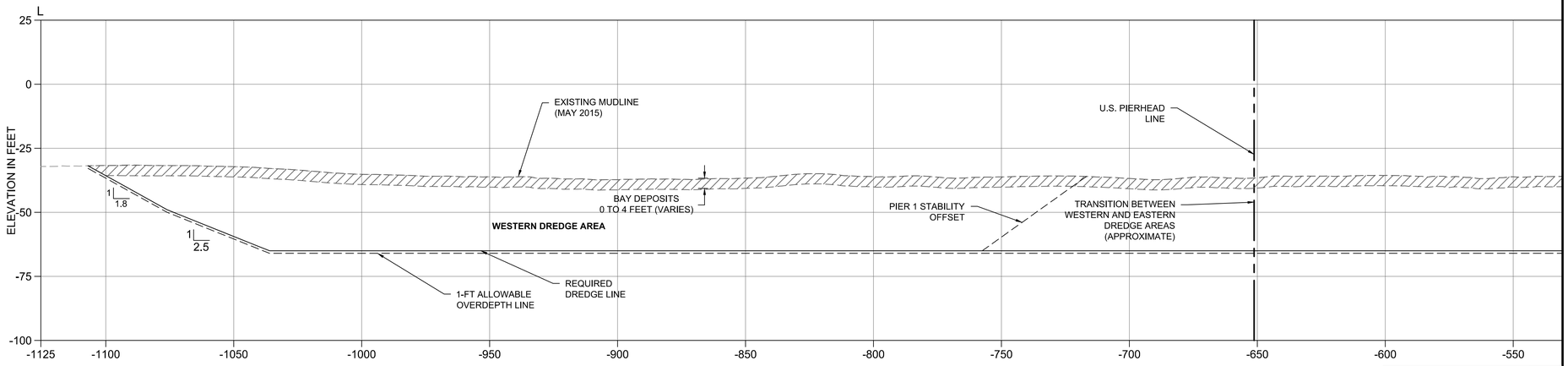
CHECKED BY: M WHELAN
APPROVED BY: J VERDUIN
SCALE: 1" = 20'
DATE: SEPTEMBER 11, 2015

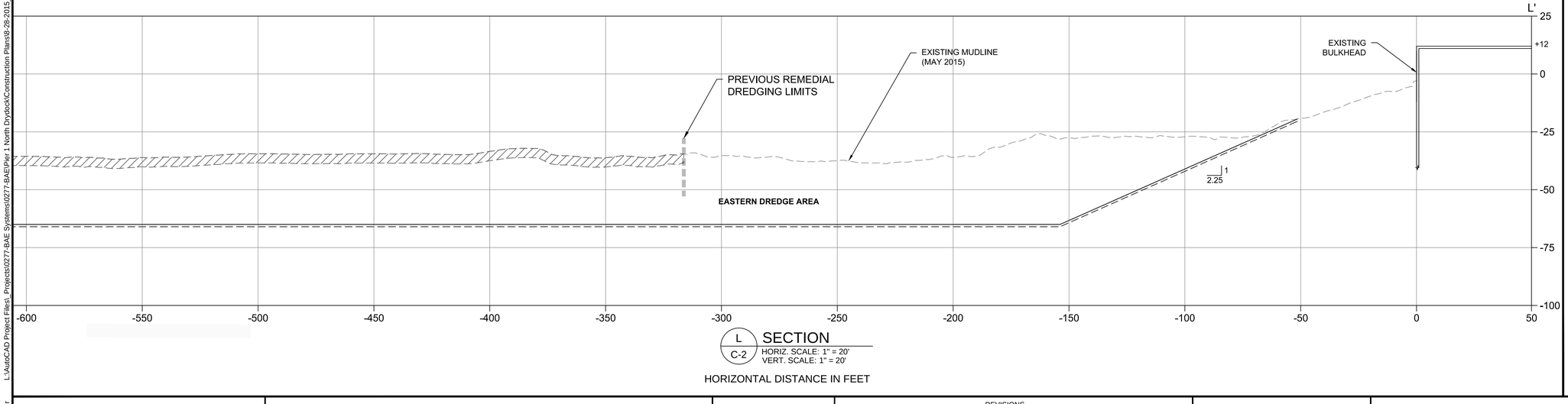
PIER 1 NORTH DRY DOCK DREDGING PROJECT

DREDGING CROSS-SECTIONS (6)

C-9

SHEET NO. 11 OF 16





L / C-2 SECTION

HORIZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 20'

HORIZONTAL DISTANCE IN FEET

LEGEND:

- REQUIRED DREDGE LINE
- 1-FT ALLOWABLE OVERDEPTH LINE
- EXISTING MUDLINE

ONE INCH
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

ANCHOR QEA

CONSTRUCTION PLANS

REGISTERED PROFESSIONAL ENGINEER
MICHAEL P. WHELAN
No. C69833
Exp. 6/30/16
CIVIL
STATE OF CALIFORNIA

REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: T MERRITTS
DRAWN BY: M PRATSCHNER
CHECKED BY: M WHELAN
APPROVED BY: J VERDUIN
SCALE: 1" = 20'
DATE: SEPTEMBER 11, 2015

PIER 1 NORTH DRY DOCK DREDGING PROJECT

DREDGING CROSS-SECTIONS (7)

C-10

SHEET NO. 12 OF 16

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ATTACHMENT 4
MITIGATION FIGURES

Figure 1 – Project Vicinity Map with Illustration of Occupied Surface Area Coverage Removal
Figure 7 – Eelgrass Restoration Monitoring Plan Survey Area
Construction Plans for the South Bay Eelgrass Restoration Site, Sheets R-1 to R-4

14-015-01

N
W E
S

Project Vicinity Map

BAE Systems Pier 1 North Drydock Project

Figure 1

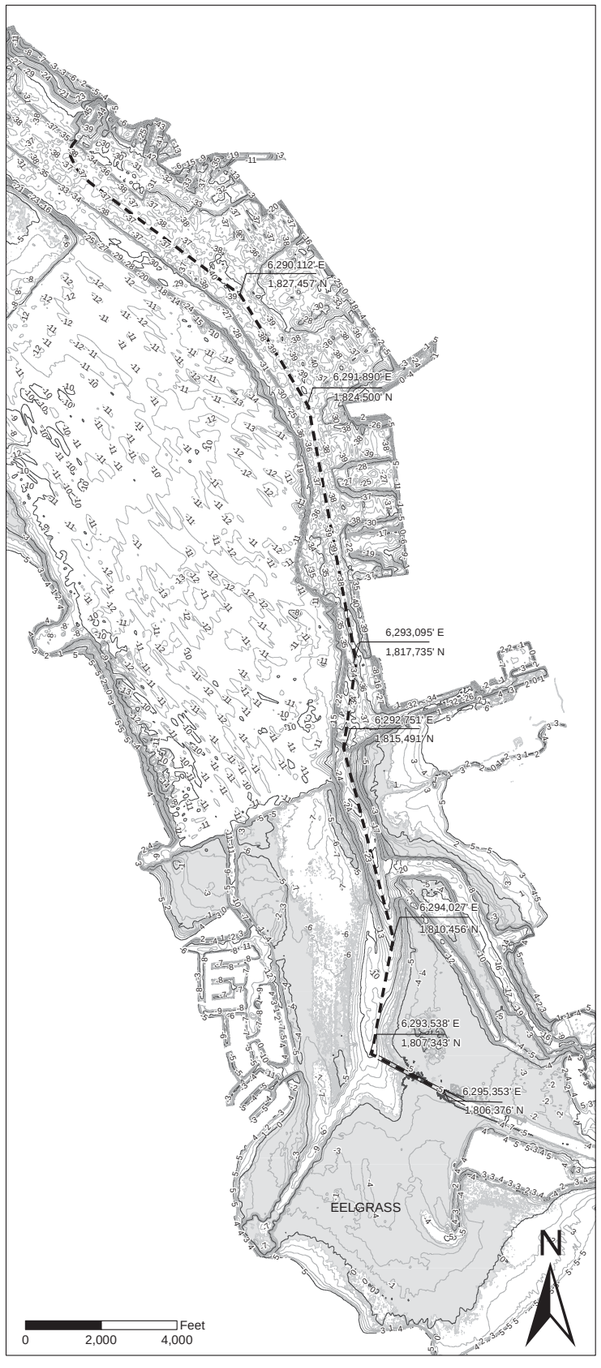
Merkel & Associates, Inc.

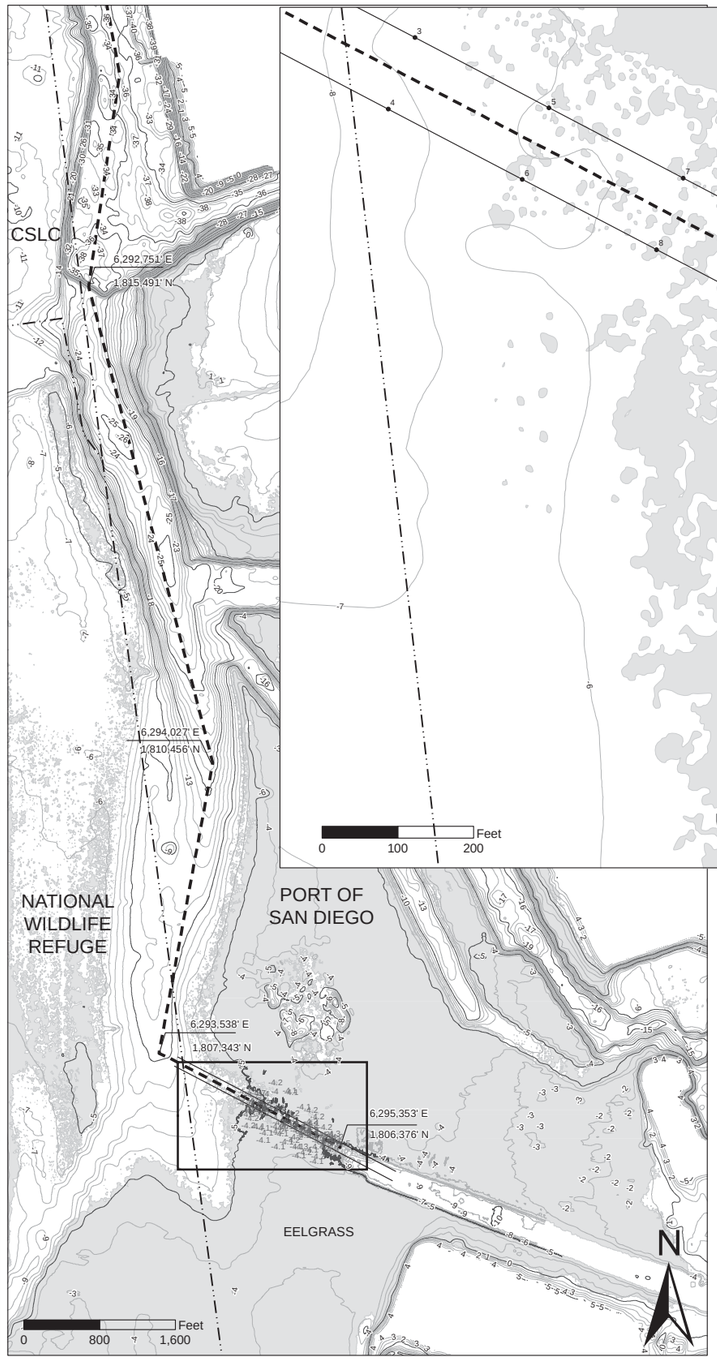
N
W E
S

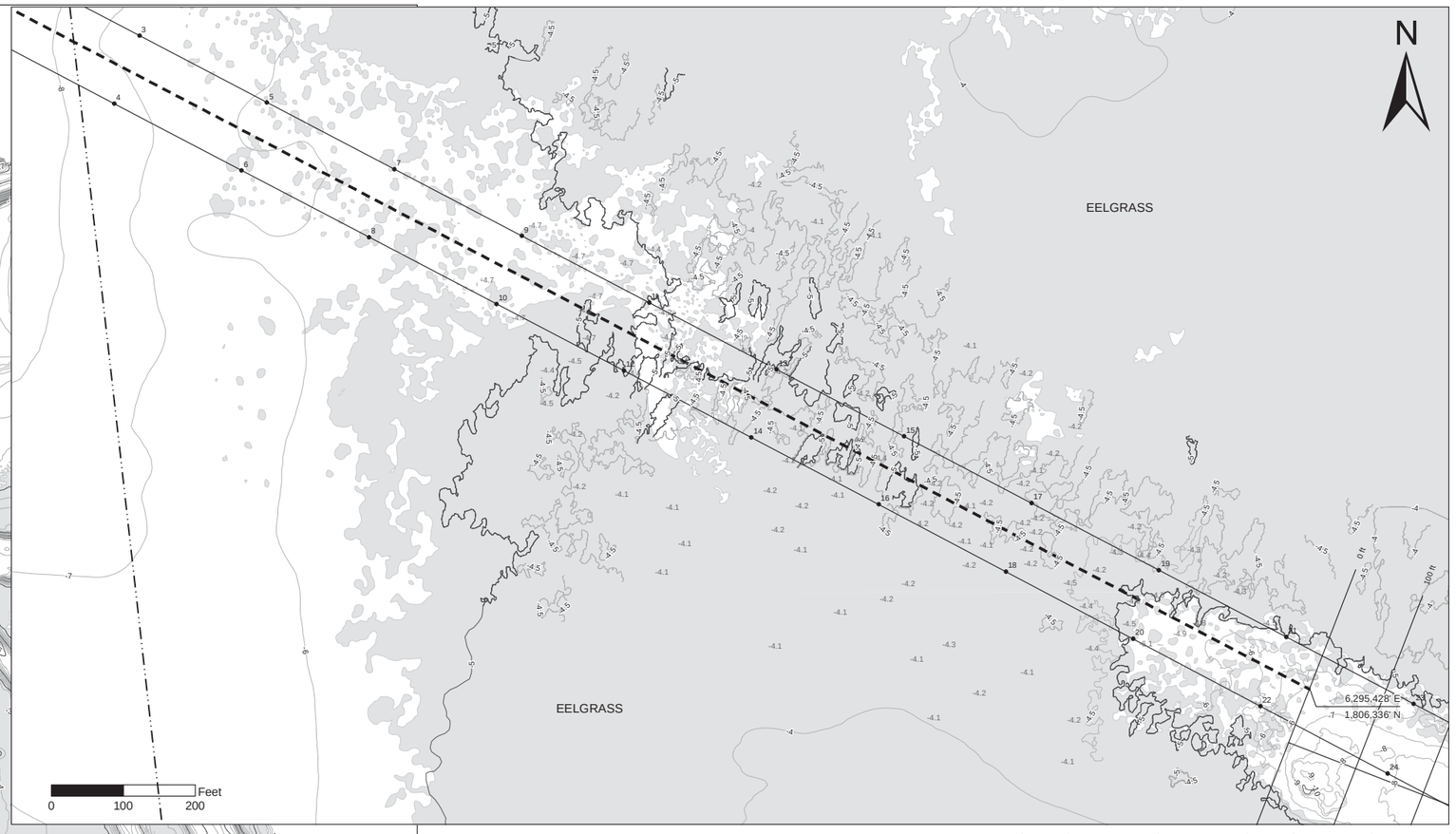
Eelgrass Restoration Monitoring Plan Survey Area

BAE Systems Pier 1 North Drydock Project

Figure 7







SOUTH BAY EELGRASS RESTORATION SITE ACCESS NOTES:

1. THE SOUTH BAY EELGRASS RESTORATION AREA IS LOCATED 5.6 MILES SOUTH OF THE PIER 1 DRY-DOCK DREDGE SITE. APPROXIMATELY 4.5 MILES OF THE ROUTE OCCUR IN MAINTAINED NAVIGATION CHANNELS. THE REMAINDER OF THE ROUTE EXTENDS THROUGH UNMARKED AND UNMAINTAINED BAY SHALLOWS. CONTRACTOR SHALL LIMIT COURSE DEVIATIONS FROM ACCESS PATH SHOWN BEYOND NAVIGATION CHANNELS.
2. ACCESS TO THE EELGRASS RESTORATION SITE REQUIRES CROSSING A SHALLOW SHOAL SUPPORTING EELGRASS BEDS FOR A DISTANCE OF APPROXIMATELY 2,000 FEET. IN THIS AREA CONTRACTOR SHALL TEMPORARILY MARK A 100 FOOT WIDE ACCESS CHANNEL USING VERTICAL POSTS OR SELF CENTERING FLOATS AND CONTROL ACCESS TO THE CORRIDOR MARKED.
3. ACCESS SHALL BE TAKEN ONLY DURING TIDE CONDITIONS THAT ENSURE A MINIMUM OF 1-FOOT OF VESSEL HULL CLEARANCE AND 2-FOOT OF DRIVE PROPELLER CLEARANCE OVER THE SHALLOW SHOAL. LIGHT LOADS MAY BE REQUIRED TO ACHIEVE REQUIRED CLEARANCE.
4. CONTRACTOR SHALL COORDINATE WITH U.S. COAST GUARD REGARDING HAUL PLAN AND ANY SPECIAL LIGHTING OR MARKING REQUIREMENTS FOR TEMPORARY NAVIGATION AIDS. SOUTH BAY TEMPORARY NAVIGATION AIDS ARE INCLUDED IN PERMIT AUTHORIZATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCAL NOTICE TO MARINERS POSTING.
5. SCOWS/BARGES MAY BE REQUIRED TO BE SHORT LOADED WITH SEDIMENT TO ACCESS THE SITE AND CROSSINGS WILL NEED TO BE TIDALLY TIMED.
6. SCOWS/BARGES MAY BE STAGED WITHIN THE FORMER INTAKE CHANNEL OR NORTHWEST OF THE SHALLOW SHOAL OUTSIDE OF EELGRASS IN ORDER TO OPTIMIZE THE USE OF THE HIGH TIDES FOR CROSSING THE SHOAL.
7. A TEMPORARY HYDRAULIC UNLOADER FACILITY MAY BE STAGED WITHIN THE DEEPER WATERS WEST OF THE INTAKE CHANNEL (APPROXIMATELY -7 FEET MLLW). ANY SUCH UNLOADING OPERATION SHALL BE SUBMITTED FOR REVIEW AND APPROVAL AS PART OF THE CONTRACTOR'S SEDIMENT HANDLING AND MANAGEMENT PLAN (DIVISION 35 SECTION 358000).

Corridor Boundary Markers

Points	Easting	Northing	Points	Easting	Northing
1	6,293,634 E	1,807,349 N	15	6,294,870 E	1,806,691 N
2	6,293,598 E	1,807,255 N	16	6,294,834 E	1,806,596 N
3	6,293,811 E	1,807,255 N	17	6,295,046 E	1,806,596 N
4	6,293,775 E	1,807,161 N	18	6,295,010 E	1,806,502 N
5	6,293,987 E	1,807,161 N	19	6,295,222 E	1,806,502 N
6	6,293,951 E	1,807,067 N	20	6,295,186 E	1,806,407 N
7	6,294,164 E	1,807,067 N	21	6,295,399 E	1,806,408 N
8	6,294,128 E	1,806,973 N	22	6,295,362 E	1,806,312 N
9	6,294,340 E	1,806,973 N	23	6,295,575 E	1,806,314 N
10	6,294,304 E	1,806,879 N	24	6,295,538 E	1,806,217 N
11	6,294,517 E	1,806,879 N	25	6,295,752 E	1,806,220 N
12	6,294,481 E	1,806,785 N	26	6,295,714 E	1,806,123 N
13	6,294,693 E	1,806,785 N	27	6,295,928 E	1,806,125 N
14	6,294,657 E	1,806,691 N	28	6,295,890 E	1,806,028 N

ONE INCH AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

Merkel & Associates, Inc

CONSTRUCTION PLANS

REVISIONS

REV	DATE	BY	APP'D	DESCRIPTION

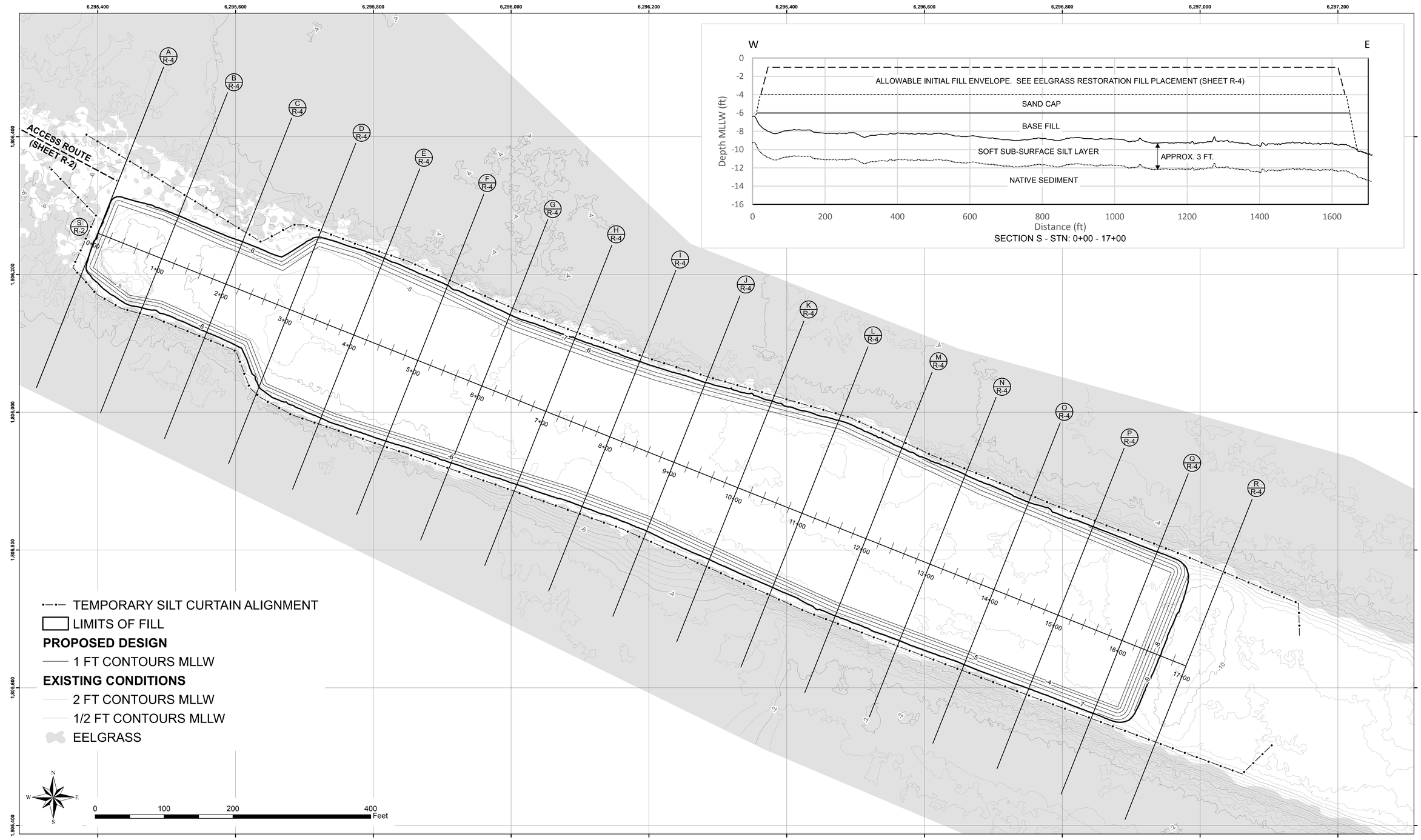
DESIGNED BY: R. PETRUCCELLI
DRAWN BY: L. MURAI/R. PETRUCCELLI
CHECKED BY: K. MERKEL
APPROVED BY:
SCALE: AS INDICATED
DATE: AUGUST 27, 2015

PIER 1 NORTH DRY DOCK PROJECT

SOUTH BAY EELGRASS RESTORATION SITE ACCESS ROUTE

R-1

SHEET NO. 13 OF 16



Merkel & Associates, Inc

CONSTRUCTION PLANS

REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

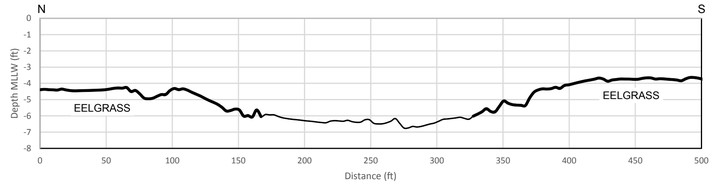
DESIGNED BY: L MURAI
DRAWN BY: L MURAI / S PETRUCCELLI
CHECKED BY: K MERKEL
APPROVED BY: K MERKEL
SCALE: AS INDICATED
DATE: AUGUST 27, 2015

PIER 1 NORTH DRY DOCK PROJECT

BENEFICIAL REUSE EELGRASS RESTORATION SITE
PLAN VIEW SEDIMENT PLACEMENT PLAN

R-2

SHEET NO. 14 OF 16



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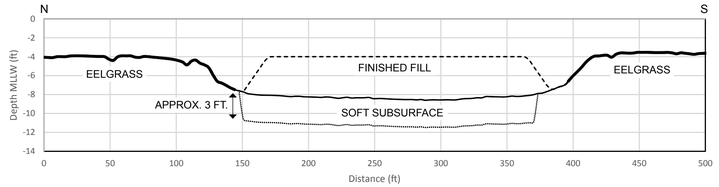

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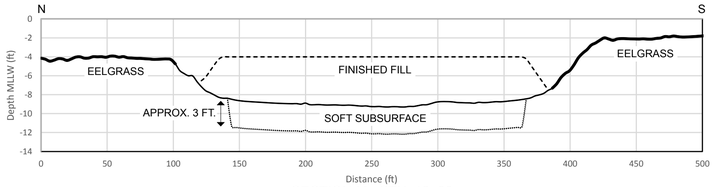

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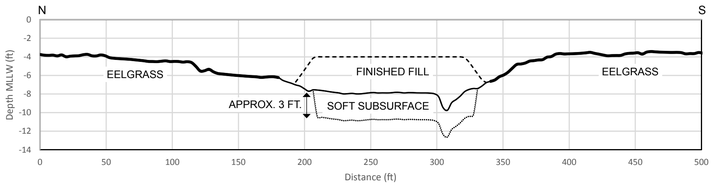

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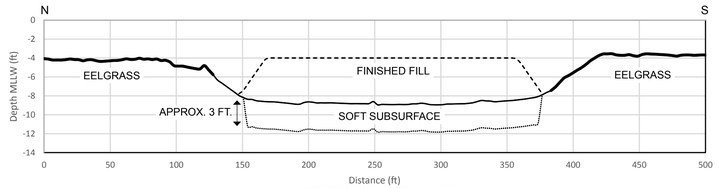

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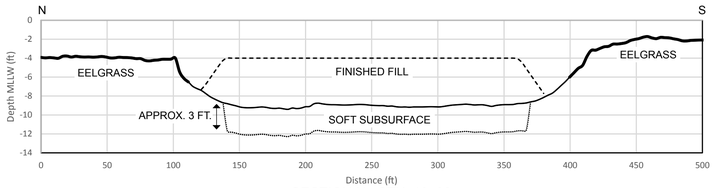

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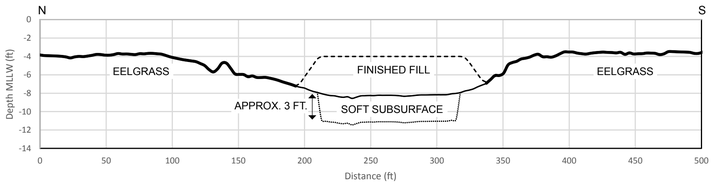

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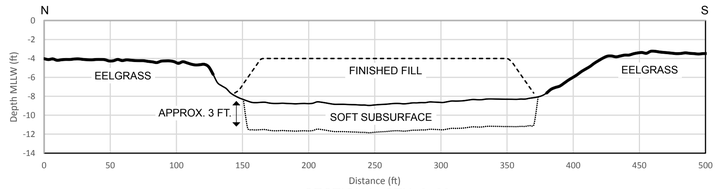

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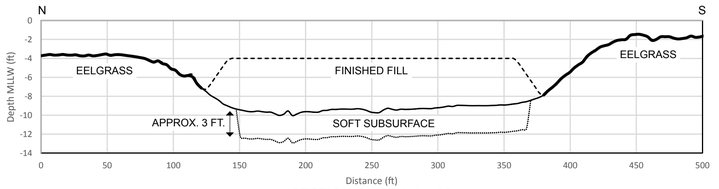

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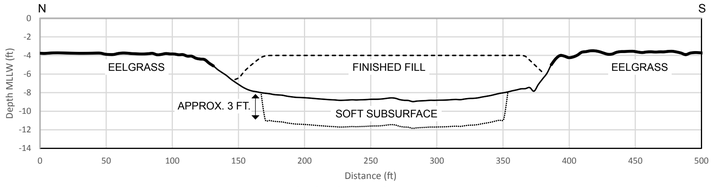

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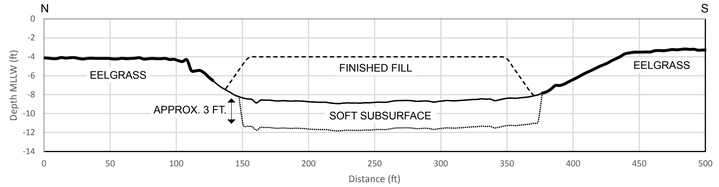

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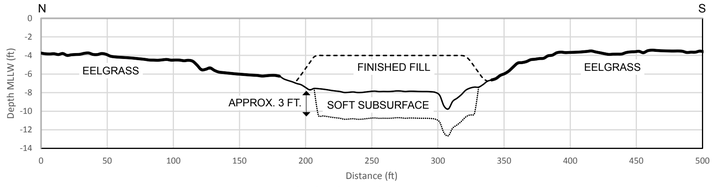

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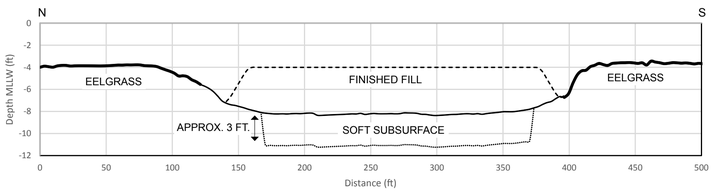

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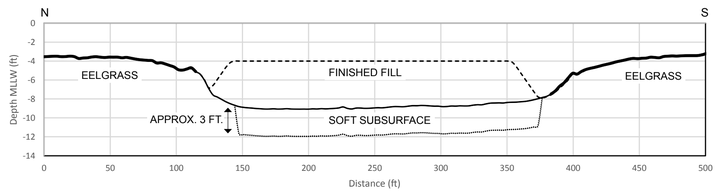

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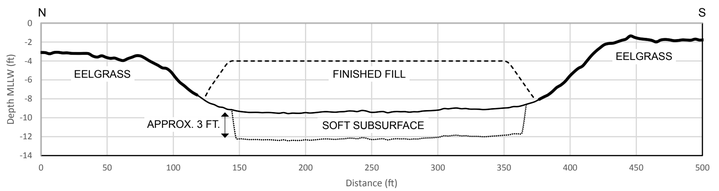

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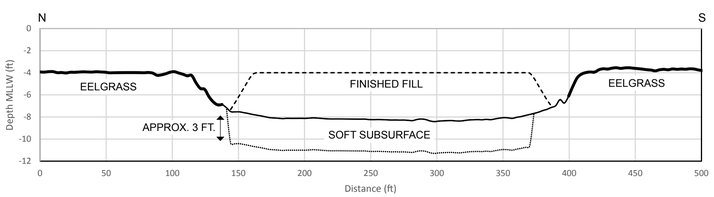

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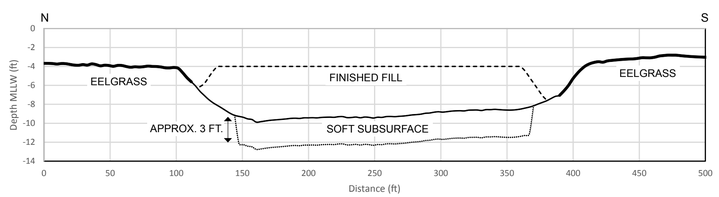

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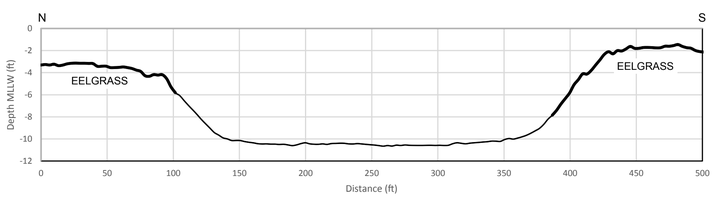


SECTION R - STN: 17+00

ONE INCH
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

Merkel & Associates, Inc

CONSTRUCTION PLANS

REVISIONS

REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: L MURAI
DRAWN BY: L MURAI / S PETRUCCELLI
CHECKED BY: K MERKEL
APPROVED BY: K MERKEL
SCALE: AS INDICATED
DATE: AUGUST 27, 2015

PIER 1 NORTH DRY DOCK PROJECT

SOUTH BAY EELGRASS RESTORATION SITE
CROSS SECTIONS

R-3

SHEET NO. 15 OF 16

SPECIAL ENVIRONMENTAL NOTES:

EELGRASS PROTECTION

1. EELGRASS HABITAT OCCURS ADJACENT TO THE NORTH WESTERN EDGE OF THE DRYDOCK DREDGE AREA AND ADJACENT TO THE SOUTH BAY EELGRASS RESTORATION SITE. EXISTING EELGRASS SHALL BE PROTECTED BY THE CONTRACTOR.

2. THE OWNER RETAINED PROJECT BIOLOGIST WILL COMPLETE PRE-CONSTRUCTION AND POST-CONSTRUCTION EELGRASS SURVEYS PRIOR TO AND FOLLOWING CONSTRUCTION. THE RESULTS OF THESE SURVEYS WILL BE PROVIDED IN DIGITAL FORMAT TO THE CONTRACTOR FOR USE IN SETTING WORK BOUNDARIES.

3. TO MINIMIZE EELGRASS IMPACTS THE CONTRACTOR SHALL ESTABLISH TEMPORARY WORK BOUNDARY MONUMENTS AND SHALL DEPLOY TURBIDITY CURTAINS ALONG THE EDGE OF EELGRASS TO REMAIN DURING AND FOLLOWING CONSTRUCTION.

   a. THE EELGRASS BOUNDARY MARKERS SHALL BE POSITIONED AT LEAST EVERY 50 FEET ALONG THE EDGE OF EELGRASS HABITAT AT LOCATIONS TO BE NOTED BY TEMPORARY PVC PIPES OR SELF CENTERING BUOYS PLACED BY THE OWNER'S PROJECT BIOLOGIST.

   b. CONTRACTOR SET MARKERS SHALL CONSIST OF AT LEAST 2-INCH STEEL POSTS SET INTO THE BOTTOM TO A DEPTH ADEQUATE TO RETAIN TURBIDITY CURTAIN HYDRODYNAMIC LOADING AND PERSIST THROUGHOUT THE CONSTRUCTION PERIOD.

   c. TURBIDITY CURTAINS PLACED ALONG THE SITE BOUNDARY SHALL EXTEND A MINIMUM OF 200 FEET BEYOND ANY ACTIVE SEDIMENT PLACEMENT LIMITS. NOT ALL OF THE TURBIDITY CURTAIN MUST BE IN POSITION DURING THE WORK, BUT BOTH THE NORTH AND SOUTH SIDES OF THE FILL AREA MUST BE BOUNDED DURING FILL PLACEMENT EXTENDING ALONG THE CHANNEL SUCH THAT A MINIMUM OF 200 FEET OF CURTAIN LENGTH EXISTS BEYOND ANY PLACEMENT AREA.

   d. IF FILL IS PLACED HYDRAULICALLY, CURTAINS MUST BE FULLY CLOSED WITHIN 200 FEET OF FILL PLACEMENT DURING THE PUMPING PERIOD.

   e. CONTRACTOR AND PROJECT BIOLOGIST SET MARKERS SHALL BE REMOVED AT COMPLETION OF THE PROJECT WORK. THE CURTAINS SHALL BE KEPT IN PLACE FOR FILL PLACEMENT UNTIL SUCH TIME AS THE TURBIDITY WITHIN THE CURTAIN ACHIEVES TURBIDITY LEVELS THAT ARE LESS THAN 15 PERCENT ABOVE AMBIENT LEVELS OUTSIDE OF THE CURTAIN.

4. EELGRASS OCCURS OVER A SHALLOW SHOAL ALONG THE ACCESS ROUTE INTO THE SOUTH BAY EELGRASS RESTORATION SITE (THE FORMER SOUTH BAY POWER PLANT COOLING WATER INTAKE CHANNEL TO BE BACKFILLED TO RESTORE EELGRASS). REFER TO "SOUTH BAY EELGRASS RESTORATION SITE ACCESS NOTES." TURBIDITY MONITORING SHALL BE PROVIDED BY THE OWNER'S PROJECT BIOLOGIST.

EELGRASS RESTORATION FILL PLACEMENT

5. THE CONTRACTOR SHALL PROVIDE AN EELGRASS HABITAT SITE CONSTRUCTION PLAN TO THE PROJECT ENGINEER AND PROJECT BIOLOGIST FOR REVIEW AND APPROVAL AT LEAST 4 WEEKS PRIOR TO CONSTRUCTION. HABITAT RESTORATION CONSTRUCTION SHALL NOT BEGIN UNTIL THE PROJECT ENGINEER AND PROJECT BIOLOGIST APPROVES THE PLAN. THE PLAN SHALL OUTLINE THE METHOD OF CONSTRUCTION FOR PLACEMENT OF LOWER BASE AND UPPER CAP MATERIALS. THE PLAN SHOULD PROVIDE A MEANS TO CONTROL MATERIAL PLACEMENT AND WATER QUALITY, TO MONITOR FILL QUALITY DIRECTED TO THE SOUTH BAY, PLACEMENT HEIGHT AND SETTLEMENT, AND EFFECTIVENESS OF PROPOSED TURBIDITY MEASURES, AND ANY REMEDIAL MEASURES THAT THE CONTRACTOR WILL TAKE TO ENSURE PROJECT AND PERMIT COMPLIANCE. THE PLAN SHALL ALSO INDICATE EQUIPMENT PROPOSED TO FULFILL THE CONSTRUCTION. IF STAGING FOR SCOWS/BARGES, OR DEVELOPMENT OF AN UNLOADING FACILITY OUTSIDE OF THE FILL SITE IS REQUIRED, CONTRACTOR SHALL PROVIDE A STAGING AND MANAGEMENT PLAN FOR THIS WORK.

6. IDEAL CONDITIONS FOR EELGRASS GROWTH IN SOUTH SAN DIEGO BAY OCCUR WITHIN A NARROW ELEVATION RANGE WITH THE MAXIMUM EELGRASS COVER RANGING BETWEEN -1 FOOT MLLW AND -4 FEET MLLW. TO ACHIEVE THIS DESIRED BATHYMETRIC RANGE, A FINAL CONSOLIDATED TARGET HABITAT ELEVATION OF NOT LESS THAN -4 FEET MLLW IS REQUIRED. ELEVATIONS MAY VARY UPWARD UP TO -3 FEET MLLW.

7. THE UNCONSOLIDATED FILL ELEVATION NECESSARY TO ACHIEVE A FINAL CONSOLIDATED FILL AT -4 FEET MLLW IS DEPENDENT UPON MATERIAL EXCAVATION AND PLACEMENT METHODS. FOR THIS REASON, FILL VOLUMES HAVE BEEN CALCULATED AS BANK VOLUMES AS IT IS DERIVED FROM THE DREDGE EXCAVATION SITE.

8. CONTRACTOR SHALL PLACE FILL TO ELEVATIONS NECESSARY FOR THEIR DREDGE AND FILL METHODOLOGIES TO ENSURE CONSOLIDATED ELEVATIONS ARE ACHIEVED OVER THE EELGRASS RESTORATION SITE.

9. CONTRACTOR MAY INITIALLY OVERFILL ELEVATIONS UP TO A MAXIMUM OF -1 FOOT MLLW IF REQUIRED TO ACHIEVE FINAL SETTLEMENT ELEVATIONS AT OR ABOVE -4 FEET MLLW.

10. CONTRACTOR SHALL PERFORM A DEMONSTRATION OF THEIR BASE FILL PLACEMENT METHODOLOGY AND SHORT-TERM SETTLMENT IN PLACED FILLS.

    a. THE CONTRACTOR SHALL DEMONSTRATE MANAGEMENT OF VESSEL DRAFT AND ACCESS OVER THE EELGRASS COVERED SHOAL TO AVOID EELGRASS DAMAGE.

    b. THE CONTRACTOR SHALL DEMONSTRATE TURBIDITY CONTROL MEASURES DURING MATERIAL PLACEMENT.

    c. THE CONTRACTOR SHALL PLACE BASE FILL TO AN ELEVATION THE CONTRACTOR BELIEVES NECESSARY TO MEET FINAL FILL GRADES MINUS A STABILIZED 2.0 FOOT SAND SURFACE CAP. THE PLACED MATERIAL SHALL BE MONITORED BY MULTIBEAM BATHYMETRIC SURVEYS FOR 20 DAYS TO TRACK CONSOLIDATION DETERMINE HOW FILL IS LIKELY TO PERFORM THROUGH LONG-TERM CONSOLIDATION. SURVEYS SHALL BE CONDUCTED ON DAYS 0, 1, 2, 3, 5, 10, 15, AND 20, POST PLACEMENT

    d. THE CONTRACTOR MAY PROGRESS WITH BASE FILL PLACEMENT ELSEWHERE DURING THIS CONSOLIDATION MONITORING PERIOD BUT MAY BE REQUIRED TO SUBSEQUENTLY RAISE THE FILL ELEVATIONS IF REQUIRED BASED ON THE OUTCOME OF THE MONITORING PROGRAM.

    e. THE INITIAL MONITORING SHALL BE USED TO DETERMINE IMMEDIATE SETTLEMENT AND EARLY PRIMARY CONSOLDATION SETTLEMENT. IT WILL ALSO ASSIST IN UNDERSTANDING DISPLACEMENTS OF THE SOFT MUD LAYER WITHIN THE CHANNEL. IF SEDIMENT IS DISPLACED AS FILL IS PLACED, ACTION SHALL BE TAKEN TO ENSURE THAT THE DISPLACEMENT DOES NOT RESULT IN OVERRUN OF EXISTING EELGRASS. THIS LIKELY CAN BE ENSURED BY FILLING WEST TO EAST; HOWEVER OTHER METHODS MAY EXIST IF MANAGEMENT OF DISPLACED MUD IS REQUIRED.

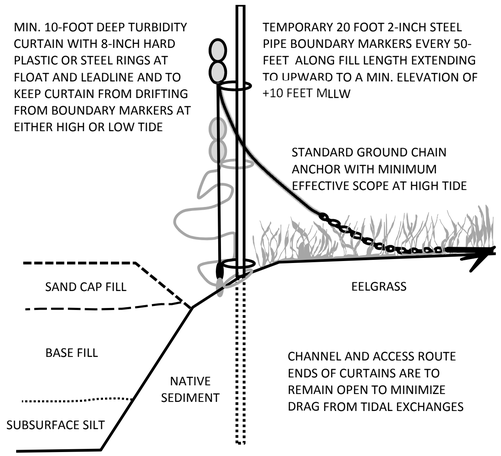
    f. BASED ON THIS DEMONSTRATION PROJECT, CONTRACTOR SHALL ESTABLISH ITS TARGET FOR BASE FILL PLACEMENT ALLOWING FOR A 2.0 FOOT FILL OF ZONE A SAND OVER THE FINAL FILL AREA.

11. THE LOWER BASE FILL SHALL BE CAPPED WITH A SAND LAYER (UPPER CAP).DERIVED FROM THE WESTERN DREDGE AREA. THE THICKNESS OF THE CAP SHALL BE 2-FEET (+/- 0.5 FEET).

12. THE FINAL SURFACE ELEVATION SHALL BE -4 FEET MLLW WITH VARIANCE OF +1 FOOT (I.E. UP TO -3 FEET MLLW). AND SHALL HAVE NO SLOPES GREATER THAN 10:1 (RUN:RISE). THE SURFACE SHALL NOT HAVE ANY AREAS BELOW -4 FEET MLLW AT THE "DEMONSTRATION PROJECT" PREDICTED FINAL ELEVATION.

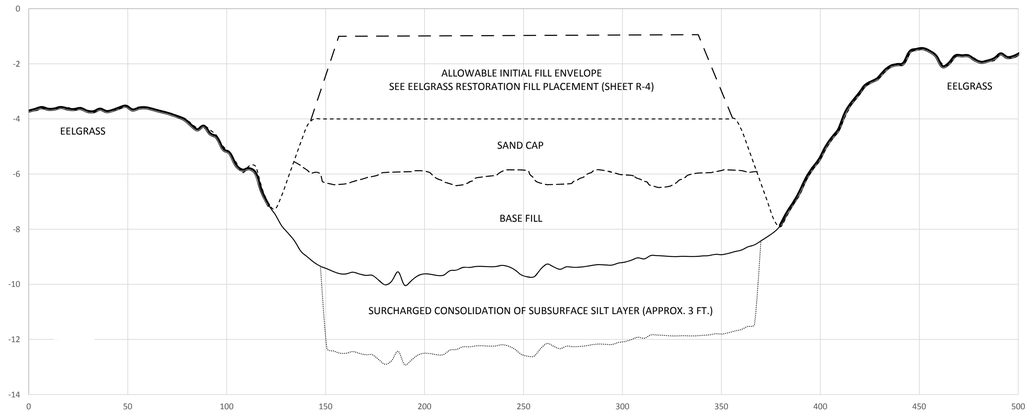
13. THE CONTRACTOR SHALL FINISH THE UPPER CAP LAYER TO MAKE SURE THAT IT MEETS THE SLOPE REQUIREMENTS AND HAS NO EXPOSED CONSOLIDATED SEDIMENT BLOCKS FROM THE BASE FILLS, OR ROUGH SURFACE CONDITIONS AREAS WHERE THE TOPOGRAPHY VARIES EXTENSIVELY (+/- 0.5 FEET) WITH SLOPES LESS THAN 10:1, THE CONTRACTOR MUST SMOOTH THE CAP USING A DRAG, BUCKET SWEEP, OR OTHER MEANS TO ACHIEVE PLANTABLE CONDITIONS. THE SURFACE WILL BE INSPECTED BY THE PROJECT BIOLOGIST TO VERIFY ACCEPTABLE CONDITIONS FOR EELGRASS RESTRATION.

BOUNDARY MARKER AND TURBIDITY CURTAIN ATTACHMENT DETAIL:



FILL DETAIL:

TYPICAL FILL PLACEMENT SECTION



TYPICAL FILL PLACEMENT SECTION

ONE INCH
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

Merkel & Associates, Inc

CONSTRUCTION PLANS

REVISIONS

REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: L MURAI
DRAWN BY: L MURAI / S PETRUCCELLI
CHECKED BY: K MERKEL
APPROVED BY: K MERKEL
SCALE: AS INDICATED
DATE: AUGUST 27, 2015

PIER 1 NORTH DRY DOCK PROJECT

SPECIAL ENVIRONMENTAL NOTES

R-4

SHEET NO. 16 OF 16

ATTACHMENT 5
CEQA MITIGATION MONITORING AND REPORTING PROGRAM

Proposed Mitigation	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
4.1: Air Quality			
No mitigation measures were identified for air quality.			
4.2: Biological Resources			
BIO-1: Biological Monitoring For Special-Status Species. During active dredging and pile-driving project activities, BAE Systems shall retain a qualified biologist, approved by the Director of the Environmental and Land Use Management (ELUM), or designee, of the San Diego Unified Port District (District), to monitor project construction activities. The Biological Monitor shall be placed in the best vantage point practicable to monitor, using binoculars and the naked eye, and when applicable, shall communicate directly with the construction superintendent and/or hammer operator if a special-status species is sighted. The Biological Monitor shall be authorized to temporarily halt or redirect work in the event that special-status species are sighted. Once the special-status species is out of the construction area, the Biological Monitor shall direct work to recommence. The Biological Monitor shall keep daily logs for each construction work day. These logs shall be maintained by BAE Systems and shall include at minimum: dates, names of monitors, descriptions of construction activity, times of observations, actions taken upon observations, and detailed descriptions of any special-status species, including observations and behaviors of observed animal(s) with notations on its (their) arrival and departure in the construction area. In the event that the Biological Monitor suspects that work being conducted would have significant adverse effects to special-status species, he/she shall immediately notify the contractor and BAE Systems and impose corrective measures, such as temporarily halting construction activity and/or redirecting construction activity from within specific locations. If the situation is not remedied immediately, the monitor shall notify the permitting agencies. The monitoring log, along with a summary of observations, shall be submitted to the United	Director of the Environmental and Land Use Management (ELUM), or designee, of the San Diego Unified Port District (District)	During active dredging and pile-driving project activities	The project Applicant shall retain a qualified biologist to monitor project construction activities. The Biological Monitor shall keep daily logs for each construction work day. The monitoring log, along with a summary of observations, shall be submitted to the United States Army Corps of Engineers (USACE) and the District within 60 days of the completion of the mitigation monitoring.

Proposed Mitigation	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
States Army Corps of Engineers (USACE) and the District within 60 days of the completion of the mitigation monitoring.			
BIO-2: Biological Monitoring of Impact Hammer and Pile Driving. For a period of 15 minutes daily prior to the start of in-water construction activities, a qualified biologist, approved by the Director of the Environmental and Land Use Management (ELUM), or designee, of the San Diego Unified Port District (District), shall monitor a 380-foot (116 meters) surface radius around the active pile driving areas (which includes the acoustical Zone of Influence *as defined in the BAE Systems Pier 1 North Drydock Hydroacoustic Technical Study*, Tierra Data, January 2015~~)~~) to ensure that special-status species are not present. The construction contractor shall not start work if any observations of special-status species are made prior to starting pile driving. If a special-status species approaches or enters within the 380-foot (116 meters) surface radius of pile-driving activities, the construction contractor shall halt the piling-driving activity until the qualified biologist confirms that the animal has voluntarily left the area or 15 minutes have passed without redetection of the animal. If weather conditions prevent the visual detection of special-status species (e.g., heavy fog), any pile-driving activities with the potential to reach the Level A Harassment Injury threshold shall not be conducted until conditions change to allow for visual detection.	Director of the Environmental and Land Use Management (ELUM), or designee, of the San Diego Unified Port District (District)	For a period of 15 minutes daily prior to the start of in-water construction activities	The project Applicant shall retain a qualified biological to monitor active pile driving areas to ensure that special-status species are not present.
BIO-3: Pile Driving. When performing impact pile driving, the contractor shall commence work with one soft strike at 40 percent or less energy, followed by a 30-second period of no pile driving, prior to commencing full pile-driving activities. The purpose of this activity is to encourage special-status species to leave the project site prior to commencement of work. A qualified biologist, approved by the San Diego Unified Port District's (District) Environmental and Land Use Management (ELUM) Director, or designee, shall then	San Diego Unified Port District's (District) Environmental and Land Use Management (ELUM) Director, or designee	Prior to commencing full pile-driving activities. This process shall be repeated if pile driving ceases for a period greater than 1 hour	A qualified biologist, approved by the San Diego Unified Port District to monitor for active impact hammer pile driving.

Proposed Mitigation	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
commence monitoring to determine if turtles or marine mammals are in the area. If any special-status species are in the area, the Biological Monitor shall be authorized to temporarily halt construction. Once the species are out of the construction area, the Biological Monitor shall direct work to recommence. This process shall be repeated if pile driving ceases for a period greater than 1 hour.			
BIO-4: Bay Coverage and Eelgrass Mitigation. Prior to issuance of a Coastal Development Permit (CDP), the project Applicant shall prepare a final mitigation plan and identify a final mitigation site in San Diego Bay to meet a 1:1 mitigation ratio for approximately 168,425 square feet (3.8 acres) of bay coverage impacts. The final mitigation plan shall be reviewed and approved by the Director of Environmental and Land Use Management (ELUM), or designee, of the San Diego Unified Port District (District). Demolition and construction activities associated with the proposed project shall conform to the requirements of the Southern California Eelgrass Mitigation Policy (SCEMP) (National Marine Fisheries Service [NMFS] 1991, revision 11). In accordance with the requirements of the SCEMP, a pre-construction eelgrass survey shall be completed by a qualified biologist within 60 days prior to initiation of demolition or construction activities at the site. This survey shall include both area and density characterization of the beds. A post-construction survey shall be performed by a qualified biologist within 30 days following project completion to quantify any unanticipated losses to eelgrass habitat. Impacts shall then be determined from a comparison of pre- and post-construction survey results. Impacts to eelgrass, if any, would require mitigation as defined in the SCEMP. If required following the post-construction survey, a mitigation planting plan shall be developed, approved by the Director of Environmental and Land Use	Director of Environmental and Land Use Management (ELUM), or designee, of the San Diego Unified Port District (District)	60 days prior to initiation of demolition or construction activities at the site and 30 days following project completion	Impacts shall be determined from a comparison of pre- and post-construction survey results. If required following the post-construction survey, a mitigation planting plan shall be developed, approved by the Director of Environmental and Land Use Management (ELUM), or designee, of the San Diego Unified Port District (District) and the NMFS, and implemented to offset losses to eelgrass. The identified mitigation site shall be acceptable to the Director of ELUM, or designee, of the District and the resource and regulatory agencies.

Proposed Mitigation	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
Management (ELUM), or designee, of the San Diego Unified Port District (District) and the NMFS, and implemented to offset losses to eelgrass. Impacts are anticipated to be approximately 0.13 acre with a mitigation requirement of approximately 0.16 acre. The identified mitigation site shall be acceptable to the Director of ELUM, or designee, of the District and the resource and regulatory agencies. The project Applicant shall secure all applicable permits for the mitigation site prior to commencement of any demolition activities.			
BIO-5: California Least Tern Mitigation. Where feasible, the project contractor shall schedule and complete all dredging and in-water construction activity outside of the nesting season for California least tern (generally between mid-April and late September). Should dredging and in-water construction need to occur during the California least tern nesting season, the following construction measures shall be implemented: • The contractor shall deploy a turbidity curtain around the dredging areas to restrict the visible surface turbidity plume to the area of construction and dredging. It shall consist of a hanging weighted curtain with a surface float line and shall extend from the surface to 20 feet down into the water column. The goal of this measure is to minimize the area of the bay in which visibility of prey by terns is obstructed. • A qualified biologist shall conduct monitoring within 500 feet of construction activities to identify presence of terns displaying foraging behavior (e.g., searching and diving) and assess adverse impacts, if any, to California least terns. Should adverse impacts to tern occur (e.g., agitation or startling during foraging activities), construction shall cease until least terns have left the project site. The goal	Director of Environmental and Land Use Management (ELUM), or designee, of the San Diego Unified Port District (District)	Turbidity curtain required for dredging during California least tern nesting season (generally between mid-April and late September)	A qualified biologist shall conduct monitoring within 500 feet of construction activities to identify presence of terns displaying foraging behavior (e.g., searching and diving) and assess adverse impacts, if any, to California least terns. Where feasible, the project contractor shall schedule and complete all dredging and in-water construction activity outside of the nesting season for California least tern (generally between mid-April and late September).

Proposed Mitigation	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
of this measure is to minimize noise impacts to terns.			
BIO-6: Eelgrass Boundaries. Prior to construction activities associated with the proposed project, the boundaries of any existing eelgrass beds, located along the bulkheads adjacent to Pier 1 within the BAE Systems facility, shall be staked by the contractor with ridged polyvinyl chloride (PVC) markers or self-centering buoys visible at all tide heights. The contractor shall protect, replace, and maintain the markers/buoys as needed to ensure that they remain in place and that they are avoided. In addition, the contractor shall properly stake the boundaries of the eelgrass beds until all construction activities associated with the proposed project are complete.	Director of Environmental and Land Use Management (ELUM), or designee, of the San Diego Unified Port District (District)	Prior to construction the boundaries of any existing eelgrass beds, shall be staked and protected, replaced, and maintained as needed	The contractor shall protect, replace, and maintain the markers/buoys as needed to ensure that they remain in place and that they are avoided until all construction activities associated with the proposed project are complete.
BIO-7: Turbidity Curtain. Prior to dredging activities, the contractor shall deploy a turbidity curtain around the dredging areas to limit turbidity drift. The turbidity curtain shall consist of a hanging weighted curtain with a surface float line and shall extend from the surface to below the lower depth of the existing eelgrass beds (a minimum of 20 feet deep) and the turbidity curtain shall be kept a minimum of 20 feet away from staked eelgrass beds in order to prevent damage to eelgrass beds from curtain drag or movement.	Director of Environmental and Land Use Management (ELUM), or designee, of the San Diego Unified Port District (District)	Prior to dredging activities a turbidity curtain shall be deployed	The turbidity curtain shall extend from the surface to below the lower depth of the existing eelgrass beds (a minimum of 20 feet deep) and the turbidity curtain shall be kept a minimum of 20 feet away from staked eelgrass beds.
BIO-8: Eelgrass Silt Curtain. During shoreline work, the contractor shall protect eelgrass beds with silt curtains deployed above the eelgrass and below the shoreline work area. The silt curtain shall be designed to prevent drift (for example, stretched between stakes so that the curtain is rigid), so that impacts to eelgrass during shoreline work are avoided.	Director of Environmental and Land Use Management (ELUM), or designee, of the San Diego Unified Port District (District)	During shoreline work, silt curtains shall be deployed	The silt curtain shall be designed to prevent drift so that impacts to eelgrass during shoreline work are avoided.

Proposed Mitigation	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
BIO-9: Invasive Species Surveys. BAE Systems shall conduct a surveillance-level survey for Caulerpa taxifolia and Undaria pinnatifida not more than 90 days before the initiation of construction activities within San Diego Bay to determine the presence/absence of this species within the immediate vicinity of the project and shall submit the findings to the San Diego Unified Port District (District). If Caulerpa taxifolia or Undaria pinnatifida is identified during a survey, or at any other time before, during, or within 120 days following completion of authorized activities, both the NMFS and the California Department of Fish and Wildlife (CDFW shall be contacted within 24 hours of first noting the occurrence. In the event that either Caulerpa taxifolia or Undaria pinnatifida is detected, all disturbing activity shall cease until such time as the infestation has been isolated and treated, or the risk of spread from the disturbing activity is eliminated in accordance with the Caulerpa Control Protocol (CCP).	Director of Environmental and Land Use Management (ELUM), or designee, of the San Diego Unified Port District (District)	Surveillance-level survey for Caulerpa taxifolia and Undaria pinnatifida to occur not more than 90 days before the initiation of construction activities	If Caulerpa taxifolia or Undaria pinnatifida is identified during a survey, or at any other time before, during, or within 120 days following completion of authorized activities, both the NMFS and the California Department of Fish and Wildlife (CDFW shall be contacted within 24 hours of first noting the occurrence. In the event that either Caulerpa taxifolia or Undaria pinnatifida is detected, all disturbing activity shall cease until such time as the infestation has been isolated and treated, or the risk of spread from the disturbing activity is eliminated in accordance with the Caulerpa Control Protocol (CCP).
4.3: Geology and Soils			
GEO-1: Conformance with the Project Geotechnical Study. Prior to issuance of a Coastal Development Permit (CDP), the Applicant shall submit a Final Geotechnical Report, subject to review and approval by the San Diego Unified Port District's (District) Engineering-Construction Department Director, or designee, indicating that design, dredging, and construction shall be performed in accordance with the requirements of the most current California Building Code (CBC) applicable at the time of construction, appropriate local construction regulations, and the requirements of the project geotechnical consultant. All dredging and construction activities shall be conducted in conformance with the recommendations included in the Final Geotechnical Report and with the constraints identified in the *Geotechnical Report Pier 1 Dry Dock EIR BAE Systems San Diego Ship Repair San Diego, California*	San Diego Unified Port District's (District) Engineering-Construction Department Director, or designee	Prior to issuance of a Coastal Development Permit (CDP), the Applicant shall submit a Final Geotechnical Report	All dredging and construction activities shall be conducted in conformance with the recommendations included in the Final Geotechnical Report and with the constraints identified in the *Geotechnical Report Pier 1 Dry Dock EIR BAE Systems San Diego Ship Repair San Diego, California* (TerraCosta Consulting Group, Inc., March, 2015) (Geotechnical Report).

Proposed Mitigation	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
(TerraCosta Consulting Group, Inc., March, 2015) (Geotechnical Report). Conditions identified in the Geotechnical Report to be addressed in the Final Geotechnical Report include, but are not limited to: 1. **King Pile Wall:** Identify removal quantities of the relatively loose bay deposits susceptible to liquefaction, primarily those at the eastern end of the king pile wall alignment adjacent to Pier 1, and determine appropriate design to address increased loading on the wall system. 2. **Mooring Dolphins:** Determine sufficient embedment depth into the underlying terrace deposits to provide the necessary frictional and end-bearing resistance needed to accommodate the axial and uplift forces associated with the anticipated lateral loading. 3. **Ramp Wharves:** Determine sufficient embedment depth into the underlying terrace deposits to provide the necessary frictional and end-bearing resistance needed to accommodate those forces. Require piles to provide the necessary axial and uplift resistance to seismically-induced lateral loads. 4. **Supplemental Pier 1 Piles:** Determine sufficient embedment depth of both vertical and battered piles into the underlying terrace deposits to provide the necessary frictional and end-bearing resistance needed to accommodate the axial and uplift forces associated with the anticipated lateral loading. 5. **Drydock Sump Dredging – Removal of Jetty:** Before or during dredging, confirm removal of any remaining sheetpile jetties in the vicinity of the proposed sump.			

Proposed Mitigation	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
6. **Drydock Sump Dredging – Review and Adjust Excavations:** Confirm that the inclinations of the dredged excavations and depths of removals are reviewed and adjusted as necessary to maintain the stability of surrounding structures, including the proposed king pile wall, Pier 1, and the existing and proposed bulkhead walls along the bulkhead line. 7. **Drydock Sump Dredging – Analysis of Capacity:** Include analysis of existing Pier 1 pile capacities to identify the potential for reduced pile capacities as a result of dredging, and the possible need for supplementary piles if additional capacity is required. 8. **Utility Trench Construction:** If required, specify backfill and compaction requirements for clean structural backfill, due to removal of existing surface pavements and excavation along the trench alignments. In the event that the dry alternative is determined to be the method of removal for the cooling tunnels, Items 9, 10, and 11 shall be implemented, and Items 12, 13, and 14 would not apply. Conversely, in the event that the wet alternative is determined to be the method of removal for the cooling tunnels, Items 12, 13, and 14 shall be implemented, and Items 9, 10, and 11 would not apply. 9. **Cooling Tunnel Removal – Shoring (Dry Alternative):** Identify the shoring method required for excavation of cooling tunnels and the form of lateral restraint required to transfer the horizontal restraint across the shoring wall. Confirm that the system shall be effective at preventing the infiltration of groundwater into the excavation. The temporary shoring must penetrate the Bay			

Proposed Mitigation	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
Point Formation to a sufficient distance to minimize groundwater flow from under the sheetpiles, and be a sufficient distance to preclude heaving of the bottom of the excavation resulting from excess uplift pressures. 10. **Cooling Tunnel Removal – Dewatering (Dry Alternative):** Identify a construction dewatering system that will maintain a dry excavation, and identify the limits of the area requiring dewatering. The dewatering plan shall identify potential groundwater-induced settlements in close proximity to the shoring that may result in damage to any settlement-sensitive structures or other surface improvements. The dewatering plan shall be designed to maintain the stability of the excavation subgrade and shall include dewatering pumps to further remove groundwater from the excavation. The plan shall identify methods to maintain groundwater level at a minimum of 2 to 3 feet below the bottom of the excavation, or near elevation 17 to 18 feet mean lower low water (MLLW). Any dewatering system proposed shall include a sufficient groundwater monitoring system, consisting of piezometers and wells, to verify both that dewatering is being achieved and that the dewatering system is performing as designed. 11. **Cooling Tunnel Removal – Backfill (Dry Alternative):** Require that a clean structural backfill be used to prevent differential settlement at the ground surface. Fill soils should be placed as a structural fill with the prerequisite compaction, observation, and testing. 12. **Cooling Tunnel Removal – Shoring (Wet Alternative):** Identify the shoring method required for excavation of cooling tunnels and the form of			

Proposed Mitigation	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
lateral restraint required to transfer the horizontal restraint across the shoring wall. 13. **Cooling Tunnel Removal – Debris Removal (Wet Alternative):** Identify special excavation and demolition equipment to be used for removal of the cooling tunnel structures since operations shall be conducted below water. Identify methods to allow the dewatering of the debris as it is removed from the excavation, including identification of temporary decanting areas or barges that may be required to allow the debris to drain before loading and hauling from the site. 14. **Cooling Tunnel Removal – Backfill (Wet Alternative):** Identify coarse-grained soils materials to be used for backfilling of the excavation, such as gravel, quarry run, or other suitable materials sufficiently graded and permeable to allow placement underwater with self-consolidation properties. For the upper one-third of the excavation backfill, it is recommended that a clean structural backfill be used to prevent differential settlement at the ground surface. Given that the backfilling operations of the upper one-third of the excavation would be performed in the dry environment, fill soils should be placed as a structural fill with the prerequisite compaction, observation, and testing. Additional site testing and final design evaluation shall be conducted by the project geotechnical consultant to refine and enhance these requirements. If the project geotechnical consultant identifies modifications or refinements to the requirements, the project Applicant shall require appropriate changes to the final project design and specifications, subject to review and approval by the District.			

Proposed Mitigation	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
4.4: Climate Change and Greenhouse Gases			
No Mitigation Required The following PDFs will further reduce criteria pollutant and GHG emissions: **PDF GHG-1:** In 2014, BAE Systems replaced all exterior facility lighting with light-emitting diode (LED) fixtures. Installation of lighting associated with the drydock and any additional lighting at the facility will also be LED. The drydock will employ the use of electric cranes **PDF GHG-2:** Installation of a zero-discharge salt water system (pumps) using smart controllers and cascading pumps that minimize operation of only those pumps necessary to keep up with actual demand will be utilized, with no additional pumps.			
4.5: Hazards and Hazardous Materials			
HAZ-1: Health and Safety Plan (HASP) for Landside Activities. Prior to construction activities, the contractor shall prepare a HASP and submit it for review and approval by the San Diego Unified Port District's (District) Environmental and Land Use Management (ELUM) Director, or designee. The HASP shall include appropriate recommendations and implementation of measures if contaminated groundwater or soils are encountered during any trenching activities. BAE Systems shall require that all construction subcontractors comply with the HASP and appropriate health and safety measures in Section 29 Code of Federal Regulations (CFR) Part 1926, which are focused on worker safety in excavations. In the event that suspicious odors are detected in soil, construction shall be terminated until the soil is properly characterized for hazardous waste content. Appropriate measures shall be taken in compliance with all applicable regulations for the characterization and disposal of hazardous materials. The District shall verify implementation of this measure through (1) review of a mitigation implementation and monitoring tracking log maintained by BAE Systems and submitted to the District on a twice-monthly basis, and (2) periodic site inspections.	San Diego Unified Port District's (District) Environmental and Land Use Management (ELUM) Director, or designee	Prior to and during construction activities	BAE Systems shall require that all construction subcontractors comply with the HASP and appropriate health and safety measures in Section 29 Code of Federal Regulations (CFR) Part 1926, which are focused on worker safety in excavations. The District shall verify implementation of this measure through (1) review of a mitigation implementation and monitoring tracking log maintained by BAE Systems and submitted to the District on a twice-monthly basis, and (2) periodic site inspections.

Proposed Mitigation	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
HAZ-2: Hazardous Materials Dredging Management Plan (DMP). Prior to commencement of dredging operations, the contractor shall prepare a DMP for review and approval by the San Diego Unified Port District's (District) Environmental and Land Use Management (ELUM) Director, or designee, and the Regional Water Quality Control Board (RWQCB). The DMP shall contain Standard Operation Procedures (SOPs) that are developed for the project prior to initiation of dredging and are implemented for the duration of the dredging activity. The DMP shall include the following specifications to prevent release of hazardous materials during construction activities: 1. Personnel involved with dredging and handling of the dredged material shall be given training on their specific task areas, which shall be identified in the HASP. The training shall be approved by the District and carried out by BAE Systems per Occupational Safety and Health Administration (OSHA) requirements. The training materials include: a. Potential hazards resulting from accidental oil and/or fuel spills; b. Potential impacts to water quality associated with turbidity; and c. Proper operation of dredging equipment. 2. Required instrumentation to avoid spillage of dredged material will be identified for each piece of equipment used during dredging operations. 3. Personnel shall be required to visually monitor for oil or fuel spills during construction activities. 4. In the event that a sheen or spill is observed, the equipment shall be immediately shut down and the source of the spill identified and contained.	San Diego Unified Port District's (District) Environmental and Land Use Management (ELUM) Director, or designee	Prior to and during dredging operations	The contractor shall prepare a DMP for review and approval by the San Diego Unified Port District's (District) Environmental and Land Use Management (ELUM) Director, or designee, and the Regional Water Quality Control Board (RWQCB). The San Diego Unified Port District's (District) Engineering-Construction Department Director, or designee, shall verify implementation of this measure through (1) review of a mitigation implementation and monitoring tracking log maintained by BAE Systems and submitted to the District on a twice-monthly basis; and (2) periodic site inspections.

Proposed Mitigation	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
5. Additionally, the spill shall be reported to the applicable agencies presented in the DMP. 6. All personnel associated with dredging activities shall be trained as to where to find oil/fuel spill kits, how to deploy the oil-absorbent pads, and how to dispose of the materials properly. The dredging barge shall have a sufficient quantity of oil/fuel spill kits onboard to allow for quick and timely spill containment. 7. Barge load limits and loading procedures shall be identified, and the appropriate draft level shall be marked on the materials barge hull. 8. Water discharges (supernatant water from sediment and storm water) to San Diego Bay are prohibited. 9. The contractor shall remove dredge material and shall not stockpile material on the San Diego Bay floor, and shall not sweep or level the bottom surface with the digging bucket. 10. The contractor shall not overfill the digging bucket because overfill results in material overflowing back into the water. 11. When dredging sediments that have been deemed suitable for unconfined aquatic disposal by the US Army Corps of Engineers (USACE)/US Environmental Protection Agency (EPA), the contractor shall deploy and maintain an outer-boundary floating silt curtain around the dredging area at all times. 12. When dredging sediments that have been deemed unsuitable for unconfined aquatic disposal by the USACE/EPA, the contractor shall deploy and maintain inner- and outer-boundary floating silt curtains fully around the dredging area at all times. Double silt curtains shall be utilized for			

Proposed Mitigation	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
containment of the dredge area; silt curtain configurations, technologies, and actual locations in relation to the dredge barge shall be finalized during the design phase of the project. 13. The contractor shall not overfill the material barge to a point where overflow or spillage could occur. Each material barge shall be clearly marked to allow the operator to visually identify the maximum load point. 14. If the contractor proposes to use weirs as a means to dewater the scow during dredging approved for unconfined aquatic disposal, the use of silt curtains shall be deployed to minimize turbidity. Decanting of dredge scow return water during dredging of material determined to be unsuitable for unconfined aquatic habitat shall be prohibited. 15. The contractor shall place material in the material barge to minimize splashing or sloshing that could send sediment back into the water. Splashing can be controlled by restricting the drop height from the bucket. 16. If the use of a grate to collect debris is required, the contractor shall not allow material to pile up on the grate and flow or slip from the grate back into the water. The debris scalper shall be positioned to be totally contained on the shore side of the unloading operations. 17. The dredge operator shall visually monitor for debris build-up and alert the support personnel on the barge to assist in clearing the debris, as necessary. Debris that is derived from dredging activities shall be removed from the grate by the environmental clamshell bucket and placed in a contained area on the dredge barge or in a second material barge for subsequent removal and			

Proposed Mitigation	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
disposal. 18. The contractor shall restrict barge movement and work boat speeds (i.e., reducing propeller wash) in the dredge area. The San Diego Unified Port District's (District) Engineering-Construction Department Director, or designee, shall verify implementation of this measure through (1) review of a mitigation implementation and monitoring tracking log maintained by BAE Systems and submitted to the District on a twice-monthly basis; and (2) periodic site inspections.			
HAZ-3: Contingency Plan. The contractor shall prepare and submit to the San Diego Unified Port District's (District) Engineering-Construction Department Director, or designee, for review and approval, a Contingency Plan, prior to initiation of dredging, and implement it for the duration of the dredging activity; the plan shall address equipment and operational failures that could occur during dredging operations. The Contingency Plan shall include the following measures to prevent a release of hazardous materials in the event of equipment failure, repair, or silt curtain breach: 1. Procedures for communication to project personnel; 2. Installation of proper signage and/or barriers alerting others of potentially unsafe conditions; 3. Specification for repair work to be conducted on land and not over water; 4. Identification of proper spill containment equipment (e.g., spill kit); 5. Identification of other equipment or subcontracting options; 6. Emergency procedures to follow in the event of	San Diego Unified Port District's (District) Engineering-Construction Department Director, or designee	Prior to and during dredging activities	The contractor shall prepare and submit to the San Diego Unified Port District's (District) Engineering-Construction Department Director, or designee, for review and approval, a Contingency Plan and implement it for the duration of the dredging activity. The District shall verify implementation of this measure through (1) review of a mitigation implementation and monitoring tracking log maintained by BAE Systems and submitted to the District on a twice-monthly basis, and (2) periodic site inspections.

Proposed Mitigation	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
equipment failure or release; 7. Incident reporting and review procedure to evaluate the causes of an accidental release and steps to avoid further incidents; 8. Response procedures in the event of barge overfill; and 9. Procedures for prompt notification of the District and all other regulatory agencies. The District shall verify implementation of this measure through (1) review of a mitigation implementation and monitoring tracking log maintained by BAE Systems and submitted to the District on a twice-monthly basis, and (2) periodic site inspections.			
HAZ-4: Health and Safety Plan (HASP) for Dredging Activities. The contractor shall prepare and submit to the San Diego Unified Port District's (District) Environmental and Land Use Management (ELUM) Director, or designee, for review and approval, a HASP, prior to the initiation of dredging, and shall implement it for the duration of the dredging activity. The HASP shall be prepared in general accordance with Federal Occupational Safety and Health Administration Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120) and Title 8 California Code of Regulations (CCR) Section 5192. The HASP shall be reviewed and approved by a Certified Industrial Hygienist retained at the Applicant's expense. The HASP shall include the following requirements at a minimum: 1. Training for operators to prevent and respond to releases; 2. Identification of appropriate personal protection equipment for all construction activities, including personal floatation devices, hard hats, and work shoes/clothing;	San Diego Unified Port District's (District) Environmental and Land Use Management (ELUM) Director, or designee	Prior to and during dredging activities	The contractor shall prepare and submit to the San Diego Unified Port District's (District) Environmental and Land Use Management (ELUM) Director, or designee, for review and approval, a HASP. The HASP shall be reviewed and approved by a Certified Industrial Hygienist retained at the Applicant's expense. The District's ELUM Director, or designee, shall verify implementation of this measure through (1) review of a mitigation implementation and monitoring tracking log maintained by BAE Systems and submitted to the District on a twice-monthly basis, and (2) periodic site inspections.

Proposed Mitigation	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
3. Training in the safe operation of cranes, barges, tugs, and support craft; 4. Site evacuation and emergency first aid response; and 5. Documentation that certifies that required health and safety procedures have been implemented. The District's ELUM Director, or designee, shall verify implementation of this measure through (1) review of a mitigation implementation and monitoring tracking log maintained by BAE Systems and submitted to the District on a twice-monthly basis, and (2) periodic site inspections.			
HAZ-5: Communication Plan. Prior to the initiation of dredging activities, the contractor shall prepare and submit to the by the San Diego Unified Port District's (District) Environmental and Land Use Management (ELUM) Director, or designee, for review and approval, a Communication Plan and operational guidelines for communications between the US Coast Guard and all vessel operators to ensure the safe movement of project vessels from the dredge site to the unloading area. Features of the Communication Plan shall include, at a minimum: 1. Identification of vessel speed limitations (e.g., wake/no wake); and 2. Notification to project personnel using air horns as necessary.	San Diego Unified Port District's (District) Environmental and Land Use Management (ELUM) Director, or designee	Prior to and during dredging activities	The contractor shall prepare and submit to the by the San Diego Unified Port District's (District) Environmental and Land Use Management (ELUM) Director, or designee, for review and approval, a Communication Plan and operational guidelines for communications between the US Coast Guard and all vessel operators to ensure the safe movement of project vessels from the dredge site to the unloading area.
HAZ-6: Supernatant and Storm Water Containment. During dredging activities, the contractor shall ensure that the supernatant and storm water containers are transported to landside containers. These containers are to be sealed when not in use to avoid overflow during a storm event. Storm water management in the project footprint during this phase of the project shall be in	San Diego Unified Port District's (District) Director of Engineering-Construction Department, or designee	Prior to and during dredging activities	The preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) for the project in compliance with the requirements of the CGP. The San Diego Unified Port District's (District) Director of Engineering-Construction Department, or designee, shall verify implementation of this measure through (1) review

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compliance with the Statewide General Construction Permit (CGP) and District requirements. The CGP requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) for the project in compliance with the requirements of the CGP. The SWPPP shall identify construction best management practices (BMPs) to be implemented to control the discharge of pollutants in storm water runoff as a result of construction activities. Secondary containment features shall be in place around the scows (silt curtains) and holding tanks (berms). The San Diego Unified Port District's (District) Director of Engineering-Construction Department, or designee, shall verify implementation of this measure through (1) review of a mitigation implementation and monitoring tracking log maintained by BAE Systems and submitted to the District on a twice-monthly basis, and (2) periodic site inspections.			of a mitigation implementation and monitoring tracking log maintained by BAE Systems and submitted to the District on a twice-monthly basis, and (2) periodic site inspections.
HAZ-7: Sediment Unloading. During dredging activities, the contractor shall reduce water column impacts by controlling the swing radius of the unloading equipment. A spillage plate shall be used to prevent the offloaded sediments from falling into the water beneath the swing radius of the unloading equipment at the offload location, which shall limit spillage from falling directly into the water. All equipment used to move sediments from the scow to the trucks, as well as the trucks used to transport sediments to the landfill, shall be properly cleaned, and any wastewater shall be properly cleaned and disposed. The contractor shall use a power wash unit to reduce impacts related to spillage from the excavator arm onto transport vehicles. In the event that sediment is spilled onto the transport vehicle, it can be quickly washed and the water directed into the collection sump.	San Diego Unified Port District's (District) Director of Engineering-Construction Department, or designee	During and after dredging activities	The San Diego Unified Port District's (District) Director of Engineering-Construction Department, or designee, shall verify implementation of this measure through (1) review of a mitigation implementation and monitoring tracking log maintained by BAE Systems and submitted to the District on a twice-monthly basis, and (2) periodic site inspections.

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The San Diego Unified Port District's (District) Director of Engineering-Construction Department, or designee, shall verify implementation of this measure through (1) review of a mitigation implementation and monitoring tracking log maintained by BAE Systems and submitted to the District on a twice-monthly basis, and (2) periodic site inspections.			
HAZ-8: Filling Transport Vehicles. During dredging activities, the contractor shall ensure that truck volumes are limited to 90 percent based on visual observations, and that trucks shall be covered and secured per California Department of Transportation (Cal-DOT) regulations during transport to the disposal facility. The San Diego Unified Port District's (District) Director of Engineering-Construction Department, or designee, shall verify implementation of this measure through (1) review of a mitigation implementation and monitoring tracking log maintained by BAE Systems and submitted to the District on a twice-monthly basis, and (2) periodic site inspections.	The contractor	During dredging activities	The San Diego Unified Port District's (District) Director of Engineering-Construction Department, or designee, shall verify implementation of this measure through (1) review of a mitigation implementation and monitoring tracking log maintained by BAE Systems and submitted to the District on a twice-monthly basis, and (2) periodic site inspections.
HAZ-9: Sediment Loading. During dredging activities, the contractor shall ensure that trucks are loaded within a constructed loading zone to confine sediment spilled during the loading process. Prior to entering the roadway, the vehicles shall be power washed to prevent cross-contamination onto the roadways. The San Diego Unified Port District's (District) Director of Engineering-Construction Department, or designee, shall verify implementation of this measure through (1) review of a mitigation implementation and monitoring tracking log maintained by BAE Systems and submitted to the District on a twice-monthly basis, and (2) periodic site inspections.	San Diego Unified Port District's (District) Director of Engineering-Construction Department, or designee	During dredging activities	The San Diego Unified Port District's (District) Director of Engineering-Construction Department, or designee, shall verify implementation of this measure through (1) review of a mitigation implementation and monitoring tracking log maintained by BAE Systems and submitted to the District on a twice-monthly basis, and (2) periodic site inspections.

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HAZ-10: Soil and Groundwater Management Plan. Prior to commencement of cooling tunnels removal, the contractor shall submit a soil and groundwater management plan to the District for review and approval to address the possibility of encountering areas of potential environmental concern. The plan shall be prepared by a qualified environmental consultant and shall be implemented during subsurface disturbance activities by the contractor under the oversight of an environmental professional on behalf of the District. The plan shall address soil and groundwater monitoring, handling, stockpiling, characterization, reuse, export, and disposal protocols. The San Diego Unified Port District's (District) Director of Engineering-Construction Department, or designee, shall verify implementation of this measure through (1) review of a mitigation implementation and monitoring tracking log maintained by the contractor and submitted to the District on a twice-monthly basis, and (2) periodic site inspections.	San Diego Unified Port District's (District) Director of Engineering-Construction Department, or designee	Prior to and during commencement of cooling tunnels removal	The contractor shall submit a soil and groundwater management plan to the District for review and approval to address the possibility of encountering areas of potential environmental concern. The plan shall be prepared by a qualified environmental consultant and implemented by the contractor under the oversight of an environmental professional on behalf of the District. The San Diego Unified Port District's (District) Director of Engineering-Construction Department, or designee, shall verify implementation of this measure through (1) review of a mitigation implementation and monitoring tracking log maintained by BAE Systems and submitted to the District on a twice-monthly basis, and (2) periodic site inspections.
HAZ-11: Secondary Containment. Prior to the commencement of dredging, demolition, or construction activity, the contractor shall install a secondary containment structure for the storage of all fuel, oil, and other petroleum products, as required by the Urban Stormwater Mitigation Plan (USMP) (District 2010), the BAE Systems Best Management Plan (BMP) Manual (BAE Systems 2013), and current or updated BAE Systems Environmental Standard Operating Procedures. At all times during construction and operation of the project, the contractor shall house all oil and fuel in a secondary containment structure to ensure that spilled or leaked oil or fuel shall be prevented from entering the water column. The San Diego Unified Port District's (District) Director of	San Diego Unified Port District's (District) Director of Engineering-Construction Department, or designee	Prior to and during the commencement of dredging, demolition, or construction activity	The San Diego Unified Port District's (District) Director of Engineering-Construction Department, or designee, shall verify implementation of this measure through (1) periodic site inspections to verify that a secondary containment structure is in place and functioning, and (2) review of a mitigation implementation and monitoring tracking log maintained by BAE Systems and submitted to the District on a twice-monthly basis.

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Engineering-Construction Department, or designee, shall verify implementation of this measure through (1) periodic site inspections to verify that a secondary containment structure is in place and functioning, and (2) review of a mitigation implementation and monitoring tracking log maintained by BAE Systems and submitted to the District on a twice-monthly basis.			
HAZ-12: Update Drydock Operations Permits and Best Management Practices Manual. Prior to completion of drydock construction, and as soon as practical, BAE Systems shall update and modify the permits and operational BMPs that regulate the use, handling, storage, and disposal of hazardous materials during the normal operations and maintenance of the new drydock, for review and approval by the San Diego Unified Port District's (District) Environmental and Land Use Management Director (ELUM) Director, or designee.	San Diego Unified Port District's (District) Environmental and Land Use Management Director (ELUM) Director, or designee	Prior to completion of drydock construction, and as soon as practical	BAE Systems shall update and modify the permits and operational BMPs that regulate the use, handling, storage, and disposal of hazardous materials during the normal operations and maintenance of the new drydock, for review and approval by the San Diego Unified Port District's (District) Environmental and Land Use Management Director (ELUM) Director, or designee.
4.6: Hydrology and Water Quality			
HYD-1: Water Quality Dredging Management Plan. Prior to commencement of dredging operations, the contractor shall prepare a Dredging Management Plan (DMP) for review and approval by the San Diego Unified Port District's (District) Environmental and Land Use Management (ELUM) Director, or designee. The DMP shall contain Standard Operation Procedures (SOPs) that are developed for the project prior to the initiation of dredging activities and that would be implemented for the duration of dredging activities. The DMP shall include measures to assist the dredge contractor in preventing accidental spills and providing the necessary guidelines to follow in case of an oil or fuel spill. Typical Best Management Practices (BMPs) for equipment failure or repair shall be identified in the DMP and could include, but not be limited to, communication to project personnel, proper signage and/or barriers alerting others of potentially unsafe conditions, all repair work to be	San Diego Unified Port District's (District) Environmental and Land Use Management Director (ELUM) Director, or designee	Prior to and during dredging operations	The contractor shall prepare a Dredging Management Plan (DMP) for review and approval by the San Diego Unified Port District's (District) Environmental and Land Use Management (ELUM) Director, or designee.

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conducted on land and not over water, repair work involving use of liquids to be performed with proper spill containment equipment (e.g., spill kit), and a contingency plan identifying availability of other equipment or subcontracting options. In addition, the DMP shall include, at a minimum, the following measures to prevent accidental oil/fuel spills during construction activities: As an operational control element, all oil and fuel shall be housed in a secondary containment structure to ensure that any spill or leakage is prevented from entering the water column. Personnel involved with dredging and handling the dredged material shall be given training on the potential hazards resulting from accidental oil and/or fuel spills. This operational control shall provide the personnel with an awareness of the materials they are handling as well as the potential impact to the environment. All equipment shall be inspected by dredge contractor personnel before starting the shift. These inspections are intended to identify typical wear or faulty parts that may contain oil or fuel. Personnel shall be required to visually monitor for oil or fuel spills during construction activities. In the event that a sheen or spill is observed, the equipment shall be immediately shut down and the source of the spill identified and contained. Additionally, the spill shall be reported to the applicable agencies presented in the DMP. The shipyards currently have oil/fuel spill kits located at various locations onsite for routine ship repair			

Proposed Mitigation	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
operations. All personnel associated with dredging activities shall be trained on where to locate these spill kits, how to deploy the oil sorbent pads, and how to dispose of the materials properly. The dredging barge shall have a full complement of oil/fuel spill kits on board to allow for quick and timely implementation of spill containment.			
HYD-2: Pre-construction Meeting. The BAE Systems Environmental Manager or designee shall ensure that the contractor shall hold a pre-construction meeting to review all construction mitigation requirements with the construction crew. Proof of the construction meeting shall be submitted to the San Diego Unified Port District's (District) Engineering-Construction Director, or designee. The purpose of the meeting is to review the relevant project features, regulatory requirements, and mitigation measures to ensure implementation, and to review mitigation monitoring tracking program and log requirements.	San Diego Unified Port District's (District) Engineering-Construction Director, or designee	Prior to construction	Proof of the construction meeting shall be submitted to the San Diego Unified Port District's (District) Engineering-Construction Director, or designee.
HYD-3: Dredging Operations and Containment. The San Diego Unified Port District's (District) Engineering-Construction Department Director, or designee, shall ensure that the following measures are implemented in order to reduce impacts to water quality during dredging operations: • The contractor shall remove dredge material and not stockpile material on the floor of San Diego Bay, and shall not sweep or level the bottom surface with any dredging bucket. • The contractor shall not overfill any dredging bucket because overfill results in material overflowing back into the water. • The contractor shall, at a minimum, deploy non-drifting silt curtains fully around areas of	The San Diego Unified Port District's (District) Engineering-Construction Department Director, or designee	During dredging operations	The San Diego Unified Port District's (District) Engineering-Construction Department Director, or designee, shall ensure that the measures are implemented in order to reduce impacts to water quality during dredging operations.

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biological sensitivity (including eelgrass habitat). Silt curtains shall be utilized for containment of the habitat, while configurations, technologies, and actual locations of silt curtains in relation to the dredge barge shall be finalized during the design phase of the project. • For areas with sediment removal destined for upland disposal, the contractor shall deploy inner- and outer-boundary floating silt curtains fully around the dredging area at all times. Double silt curtains shall be utilized for containment of the dredge area, while configurations, technologies, and actual locations of silt curtains in relation to the dredge barge shall be finalized during the design phase of the project. • The contractor shall not overfill the material barge to a point where overflow or spillage could occur. Each material barge shall be marked clearly in such a way to allow the operator to visually identify the maximum load point. The marking should allow sufficient interior freeboard to prevent spillage in rough water such as ship wakes during transit. Initiating the material barge marking shall minimize impact of load spillage during transit to the ocean disposal site. • If the contractor proposes to use weirs as a means to dewater the scow during dredging for unconfined aquatic disposal, the use of silt curtains shall be deployed to minimize turbidity. Decanting of dredge scow return water during dredging of material determined to be unsuitable for unconfined aquatic habitat shall be prohibited. • The contractor shall place material in the			

Proposed Mitigation	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
material barge such that splashing or sloshing does not occur, which could send sediment back into the water. Splashing can be controlled by restricting the drop height from the bucket. • If the use of a grate to collect debris is required, the contractor shall not allow material to pile up on the grate and flow or slip from the grate back into the water. The debris screen shall be positioned in such a way as to be totally contained on the shore side of the unloading operations. The dredge operator shall visually monitor for debris build-up and alert the support personnel on the barge to assist in clearing the debris, as necessary. Debris that is derived from dredging activities shall be removed from the grate by the environmental clamshell bucket and placed in a contained area on the dredge barge or in a second material barge for subsequent removal and disposal. • The contractor shall restrict barge movement and work boat speeds (i.e., reducing propeller wash) in the dredge area.			
HYD-4: Dredge Site Water Quality Monitoring. BAE Systems and their project contractor shall coordinate water quality monitoring efforts and shall share water quality monitoring data with the Regional Water Quality Control Board (RWQCB) and the San Diego Unified Port District's (District) throughout the duration of the project. If in-bay beneficial reuse is chosen as the preferred disposal option for eelgrass mitigation and habitat development, water quality monitoring shall be implemented according to the waste discharge requirements to be outlined in the 401 Water Quality	The San Diego Unified Port District's (District) Engineering-Construction Department Director, or designee	During dredging activities	BAE Systems and their project contractor shall coordinate water quality monitoring efforts and shall share water quality monitoring data with the Regional Water Quality Control Board (RWQCB) and the San Diego Unified Port District's (District) throughout the duration of the project.

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Certification. Measures shall be properly utilized during all phases of the proposed project. These measures include: (1) periodic inspection of the slurried sediment pipeline (if used); and (2) monitoring for excessive turbidity near the transport pipeline or containment barge and associated sediment distribution apparatus. If a substantial leak is identified in the slurry pipeline, the affected pipeline segment shall be immediately repaired or replaced, or a silt curtain or similar measure shall be employed to capture and retain the source of the leak. Monitoring of sediment movement and turbidity levels shall occur during and after sediment application. Movement of sediment on the site shall be adaptively managed until adequately compacted to ensure that movement of sediment off the site is minimized.			
HYD-5: Environmental Controls During Intake/Discharge Tunnel Removal. Subsurface disturbance activities shall include implementation of a soil and groundwater management plan to address the possibility of encountering areas of potential environmental concern. This plan shall be prepared by a qualified environmental consultant and shall be reviewed and approved by the San Diego Unified Port District's (District) Environmental and Land Use Management (ELUM) Hazmat Program Coordinator. This plan shall be implemented during subsurface disturbance activities by the contractor under the oversight of an environmental professional on behalf of the project proponent. The plan shall address soil and groundwater monitoring, handling, stockpiling, characterization, reuse, export, and disposal protocols. The objective of the plan shall be to assist the contractor in the excavation, notification, monitoring, segregation, characterization, handling, and reuse and/or disposal (as appropriate) of waste that may be encountered during earthwork activities.	San Diego Unified Port District's (District) Environmental and Land Use Management (ELUM) Hazmat Program Coordinator	Prior to and during subsurface disturbance activities	This plan shall be prepared by a qualified environmental consultant and shall be reviewed and approved by the San Diego Unified Port District's (District) Environmental and Land Use Management (ELUM) Hazmat Program Coordinator. This plan shall be implemented during subsurface disturbance activities by the contractor under the oversight of an environmental professional on behalf of the project proponent.

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In addition, measures shall be taken to prevent any potentially contaminated soil or water from entering the San Diego Bay during the tunnel removal and associated construction. To ensure that no contaminants from the tunnels or the construction area enter San Diego Bay, appropriate measures shall be put in place, including but not limited to placement of a silt curtain or other containment device during tunnel removal or construction to prevent any activities from impacting bay waters outside the immediate area. Any water generated during construction shall be captured.			
4.7: Land Use and Planning			
No mitigation measures were identified for land use or planning impacts.			
4.8: Noise			
No mitigation measures were identified for noise impacts.			
4.9: Transportation and Traffic			
Mitigation Measure TR-1: **Alternative Transportation.** In order to address a parking supply shortage of 57 spaces at project completion, prior to issuance of the Coastal Development Permit (CDP), BAE Systems shall provide evidence of an increase in employee alternative transportation ridership for review and approval by the Port District of San Diego (District), Director of Environmental and Land Management (ELUM), or designee, to be implemented to achieve a minimum 57 person ridership increase in alternative transportation. This shall be achieved through a combination of any of the following alternative transportation options: • Increase the number of subsidized vanpools to increase vanpool ridership; or • Provide subsidized trolley passes for existing vehicle commuters; or	Port District of San Diego (District), Director of Environmental and Land Management (ELUM), or designee	Prior to issuance of the Coastal Development Permit (CDP)	BAE Systems shall provide evidence of an increase in employee alternative transportation ridership for review and approval by the Port District of San Diego (District), Director of Environmental and Land Management (ELUM), or designee, to be implemented. Evidence in the form of survey data and/or enrollment forms of a minimum of 57 new alternative transportation users shall be provided quarterly to the District. If the alternative transportation ridership does not meet the minimum 57 additional users, additional vanpools, trolley passes and/or shuttles shall be added until the minimum of 57 users is reached. Evidence shall continue to be provided on a quarterly basis to the District for review until such time that the executed lease agreement is in place for an additional parking lot and submitted to the District for verification.

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• Increase the number of shuttles transporting personnel from the Barrio Logan trolley station (located at the intersection of Cesar E. Chavez Parkway and Harbor Drive) and/or Harborside trolley station (located at the intersection of 28th Street and Bay Avenue) as an incentive to encourage increased trolley ridership. Evidence in the form of survey data and/or enrollment forms of a minimum of 57 new alternative transportation users shall be provided quarterly to the District. If the alternative transportation ridership does not meet the minimum 57 additional users, additional vanpools, trolley passes and/or shuttles shall be added until the minimum of 57 users is reached. Evidence shall continue to be provided on a quarterly basis to the District for review until such time that the executed lease agreement is in place for an additional parking lot and submitted to the District for verification.			
4.10: Utilities and Service Systems			
No mitigation measures were identified for utilities and service systems.			