

PUBLIC NOTICE

US Army Corps
of Engineers
New York District
Jacob K. Javits Federal Building
New York, N.Y. 10278-0090
ATTN: Regulatory Branch

In replying refer to:

Public Notice Number: **NAN-2020-01044-EBR**

Issue Date: December 23, 2020

Expiration Date: January 22, 2021

The New York District, of the U.S. Army Corps of Engineers has received an application for a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344):

APPLICANT: Port Authority of New York and New Jersey
4 World Trade Center
150 Greenwich Street, 20th Floor
New York, New York 10007

ACTIVITY: Dredging and the replacement of relieving platforms

WATERWAY: Upper Bay, a tributary of New York Harbor

LOCATION: Bayonne Dry Dock, City of Bayonne, Hudson County, New Jersey

A detailed description and plans of the applicant's activity are enclosed to assist in your review.

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

ALL COMMENTS REGARDING THE PERMIT APPLICATION MUST BE PREPARED IN WRITING AND MAILED TO REACH THIS OFFICE BEFORE THE EXPIRATION DATE OF THIS NOTICE, otherwise, it will be presumed that there are no objections to the activity.

Comments submitted in response to this notice will be fully considered during the public interest review for this permit application. Comments provided will become part of the public record for

this permit application. All written comments, including contact information, will be made a part of the administrative record, available to the public under the Freedom of Information Act. The Administrative Record, or portions thereof, may also be posted on a Corps of Engineers internet web site. Due to resource limitations, this office will normally not acknowledge the receipt of comments or respond to individual letters of comment.

Any person may request, in writing, before this public notice expires, that a public hearing be held to collect information necessary to consider this application. Requests for public hearings shall state, with particularity, the reasons why a public hearing should be held. It should be noted that information submitted by mail is considered just as carefully in the permit decision process and bears the same weight as that furnished at a public hearing.

Our preliminary determination is that the activity for which authorization is sought herein is not likely to adversely affect any Federally endangered or threatened species or their critical habitat. However, pursuant to Section 7 of the Endangered Species Act (16 U.S.C. 1531), the District Engineer is consulting with the appropriate Federal agency to determine the presence of and potential impacts to listed species in the project area or their critical habitat.

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act (Public Law 104-267), requires all Federal agencies to consult with the National Oceanic and Atmospheric Administration Fisheries Service (NOAA/FS) on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). The proposed work, fully described in the attached work description, could cause the disruption of habitat for various lifestages of some EFH-designated species as a result of a temporary increase in turbidity during construction. However, the New York District has made the preliminary determination that the site-specific adverse effects are not likely to be substantial because it is expected that fish populations would avoid the small area of disturbance. Further consultation with NOAA/FS regarding EFH impacts and conservation recommendations is being conducted and will be concluded prior to the final decision.

Based upon a review of the latest published version of the National Register of Historic Places, there are no known sites eligible for, or included in, the Register within the permit area. Presently unknown archeological, scientific, prehistorical, or historical data may be lost by work accomplished under the required permit.

Review of activities pursuant to Section 404 of the Clean Water Act will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404 (b) of the Clean Water Act. The applicant has applied for a water quality certificate from the New Jersey Department of Environmental Protection in accordance with Section 401 of the Clean Water Act.

Pursuant to Section 307 (c) of the Coastal Zone Management Act of 1972 as amended [16 U.S.C. 1456 (c)], for activities under consideration that are located within the coastal zone of a state which has a federally approved coastal zone management program, the applicant has certified in the permit application that the activity complies with, and will be conducted in a manner that is consistent with, the approved state coastal zone management program. The applicant has obtained concurrence to their coastal zone management consistency determination on October 31, 2018 from the New Jersey Department of Environmental Protection. For activities within the coastal zone of New Jersey State, the applicant's certification and accompanying information is available from the New Jersey Department of Environmental Protection, Coastal Management Program, P.O. Box 418, 401 E. State Street, Trenton, NJ, 08625, Telephone (609) 633-2201.

*****PLEASE USE THE 18-CHARACTER FILE NUMBER ON ALL CORRESPONDENCE WITH
THIS OFFICE*****

Comments regarding the applicant's certification, and copies of any letters to this office commenting upon this proposal, should be so addressed.


In addition to any required water quality certificate and coastal zone management program concurrence, the applicant has obtained or requested the following governmental authorization for the activity under consideration:

- New Jersey Department of Environmental Protection

It is requested that you communicate the foregoing information concerning the activity to any persons known by you to be interested and who did not receive a copy of this notice. If you have any questions concerning this application, you may contact this office at (917) 790 8516 and ask for William T. Bruno.

In order for us to better serve you, please complete our Customer Service Survey located at <http://www.nan.usace.army.mil/Missions/Regulatory/CustomerSurvey.aspx>.

For more information on New York District Corps of Engineers programs, visit our website at <http://www.nan.usace.army.mil>.

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PINZON. RONALD.R. 1252323
453
Date: 2020.12.21 15:31:47
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FOR AND IN BEHALF OF
Stephan A. Ryba
Chief, Regulatory Branch

Enclosures

*****PLEASE USE THE 18-CHARACTER FILE NUMBER ON ALL CORRESPONDENCE WITH
THIS OFFICE*****

DESCRIPTION OF PROPOSED WORK

The applicant, Port Authority of New York and New Jersey, has requested Department of the Army authorization to perform regulated construction work in waters of the United States to facilitate the maintenance of existing relieving platforms and maintenance dredging at the Bayonne Dry Dock, the former Military Ocean Terminal at Bayonne (MOTBY) site located in Upper Bay, a tributary of New York Harbor, in the City of Bayonne, Hudson County, New Jersey. The proposed regulated activities within waters of the United States would include the following:

Berth E1

Dredging

One-time dredging, via mechanical environmental clamshell dredge, of a total of approximately 4,529 cubic yards (CY) of accumulated sediments from an approximately 6,436 square foot area beneath the footprint of the existing Berth E1 to depths varying from approximately -11.5-feet to -38.5-feet relative to NAVD88. The dredged sediment would be loaded into scows and placed at a state-approved upland site. Barge overflow and decanting of excess water at the dredging site is not proposed.

Relieving Platform Maintenance

The removal of the existing 9,900 square foot Berth E1 relieving platform and replacement with a smaller approximately 4,750 square foot relieving platform.

Existing timber piles within the approximately 6,436 square foot dredge footprint are to be removed and cut off at the surface elevation of the existing rip rap. Piles outside of the dredge footprint but within the approximately 4,750 square foot proposed platform are to be cut 3 feet below the existing platform elevation.

Reconstruction of Berth E1 would consist of the removal of a total of approximately one-hundred eighty-eight (188) existing timber piles and forty-five (45) existing timber batter piles to the top of the existing rip-rap, the encasement of a total of seventeen (17) existing 12-inch-diameter piles with concrete jacketing, mass encasement of a total of thirty-eight (38) existing 12-inch-diameter piles at the crane rail foundation, and the installation of twenty-five (25) 18-inch-diameter concrete-filled tapered tip steel pipe piles.

The jacketing of the existing seventeen (17) timber piles would increase the pile diameter to 23-inches and result in a discharge of approximately 36 CY of fill below the plane of Spring High Water (SHW).

The mass encasement of the existing thirty-eight (38) 12-inch-diameter piles would result in the discharge of approximately 181 CY of fill below the plane of SHW over an approximately 174 square foot area.

The twenty-five (25) new steel piles would be filled with concrete and result in a total discharge of approximately 41 CY of fill below the plane of SHW over an approximately 44 square foot area.

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Bulkhead Replacement

The work includes installation of a new steel sheet pile bulkhead inboard of the existing bulkhead to remain at Berth E1. The applicant proposes to install 87 linear feet of steel bulkhead immediately landward of existing. All existing sheet piling will remain in place but will be cutoff at the top elevation of the existing rip-rap slope.

Berth E2

Dredging

One-time dredging, via mechanical environmental clamshell dredge, of a total of approximately 2,467 cubic yards (CY) of accumulated sediments from an approximately 7,012 square foot area beneath the footprint of the existing Berth E2 to depths varying from approximately -11.5-feet to -38.5-feet relative to NAVD88. The dredged sediment would be loaded into scows and placed at a state-approved upland site. Barge overflow and decanting of excess water at the dredging site is not proposed.

Relieving Platform Maintenance

The removal of the existing 9,100 square foot Berth E2 relieving platform and replacement with a smaller approximately 3,100 square foot relieving platform.

Existing timber piles within the approximately 7,012 square foot dredge footprint are to be removed and cut off at the surface elevation of the existing rip rap. Piles outside of the dredge footprint but within the approximately 3,100 square foot proposed platform are to be cut 3 feet below the existing platform elevation.

Reconstruction of Berth E2 would consist of the removal of a total of approximately one-hundred thirty-seven (137) existing timber piles and thirty-six (36) existing timber batter piles to the top of the existing rip-rap, the encasement of a total of twenty-three (23) existing 12-inch-diameter piles with concrete jacketing, mass encasement of a total of twenty-seven (27) existing 12-inch-diameter piles at the crane rail foundation, and the installation of seventeen (17) 18-inch-diameter concrete-filled tapered tip steel pipe piles.

The jacketing of the existing twenty-three (23) timber piles would increase the pile diameter to 23-inches and result in a discharge of approximately 63 CY of fill below the plane of SHW.

The mass encasement of the existing twenty-seven (27) 12-inch-diameter piles would result in the discharge of approximately 102 CY of fill below the plane of SHW over an approximately 284 square foot area.

The seventeen (17) new steel piles would be filled with concrete and result in a total discharge of approximately 28 CY of fill below the plane of SHW over an approximately 30 square feet.

Bulkhead Replacement

The work includes installation of a new steel sheet pile bulkhead inboard of the existing bulkhead to remain at Berth E2. The applicant proposes to install 123 linear feet of steel bulkhead immediately landward of existing. All existing sheet piling will remain in place but will be cutoff at the top elevation of the existing rip-rap slope.

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The project would result in a reduction of a total of approximately 11,150 square feet of overwater coverage. The applicant proposes to utilize a temporary turbidity curtain, to the extent practicable, to minimize turbidity in the water column during all in-water work activities.

The stated purpose of this project is to maintain the container terminal.

**PORT
AUTHORITY
NY NJ**

PORT JERSEY RECONSTRUCTION OF BERTHS E-1 AND E-2

INDEX OF DRAWINGS

SHEET NO.	SHEET TITLE
P001	VICINITY MAP, LOCATION PLAN, AND SITE PLAN
P002	EXISTING CONDITIONS SITE PLAN
P003	DEMOLITION PLAN
P004	TYPICAL DEMOLITION SECTIONS
P005	RECONSTRUCTION PLAN
P006	PILE PLAN (SHEET 1 OF 2)
P007	PILE PLAN (SHEET 2 OF 2)
P008	TYPICAL RECONSTRUCTION SECTION
P009	EXCAVATION, BACKFILLING AND FILLING NOTES
P010	TAPERTUBE PIPE PILE NOTES AND SPLICE DETAILS
P011	OUTBOARD DREDGING PLAN
P012	BERTHS E1 AND E2 OUTBOARD DREDGING SECTIONS
P013	OUTBOARD DEBRIS REMOVAL SECTION AND NOTES
P014	SHEET PILE AND PILE ENCASEMENT DETAILS

DATUM CONVERSION

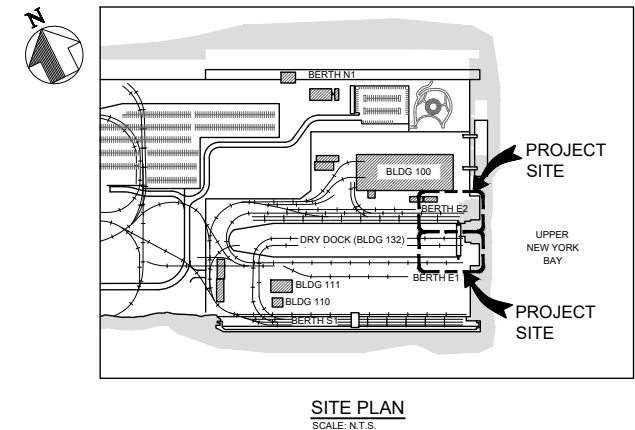
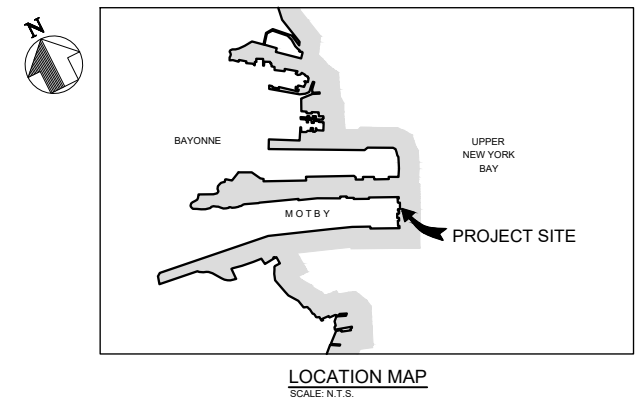
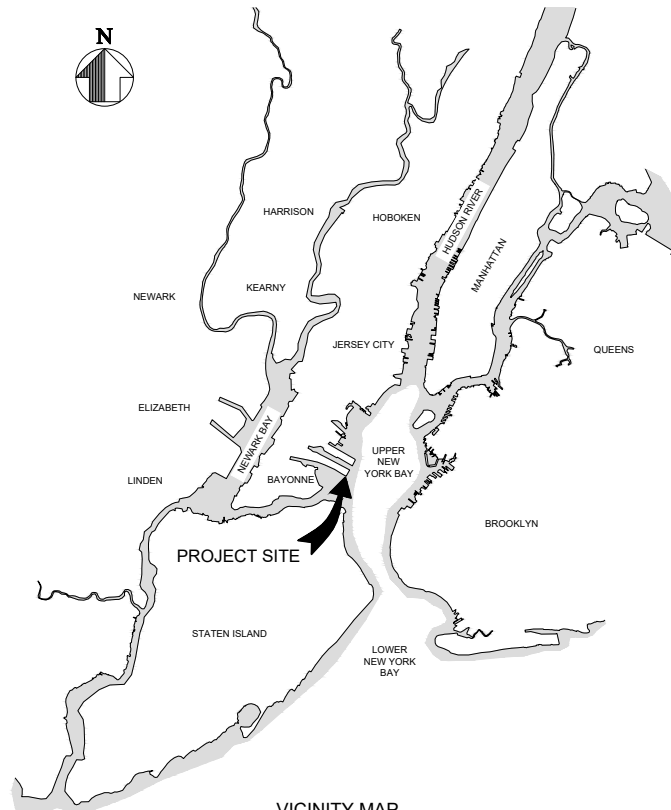
WATER LEVEL	EL (NAVD88, FT)
MEAN HIGH WATER SPRING (SHW)	2.98
MEAN HIGH WATER (MHW)	2.04
NAVD88	0.00
MEAN LOW WATER (MLW)	-2.54

TIDAL DATA IS BASED ON NOAA STA. NO. 8518750, THE BATTERY, NY.

NOTES:

1. LATITUDE N 40 39.715' LONGITUDE W 74 04.186'.
2. PROJECT SITE IS LOCATED ON UPPER NEW YORK BAY IN THE CITY OF BAYONNE.
3. USACE #
4. DEP #

DATUM: NAVD88


**PORT
AUTHORITY
NY NJ**

PORT JERSEY

Discipline

ENVIRONMENTAL

DECEMBER 16, 2020

Date

1 of 14

VICINITY MAP, LOCATION PLAN,
AND SITE PLAN

PJ-664.531

Contract Number

Workorder Number

17501000

PID Number

Drawing Number

P001

D.JACOBS

M.ESTIMABLE

K.WALSH

RECONSTRUCTION OF BERTHS
E-1 AND E-2

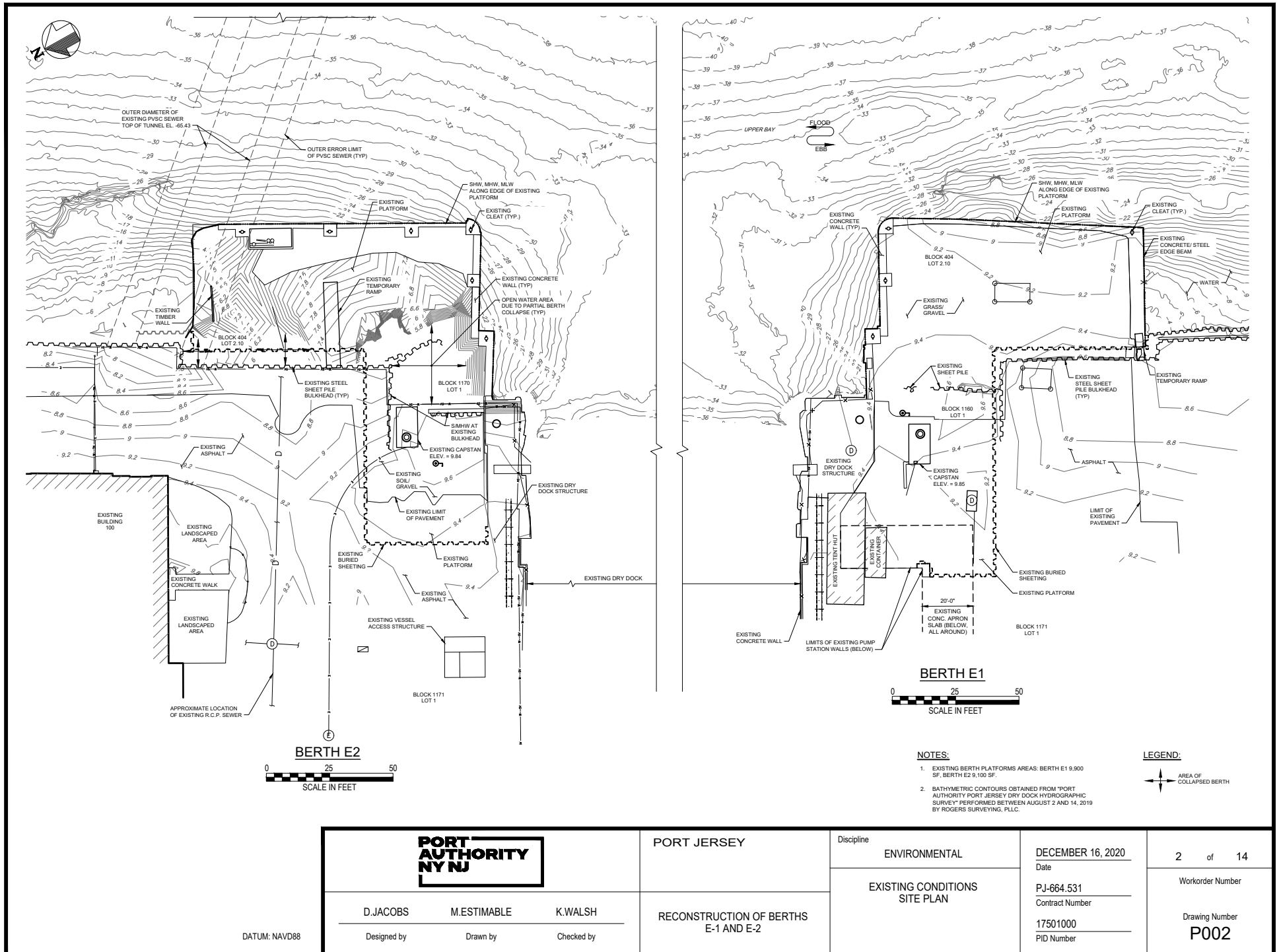
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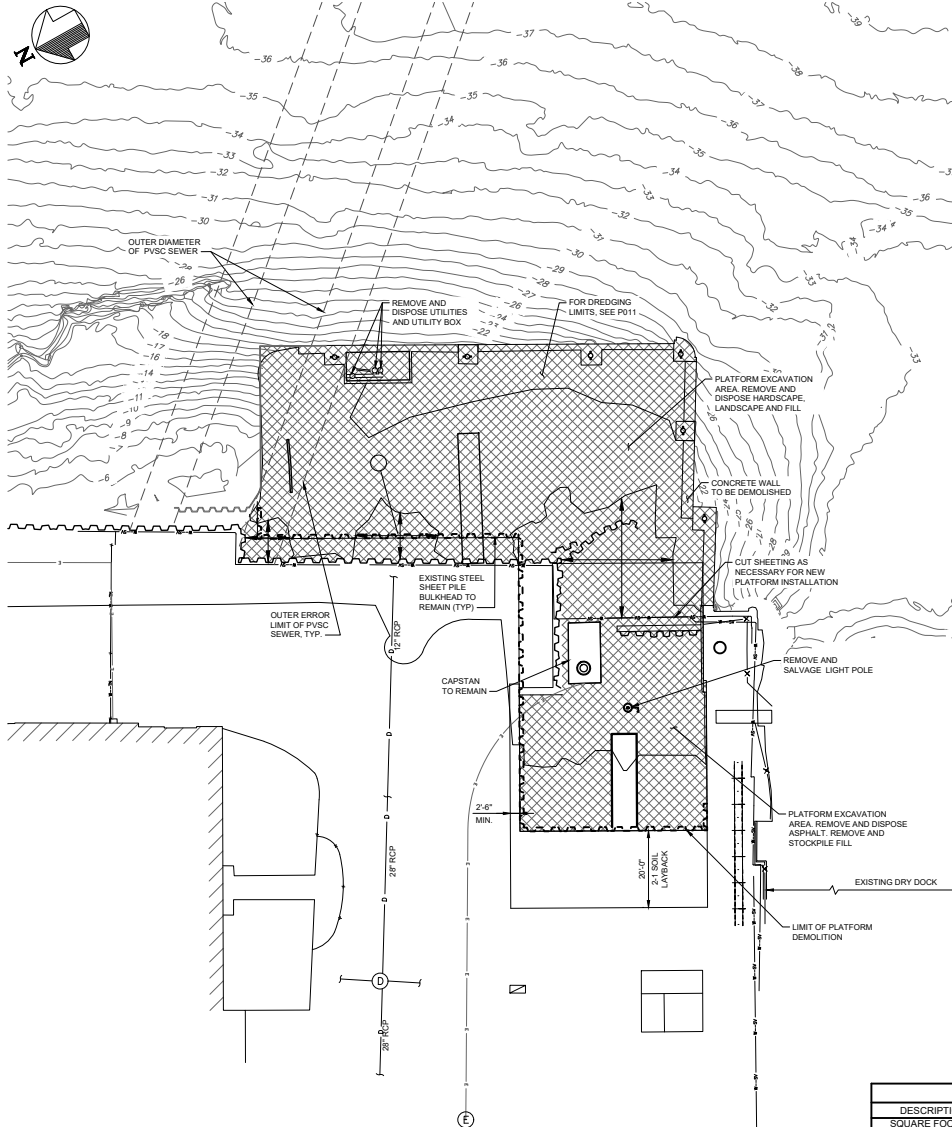
Drawn by

Checked by

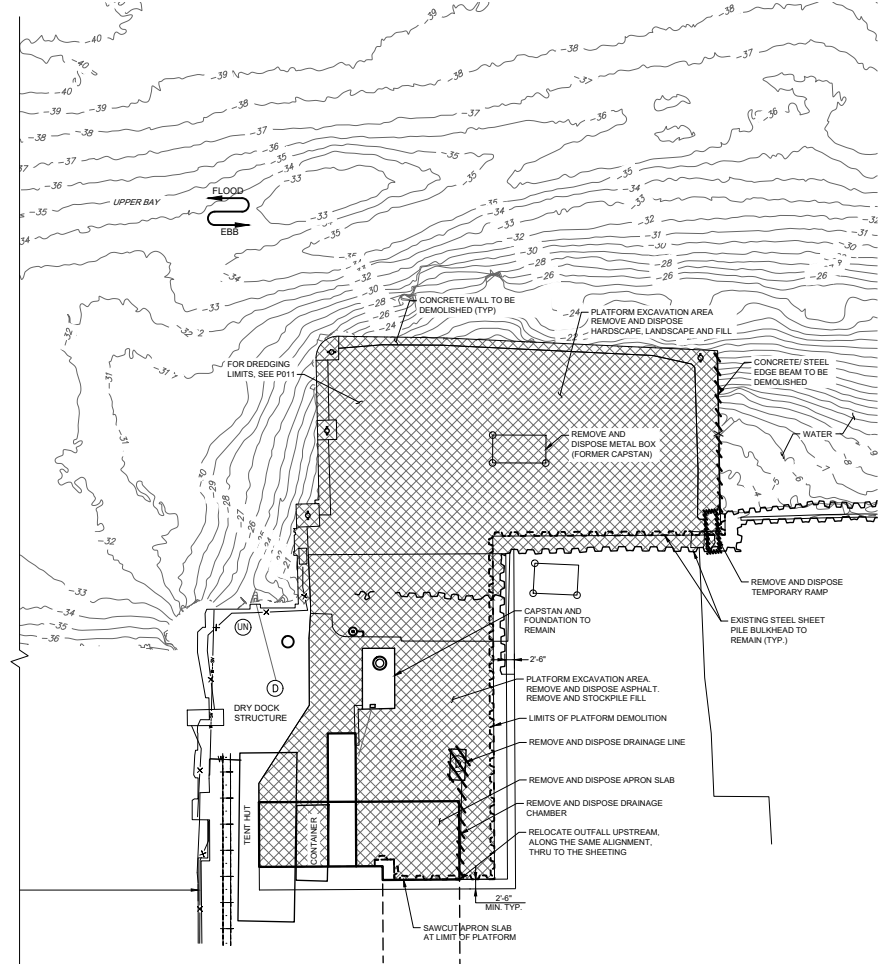
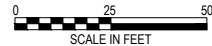
December 23, 2020

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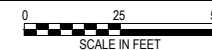




BERTH E2 SITE DEMOLITION PLAN



BERTH E1 SITE DEMOLITION PLAN



REMOVAL QUANTITIES		
DESCRIPTION	E1	E2
SQUARE FOOT OF PLATFORM	9,900	9,100
NUMBER OF 12"Ø TIMBER VERTICAL PILES	188	137
NUMBER OF 12"Ø TIMBER BATTER PILES	45	36

LEGEND:
 AREA TO BE DEMOLISHED



DATUM: NAVD88

Designed by D.JACOBS Drawn by M.ESTIMABLE Checked by K.WALSH

PORT JERSEY

RECONSTRUCTION OF BERTHS E-1 AND E-2

Discipline

ENVIRONMENTAL

DEMOLITION PLAN

DECEMBER 16, 2020

Date

PJ-664.531

Contract Number

17501000

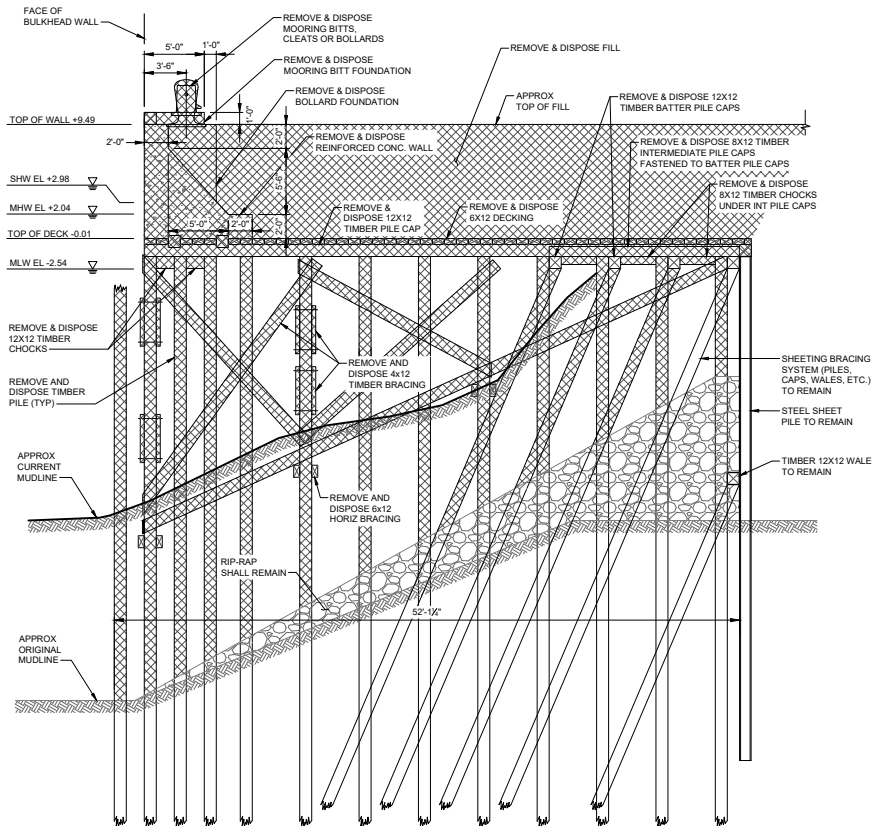
PID Number

3 of 14

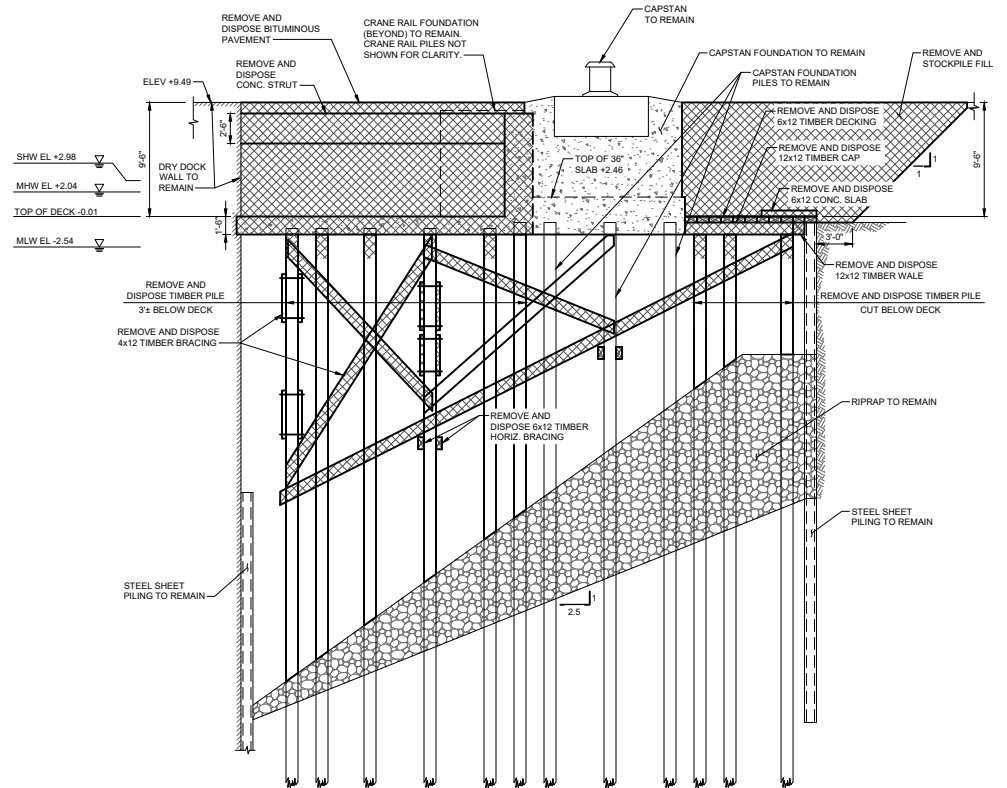
Workorder Number

Drawing Number

P003



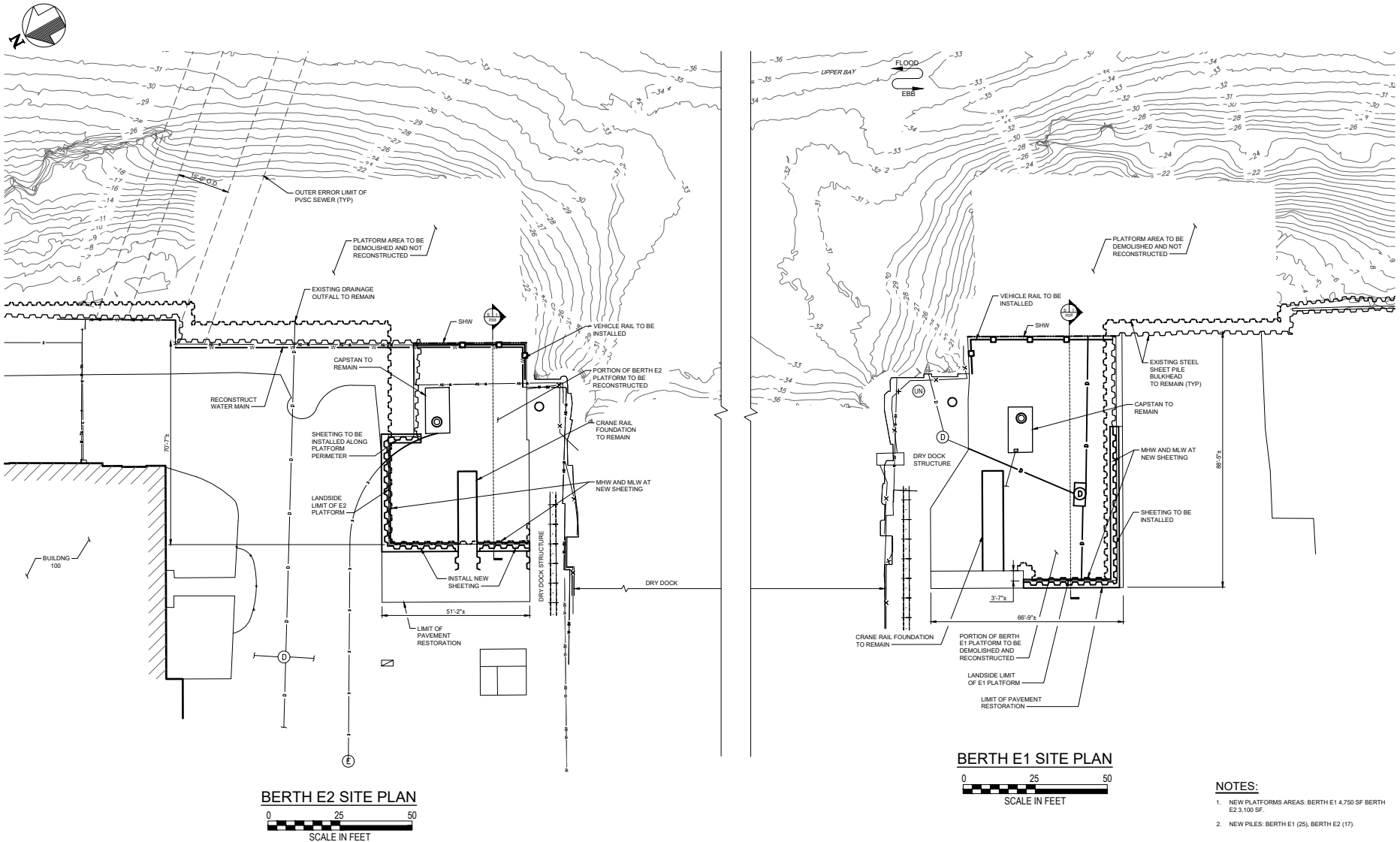
S 1 E1 AND E2 DEMOLITION SECTIONS
SCALE IN FEET




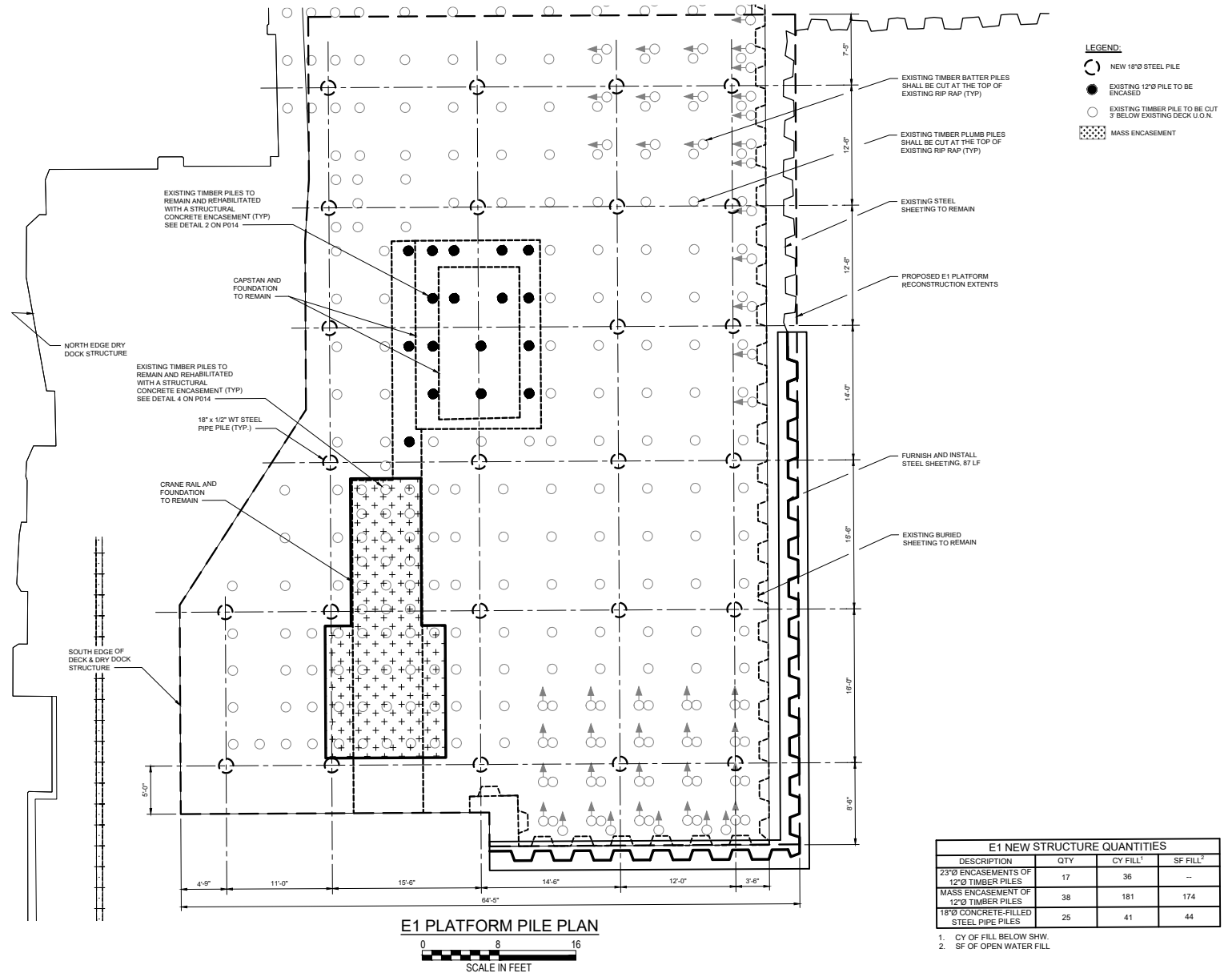
S 2 TYPICAL SECTION AT CAPSTAN - E2 SHOWN, E1 OPPOSITE HAND
SCALE IN FEET

LEGEND:
ELEMENTS TO BE DEMOLISHED

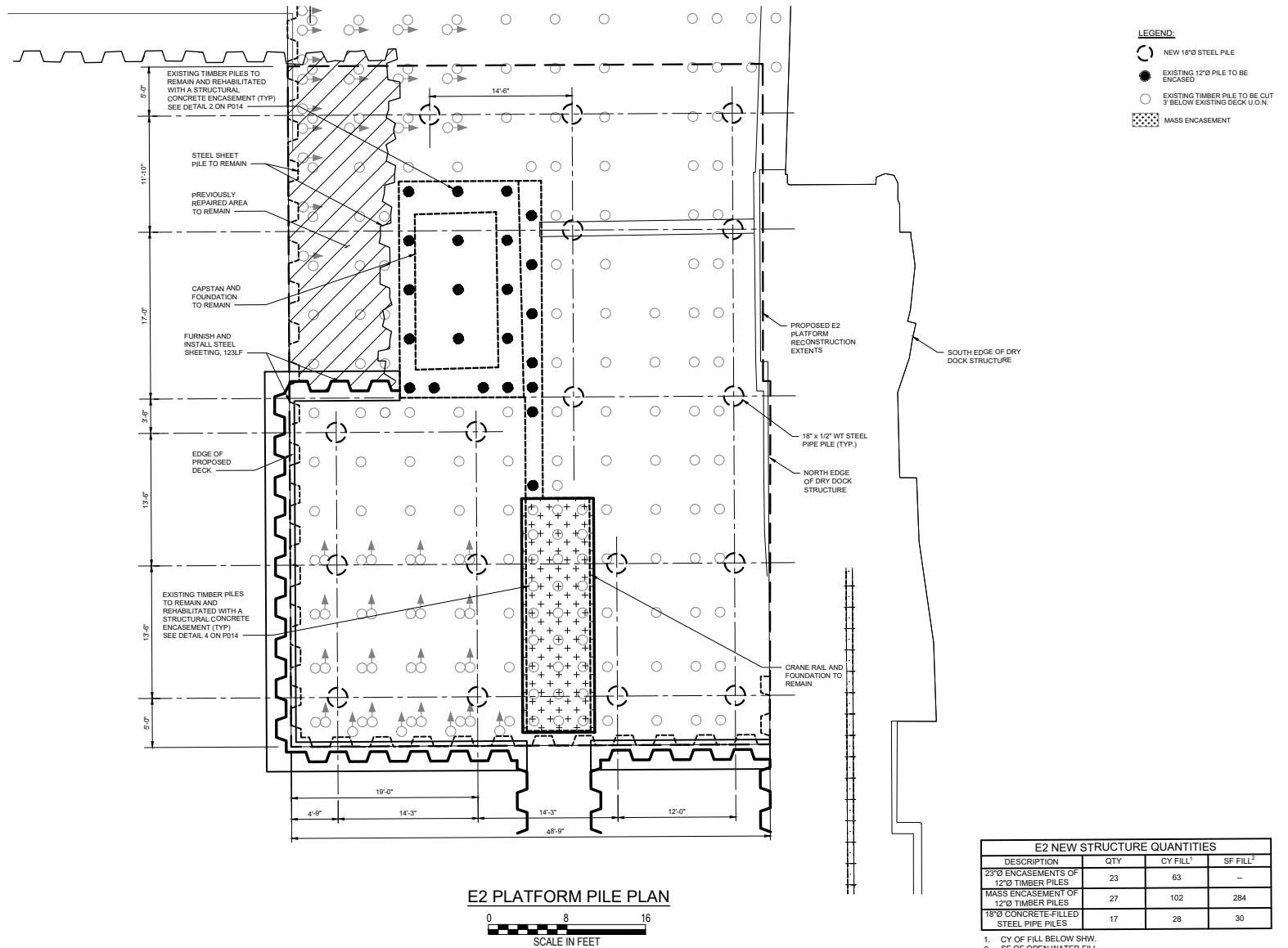
	PORT JERSEY	Discipline ENVIRONMENTAL	DECEMBER 16, 2020 Date	4 of 14
	RECONSTRUCTION OF BERTHS E-1 AND E-2	TYPICAL DEMOLITION SECTIONS	PJ-664.531 Contract Number 17501000 PID Number	Workorder Number Drawing Number P004
DATUM: NAVD88	D.JACOBS Designed by	M.ESTIMABLE Drawn by	K.WALSH Checked by	



	PORT JERSEY		Discipline	ENVIRONMENTAL	DECEMBER 16, 2020 Date	5 of 14
	RECONSTRUCTION OF BERTHS E-1 AND E-2		RECONSTRUCTION PLAN		PJ-664.531 Contract Number 17501000 PID Number	Workorder Number Drawing Number P005
DATUM: NAVD88	D.JACOBS Designed by	M.ESTIMABLE Drawn by	K.WALSH Checked by			

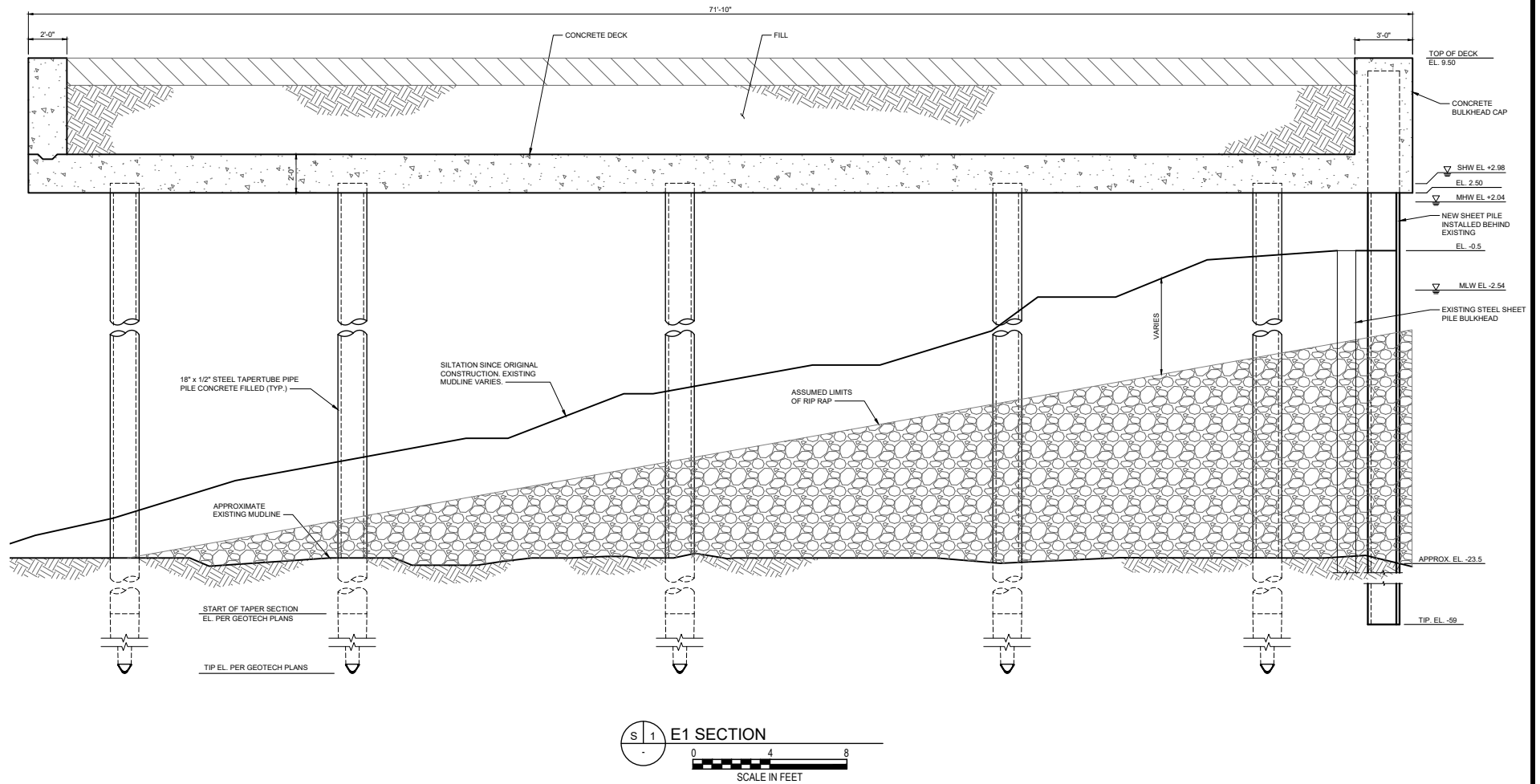


	PORT JERSEY	Discipline	ENVIRONMENTAL	DECEMBER 16, 2020	6 of 14
			PILE PLAN (SHEET 1 OF 2)	Date PJ-664.531 Contract Number 17501000 PID Number	Workorder Number Drawing Number P006
DATUM: NAVD88	D.JACOBS Designed by	M.ESTIMABLE Drawn by	K.WALSH Checked by	RECONSTRUCTION OF BERTHS E-1 AND E-2	



	PORT JERSEY	Discipline	ENVIRONMENTAL	DECEMBER 16, 2020 Date	7 of 14
	D.JACOBS Designed by M.ESTIMABLE Drawn by K.WALSH Checked by	RECONSTRUCTION OF BERTHS E-1 AND E-2	PILE PLAN (SHEET 2 OF 2)	PJ-664.531 Contract Number 17501000 PID Number	Workorder Number Drawing Number P007

DATUM: NAVD88



	PORT JERSEY	Discipline ENVIRONMENTAL	DECEMBER 16, 2020 Date	8 of 14
		TYPICAL RECONSTRUCTION SECTION	PJ-664.531 Contract Number 17501000 PID Number	Workorder Number Drawing Number P008
D.JACOBS Designed by	M.ESTIMABLE Drawn by	K.WALSH Checked by	RECONSTRUCTION OF BERTHS E-1 AND E-2	

DATUM: NAVD88

EXCAVATION, BACKFILLING, AND FILLING NOTES:

1. PLACEMENT OF SOIL IS REQUIRED FOR BACKFILLING OF EXCAVATIONS AS SHOWN ON THE CONTRACT DRAWINGS. EXCEPT FOR ASPHALT, CONCRETE MATERIAL FROM CLEARING AND GRUBBING, EXCAVATED MATERIAL SHALL BE USED FOR BACKFILLING AND FILLING AS LONG AS IT MEETS THE FOLLOWING REQUIREMENTS:
- a. THE MATERIAL DOES NOT CONTAIN DELETERIOUS MATERIALS SUCH AS:
- i. ORGANIC CLAYS, SILTS OR PEATS
- ii. MISCELLANEOUS DEBRIS, SUCH AS BUT NOT LIMITED TO TIMBER, METAL, PLASTICS, GLASS OR REFUSE
- iii. STONES OR CONCRETE PIECES LARGER THAN THREE (3) INCHES IN SIZE
- b. MATERIAL IS NOT FROZEN, THE MATERIAL DOES NOT CONTAIN ICE.
- c. THE MATERIAL IS NOT OIL, STAINED, AND THE MATERIAL DOES NOT HAVE A PETROLIFFEROUS ODOR.
- d. MATERIAL MEETS THE REQUIREMENTS OF NJDEC I-12 AS GIVEN IN SPECIFICATION 312323.
2. COMPACT BACKFILL WITH 6 PASSES OF A VIBRATORY ROLLER OR, IN UTILITY TRENCHES, 8 PASSES OF A PLATE TAMPER.
3. OFF-SITE MATERIAL REQUIRED FOR BACKFILL OF UTILITY TRENCHES, SUPPORT WALL SYSTEM EXCAVATIONS, AND FOR RESTORATION OF GRADES SHALL CONFORM TO THE REQUIREMENTS OF N.J.I.E.C. DESIGNATION I-12 AND SPECIFIED IN SPECIFICATION NO. 312323, ENTITLED "EXCAVATION, BACKFILLING AND FILLING", UNLESS NOTED OTHERWISE.
4. WHEN BACKFILLING WITH EITHER ON-SITE OR OFF-SITE MATERIAL, THE MATERIAL SHALL BE COMPACTED WITH A VIBRATORY ROLLER PER REQUIREMENTS OF 3.03.B AND 3.03.C OF SPECIFICATION NO. 312323.
5. ALL MATERIAL BROUGHT ON SITE SHALL BE SAMPLED AND ANALYZED FOR CONTAMINANTS. SUBMIT TO THE ENGINEER WRITTEN DOCUMENTATION INDICATING THE CONCENTRATION OF CHEMICAL CONSTITUENTS CONTAINED IN THE OFF SITE FILL MATERIAL. THE MATERIAL BROUGHT ON SITE MUST NOT CONTAIN CONTAMINANTS ABOVE THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION (NJDEP), 7280, REMEDIATION STANDARDS, RESIDENTIAL DIRECT CONTACT SOIL REMEDIATION STANDARD.
- a. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER ANALYTICAL RESULTS AT A RATE OF ONE SAMPLE FOR EVERY 200 CUBIC YARDS OF MATERIAL BROUGHT ON SITE. THE LABORATORY PERFORMING THE ANALYSIS MUST BE CERTIFIED IN THE NEW JERSEY ENVIRONMENTAL LABORATORY CERTIFICATION PROGRAM (ELCP) AND IN ACCORDANCE WITH N.J.A.C. 7-18. THE FOLLOWING SHALL BE PROVIDED: THE ANALYTICAL DATA SHALL BE IN AN EXCEL SPREAD SHEET FORMAT THAT COMPARES THE DATA TO THE NEW JERSEY RESIDENTIAL DIRECT CONTACT SOIL STANDARD, A CHAIN OF CUSTODY FOR THE SAMPLES, A SAMPLING PLAN FOR THE SAMPLES COLLECTED, THE CERTIFICATIONS OF THE ENTITY COMPLETING THE SAMPLING, THE SOURCE OF THE MATERIAL, A STATEMENT FROM A QUALIFIED INDIVIDUAL THAT TO THE BEST OF THE AFFRANT'S KNOWLEDGE AND BELIEF THE FILL MATERIAL BEING PROVIDED DOES NOT EXCEED THE NEW JERSEY RESIDENTIAL DIRECT CONTACT SOIL REMEDIATION STANDARD AND A DESCRIPTION OF THE STEPS TO CONFIRM SUCH.
- b. THE ENGINEER WILL PERFORM QUALITY ASSURANCE TESTING AT A MINIMUM RATE OF ONE SAMPLE FOR EVERY 400 CUBIC YARDS OF MATERIAL BROUGHT TO THE SITE TO CONFIRM COMPLIANCE. MATERIAL BROUGHT ON SITE NOT IN COMPLIANCE SHALL BE REMOVED FROM THE SITE AND REPLACED WITH ACCEPTABLE MATERIAL AT NO ADDITIONAL COST TO THE AUTHORITY.
6. AS REQUIRED BY ITEM 3.04.B.2 OF SPECIFICATION NO. 312323, PERFORM QUALITY CONTROL TESTING FOR IN-PLACE DENSITY AT A MINIMUM RATE OF ONE (1) TEST FOR 500 SQ. FT. PER LIFT OF BACKFILL MATERIAL, PLACED AND ONE (1) TEST PER LIFT FOR EVERY 50 LINEAR FT. OF TRENCH. SUBMIT FOR APPROVAL THE QUALIFICATIONS OF THE SOIL TESTING COMPANY WHICH WILL PERFORM THE QUALITY CONTROL TESTS. THE SOIL TESTING COMPANY SHALL HAVE A MINIMUM OF FIVE YEARS EXPERIENCE DOING SUCH WORK.
7. THE ENGINEER WILL PERFORM QUALITY ASSURANCE TESTS FOR ON-SITE AND OFF-SITE I-12 MATERIAL AS FOLLOWS:
- a. ONE (1) REPRESENTATIVE SAMPLE FOR EVERY 100 C.Y. OF ON-SITE MATERIAL TO BE USED WILL BE TESTED FOR MAXIMUM DENSITY ONLY.
- b. ONE (1) SAMPLE FOR EVERY 200 C.Y. OF MATERIAL BROUGHT TO SITE WILL BE TESTED FOR GRADATION AND MAXIMUM DENSITY.
- c. IN PLACE DENSITY WILL BE PERFORMED AT THE RATE OF ONE (1) TEST PER LIFT FOR EVERY 1,000 SQ. FT. AND ONE (1) TEST PER LIFT FOR EVERY 200 LINEAR FT. OF TRENCH FOR BOTH ON-SITE AND OFF-SITE I-12 MATERIAL.

8. PERFORM QUALITY CONTROL TESTING FOR IN PLACE DENSITY FOR OPEN GRADED AGGREGATE BASE COURSE MATERIAL PLACED AT A MINIMUM RATE OF ONE (1) TEST FOR EVERY 500 SQ. FT. AND ONE (1) TEST FOR EVERY 500 LF. OF TRENCH.
9. OPEN GRADED AGGREGATE BASE COURSE WILL BE TESTED BY THE ENGINEER FOR GRADATION AND MAXIMUM DENSITY AT THE RATE OF ONE (1) TEST FOR EVERY 400 CY OF MATERIAL BROUGHT TO THE SITE. IN PLACE DENSITY TESTS WILL BE PERFORMED AT THE RATE OF ONE (1) TEST PER LIFT FOR EVERY 2,000 SQ. FT. AND ONE (1) TEST FOR EVERY 200 LF. OF TRENCH.

STEEL SHEET PILE NOTES:

1. STEEL SHEET PILING SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH REQUIREMENTS OF SPECIFICATION NO. 316217, ENTITLED "STEEL SHEET PILING".
2. IN LIEU OF SECTION 3.01.A.2 OF SPECIFICATION 316217, USE OF VIBRATORY PILE HAMMER SHALL NOT BE ALLOWED. PILE SHALL BE INSTALLED USING AN APPROVED IMPACT HAMMER. THE IMPACT HAMMER SHALL HAVE THE RAM WEIGHT OF 8000 TO 10,000 LBS. AND STROKE BETWEEN 3 TO 6 FT.
3. STEEL SHEET PILING SHALL NOT BE DRIVEN UNTIL THE UTILITY LOCATION VERIFICATION HAS BEEN COMPLETED AS REQUIRED BY C SERIES DRAWINGS.
4. ALL STEEL PILING, TIERODS, AND DEADMAN SHALL BE INSTALLED PRIOR TO ANY EXCAVATION AND PLACEMENT OF FILL MATERIAL.
5. THE STEEL SHEET PILING SHALL BE A2-35 AND CONFORM TO ASTM A572, GRADE 50 OR APPROVED EQUAL.
6. ALL STEEL SHEET PILING SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON CONTRACT DRAWINGS.
7. ALL STEEL SHEET PILING SHALL HAVE AN X-20800 STRAIGHT SECTION DRIVING SHOE CUT TO FIT FOR THE FULL LENGTH OF FLANGES AND WEB. AS MANUFACTURED BY ASSOCIATED PILE AND FITTING CORPORATION OF CLIFTON, NJ (973) 773-8400 OR APPROVED EQUAL.
8. IN LIEU OF ITEM 2.01.E AND 3.01.A OF SPECIFICATION SECTION NO. 316217, SHEET PILES SHALL BE COATED FOR THEIR FULL LENGTH AS REQUIRED BY SPECIFICATION SECTION NO. 316250 ENTITLED "ZINC RICH EPOXY/COAL TAR EPOXY COATING SYSTEM FOR STEEL PILING". REPAIR COATING DAMAGED DURING TRANSPORTATION, HANDLING AND INSTALLATION.
9. THE STEEL SHEET PILING SHALL BE DRIVEN WITHIN +/- THREE INCHES OF LOCATION SHOWN ON CONTRACT DRAWINGS.
10. INSTALLATION OF STEEL SHEET PILING SHOULD START BY INTERLOCKING WITH THE EXTENSION OF EXISTING 302-30 SHEETING ON THE SOUTH SIDE OF THE INBOARD E1 PLATFORM AND THE NORTH SIDE OF THE INBOARD E2 PLATFORM. SUBMIT THE SEQUENCE FOR DRIVING THE SHEET PILING TO THE ENGINEER FOR APPROVAL. A MINIMUM OF TWO WEEKS PRIOR TO DRIVING STEEL SHEET PILING.
11. AT THE INITIAL INSTALLATION OF THE STEEL SHEET PILING, THE STEEL PILES SHALL BE CUT OFF NINE (9) INCHES ABOVE THE EXISTING GRADE.
12. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER WITHIN TWO WEEKS AFTER THE INSTALLATION OF SHEETING, A DRAWING SHOWING A SURVEY OF THE STEEL SHEET PANEL (PAIR OF SHEETING) INSTALLED IN THE PROJECT ESTABLISHED HORIZONTAL DATUM AND PROVIDE ELEVATION OF THE SHEETING IN THE PROJECT ESTABLISHED VERTICAL DATUM. THE PORT AUTHORITY CENTRAL SURVEY GROUP SHALL PERFORM SURVEY CONCURRENTLY TO VERIFY THE LOCATION AND ELEVATION OF THE SHEETING PROVIDED BY CONTRACTOR'S SUBMITTAL.
13. AT THE JUNCTION WITH THE PREVIOUSLY INSTALLED SHEET PILE WALLS LOCATED AT INTERIOR PLATFORM FOR BERTHS E-1 AND E-2, SHEET PILES SHALL BE DRIVEN WITHIN 2 INCHES OF THE EXISTING SHEETING. PROVIDE END PIECE OF SHEETING TO MEET THIS REQUIREMENT.
14. A "SOFT START" FOR AN IMPACT HAMMER MAY BE REQUIRED TO PROTECT FISH IN THE AREA. A SOFT START TYPICALLY INVOLVES USE OF A CUSHION BLOCK AND USING 40% OF THE MAXIMUM HAMMER ENERGY FOR THE FIRST 5 MINUTES OF PILE DRIVING. THE CONTRACTOR WILL BE REQUIRED TO ADHERE TO THE SPECIFIC REQUIREMENTS OF ANY RELEVANT PERMIT CONDITIONS SUCH AS THOSE ISSUED BY USACE OR NJDEP.

VIBRATION MONITORING NOTES:

1. THE CONTRACTOR SHALL PLACE SEISMOGRAPHS TO MONITOR PILE DRIVING VIBRATIONS AT THE GROUND SURFACE AT THE LOCATIONS SHOWN ON CONTRACT DRAWING ____ FOR THE FOLLOWING:
- A. AT THE DRY DOCK PUMP ROOM STRUCTURE.
- B. NEAR THE PASSAIC VALLEY SEWER COMMISSION (PVSC) SEWER TUNNEL.
- C. AT THE SPECIFIED DISTANCE FROM THE TEST PILE TO BE LOAD TESTED.
2. RETAIN A VIBRATION MONITORING SPECIALIST WITH A MINIMUM OF 10 YEARS EXPERIENCE IN INSTALLATION AND MONITORING OF SEISMOGRAPHS. SUBMIT QUALIFICATIONS OF THE MONITORING SPECIALIST TO THE ENGINEER FOR REVIEW A MINIMUM OF THREE (3) WEEKS PRIOR TO ANY INSTALLATION.
3. VIBRATION MONITORING SHALL BE CONTINUOUS DURING PILE DRIVING FOR THE DESIGNATED PILES FOR INBOARD PLATFORM E1 AND INBOARD PLATFORM E2 AS SHOWN ON CONTRACT DRAWING ____ AND DURING DRIVING OF THE PILE TO BE LOAD TESTED. THE MONITORING SPECIALIST SHALL BE PRESENT FULL TIME AT THE SITE DURING MONITORING. THE MONITORING SPECIALIST SHALL PROVIDE READINGS TO THE ENGINEER IN REAL TIME AT THE SITE AND FOLLOW UP WITH AN ELECTRONIC COPY OF THE READINGS WITHIN THREE (3) BUSINESS DAYS. WITHIN TWO (2) WEEKS AFTER COMPLETING ALL VIBRATION MONITORING, SUBMIT AN ELECTRONIC REPORT SIGNED BY THE MONITORING SPECIALIST SUMMARIZING ALL READINGS.
4. SUBMIT A VIBRATION MONITORING PLAN TO THE ENGINEER FOR REVIEW A MINIMUM OF THREE (3) WEEKS PRIOR TO INSTALLATION WHICH INCLUDES THE FOLLOWING:
- A. THE MEANS AND METHODS AND EQUIPMENT FOR MONITORING THE PILE DRIVING VIBRATIONS.
- B. THE METHOD FOR TRANSMITTING DATA TO THE ENGINEER IN REAL TIME DURING PILE DRIVING AND TRANSMITTING DATA ELECTRONICALLY DAILY AFTER PILE DRIVING.
- C. THE METHOD FOR TRANSMITTING A SIGNED ELECTRONIC COPY OF THE SUMMARY REPORT AT THE COMPLETION OF MONITORING, INCLUDING SAMPLE PLOTS, GRAPHS, CHARTS AND TABLES THAT WILL BE USED TO PRESENT THE DATA.
5. OBTAIN THE FOLLOWING BASELINE READINGS PRIOR TO MONITORING DURING PILE DRIVING:
- A. MINIMUM OF 16-HRS OF BASELINE READINGS AT EACH MONITORING LOCATION OBTAINED OVER TWO (2) SEPARATE DAYS.
- B. THE ELEVATION AND COORDINATES OF THE MONITORING LOCATIONS.
6. THE VIBRATION MONITORING CRITERIA IS AS FOLLOWS:
- A. ALERT LEVEL = 0.5 IN/SEC ABOVE BASELINE READINGS
STOP WORK LEVEL = 1.0 IN/SEC ABOVE BASELINE READINGS
- B. IF THE ALERT LEVEL IS REACHED WITH A VIBRATION OF 0.5 IN/SEC ABOVE BASELINE READINGS RECORDED, THE MONITORING SPECIALIST SHALL NOTIFY THE ENGINEER AND CONTRACTOR IMMEDIATELY. IF THE VIBRATIONS DECREASE BELOW THE ALERT LEVEL OR REMAIN ABOVE THE ALERT LEVEL AND BELOW THE STOP WORK LEVEL, THE PILE DRIVING MAY CONTINUE. HOWEVER, THE CONTRACTOR SHALL CLOSELY MONITOR THE READINGS TO ENSURE THEY DO NOT EXCEED THE STOP WORK LEVEL.
- C. IF THE STOP WORK LEVEL IS REACHED WITH A VIBRATION OF 1.0 IN/SEC ABOVE BASELINE READINGS RECORDED, THE MONITORING SPECIALIST SHALL NOTIFY THE ENGINEER AND CONTRACTOR IMMEDIATELY AND THE CONTRACTOR SHALL IMMEDIATELY STOP PILE DRIVING.
- D. AFTER THE STOP WORK LEVEL IS REACHED AND PILE DRIVING STOPPED, THE CONTRACTOR SHALL WAIT FOR DIRECTION FROM THE ENGINEER PRIOR TO RESUMING PILE DRIVING. THE CONTRACTOR SHALL BE COMPENSATED UNDER FIELD ORDERED WORK FOR ANY MODIFICATIONS TO THE CONTRACTOR'S PILE DRIVING OPERATION AS DIRECTED BY THE ENGINEER.
7. AT THE COMPLETION OF VIBRATION MONITORING, RESURVEY THE ELEVATIONS OF THE MONITORING LOCATIONS. INCLUDE THIS DATA IN THE SUMMARY REPORT.



A. HERZOG K. GRESCHAK S. SHETH

Designed by _____ Drawn by _____ Checked by _____

PORT JERSEY

RECONSTRUCTION OF BERTHS
E-1 AND E-2

Discipline
GEOTECHNICAL

EXCAVATION, BACKFILLING, AND
FILLING NOTES

DECEMBER 16, 2020

Date

PJ-664.531

Contract Number

17501000

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P009

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STEEL PIPE/TAPERTUBE PILE NOTES:**A. GENERAL**

1. ARRANGE FOR PILES TO BE INSTALLED BY AN ENTITY WITH AT LEAST FIVE (5) YEARS EXPERIENCE IN PILE INSTALLATION INCLUDING AT LEAST THREE PROJECTS COMPLETED IN LAST FIVE (5) YEARS OF EQUIVALENT SIZE AND COMPLEXITY TO THIS CONTRACT. SUBMIT DETAILS OF SPECIFIC EXPERIENCE TO DOCUMENT COMPLIANCE WITH THESE REQUIREMENTS.
2. INSTALL ALL STEEL TAPERTUBE PILES IN CONFORMANCE WITH THE REQUIREMENTS SPECIFIED ON DRAWINGS AND SPECIFICATION SECTION 316223.
3. WITHIN THIRTY (30) DAYS OF AWARD OF CONTRACT AND PRIOR TO PILE DRIVING, SUBMIT FOR ENGINEER'S REVIEW AND APPROVAL A DETAILED CONSTRUCTION PROCEDURE AND SCHEDULE FOR ALL WORK RELATED TO INSTALLATION OF PILES AND PILE CAP/BOX SUB.
4. TAPERTUBE PILES SHALL BE DRIVEN CLOSED-ENDED WITH A PILE TIP FURNISHED BY — OR EQUIVALENT.
5. ALL TAPERTUBE PILES SHALL BE 8 IN X 18 IN O.D. X 15 FT LONG X 0.5 IN WALL WITH A 18 IN O.D. X 90 FT LONG X 0.5 IN WALL PIPE EXTENSION.
6. PILE DRIVEN FROM LANDSIDE USE SINGLE ACTING AIR OR HYDRAULIC HAMMER WITH A MINIMUM RATED ENERGY OF 48000 FT-LBS, WHICH DELIVERS A MINIMUM TRANSFERRED ENERGY OF 32000 FT-LBS, TO THE PILE TOP.
- a. HAMMER USED SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER PRIOR TO USE.
- b. IT IS CONTRACTOR'S RESPONSIBILITY TO KEEP HAMMER IN GOOD MECHANICAL CONDITION.
7. FOR PILE LOCATIONS, CUTOFF, AND REBAR DETAILS SEE STRUCTURAL DRAWINGS.
8. IN LIEU OF ITEMS 2.01 E AND 3.01 A OF SPECIFICATION C316223 PILE SHALL BE COATED FOR THE 80 FT OF THE TOP EXTENSION AS REQUIRED BY THE SPECIFICATION NO. 316250 ENTITLED "PROTECTIVE COATING SYSTEM FOR STEEL PILING".
9. REPAIR OF PILE COATING:
 - a. WHEN THE COATING IS DAMAGED ABOVE THE MEAN HIGH WATER (EL. +2.04 FT) AND FOR ALL SPLICES, COATING SHALL BE REPAIRED AS REQUIRED BY THE ITEM 3.0305 OF SPECIFICATION NO. 316250.
 - b. WHEN THE COATING IS DAMAGED BELOW MEAN HIGH WATER (EL. +2.04 FT) THE COATING SHALL BE REPAIRED AS FOLLOWS:
 1. REMOVE LOOSE COATING AND BLAST CLEAN THE DELAMINATED AREAS IN ACCORDANCE WITH SSPC-SP16. USE WATER BLASTING WITH ABRASIVE INJECTION. DO NOT REMOVE ADJACENT INTACT COATING.
 2. COAT THE DAMAGED AREA WITH CARBOGUARD D-788 SPLASH ZONE MASTIC AS MANUFACTURED BY CARBOLINE, OR RE-ST-3-TOL W-62 SPLASH ZONE COATING AS MANUFACTURED BY PCA ENGINEERING OR AN APPROVED EQUAL. THE REPAIRED SHALL EXTEND A MINIMUM OF 1-FT. BELOW THE EDGE OF THE COVDED DAMAGED AREA.
 3. APPLY COATING REPAIR PER THE MANUFACTURER'S RECOMMENDATION AND DURING THE SAME SHIFT THE DAMAGED AREA IS CLEANED. IF THE DAMAGED AREA ID REMAINED UNCOATED FOR MORE THAN FOUR (4) HOURS OR RUST, MARINE GROWTH OR OIL GREASE IS PRESENT, RECLEAN THE SURFACE, PRIOR TO COATING.
10. FOR CONCRETING OF TAPERTUBE PILES SEE STRUCTURAL NOTES ON CONTRACT DRAWING —.
11. SPlice SECTION OF PIPE IN CONFORMANCE WITH SPlice DETAIL SHOWN ON THIS DRAWING. MECHANICAL SPLICES SUCH AS DFP S-1800 MAY BE USED WITH APPROVAL OF THE ENGINEER. AFTER SPLICING, DEVIATION IN STRAIGHTNESS IN THE UNDRIVEN PORTION OF THE PILE SHALL NOT EXCEED 3/8 INCH IN 40 FEET.
12. ALL TAPERTUBE PILE SHALL BE DRIVEN WITH A CONICAL DRIVING POINT MADE FROM ASTM A-148 9060 MATERIAL WELDED TO THE BOTTOM OF TAPER SECTION. PILE TIP FURNISHED BY — OR APPROVED EQUAL.

B. TAPERTUBE PILES

1. TAPERED SECTION TO BE POLYGONAL IN SECTIONS, HAVING TWELVE (12) EQUAL SIDES JOINED BY A SINGLE LONGITUDINAL BUTT WELD, AND HAVING A TOP AND BOTTOM DIAMETER, LENGTH AND MINIMUM THICKNESS AS SHOWN ON THE DRAWINGS. THE TAPERTUBE MATERIAL WILL HAVE A MINIMUM YIELD STRESS OF 50,000 P.S.I. THE TAPERTUBE SEAM(S) SHALL BE WELDED WITH A MINIMUM OF 90% WELD PENETRATION WITH A 12 INCH RETURN EACH END.
2. CYLINDRICAL PIPE SECTION TO HAVE A DIAMETER AND MINIMUM THICKNESS AS SHOWN ON CONTRACT DRAWINGS. PIPE TO MEET ALL REQUIREMENTS OF ASTM A252 GR. 3, MINIMUM YIELD STRENGTH OF 50,000 P.S.I.
3. THE TOP OF THE TAPERED SECTION IS TO BE ROUNDED SO THAT THE INSIDE DIAMETER WILL MATCH THE INSIDE DIAMETER OF THE STRAIGHT PIPE. THE SECTION SHALL BE JOINED BY A 100% BUTT WELD.

4. THE TAPERTUBE PILES SHALL BE MANUFACTURED BY DFP FOUNDATION PRODUCTS, LLC, P.O. BOX 688 FRANKLIN LAKES, NJ 07417-0688 PHONE 201-337-5748; FAX 201-337-4022. TAPERTUBE PILES MAY ALSO BE PURCHASED THROUGH A LICENSED SUPPLIER OR THROUGH AN AUTHORIZED PIPE SUPPLIER OR APPROVED EQUAL.

C. INSTALLATION

1. ALL 18 IN. O.D. TAPERTUBE PILE SHALL BE DRIVEN TO A MINIMUM TIP ELEVATION OF — FT. THE MINIMUM TIP ELEVATION SHALL MEAN THE HIGHEST TIP ELEVATION AT WHICH THE PILE WILL BE CONSIDERED TO BE ACCEPTABLE PROVIDING IT COMPLIES WITH ALL OTHER SPECIFIED REQUIREMENTS. THE SPECIFIED MINIMUM TIP ELEVATION IS NOT PROVIDED FOR THE PURPOSE OF ESTIMATING THE REQUIRED PILE LENGTHS.
2. DRIVE ALL CLOSED END TAPERTUBE PILES TO A RESISTANCE OF 20 BLOWS PER INCH.
3. IF THE PRESENCE OF A SUBSURFACE OBSTRUCTION RESULTS IN ANY TAPERTUBE PILE NOT MEETING THE REQUIREMENTS OF DRIVING AS SPECIFIED ON THE CONTRACT DRAWING, OR NOT ACHIEVING THE MINIMUM TIP ELEVATION, THE PILE MAY BE ADVANCED WITH AUGERING OR DRILLING AHEAD WITH THE PRIOR WRITTEN APPROVAL OF THE ENGINEER. IF SUCH TECHNIQUES ARE UNSUCCESSFUL IN PRODUCING AN ACCEPTABLE PILE, THE CONTRACTOR SHALL PULLE THE PILE TO THE SURFACE AND PENETRATE THE SUBSURFACE OBSTRUCTION AND THEN SHALL DRIVE THE PILE TO THE REQUIREMENTS SPECIFIED IN THE CONTRACT DRAWINGS. THE CONTRACTOR WILL BE COMPENSATED ON A NET COST BASIS FOR THE REMOVAL OF THE PILE AND REMOVAL OF OBSTRUCTION TO CLEAR THE AREA FOR THE PILE TO ACHIEVE THE REQUIRED TIP ELEVATION AND DRIVING CRITERIA SPECIFIED ON THE CONTRACT DRAWINGS.
4. INSTALL TAPERTUBE PILES WITHIN A MAXIMUM LATERAL TOLERANCE OF +/- THREE (3) INCHES AT PILE CUTOFF ELEVATION.
5. PILE SHALL NOT BE CUT TO FINAL CUTOFF UNTIL THE ENGINEER HAS DETERMINED THAT REDRIVING WILL NOT BE REQUIRED, AND HAS INSPECTED AND ACCEPTED THE PILES.
6. AFTER INSTALLATION OF PILES AND PRIOR TO REMOVAL OF THE DRIVING FRAME PERFORM SURVEYS OF THE DRIVEN PILE LOCATION AND INTEGRITY CHECK SPECIFIED IN ITEM 3.02.2.A.2 OF THE SPECIFICATION SECTION C316223.
7. SUBMIT TO THE ENGINEER THE AS DRIVEN PILE LOCATION AS SOON AS PRACTICAL, AFTER ALL PILES IN A ROW ARE INSTALLED AND PRIOR TO REMOVAL OF THE FALSE WORK OR DRIVING TEMPLATE OR FRAME. LOCATE THE AS-DRIVEN PILE CENTER LINE IN THE HORIZONTAL GRID COORDINATE SYSTEM ESTABLISHED FOR THE PROJECT AND PROVIDE THE DEVIATION WITH RESPECT TO DESIGN PILE LOCATION. IF THE SURVEY IS DELAYED AFTER THE PILE INSTALLATION THE SURVEYED LOCATION SHALL BE ASSUMED TO BE AS-DRIVEN LOCATION. THE ENGINEER WILL PERFORM A CHECK SURVEY TO VERIFY THE PILE LOCATION SUBMITTED BY THE CONTRACTOR.
8. SUBMIT TO THE ENGINEER FOR APPROVAL A DRAWING SHOWING THE DETAIL OF ANY CROSS BRACING OF PILES A MINIMUM OF ONE (1) WEEK PRIOR TO IMPLEMENTING THE WORK. THE DRAWING SHALL INCLUDE THE PROCESS OF INSTALLING CONCRETE DECK AND REPAIR OF COATING SYSTEM IF DAMAGED DURING INSTALLATION.
9. PILES ARE NOT ALLOWED TO BE PULLED IN LOCATION UNLESS PRIOR APPROVAL IS OBTAINED FROM THE ENGINEER.
10. IF, FOLLOWING PILE INSTALLATION, REDESIGN OF PILES OR REINFORCEMENT STEEL OF SLAB IS REQUIRED, THE AUTHORITY REDESIGN TIME WILL BE A MINIMUM OF TEN (10) WORKING DAYS FROM THE RECEIPT OF THE FIELD SURVEY.
11. A "SOFT START" FOR AN IMPACT HAMMER MAY BE REQUIRED TO PROTECT FISH IN THE AREA. A "SOFT START" TYPICALLY INVOLVES USE OF A CUSHION BLOCK AND USING 40% OF THE MAXIMUM HAMMER ENERGY FOR THE FIRST 5 MINUTES OF PILE DRIVING. THE CONTRACTOR WILL BE REQUIRED TO ADHERE TO THE SPECIFIC REQUIREMENTS OF ANY RELEVANT PERMIT CONDITIONS SUCH AS THOSE ISSUED BY USACE OR NJDEP.

D. PILE DRIVING ANALYZER

1. PILE DRIVING ANALYZER MEASUREMENTS FOR EACH HAMMER WILL BE TAKEN BY THE ENGINEER IN CONFORMANCE WITH THE SPECIFICATION SECTION — ENTITLED, "DYNAMIC PILE TESTING". DYNAMIC PILE TESTING FOR EACH HAMMER USED WILL BE CONDUCTED ON APPROXIMATELY FIVE (5) 18 INCH TAPERTUBE PRODUCTION PILES INSTALLED ON EACH INTERIOR PLATFORM USING AN AIR OR HYDRAULIC HAMMER. DYNAMIC TESTING ON PRODUCTION PILE WILL BE CONDUCTED FOR EACH INTERIOR PLATFORM, AND FOR EACH HAMMER IN TWO PHASES.

PHASE I: THREE (3) AT THE START OF PRODUCTION PILE DRIVING.

PHASE II: TWO (2) AFTER FIFTY (50) PERCENT OF PILES HAVE BEEN INSTALLED.

PHASE I AND II TESTING WILL BE PERFORMED FOR EACH HAMMER USED AT THE SITE. APPROVED HAMMERS, WHICH SUBSEQUENTLY APPEAR TO BE NOT PERFORMING CORRECTLY, ARE SUBJECT TO TESTING WITH THE PILE DRIVING ANALYZER. APPROVED HAMMERS WHICH SUBSEQUENTLY REQUIRE REPAIR WORK AND REPLACEMENT ARE ALSO SUBJECT TO RE-EVALUATION BY THE PILE DRIVING ANALYZER BY THE ENGINEER.

2. PROVIDE ACCESS AND ASSISTANCE TO THE AUTHORIZED TESTING PERSONNEL DURING THE INSTALLATION OF ACCELEROMETERS, WHEN THE INSTALLATION CAN NOT BE DONE BY A TECHNICIAN ON THE GROUND, I.E. CLIMBING THE LEADS OR USE OF LADDERS OR OTHER LIFTING DEVICES ARE REQUIRED TO REACH THE AREA OF INSTALLATION. SUCH INSTALLATION SHALL BE DONE BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

E. SPECIAL INSPECTION

THE FOLLOWING GEOTECHNICAL ITEMS OF THE WORK SHALL BE SUBJECT TO SPECIAL INSPECTION BY THE ENGINEER.

1. PILE INSTALLATION
2. INSTALLATION OF SHEETING
3. COMPACTION OF FILL MATERIALS
4. TESTING WITH PILE DRIVING ANALYZER.

PILE LOAD TEST NOTES:**A. GENERAL**

1. FURNISH AND INSTALL 18 INCH O. D. X 0.5 INCH THICK TAPERTUBE COMPLETED FILED TEST PILE AT THE LOCATION SHOWN ON STRUCTURAL DRAWING — OF THE CONTRACT SET. PERFORM THE REQUIRED PILE LOAD TEST PRIOR TO THE INSTALLATION OF PRODUCTION PILES.
2. INSTALL ALL TEST PILES IN CONFORMANCE WITH THE REQUIREMENTS SPECIFIED ON CONTRACT DRAWING GT-002 AND SPECIFICATION SECTION 316223.
3. PILE DRIVING ANALYZER MEASUREMENTS WILL BE TAKEN BY THE ENGINEER ON TEST PILE IN ACCORDANCE WITH NOTES ON DRAWING GT-002 AND MEETING THE REQUIREMENTS OF SPECIFICATION SECTION 310814.
4. PROVIDE THE TEST PILE DRIVING SCHEDULE A MINIMUM OF TWO WEEKS (2) IN ADVANCE OF DRIVING THE TEST PILE.
5. CONFORM WITH ALL PROVISIONS OF ASTM D1143 FOR COMPRESSION LOAD TEST AND SPECIFICATION SECTION 310812. THE COMPRESSION LOAD TEST WILL BE OF TYPE "B" PROCEDURE CALLED MAINTAINED TEST SPECIFIED IN SPECIFICATION SECTION 310812.
6. LOAD CELLS AND HYDRAULIC JACKS SHALL BE CALIBRATED WITHIN THIRTY (30) DAYS PRIOR TO LOAD TESTING. THE LOAD CELL AND HYDRAULIC JACKS SHALL HAVE THE MINIMUM CAPACITIES OF 540 TONS FOR THE TEST LOAD OF 350 TONS. THE REQUIRED REACTION LOAD WILL BE A MINIMUM OF 540 TONS. SUBMIT CERTIFIED CALIBRATION CURVES TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO LOAD TESTING.
7. THE AXIS OF THE TEST PILE SHALL COINCIDE WITH THE CENTERLINE OF ALL ELEMENTS OF THE LOADING APPARATUS, INCLUDING THE JACK, LOAD CELL, SWIVEL PLATE, BASE PLATE, AND ALL STEEL PLATES (5/8 INCH MAXIMUM TOLERANCE). THE SWIVEL PLATE SHALL BE CLEANED AND GREASED BEFORE USING.

8. PROTECT LOAD TEST ARRANGEMENTS FROM ADVERSE WEATHER ELEMENTS INCLUDING SUN, WIND, RAIN, SNOW, AND ICE. PROVIDE TEMPORARY HEATED SHEDS, AS REQUIRED FOR INSPECTION PERSONNEL AND SURVEY EQUIPMENT. PROVIDE COVERS TO PROTECT GAGES AND SCALES, MOUNTED ON PILES FROM SUN, WIND AND RAIN.

9. ALL MONITORING RELATED TO THE CONDUCT OF THE COMPRESSION LOAD TESTS SUCH AS MEASUREMENTS OF PILE DEFLECTION AND REBOUND BY DIAL GAGES, HAND WIRE AND SURVEY METHODS SHALL BE PERFORMED BY THE ENGINEER.
10. THE CONTRACTOR TO PROVIDE NECESSARY PERSONNEL TO MAN THE LOAD TEST FOR THE ENTIRE DURATION.

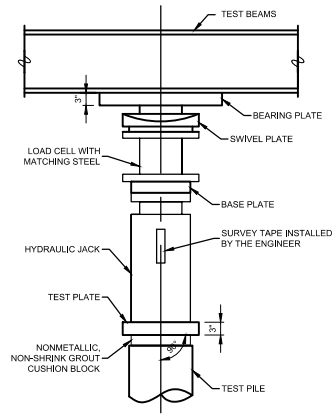
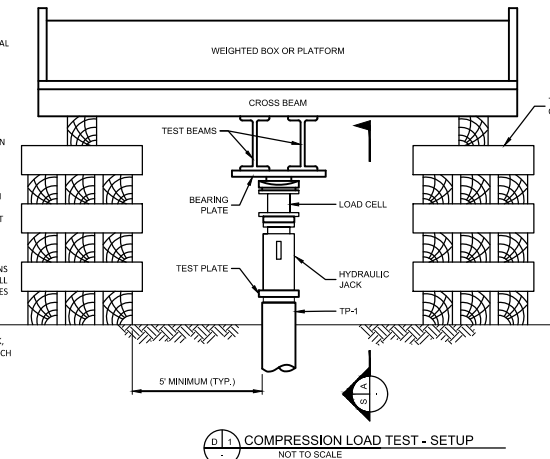
11. THE CONTRACTOR CAN DISASSEMBLE THE TEST ASSEMBLY WITHOUT DISTURBING THE TEST GAGES, SURVEY EQUIPMENT UNTIL 24 HOURS REBOUND READINGS ARE RECORDED AND ENGINEER HAS APPROVED THE RESULTS OF LOAD TESTS.

B. COMPRESSION LOAD TEST

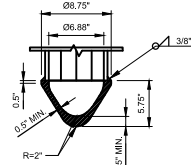
1. ACCURATELY CENTER THE REACTION LOADS (540 TONS) SUCH THAT THE CROSS BEAMS DO NOT LIFT OFF THE CRIBBING UNDER THE MAXIMUM TEST LOADS.
2. THE TEST PLATE SHALL BE PERPENDICULAR TO THE LONGITUDINAL AXIS OF THE TEST PILE. ALIGNMENT OF THE PILE AXIS SHALL BE WITHIN TWO (2) PERCENT OF VERTICAL, EXCEPT WHERE BRACING OR CORRECTIVE ACTION IS APPROVED BY THE ENGINEER. THE BEARING PLATE SHALL BE LEVEL AND CENTERED ON THE AXIS OF THE TEST PILE.
3. TO DETECT IMPENDING UNSTABLE CONDITIONS DURING TESTING THE CONTRACTOR SHALL:
 - 3.1. MONITOR CONTACT BETWEEN THE CROSS BEAMS OF THE LOAD PLATFORM THE TIMBER CRIBBING OR SUPPORT BEAMS.
 - 3.2. MONITOR LATERAL MOVEMENTS OF THE TEST PILE, REACTION LOAD, AND ALL ELEMENTS OF THE LOADING APPARATUS.
4. COMPRESSION LOAD TEST SHALL BE PERFORMED IN ACCORDANCE WITH SPECIFICATION SECTION 310812 AND ASTM D1143 SECTION 8.1.3 PROCEDURE B, MAINTAINED TEST.
5. AFTER COMPLETING AND PASSING THE COMPRESSION LOAD TEST TO 350 TONS, THE CONTRACTOR SHALL CONTINUE THE COMPRESSION LOAD TEST TO MAXIMUM REQUIRED LOAD OF 450 TONS CONFORMANCE WITH ASTM D1143 SECTION 8.1.4 PROCEDURE C.

C. SITE RESTORATION

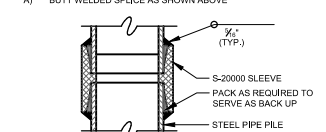
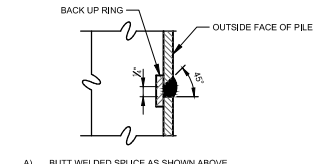
1. UPON COMPLETION OF THE COMPRESSION LOAD TEST PROGRAM, CUT OFF ALL TEST PILES TO A MINIMUM OF FOUR (4) FEET BELOW FINISHED GRADE.
2. THE CONTRACTOR SHALL REMOVE ALL LOAD TEST EQUIPMENT INCLUDING REACTION LOADS, LOADING BEAMS, CRIBBING, ETC. ONCE THE ENGINEERS HAVE APPROVED AND ACCEPTED THE LOAD TEST RESULTS FROM JOB SITE WITHIN SEVEN (7) WORKING DAYS.
3. RESTORE THE AREAS OF THE WORK AT EACH TEST PILE LOCATION SITE TO THEIR RESPECTIVE ORIGINAL GRADES AND CONDITIONS TO THE SATISFACTION OF THE ENGINEER.



SECTION A
NOT TO SCALE



CONICAL PILE TIP DETAIL
NOT TO SCALE



PILE SPLICE DETAIL
NOT TO SCALE

**PORT
AUTHORITY
NY NJ**

A. HERZOG K. GRESCHAK S. SHETH
Designed by Drawn by Checked by

DATUM: NAVD83

PORT JERSEY

RECONSTRUCTION OF BERTHS
E-1 AND E-2

Discipline

GEOTECHNICAL

TAPERTUBE PIPE PILE
NOTES AND SPLICE
DETAILS

DECEMBER 16, 2020
Date

PJ-664.531

Contract Number

17501000

PID Number

10 of 13

Workorder Number

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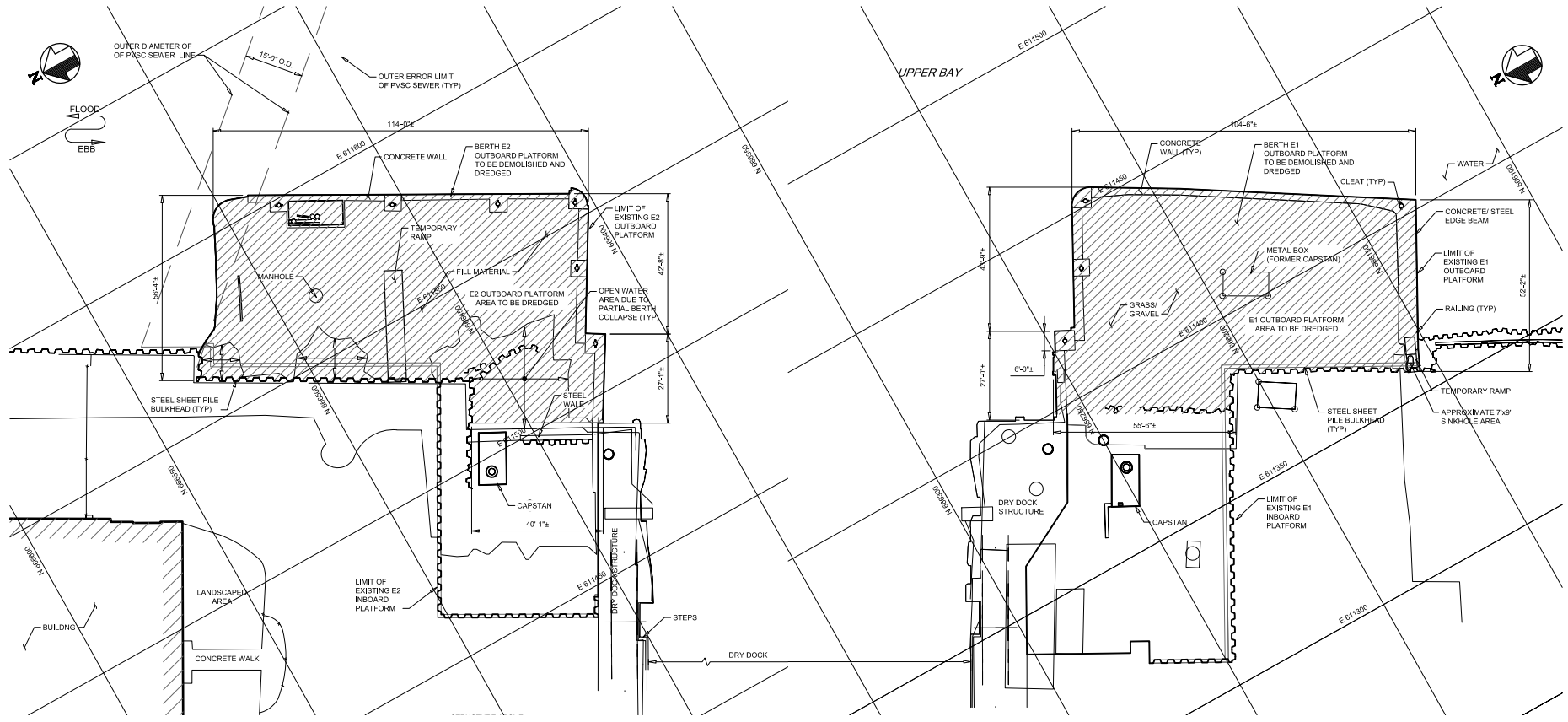
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P010

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USACE FILE: NAN-2020-01044-EBR



BERTH E2

BERTH E1

OUTBOARD DREDGING PLAN

NOTES:

- FOR EXISTING SITE CONDITIONS SEE CIVIL DRAWING SERIES.
- PROPOSED WORK NOT SHOWN FOR CLARITY. FOR PROPOSED WORK SEE STRUCTURAL DRAWING SERIES.
- PROSPECTIVE BIDDERS CAN ARRANGE FOR A FIELD TRIP PRIOR TO BIDDING.
- SEE OUTBOARD DREDGING AND REMOVAL NOTES ON DWG. GT-006.
- HORIZONTAL DATUM COORDINATES ARE BASED ON THE STATE PLANE NAD 83 NEW JERSEY.
- FOR BATHYMETRIC CONTOUR LINES, SEE DWGS. P002 AND P003.

LEGEND:

- AREAS TO BE DREDGED
- AREA OF COLLAPSED BERTH
- CLEAT
- CRANE RAIL
- STEEL SHEET PILE BULKHEAD

DREDGING QUANTITIES	BERTH E1	BERTH E2
ESTIMATED AREA TO BE DREDGED (FT ²)	6436	7012
ESTIMATED VOLUME OF MATERIAL TO BE DREDGED (CY)	4529	2467

**PORT
AUTHORITY
NY NJ**

PORT JERSEY

Discipline

GEOTECHNICAL

DECEMBER 16, 2020

Date

11 of 13

OUTBOARD DREDGING PLAN

PJ-664.531

Contract Number

Workorder Number

####

Drawing Number

P011

17501000

PID Number

A. HERZOG

K. GRESCHAK

S. SHETH

RECONSTRUCTION OF BERTHS
E-1 AND E-2

DATUM: NAVD88

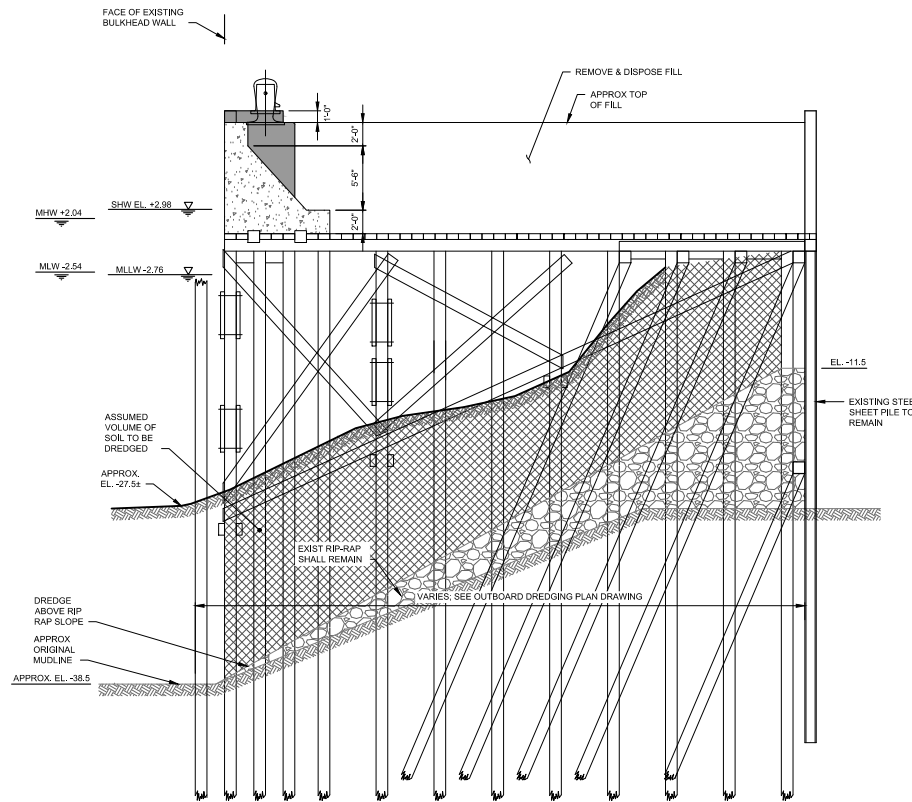
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December 23, 2020

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BERTHS E1 AND E2 OUTBOARD PLATFORM DREDGING SECTIONS

NOTES:

1. PORTIONS OF OUTBOARD PLATFORMS HAVE COLLAPSED. DEMOLITION AND DREDGING PROCEDURES MAY REQUIRE REMOVAL OF THESE DEBRIS FROM THE WATERWAY.
2. SEE STRUCTURAL DRAWING SERIES FOR DEMOLITION DETAILS.
3. TIMBER PILE AND DECK LOCATIONS SHOWN FOR BERTHS E1 AND E2 OUTBOARD PLATFORMS ARE SCHEMATIC AND SHOW ORIGINAL STATE OF STRUCTURES PRIOR TO COLLAPSE.
4. ELEVATIONS SHOWN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LEGEND:

 MATERIAL TO BE DREDGED

	PORT JERSEY		Discipline	GEOTECHNICAL	DECEMBER 16, 2020 Date	12 of 13
	A. HERZOG	K. GRESCHAK	S. SHETH	BERTHS E1 AND E2 OUTBOARD DREDGING SECTIONS	PJ-664.531 Contract Number 17501000 PID Number	Workorder Number #### Drawing Number P012
RECONSTRUCTION OF BERTHS E-1 AND E-2						

December 23, 2020

DATUM: NAVD88

Designed by

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NOTES:

- SEE STRUCTURAL DRAWING SERIES FOR DEMOLITION DETAILS.
- TIMBER PILES AND DECK LOCATIONS SHOWN FOR BERTHS E1 AND E2 OUTBOARD PLATFORMS ARE SCHEMATIC AND SHOW ORIGINAL STATE OF STRUCTURES PRIOR TO COLLAPSE.

DREDGING NOTES:

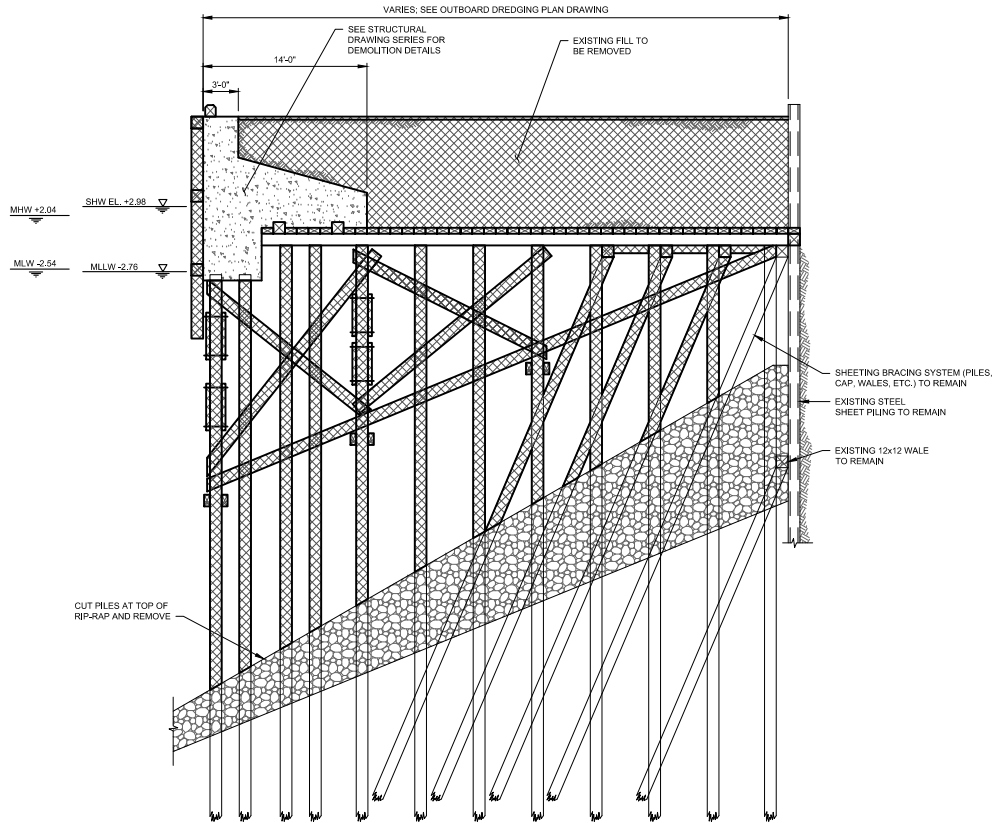
- HORIZONTAL CONTROL
HORIZONTAL COORDINATES FOR PORT JERSEY MARINE TERMINAL ARE BASED ON NEW JERSEY STATE PLANE NAD 83. THE ENGINEER WILL PROVIDE DEFINITION OF LOCAL STATIONING SYSTEMS AS REQUIRED WHEN CONTRACTOR MOBILIZES TO THE SITE.
- VERTICAL CONTROL
MEAN LOW WATER (MLW) IS DEFINED AS ELEVATION EL 0.0 WHICH IS 2.5 FT BELOW THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). DREDGE DEPTHS ARE DEFINED AS DREDGE DEPTHS BELOW EL 0.0 WHICH IS 2.5 FT BELOW NAVD88 AND 1.4 FT BELOW NGVD83.
- NO LANDSIDE AREA WILL BE MADE AVAILABLE TO THE CONTRACTOR.
- ALL DREDGING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH SPECIFICATION SECTION 350552 ENTITLED "DREDGING - BERTH MAINTENANCE NO BARGE OVERFLOW PERMITTED."
- PRIOR TO START OF DREDGING THE CONTRACTOR SHALL VERIFY THE LIMITS OF DREDGING WITH THE ENGINEER.
- PRIOR TO START OF DREDGING THE CONTRACTOR SHALL IN PRESENCE OF THE ENGINEER INSPECT AND VIDEO THE EXISTING CONDITION AT EACH BERTH AND SUBMIT SUCH VIDEO TO THE ENGINEER PER 3.01.8.2 OF SPECIFICATION. IN ADDITION, THE CONTRACTOR SHALL RE-INSPECT THE BERTH HE IS DREDGING EVERY WORK PERIOD, IN PRESENCE OF THE ENGINEER TO DETERMINE THE CONDITION OF THE BERTH SHEETING, TIE RODS, ETC. THE CONTRACTOR SHALL IMMEDIATELY REPAIR ALL DAMAGES WHICH OCCURS AS A RESULT OF ITS OPERATION AT NO COST TO THE AUTHORITY.
- A MINIMUM TWO WEEKS PRIOR TO STARTING THE WORK AT THE CONSTRUCTION SITE THE CONTRACTOR SHALL SUBMIT DETAILS OF THE DREDGING EQUIPMENT AND PROCEDURE TO THE ENGINEER FOR APPROVAL PER 3.01.8.3 OF SPECIFICATION 350552.
- THE AREAS OF DREDGING CONTAIN DEBRIS, SEDIMENT AND SOILS. PER REQUIREMENT OF SPECIFICATION SECTION 350552 THE DREDGING MATERIAL SHALL BE PLACED IN A BARGE AND TRANSPORTED TO A PROCESSING FACILITY CAPABLE OF REMOVING DEBRIS, DECANTING WATER AND PROCESSING SEDIMENT AND SOILS FOR UPLAND PLACEMENT. ALL DEBRIS SHALL BE DISPOSED OF AT APPROVED DISPOSAL FACILITY.
- ALL SEDIMENT AND SOILS WILL BE TESTED AND DEPENDING ON RESULTS OF THE ENVIRONMENTAL SAMPLING AND TESTING MATERIAL SHALL BE DISPOSED. THE DISPOSAL OF SEDIMENT AND SOILS WILL BE ADDRESSED IN ENVIRONMENTAL NOTES.
- IF IT IS DETERMINED THAT SEDIMENT AND SOILS WILL HAVE TO BE PROCESSED, ALL PROCESSED DREDGE MATERIAL EXCEPT DEBRIS SHALL BE DISPOSED OF AT THE HUDSON RIVER RESOURCES FACILITY IN STATEN ISLAND, NY 10314 PER SPECIFICATION SECTION 350552, OR AT OTHER SITE DETERMINED BY THE ENGINEER.
- THE CONTRACTOR SHALL TRANSPORT DELIVER AND PLACE THE PROCESSED DREDGE MATERIAL AT THE HUDSON RIVER RESOURCES FACILITY OR AT OTHER SITE DETERMINED BY THE ENGINEER. THE TIPPING FEE FOR THE DISPOSAL OF PROCESSED DREDGE MATERIAL AT THE HUDSON RIVER RESOURCES FACILITY WILL BE PAID BY THE AUTHORITY.
- THE CONTRACTOR SHALL BACKFILL TO REPLACE MATERIAL REMOVED BEYOND THE ALLOWABLE DREDGE LIMIT PER 3.02.E OF SPECIFICATION NO. 350552.
- THE POINT OF CONTACT PERSON FOR THE HUDSON RIVER RESOURCES FACILITY FOR OFFLOADING IS TONY SEQUEZIA, VICE PRESIDENT, 201 BOWARD CURRY AVE, SUITE 108, STATEN ISLAND, NY 10314, OFFICE PHONE 214-435-2350.

NET COST ITEMS:

- WHEN AND AS DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL PERFORM THE FOLLOWING WORK AND WILL BE COMPENSATED AT THE NET COST THEREOF AS DEFINED BELOW:
- TEMPORARY RELOCATION OF FLOATING FENDERS BUMPERS AND RE-INSTALLATION IN THE ORIGINAL LOCATION.
 - IDLE TIME DUE TO UNANTICIPATED SCHEDULE CHANGES IN TENANT OPERATIONS.
 - TRANSPORTATION AND DISPOSAL OF PROCESSED DREDGE MATERIAL UNACCEPTABLE AT THE DISPOSAL HUDSON RIVER RESOURCES FACILITY.
- NET COST SHALL BE COMPUTED IN THE SAME MANNER AS IS COMPENSATION FOR EXTRA WORK INCLUDING ANY PERCENTAGE ADDITION TO THE COST AS SET FORTH IN THE CAUSE OF THE CONTRACT ENTITLED "COMPENSATION FOR EXTRA WORK" AND SHALL BE SUBJECT TO ALL PROVISIONS OF THE CONTRACT RELATING TO PERFORMANCE OF EXTRA WORK COMPENSATION AND SAID NET COST SHALL NOT BE CHARGED AGAINST THE TOTAL AMOUNT OF COMPENSATION AUTHORIZED FOR EXTRA WORK.

REMOVAL OF TIMBER PILE AND DISPOSAL:

- REMOVE ALL TIMBER PILES MARKED TO THE TOP OF RIP-RAP DIKE OR MIDLINE AS INDICATED ON THE CONTRACT DRAWINGS.
- TIMBER PILES SHALL NOT BE PULLED OR VIBRATED OUT OF THE GROUND IN ITS ENTIRETY, WHICH MAY JEOPARDIZE THE STABILITY OF BERTH STRUCTURE. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE DAMAGE OF THE BERTH STRUCTURE DUE TO ITS OPERATION AND SHALL RESTORE THE BERTH STRUCTURE AS DIRECTED AND TO THE SATISFACTION OF THE ENGINEER AT NO COST TO THE AUTHORITY.
- TIMBER PILES SHALL BE DISPOSED OF AT A FACILITY THAT IS PERMITTED AND LICENSED BY THE NJDEP FOR ACCEPTING THE TREATED TIMBER. THE QUANTITY OF DISPOSED MATERIAL WILL BE VERIFIED BY THE ENGINEER DEPENDING ON THE MEANS OF TRANSPORTATION SELECTED BY THE CONTRACTOR.
- SUBMIT VERIFICATION THAT THE FACILITY IS PERMITTED AND OPERATIONAL AND MEETING ALL REQUIREMENTS OF NJDEP. A MINIMUM OF THREE WEEKS PRIOR TO DISPOSAL OF ANY MATERIAL.



BERTH E1 & E2 TYPICAL OUTBOARD RETURN, DEBRIS REMOVAL SECTION

LEGEND:

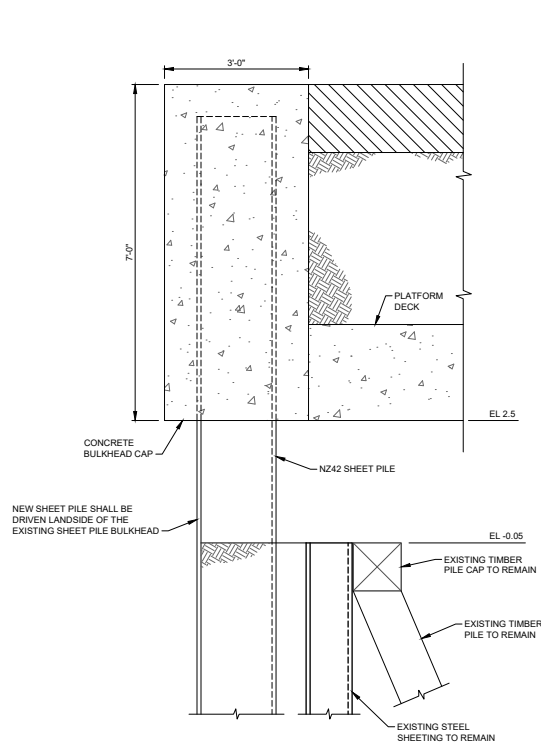
TO BE REMOVED

	PORT JERSEY		Discipline	DECEMBER 16, 2020	13 of 13
			GEOTECHNICAL	Date	
A. HERZOG Designed by K. GRESCHAK S. SHETH Checked by	RECONSTRUCTION OF BERTHS E-1 AND E-2		OUTBOARD DEBRIS REMOVAL SECTION AND NOTES	PJ-664.531 Contract Number	Workorder Number ####
				17501000 PID Number	Drawing Number P013

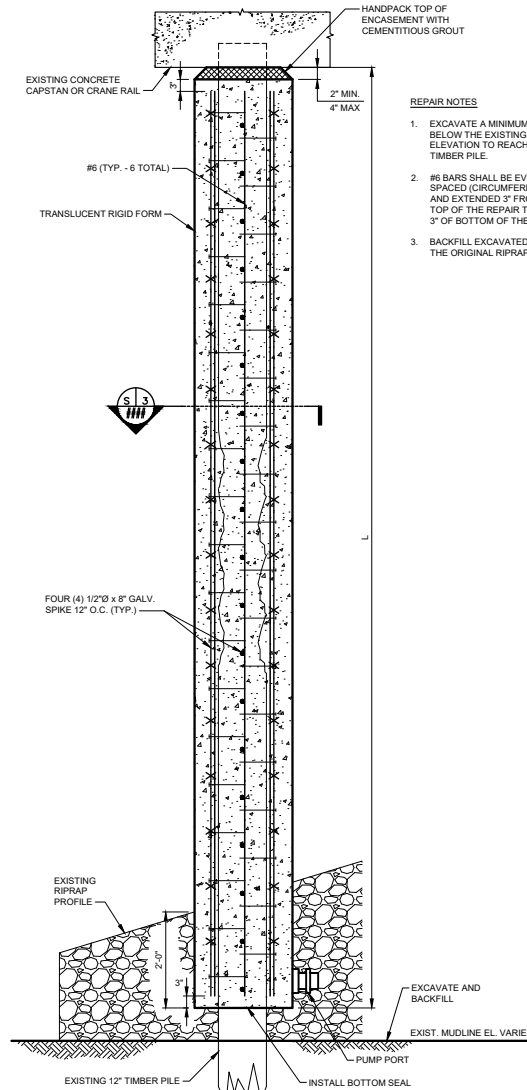
December 23, 2020

DATUM: NAVD88

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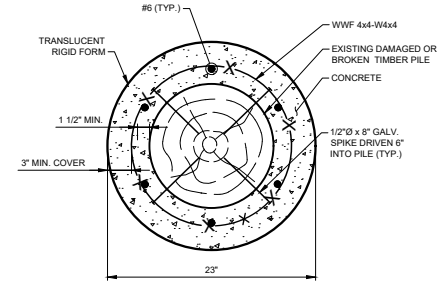


D 1 NEW SHEET PILE INSTALLATION
P014
0 2 4
SCALE IN FEET

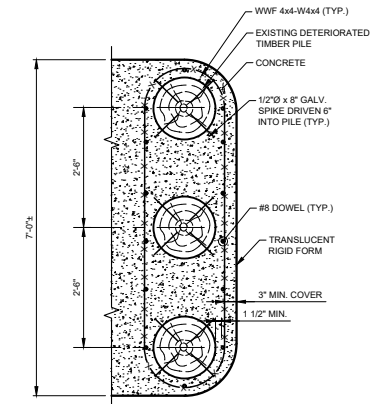


S 2 EXISTING PILE CONCRETE ENCASEMENT
P014
0 2 4
SCALE IN FEET

- REPAIR NOTES**
1. EXCAVATE A MINIMUM 2 FT BELOW THE EXISTING RIPRAP ELEVATION TO REACH SOUND TIMBER PILE.
 2. #6 BARS SHALL BE EVENLY SPACED (CIRCUMFERENTIALLY) AND EXTENDED 3" FROM THE TOP OF THE REPAIR TO WITHIN 3" OF BOTTOM OF THE FORM.
 3. BACKFILL EXCAVATED AREA TO THE ORIGINAL RIPRAP PROFILE.



S 3 EXISTING PILE CONCRETE ENCASEMENT SECTION
0 1 2
SCALE IN FEET



S 4 EXISTING PILE GROUP CONCRETE ENCASEMENT
P014
0 2 4
SCALE IN FEET

	PORT JERSEY		Discipline	ENVIRONMENTAL	DECEMBER 16, 2020 Date	14 of 14
	RECONSTRUCTION OF BERTHS E-1 AND E-2		SHEET PILE AND PILE ENCASEMENT DETAILS		PJ-664.531 Contract Number 17501000 PID Number	Workorder Number Drawing Number P014
DATUM: NAVD88	D.JACOBS Designed by	T.ALSTON Drawn by	K.WALSH Checked by			