

**TECHNICAL SPECIFICATIONS
SJPC-22-21 Maintenance Dredging**

INDEX

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SECTION 1.0

GENERAL

1.1 SCOPE OF WORK

- A. The Contractor shall furnish all labor, materials, equipment, tools, supervision and services necessary to complete the work within the limits and to the extent shown on the Reference Drawings, Project Drawings, or as specified herein.
- B. The work under the Maintenance Dredging Contract includes, but is not necessarily limited to, the following items of work:

Dredging, transporting, and disposal to an approved upland dredge spoil disposal site, not on the Owner's property, all dredge spoil materials which are to be removed within the contract limits as shown on the project drawings or specified herein. The materials shall include, but not be limited to all earth, soil stone, gravel, timber, steel, concrete, miscellaneous debris, etc.

- C. After each dredging operation, the Contractor shall deliver a written certification that the required depth of water has been obtained. (See Paragraph 2.3, "Control and Survey for Dredging Operations").
- D. Prior to the time of submitting bids for the Maintenance Dredging Contract, the Contractor may make any additional investigations and soundings as he deems necessary, at his own expense, to determine present conditions.

1.2 REFERENCE DRAWINGS

BALZANO TERMINAL

Hydrographic Survey, Berths 2, 3 & 4:

- Dwg. No. 4 of 5, File Sp-1535 dated 06/22/2022, Contract 22-050-05
- Dwg. No. 5 of 5, File Sp-1535, dated 06/22/2022, Contract 22-050-05

BROADWAY TERMINAL

Hydrographic Survey, Pier 1

- Drawing 1 of 5, File Sp-1535 dated 06/22/2022 Contract 22-050-05

Hydrographic Survey, Pier 1A

- Drawing 2 of 5, File Sp-1535 dated 06/22/2022 Contract 22-050-05

Hydrographic Survey, Pier 5

- Drawing 3 of 5, File Sp-1535, dated 06/22/2022, Contract 22-050-05

1.3 CODES, LICENSES AND REGULATIONS

A. General

The Owner has obtained the required State and Federal Permits which will be required during the time of this contract. Copies of these permits are included immediately following this section of the Specifications. The Contractor, at his expense, shall obtain any additional permits or licenses which may be required at any time during the duration of this contract. The Contractor shall comply with all rules, regulations, laws and procedures of the Federal, State, Interstate and Municipal Agencies having jurisdiction.

- B. The Contractor shall make all necessary arrangements for disposal of the dredge spoils at an approved upland dredge spoil disposal site, and shall obtain, at his expense, any additional permits and licenses required. The Contractor shall comply with all laws, rules and regulations of the Department of the Army and any other public agencies or authorities having jurisdiction.
- C. The Contractor shall indemnify and hold the Owner harmless from and against claims, penalties, liabilities, costs (including reasonable Attorney's fees) resulting from claims and/or judgements involving removal and disposition of dredge spoils and debris by the Contractor. All rights, title and interest in the dredge spoils and debris removed shall be deemed transferred from the Owner to the Contractor.

1.4 LIGHTS AND DAY SIGNALS

- A. The Contractor shall display the proper light signals at night and day signals during daylight in accordance with the General Regulations (Title 33 C.F.R.) 201- 1-201.16 as approved by the Secretary of the Army and Title 33 C.F.R. 80.18 80.31a and 95.51 - 95-70 as approved by the Commandant, U. S. Coast Guard) governing lights and day signals to be displayed by towing vessels with tows on which no signals can be displayed, vessels working on wrecks, dredges, and vessels engaged in laying cables or pipe or in submarine or bank protection operations. Lights to be displayed on dredge pipelines and day signals to be displayed by vessels of more than 65-feet in length moored or anchored in a fairway or channel and the passing of other vessels of floating plant working in navigable channels.

1.5 INTERFERENCE WITH TRAFFIC AND NAVIGATION

- A. The Contractor shall conduct his operations in such a way as to result in minimum interference with vessels using shipping channels, berthing spaces and passages. Should it be necessary to shift or move dredge pipelines or interrupt dredging operations to accommodate the passage of vessels, the Contractor's equipment shall be promptly moved on approach of the vessel to afford the necessary passage.

1.6 CONTRACTOR'S EQUIPMENT

- A. The Contractor shall supply the proper equipment to meet all the requirements of the project. The equipment shall be kept in good condition for efficient operation at all times and shall be manned by competent personnel. All equipment and personnel will be subject to the Owner's approval.

All scows shall be kept in good condition. Where dump scows are used, the pockets shall be provided with proper doors and appliances which will prevent leakage of material. All pipelines for transportation of materials shall be maintained with tight joints between sections of pipe and any leaks or breaks in the pipeline shall be promptly and properly repaired.

1.7 INSPECTION AND SAMPLING

- A. The work of the Contractor will be continuously inspected by the Owner or their representative, but this inspection will not relieve the Contractor of responsibility for proper execution of the work in accordance with the drawings and specifications. To facilitate the inspection, the Contractor shall furnish on request of the Owner, the use of such boats, operators, laborers and material forming a part of the ordinary and usual equipment or crew of the Contractor's plant as may be necessary for inspecting and supervising the work.

1.8 SURVEY AND CONTROL POINTS

- A. The Owner will give to the Contractor a project drawing with one benchmark at the project site referenced to local Mean Low Water, Delaware River Datum. Elevations to be determined by the Contractor shall be referred to this benchmark.
- B. The Contractor shall establish, furnish and set survey points, ranges, markers or buoys for control of all phases of the work. The Owner's Representative shall be present to verify all survey work for establishing controls.
- C. No specific payment will be made for any labor, material, or equipment required by the Contractor to perform the necessary survey work. This work shall be

considered a subsidiary item to other items of this contract and the cost to perform this work shall be included in the contract price.

(END OF SECTION 1.0)

SECTION 2.0

DREDGING PROVISIONS AND CONTROLS

2.1 SCOPE OF WORK

- A. The work under this section shall include the furnishing of all labor, materials, plant, equipment and services to perform Maintenance Dredging at any or all the ship berths as may be required during the effective time of the Contract.

2.2 GENERAL PROCEDURE

- A. The Contractor shall remove all materials within the limits shown on the Project Drawing including any and all materials of soil or non-soil nature. All materials removed during any phase of the dredging shall be disposed of by the Contractor at sites not on the Owner's property at the sole expense of the Contractor.
- B. Dredged material shall be disposed of by barge, and shall be transported to, and deposited on, approved dumping sites or disposal areas to be provided by the Contractor at his expense.
- C. Pier No. 1 at the north end of Broadway Terminal shall be dredged within the area indicated on Drawings, as listed in Specification Section 1.0, as prepared by S. T. Hudson Engineers, Inc. There is a 25 foot "no dredge zone" outshore of Pier 1. The dredge area for Pier 1A is directly outshore of the length of the pier and approximately 100 feet upriver of the pier. Payment dredging of Pier 1A will be made for removal of material down to 40 feet plus two feet of overdepth. The Contractor should be aware that Pier 5 is a former ship dry dock with a concrete floor. The elevation of the concrete floor varies. Payment will be made for all material removed down to 35 feet plus two feet of overdepth. Some areas may be shallower than 37 feet. The Contractor shall take all precautions to ensure that the concrete floor is not damaged by dredging operations. The general dredging depth is shown on the reference drawing.
- D. The three (3) ship berths at Balzano Terminal shall be dredged within the areas generally indicated on Drawings, as listed in Specification Section 1.0, as prepared by S. T. Hudson Engineers, Inc. The dredged depths as shown on the drawing are the general depths of water to be obtained below local Mean Low Water, Delaware River Datum.
- E. Extreme care shall be exercised when performing dredging under this contract to insure that existing pier structures and other appurtenances are not damaged. The Contractor shall take all other precautions necessary to avoid damage to the existing pier structures and appurtenances and shall be responsible for any and all injuries or damages to the same resulting from the prosecution of his work on this contract. The Contractor will repair at his expense and to the satisfaction of the Owner, any

- damage caused by his operations.
- F. Any overdredged areas, which compromised the structural integrity of a pier as, determined by the Engineer shall be backfilled to the design dredge depth as follows.

All fill shall consist of inorganic granular material, free of wood, refuse or other deleterious substances, and shall be sand or sand and gravel, conforming to the following gradation requirements as determined in its final position:

<u>U. S. Standard Sieve Size</u>	<u>Percentage of Dry Weight Passing Designated Sieve Size</u>
6-Inches	One hundred (100%) percent
No. 70	Not more than sixty (60%) percent
No. 200	Not more than eight (8%) percent

2.3 CONTROL AND SURVEY FOR DREDGING OPERATIONS

- A. The Contractor shall establish a common grid system utilizing ranges and/or buoys to control dredging operations. All grid lines shall be parallel and perpendicular to the line of the face of the marginal wharves or piers. The grid lines shall be at a maximum spacing of 50-feet in both directions.

Soundings shall be taken at 25-foot intervals in the inshore/outshore direction and at 50-feet intervals in the upriver/downriver direction. Soundings shall be taken using a continuous recording fathometer of a type approved by the Owner.

- B. During the dredging operation, the Contractor shall establish and maintain accurate tide gages, which can be observed from any part of the project, in order to determine the true depths of water at all times.
- C. The Contractor shall maintain in good order all survey points, ranges, tide boards and any other items necessary to define the project scope and to facilitate inspection. The Contractor will be required to suspend dredging operations at any time when the gages, ranges, survey points or other items essential to establishing of locations and water depths are out of order or cannot be observed because of obstructions or damage.

2.4 PAYMENTS

- A. The Contractor will be paid partial payments as the work progresses for any one dredging operation, as stipulated in the contract. Final payment will be made for each operation after all material has been removed to provide the required depths at the ship berths or piers, all material has been satisfactorily disposed of, the post-dredging survey has been completed, and the required certification from the Contractor has been delivered.

(END OF SECTION 2.0)

SECTION 3.0

WORK REQUIREMENTS & CONDITIONS

3.1 MOBILIZATION AND DEMOBILIZATION

- A. The Contractor will be required to bring all necessary plant and equipment to the site and commence dredging work under each project within five (5) working days after receipt of a directive from South Jersey Port Corporation to perform maintenance dredging at Broadway Terminal or Balzano Terminal. All plant and equipment will be promptly removed from the project site when the dredging for any one project has been satisfactorily completed to the required grades.
- B. One mobilization and demobilization only for each dredging project will be paid for at the unit price quoted under Bid Item No. 1 of the Bid Form.

3.2 DREDGING

- A. Dredging shall be performed when and where directed by the South Jersey Port Corporation. The dredging operation shall commence within five (5) days upon mobilization by the Contractor of the necessary plant and equipment. The Contractor's equipment shall have the capability of removing a minimum of five thousand (5,000) cubic yards of dredged material in any twenty-four (24) hour period. (See Information for Bidders, Page B-6, "Liquidated Damages").
- B. The dredging will be performed in a manner which will preclude any interference with the arrival, berthing or departure of vessels at the Balzano Terminal. The operations of vessels at the terminal will be given priority over dredging operations. No separate or additional payments will be made under any of the Bid Items for any delay or impediment to the dredging operations resulting from the operations of vessels at the terminal facilities.
- C. The prices quoted in this proposal are for maintenance dredging only in the prescribed areas. No new or initial dredging will be done outside the prescribed areas at the unit prices quoted in this proposal. If new or initial dredging is required to be performed outside the prescribed areas, a price adjustment will be negotiated by the South Jersey Port Corporation and the Contractor for such dredging.
- D. Dredging and the disposal of all dredged material shall be in accordance with the Federal and State Dredging Permits, the original copies of which are on file and available at the offices of the South Jersey Port Corporation. The cost of complying with all permit conditions, including the disposal of dredged material will be included in the unit price for dredging as quoted in the Bid Form.

- E. Payment for the quantity of dredging and disposal of dredged material will be on the basis of "SCOW COUNT" measurement in cubic yards.
- F. 2-feet of overdredge beyond the prescribed depth for each area will be recognized as being necessary to insure the required depths of water due to the limitations in the accuracy of the dredging process; however, the Contractor will not be reimbursed for any overdredging exceeding 2-feet.
- G. The payment for dredging and disposal of dredged material will be paid for at the unit price as quoted in the Bid Form.

(END OF SECTION 3.0)

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF LAND USE REGULATION



Mail Code 501-02A, P.O. Box 420, Trenton, New Jersey 08625-0420
 Telephone: (609) 777-0454 or Fax: (609) 777-3656
www.nj.gov/dep/landuse

PERMIT

<p>In accordance with the laws and regulations of the State of New Jersey, the Department of Environmental Protection hereby grants this permit to perform the activities described below. This permit is revocable with due cause and is subject to the limitations, terms and conditions listed below and on the attached pages. For the purpose of this document, "permit" means "approval, certification, registration, authorization, waiver, etc." Violation of any term, condition or limitation of this permit is a violation of the implementing rules and may subject the permittee to enforcement action.</p>		<p>Approval Date June 22, 2018</p> <p>Expiration Date June 21, 2023</p>
Permit Number(s):	Type of Approval(s):	Enabling Statute(s):
0408-18-0001.1 WFD 180001	In-Water Waterfront Development Individual Permit	N.J.S.A. 12:5-3 et seq. N.J.S.A. 58:10A et seq.
Permittee: Kevin Castagnola South Jersey Port Corporation 101 Joseph A. Balzano Blvd. Camden, New Jersey 08103	<p>Site Location:</p> <p>Block(s) & Lot(s): [141, 1] [214, 1] [215, 59] [455, 1] Municipality: Camden City County: Camden</p>	
<p>Description of Authorized Activities:</p> <p>This permit authorizes the South Jersey Port Corporation to conduct initial mechanical maintenance dredging of 82,755 cubic yards and a total maintenance dredging of 200,000 cubic yards from the Delaware River over the five-year term of this permit at the Balzano Terminal and Broadway Terminal in Camden City, Camden County. The material will be transported to the Whites Basin Dredge Material Rehandling Basin located in Logan Township, Gloucester County and will be hydraulically pumped into one of the adjacent upland confined disposal facilities for final placement as stipulated in the Acceptable Use Determination (AUD) below. Additionally, this permit authorizes maintenance repairs described on page 2 of this permit. All work is illustrated on the plans referenced on the last page of this permit.</p> <p>Please note that this authorization specifically excludes all proposed dredged material from Pier 1A.</p> <p>This permit is authorized under and in compliance with the Rules on Coastal Zone Management, N.J.A.C. 7:7-1.1 et seq., as amended through April 16, 2018.</p> <p>By issuance of this permit, the State of New Jersey does not relinquish tidelands ownership or claim to any portion of the subject property or adjacent properties.</p> <p>This permit includes the State's Water Quality Certification pursuant to Section 401 of the Federal Water Pollution Control Act (33 USC 1251 et seq.).</p>		
<p>Prepared by: Jeff Thein</p>	<p>Received and/or Recorded by County Clerk:</p>	
<p>If the permittee undertakes any regulated activity authorized under a permit, such action shall constitute the permittee's acceptance of the permit in its entirety as well as the permittee's agreement to abide by the permit and all conditions therein.</p>		
<p>This permit is not valid unless authorizing signature appears on the last page.</p>		

AUTHORIZED MAINTENACE REPAIRS:**Balzano Terminal:**

Berth 1: Riprap Stabilization;
Berth 2: Cathodic Protection System Repair, Re-secure thirty (30) loose fender piles, and replace broken V-Fender;
Berth 3: Cathodic Protection System Repair. Replace five (5) broken or missing composite fender piles. Replace two (2) broken or missing V-Fenders. Re-secure twenty-five (25) loose fender piles. Repair spalled concrete beam. Repair cracked and broken concrete fascia beam. Repair cracked concrete cap at pony bent;
Berth 4: Cathodic Protection System repair, Replace seventeen (17) broken or missing composite fender piles. Replace three (3) broken or missing V-fenders, Re-secure sixteen (16) loose fender piles. Install "Belly Band" encasement repair for existing steel sheet piling from Cell No. 4 through Cell No. 11 and connecting arcs; and
Berth 4 extension: Cathodic Protection System repair. Replace two (2) broken or missing V-finders.

Broadway Terminal:

Pier 1: Install twelve (12) 12-inch auxiliary steel front-row bearing H-piles under the face of the existing Pier 1 seawall to reinforce and stabilize the wall, replacing the older front-row timber piles which are either broken or missing. Replace 300 square feet of rotten deck timbers;
Pier 1A: Install four (4) pile encasements for the cracked concrete piles and refasten six (6) fender units;
Pier 5: Cathodic Protection System Repair and refasten ten (10) fender units; and
Pier 6: Rip-rap stabilization.

STANDARD CONDITIONS:

1. The issuance of a permit shall in no way expose the State of New Jersey or the Department to liability for the sufficiency or correctness of the design of any construction or structure(s). Neither the State nor the Department shall, in any way, be liable for any loss of life or property that may occur by virtue of the activity or project conducted as authorized under a permit.
2. The issuance of a permit does not convey any property rights or any exclusive privilege.
3. The permittee shall obtain all applicable Federal, State, and local approvals prior to commencement of regulated activities authorized under a permit.
4. A permittee conducting an activity involving soil disturbance, the creation of drainage structures, or changes in natural contours shall obtain any required approvals from the Soil Conservation-District having jurisdiction over the site.
5. The permittee shall take all reasonable steps to prevent, minimize, or correct any adverse impact on the environment resulting from activities conducted pursuant to the permit, or from noncompliance with the permit.
6. The permittee shall immediately inform the Department by telephone at (877) 927-6337 (Warn DEP Hotline) of any noncompliance that may endanger the public health, safety, and welfare, or the environment. In addition, the permittee shall inform the Division of Land Use Regulation by telephone at (609) 777-0454 of any other noncompliance within two working days of the time the permittee becomes aware of the noncompliance, and in writing within five working days of the time the permittee becomes aware of the noncompliance. Such notice shall not, however, serve as a defense to enforcement action if the project is found to be in violation of this chapter. The written notice shall include:

- a. A description of the noncompliance and its cause;
 - b. The period of noncompliance, including exact dates and times;
 - c. If the noncompliance has not been corrected, the anticipated length of time it is expected to continue; and
 - d. The steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
7. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the authorized activity in order to maintain compliance with the conditions of the permit.
 8. The permittee shall employ appropriate measures to minimize noise where necessary during construction, as specified in N.J.S.A. 13:1G-1 et seq. and N.J.A.C. 7:29.
 9. The issuance of a permit does not relinquish the State's tidelands ownership or claim to any portion of the subject property or adjacent properties.
 10. The issuance of a permit does not relinquish public rights to access and use tidal waterways and their shores.
 11. The permittee shall allow an authorized representative of the Department, upon the presentation of credentials, to:
 - a. Enter upon the permittee's premises where a regulated activity is located or conducted, or where records must be kept under the conditions of the permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit; and
 - c. Inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. Failure to allow reasonable access under this paragraph shall be considered a violation of this chapter and subject the permittee to enforcement action.
 12. The permittee and its contractors and subcontractors shall comply with all conditions, site plans, and supporting documents approved by the permit. Any noncompliance with a permit constitutes a violation of this chapter and is grounds for enforcement action under, as well as, in the appropriate case, suspension and/or termination of the permit.
 13. All conditions, site plans, and supporting documents approved by a permit shall remain in full force and effect so long as the regulated activity or project, or any portion thereof, is in existence, unless the permit is modified.
 14. For Coastal Permits, Flood Hazard Permits and Flood Hazard Verifications, the permittee shall record the permit, including all conditions listed therein, with the Office of the County Clerk (the Registrar of Deeds and Mortgages, if applicable) of each county in which the site is located. The permit shall be recorded within 30 calendar days of receipt by the permittee, unless the permit authorizes activities within two or more counties, in which case the permit shall be recorded within 90 calendar days of receipt. Upon completion of all recording, a copy of the recorded permit shall be forwarded to the Division of Land Use Regulation at the address set forth in the rules.
 15. If any condition or permit is determined to be legally unenforceable, modifications and additional conditions may be imposed by the Department as necessary to protect public health, safety, and welfare, or the environment.

16. A copy of the permit and all approved site plans and supporting documents shall be maintained at the site at all times and made available to Department representatives or their designated agents immediately upon request.
17. A permit shall be transferred to another person only in accordance with the regulations.
18. A permit can be suspended or terminated by the Department for cause.
19. The submittal of a request to modify a permit by the permittee, or a notification of planned changes or anticipated noncompliance, does not stay any condition of a permit.
20. Where the permittee becomes aware that it failed to submit any relevant facts in an application, or submitted incorrect information in an application or in any report to the Department, it shall promptly submit such facts or information.
21. The permittee shall submit written notification to the Bureau of Coastal and Land Use Compliance and Enforcement, 401 East State Street, 4th Floor, P.O. Box 420, Mail Code 401-04C, Trenton, NJ 08625, at least three working days prior to the commencement of regulated activities.
22. The permittee shall not cause or allow any unreasonable interference with the free flow of a regulated water by placing or dumping any materials, equipment, debris, or structures within or adjacent to the channel while the regulated activity(ies) is being undertaken. Upon completion of the regulated activity(ies), the permittee shall remove and dispose of in a lawful manner, all excess materials, debris, equipment, and silt fences and other temporary soil erosion and sediment control devices from all regulated areas.
23. The regulated activity shall not destroy, jeopardize, or adversely modify a present or documented habitat for threatened or endangered species, and shall not jeopardize the continued existence of any local population of a threatened or endangered species.

DREDGING SPECIFIC CONDITIONS:

1. The depth of dredging and initial volume of dredging shall be limited to the following:

Balzano Terminal	Design Depth	Volume
Berth 2	30 feet MLW + 2 foot overdredge	23,466 cy
Berth 3	35 feet MLW + 2 foot overdredge	14,355 cy
Berth 4	40 feet MLW + 2 foot overdredge	14,628 cy
Broadway Terminal	Design Depth	
Pier 1	32 feet MLW + 2 foot overdredge	18,394 cy
Pier 5	35 feet MLW + 2 foot overdredge	11,912 cy
Total		82755 cy

2. Dredging and all in-water work involving authorized maintenance and repairs noted on page 2 of this permit are prohibited **March 1st through June 30th** of any given year to protect anadromous fish, Atlantic and Shortnose Sturgeon.
3. The dredge shall be operated so as to control the rate of descent of the bucket so as to maximize the vertical cut of the clamshell bucket while not penetrating the sediment beyond the vertical

dimension of the open bucket (i.e. overfilling the bucket). This will reduce the amount of free water in the dredged material, will avoid overfilling the bucket, and minimize the number of dredge bucket cycles needed to complete the dredging contract. The dredging contractor shall use appropriate software and sensors on the dredging equipment to ensure consistent compliance with this condition during the entire dredging operation.

4. A closed clamshell environmental bucket shall be used except for large rocks or debris.
5. The closed clamshell environmental bucket shall be lifted slowly through the water, at a rate of 2 feet per second or less.
6. Dredged material shall be placed deliberately in the barge in order to prevent spillage of material overboard.
7. A "No Barge Overflow" applies to the dredging of Maintenance/Holocene sediments.
8. All barges or scows used to transport sediment shall be of solid hull construction or be sealed with concrete.
9. The gunwales of the dredge scows shall not be rinsed or hosed during dredging except to the extent necessary to ensure the safety of workers maneuvering on the dredge scow.
10. All decant water holding scows shall be water tight and of solid hull construction.
11. REPORTING REQUIREMENTS: At the completion of this contract, the permittee shall submit the following information to the Department. This information shall be submitted within six months of contract completion.
 - Start and finish date of contract
 - Post-dredge hydrographic survey

ACCEPTABLE USE DETERMINATION (AUD):

1. This permit authorizes the initial placement of eighty-two thousand seven hundred and fifty-five cubic yards (82,755 cy) and a total of two hundred thousand cubic yards (200,000 cy) of dredged material over the five-year term of this permit at the Whites Basin Dredge Material Rehandling Basin located in Logan Township, Gloucester County. Subsequently, the dredged material will be hydraulically pumped into one of the adjacent upland confined disposal facilities for final placement.
2. Additional sediment sampling shall be required prior to each subsequent dredging event. Subsequent to the initial dredging event and prior to each subsequent dredging event, the permittee shall obtain an approved sampling plan, associated sediment sampling results, and a modification to this Acceptable Use Determination from the Office of Dredging and Sediment Technology.
3. Management of dredged material authorized by this permit shall comply with the conditions specified in the Waterfront Development Permit/Water Quality Certificate/Acceptable Use Determination issued on February 24, 2014 and any subsequent modification thereto.
4. If the permittee elects to dispose/use the dredged material from this project at an alternate location, written authorization must be obtained from the Office of Dredging and Sediment

Technology prior to the transport of any dredged material to said alternative disposal/use location. Any alternate disposal/use location must obtain all required state, local and federal permits before the Office would grant a modification of this permit to transport dredged material to the alternate location.

APPROVED PLANS:

The drawings hereby approved are seventeen (17) sheets prepared by S.T. Hudson Engineers, Inc., all dated February 16, 2018, unrevised and entitled:

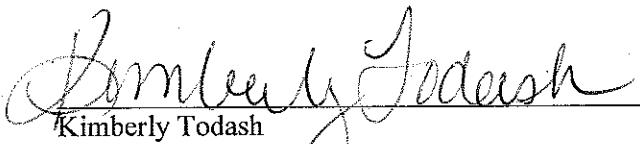
"Maintenance Dredging and Maintenance Repairs, Balzano Marine Terminal, Camden, NJ, Camden County, South Jersey Port Corporation", Drawings 1 through 8; and

"Maintenance Dredging and Maintenance Repairs, Broadway Terminal - Camden, NJ, Camden County, South Jersey Port Corporation", Drawing 2 and Drawings 4 through 11.

In accordance with the applicable regulations, any person who is aggrieved by this decision or any of the conditions of this permit may request an adjudicatory hearing within 30 calendar days after public notice of the decision is published in the DEP Bulletin. This request must include a completed copy of the Adjudicatory Hearing Request form. The DEP Bulletin is available through the Department's website at <http://www.nj.gov/dep/bulletin> and the form is available through the Division's website at http://www.nj.gov/dep/landuse/download/lur_024.pdf. In addition to requesting a hearing, a request may be filed with the Department's Office of Dispute Resolution to determine whether the matter is suitable for mediation. Information concerning the dispute resolution process is available at www.nj.gov/dep/odr.

If you need clarification on any section of this permit or conditions, please contact the Division of Land Use Regulation's Technical Support Call Center at (609) 777-0454.

Approved By:


Kimberly Todash
Environmental Specialist 4
Division of Land Use Regulation

6/22/18
Date

Original sent to Agent to record

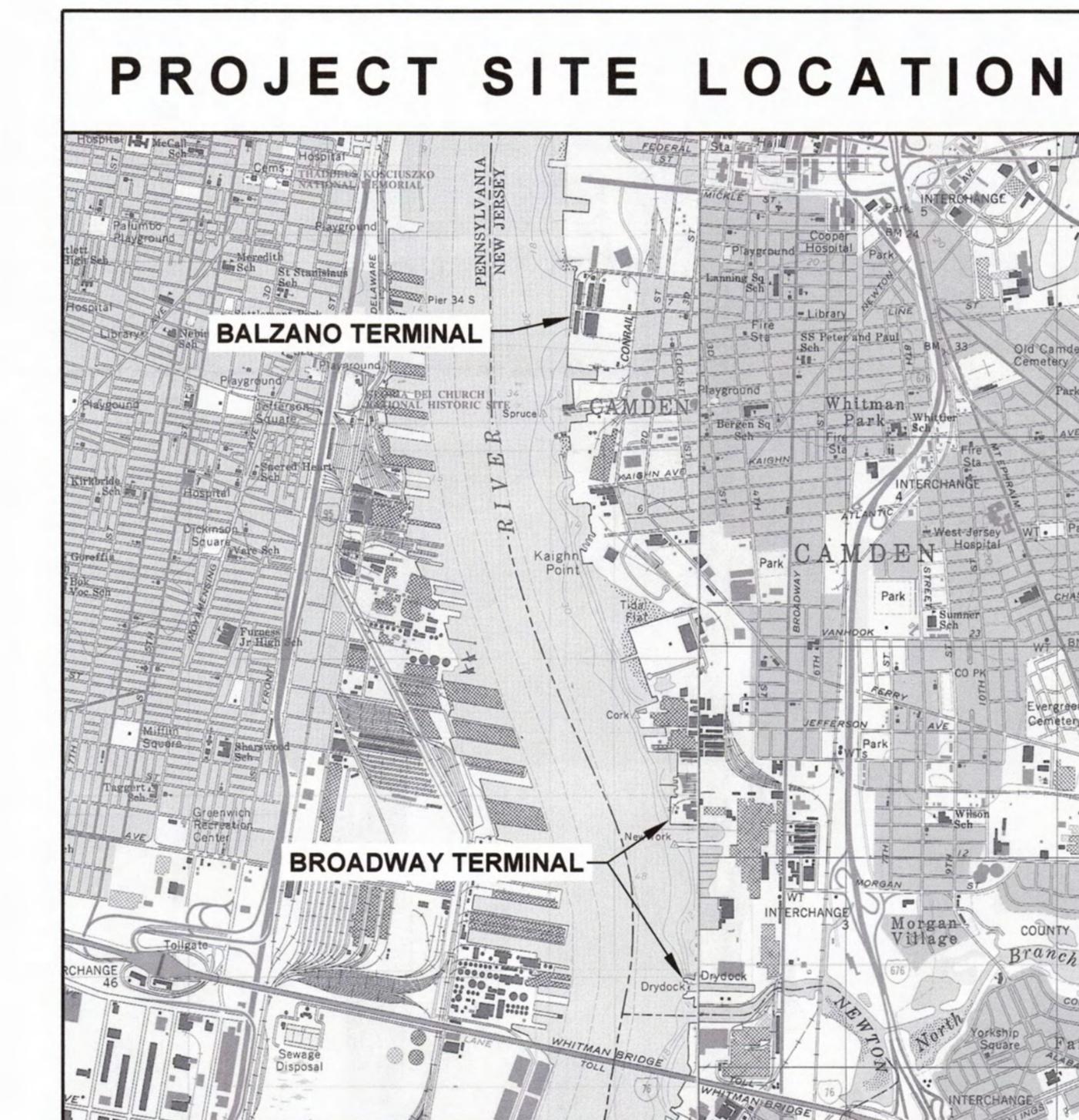
c: Permittee
Camden City Construction Official
Trent Todash, Bureau of Coastal and Land Use Enforcement - Trenton
Eric Dickerson, Weeks Marine, Inc., 901 Beach Street, Camden, NJ 08102

SOUTH JERSEY PORT CORPORATION

BROADWAY TERMINAL AND JOSEPH A. BALZANO TERMINAL

CAMDEN, NEW JERSEY

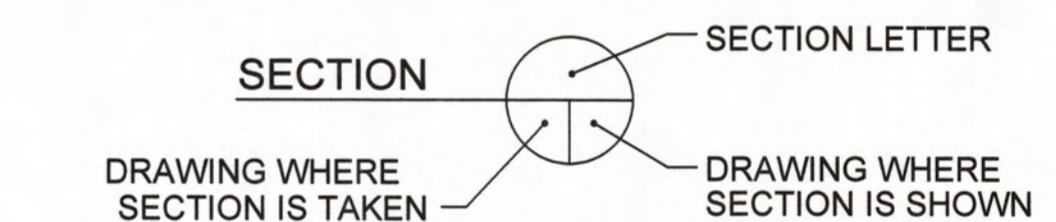
MAINTENANCE DREDGING



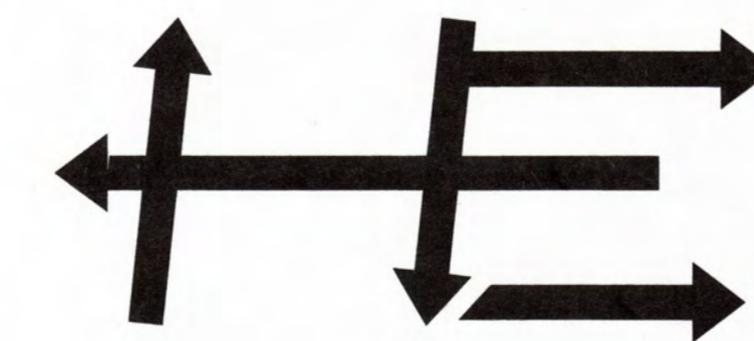
LIST OF DRAWINGS:

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CROSS REFERENCE LEGEND



PREPARED BY

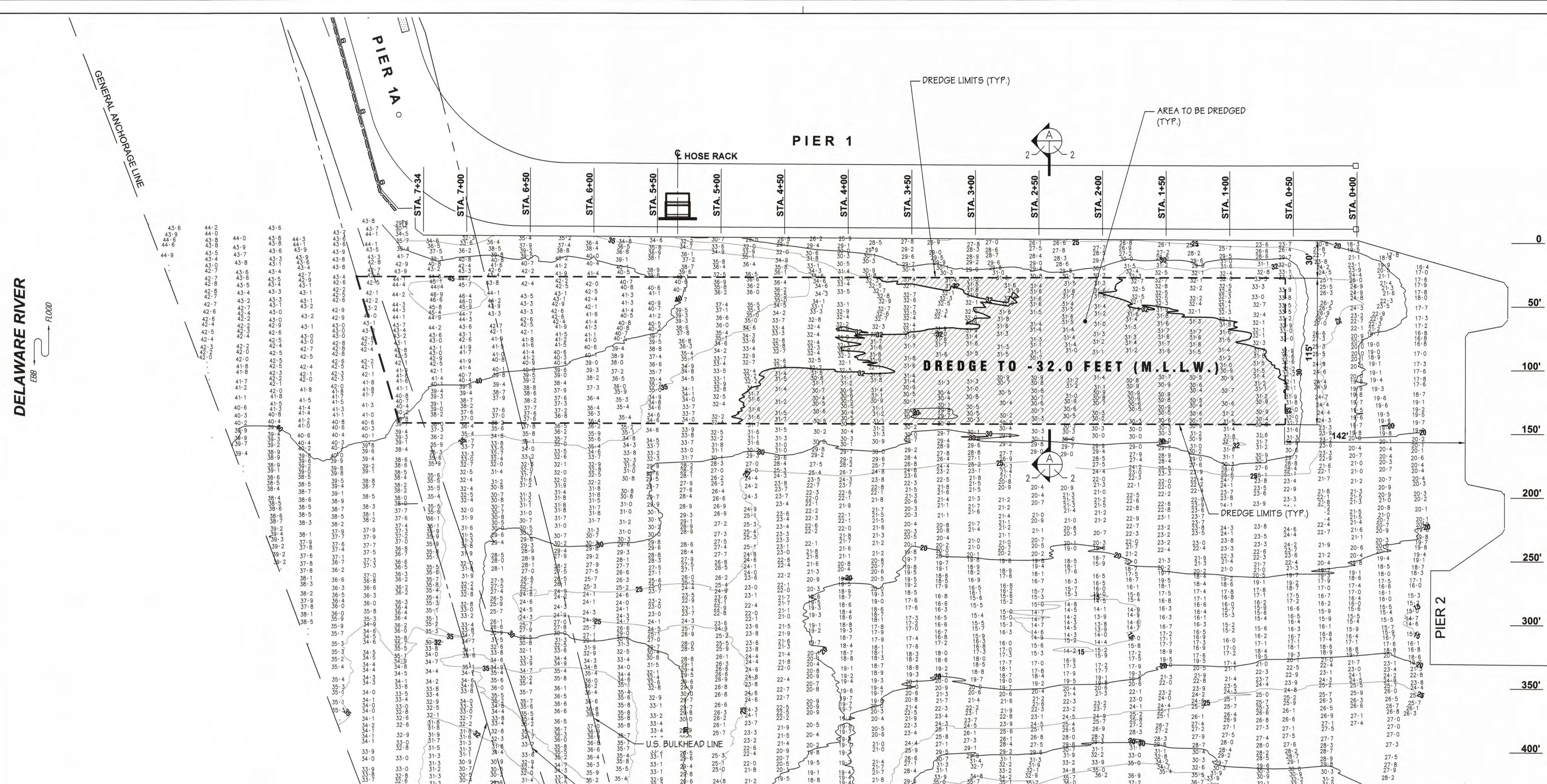


S.T. HUDSON ENGINEERS, INC.
PROFESSIONAL ENGINEERS & CONSULTANTS

"Drawings issued in electronic form are provided for the convenience of the recipient and are used at the sole risk of the user. Reliance may be placed only on hard copies of drawings issued by S.T. Hudson Engineers. In the event of any discrepancy, the hard copy will govern."

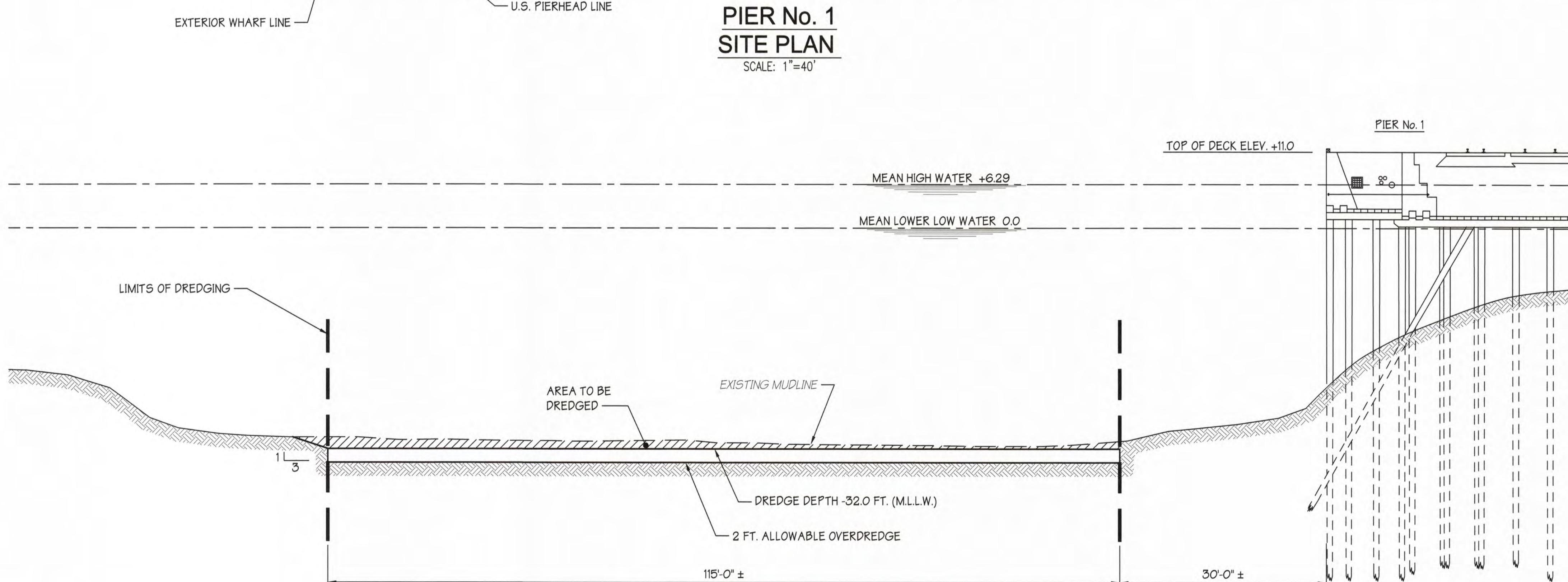
APPROVALS		
approved by	for	date
BW	BIDDING	7/12/22
<i>[Signature]</i>		
S.T. HUDSON ENGINEERS, INC. PROFESSIONAL ENGINEERS & CONSULTANTS 900 Dudley Avenue Cherry Hill, NJ 08002 Phone No. 856-342-6600 Fax No. 856-342-6323		
SOUTH JERSEY PORT CORPORATION BROADWAY & BALZANO TERMINALS CAMDEN, NEW JERSEY		
drawn	STAFF	date 7/12/2022 contract
checked	BW	FILE Sp-1535 22-050-05
drftg.	TK	
BROADWAY & BALZANO TERMINALS - MAINTENANCE DREDGING dwg. no. rev.		
TITLE SHEET 1 of 6 A		

ANTONY M. SEPPIASCONE
N.J.C. No. G54004



HYDROGRAPHIC SURVEY NOTES:

- HORIZONTAL CONTROL IS BASED ON NEW JERSEY STATE PLANE COORDINATES, NAD83, AS ESTABLISHED IN THE FIELD AND SOLELY FOR THE USE OF THIS HYDROGRAPHIC SURVEY.
- VERTICAL CONTROL WAS OBTAINED FROM KEYNET GPS (TRIMBLE VIRTUAL REVERENCE STATION NETWORK) REAL-TIME KINEMATIC (RTK) CORRECTIONS TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- ALL SOUNDINGS WERE TAKEN USING TRIMBLE SPS855 DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS) WITH FIXED RTK, HYPACK MAX SOFTWARE AND AN TELEDYNE ODOM HYDROTRAC CONTINUOUS RECORDING FATHOMETER.
- SOUNDINGS WERE TAKEN ON WEDNESDAY, JANUARY 26, 2022
- THE DECIMAL POINT (.) DENOTES THE SOUNDING LOCATION.
- SOUNDINGS ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW) AND EXPRESSED IN FEET AND TENTHS OF A FOOT.
- CONTOURS WERE INTERPOLATED WITH TRIMBLE NAVIGATION LIMITED SOFTWARE, TERRAMODEL VERSION 10.11.
- CROSS HATCHING INDICATES AREAS THAT ARE ABOVE THE SPECIFIED MINIMUM DREDGE DEPTH.
- CHANNEL LOCATION LINES WERE OBTAINED FROM THE UNITED STATES ARMY CORPS OF ENGINEERS.
- THE INFORMATION DEPICTED IN THIS DRAWING REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.



PIER No. 1
SECTION

SCALE: 1"=10'

PROPOSED DREDGE AREA:
PIER 1 = 33,929 SQ. FT.

PROPOSED VOLUME OF DREDGE MATERIAL:
PIER 1 = 6,582 CUBIC YARDS

DATUM CHART

MEAN HIGH WATER	+6.29
NAYD88	+3.10
MEAN LOWER LOW WATER	0.0

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S.T. HUDSON ENGINEERS, INC.
PROFESSIONAL ENGINEERS & CONSULTANTS

901 Bradley Avenue
Chester Hill, NJ 08012
Phone No. 856-342-6600
Fax No. 856-342-8323

approvals	by	date
approved by	BW	BIDDING
for		7/12/22
date		

STAMP SECTION

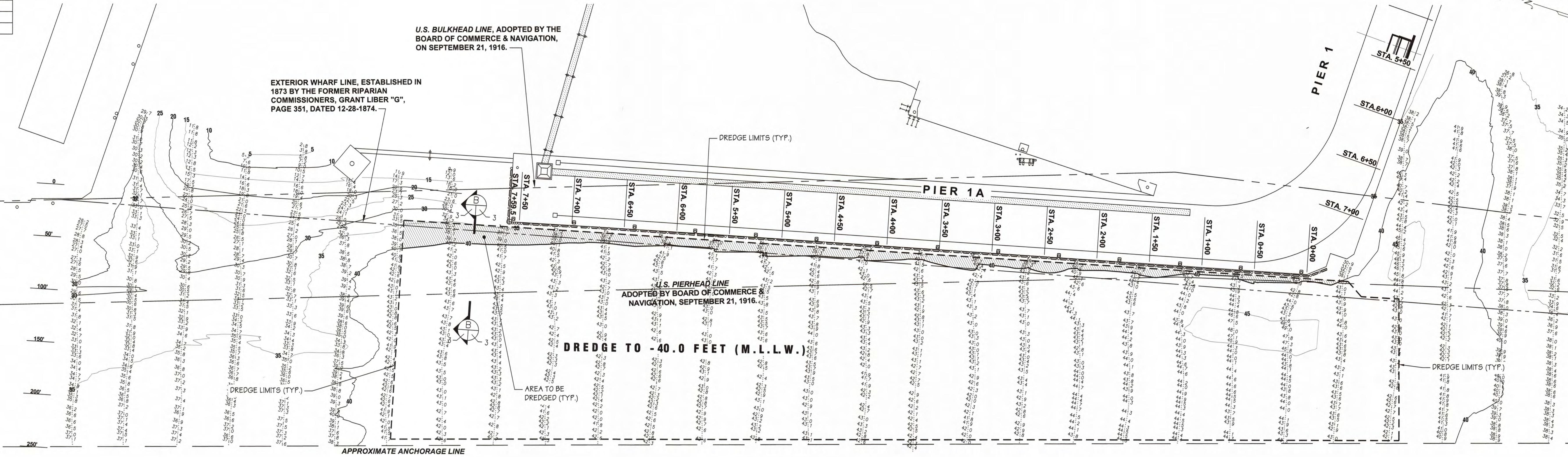
STATE OF NEW JERSEY
No. GE54004
APPROVED FOR PUBLIC RELEASE
BY THE
NEW JERSEY PORT CORPORATION
PROFESSIONAL ENGINEERS
ANTHONY J. DESPAJULE, P.E.
N.J. Lic. No. 063404

BROADWAY TERMINAL
CAMDEN, NEW JERSEY 08104

date 7/12/2022
checked by BW FILE Sp-153
drftg. approval TK date 22-050-05

BROADWAY TERMINAL - PIER 1 dwg. no. rev.

Maintenance Dredging 2 of 6 A



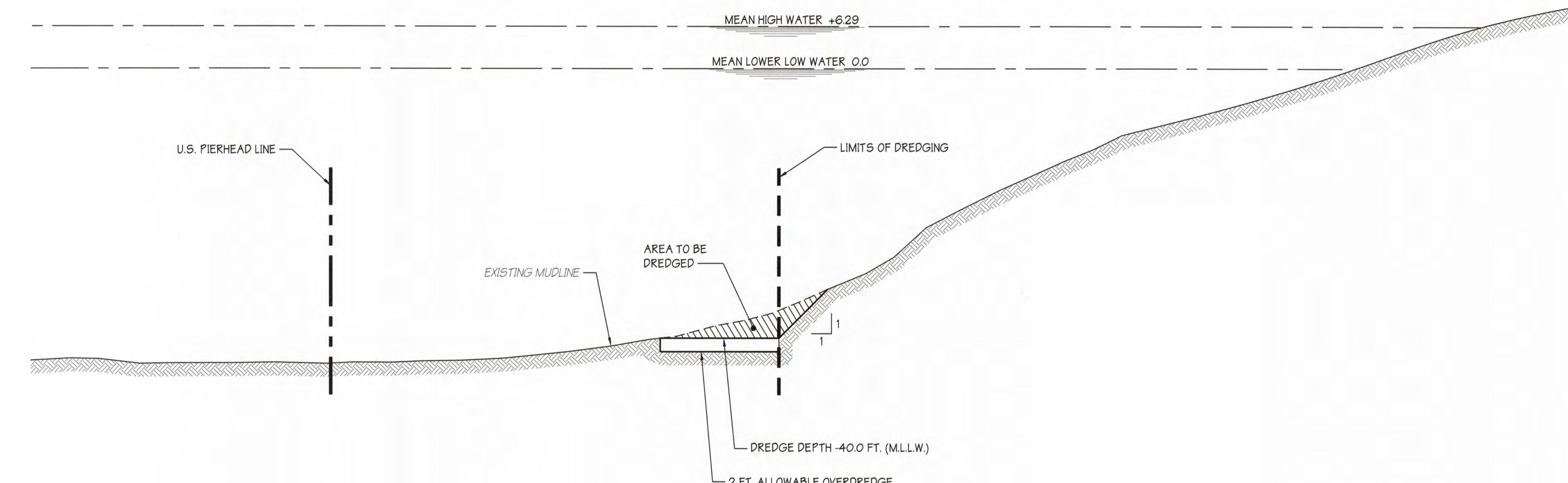
DELAWARE RIVER

FLOOD → EBB

PIER No. 1A

SITE PLAN

SCALE: 1"=40'



PIER No. 1A

SECTION

SCALE: 1"=10'

3 3

HYDROGRAPHIC SURVEY NOTES:

- HORIZONTAL CONTROL IS BASED ON NEW JERSEY STATE PLANE COORDINATES, NAD83, AS ESTABLISHED IN THE FIELD AND SOLELY FOR THE USE OF THIS HYDROGRAPHIC SURVEY.
- VERTICAL CONTROL WAS OBTAINED FROM KEYNET GPS (TRIMBLE VIRTUAL REVERENCE STATION NETWORK) REAL-TIME KINEMATIC (RTK) CORRECTIONS TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- ALL SOUNDINGS WERE TAKEN USING TRIMBLE SPS855 DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS) WITH FIXED RTK, HYPACK MAX SOFTWARE AND AN TELEDYNE ODOM HYDROTRAC CONTINUOUS RECORDING SURVEY FATHOMETER.
- SOUNDINGS WERE TAKEN ON WEDNESDAY JANUARY 26, 2022.
- THE DECIMAL POINT (.) DENOTES THE SOUNDING LOCATION.
- SOUNDINGS ARE REFERENCED TO MEAN LOWER LOW WATER (M.L.L.W.) AND EXPRESSED IN FEET AND TENTHS OF A FOOT.
- CONTOURS WERE INTERPOLATED WITH TRIMBLE NAVIGATION LIMITED SOFTWARE, TERRAMODEL VERSION 10.11.
- CROSS HATCHING INDICATES AREAS THAT ARE ABOVE THE SPECIFIED MINIMUM DREDGE DEPTH.
- CHANNEL LOCATION LINES WERE OBTAINED FROM THE UNITED STATES ARMY CORPS OF ENGINEERS.
- THE INFORMATION DEPICTED IN THIS DRAWING REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

PROPOSED DREDGE AREA:

PIER 1A = 8,293 SQ. FT.

PROPOSED VOLUME OF DREDGE MATERIAL:

PIER 1A = 3,027 CUBIC YARDS

DATUM CHART

MEAN HIGH WATER +6.29

NAV208 +3.10

MEAN LOWER LOW WATER 0.0

APPROVALS		
approved by	for	date
BW	BIDDING	7/12/22

DRAWN BY: STAFF: date: 7/12/2022 contract: S.T. HUDSON ENGINEERS, INC.
PROFESSIONAL ENGINEERS & CONSULTANTS
900 Dudley Avenue
Cherry Hill, NJ 08002
Phone No. 856-342-6600
Fax No. 856-342-8523

checked by: STAFF: date: 7/12/2022 FILE: Sp-1535

checked by: STAFF: date: 7/12/2022 contract: BROADWAY TERMINAL - PIER 1A dwg. no. rev. 22-050-05

checked by: STAFF: date: 7/12/2022 FILE: Sp-1535

drawn by: STAFF: date: 7/12/2022 contract: BROADWAY TERMINAL - PIER 1A dwg. no. rev. 3 of 6

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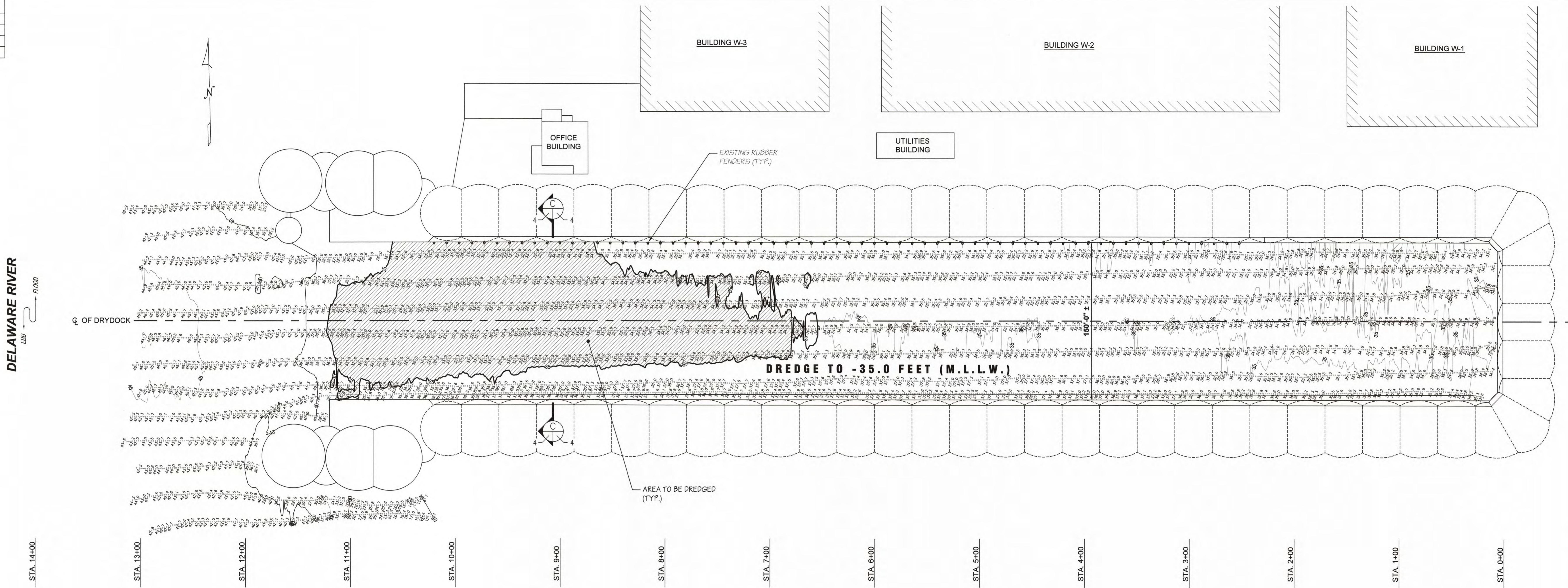
S.T. HUDSON ENGINEERS, INC.
PROFESSIONAL ENGINEERS & CONSULTANTS
900 Dudley Avenue
Cherry Hill, NJ 08002
Phone No. 856-342-6600
Fax No. 856-342-8523

BROADWAY TERMINAL
CAMDEN, NEW JERSEY 08104

ANTHONY J. GERASOLE
NJ Lic. No. GES4004

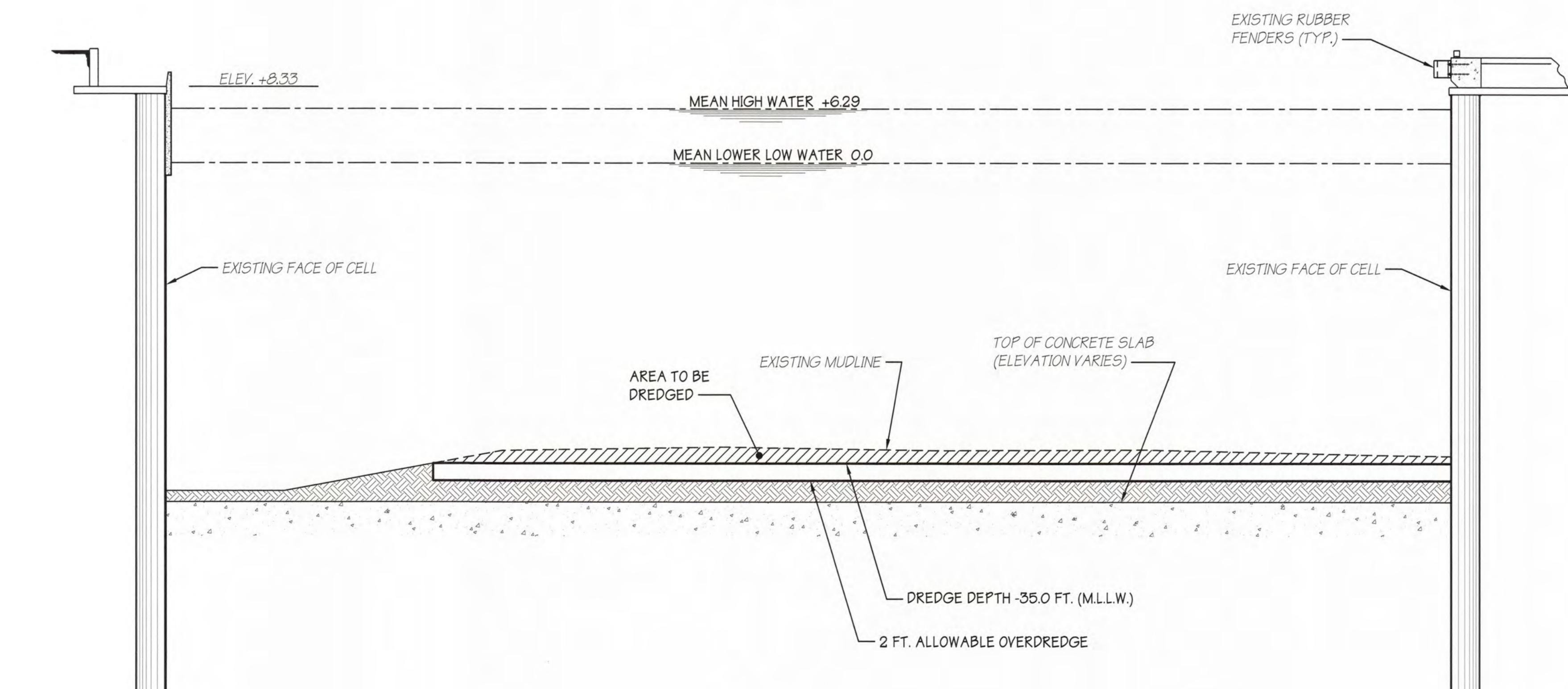
SOUTH JERSEY PORT CORPORATION
BROADWAY TERMINAL
CAMDEN, NEW JERSEY 08104

MAINTENANCE DREDGING 3 of 6



PIER No. 5
SITE PLAN

SCALE: 1"=40'

**HYDROGRAPHIC SURVEY NOTES:**

- HORIZONTAL CONTROL IS BASED ON NEW JERSEY STATE PLANE COORDINATES, NAD83, AS ESTABLISHED IN THE FIELD AND SOLELY FOR THE USE OF THIS HYDROGRAPHIC SURVEY.
- VERTICAL CONTROL WAS OBTAINED FROM KEYNET GPS (TRIMBLE VIRTUAL REVERENCE STATION NETWORK) REAL-TIME KINEMATIC (RTK) CORRECTIONS TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- ALL SOUNDINGS WERE TAKEN USING TRIMBLE SPS855 DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS) WITH FIXED RTK-HYPACK MAX SOFTWARE AND AN TELEDYNE ODOM HYDROTAC CONTINUOUS RECORDING SURVEY FATHOMETER.
- SOUNDINGS WERE TAKEN ON MONDAY, APRIL 4, 2022.
- THE DECIMAL POINT (.) DENOTES THE SOUNDING LOCATION.
- SOUNDINGS ARE REFERENCED TO MEAN LOWER LOW WATER (M.L.L.W.) AND EXPRESSED IN FEET AND TENTHS OF A FOOT.
- CONTOURS WERE INTERPOLATED WITH TRIMBLE NAVIGATION LIMITED SOFTWARE, TERRAMODEL VERSION 10.11.
- CROSS HATCHING INDICATES AREAS THAT ARE ABOVE THE SPECIFIED MINIMUM DREDGE DEPTH.
- CHANNEL LOCATION LINES WERE OBTAINED FROM THE UNITED STATES ARMY CORPS OF ENGINEERS.
- THE INFORMATION DEPICTED IN THIS DRAWING REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

PIER No. 5
SECTION

SCALE: 1"=10'

PROPOSED DREDGE AREA:

PIER 5 = 45,000 SQ. FT.

PROPOSED VOLUME OF DREDGE MATERIAL:

PIER 5 = 11,817 CUBIC YARDS

DATUM CHART

MEAN HIGH WATER	+6.29
NAVD88	+3.10
MEAN LOWER LOW WATER	0.0

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S.T. HUDSON ENGINEERS, INC.
PROFESSIONAL ENGINEERS & CONSULTANTS

900 Dudley Avenue
Cherry Hill, NJ 08002
Phone No. 856-342-6600
Fax No. 856-342-8323

SOUTH JERSEY PORT CORPORATION
BROADWAY TERMINAL
CAMDEN, NEW JERSEY 08104

drawn STAFF date 7/12/2022 contract

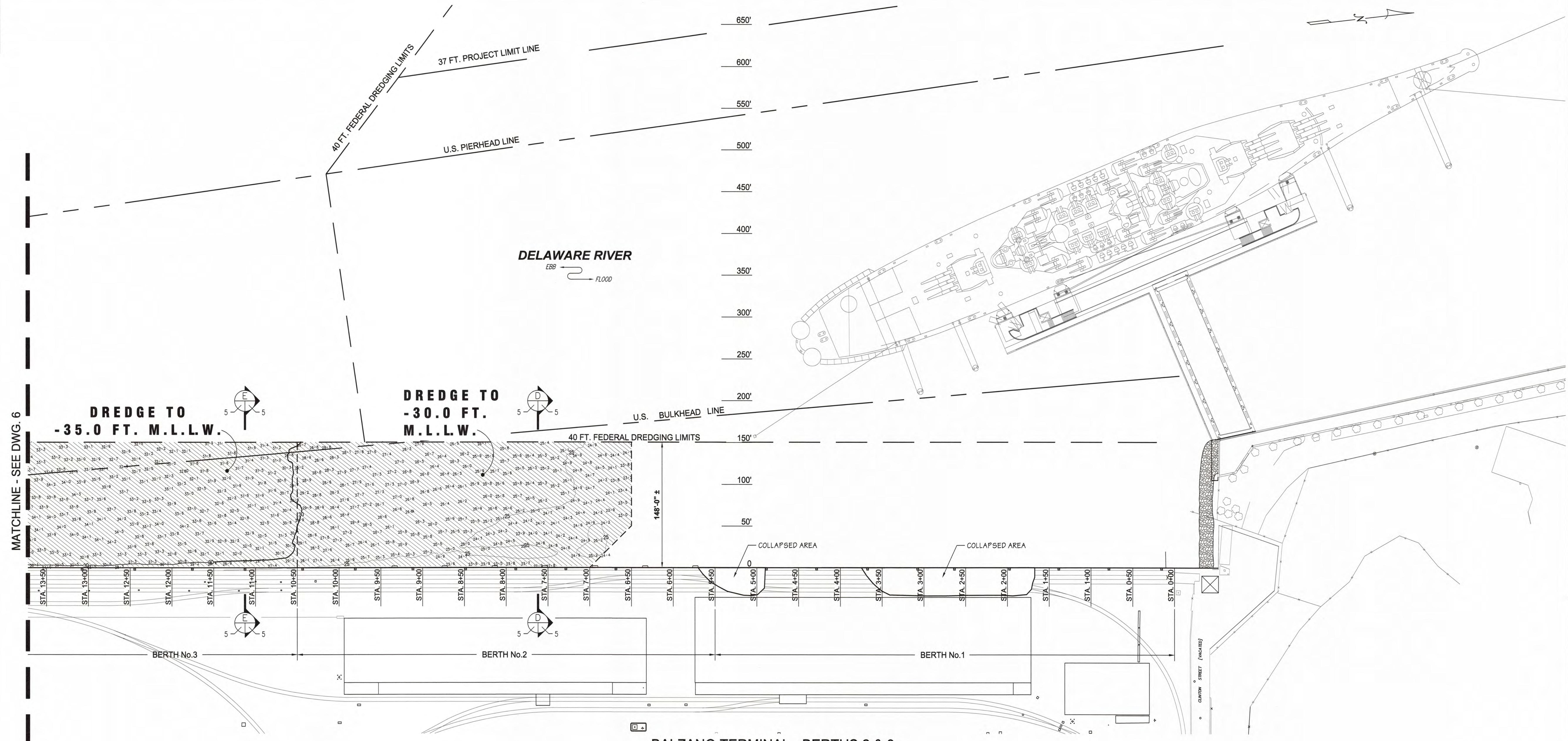
checked BN FILE Sp-1535

drftg. approval IK

BROADWAY TERMINAL - PIER 5 dwg. no. rev.

MAINTENANCE DREDGING

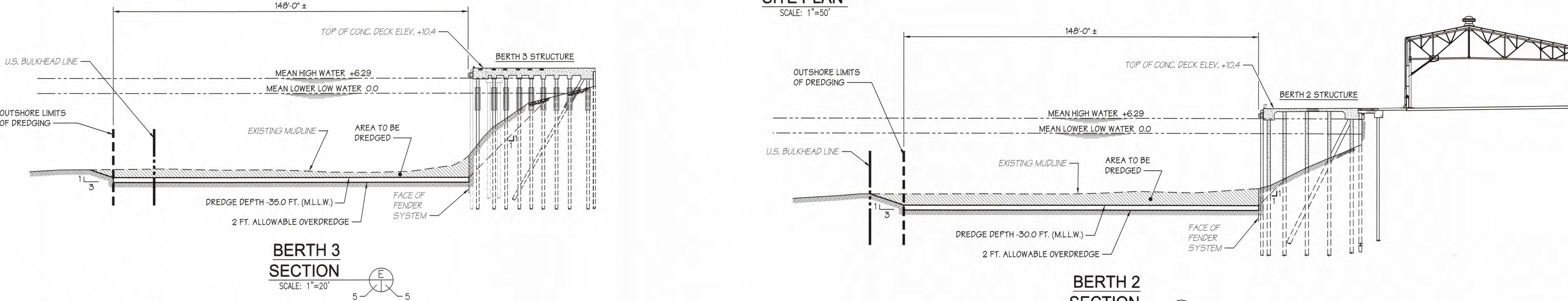
4 of 6 A



BALZANO TERMINAL - BERTHS 2 & 3

SITE PLAN

SCALE: 1'=50'



MULTIBEAM HYDROGRAPHIC SURVEY NOTES:

- ALL SOUNDINGS WERE CONDUCTED USING:
 - APPLANIX POS MV 120 NAVIGATION MOTION SENSOR FOR POSITIONING, HEADING, ATTITUDE, HEAVE AND VELOCITY, CLENDING GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) WITH AN INERTIAL MEASUREMENT UNIT (IMU) AND GPS AZIMUTH MEASUREMENT SYSTEM (GAMS), AND APPLANIX POSPAC MMS (MOBILE MAPPING SUITE)
 - R2SONIC 2024 (200kHz – HIGH RESOLUTION) MULTIBEAM SONAR SYSTEM UNIT
 - VALEPORT miniSVS (SOUND VELOCITY SENSOR) LOCATED AT THE SONAR HEAD MOUNT
 - SONTEK CASTAWAY CTD (CONDUCTIVITY, TEMPERATURE, AND DEPTH) FOR SOUND VELOCITY CAST
- SOUNDINGS WERE CONDUCTED ON WEDNESDAY JANUARY 26, 2022
- THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

4. SOUNDINGS ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
5. HORIZONTAL CONTROL IS BASED ON NEW JERSEY (2900) STATE PLANE COORDINATES NAD83, AS ESTABLISHED IN THE FIELD AND SOLELY FOR THE USE OF THIS HYDROGRAPHIC SURVEY.
6. VERTICAL CONTROL WAS OBTAINED FROM KEYNET GPS (TRIMBLE VIRTUAL REFERENCE STATION [VRS] NETWORK) REAL-TIME KINEMATIC (RTK) CORRECTIONS TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), AND CONVERTED TO MEAN LOWER LOW WATER (MLLW), WHICH IS 3.22 BELOW NAVD88. NAVD88 CONVERSION OF 3.22' OBTAINED FROM THE ARMY CORP OF ENGINEERS.
7. CONTOURS WERE INTERPOLATED WITH TRIMBLE NAVIGATION LIMITED, TERRAMODEL VERSION 10.11.

PROPOSED DREDGE AREA:

BERTH 2 = 58,750 SQ. FT.
BERTH 3 = 63,941 SQ. FT.

PROPOSED VOLUME OF DREDGE MATERIAL:

BERTH 2 = 12,194 CUBIC YARDS
BERTH 3 = 10,296 CUBIC YARDS

DATUM CHART

MEAN HIGH WATER	+6.29
NAVD88	+3.10
MEAN LOWER LOW WATER	0.0

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S.T. HUDSON ENGINEERS, INC.
PROFESSIONAL ENGINEERS & CONSULTANTS

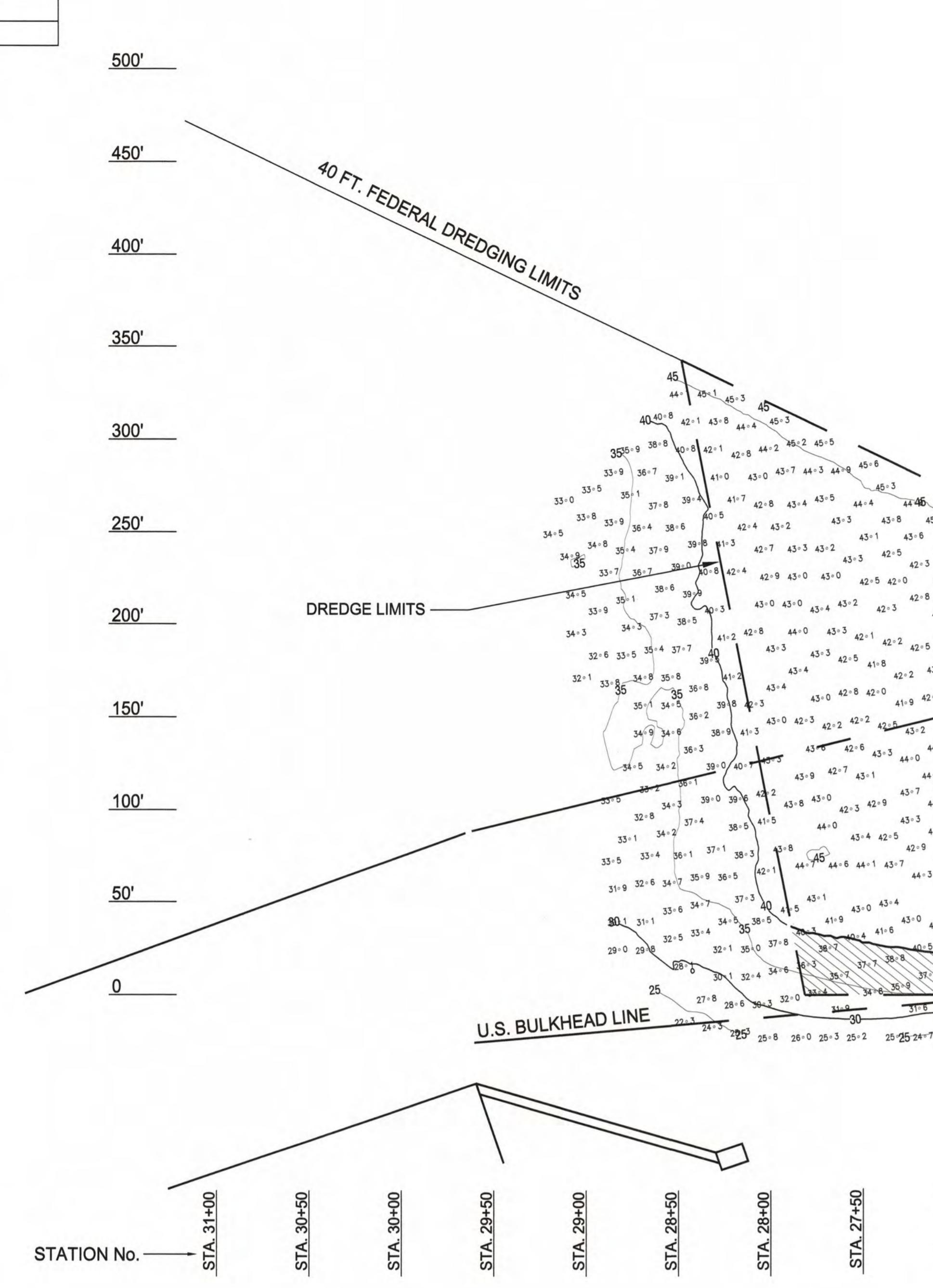
900 Dudley Avenue
Cherry Hill, NJ 08002
Phone No. 856-342-6000
Fax No. 856-342-8323

SOUTH JERSEY PORT CORPORATION
JOSEPH A. BALZANO MARINE TERMINAL
CAMDEN, NEW JERSEY

drawn STAFF date 7/12/2022 contract
checked BW
drftg. approval TK FILE Sp-1535
BALZANO TERMINAL - BERTHS 2 & 3 dwg. no. 22-050-05

Maintenance Dredging rev. 5 of 6 A

ANTHONY C. FRAGA
N.J. Lic. No. GES4004



DELAWARE RIVER
EBB FLOOD

DREDGE TO -40.0 FT. M.L.L.W.

DREDGE TO
-35.0 FT. M.L.L.W.

MATCHLINE - SEE DWG. 5

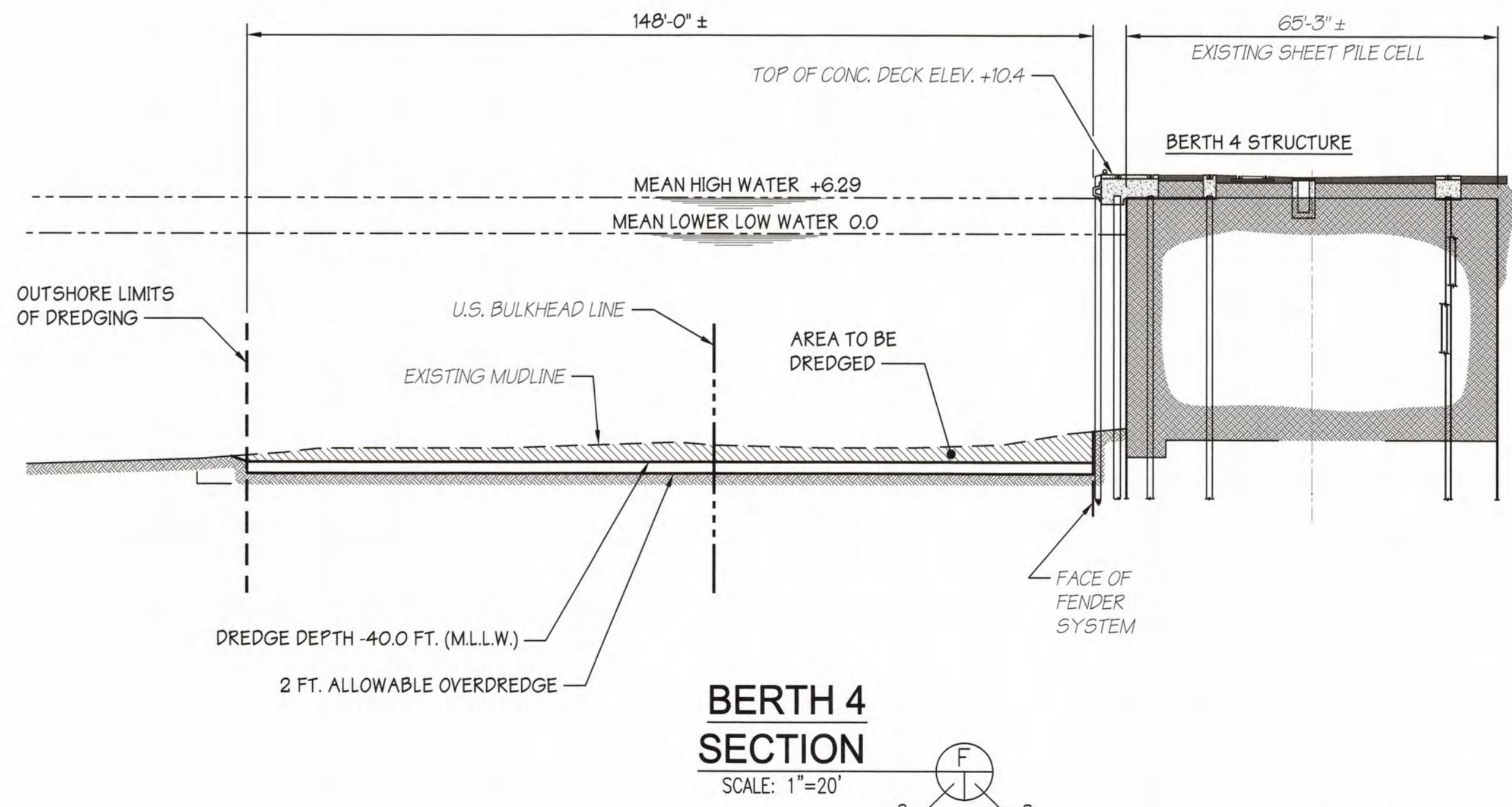
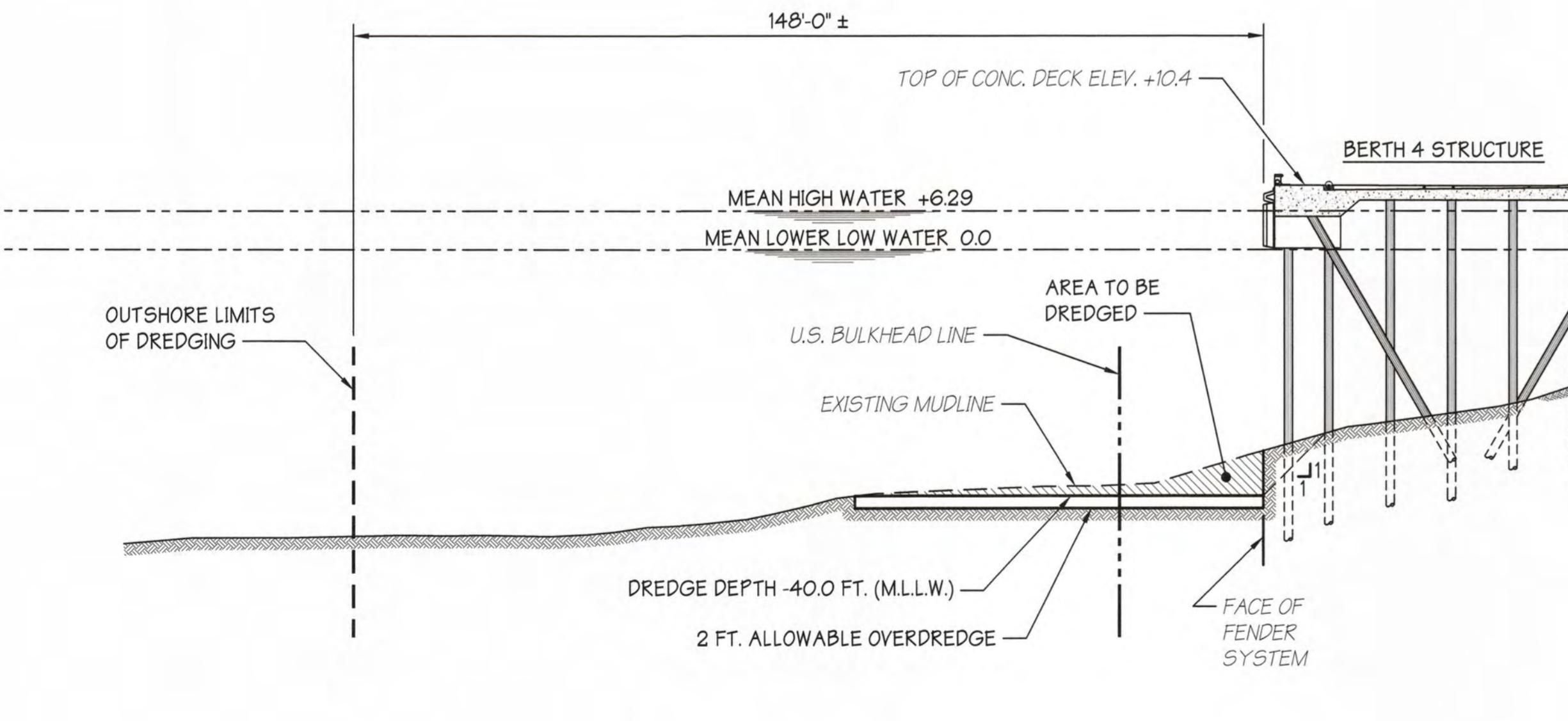
40 FT. FEDERAL DREDGING LIMITS

35 FT. FEDERAL DREDGING LIMITS

BERTH No.3

BERTH No.4

BALZANO TERMINAL - BERTH 4
SITE PLAN
SCALE: 1"=50'



MULTIBEAM HYDROGRAPHIC SURVEY NOTES:

- 1. ALL SOUNDINGS WERE CONDUCTED USING:
 - APPLANIX POS MV 120 NAVIGATION MOTION SENSOR FOR POSITIONING, HEADING, ATTITUDE, HEAVE AND VELOCITY, CLENDING GLOBAL NAVIGATION SATELLITE SYSTEM (gnSS)
 - AN INERTIAL MEASUREMENT UNIT (IMU) AND GPS AZIMUTH MEASUREMENT SYSTEM (GAMS), AND APPLANIX POSPac MMS (MOBILE MAPPING SUITE)
 - HYPACK HYSWEEP SOFTWARE
- 2. SOUNDINGS WERE CONDUCTED ON WEDNESDAY JANUARY 26, 2022
- 3. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

- 4. SOUNDINGS ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
- 5. HORIZONTAL CONTROL IS BASED ON NEW JERSEY (2900) STATE PLANE COORDINATES NAD83, AS ESTABLISHED IN THE FIELD AND SOLELY FOR THE USE OF THIS HYDROGRAPHIC SURVEY.
- 6. VERTICAL CONTROL WAS OBTAINED FROM KEYNET GPS (TRIMBLE VIRTUAL REFERENCE STATION [VRS] NETWORK) REAL-TIME KINEMATIC (RTK) CORRECTIONS TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), AND CONVERTED TO MEAN LOWER LOW WATER (MLLW), WHICH IS 3.22' BELOW NAVD88. NAVD88 CONVERSION OF 3.22' OBTAINED FROM THE ARMY CORP OF ENGINEERS.
- 7. CONTOURS WERE INTERPOLATED WITH TRIMBLE NAVIGATION LIMITED, TERRAMODEL VERSION 10.11.

PROPOSED DREDGE AREA:

BERTH 4 = 110,850 SQ. FT.

DATUM CHART

MEAN HIGH WATER +6.29

NAVD88 +3.10

MEAN LOWER LOW WATER 0.0

		APPROVALS			
			approved by	for	date
	BW	BIDDING	7/12/22		
S.T. HUDSON ENGINEERS, INC. PROFESSIONAL ENGINEERS & CONSULTANTS					
900 Dudley Avenue Cherry Hill, NJ 08002 Phone No. 856-342-6600 Fax No. 856-342-8323					
SOUTH JERSEY PORT CORPORATION JOSEPH A. BALZANO MARINE TERMINAL CAMDEN, NEW JERSEY					
drawn checked drftg. approval	STAFF BW TK	date	7/12/2022	contract	Sp-1535
BALZANO TERMINAL - BERTH 4				dwg. no.	rev.
MAINTENANCE DREDGING					
6 of 6 A					

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION



WATERFRONT DEVELOPMENT PERMIT
AND 401 WATER QUALITY CERTIFICATION
FOR
MAINTENANCE DREDGING
OF
BROADWAY TERMINAL AND BALZANO TERMINAL
CAMDEN, NEW JERSEY
PREPARED FOR

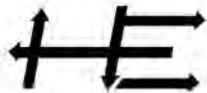


SOUTH JERSEY PORT CORPORATION
2ND & BECKETT STREET
CAMDEN, NEW JERSEY 08103



S. T. HUDSON ENGINEERS, INC.

900 DUDLEY AVENUE
CHERRY HILL, NEW JERSEY 08002
PHONE (856) 342-6600 FAX (856) 342-8323
www.STHE.COM



S.T. HUDSON ENGINEERS, INC.
Professional Engineers and Consultants

July 14, 2022

State of New Jersey
Department of Environmental Protection
Office of Environmental Regulation
Division of Land Resource Protection
501 E. State Street, M/C 501-02A
Trenton, NJ 08625-0401

Attention: Ms. Suzanne Biggins
Supervisor, Office of Dredging and Sediment Technology

Reference: South Jersey Port Corporation
Balzano Terminal and Broadway Terminal

Subject: Application for Acceptable Use Determination for Additional Maintenance
Dredging Event
File # 0408-18-0001.1 WFD 180001

Dear Ms. Biggins:

S. T. Hudson Engineers, Inc. (Hudson) has been retained by South Jersey Port Corporation to assist them in obtaining a minor technical modification to their existing permit for the maintenance dredging and disposal of maintenance dredge material from the Balzano Terminal and Broadway Terminal on the Delaware River in Camden, NJ. The material will be disposed of at Whites Basin in Logan Township, New Jersey. The proposed work is currently authorized under U.S. Army Corps of Engineers Individual Permit CENAP-OP-R-2013-0695-46 to Weeks Marine for various facilities along the Delaware River.

We have enclosed a check in the amount of \$500.00 for the application fee.

Upon your review, should you have any questions or require additional information, please do not hesitate to contact us.

Sincerely,

Paul T. Ferry
Environmental Specialist

PTF/mle
Enclosures

22-050-03

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SECTION

- 1 **DLUR APPLICATION FORM**
- 2 **PROJECT DESCRIPTION**
- 3 **PROJECT LOCATION PLANS**
 AERIAL PHOTOGRAPH
 DISPOSAL SITE LOCATION PLAN
- 4 **MATERIAL ACCEPTANCE LETTER FROM WEEKS MARINE**
- 5 **2014 USACE BLANKET PERMIT CENAP-OP-R-2013-0695-46**
2018 NJDEP PERMIT #0408-18-0001.1 WFD 180001
- 6 **SEDIMENT CORE LOGS**
 CORE LOG PHOTOGRAPHS
 LABORATORY CHAIN OF CUSTODY
- 7 **SAMPLING PLANS**
 SAMPLING PLAN APPROVAL
- 8 **PERMIT DRAWINGS**

APPENDIX

- A **DREDGE MATERIAL CHARACTERIZATION REPORT BY**
EUROFINS LABORATORIES
(SENT VIA EMAIL ATTACHMENT)
- B **SEDIMENT ANALYSIS COMPARATIVE TABLES**
(SENT VIA EMAIL ATTACHMENT)

SECTION 1

DLUR APPLICATION FORM

22-050-03

NJDEP AUD APPLICATION
JULY 2022



State of New Jersey
Department of Environmental Protection
Division of Land Resource Protection
Application Form for Permit(s)/Authorization(s)
501 E. State Street Mail Code 501-02A P.O. Box 420
Trenton, NJ 08625-0420
Phone #: (609) 777-0454 Web: www.nj.gov/dep/landuse



Please print legibly or type the following: Complete all sections and pages unless otherwise noted.

Initial Application Response to DLUR Deficiency Extension / Modification Is this project a NJDOT Priority 2 Repair Project? Yes No

1. Applicant Name:	Mr./Ms./Mrs. <u>Andrew Saporito-South Jersey Port Corp.</u>	E-Mail: <u>asaporito@southjerseyport.com</u>
Address:	2 Aquarium Drive, Suite 100	
City/State:	Camden, NJ	
Daytime Phone:	856-757-4917	
Zip Code	08103	
Cell Phone:		
2. Agent Name:	Mr./Ms./Mrs. <u>Paul Ferry</u>	
Firm Name:	S. T. Hudson Engineers, Inc.	
Address:	900 Dudley Avenue	
City/State:	Cherry Hill, NJ	
Daytime Phone:	856-342-6600	
Zip Code	08002	
Cell Phone:		
3. Property Owner:	Mr./Ms./Mrs. <u>South Jersey Port Corporation</u>	E-mail: _____
Address:	2 Aquarium Drive, Suite 100	
City/State:	Camden, NJ	
Daytime Phone:	Ext. _____	
Zip Code	08013	
Cell Phone:		
4. Project Name:	<u>Balzano & Broadway Terminal AUD</u>	
Municipality:	Address/Location: <u>101 Joseph A. Balzano Blvd. & 2500 Broadway</u>	
Block(s):	County: <u>Camden</u>	Zip Code <u>08103 & 08104</u>
N.A.D. 1983 State Plane Coordinates (feet)	E(x): <u>316823 & 314693</u>	N(y): <u>394567 & 401868</u> Not Longitude/Latitude
Lot(s): <u>29 & 60, 1, 59, 1 / 1, 1.01</u>		
Watershed:	Subwatershed: <u>Cooper River (below Rt 130)</u>	
Nearest Waterway:	<u>Delaware River</u>	
5. Project Description:	<u>Applicant requests a modification to the existing Acceptable Use Determination to dredge 43,096 cubic yards from Balzano Terminal Berths 2, 3, & 4 and 21,807 cubic yards from Broadway Terminal Piers 1, 1A & 5 under the existing maintenance dredging WFD Permit. Dredging will be performed mechanically to maintenance depths plus -2 ft. OD.</u>	

Provide if applicable: Previous LUR File # (s): 0408-18-0001.1 WFD 180001 Waiver request ID # (s): _____

A. SIGNATURE OF APPLICANT (required):

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 and preparing the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment. If the applicant is an organization such as a corporation, municipal entity, home-owners association etc., the party responsible for the application shall sign on behalf of the organization.

Andrew Saporito
Signature of Applicant

Executive Director/CEO

Position/Title (If not individual property owner)

6/21/22

Date

Andrew Saporito

Print Name

Signature of Applicant

Position/Title (If not individual property owner)

Date

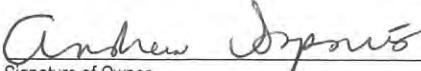
Print Name

A. PROPERTY OWNER'S CERTIFICATION

I hereby certify that the undersigned is the **owner of the property** upon which the proposed work is to be done. This endorsement is certification that the owner/easement holder grants permission for the conduct of the proposed activity. In addition, written consent is hereby given to allow access to the site by representatives or agents of the Department for the purpose of conducting a site inspection(s) or survey(s) of the property in question.

In addition, the undersigned property owner hereby certifies:

- | | |
|--|---|
| 1. Whether any work is to be done within an easement? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| (If answer is "Yes" – Signature/title of responsible party is required below) | |
| 2. Whether any part of the entire project will be located within property belonging to the State of New Jersey? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| 3. Whether any work is to be done on any property owned by any public agency that would be encumbered by Green Acres? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| 4. Whether this project requires a Section 106 (National Register of Historic Places) Determination as part of a federal approval? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |



Signature of Owner

6/21/22

Date
Andrew Saporito, Executive Director and CEO

Print Name/Title

Signature of Owner/Easement Holder

Date

Print Name/Title

B. APPLICANT'S AGENT

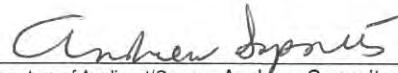
I Andrew Saporito, on behalf of owner, the Applicant/Owner and N/A, co-Applicant/Owner authorize to act as my agent/representative in all matters pertaining to my application the following person:

Paul Ferry

Name of Agent

Environmental Specialist

Occupation/Profession of Agent


Signature of Applicant/Owner Andrew Saporito

Signature of co-Applicant/Owner

AGENT'S CERTIFICATION:

I agree to serve as agent for the above-referenced applicant:



Signature of Agent

S. T. Hudson Engineers, Inc.

Name of Firm

C. STATEMENT OF PREPARER OF PLANS, SPECIFICATIONS, SURVEYOR'S OR ENGINEER'S REPORT

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 and preparing the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment.

Signature

Print Name

Position & Name of Firm

Professional License # Date

D. STATEMENT OF PREPARER OF APPLICATION, REPORTS AND/OR SUPPORTING DOCUMENTS (other than engineering)

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 and preparing the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment.



Signature
Paul Ferry

Print Name
Environmental Specialist, S. T. Hudson Engineers, Inc.

Position & Name of Firm

Professional License # Date
6/20/22



SOUTH JERSEY PORT CORPORATION
OPERATING ACCOUNT
P.O. BOX 129
CAMDEN, NEW JERSEY 08101

ID Bank
America's Most Convenient Bank®

55-136/312

91840

NUMBER

FIVE HUNDRED AND 00/100 USA DOLLARS

DATE

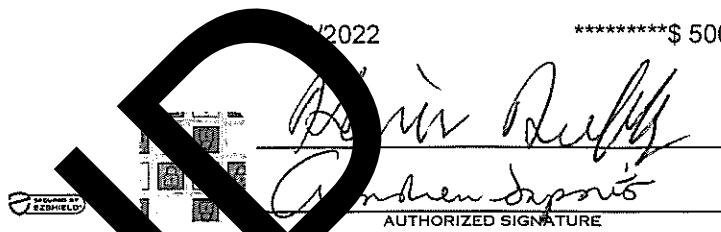
AMOUNT

6/2022

*****\$ 500.00

PAY
TO THE
ORDER OF

TREASURER STATE OF NEW JERSEY



091840 103600 8081 32668671

SOUTH JERSEY PORT CORPORATION

VENDOR

T-100

TREASURER STATE OF NEW JERSEY

Check No 91840

DATE	INVOICE NUMBER	TOTAL DUE	DISCOUNT TAKEN	NET AMOUNT DUE
6/20/2022	6/21/22	500.00	0.00	500.00

6/23/2022	TOTAL	500.00	0.00	500.00
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SECTION 2

PROJECT DESCRIPTION

22-050-03

NJDEP AUD APPLICATION
JULY 2022

SECTION 2

PROJECT DESCRIPTION

South Jersey Port Corporation proposes to conduct maintenance dredging the Balzano and Broadway Terminals along the Delaware River in Camden, New Jersey under their existing Waterfront Development Permit. Dredging will be performed by clamshell bucket to the following maintenance depths:

- Broadway Terminal
 - Pier 5: -35 ft. MLW
 - Pier 1: -32 ft. MLW
 - Pier 1A: -40 ft. MLW
- Balzano Terminal
 - Berth 2: -30 ft. MLW
 - Berth 3: -35 ft. MLW
 - Berth 4: -40 ft. MLW

The total amount of material to be dredged is approximately 65,000 cubic yards which includes - 2-foot of overdredge.

The dredging volumes for each portion of the project are as follows (see Section 7):

- Broadway Terminal
 - Pier 5: 11,817 cu. yds.
 - Pier 1: 6,582 cu. yds.
 - Pier 1A: 3,027 cu. yds.
- Balzano Terminal
 - Berth 2: 12,194 cu. yds.
 - Berth 3: 10,296 cu. yds.
 - Berth 4: 20,606 cu. yds.

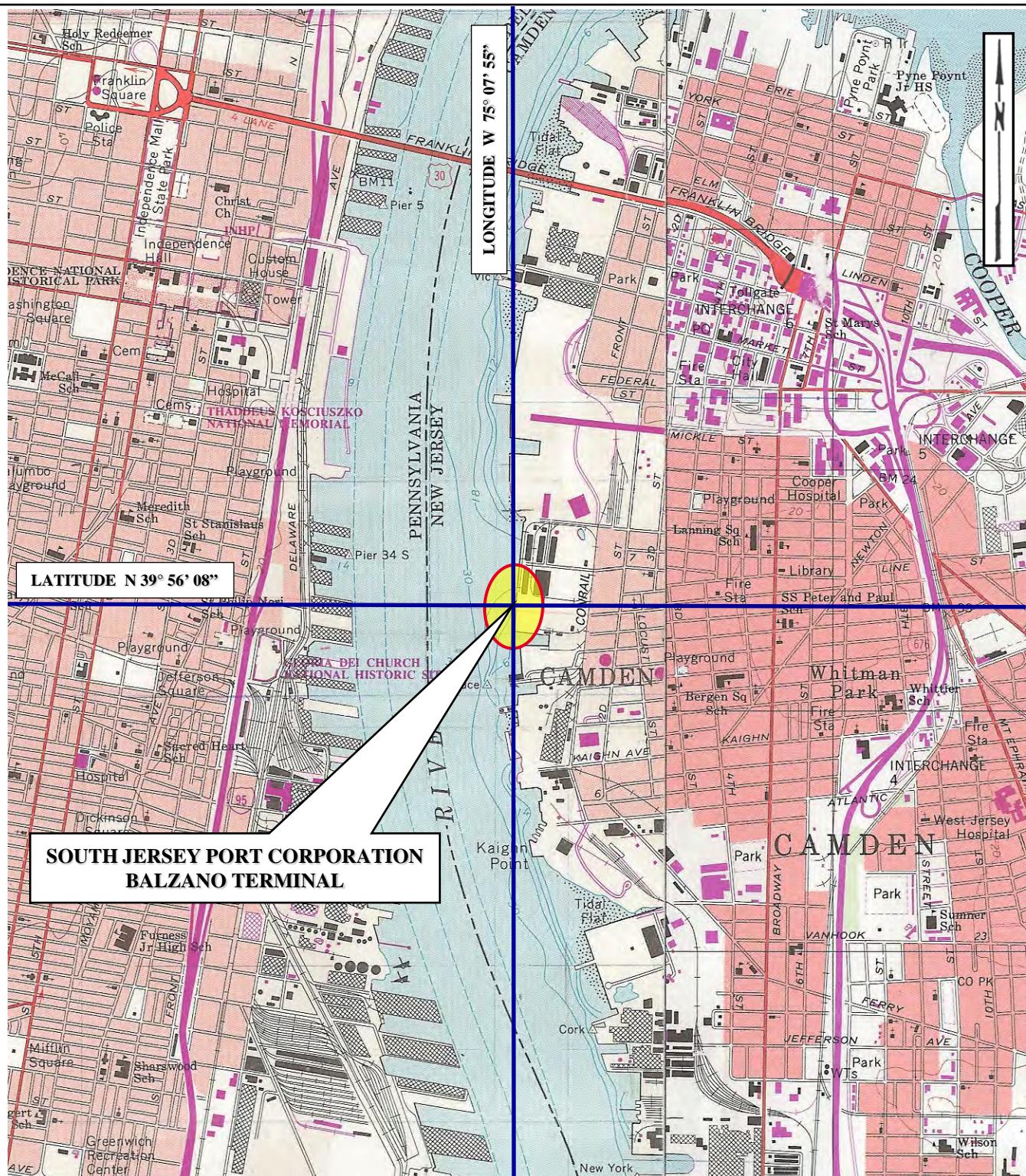
The dredge material will be loaded into hopper scows, transported, and disposed of at Whites Rehandling Basin in Logan Township, Gloucester County, New Jersey (see Section 4 for a copy of the Material Acceptance Letter from Mr. Erik Dickerson of Weeks Marine). The work will be performed under Department of the Army Permit CENAP-OP-R-2013-0695-46 issued to Weeks Marine, Inc.

SECTION 3

PROJECT LOCATION PLANS AERIAL PHOTOGRAPH DISPOSAL SITE LOCATION PLAN

22-050-03

NJDEP AUD APPLICATION
JULY 2022



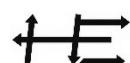
PROJECT SITE LOCATION MAP

UNITED STATES GEOLOGIC SURVEY QUADRANGLE

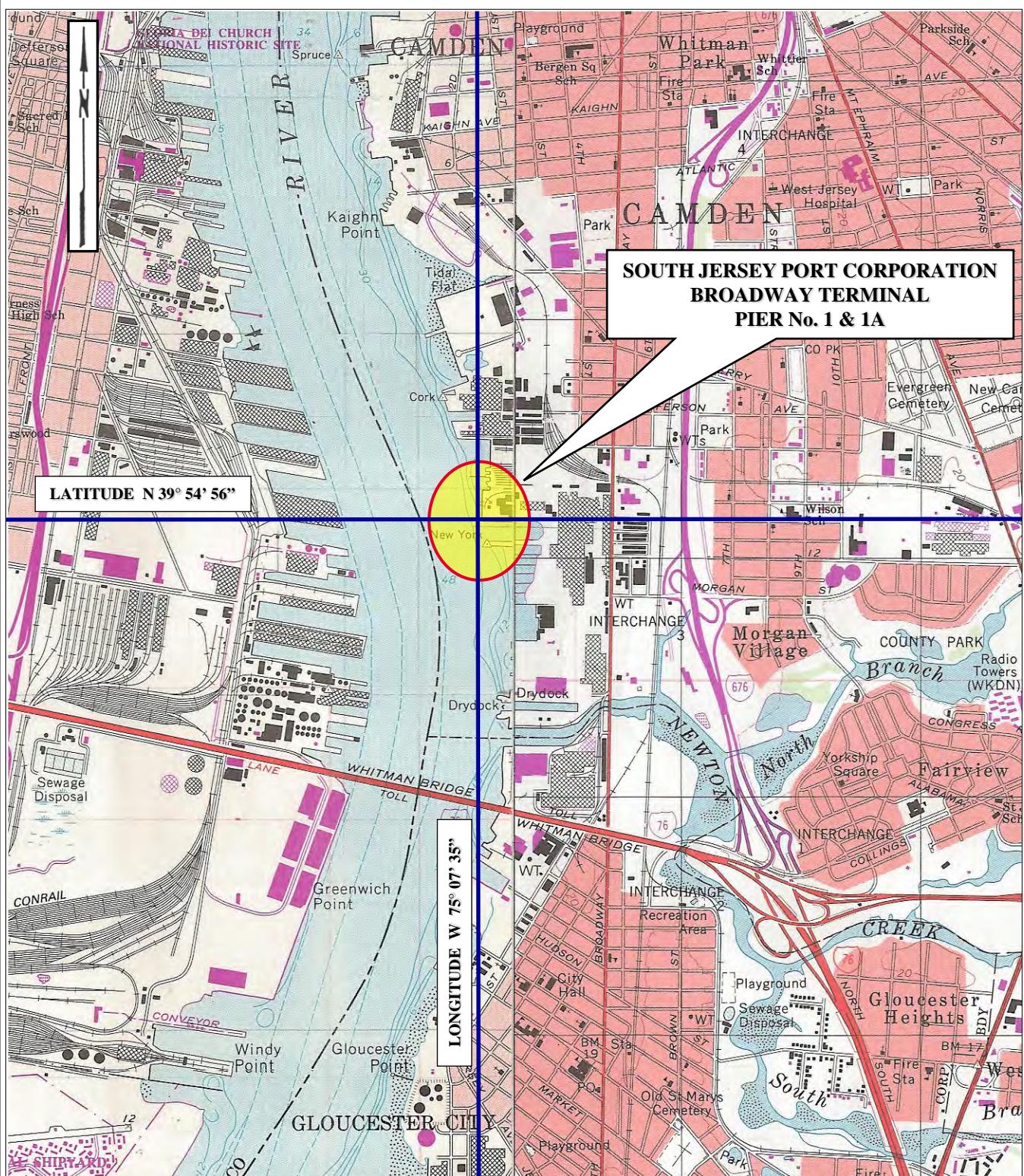
PHILADELPHIA, PA-NJ & CAMDEN, NJ-PA

SCALE: 1:24000

22-050-03



S. T. HUDSON ENGINEERS, INC.
PROFESSIONAL ENGINEERS & CONSULTANTS



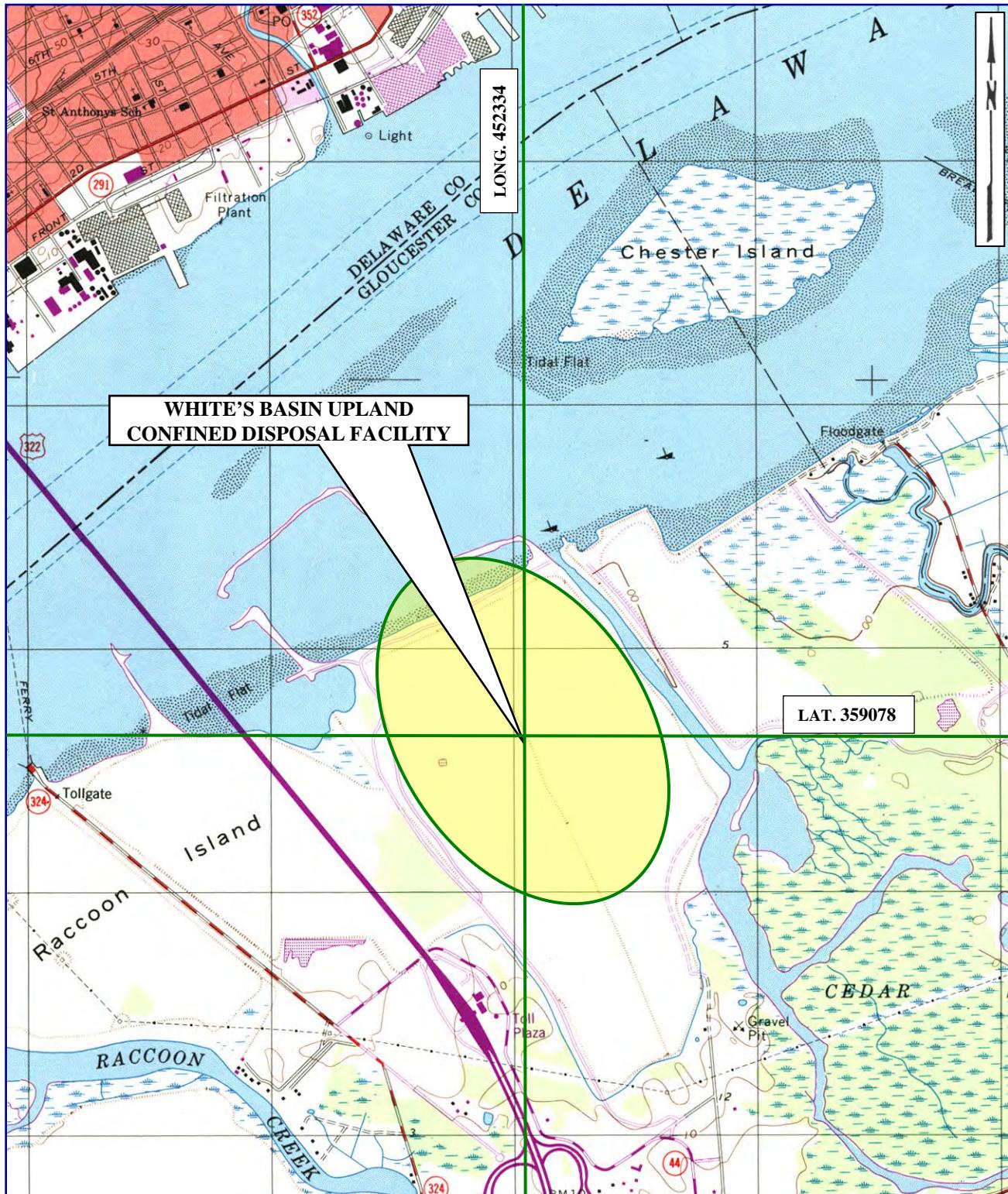
PROJECT SITE LOCATION MAP

UNITED STATES GEOLOGIC SURVEY QUADRANGLE

PHILADELPHIA, PA-NJ & CAMDEN, NJ-PA

SCALE: 1:24000

22-050-03

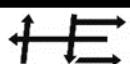


UNITED STATES GEOLOGIC SURVEY QUADRANGLE

BRIDGEPORT, NEW JERSEY

SCALE 1:24000

22050-03



S. T. HUDSON ENGINEERS, INC.
PROFESSIONAL ENGINEERS & CONSULTANTS



EXHIBIT NO. 1: AERIAL PHOTOGRAPH OF THE SOUTH JERSEY PORT CORPORATION BROADWAY TERMINAL.



EXHIBIT NO. 2: AERIAL PHOTOGRAPH OF THE SOUTH JERSEY PORT CORPORATION JOSEPH A. BALZANO MARINE TERMINAL.

SECTION 4

MATERIAL ACCEPTANCE LETTER FROM WEEKS MARINE

22-050-03

NJDEP AUD APPLICATION
JULY 2022



July 14, 2022

Mr. Paul Ferry
S.T. Hudson Engineers
900 Dudley Avenue
Cherry Hill, NJ 08002

RE: Maintenance Dredging, SJPC – Broadway and Balzano Marine Terminals

Dear Mr. Ferry:

Weeks Marine ("Weeks") is of the understanding that South Jersey Port Corporation is planning for the maintenance dredging of 64,907 CY of material at its Broadway and Balzano Marine Terminals.

Weeks has the capacity to receive this material at Whites Basin. Based upon review of the analytical results from sediment sampling, this material is acceptable for placement at Whites Basin.

Upon receipt of all required approvals, and after all commercial terms have been satisfied, Weeks will accept this material into Whites Basin.

Sincerely,

A handwritten signature in black ink that reads "Eric Dickerson".

Eric Dickerson
Weeks Marine, Inc.



SECTION 5

**2014 USACE BLANKET PERMIT
CENAP-OP-R-0695-46**

**2018 NJDEP PERMIT
0408-18-0001.1 WFD 180001**

22-050-03

NJDEP AUD APPLICATION
JULY 2022

DEPARTMENT OF THE ARMY PERMIT

PERMITTEE AND PERMIT NUMBER:

Weeks Marine, Incorporated
WEEKS MARINE INCORPORATED (MAINTENANCE DREDGING)
CENAP-OP-R-2013-0695-46

ISSUING OFFICE:

Department of the Army
U.S. Army Corps of Engineers, Philadelphia District
Wanamaker Building - 100 Penn Square East
Philadelphia, Pennsylvania 19107-3390

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

PROJECT DESCRIPTION:

This permit authorizes maintenance dredging, by mechanical or bucket method, of berthing and access areas (outside the limits of the Federal navigation channel) at various facilities. A total of 31 sites are approved for dredging at the authorized referenced locations, one or more times, over a ten-year period. The dredged material will be placed into hopper scows and transported to either A) the existing rehandling basin, known as Whites Basin, where the material would be unloaded by bottom dumping or by hydraulic un-loading or B) the Waste Management Company Biles Island Disposal Facility. Materials disposed at Biles Island will be hydraulically unloaded to the disposal facility from barges. Operation of the Whites Basin facility is authorized by Department of the Army permit number CENAP-OP-R-2013-0696-46. All work is to be completed in accordance with the attached plans labeled E-1 through E-22.

PROJECT LOCATION:

The 31 sites for proposed maintenance dredging are located along both sides of the Delaware and Schuylkill Rivers, within the Commonwealth of Pennsylvania (City of Philadelphia, Delaware and Bucks Counties), the State of New Jersey (Gloucester, Camden and Burlington Counties), and the State of Delaware (New Castle County). The sites for disposal of dredged material are either at A) the existing rehandling basin known as "Whites Basin," located along the southeast shore of the Delaware River, between the mouths of Repaupo and Raccoon Creeks, on the north

side of the Commodore Barry Bridge (U.S. Route 322), in Logan Township, Gloucester County, New Jersey or B) the Waste Management Company Biles Island Disposal Facility located in Falls Township, Bucks County, Pennsylvania.

PERMIT CONDITIONS:

General Conditions:

1. The time limit for completing the work authorized ends on December 31, 2024. If you find that you need more time to complete the authorized activity, submit your request for a time extension (or re-issuance) to this office for consideration at least six months before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality and/or a coastal zone management certification has been issued for your project, you must comply with conditions specified in the certification as special conditions to this permit.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

1. All work performed in association with the above noted project shall be conducted in accordance with the attached project plans labeled E-1 through E-22. This permit authorizes maintenance dredging, by mechanical or bucket method, at 31 various facilities in the Delaware and Schuylkill Rivers (in Pennsylvania, New Jersey and Delaware). The dredged material would be placed into hopper scows and transported to Whites Basin in Logan Township, Gloucester

County, New Jersey, where the material would be unloaded by bottom dumping into the rehandling basin (see permit number CENAP-OP-R-200201686-24) or hydraulic un-loading to CDF Area 2. The applicant's stated purpose for the project is to continue maintenance dredging the various facilities on the Delaware and Schuylkill Rivers to allow for the continuation of waterborne commerce in the Delaware Valley.

2. Any deviation in construction methodology or project design from that shown on the above noted drawings must be approved by this office, in writing, prior to performance of the work. All modifications to the above noted project plans shall be approved, in writing, by this office. No work shall be performed prior to written approval of this office.
3. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration. (This special condition is applicable to Corps of Engineers permits that provide authorization under Section 10 of the Rivers and Harbors Act of 1899.)
4. Representatives of the U.S. Army Corps of Engineers shall be permitted to inspect the project during its phase of construction, and to collect any samples, or to conduct any tests deemed necessary.
5. The permittee is responsible for ensuring that the contractor and/or workers executing the activity(s) authorized by this permit have knowledge of the terms and conditions of the authorization and that a copy of the permit document is at the project site throughout the period the work is underway.
6. All scientific instrumentation and construction equipment and materials shall be removed from the waterway upon termination of its use.
7. This permit is for maintenance dredging only; no new dredging is authorized by this permit.
8. All dredging shall be performed by the bucket or dragline method only. All dredged material shall be placed directly onto water-tight barges or scows (with no overflow) and transported to either A) the Whites Basin rehandling basin located in Logan Township, New Jersey or B) the Waste Management Company Biles Island Disposal Facility located in Falls Township, Bucks County, Pennsylvania. Any deviation from this method of dredging and disposal location must have the prior approval of the Corps of Engineers.
9. The permittee shall maintain adequate surveillance of the disposal operations to assure that the banks used to confine the dredged material are safe from failures and that the disposal area is not used beyond capacity.

10. Prior to commencing each individual dredging/disposal project under the authority of this permit, the permittee shall obtain any necessary State approval, including Section 401 Water Quality Certification, required by law for the work. All conditions contained in the Section 401 Water Quality Certificate(s) and conditional CZM consistency concurrence letters are incorporated into this permit by reference.

11. The permittee shall furnish a copy of each individual Section 401 Water Quality Certification application and the results of required sediment testing via registered mail to the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service and National Marine Fisheries Service (Federal resource agencies) at the same time the application is submitted to the State.

12. The permittee shall notify the Corps of Engineers in writing and provide copies of the prerequisite State approval(s) and Water Quality Certificate(s) for each proposed dredging event. No work (dredging) shall commence until such time as the Corps of Engineers provides written notification to the permittee that the work may proceed under the terms and conditions of this Department of the Army permit.

13. The notification described in Special Condition Number Thirteen (12) above shall include the following information:

- a. name, mailing address and telephone number of the company for which the work is to be performed;
- b. brief description of the proposed work and its purpose;
- c. location map of the proposed work;
- d. project plans (8.5 X 11 inch) indicating the size of the proposed work area, existing and proposed water depths and quantity of material to be removed;
- e. proposed schedule for commencement and completion of the proposed work;
- f. copy of required project specific State permit(s) and Section 401 Water Quality Certificate;
- g. copy of registered mail receipts verifying the Federal resource agencies' receipt of Section 401 Water Quality Certificate application and sediment testing results (see Special Condition #12);
- h. any other information the permittee believes appropriate.

14. Dredging/disposal activities shall be scheduled to minimize adverse impacts to the Federally listed (endangered) shortnose and Atlantic sturgeons and other anadromous fish species. Accordingly, all dredging within the Delaware River shall occur between July 1 and March 14 of the following year. These restrictions are subject to future revision as new information becomes available, as provided by National Marine Fisheries Service. The permittee shall be notified by this office in writing of any revisions, and the permittee shall adhere to those revisions.

15. This authorization does not affect the permittee's responsibility to obtain any local approvals required by law for the work authorized herein.

16. Dredging shall not be performed to a depth greater than that of the connecting adjacent waterway.

17. The permittee shall investigate for water supply intakes in the vicinity of the dredging locations. The permittee shall notify owners and operators of such intakes prior to commencing dredging operations.
18. The permittee shall contact the U.S. Coast Guard, Atlantic Area (D5), Aids to Navigation Branch, Waterways Management Section, 431 Crawford Street, Portsmouth, Virginia 23704-5004 (telephone 757-398-6229) at least four (4) weeks prior to any dredging near a Federal buoy or marker which would necessitate relocating the buoy or marker.
19. Prior to commencing each individual dredging project under the authority of this permit, the permittee shall contact utility companies (i.e. electric, gas, water, sewage, telephone, etc.) in order to prevent personal injury and/or damage to property during construction.
20. Any modification, suspension or revocation of this Department of the Army permit shall not be the basis for any claim for damages against the United States.
21. This Department of the Army permit may not be transferred to a third party without prior written notice to the District Engineer. If the permittee transfers the interests authorized herein by conveyance of realty, the deed shall reference this permit and the terms and conditions specified herein, and this permit shall be recorded with the Register of Deeds or other appropriate official.
22. That no disposal at the Waste Management Incorporated Biles Island facility shall occur until this office has received copy of a site-specific approval from the Pennsylvania Department of Environmental Protection.

FURTHER INFORMATION:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:
 - (X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
 - () Section 404 of the Clean Water Act (33 U.S.C. 1344).
 - () Section 103 of the Marine Protection, Research and Sanctuaries Act.
2. Limits of this authorization.
 - a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.
 - b. This permit does not grant any property rights or exclusive privileges.
 - c. This permit does not authorize any injury to the property or rights of others.
 - d. This permit does not authorize interference with any existing or proposed Federal projects.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
- d. Design or construction deficiencies associated with the permitted work.
- e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data. The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of this permit.
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.


John D. Lee
(PERMITTEE)

11/26/14
(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

11/26/14
(DATE)



Frank J. Cianfrani
Chief, Regulatory Branch

for: Michael A. Bliss, P.E.
Lieutenant Colonel, U.S. Army
District Commander

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

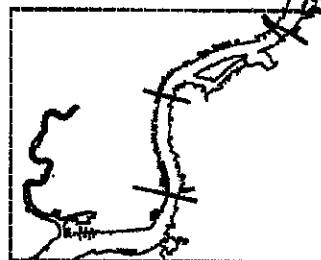
(TRANSFeree)

(DATE)

90°

PENNSYLVANIA

5. EXELON - EDDYSTONE STATION / EDDYSTONE RAIL
4. PENN TERMINALS INC.
3. MONROE ENERGY
2. OCEANPORT, LLC
1. CALPINE
- COMMODORE BARRY BRIDGE
28. EXELON - CROYDEN STA.
25. NATIONAL GYPSUM
BURLINGTON BRIDGE
TACONY PALMYRA BRIDGE
31. AXEON REFINING
30. PAULSBORO MARINE / SOUTH JERSEY PORT



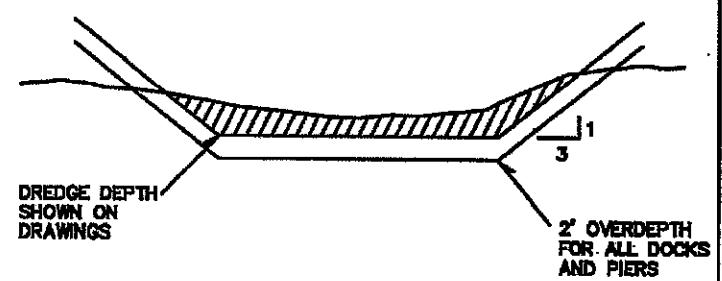
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DELAWARE

NEW JERSEY

DELAWARE MEMORIAL BRIDGE

TYPICAL CROSS SECTION



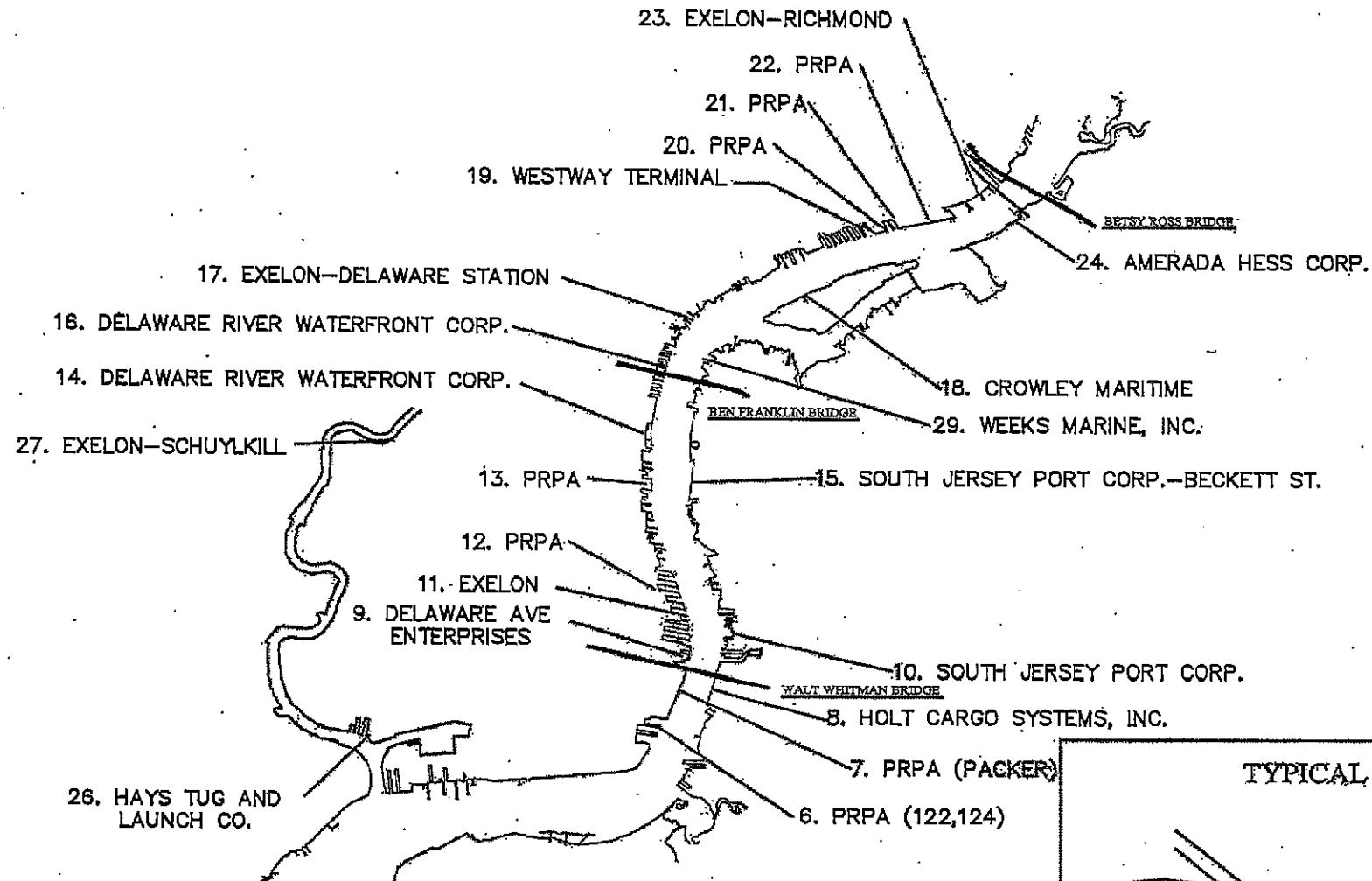
NO.	DATE	DESCRIPTION	APR.
1	9/25/2013	Revisc Dredge Location	
2	7/15/2014	Update Facility	
3	9/03/2014	Change Facility Name REVISIONS	

PROPOSED MAINTENANCE
DREDGING SITE PLAN

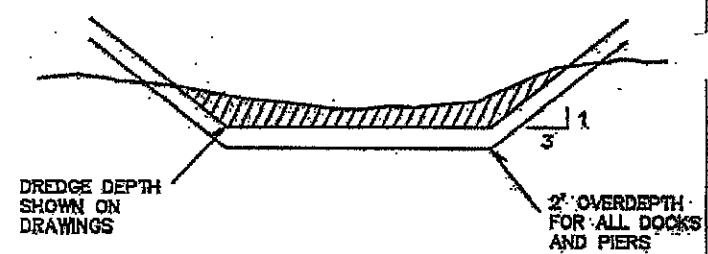
WEEKS MARINE, INC.
901 BEACH ST.
CAMDEN, NJ 08102
856-963-0963

DATE: JUN. 28, 2007 SHEET: 1 of 18
SCALE: NTS DRAWN BY: EDD

E-1



TYPICAL CROSS SECTION



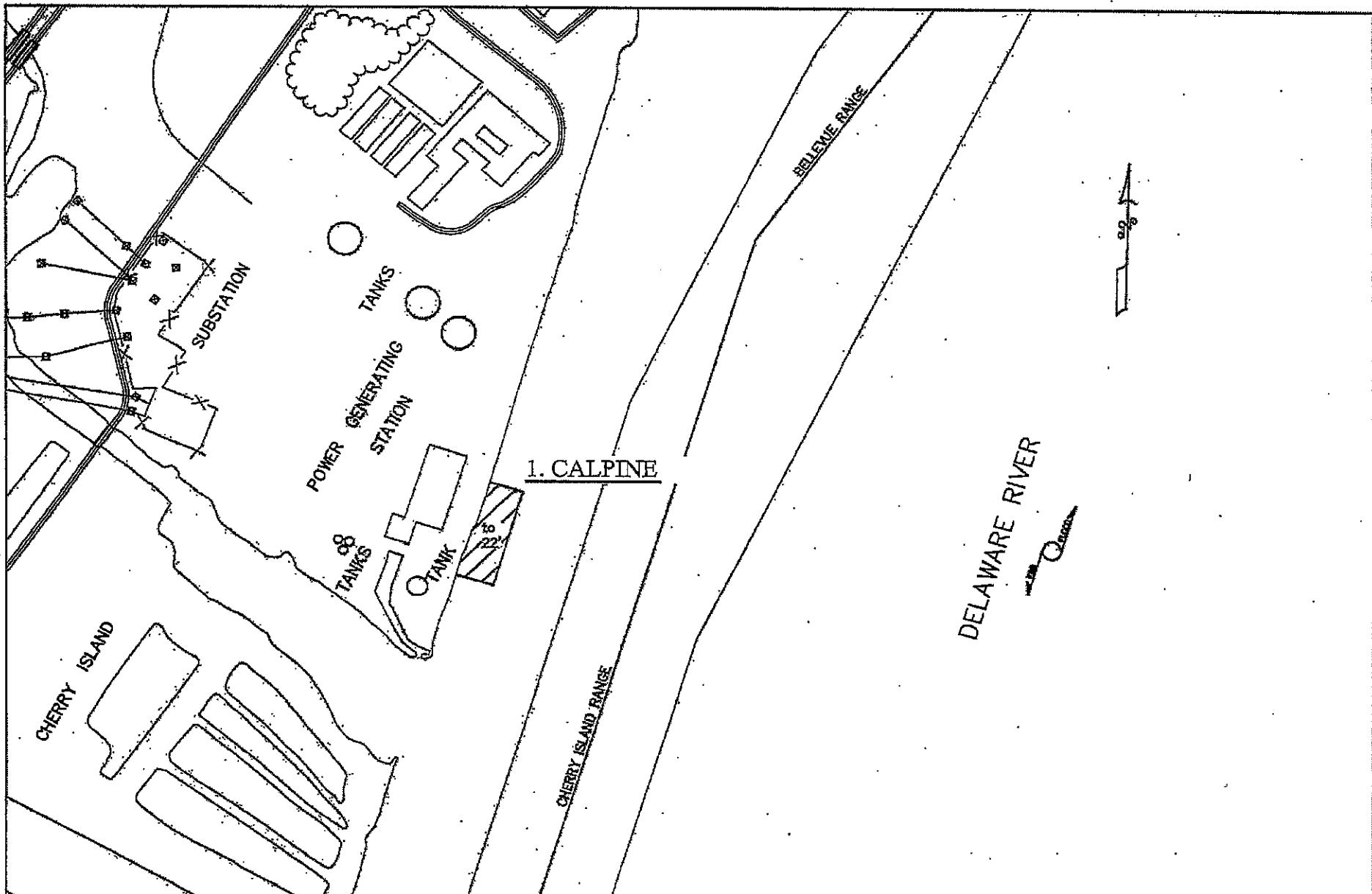
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1	9/25/2013	Revised Dredge Locations	
2	7/15/2014	Update Facility REVISIONS	

PROPOSED MAINTENANCE
DREDGING SITE PLAN

WEEKS MARINE, INC.
901 BEACH ST.
CAMDEN, NJ 08102
856-963-0963

DATE:	JULY 12, 2002	SHEET:	2 of 18
SCALE:	NTS	DRAWN BY:	VCP

E-2



NO.	DATE	DESCRIPTION	APR.
1	9/25/2013	Revise Dredge Location	
2	7/15/2014	Update Facility	

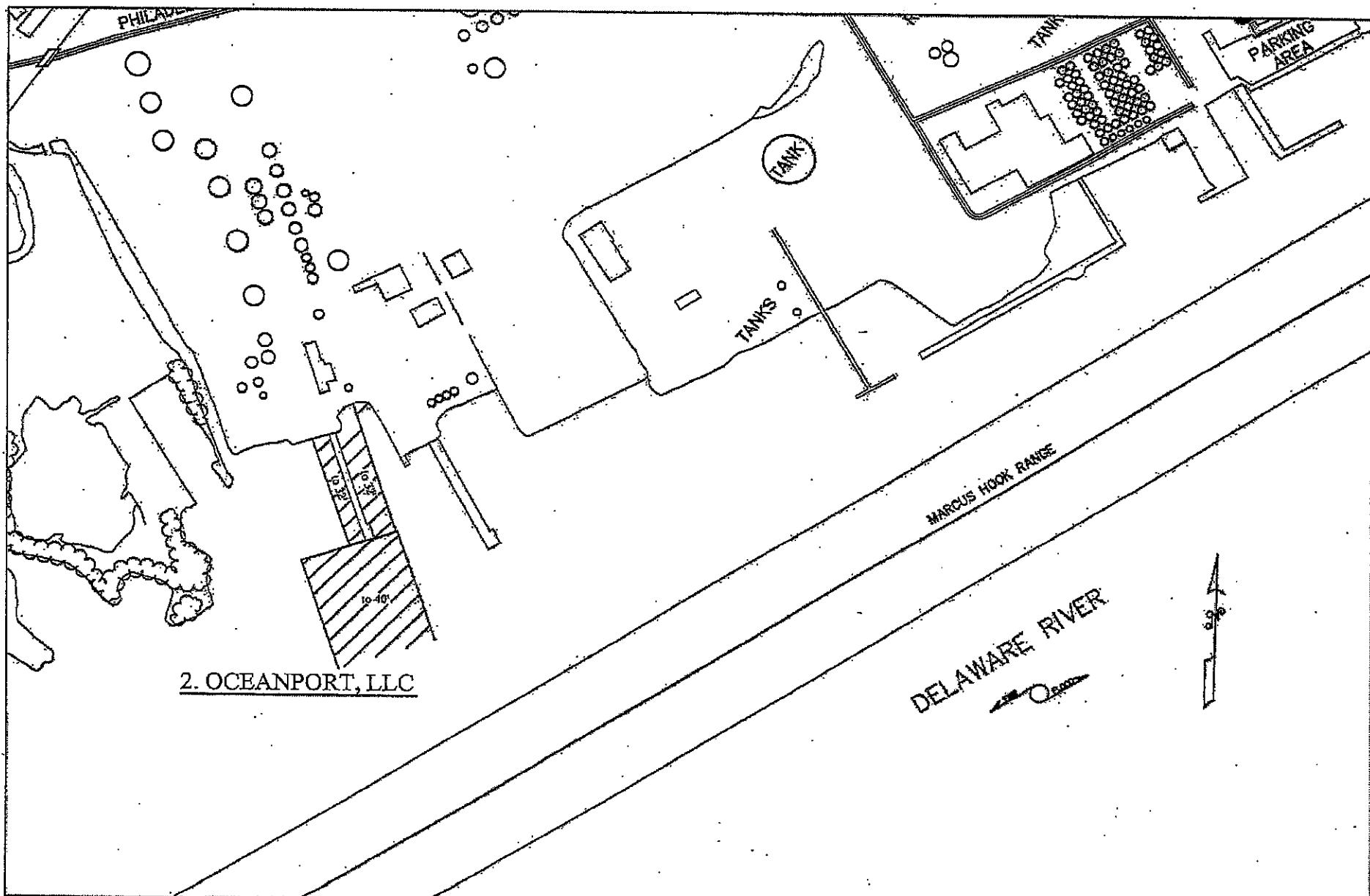
PROPOSED MAINTENANCE
DREDGING SITE PLAN

WEEKS MARINE, INC.
901 BEACH ST
CAMDEN, NJ 08102
856-963-0963

DATE: JULY 11, 2002 SHEET: 3 OF 18
SCALE: 1" = 800' DRAWN BY: CMM

REVISIONS

E-3



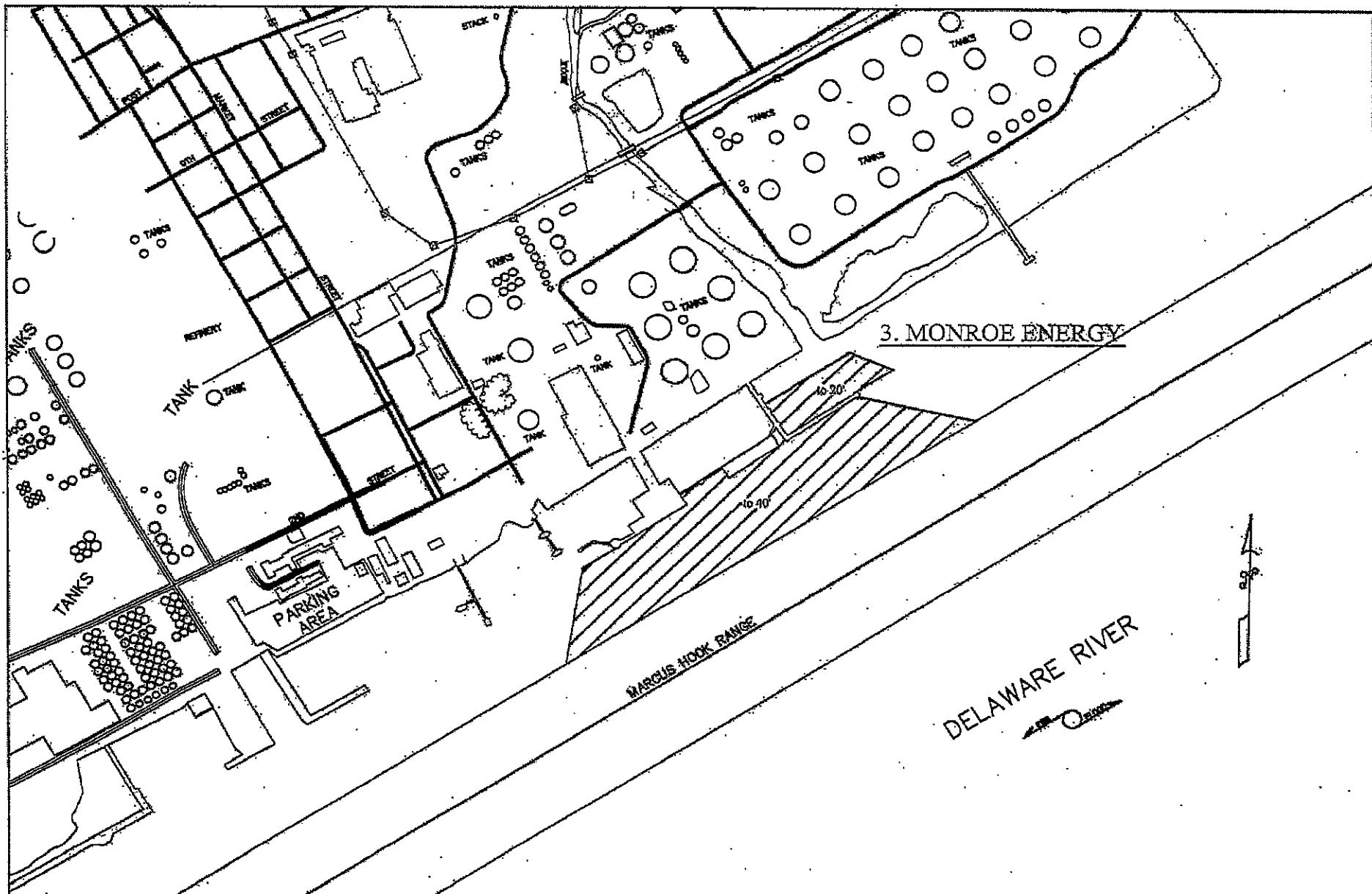
NO.	DATE	DESCRIPTION	APR.
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2	9/25/2013	Revise Dredge Location	
3	7/15/2014	Update Facility	

PROPOSED MAINTENANCE
DREDGING SITE PLAN

WEEKS MARINE, INC.
901 BEACH ST
CAMDEN, NJ 08102
856-963-0963

DATE: JUNE 28, 2007
SCALE: 1" = 800'
SHEET: 4 OF 18
DRAWN BY: EDD

E-5



NO.	DATE	DESCRIPTION	APR.
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2	7/15/2014	Update Facility	

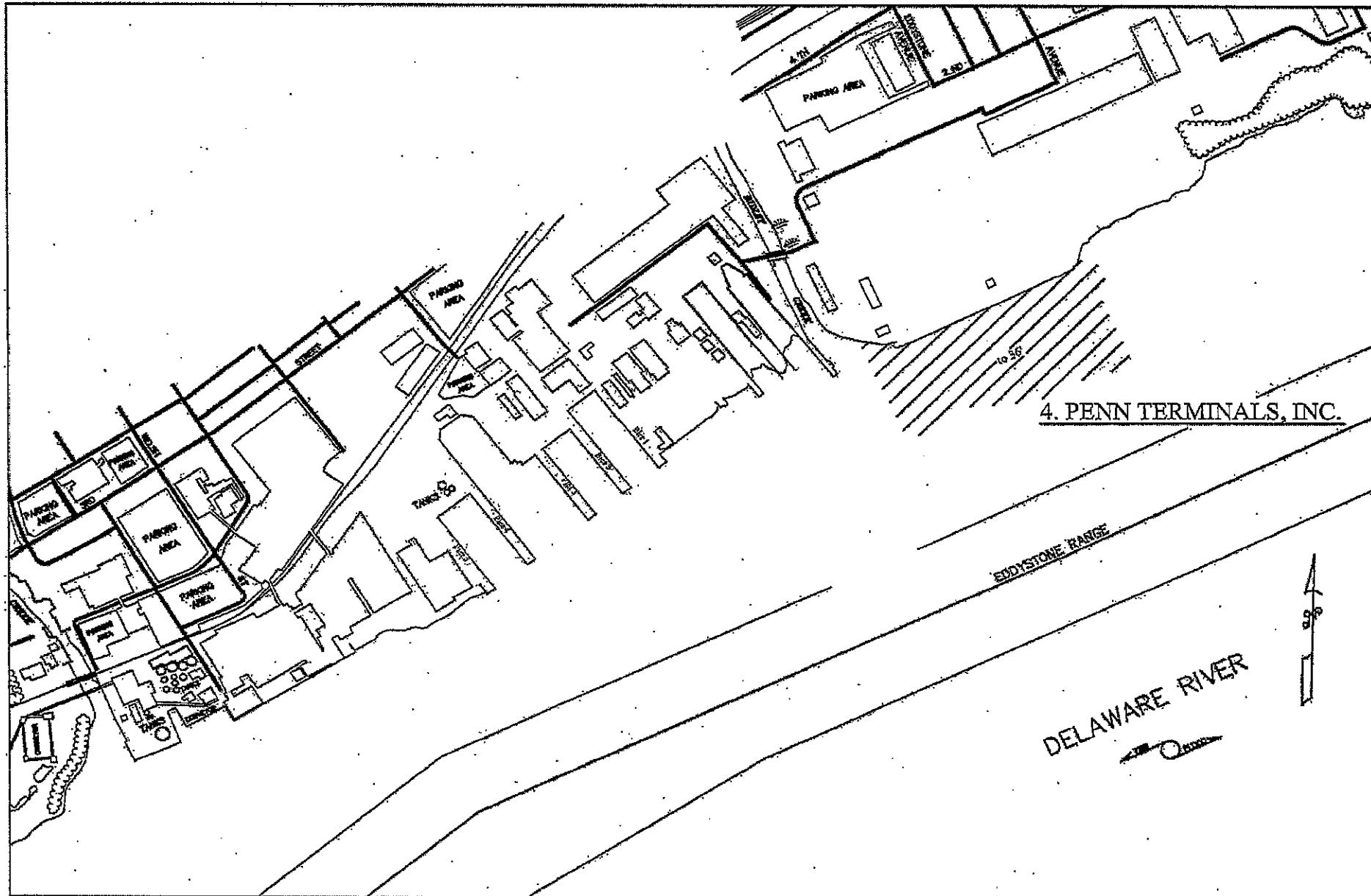
PROPOSED MAINTENANCE
DREDGING SITE PLAN

WEEKS MARINE, INC.
901 BEACH ST
CAMDEN, NJ 08102
856-963-0963

DATE: JULY 11, 2002 SHEET: 1 OF 18
SCALE: 1" = 800' DRAWING: CMM

REVISIONS

E-5



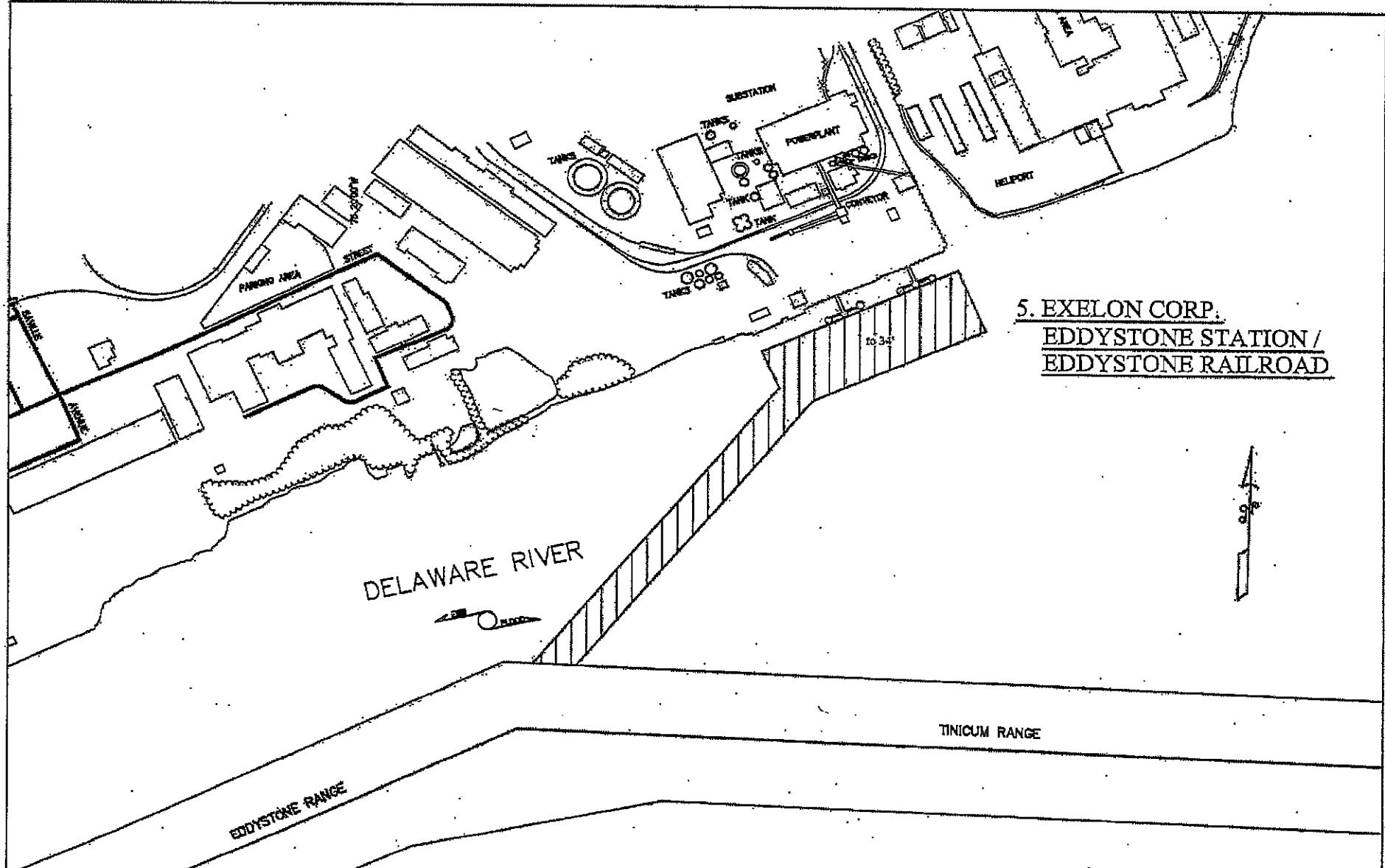
NO.	DATE	DESCRIPTION	APR.
1	9/25/2013	Revise Dredge Locations	
2	7/15/2014	Update Facility	
REVISIONS			

PROPOSED MAINTENANCE DREDGING SITE PLAN

WEEKS MARINE, INC.
901 BEACH ST
CAMDEN, NJ 08102
856-963-0963

DATE: JULY 11, 2002 SHEET: 6 OF 18
SCALE: 1" = 800' TRIMBLE RTK CMM

E-6



NO.	DATE	DESCRIPTION	APR.
1	9/25/2013	Revise Dredge Location	
2	7/15/2014	Update Facility	

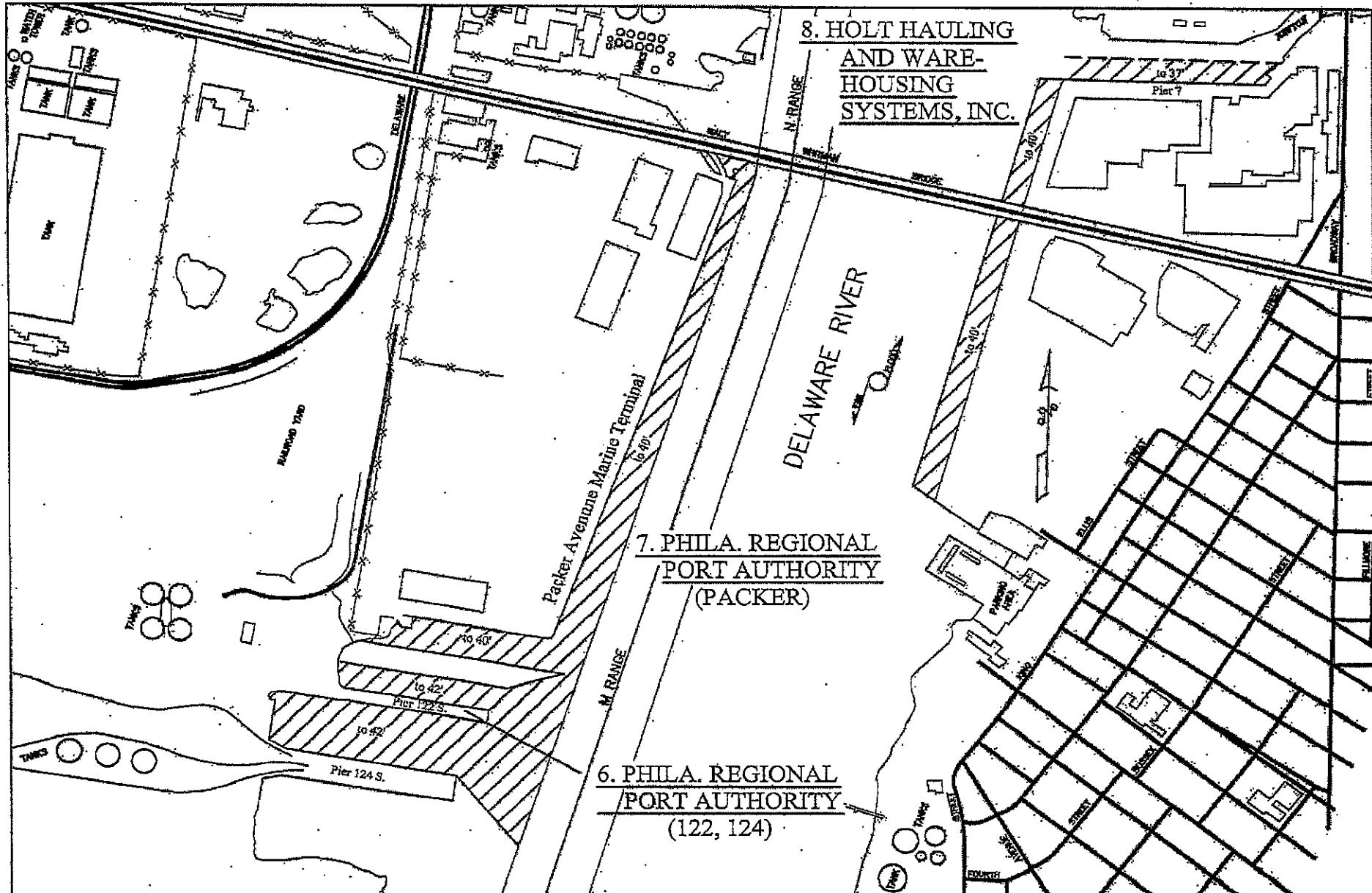
PROPOSED MAINTENANCE
DREDGING SITE PLAN

WEEKS MARINE, INC.
901 BEACH ST
CAMDEN, NJ 08102
856-963-0963

DATE: JULY 11, 2002 SHEET: 7 OF 18
SCALE: 1" = 800' DRAWN BY: CMM.

REVISIONS

E-7



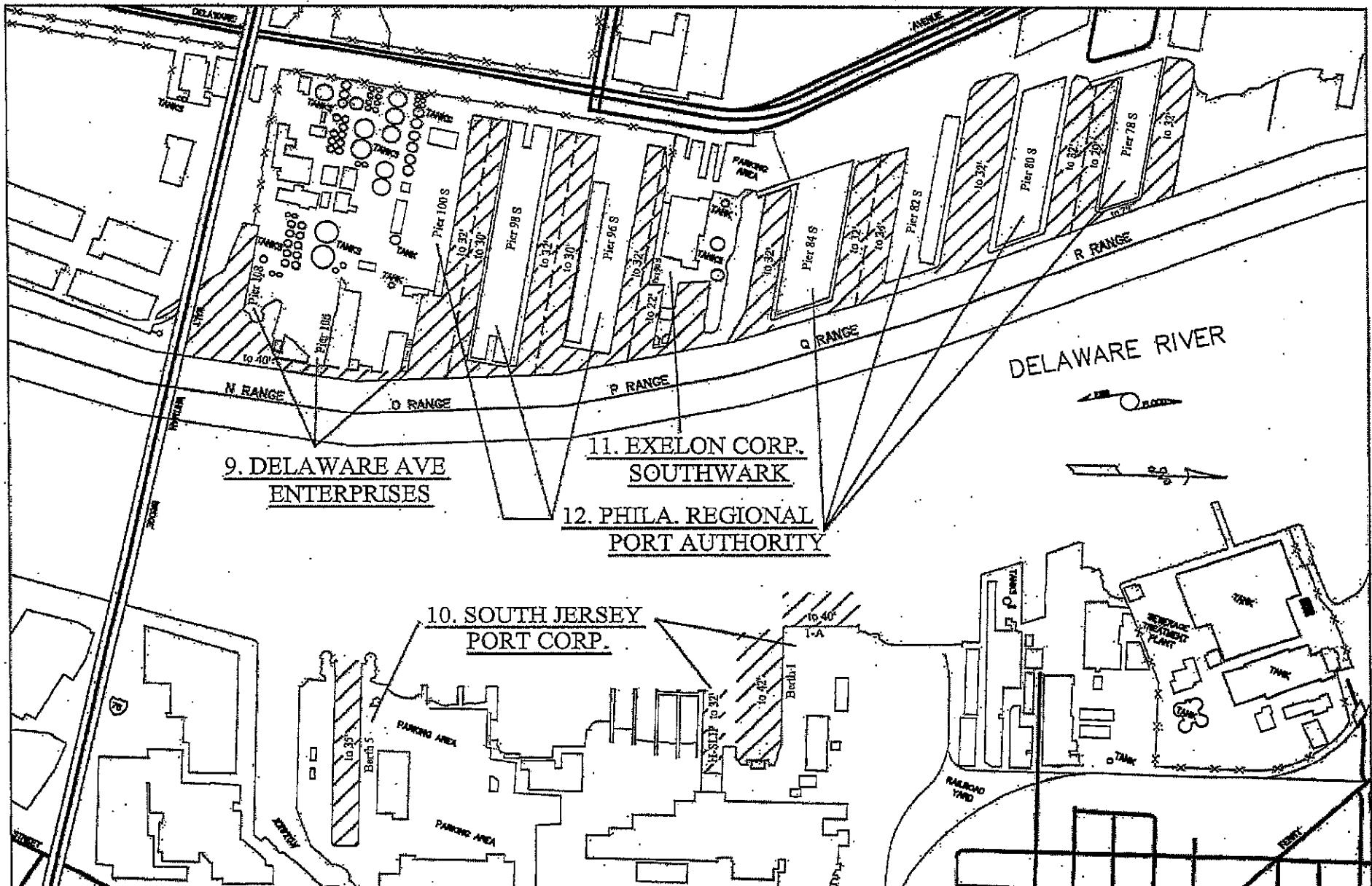
NO.	DATE	DESCRIPTION	APR.
1	2/6/12	Conrail to Growmark (Pier 122)	
2	9/25/2013	Revise Dredge Locations	
3	7/15/2014	Update Facility	

PROPOSED MAINTENANCE DREDGING SITE PLAN

WEEKS MARINE, INC.
901 BEACH ST
CAMDEN, NJ 08102
856-963-0963

DATE: JULY 11, 2002 SHEET: 8 OF 18
SCALE: 1" = 800' DRAWN BY: CMM

E-8



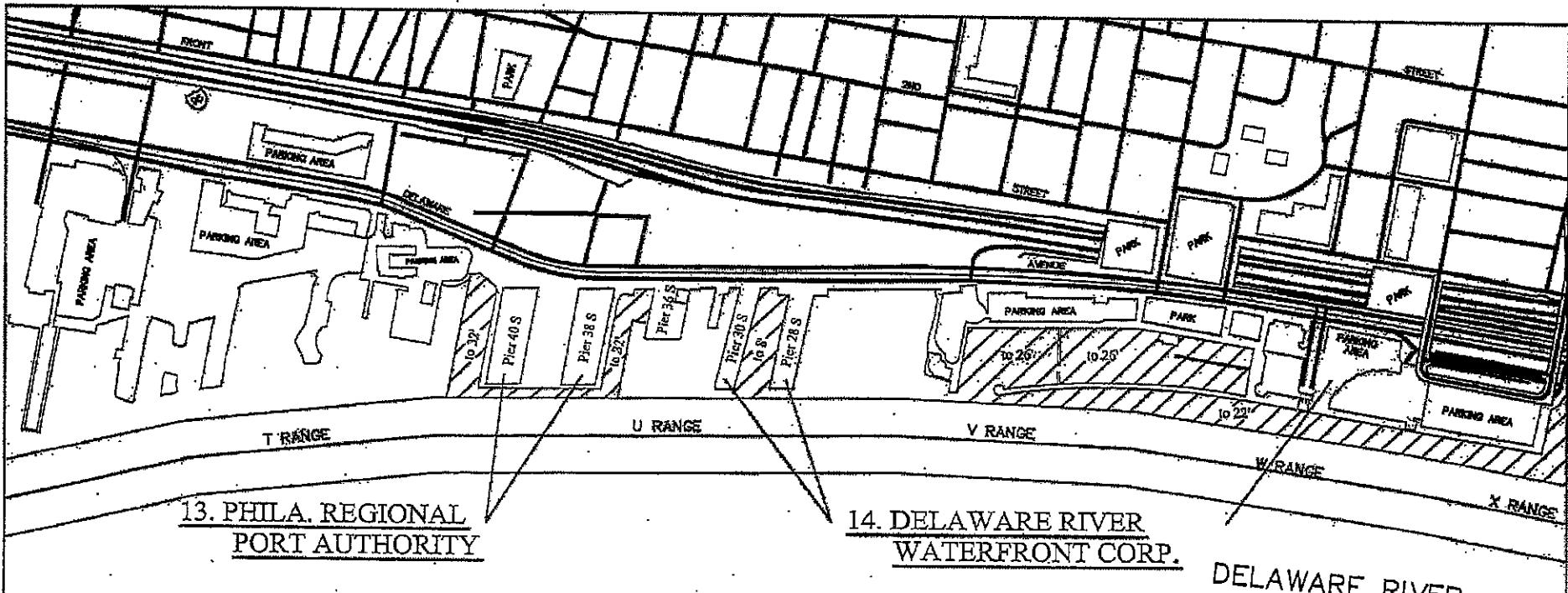
NO.	DATE	DESCRIPTION	APR.
1	9/25/2013	Revise Dredge Locations	
2	7/15/2014	Update Facility	

**PROPOSED MAINTENANCE
DREDGING SITE PLAN**

WEEKS MARINE, INC.	DATE:	SCALE:	EDD
901 BEACH ST CAMDEN, NJ 08102 856-963-0963	JULY 08, 2008	1" = 800'	9 OF 18

REVISIONS

E-9

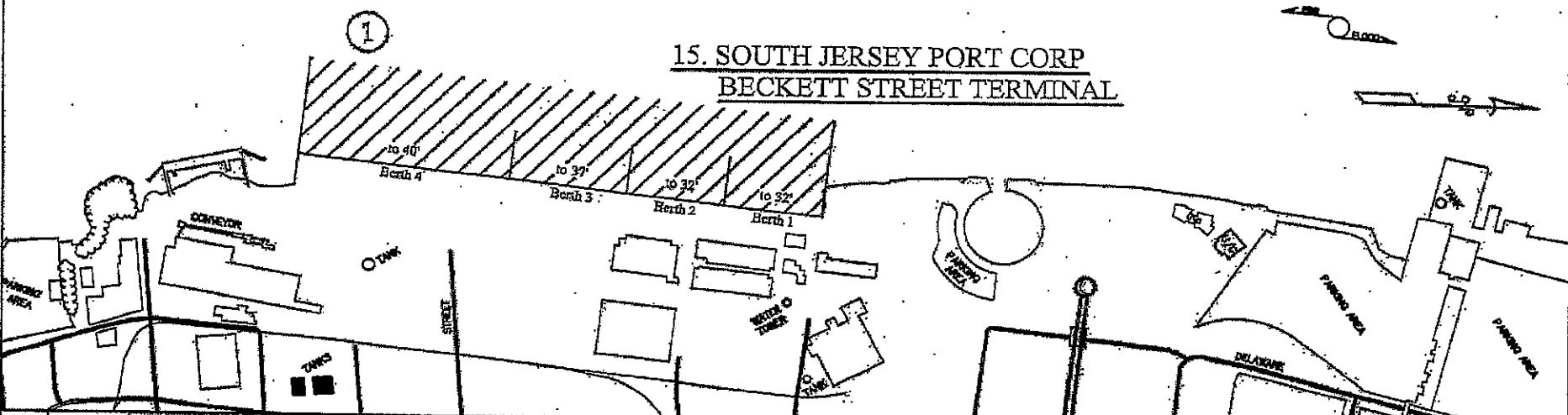


13. PHILA. REGIONAL
PORT AUTHORITY

14. DELAWARE RIVER
WATERFRONT CORP.

DELAWARE RIVER

15. SOUTH JERSEY PORT CORP
BECKETT STREET TERMINAL



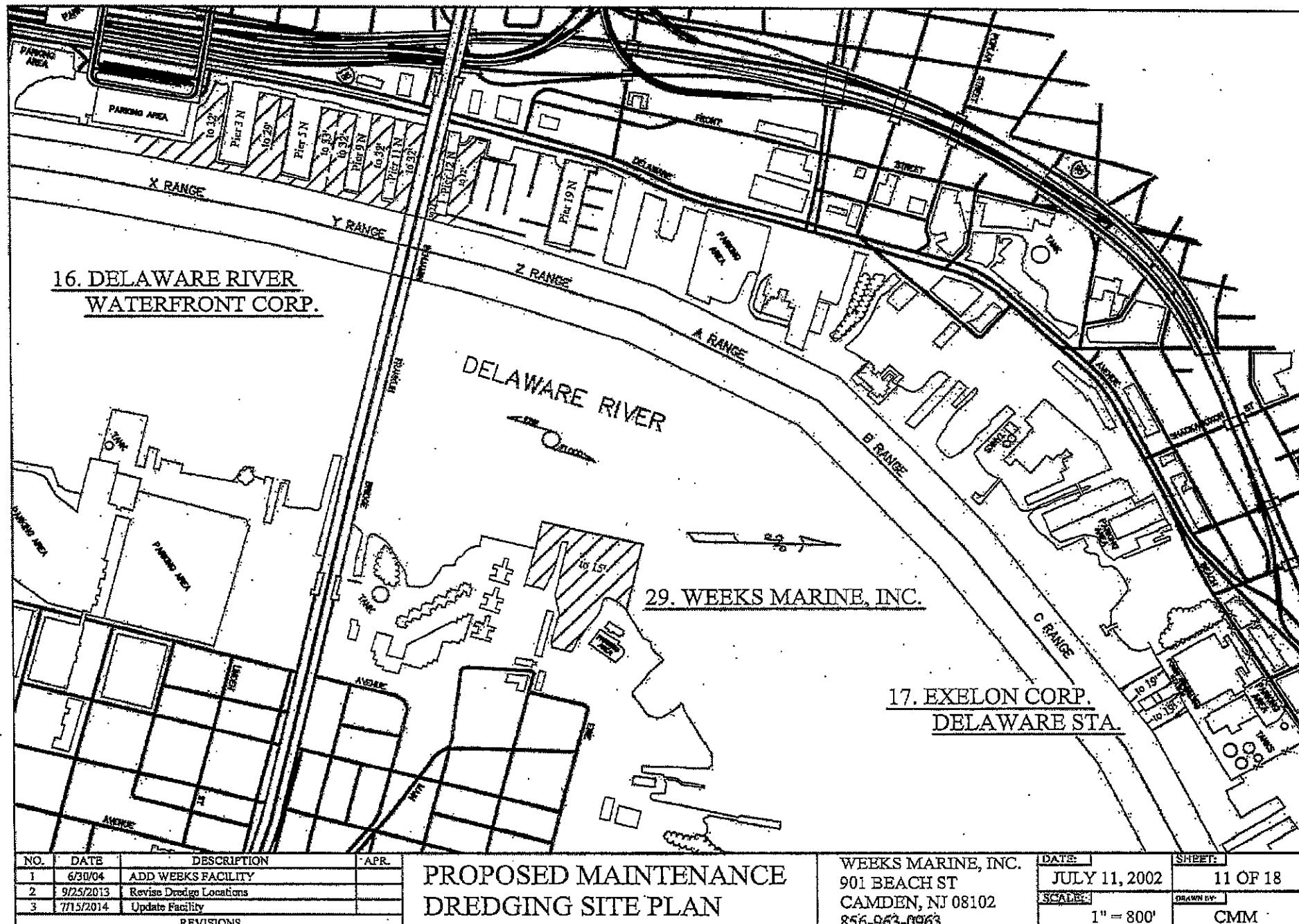
NO.	DATE	DESCRIPTION	APR.
1	12/10/02	Berth 4 was extended in '95	
2	9/25/2013	Revise Dredge Locations	
3	7/15/2014	Update Facility	

PROPOSED MAINTENANCE
DREDGING SITE PLAN

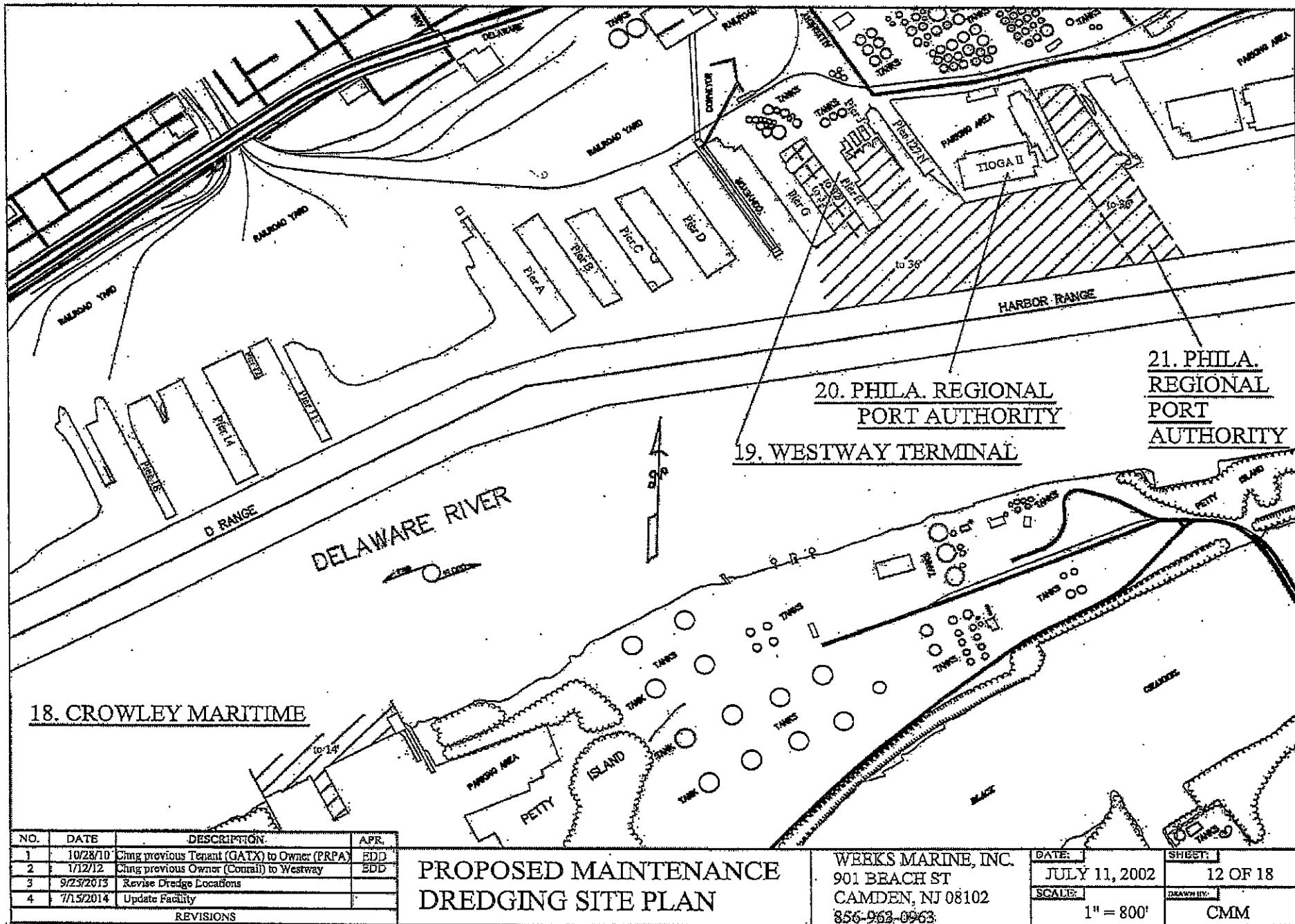
WEEKS MARINE, INC.
901 BEACH ST
CAMDEN, NJ 08102
856-963-0963

DATE: JULY 11, 2002 SHEET: 1
SCALE: 1" = 800' DRAWN BY: CMM
10 OF 18

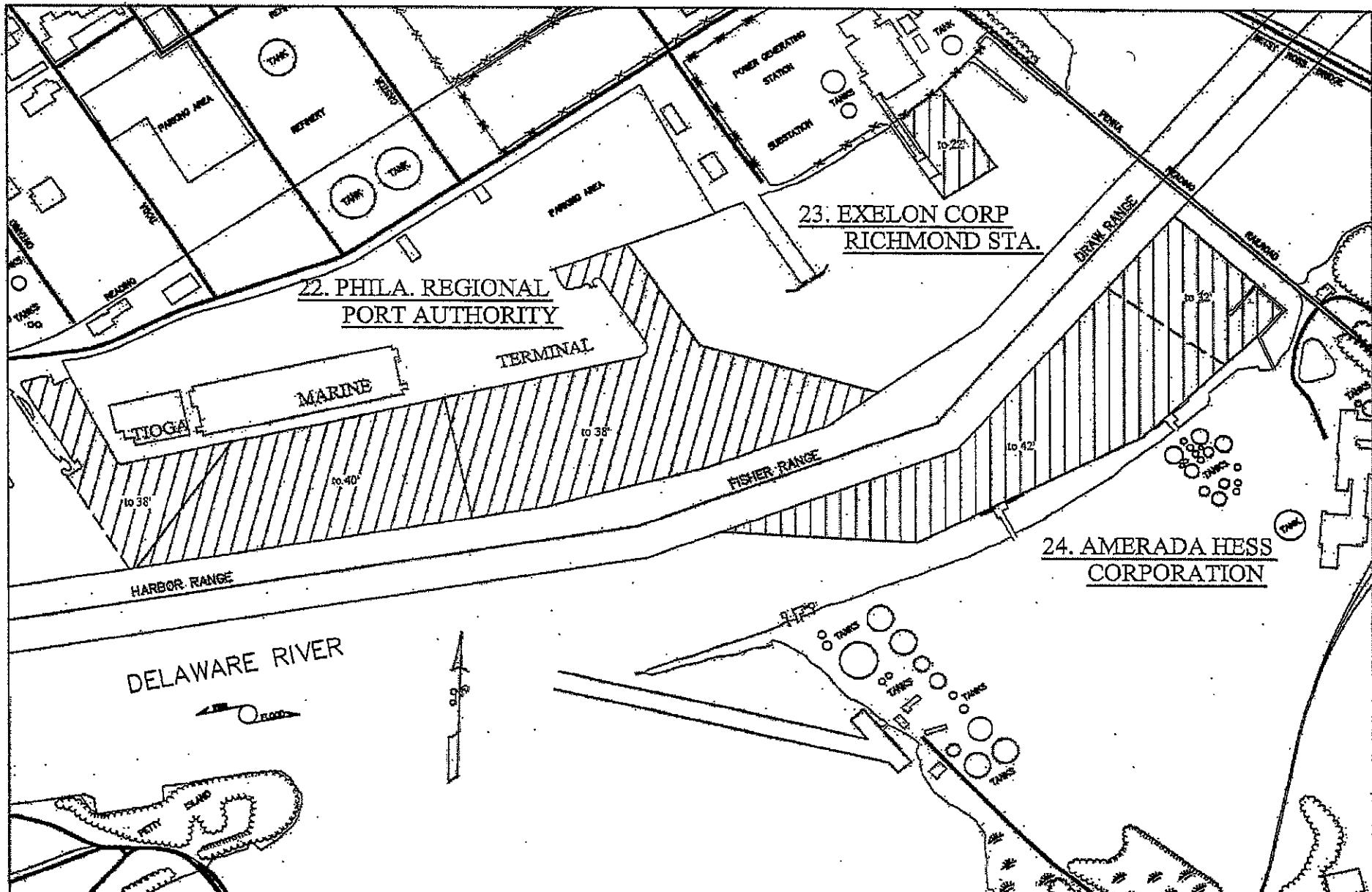
E-10



E-11



E-12



NO.	DATE	DESCRIPTION	APR.
1	1/9/07	PRPA TIoga MT Depth from 36' to 38'	
2	9/25/2013	Revise Dredge Locations	
3	7/1/2014	Update Facility	

**PROPOSED MAINTENANCE
DREDGING SITE PLAN**

WEEKS MARINE, INC.
901 BEACH ST
CAMDEN, NJ 08102
856-963-0963

DATE	SHEET
JAN. 9, 2007	13 OF 18
SCALE	1" = 800'
EDD	

E-13



NO.	DATE	DESCRIPTION	APR.
1	9/25/2013	Revise Dredge Locations	
2	7/15/2014	Update Facility	

PROPOSED MAINTENANCE
DREDGING SITE PLAN

WEEKS MARINE, INC.
901 BEACH ST
CAMDEN, NJ 08102
856-963-0963

DATE: JULY 11, 2002 SHEET: 14 OF 18
SCALE: 1" = 800' DRAWN BY: CMM

E-14



NO.	DATE	DESCRIPTION
1	Jan. 3, 2008	Replace G.B. w/ Nat. Gyp. & expand footprint
2	9/25/2013	Revise Dredge Location
3	7/15/2014	Update Facility

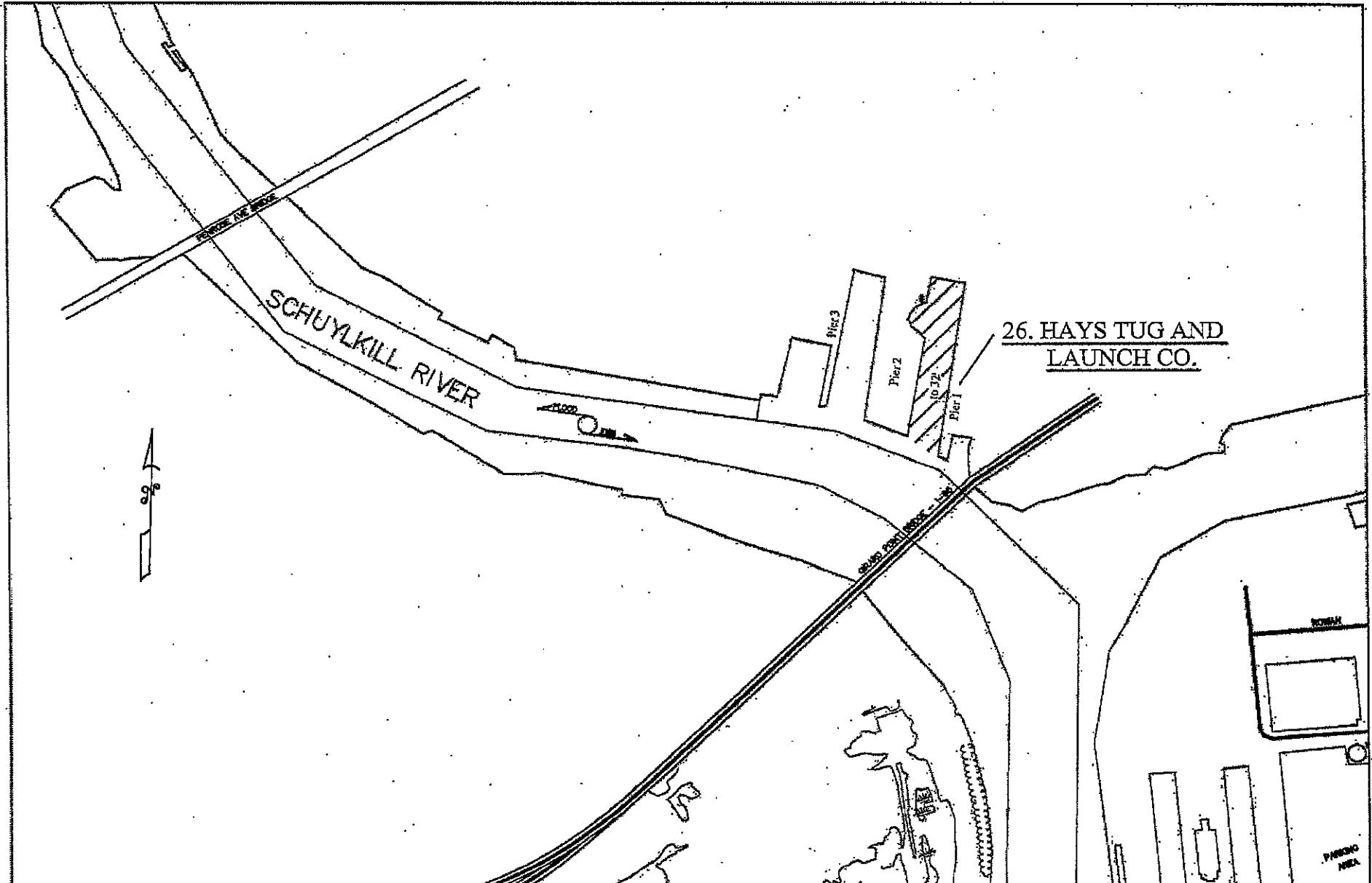
REVISIONS

PROPOSED MAINTENANCE
DREDGING SITE PLAN

WEEKS MARINE, INC.
901 BEACH ST
CAMDEN, NJ 08102
856-963-0963

DATE: JULY 11, 2002 SHEET: 15 OF 18
SCALE: 1" = 800' DEPTH: 0'-10'
CMM

E-15



NO.	DATE	DESCRIPTION	APR.
1	9/25/2013	Revise Dredge Locations	
2	7/15/2014	Update Facility	

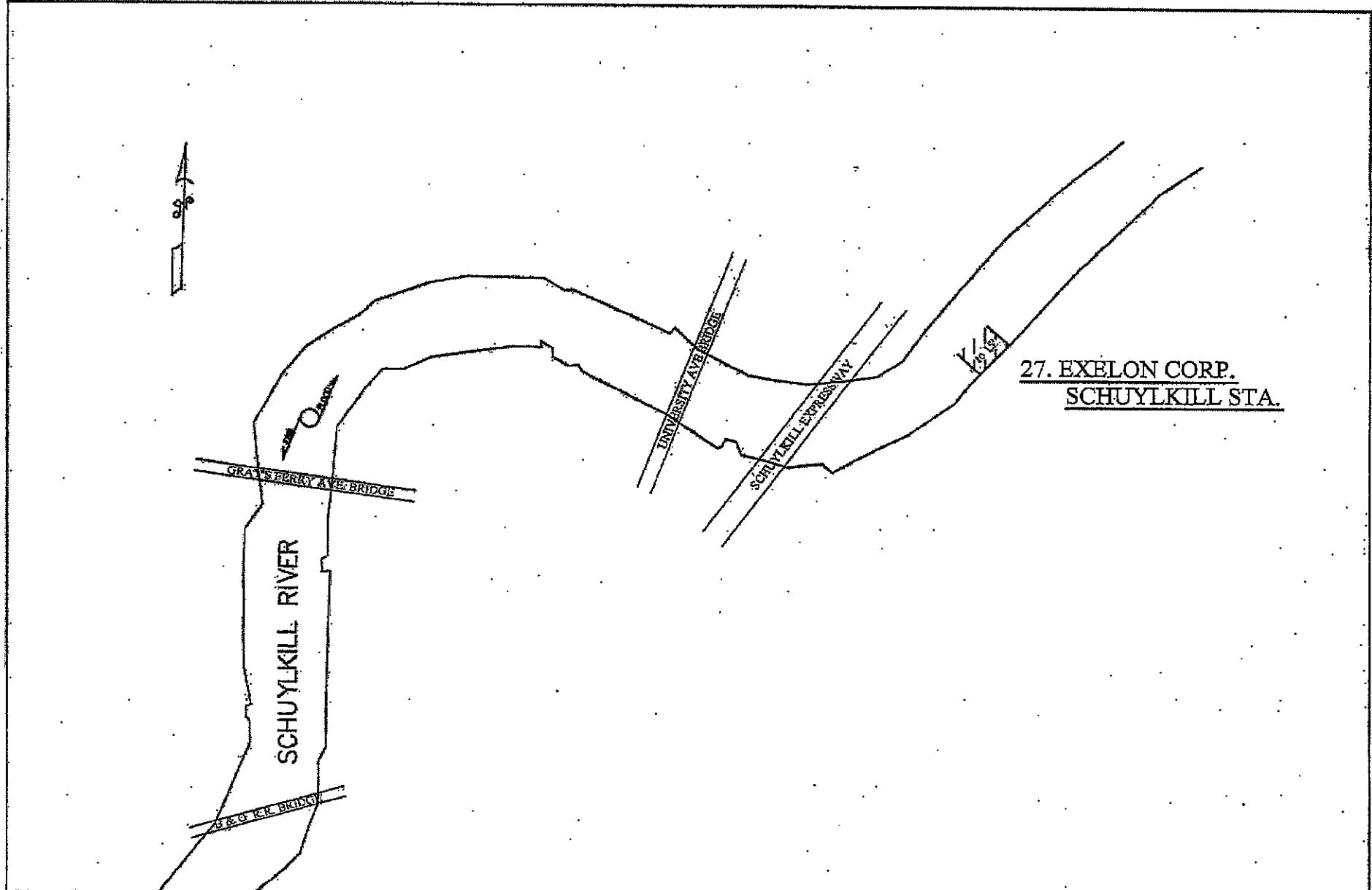
PROPOSED MAINTENANCE
DREDGING SITE PLAN

WEEKS MARINE, INC.
901 BEACH ST
CAMDEN, NJ 08102
856-963-0963

DATE: JULY 11, 2002 SHEET #: 16 OF 18
SCALE: 1" = 800' DRAWN BY: CMM

REVISIONS

E-1b



NO.	DATE	DESCRIPTION	APP.
1	9/25/2013	Revise Dredge Locations	
2	7/15/2014	Update Facility	

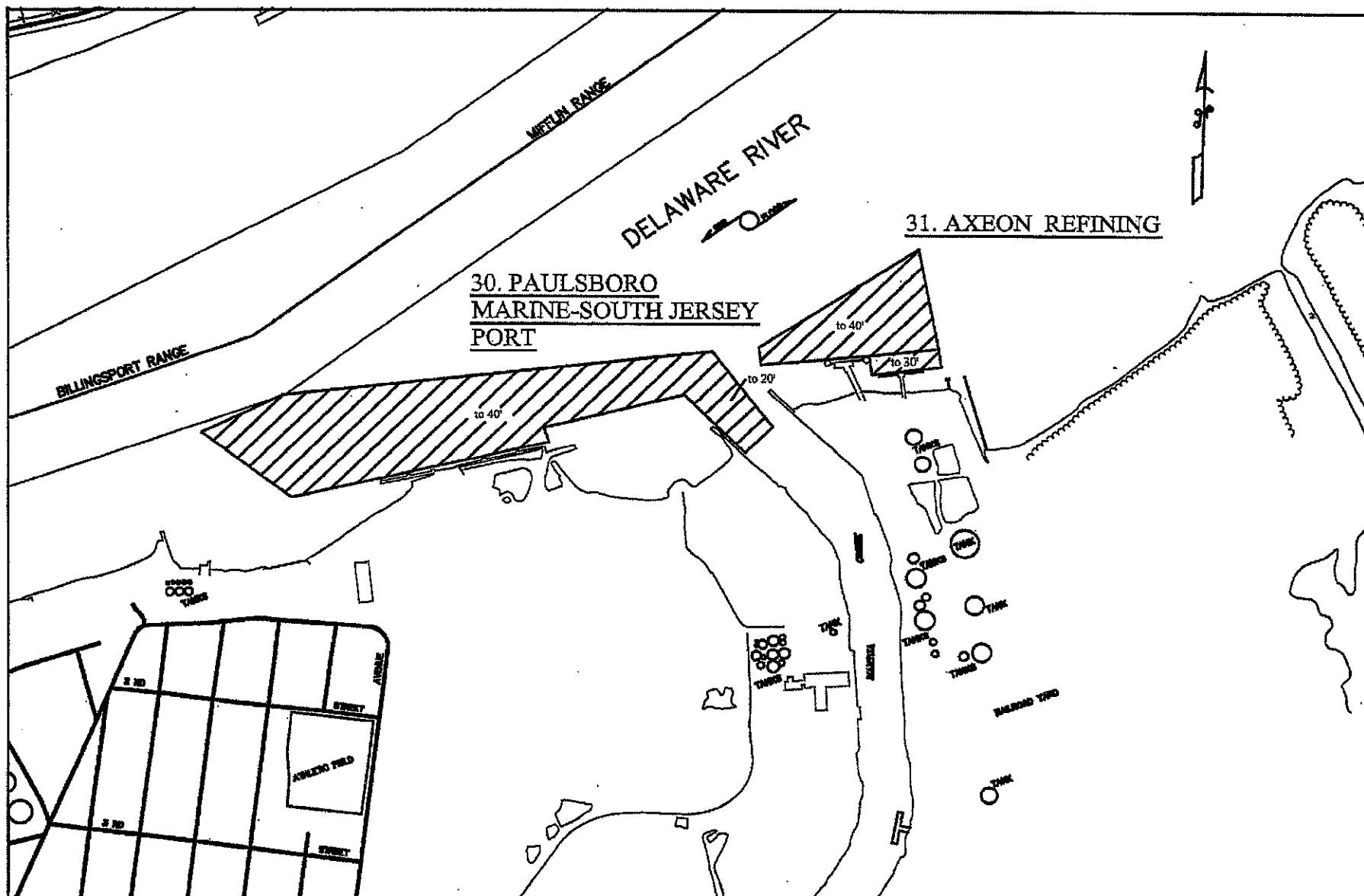
PROPOSED MAINTENANCE
DREDGING SITE PLAN

WEEKS MARINE, INC.
901 BEACH ST
CAMDEN, NJ 08102
856-963-0963

DATE:	JULY 11, 2002	SHEET:	17 OF 18
SCALE:	1" = 800'	DRAWN BY:	CMM

REVISIONS

E-17



NO.	DATE	DESCRIPTION	APR.
1	7/15/2014	Update Facility	
2	9/03/2014	Change Facility Name	

REVISIONS

PROPOSED MAINTENANCE DREDGING SITE PLAN

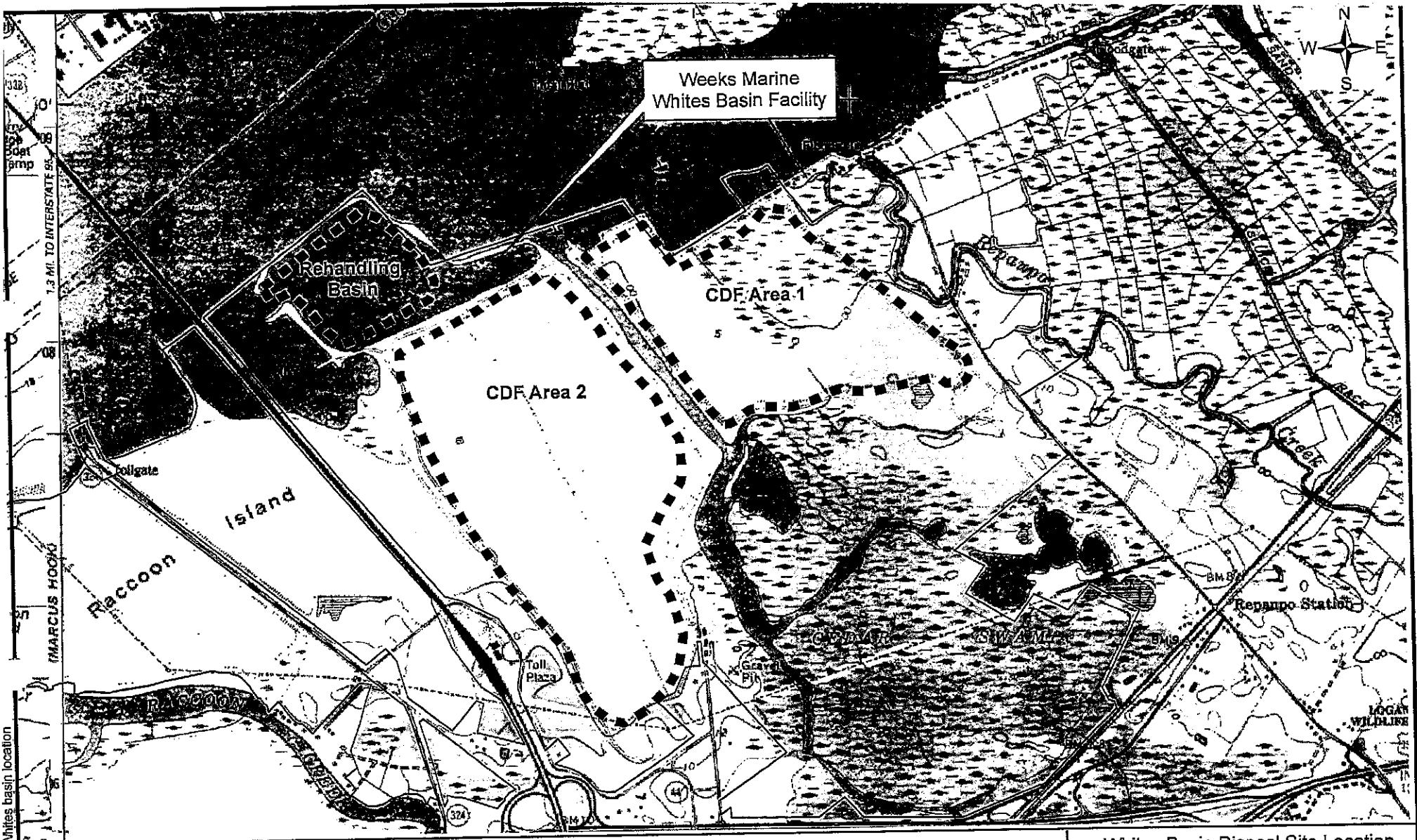
WEEKS MARINE, INC.
901 BEACH ST
CAMDEN, NJ 08102
856-963-0963

DATE:	AUG 25, 2006	SHEET:	18 OF 18
SCALE:	1" = 800'	DRAWN BY:	EDD

E-18

FACILITIES LOCATION AND DREDGING AREA					
Map #	Facility Name	Location in Decimal Degrees		Footprint of Dredging Area	
		X	Y	AREA (ac)	AREA (sq. ft.)
1	Calpine	-75.5032	39.7365	2.93	127,631
2	Oceanport LLC	-75.4346	39.8036	13.75	598,950
3	Monroe Energy	-75.4067	39.8137	29.5	1,285,020
4	Penn Terminals	-75.3416	39.8498	19.33	842,015
5	Exelon Eddystone Sta.	-75.3217	39.8571	21.04	916,502
6	PRPA Piers 122&124	-75.1386	39.8957	16.92	737,035
7	PRPA Packer	-75.1347	39.9005	8.25	359,370
8	Holt Hauling & Warehousing	-75.1273	39.9044	7.52	327,571
9	Delaware Ave, Enterprises	-75.1318	39.9077	12.5	544,500
10	South Jersey Port Corp	-75.1245	39.9117	4.26	185,566
11	Exelon Southwark	-75.1339	39.914	48.9	2,130,084
12	PRPA Piers 78,80,82,84,96,98,100	-75.1335	39.9174	4.53	197,327
13	PRPA Piers 38&40	-75.1416	39.9352	21.58	940,025
14	Delaware River Waterfront Corp	-75.1407	39.9397	14.57	634,669
15	South Jersey Port Beckett St	-75.1331	39.9364	31.85	1,387,386
16	Delaware River Waterfront Corp	-75.1387	39.9512	5.17	225,205
17	Exelon Delaware Sta.	-75.1261	39.9659	12.62	549,727
18	Crowley Maritime	-75.1111	39.9666	8.36	364,162
19	Westway Terminal	-75.0984	39.9759	78.52	3,420,331
20	PRPA	-75.0943	39.977	4.15	180,774
21	PRPA	-75.0931	39.9776	43.11	1,877,872
22	PRPA Tioga	-75.086	39.9784	3.62	157,687
23	Exelon Richmond	-75.0735	39.9827	4.91	213,880
24	Amerada Hess	-75.0711	39.9776	1.01	43,996
25	National Gypsum	-74.8314	40.109	7.42	323,215
26	Hays Tug and Launch	-75.1978	39.894	21.6	940,896
27	Exelon Schuylkill Sta.	-75.1891	39.9448	1.77	77,101
28	Exelon Croydon	-74.9066	40.0736	3.54	154,202
29	Weeks Marine	-75.13	39.9553	16.29	709,592
30	South Jersey Port Paulsboro Marine	-75.2346	39.8532	31.73	1,382,159
31	Axeon Refining	-75.228	39.854	9.82	427,759

E-19



SOURCE:
USGS Bridgeport and Marcus Hook Quads

Legend

- Property Limits
- Dredged Material
- Management Areas

0 1,000 2,000 4,000
Feet

APPLICANT:
Weeks Marine, Inc.
901 Beach Street
Camden, NJ 08102

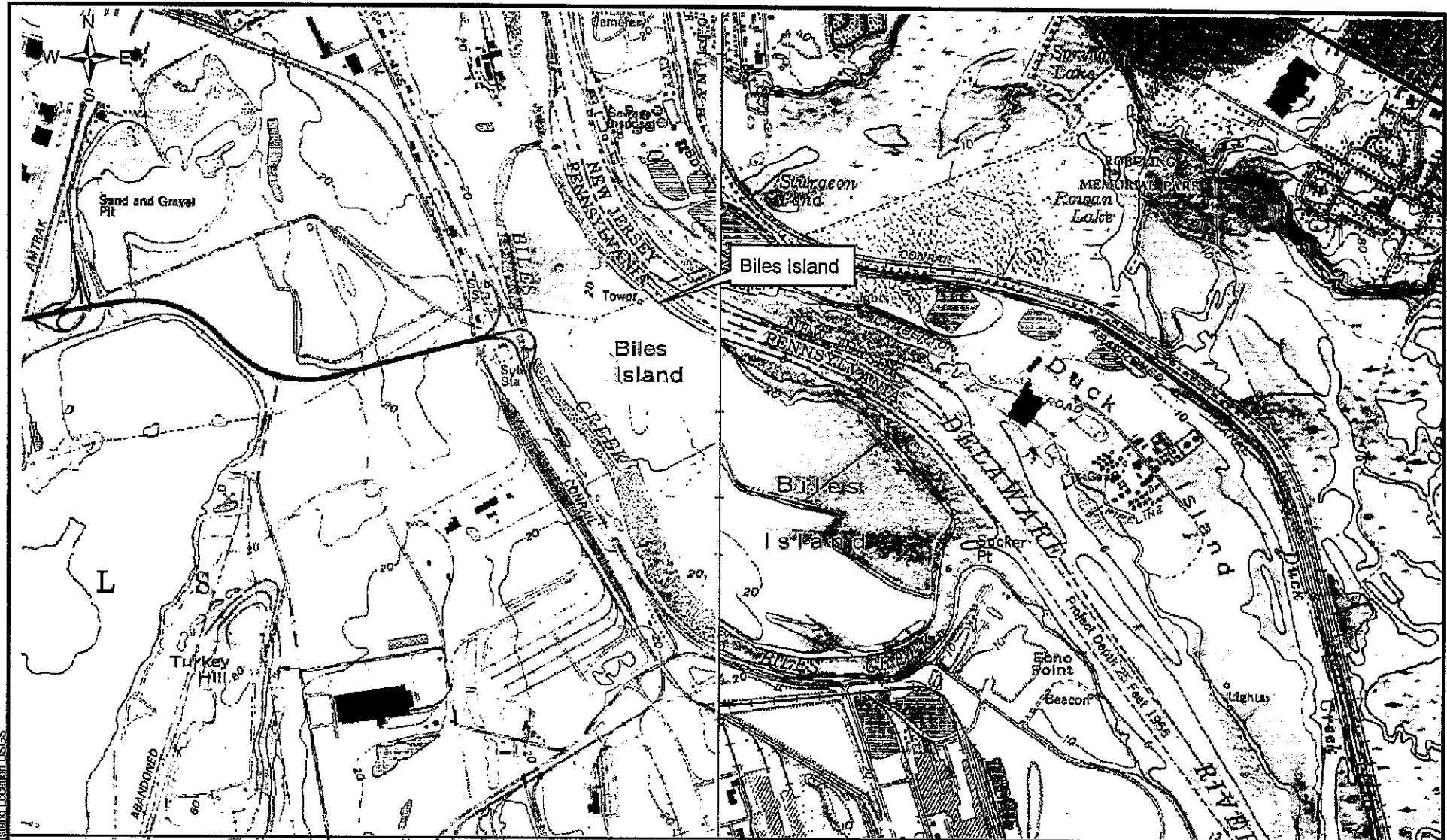
Whites Basin Disposal Site Location

Whites Rehandling Basin
Dredged Material Facility
Logan, Gloucester County, NJ



DRAWN BY GRM SCALE 1"= 2000' DATE 10/28/13 DWG NO. 6258 FIGURE 2

E-20



Biles Island Disposal Site Location

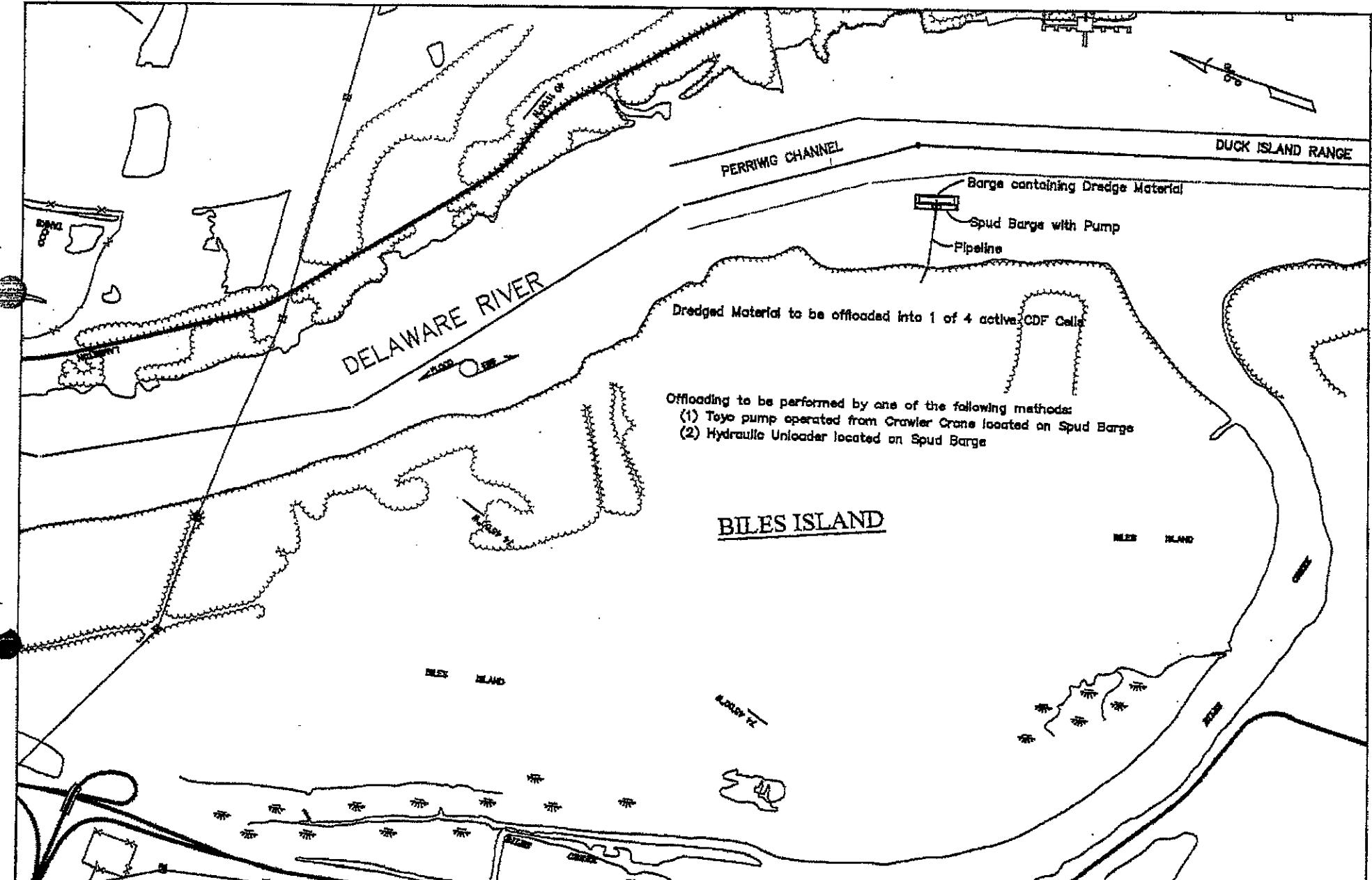
Weeks Marine
Blanket Facility Maintenance Dredging
Delaware and Schuylkill Rivers
Pennsylvania, New Jersey and Delaware



SOURCE:
USGS NJ Quads:
Trenton West
Trenton East

0 1,000 2,000 4,000
Feet

E-21



DATE	APR.
REVISIONS	

PROPOSED BILES ISLAND DISPOSAL SITE PLAN

WEEKS MARINE, INC.
901 BEACH ST
CAMDEN, NJ 08102
856-963-0963

DATE: NOV. 6, 2009 SHEET: 1 OF 1
SCALE: 1" = 800' DRAWN BY: EDD

E-22

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF LAND USE REGULATION
 Mail Code 501-02A, P.O. Box 420, Trenton, New Jersey 08625-0420
 Telephone: (609) 777-0454 or Fax: (609) 777-3656
www.nj.gov/dep/landuse



PERMIT

<p>In accordance with the laws and regulations of the State of New Jersey, the Department of Environmental Protection hereby grants this permit to perform the activities described below. This permit is revocable with due cause and is subject to the limitations, terms and conditions listed below and on the attached pages. For the purpose of this document, "permit" means "approval, certification, registration, authorization, waiver, etc." Violation of any term, condition or limitation of this permit is a violation of the implementing rules and may subject the permittee to enforcement action.</p>		Approval Date June 22, 2018
		Expiration Date June 21, 2023
Permit Number(s): 0408-18-0001.1 WFD 180001	Type of Approval(s): In-Water Waterfront Development Individual Permit	Enabling Statute(s): N.J.S.A. 12:5-3 et seq. N.J.S.A. 58:10A et seq.
Permittee: Kevin Castagnola South Jersey Port Corporation 101 Joseph A. Balzano Blvd. Camden, New Jersey 08103	Site Location: Block(s) & Lot(s): [141, 1] [214, 1] [215, 59] [455, 1] Municipality: Camden City County: Camden	
Description of Authorized Activities: <p>This permit authorizes the South Jersey Port Corporation to conduct initial mechanical maintenance dredging of 82,755 cubic yards and a total maintenance dredging of 200,000 cubic yards from the Delaware River over the five-year term of this permit at the Balzano Terminal and Broadway Terminal in Camden City, Camden County. The material will be transported to the Whites Basin Dredge Material Rehandling Basin located in Logan Township, Gloucester County and will be hydraulically pumped into one of the adjacent upland confined disposal facilities for final placement as stipulated in the Acceptable Use Determination (AUD) below. Additionally, this permit authorizes maintenance repairs described on page 2 of this permit. All work is illustrated on the plans referenced on the last page of this permit.</p> <p>Please note that this authorization specifically excludes all proposed dredged material from Pier 1A.</p> <p>This permit is authorized under and in compliance with the Rules on Coastal Zone Management, N.J.A.C. 7:7-1.1 et seq., as amended through April 16, 2018.</p> <p>By issuance of this permit, the State of New Jersey does not relinquish tidelands ownership or claim to any portion of the subject property or adjacent properties.</p> <p>This permit includes the State's Water Quality Certification pursuant to Section 401 of the Federal Water Pollution Control Act (33 USC 1251 et seq.).</p>		
Prepared by: Jeff Thein	Received and/or Recorded by County Clerk:	
<p>If the permittee undertakes any regulated activity authorized under a permit, such action shall constitute the permittee's acceptance of the permit in its entirety as well as the permittee's agreement to abide by the permit and all conditions therein.</p>		
<p>This permit is not valid unless authorizing signature appears on the last page.</p>		

AUTHORIZED MAINTENACE REPAIRS:**Balzano Terminal:**

Berth 1: Riprap Stabilization;
Berth 2: Cathodic Protection System Repair, Re-secure thirty (30) loose fender piles, and replace broken V-Fender;
Berth 3: Cathodic Protection System Repair. Replace five (5) broken or missing composite fender piles. Replace two (2) broken or missing V-Fenders. Re-secure twenty-five (25) loose fender piles. Repair spalled concrete beam. Repair cracked and broken concrete fascia beam. Repair cracked concrete cap at pony bent;
Berth 4: Cathodic Protection System repair, Replace seventeen (17) broken or missing composite fender piles. Replace three (3) broken or missing V-fenders, Re-secure sixteen (16) loose fender piles. Install "Belly Band" encasement repair for existing steel sheet piling from Cell No. 4 through Cell No. 11 and connecting arcs; and
Berth 4 extension: Cathodic Protection System repair. Replace two (2) broken or missing V-finders.

Broadway Terminal:

Pier 1: Install twelve (12) 12-inch auxiliary steel front-row bearing H-piles under the face of the existing Pier 1 seawall to reinforce and stabilize the wall, replacing the older front-row timber piles which are either broken or missing. Replace 300 square feet of rotten deck timbers;
Pier 1A: Install four (4) pile encasements for the cracked concrete piles and refasten six (6) fender units;
Pier 5: Cathodic Protection System Repair and refasten ten (10) fender units; and
Pier 6: Rip-rap stabilization.

STANDARD CONDITIONS:

1. The issuance of a permit shall in no way expose the State of New Jersey or the Department to liability for the sufficiency or correctness of the design of any construction or structure(s). Neither the State nor the Department shall, in any way, be liable for any loss of life or property that may occur by virtue of the activity or project conducted as authorized under a permit.
2. The issuance of a permit does not convey any property rights or any exclusive privilege.
3. The permittee shall obtain all applicable Federal, State, and local approvals prior to commencement of regulated activities authorized under a permit.
4. A permittee conducting an activity involving soil disturbance, the creation of drainage structures, or changes in natural contours shall obtain any required approvals from the Soil Conservation District having jurisdiction over the site.
5. The permittee shall take all reasonable steps to prevent, minimize, or correct any adverse impact on the environment resulting from activities conducted pursuant to the permit, or from noncompliance with the permit.
6. The permittee shall immediately inform the Department by telephone at (877) 927-6337 (Warn DEP Hotline) of any noncompliance that may endanger the public health, safety, and welfare, or the environment. In addition, the permittee shall inform the Division of Land Use Regulation by telephone at (609) 777-0454 of any other noncompliance within two working days of the time the permittee becomes aware of the noncompliance, and in writing within five working days of the time the permittee becomes aware of the noncompliance. Such notice shall not, however, serve as a defense to enforcement action if the project is found to be in violation of this chapter. The written notice shall include:

- a. A description of the noncompliance and its cause;
 - b. The period of noncompliance, including exact dates and times;
 - c. If the noncompliance has not been corrected, the anticipated length of time it is expected to continue; and
 - d. The steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
7. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the authorized activity in order to maintain compliance with the conditions of the permit.
 8. The permittee shall employ appropriate measures to minimize noise where necessary during construction, as specified in N.J.S.A. 13:1G-1 et seq. and N.J.A.C. 7:29.
 9. The issuance of a permit does not relinquish the State's tidelands ownership or claim to any portion of the subject property or adjacent properties.
 10. The issuance of a permit does not relinquish public rights to access and use tidal waterways and their shores.
 11. The permittee shall allow an authorized representative of the Department, upon the presentation of credentials, to:
 - a. Enter upon the permittee's premises where a regulated activity is located or conducted, or where records must be kept under the conditions of the permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit; and
 - c. Inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. Failure to allow reasonable access under this paragraph shall be considered a violation of this chapter and subject the permittee to enforcement action.
 12. The permittee and its contractors and subcontractors shall comply with all conditions, site plans, and supporting documents approved by the permit. Any noncompliance with a permit constitutes a violation of this chapter and is grounds for enforcement action under, as well as, in the appropriate case, suspension and/or termination of the permit.
 13. All conditions, site plans, and supporting documents approved by a permit shall remain in full force and effect so long as the regulated activity or project, or any portion thereof, is in existence, unless the permit is modified.
 14. For Coastal Permits, Flood Hazard Permits and Flood Hazard Verifications, the permittee shall record the permit, including all conditions listed therein, with the Office of the County Clerk (the Registrar of Deeds and Mortgages, if applicable) of each county in which the site is located. The permit shall be recorded within 30 calendar days of receipt by the permittee, unless the permit authorizes activities within two or more counties, in which case the permit shall be recorded within 90 calendar days of receipt. Upon completion of all recording, a copy of the recorded permit shall be forwarded to the Division of Land Use Regulation at the address set forth in the rules.
 15. If any condition or permit is determined to be legally unenforceable, modifications and additional conditions may be imposed by the Department as necessary to protect public health, safety, and welfare, or the environment.

16. A copy of the permit and all approved site plans and supporting documents shall be maintained at the site at all times and made available to Department representatives or their designated agents immediately upon request.
17. A permit shall be transferred to another person only in accordance with the regulations.
18. A permit can be suspended or terminated by the Department for cause.
19. The submittal of a request to modify a permit by the permittee, or a notification of planned changes or anticipated noncompliance, does not stay any condition of a permit.
20. Where the permittee becomes aware that it failed to submit any relevant facts in an application, or submitted incorrect information in an application or in any report to the Department, it shall promptly submit such facts or information.
21. The permittee shall submit written notification to the Bureau of Coastal and Land Use Compliance and Enforcement, 401 East State Street, 4th Floor, P.O. Box 420, Mail Code 401-04C, Trenton, NJ 08625, at least three working days prior to the commencement of regulated activities.
22. The permittee shall not cause or allow any unreasonable interference with the free flow of a regulated water by placing or dumping any materials, equipment, debris, or structures within or adjacent to the channel while the regulated activity(ies) is being undertaken. Upon completion of the regulated activity(ies), the permittee shall remove and dispose of in a lawful manner, all excess materials, debris, equipment, and silt fences and other temporary soil erosion and sediment control devices from all regulated areas.
23. The regulated activity shall not destroy, jeopardize, or adversely modify a present or documented habitat for threatened or endangered species, and shall not jeopardize the continued existence of any local population of a threatened or endangered species.

DREDGING SPECIFIC CONDITIONS:

1. The depth of dredging and initial volume of dredging shall be limited to the following:

Balzano Terminal	Design Depth	Volume
Berth 2	30 feet MLW + 2 foot overdredge	23,466 cy
Berth 3	35 feet MLW + 2 foot overdredge	14,355 cy
Berth 4	40 feet MLW + 2 foot overdredge	14,628 cy
Broadway Terminal	Design Depth	
Pier 1	32 feet MLW + 2 foot overdredge	18,394 cy
Pier 5	35 feet MLW + 2 foot overdredge	11,912 cy
Total		82755 cy

2. Dredging and all in-water work involving authorized maintenance and repairs noted on page 2 of this permit are prohibited **March 1st through June 30th** of any given year to protect anadromous fish, Atlantic and Shortnose Sturgeon.
3. The dredge shall be operated so as to control the rate of descent of the bucket so as to maximize the vertical cut of the clamshell bucket while not penetrating the sediment beyond the vertical

dimension of the open bucket (i.e. overfilling the bucket). This will reduce the amount of free water in the dredged material, will avoid overfilling the bucket, and minimize the number of dredge bucket cycles needed to complete the dredging contract. The dredging contractor shall use appropriate software and sensors on the dredging equipment to ensure consistent compliance with this condition during the entire dredging operation.

4. A closed clamshell environmental bucket shall be used except for large rocks or debris.
5. The closed clamshell environmental bucket shall be lifted slowly through the water, at a rate of 2 feet per second or less.
6. Dredged material shall be placed deliberately in the barge in order to prevent spillage of material overboard.
7. A "No Barge Overflow" applies to the dredging of Maintenance/Holocene sediments.
8. All barges or scows used to transport sediment shall be of solid hull construction or be sealed with concrete.
9. The gunwales of the dredge scows shall not be rinsed or hosed during dredging except to the extent necessary to ensure the safety of workers maneuvering on the dredge scow.
10. All decant water holding scows shall be water tight and of solid hull construction.
11. REPORTING REQUIREMENTS: At the completion of this contract, the permittee shall submit the following information to the Department. This information shall be submitted within six months of contract completion.
 - Start and finish date of contract
 - Post-dredge hydrographic survey

ACCEPTABLE USE DETERMINATION (AUD):

1. This permit authorizes the initial placement of eighty-two thousand seven hundred and fifty-five cubic yards (82,755 cy) and a total of two hundred thousand cubic yards (200,000 cy) of dredged material over the five-year term of this permit at the Whites Basin Dredge Material Rehandling Basin located in Logan Township, Gloucester County. Subsequently, the dredged material will be hydraulically pumped into one of the adjacent upland confined disposal facilities for final placement.
2. Additional sediment sampling shall be required prior to each subsequent dredging event. Subsequent to the initial dredging event and prior to each subsequent dredging event, the permittee shall obtain an approved sampling plan, associated sediment sampling results, and a modification to this Acceptable Use Determination from the Office of Dredging and Sediment Technology.
3. Management of dredged material authorized by this permit shall comply with the conditions specified in the Waterfront Development Permit/Water Quality Certificate/Acceptable Use Determination issued on February 24, 2014 and any subsequent modification thereto.
4. If the permittee elects to dispose/use the dredged material from this project at an alternate location, written authorization must be obtained from the Office of Dredging and Sediment

Technology prior to the transport of any dredged material to said alternative disposal/use location. Any alternate disposal/use location must obtain all required state, local and federal permits before the Office would grant a modification of this permit to transport dredged material to the alternate location.

APPROVED PLANS:

The drawings hereby approved are seventeen (17) sheets prepared by S.T. Hudson Engineers, Inc., all dated February 16, 2018, unrevised and entitled:

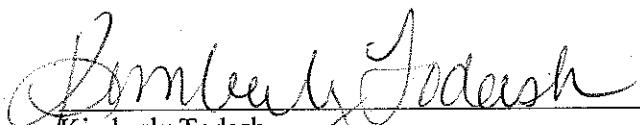
"Maintenance Dredging and Maintenance Repairs, Balzano Marine Terminal, Camden, NJ, Camden County, South Jersey Port Corporation", Drawings 1 through 8; and

"Maintenance Dredging and Maintenance Repairs, Broadway Terminal - Camden, NJ, Camden County, South Jersey Port Corporation", Drawing 2 and Drawings 4 through 11.

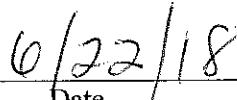
In accordance with the applicable regulations, any person who is aggrieved by this decision or any of the conditions of this permit may request an adjudicatory hearing within 30 calendar days after public notice of the decision is published in the DEP Bulletin. This request must include a completed copy of the Adjudicatory Hearing Request form. The DEP Bulletin is available through the Department's website at <http://www.nj.gov/dep/bulletin> and the form is available through the Division's website at http://www.nj.gov/dep/landuse/download/lur_024.pdf. In addition to requesting a hearing, a request may be filed with the Department's Office of Dispute Resolution to determine whether the matter is suitable for mediation. Information concerning the dispute resolution process is available at www.nj.gov/dep/odr.

If you need clarification on any section of this permit or conditions, please contact the Division of Land Use Regulation's Technical Support Call Center at (609) 777-0454.

Approved By:



Kimberly Todash
Environmental Specialist 4
Division of Land Use Regulation



Date

Original sent to Agent to record

c: Permittee
Camden City Construction Official
Trent Todash, Bureau of Coastal and Land Use Enforcement - Trenton
Eric Dickerson, Weeks Marine, Inc., 901 Beach Street, Camden, NJ 08102

SECTION 6

SEDIMENT CORE LOGS CORE LOG PHOTOGRAPHS LABORATORY CHAIN OF CUSTODY

22-050-03

NJDEP AUD APPLICATION
JULY 2022

S. T. HUDSON ENGINEERS, INC.

SEDIMENT CORE LOG

Client: South Jersey Port Corp.	Project: Maintenance Dredging	Logger: Paul Ferry
Job #: 22-050-03	Date: 3/30/22	Time: 0852
Coordinates: 314866.24, 402834.80		
CORE #: C-1		Datum: MLW
Project Depth: -30 ft. (inc. ft. overdredge): -32 ft.		Core Penetration Length (ft.): 8.0 ft.
Existing Depth @ MLW: -24.8 ft.		Recovered Core Length (ft.): 7.5 ft.
Required Sample Core Length: 7.2 ft.		Sample Length Retained (ft.): 7.5 ft.
		Collected to Project Depth: Y <input checked="" type="checkbox"/> N

All Length Measurements are in Decimal Feet

Sample Interval (ft.)		Description
TOP		
		Uniform throughout; medium consolidation; grayish light brown; fine-grained mud
BOTTOM		

Comments:

S. T. HUDSON ENGINEERS, INC.

SEDIMENT CORE LOG

Client: South Jersey Port Corp.	Project: Maintenance Dredging	Logger: Paul Ferry
Job #: 22-050-03	Date: 3/30/22	Time: 0925
Coordinates: 314939.87, 402577.51		
CORE #: C-2	Datum: MLW	
Project Depth: -30 ft. (inc. ft. over dredge): -32 ft.	Core Penetration Length (ft.): 8.0 ft.	
Existing Depth @ MLW: -25.3 ft.	Recovered Core Length (ft.): 7.0 ft.	
Required Sample Core Length: 6.7 ft.	Sample Length Retained (ft.): 6.5 ft.	
	Collected to Project Depth	Y <input checked="" type="radio"/> N

All Length Measurements are in Decimal Feet

Sample Interval (ft.)		Description
TOP		
		Medium consolidation, moisture content; grayish brown; fine-grained, consistent throughout
BOTTOM		

Comments:

S. T. HUDSON ENGINEERS, INC.**SEDIMENT CORE LOG**

Client: South Jersey Port Corp.	Project: Maintenance Dredging	Logger: Paul Ferry
Job #: 22-050-03	Date: 3/30/22	Time: 1025

Coordinates: 314791.88, 402321.46

CORE #: C-3	Datum: MLW
Project Depth: -35 ft. (inc. ft. overdredge): -37 ft.	Core Penetration Length (ft.): 8.0 ft.
Existing Depth @ MLW: -32.0 ft.	Recovered Core Length (ft.): 7.0 ft.
Required Sample Core Length: 5.0 ft.	Sample Length Retained (ft.): 5.0 ft.
	Collected to Project Depth Y N

All Length Measurements are in Decimal Feet

Sample Interval (ft.)		Description
TOP		
		Lower moisture, compact, dense; grayish light brown; fine-grained, consistent throughout
BOTTOM		

Comments:

S. T. HUDSON ENGINEERS, INC.

SEDIMENT CORE LOG

Client: South Jersey Port Corp.	Project: Maintenance Dredging	Logger: Paul Ferry
Job #: 22-050-03	Date: 4/29/22	Time: 0808
Coordinates: 314874.07, 402015.16		
CORE #: C-4		Datum: MLW
Project Depth: -35 ft. (inc. ft. over dredge): -37 ft.		Core Penetration Length (ft.): 7.0 ft.
Existing Depth @ MLW: -33.3 ft.		Recovered Core Length (ft.): 4.5 ft.
Required Sample Core Length: 3.7 ft.		Sample Length Retained (ft.): 4.0 ft.
		Collected to Project Depth: Y <input checked="" type="checkbox"/> N

All Length Measurements are in Decimal Feet

Sample Interval (ft.)		Description
TOP		
		Loosely consolidated, higher moisture; brown in color; slimy, gel-like, fine-grained; consistent throughout
BOTTOM		

Comments:

S. T. HUDSON ENGINEERS, INC.

SEDIMENT CORE LOG

Client: South Jersey Port Corp.	Project: Maintenance Dredging	Logger: Paul Ferry
Job #: 22-050-03	Date: 4/27/22	Time: 0932
Coordinates: 314767.65, 401646.24		
CORE #: C-5		Datum: MLW
Project Depth: -40 ft. (inc. ft. overdredge): -42 ft.		Core Penetration Length (ft.): 8.0 ft.
Existing Depth @ MLW: -37.0 ft.		Recovered Core Length (ft.): 7.0 ft.
Required Sample Core Length: 5.0 ft.		Sample Length Retained (ft.): 5.0 ft.
		Collected to Project Depth: (Y) N

All Length Measurements are in Decimal Feet

Sample Interval (ft.)	Description
TOP	
	More loose, less compact, more gel-like, slimy; grayish brown, fine-grained, medium moisture content
	Transitioning to more dense, more compact, more crumbly, less slimy, still grayish-brown, lower moisture content toward bottom
BOTTOM	

Comments:

S. T. HUDSON ENGINEERS, INC.

SEDIMENT CORE LOG

Client: South Jersey Port Corp.	Project: Maintenance Dredging	Logger: Paul Ferry
Job #: 22-050-03	Date: 4/27/22	Time: 1006
Coordinates: 314757.13, 400984.69		
CORE #: C-6		Datum: MLW
Project Depth: -40 ft. (inc. ft. overdredge): -42 ft.		Core Penetration Length (ft.): 6.5
Existing Depth @ MLW: -36 ft.		Recovered Core Length (ft.): 6.5
Required Sample Core Length: 6.0 ft.		Sample Length Retained (ft.): 6.0
		Collected to Project Depth: Y N

All Length Measurements are in Decimal Feet

Sample Interval (ft.)		Description
TOP		
		Grayish-brown, dense, average moisture; some grittiness to texture/grain size; consistent throughout
BOTTOM		

Comments:

S. T. HUDSON ENGINEERS, INC.

SEDIMENT CORE LOG

Client: South Jersey Port Corp.	Project: Maintenance Dredging	Logger: Paul Ferry
Job #: 22-050-03	Date: 3/30/22	Time: 1150
Coordinates: 316871.70, 394622.59		
CORE #: C-7	Datum: MLW	
Project Depth: -32 ft. (inc. ft. overdredge): -34 ft.	Core Penetration Length (ft.): 7.0 ft.	
Existing Depth @ MLW: -31.0 ft.	Recovered Core Length (ft.): 4.5 ft.	
Required Sample Core Length: 3.0 ft.	Sample Length Retained (ft.): 3.0 ft.	
	Collected to Project Depth: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	

All Length Measurements are in Decimal Feet

Sample Interval (ft.)		Description
TOP		
		Dense, average moisture, sticky, smoothy; light brown to brown in color; consistent throughout
BOTTOM		

Comments:

S. T. HUDSON ENGINEERS, INC.

SEDIMENT CORE LOG

Client: South Jersey Port Corp.	Project: Maintenance Dredging	Logger: Paul Ferry
Job #: 22-050-03	Date: 3/30/22	Time: 1224

Coordinates: 317074.29, 394633.71

CORE #: C-8	Datum: MLW
Project Depth: -32 ft. (inc. ft. overdredge): -34 ft.	Core Penetration Length (ft.): 7.0 ft.
Existing Depth @ MLW: -31.0 ft.	Recovered Core Length (ft.): 6.0 ft.
Required Sample Core Length: 3.0 ft.	Sample Length Retained (ft.): 3.0 ft.
	Collected to Project Depth: Y N

All Length Measurements are in Decimal Feet

<u>Sample Interval (ft.)</u>		<u>Description</u>
TOP		
		Consolidated, dense, smooth/slimy in texture, brown in color; consistent throughout
BOTTOM		

Comments:

S. T. HUDSON ENGINEERS, INC.

SEDIMENT CORE LOG

Client: South Jersey Port Corp.	Project: Maintenance Dredging	Logger: Paul Ferry
Job #: 22-050-03	Date: 3/30/22	Time: 1119
Coordinates: 316259.72, 395348.43		
CORE #: D-9	Datum: MLW	
Project Depth: -40 ft. (inc. ft. over dredge): -42 ft.	Core Penetration Length (ft.): 8.0 ft.	
Existing Depth @ MLW: -37.3 ft.	Recovered Core Length (ft.): 6.0 ft.	
Required Sample Core Length: 4.7 ft.	Sample Length Retained (ft.): 5.0 ft.	
	Collected to Project Depth: (Y)	N

All Length Measurements are in Decimal Feet

Sample Interval (ft.)	Description
TOP	
	Very loose, less dense, slimy; light brown, fine-grained, high moisture content
BOTTOM	Transitioning to more dense, more compact, more crumbly, gritty, dark brown, lower moisture content toward bottom

Comments:

S. T. HUDSON ENGINEERS, INC.

SEDIMENT CORE LOG

Client: South Jersey Port Corp.	Project: Maintenance Dredging	Logger: Paul Ferry
Job #: 22-050-03	Date: 4/29/22	Time: 0858

Coordinates: 316962.47, 392217.24

CORE #: C-10	Datum: MLW
Project Depth: -35 ft. (inc. ft. overdredge): -37 ft.	Core Penetration Length (ft.): 4*
Existing Depth @ MLW: -33.0 ft.	Recovered Core Length (ft.): 3.5*
Required Sample Core Length: 4.0 ft.	Sample Length Retained (ft.): 3.5*
	Collected to Project Depth: Y N

All Length Measurements are in Decimal Feet

Sample Interval (ft.)		Description
TOP		
BOTTOM		

A vertical line with a bracket on the left side of the table indicates the core profile. The word "TOP" is at the top, and "BOTTOM" is at the bottom, with an arrow pointing down from "TOP". The core profile shows irregular layers and some loss of material at the top and bottom.

Comments:

*Former dry dock—hard concrete bottom. Maximum core penetration of 4 ft. Core compaction to 3.5 ft. due to loosely consolidated material that collects in berthing area.

S. T. HUDSON ENGINEERS, INC.

SEDIMENT CORE LOG

Client: South Jersey Port Corp.	Project: Maintenance Dredging	Logger: Paul Ferry
Job #: 22-050-03	Date: 4/29/22	Time: 0924

Coordinates: 316728.78, 392196.00

CORE #: C-11	Datum: MLW
Project Depth: -35 ft. (inc. ft. overdredge): -37 ft.	Core Penetration Length (ft.): 4.0
Existing Depth @ MLW: 33.0 ft.	Recovered Core Length (ft.): 3.0*
Required Sample Core Length: 4.0 ft.	Sample Length Retained (ft.): 3.0*
	Collected to Project Depth: Y N

All Length Measurements are in Decimal Feet

Sample Interval (ft.)		Description
TOP		
		Brown, medium-dense, slimy/smooth, not compact; consistent throughout
BOTTOM		

Comments:

*Former dry dock—hard concrete bottom. Maximum core penetration of 4 ft. Core compaction to 3.0 ft. due to loosely consolidated material that collects in berthing area.



PHOTO No. 1: C-1 CORE, BOTTOM



PHOTO No. 2: C-1 CORE, MIDDLE



PHOTO No. 3: C-1 CORE. TOP

22-050-03



PHOTO No. 4: C-2 CORE, WHOLE

22-050-03



PHOTO No. 5: C-2 CORE, BOTTOM

22-050-03



PHOTO No. 6: C-2 CORE, MIDDLE

22-050-03



PHOTO No. 7: C-2 CORE, TOP

22-050-03

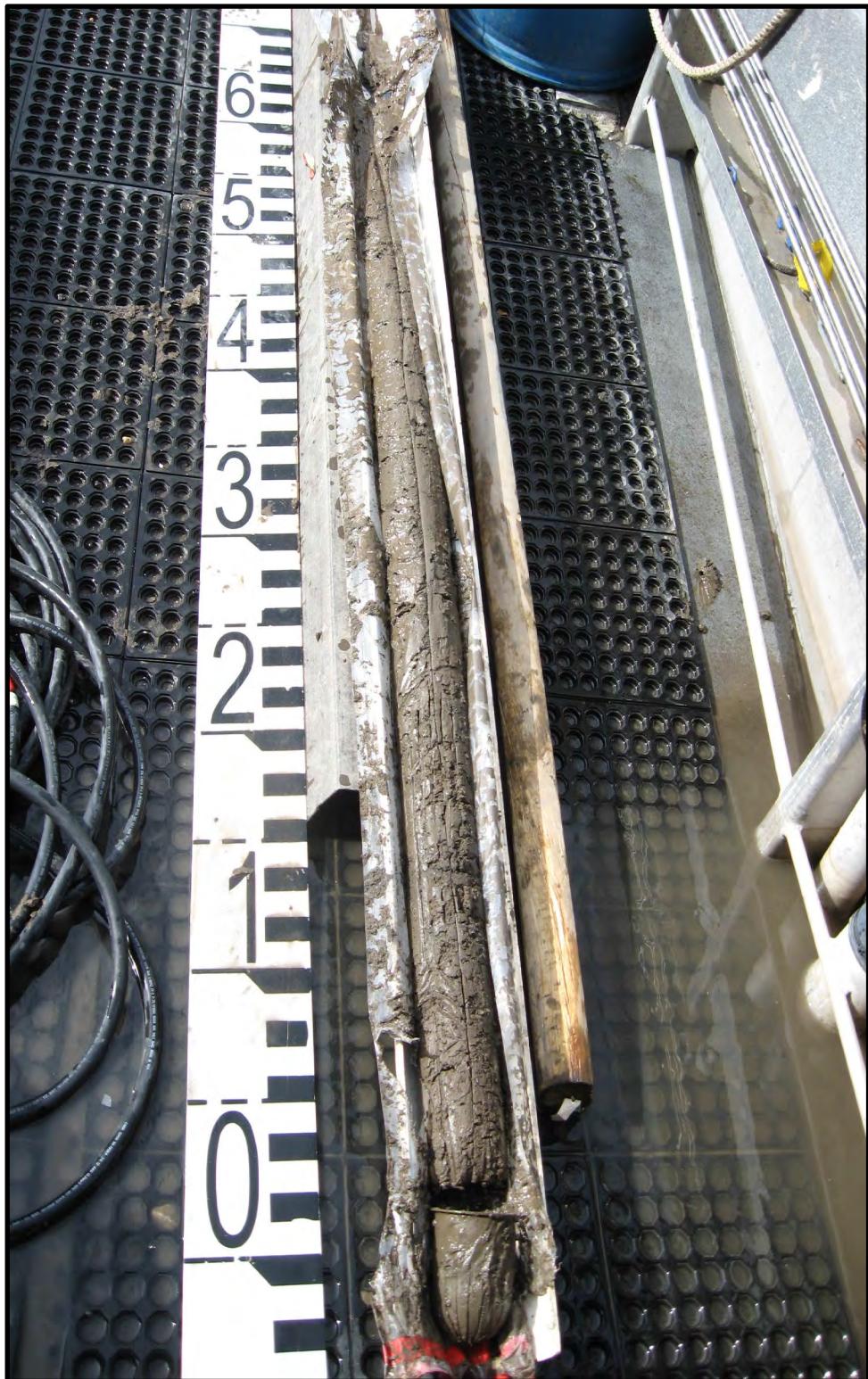


PHOTO No. 8: C-3 CORE, WHOLE

22-050-03



PHOTO No. 9: C-3 CORE, BOTTOM

22-050-03



PHOTO No. 10: C-3 CORE, MIDDLE



PHOTO No. 11: C-3 CORE, TOP



PHOTO No. 12: C-4 CORE, WHOLE

22-050-03



PHOTO No. 13: C-4 CORE, BOTTOM

22-050-03



PHOTO No. 14: C-4 CORE, TOP

22-050-03

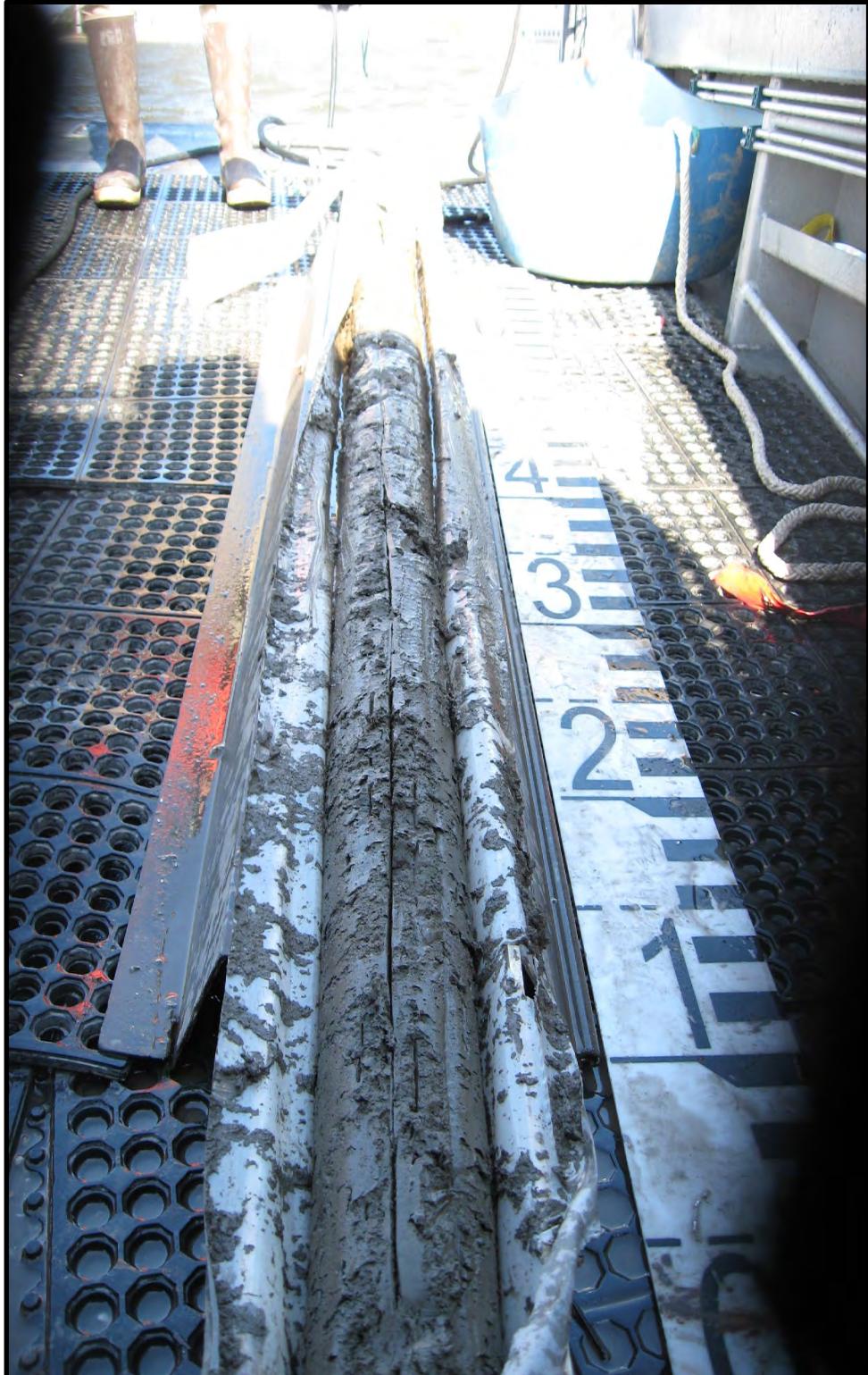


PHOTO No. 15: C-5, WHOLE

22-050-03



PHOTO No. 16: C-5, BOTTOM

22-050-03



PHOTO No. 17: C-5L, TOP

22-050-03

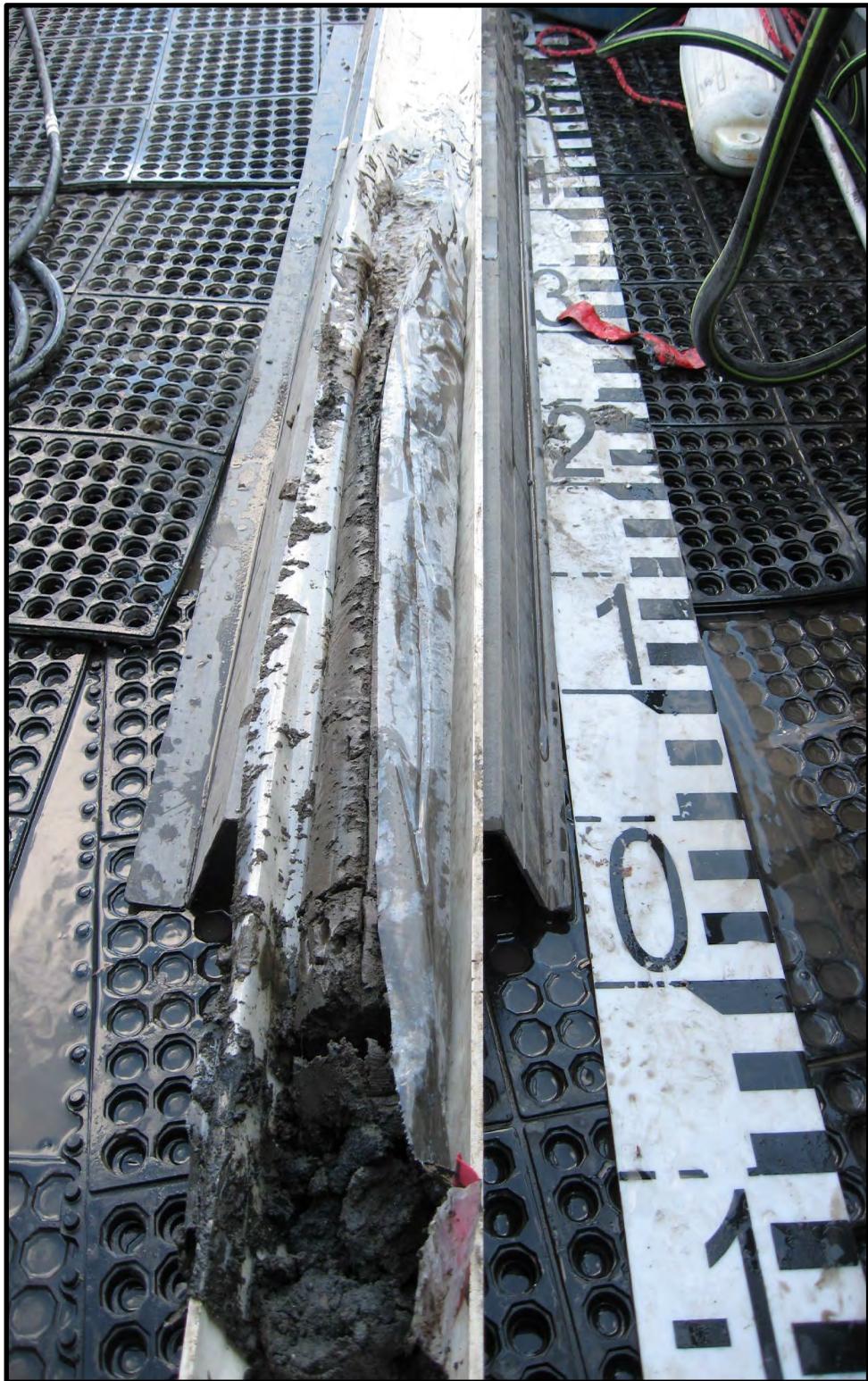


PHOTO No. 18: C-6, WHOLE



PHOTO No. 19: C-6, BOTTOM



PHOTO No. 20: C-6, TOP



PHOTO No. 21: C-7, WHOLE



PHOTO No. 22: C-7, BOTTOM



PHOTO No. 23: C-7, TOP

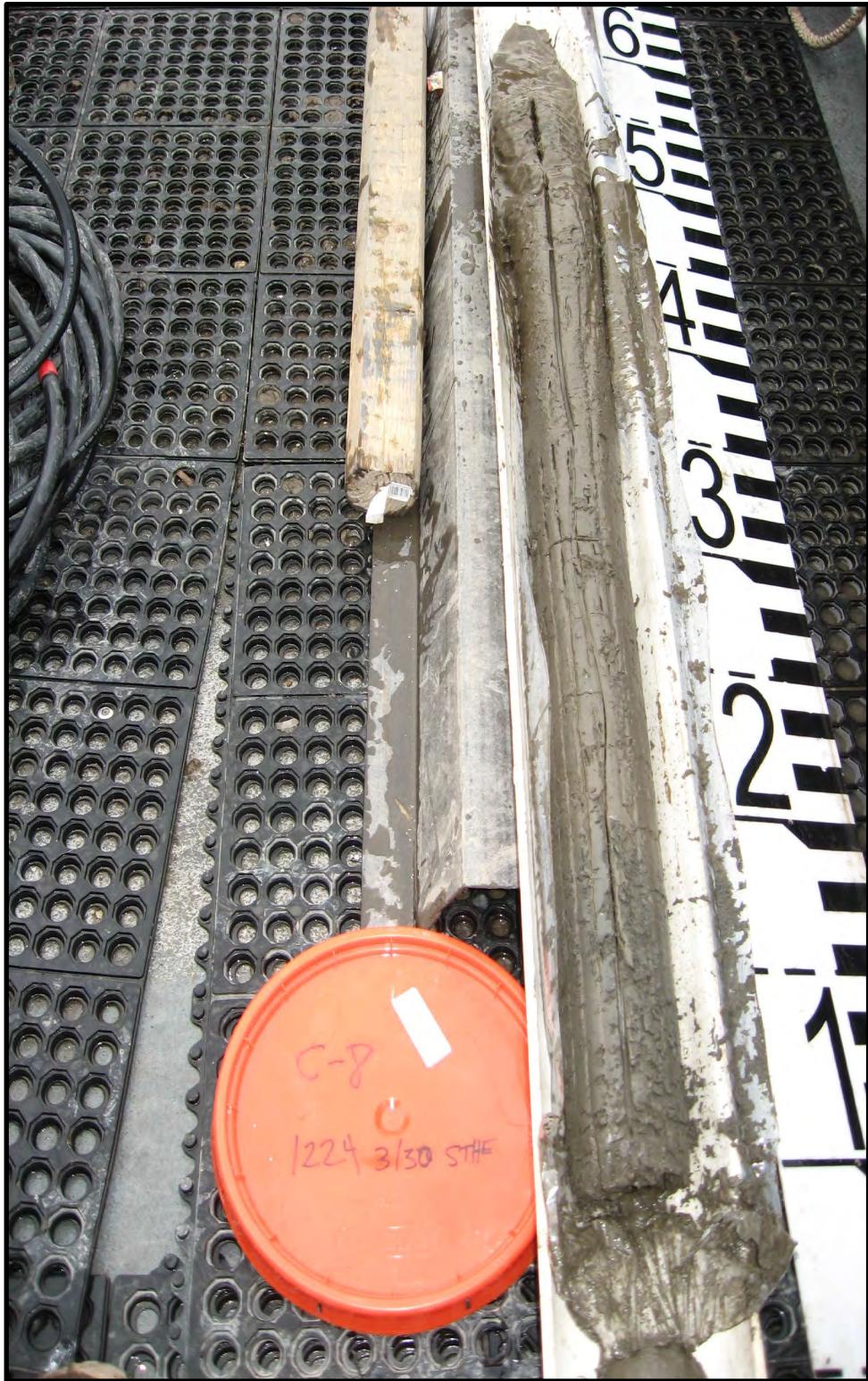


PHOTO No. 24: C-8, WHOLE

22-050-03



PHOTO No. 25: C-8, BOTTOM

22-050-03



PHOTO No. 26: C-8, TOP

22-050-03



PHOTO No. 27: C-9, WHOLE

22-050-03



PHOTO No. 28: C-9, BOTTOM



PHOTO No. 29: C-9, MIDDLE



PHOTO No. 29: C-9, TOP

22-050-03



PHOTO No. 30: C-10, WHOLE

22-050-03



PHOTO No. 31: C-11, WHOLE

22-050-03



**Environment Testing
America**

213 Witmer Road
Horsham, PA 19044

Phone: 215-355-3900

Client/Acct. No.
Address

ST Hudson Engineers
100 Dudley Ave
South Jersey Port Corp.
101 Joseph A. Ralston Blvd.
Comden NJ

City/State/Zip

Cherry Hill, NJ 08002

Phone/Fax

8563426600

Client Contact:

PAUL FERRY

P.O. No.

PWSID #:

Quote #

e-mail:

PAUL.FERRY@STHE.COM

CHAIN OF CUSTODY

Page 1 of 2

Lab LIMS No:

MATRIX CODES

LAB USE ONLY:

DW: DRINKING WATER

GW: GROUND WATER

WW: WASTEWATER

SO: SOIL

SL: SLUDGE

OIL: OIL

SOL: NON SOIL SOLID

MI: MISCELLANEOUS

X: OTHER

_____ Ascorbic/HCL Vials # _____ HCl Vials

_____ Na₂S₂O₃ _____

_____ Na OH/Zn acetate pH _____

_____ HNO₃ pH _____

_____ H₂SO₄ pH _____

_____ NaOH pH _____

_____ Unpreserved

_____ HCl # _____ NH₄Cl # _____ MeOH

_____ DI Water

ANALYSIS REQUESTED

Field pH, Temp (°C),
DO, Cl₂, Cond. etc.

L
A
B

FIELD ID

Field Blank

Site water

Date

Military
Time

G
R
A
B
P

C
O
M
P

Matrix
Code

Number of Containers

Total

H
2
S
O
4

H
C
l

V
i
a
l
s

H
N
O
3

N
a
O
H

Z
n
a
c

U
n
P
r
e

B
A
C
T

Toxicants, PCBs, SVOCs, Pest...

DELIVERED

BY CUSTOMER

SAMPLED BY: (Name/Company)

Paul Ferry / STHE

TAT: STANDARD (10 DAY)

or DUE DATE / /

Report Format: Standard NJ-RDD SRP-RDD

Standard + QC Forms EDD

Field Parameters Analyzed By:

Initials

Date/Time:

Please call for pricing and availability for rush (<10 day) turnaround and for all but standard reporting format.

SAMPLE CUSTODY EXCHANGES MUST BE DOCUMENTED BELOW. USE FULL LEGAL SIGNATURE, DATE AND MILITARY TIME (24 HOUR CLOCK, I.E. 8AM IS 0800, 4 PM IS 1600)

RELINQUISHED BY SAMPLER

1. Paul Ferry

DATE

3/31

TIME

0744

RECEIVED BY

1. Nicolette Smart

DATE

3/31/22

TIME

9:44

DELIVERY: EQC COURIER CLIENT

UPS FEDEX OTHER

Custody Seal Number

RELINQUISHED BY

2.

DATE

-

TIME

-

RECEIVED BY

2.

DATE

-

TIME

-

RELINQUISHED BY

3.

DATE

-

TIME

-

RECEIVED BY

3.

DATE

-

TIME

-

RELINQUISHED BY

4.

DATE

-

TIME

-

RECEIVED BY

4.

DATE

-

TIME

-

RELINQUISHED BY

5.

DATE

-

TIME

-

RECEIVED BY

5.

DATE

-

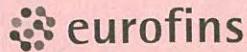
TIME

-

Hazardous: yes / no

Rec'd Temp.: 1712.2 Initials: M Ice Y/N Location: EETP

COMMENTS:



**Environment Testing
America**

213 Witmer Road

Phone: 215-355-3900

Horsham, PA 19044

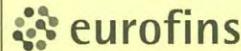
Client/Acct. No. ST Hudson Engineers
Address 900 Dudley Ave.

City/State/Zip Cherry Hill NJ 08002

Phone/Fax 856-342-6600

Client Contact: Paul Ferry

		CHAIN OF CUSTODY Page <u>2</u> of <u>2</u>										MATRIX CODES					
		Bill to/Report to (if different)								Lab LIMS No:							
		Sampling Site Address (if different) Include State								LAB USE ONLY:							
L A B U S E O N L Y	PROJECT		Collection		G R A B	C O M P	Matrix Code	Number of Containers									
	FIELD ID		Date	Military Time				Total	H ₂ S ₀ 2	HCl I	Vials 3	HNO ₃ 4	NaOH 3	ZnAc ₂ H	UNPACTE R	BAC T	
	(-1) COMPOSITE		3/30	0852											DI Water		
	(-2) COMPOSITE		3/30	0925													
	(-3) → 1/2 COMPOSITE		3/30	1025													
	(-7) COMPOSITE		3/30	1150													
	(-8) COMPOSITE		3/30	1224													
	D-9 → DISCRETE		3/30	1119													
	ANALYSIS REQUESTED														Field pH, Temp (°C), DO, Cl ₂ , Cond. etc.		
	Inorganics, % H ₂ O, TOC, PCBs, PCBs, SVOCs, Graft Size																
DELIVERED BY CUSTOMER																	
SAMPLED BY: (Name/Company)		TAT: <input type="checkbox"/> STANDARD (10 DAY)			Report Format: <input type="checkbox"/> Standard <input type="checkbox"/> NJ-RDD <input type="checkbox"/> SRP-RDD						Field Parameters Analyzed By:						
Paul Ferry / STHE		or DUE DATE / /			<input type="checkbox"/> Standard + QC <input type="checkbox"/> Forms <input type="checkbox"/> EDD						Initials		Date/Time:				
Please call for pricing and availability for rush (<10 day) turnaround and for all but standard reporting format.																	
SAMPLE CUSTODY EXCHANGES MUST BE DOCUMENTED BELOW. USE FULL LEGAL SIGNATURE, DATE AND MILITARY TIME (24 HOUR CLOCK, I.E. 8AM IS 0800, 4 PM IS 1600)																	
RELINQUISHED BY SAMPLER 1. Paul Ferry		DATE 3/31	TIME 0944	RECEIVED BY 1. Michael Smith				DATE 3/31/23	TIME 0944	DELIVERY: <input type="checkbox"/> EQC COURIER <input type="checkbox"/> CLIENT <input type="checkbox"/> UPS <input type="checkbox"/> FEDEX <input type="checkbox"/> OTHER				Custody Seal Number EETP 17/22°C			
RELINQUISHED BY 2.		DATE	TIME	RECEIVED BY 2.				DATE	TIME					Rec'd Temp.: _____ Initials: _____ Ice Y/N Location: _____			
RELINQUISHED BY 3.		DATE	TIME	RECEIVED BY 3.				DATE	TIME					COMMENTS: _____			
RELINQUISHED BY 4.		DATE	TIME	RECEIVED BY 4.				DATE	TIME								
RELINQUISHED BY 5.		DATE	TIME	RECEIVED BY 5.				DATE	TIME					Hazardous: yes / no			



**Environment Testing
America**

213 Witmer Road Phone: 215-355-3900
Horsham, PA 19044

Client/Acct. No. ST Hudson Eng.
Address 900 Dudley Ave.

Sampling Site Address (if different) Include State
South Jersey Port Corp
101 Joseph A. Balzano Blvd
Camden, NJ

City/State/Zip Cherry Hill, NJ 08002 P.O. No. PWSID #:
Phone/Fax 856-342-6600 Quote #:
Client Contact: PAUL FERRY e-mail: paul_ferry@sthe.com

L PROJECT Balzano Berth 4

L A B U S E O N L Y	FIELD ID	Collection Date	Military Time	G R A B C O M P Matrix Code	Number of Containers									ANALYSIS REQUESTED	Field pH, Temp (°C), DO, Cl2, Cond. etc.
					Total	H2SO4	HCl	Vials	HNO3	NaOH	ZnAc	UNPРЕ	BAC		
	C-5	4/27/22	0932												
	C-6	4/27/22	1000												

SAMPLED BY: (Name/Company)

TAT: STANDARD (10 DAY)

Report Format: Standard NJ-RDD SRP-RDD

Field Parameters Analyzed By:

or DUE DATE / /

Standard + QC Forms EDD

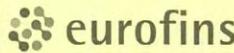
Initials

Date/Time:

Please call for pricing and availability for rush (<10 day) turnaround and for all but standard reporting format.

SAMPLE CUSTODY EXCHANGES MUST BE DOCUMENTED BELOW. USE FULL LEGAL SIGNATURE, DATE AND MILITARY TIME (24 HOUR CLOCK, I.E. 8AM IS 0800, 4 PM IS 1600)

RELINQUISHED BY SAMPLER 1. <i>Paul Ferry</i>	DATE 04/27/22	TIME 1505	RECEIVED BY 1. <i>Tom Donnelly</i>	DATE 4/27/22	TIME 1505	DELIVERY: <input type="checkbox"/> EQC COURIER <input type="checkbox"/> CLIENT <input type="checkbox"/> UPS <input type="checkbox"/> FEDEX <input type="checkbox"/> OTHER	Custody Seal Number
RELINQUISHED BY 2. <i>[Signature]</i>	DATE	TIME	RECEIVED BY 2. <i>[Signature]</i>	DATE	TIME	Rec'd Temp.: 15/2.0	Initials: <i>GWD</i> Ice Y/N Location: <i>EETP</i>
RELINQUISHED BY 3. <i>[Signature]</i>	DATE	TIME	RECEIVED BY 3. <i>[Signature]</i>	DATE	TIME	COMMENTS:	
RELINQUISHED BY 4. <i>[Signature]</i>	DATE	TIME	RECEIVED BY 4. <i>[Signature]</i>	DATE	TIME		
RELINQUISHED BY 5. <i>[Signature]</i>	DATE	TIME	RECEIVED BY 5. <i>[Signature]</i>	DATE	TIME		Hazardous: yes / no



**Environment Testing
America**

213 Witmer Road Phone: 215-355-3900
Horsham, PA 19044

Client/Acct. No. S.T. Hudson Engineers
Address 900 Dudley Ave.
City/State/Zip Cherry Hill, NJ 08002

Phone/Fax 856-342-6600
Client Contact: Paul Ferry
P.O. No. Quote #
e-mail: perry@sthe.com

CHAIN OF CUSTODY

Page 1 of 1

Lab LIMS No:

MATRIX CODES

DW: DRINKING WATER

GW: GROUND WATER

WW: WASTEWATER

SO: SOIL

SL: SLUDGE

OIL: OIL

SOL: NON SOIL SOLID

MI: MISCELLANEOUS

X: OTHER

LAB USE ONLY:

Ascorbic/HCl Vials # HCl Vials

Na2S2O3

NaOH/Zn acetate pH

HNO3 pH

H2SO4 pH

NaOH pH

Unpreserved

HCl # NH4Cl # MeOH

DI Water

ANALYSIS REQUESTED

Field pH, Temp (°C),
DO, Cl2, Cond. etc.

L A B U S E O N L Y	PROJECT <u>SPC</u>	Collection		Matrix Code	Number of Containers									
		Date	Military Time		H 2 S O	H C I O	V i a l i s 3	H N O H	N a O n H	Z n a c R E	U n a P R E	B a c t		
	FIELD ID													
	C-4		4/29 0808											
	C-10		4/29 0858											
	C-11		4/29 0924											

SAMPLED BY: (Name/Company)

TAT: STANDARD (10 DAY)

or DUE DATE / /

Report Format: Standard NJ-RDD SRP-RDD

Standard + QC Forms EDD

Field Parameters Analyzed By:

Initials

Date/Time:

Please call for pricing and availability for rush (<10 day) turnaround and for all but standard reporting format.

SAMPLE CUSTODY EXCHANGES MUST BE DOCUMENTED BELOW. USE FULL LEGAL SIGNATURE, DATE AND MILITARY TIME (24 HOUR CLOCK, I.E. 8AM IS 0800, 4 PM IS 1600)

RELINQUISHED BY SAMPLER <u>Paul Ferry</u>	DATE <u>4/29</u>	TIME <u>1221</u>	RECEIVED BY <u>Tom Donoherty</u>	DATE <u>4/29/21</u>	TIME <u>1221</u>	DELIVERY: <input type="checkbox"/> EQC COURIER <input type="checkbox"/> CLIENT <input type="checkbox"/> UPS <input type="checkbox"/> FEDEX <input type="checkbox"/> OTHER	Custody Seal Number
RELINQUISHED BY 2.	DATE	TIME	RECEIVED BY 2.	DATE	TIME		
RELINQUISHED BY 3.	DATE	TIME	RECEIVED BY 3.	DATE	TIME		
RELINQUISHED BY 4.	DATE	TIME	RECEIVED BY 4.	DATE	TIME		
RELINQUISHED BY 5.	DATE	TIME	RECEIVED BY 5.	DATE	TIME		
						Rec'd Temp.: _____ Initials: _____ Ice Y/N Location: _____ COMMENTS: Hazardous: yes / no	

SECTION 7

SAMPLING PLANS SAMPLING PLAN APPROVAL

22-050-03

NJDEP AUD APPLICATION
JULY 2022

NEW JERSEY DREDGING PROJECTS

SEDIMENT SAMPLING AND ANALYSIS PLAN (SSAP) TEMPLATE

VERSION 4.0 - SEPTEMBER 2020

Before completing this SSAP template, please determine if the proposed project qualifies for any of the testing exclusions identified in N.J.A.C. 7:7 Appendix G and contact the Department's Office of Dredging and Sediment Technology to receive a confirmation that the testing exclusion is applicable to the project.

The major objective of a SSAP is to accurately characterize the horizontal and vertical distribution of the physical/geotechnical properties and contaminant concentrations of the sediment to be dredged.

This document serves as the template to develop the SSAP for a proposed dredging project. It identifies the information required by the Department to review, and ultimately approve, the SSAP for the project. The required information must be provided to the Department by entering it into the spaces provided on this template, and submitting two hard copies and one CD of the additional required documents.

The SSAP for a dredging project must be approved by the Department prior to the collection and analysis of any sediment samples. Once the final SSAP has been approved by the Department, the applicant may conduct sampling in conformance with the plan. **If the applicant collects and analyzes any sediment samples without the approval of NJDEP-ODST, it is done at risk, as any such samples may or may not be considered by the Department in making regulatory decisions regarding the proposed project.**

For additional information, see *The Management and Regulation of Dredging Activities and Dredged Material in New Jersey's Tidal Waters* found in Appendix G of the Coastal Zone Management Rules (N.J.A.C. 7:7). Appendix G can be accessed at: <http://www.nj.gov/dep/landuse/lawsregs.html>. This SSAP template incorporates much of what is required to be submitted by applicants in Appendix G as part of the permit application for a dredging project; however, additional information may be required on a project-specific basis.

Complete pages 2-6, 11-12 of the SSAP template, attach any additional required documents, and send the complete draft SSAP package to 501 E. State Street, Mail Code 501-02A, P.O. Box 420, Trenton, NJ 08625-0420. Please include an electronic (MS Word) copy in the CD requested on page 3 of this document.

Approval of the SSAP will be indicated by the signature of Department staff on page 12 of the completed template.

If you have any questions, please contact the Department's Office of Dredging and Sediment Technology at (609) 984-6216.

**Office of Dredging and Sediment Technology
Division of Land Resource Protection
Sediment Sampling and Analysis Plan (SSAP) File Number Request Form**

Site Info:

Site Address:	City:	State:	Zip:
Site County:	Municipality(ies):		
Site Block(s):	Lot(s):		
Site NJ State Plane Coordinates:	X:	Y:	
Project Description:			
3 3			
Previously Issued Permit No/s.: (If applicable, please provide a copy of the permit)			

Applicant Info:

Applicant Name:		
Phone Number:	Email Address:	
Address:		
City:	State:	Zip:

Agent Info (if any):

Agent Name:		
Phone Number:	Email Address:	
Address:		
City:	State:	Zip:

Proposed Dredging Plan

Method of dredging: Hydraulic Mechanical

Type of dredging: Maintenance (N.J.A.C. 7:7-12.6) New Dredging (N.J.A.C. 7:7-12.7)

Provide NJDEP-ODST with **two hard copies and one PDF version (on a CD)** of the Draft Dredging Plan.

The Proposed Dredging Plan shall include the following components:

A figure identifying the geographic location of the project site.

Identify the locations of all outfalls or intakes within 500' of the project site

Identify all in-water structures in the vicinity of the project site.

Identify the location of boat/vessel fueling stations within 500' of the project site.

Hydrographic survey (see N.J.A.C. 7:7 Appendix G, Chapter II-A-2) bathymetry (include the date the hydrographic survey was conducted – this must be within 6 months of the SSAP submittal date).

- The proposed sample locations must be superimposed on the hydrographic survey (see page 6) referenced to Mean Low Water (MLW) unless you are requesting the Department to identify sample locations (see page 5).

Identify the following information:

Extent of area to be dredged (square feet)

Proposed depth(s) of dredging (feet below MLW)

Proposed depth(s) of overdredge (feet below MLW) (if any)

Estimated volume of sediment to be dredged
(no overdredge) (cubic yards)

Estimated volume of overdredge (cubic yards)

Estimated total volume of sediment to be dredged
(including overdredge) (cubic yards)

Known contaminated spill

Proposed Dredged Material & Water Management Alternative(s)

Check applicable box(es) and identify location(s) in the space provided.

Upland Placement:

Confined Disposal Facility

Processed Dredged Material Facility (Mixed with Portland Cement)

Beneficial Use at Site Remediation Project or Landfill

Other Beneficial Use:

Dewatering Method:

Upland Temporary Dewatering Area (Ex; hay bales/silt fences)

Confined Disposal Facility

Barge/Scow Dewatering

Geotubes

Filter Press

Other Dewatering Method:

Dredge Material Management Location (street address and provide State plane coordinates):
(Please any relevant information for identifying the site such as CDF name if applicable)

Sediment Core Sample Locations

Request Department to identify core sample locations?

Yes

No

Guidance on determining the proper number of cores for a project and appropriate core locations can be found in Section D of Chapter III of Appendix G.

* Depth of Collection is project depth (plus proposed overdredge) in feet below Mean Low Water (MLW).

Provide the information in the following table (expand as needed):

Sample ID Number	Location: Planned X	Location: Planned Y	Project Depth MLW	Proposed Overdredge	*Depth of Collection

Note: The latitude and longitude of the planned sample locations can be approximated using NJ Geoweb or a similar mapping application. All coordinates shall be in the **NJ State Plane Coordinate System**.

Planned Core Sample Compositing Scheme

Request Department to identify core sample compositing scheme? Yes No

Please refer to Section D of Chapter III of Appendix G for core composite guidance and rationale.

Provide the information in the following table (expand table as needed):

Composite Sample ID Number	Core Sample ID Numbers

.....
Pages 7 and 8 to be completed by NJDEP-ODST – Proceed to Page 9
.....

Required Sediment Sampling Tests

Tier I - Physical/geotechnical

(Required for all projects)

Grain size distribution (ASTM D422 or D4381)

Total Organic Carbon (USEPA 440.0, USEPA SW-846 9060A, or equivalent method)

Water Content (ASTMD653, D2216, D4643, Standard Method 2540D, or equivalent method)

Representative subsamples of each homogenized core sample (or distinct strata) and composite analytical sample are collected and analyzed for grain size distribution, Total Organic Carbon (TOC), and percent moisture. Samples are also subjected Bulk Sediment Chemistry, Elutriate, Effluent (Modified) Elutriate, SPLP, and/or biological testing as specified below.

Individual sediment core samples comprised of greater than **90% sand** (analyzed using the **hydrometer** method) are excluded from **Tier II Testing** (chemical and biological testing), and must not be composited with other sediment samples.

Tier II - Bulk Sediment Chemistry

Tier II - Effluent (Modified) Elutriate

Tier II - Elutriate

Tier III - Sequential Batch Leaching Test (SBLT)

Tier III - Synthetic Precipitation Leaching Procedure (SPLP)

Tier III - Synthetic Precipitation Leaching Procedure (SPLP)

- Run SPLP for any bulk sediment analytes that exceed impact to groundwater screening criteria soil standards

Tier III - Biological – Toxicity

Tier III - Biological – Bioaccumulation

Structural Fill Protocol (addition of Portland cement to raw dredge material and analysis for bulk sediment chemistry and SPLP)
(see page 11, reporting requirement No. 20)

- Note that all compounds identified on the following page for Bulk Sediment Chemistry must also be performed for amended material and SPLP. Please see Sampling Plan Implementation Requirement #20 for additional information.

*** Please note that additional analytical tests may be required by the proposed dredge material management site beyond those required by the Department's SSAP. For example, if dredge material is proposed to be disposed of at a landfill as ID27, the applicant may be required to analyze for additional parameters (Ignitability, Corrosivity, Reactive Sulfide, Reactive Cyanide) for the landfill to accept the material.

Bulk Sediment Chemistry Analysis

Semi-Volatile Compounds

Volatiles (VOCs)

Polychlorinated dibenzo dioxins and furans (PCDDs and PCDFs; 17 congeners)

Polychlorinated biphenyls (PCBs): Aroclors or PCB Congeners (209)

Organochlorine Pesticides

Inorganics (including hexavalent and trivalent chrome)

Effluent (Modified) Elutriate Analysis

Semi-Volatile Compounds

Volatiles (VOCs)

Polychlorinated dibenzo dioxins and furans (PCDDs and PCDFs; 17 congeners)

Polychlorinated biphenyls (PCBs): Aroclors or PCB Congeners (209)

Organochlorine Pesticides

Inorganics (including hexavalent and trivalent chrome)

Analytical Requirements

All analytical procedures must be conducted by a laboratory certified by the Department to conduct that procedure pursuant to the Regulations Governing the Certification of Laboratories and Environmental Measurements (N.J.A.C. 7:18) or the National Environmental Laboratory Accreditation Program (NELAP). Current certification status should be verified with the Office of Quality Assurance (609) 292-3950.

The achieved analytical detection limits for all contaminants in the Target Analyte List must be less than the applicable regulatory criteria and guidance values to which the data will be compared when evaluating the potential impacts of the proposed project. Where the Practical Quantitation Limit (PQL) for a contaminant is greater than the applicable regulatory criteria, the analytical detection limit must not exceed the PQL.

-Bulk Sediment Chemistry/Upland Placement – NJDEP Residential Soil Remediation Standards

http://www.nj.gov/dep/rules/rules/njac7_26d.pdf

-Bulk Sediment Chemistry/Aquatic Placement – NJDEP Ecological Screening Criteria

<http://www.nj.gov/dep/srp/guidance/ecoscreening/>

-Elutriate and Effluent (Modified) Elutriate – NJDEP Surface Water Quality Standards (acute and chronic; saline and/or freshwater, as appropriate)

http://www.nj.gov/dep/rules/rules/njac7_9b.pdf

-Leaching tests – NJDEP Ground Water Quality Standards

http://www.nj.gov/dep/rules/rules/njac7_9c.pdf

Sampling Plan Implementation Requirements

If implementation of the approved SSAP does not provide data that are representative of, or fully characterizes, the sediment to be dredged, the Department may require the collection and analyses of additional sediment samples.

Sediment core sampling collection procedures must be consistent with those in the NJDEP Field Sampling Procedures Manual (2005), available at <http://www.state.nj.us/dep/srp/guidance/fspm/>.

- (1) The Department must be notified of any deviations from the approved SSAP prior to the homogenizing, compositing, and analysis of the collected sediment samples.
- (2) All sediment core sample collection activities must be properly documented. Detailed field notes/observations during sampling must be documented in a field sampling log book.
- (3) NJDEP GPS Data Collection Standards must be used for positioning methods when locating all sampling points. *New Jersey Department of Environmental Protection, 2011. NJDEP GPS Data Collection Standards for GIS Data Development, June 8, 2011, 11 pp.*
- (4) All sampling equipment must be properly cleaned before and after the collection of each individual sediment core sample.
- (5) An inert plastic liner must be used in conjunction with each sediment core sampling device; this plastic liner must not be reused.
- (6) All individual sediment core samples are to be taken to the sediment characterization depth, as specified in this document, and not any deeper.
- (7) When collecting sediment core samples, the project applicant must ensure that a sufficient volume of sediment is collected to conduct all of the tests (physical and geotechnical, chemical, biological) specified in the approved SSAP.
- (8) Individual sediment core samples must be photographed prior to homogenization, with the sample identification number, a length scale, and date included in the photograph.
- (9) Provide core logs showing the depth of sampling (below the sediment surface and Mean Low Water) and a qualitative description of the sediment for each individual sediment core sample.
- (10) Only sediment core samples collected correctly may be homogenized, composited, and analyzed.
- (11) Individual sediment core samples may be homogenized in their entirety for analysis provided that there no distinct strata (apparent grain size distribution, composition, and visual characteristics) present that are greater than two (2) feet in depth. The Department shall be notified of any sediment core samples that show grain size stratification prior to homogenizing.
- (12) The entire sediment core sample (or distinct strata, when present) must be homogenized – “representative” sub-samples of a non-homogenized sediment core sample must not be collected, composited, and analyzed.

- (13) Individual sediment core samples may be composited only if the grain size distribution of the sediment is similar. Individual samples should not be composited if the percentage clay, silt, or sand differ by more than 20%. The Department shall be notified of any sediment core samples that show varying grain size distribution prior to compositing samples.
- (14) Representative subsamples of each homogenized core sample (or distinct strata) are combined in equal proportions (by mass) to form the composite analytical sample.
- (15) The sample preservation requirements and holding times for each analysis, as specified in the analytical methods used, must be adhered to, or proposed alternatives approved by the Department prior to analysis.
- (16) Sample Chain of Custody requirements must be consistent with those specified in the NJDEP Field Sampling Procedures Manual (2005).
- (17) If implementation of the approved SSAP does not provide data that are representative of, or fully characterizes, the sediment to be dredged, the Department may require the collection and analyses of additional sediment samples.
- (18) Analytical laboratories must follow all of the required QA/QC procedures specified in the analytical methods used. Any deviations from these procedures must be documented and justified in the Analytical Data Report.
- (19) All routine procedures associated with the sampling, handling, transport, storage, preservation, and analysis of the sediment should be specified in Standard Operating Procedure (SOP) documents maintained by the parties actually collecting and analyzing the sediment.
- (20) For Structural Fill Protocol the following two tests are required:
 - a) For each core/composite sample/vertically stratified sample, a sample of the processed dredged material product will be created by combining measured amounts of proposed additive with a pre-weighed sample of the sediments to be dredged. The mixing time will, to the greatest extent possible, replicate the residence time in the blending facility/operation to be used in the actual full-scale project. The ratio of proposed additive to composite sediment sample, by weight, will be recorded. The dredged material product to be tested will be formed using the “recipe” (proportions of dredged material and proposed additive) which replicates the actual dredged material product to be used as structural fill on the site. The dredged material product will be pulverized, and each composite sample will be subjected to bulk sediment analyses.
 - b) The dredged material product samples will be pulverized, and each sample subjected to a Synthetic Precipitation Leaching Procedure (SPLP) using the USEPA Method 1312.

A final report, including the results of the raw sediment and dredged material product testing, will be submitted to the Department in a series of three (3) summary data tables: Raw sediment bulk sediment chemistry, Dredged material product bulk sediment chemistry, Dredged material product SPLP results.

Sample Collection/Homogenization/Composition

Identify the organizations that will conduct the following activities (if known):

Sediment samples will be collected by: _____

Sediment samples will be homogenized by: _____

Sediment samples will be composited by: _____

Reporting Requirements

The sediment data package must be included in the Waterfront Development Permit application. Any data package submitted to the Department shall comply with the QA/QC requirements outlined in Appendix B of the Dredging Manual. The package must be provided to the Department on a CD, or be made available electronically.

In addition, a data summary table of the results in a spreadsheet must be provided with the data package. The data summary table must present a comparison of the bulk sediment chemistry results to the Department's Residential and Non-residential Soil Remediation Standards. Where required, modified elutriate results shall be compared to the New Jersey Surface Water Quality Criteria and SPLP results shall be compared to the New Jersey Ground Water Quality Standards. The summary tables must present data with identical units and highlight all results that exceed applicable criteria. **Units for bulk sediment chemistry must be presented in milligrams per kilogram (mg/kg).**

- Dioxin data must be presented using current World Health Organization Toxic Equivalency Factors (WHO TEFs) with the calculated Toxic Equivalency (TEQ).
- PCB aroclor data must provide a summation for detected analytes.
- PCB congener data must be presented individually and summed.

One (1) hard copy of the data summary tables and one (1) FULL electronic copy of the QA/QC must be provided

SSAP Certifications

I certify that I provided accurate information and will comply with the requirements listed in the approved Sediment Sampling and Analysis Plan.

Printed Name:	
Date:	
Signature:	

Department Review and Approval (Department signature upon approval)

The Department hereby approves the Sediment Sampling and Analysis Plan dated for implementation.

NJDEP File No.	
Department Staff:	
Date:	
Signature:	

ISSUED
PRINTS

1

2

3

4

5

MULTIBEAM HYDROGRAPHIC SURVEY NOTES:

- ALL SOUNDINGS WERE CONDUCTED USING:
 - APPLANIX POS MV 120 NAVIGATION MOTION SENSOR FOR POSITIONING, HEADING, ATTITUDE, HEAVE AND VELOCITY, CLENDING GLOBAL NAVIGATION SATELLITE SYSTEM (gnSS) WITH AN INERTIAL MEASUREMENT UNIT (IMU) AND GPS AZIMUTH MEASUREMENT SYSTEM (GAMS), AND APPLANIX POSPac MMS (MOBILE MAPPING SUITE)
 - HYPACK HYSEWE SOFTWARE
 - R2SONIC 2024 (200kHz – HIGH RESOLUTION) MULTIBEAM SONAR SYSTEM UNIT
 - VALEPORT minISVS (SOUND VELOCITY SENSOR) LOCATED AT THE SONAR HEAD MOUNT
 - SONTEK CASTAWAY CTD (CONDUCTIVITY, TEMPERATURE, AND DEPTH) FOR SOUND VELOCITY CAST
- SOUNDINGS WERE CONDUCTED ON WEDNESDAY JANUARY 26, 2022
- THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
- SOUNDINGS ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
- HORIZONTAL CONTROL IS BASED ON NEW JERSEY (2900) STATE PLANE COORDINATES NAD83, AS ESTABLISHED IN THE FIELD AND SOLELY FOR THE USE OF THIS HYDROGRAPHIC SURVEY.
- VERTICAL CONTROL WAS OBTAINED FROM KEYNET GPS (TRIMBLE VIRTUAL REFERENCE STATION [VRS] NETWORK) REAL-TIME KINEMATIC (RTK) CORRECTIONS TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), AND CONVERTED TO MEAN LOWER LOW WATER (M.L.L.W.), WHICH IS 3.22' BELOW NAVD88. NAVD88 CONVERSION OF 3.22' OBTAINED FROM THE ARMY CORP OF ENGINEERS.
- CONTOURS WERE INTERPOLATED WITH TRIMBLE NAVIGATION LIMITED, TERRAMODEL VERSION 10.11.

SITE PLAN

SCALE: 1" = 50.0'

DATUM CHART

TOP OF PIER +10.40
(DOWNRIVER CORNER
OF BERTH No.4)

MEAN LOW WATER 0.0
10.4'

VOLUME SUMMARY:

BERTH 2	12,194 cu.
BERTH 3	10,296 cu.
BERTH 4	20,606 cu.
PIER 1	6,582 cu.
PIER 1A	3,027 cu.
TOTAL:	52,705 cu.

COMPOSITING SCHEME:	
C-1 + C-2 =	SC-1
C-3 + C-4 =	SC-2
C-5 + C-6 =	SC-3
C-7 + C-8 =	SC-4
D-9 (DISCRETE SAMPLE)	

BERTHS 1, 2, 3 AND 4 TOTAL ACRES TO BE DREDGED = 5.615

approvals			
approved by	for	date	

"Drawings issued in electronic form are provided for the convenience of the recipient and are used at the sole risk of the user. Reliance may be placed only on hard copies of drawings issued by S.T. Hudson Engineers. In the event of any discrepancy, the hard copy will govern."

S.T. HUDSON ENGINEERS, INC.
PROFESSIONAL ENGINEERS & CONSULTANTS
 900 Dudley Avenue
Cherry Hill, NJ 08002
Phone: 856-342-6600
Fax: 856-342-8323

SOUTH JERSEY PORT CORPORATION
JOSEPH A. BALZANO MARINE TERMINAL
CAMDEN, NEW JERSEY 08103

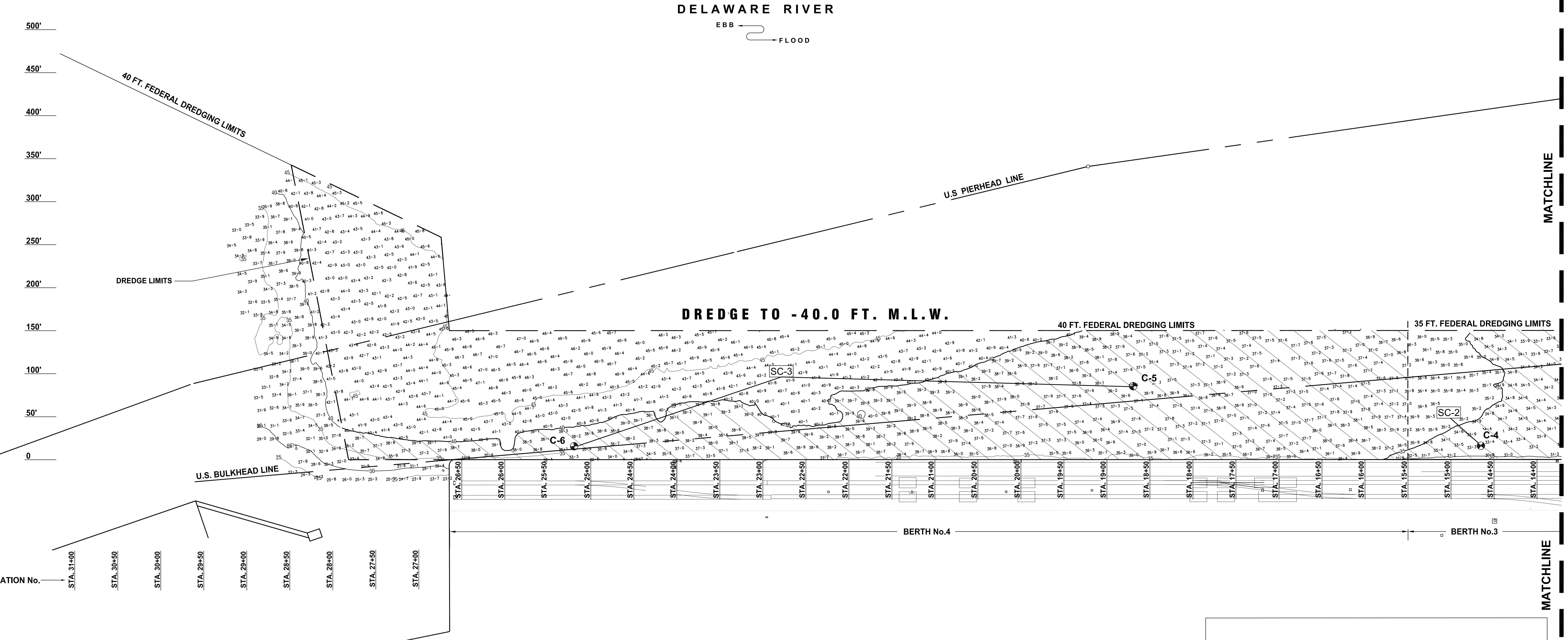
drawn	MP	date	3/9/2022	contract
checked				
drgt. approval		FILE		Sp-1529
			22-050-03	
BERTH No. 2 and BERTH No. 3				dwg. no. rev.

SAMPLING PLAN

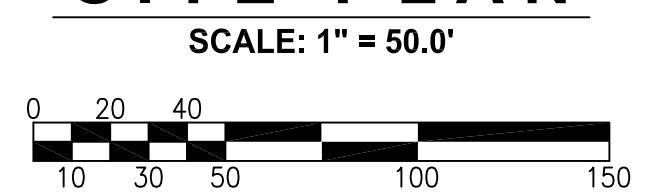
1 of 4 0

N.J. PLANE COORDINATE SYSTEM Z

N.J. PLANE COORDINATE SYSTEM Z

**MULTIBEAM HYDROGRAPHIC SURVEY NOTES:**

- ALL SOUNDINGS WERE CONDUCTED USING:
 - APPLANIX POS MV 120 NAVIGATION MOTION SENSOR FOR POSITIONING, HEADING, ATTITUDE, HEAVE AND VELOCITY, CLENDING GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) WITH AN INERTIAL MEASUREMENT UNIT (IMU) AND GPS AZIMUTH MEASUREMENT SYSTEM (GAMS), AND APPLANIX POSPac MMS (MOBILE MAPPING SUITE)
 - HYPACK HYSWEEP SOFTWARE
 - R2SONIC 2024 (200kHz - HIGH RESOLUTION) MULTIBEAM SONAR SYSTEM UNIT
 - VALEPORT miniSVS (SOUND VELOCITY SENSOR) LOCATED AT THE SONAR HEAD MOUNT
 - SONTEK CASTAWAY CTD (CONDUCTIVITY, TEMPERATURE, AND DEPTH) FOR SOUND VELOCITY CAST
- SOUNDINGS WERE CONDUCTED ON WEDNESDAY JANUARY 26, 2022
- THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
- SOUNDINGS ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
- HORIZONTAL CONTROL IS BASED ON NEW JERSEY (2900) STATE PLANE COORDINATES NAD83, AS ESTABLISHED IN THE FIELD AND SOLELY FOR THE USE OF THIS HYDROGRAPHIC SURVEY.
- VERTICAL CONTROL WAS OBTAINED FROM KEYNET GPS (TRIMBLE VIRTUAL REFERENCE STATION [VRS] NETWORK) REAL-TIME KINEMATIC (RTK) CORRECTIONS TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), AND CONVERTED TO MEAN LOWER LOW WATER (M.L.L.W.), WHICH IS 3.22' BELOW NAVD88. NAVD88 CONVERSION OF 3.22' OBTAINED FROM THE ARMY CORP OF ENGINEERS.
- CONTOURS WERE INTERPOLATED WITH TRIMBLE NAVIGATION LIMITED, TERRAMODEL VERSION 10.11.

SITE PLAN**CORE SAMPLING NOTES:**

- FOR CORE SAMPLE LOCATIONS, SEE "ACTUAL LOCATIONS VIA DGPS" IN THE SAMPLE LOCATION CHART.
- CORE SAMPLES WERE TAKEN ON MARCH XX, 2022.

BERTHS 1, 2, 3 AND 4 TOTAL ACRES TO BE DREDGED = 5.615

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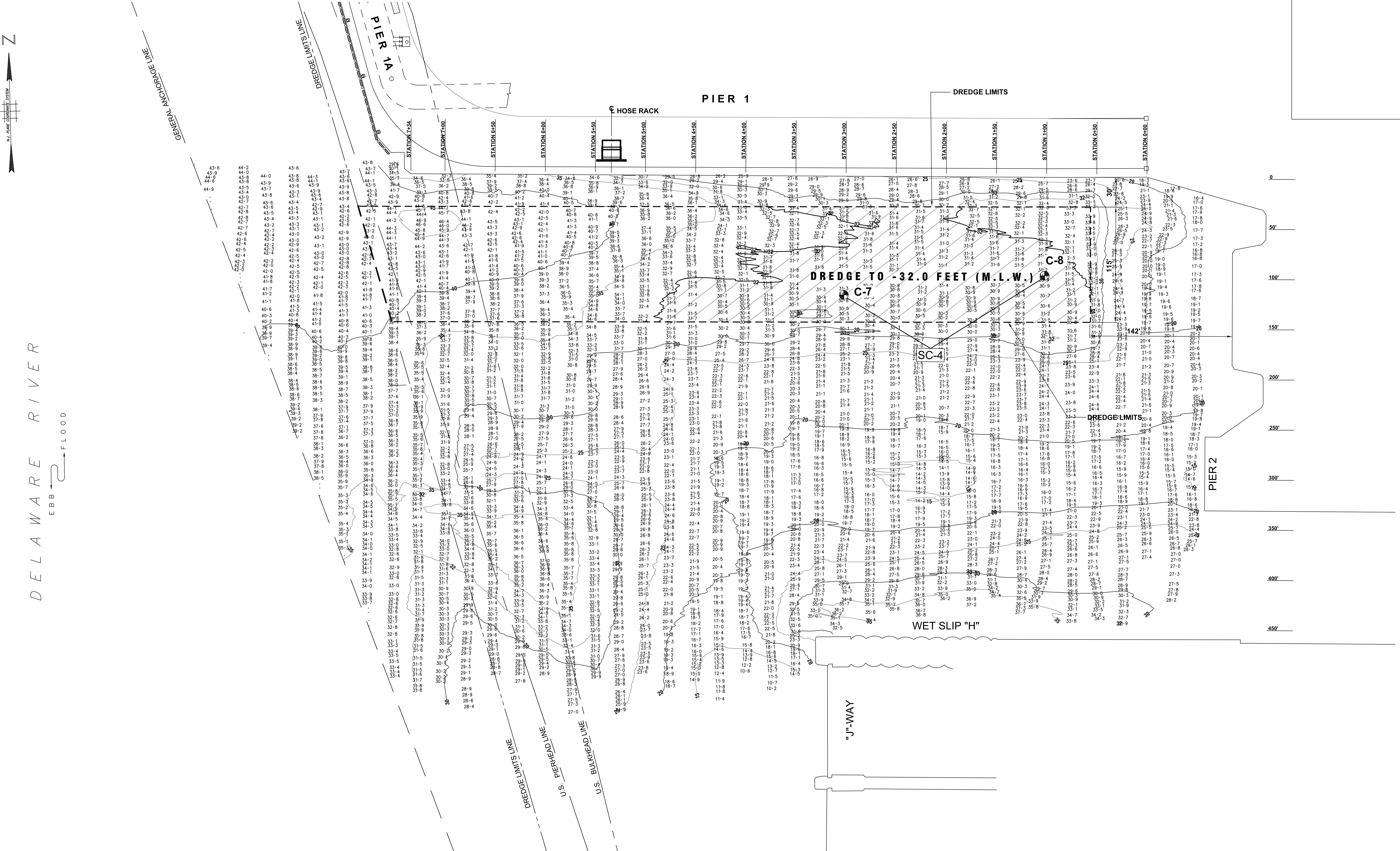
S.T. HUDSON ENGINEERS, INC.
PROFESSIONAL ENGINEERS & CONSULTANTS
900 Dudley Avenue
Cherry Hill, N.J. 08002
Phone 856-342-6600
Fax No. 856-342-8323

SOUTH JERSEY PORT CORPORATION
JOSEPH A. BALZANO MARINE TERMINAL
CAMDEN, NEW JERSEY 08103

APPROVALS			
Approved by _____	for _____	By _____	Date _____

Seal _____ Seal _____

Drawn _____	MP _____	Date 3/2/2022	Contract _____
Checked _____			
Draftg. Approval _____		FILE Sp-1529	22-050-03
BERTH No. 3 AND BERTH No. 4		Dwg. no. _____	Rev. _____
		SAMPLING PLAN	2 of 4 0



SITE PLAN

SCALE: 1" = 40'

NOTES

- HORIZONTAL CONTROL IS BASED ON NEW JERSEY STATE PLANE COORDINATES, NAD83, AS ESTABLISHED IN THE FIELD AND SOLELY FOR THE USE OF THIS HYDROGRAPHIC SURVEY.
- VERTICAL CONTROL WAS OBTAINED FROM KEYNET GPS (TRIMBLE VIRTUAL REVERENCE STATION NETWORK) REAL-TIME KINEMATIC (RTK) CORRECTIONS TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- ALL SOUNDINGS WERE TAKEN USING TRIMBLE SP855 DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS) WITH FIXED RTK, HYDROGRAPHIC MAX SOFTWARE AND AN TELEDYNE ODOM HYDROTRAC CONTINUOUS RECORDING SURVEY FATHOMETER.
- SOUNDINGS WERE TAKEN ON WEDNESDAY JANUARY 26, 2022

- THE DECIMAL POINT (.) DENOTES THE SOUNDING LOCATION.
- SONDINGS ARE REFERENCED TO MEAN LOWER LOW WATER (M.L.L.W.) AND EXPRESSED IN FEET AND TENTHS OF A FOOT.
- CONTOURS WERE INTERPOLATED WITH TRIMBLE NAVIGATION LIMITED SOFTWARE, TERRAMODEL VERSION 10.11.
- CROSS HATCHING INDICATES AREAS THAT ARE ABOVE THE SPECIFIED MINIMUM DREDGE DEPTH.
- CHANNEL LOCATION LINES WERE OBTAINED FROM THE UNITED STATES ARMY CORPS OF ENGINEERS.
- THE INFORMATION DEPICTED IN THIS DRAWING REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

CORE SAMPLING NOTES:

- FOR CORE SAMPLE LOCATIONS, SEE "ACTUAL LOCATIONS VIA DGPS" IN THE SAMPLE LOCATION CHART.
- CORE SAMPLES WERE TAKEN ON MARCH XX, 2022.

PIER 1 TOTAL ACRES TO BE DREDGED = 0.194

DATUM CHART

NAVD88 +3.22'
M.L.L.W. ELEV. 0.00

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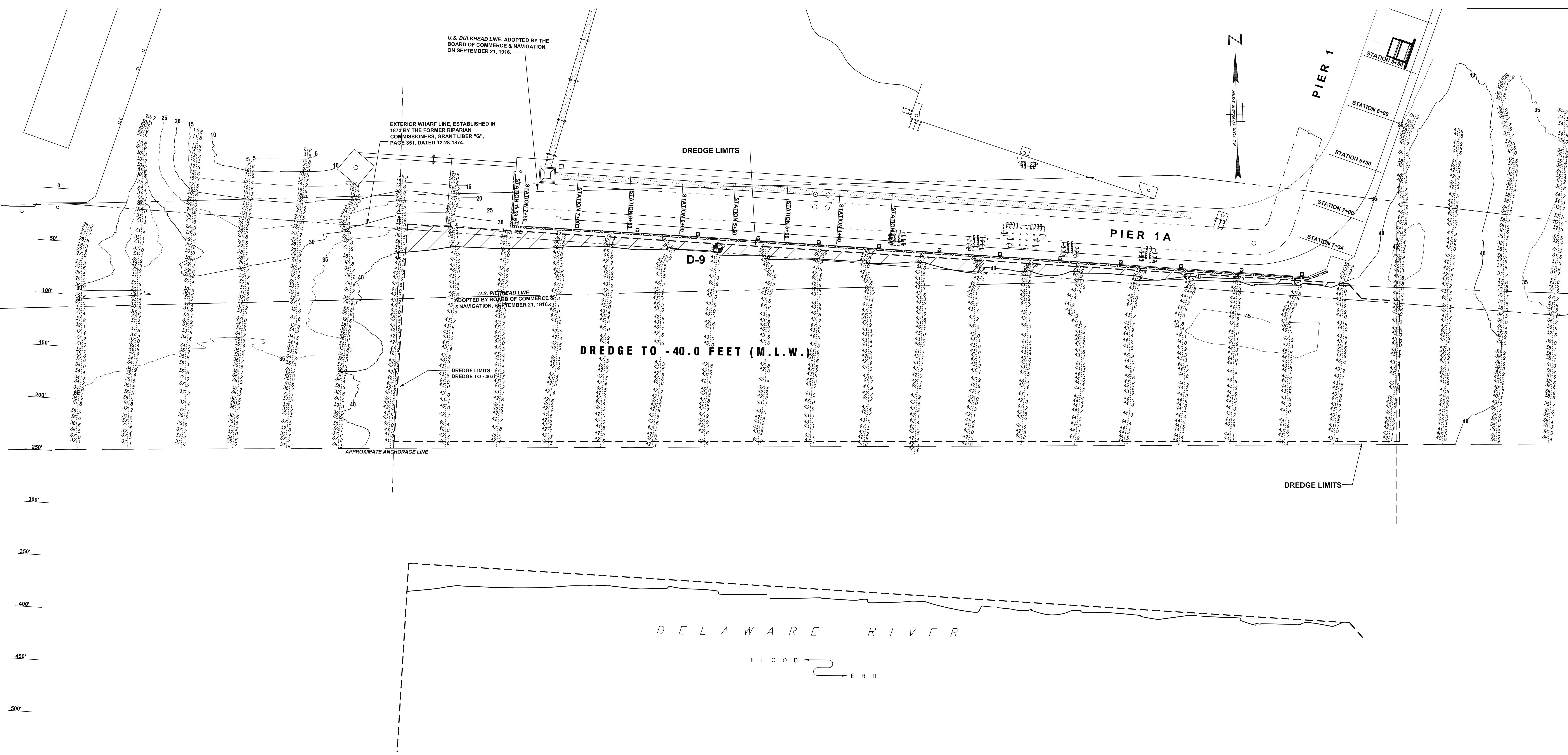
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Fax No. 856-342-8323

SOUTH JERSEY PORT CORPORATION
BROADWAY TERMINAL
CAMDEN, NEW JERSEY 08104

drawn MP date 3/9/2022 contract
checked drftg. approval FILE Sp-1529 22-050-03

PIER 1 dwg. no. rev.

SAMPLING PLAN 3 of 4 0



NOTES

- HORIZONTAL CONTROL IS BASED ON NEW JERSEY STATE PLANE COORDINATES, NAD83, AS ESTABLISHED IN THE FIELD AND SOLELY FOR THE USE OF THIS HYDROGRAPHIC SURVEY.
- VERTICAL CONTROL WAS OBTAINED FROM KEYNET GPS (TRIMBLE VIRTUAL REVERENCE STATION NETWORK) REAL-TIME KINEMATIC (RTK) CORRECTIONS TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- ALL SOUNDINGS WERE TAKEN USING TRIMBLE SPS855 DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS) WITH FIXED RTK, HYPACK MAX SOFTWARE AND AN TELEDYNE ODOM HYDROTAC CONTINUOUS RECORDING SURVEY FATHOMETER.
- SOUNDINGS WERE TAKEN ON WEDNESDAY JANUARY 26, 2022

- THE DECIMAL POINT (.) DENOTES THE SOUNDING LOCATION.
- SOUNDINGS ARE REFERENCED TO MEAN LOWER LOW WATER (M.L.L.W.) AND EXPRESSED IN FEET AND TENTHS OF A FOOT.
- CONTOURS WERE INTERPOLATED WITH TRIMBLE NAVIGATION LIMITED SOFTWARE, TERRAMODEL VERSION 10.11.
- CROSS HATCHING INDICATES AREAS THAT ARE ABOVE THE SPECIFIED MINIMUM DREDGE DEPTH.
- CHANNEL LOCATION LINES WERE OBTAINED FROM THE UNITED STATES ARMY CORPS OF ENGINEERS.
- THE INFORMATION DEPICTED IN THIS DRAWING REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

CORE SAMPLING NOTES:

- FOR CORE SAMPLE LOCATIONS, SEE "ACTUAL LOCATIONS VIA DGPS" IN THE SAMPLE LOCATION CHART.
- CORE SAMPLES WERE TAKEN ON MARCH XX, 2022.

PIER 1A TOTAL ACRES TO BE DREDGED = 0.746

DATUM CHART

NAVD88 +3.22
M.L.L.W. ELEV. 0.00

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S. T. HUDSON ENGINEERS, INC.
PROFESSIONAL ENGINEERS & CONSULTANTS
900 Dudley Avenue
Cherry Hill, N.J. 08002
Phone 856-342-6600
Fax No. 856-342-8323
For No. 856-342-8323

SOUTH JERSEY PORT CORPORATION
BROADWAY TERMINAL
CAMDEN, NEW JERSEY 08104

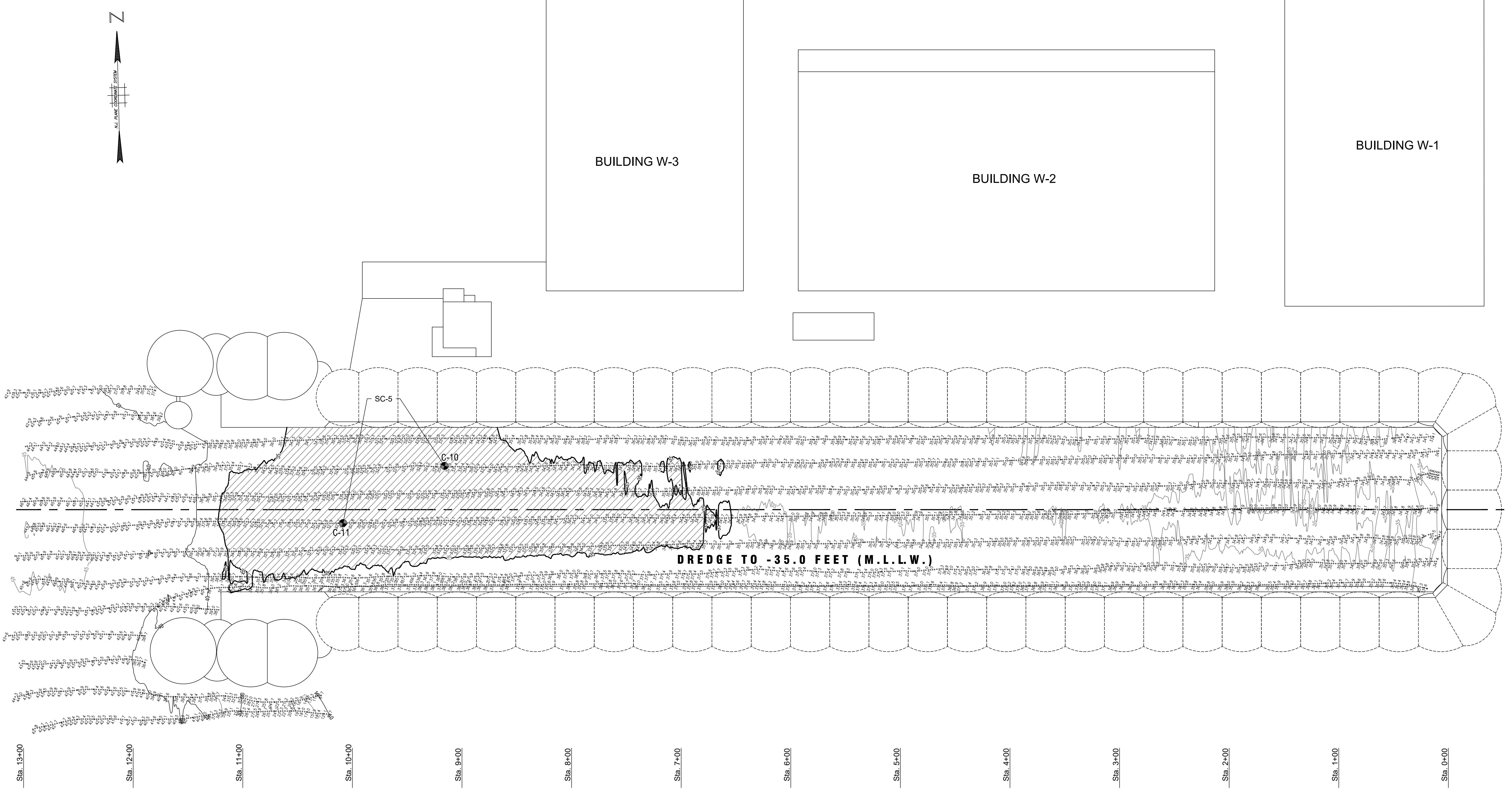
drawn MP date 3/2/2022 contract
checked drftg. approval FILE Sp-1529 22-050-03

PIER 1A dwg. no. rev.

SAMPLING PLAN

4 of 4 0

DELAWARE RIVER



NOTES

1. HORIZONTAL CONTROL IS BASED ON NEW JERSEY STATE PLANE COORDINATES, NAD83, AS ESTABLISHED IN THE FIELD AND SOLELY FOR THE USE OF THIS HYDROGRAPHIC SURVEY.
2. VERTICAL CONTROL WAS OBTAINED FROM KEYNET GPS (TRIMBLE VIRTUAL REVERENCE STATION NETWORK) REAL-TIME KINEMATIC (RTK) CORRECTIONS TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. ALL SOUNDINGS WERE TAKEN USING TRIMBLE SPS855 DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS) WITH FIXED RTK /HYPACK MAX SOFTWARE AND AN TELEDYNE ODOM HYDROTRAC CONTINUOUS RECORDING SURVEY FATHOMETER.
4. SOUNDINGS WERE TAKEN ON MONDAY, APRIL 4, 2022
5. THE DECIMAL POINT (.) DENOTES THE SOUNDING LOCATION.
6. SOUNDINGS ARE REFERENCED TO MEAN LOWER LOW WATER (M.L.L.W.) AND EXPRESSED IN FEET AND TENTHS OF A FOOT.
7. CONTOURS WERE INTERPOLATED WITH TRIMBLE NAVIGATION LIMITED SOFTWARE, TERRAMODEL VERSION 10.11.
8. CROSS HATCHING INDICATES AREAS THAT ARE ABOVE THE SPECIFIED MINIMUM DREDGE DEPTH.
9. CHANNEL LOCATION LINES WERE OBTAINED FROM THE UNITED STATES ARMY CORPS OF ENGINEERS.
10. THE INFORMATION DEPICTED IN THIS DRAWING REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

BORING LOCATION CHART				
CALCULATED LOCATIONS VIA PLAN		ACTUAL LOCATIONS VIA DGPS		
NORTHING	EASTING	I.D.	NORTHING	EASTING
392,246.92	316,864.48	C-10		

COMPOSITING SCHEME:

C-10 + C-11 = SC-5

TOTAL DREDGE AREA = 45,000 SQUARE FEET or 1.1 ACRES

TOTAL DREDGE VOLUME = 11,817 CUBIC YARDS
(INCLUDING OVERDREDGE)

NOTE: CORE SAMPLE LOCATIONS ON THIS CHART ARE IN NAD83- NEW JERSEY STATE PLANE COORDINATES

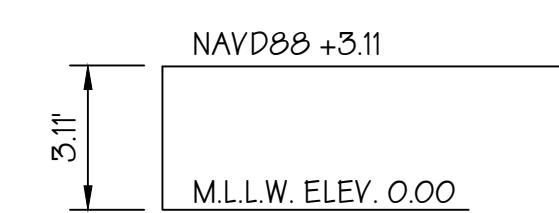
CORE SAMPLING NOTES:

1. FOR CORE SAMPLE LOCATIONS, SEE "ACTUAL LOCATIONS VIA DGPS" IN THE SAMPLE LOCATION CHART.
2. CORE SAMPLES WERE TAKEN ON _____.

SITE PLAN

SCALE: 1" = 40'

DATUM CHART



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Phone 856-342-6600
Fax No. 856-342-8323

SOUTH JERSEY PORT CORPORATION
BROADWAY TERMINAL
CAMDEN, NEW JERSEY 08104

drawn DJD date 4/7/2022 contract
checked SD FILE Sp-1532 22-050-03
drftg. approval TK

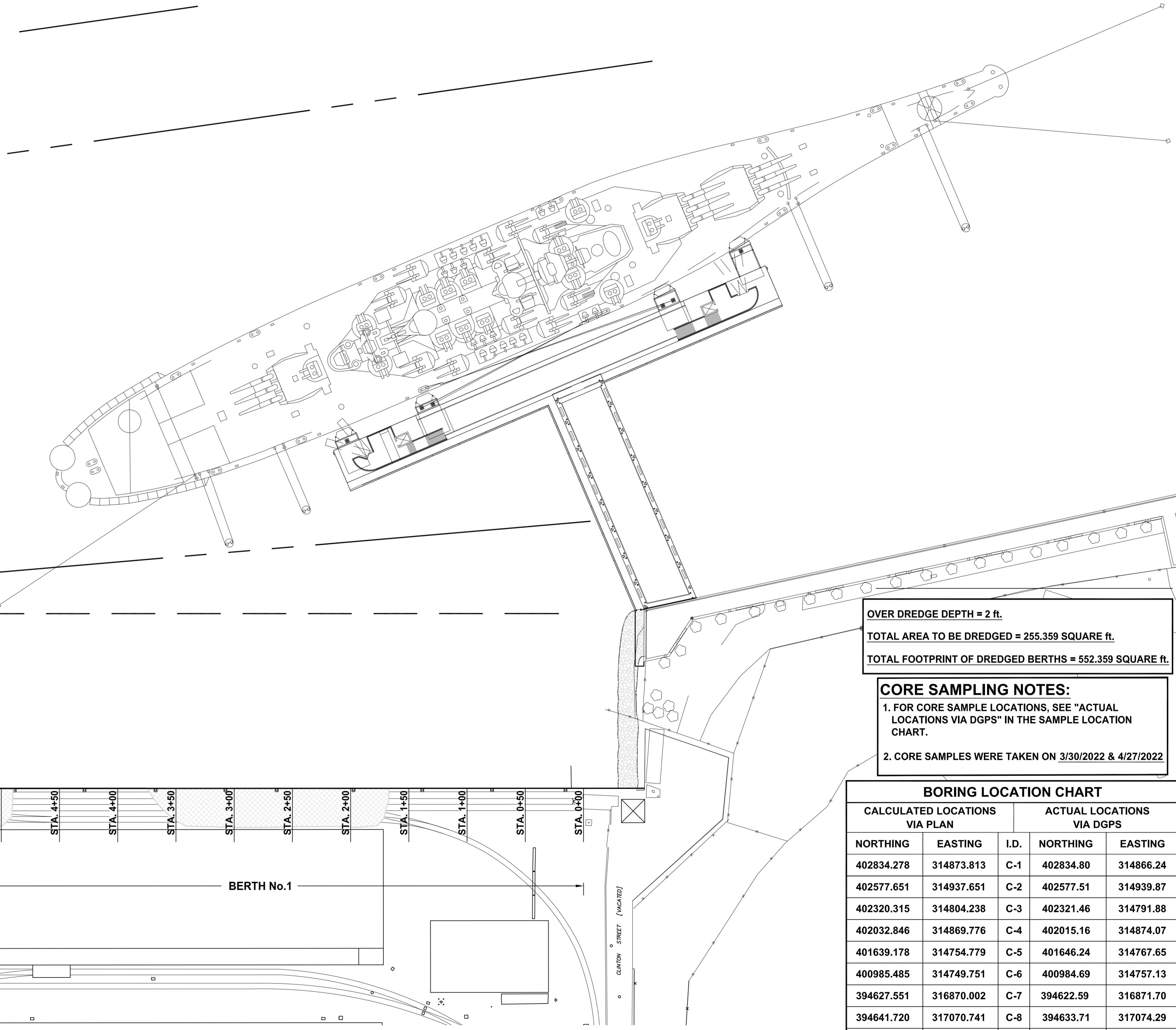
PIER 5 dwg. no. rev.

SAMPLING PLAN 1 0

MULTIBEAM HYDROGRAPHIC SURVEY NOTES:

1. ALL SOUNDINGS WERE CONDUCTED USING:
• APPLANIX POS MV 120 NAVIGATION MOTION SENSOR FOR POSITIONING, HEADING, ATTITUDE, HEAVE AND VELOCITY, CLENDING GLOBAL NAVIGATION SATELLITE SYSTEM (gnSS) WITH AN INERTIAL MEASUREMENT UNIT (IMU) AND GPS AZIMUTH MEASUREMENT SYSTEM (GAMS), AND APPLANIX POSPac MMS (MOBILE MAPPING SUITE)
• HYDAPAC HYSWEEP SOFTWARE
• R2SONIC 2024 (200kHz - HIGH RESOLUTION) MULTIBEAM SONAR SYSTEM UNIT
• VALEPORT miniSVS (SOUND VELOCITY SENSOR) LOCATED AT THE SONAR HEAD MOUNT
• SONTEK CASTAWAY CTD (CONDUCTIVITY, TEMPERATURE, AND DEPTH) FOR SOUND VELOCITY CAST
2. SOUNDINGS WERE CONDUCTED ON WEDNESDAY JANUARY 26, 2022
3. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

4. SOUNDINGS ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
5. HORIZONTAL CONTROL IS BASED ON NEW JERSEY (2900) STATE PLANE COORDINATES NAD83, AS ESTABLISHED IN THE FIELD AND SOLELY FOR THE USE OF THIS HYDROGRAPHIC SURVEY.
6. VERTICAL CONTROL WAS OBTAINED FROM KEYNET GPS (TRIMBLE VIRTUAL REFERENCE STATION [VRS] NETWORK) REAL-TIME KINEMATIC (RTK) CORRECTIONS TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), AND CONVERTED TO MEAN LOWER LOW WATER (MLLW), WHICH IS 3.22' BELOW NAVD88. NAVD88 CONVERSION OF 3.22' OBTAINED FROM THE ARMY CORP OF ENGINEERS.
7. CONTOURS WERE INTERPOLATED WITH TRIMBLE NAVIGATION LIMITED, TERRAMODEL VERSION 10.11.

DELAWARE RIVEREBB →
FLOOD650'
600'
550'
500'
450'
400'
350'
300'
250'
200'
150'
100'
50'**SITE PLAN**SCALE: 1" = 50.0'
0 20 40 60 80 100 120 140 160 180**DATUM CHART**TOP OF PIER +10.40
(DOWNRIVER CORNER
OF BERTH No.4)MEAN LOW WATER 0.0
10.4' ↓**VOLUME SUMMARY:****BERTHS 2, 3 AND 4 TOTAL ACRES TO BE DREDGED = 5.615**

approvals		
approved by	for	date

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Phone 856-342-6600
Fax No. 856-342-8323

SOUTH JERSEY PORT CORPORATION

JOSEPH A. BALZANO MARINE TERMINAL

CAMDEN, NEW JERSEY 08103

drawn MP date 6/28/2022 contract

checked PF FILE Sp-1529 22-050-03

drgt. approval TK

BERTH No. 2 AND BERTH No. 3 dwg. no. rev.

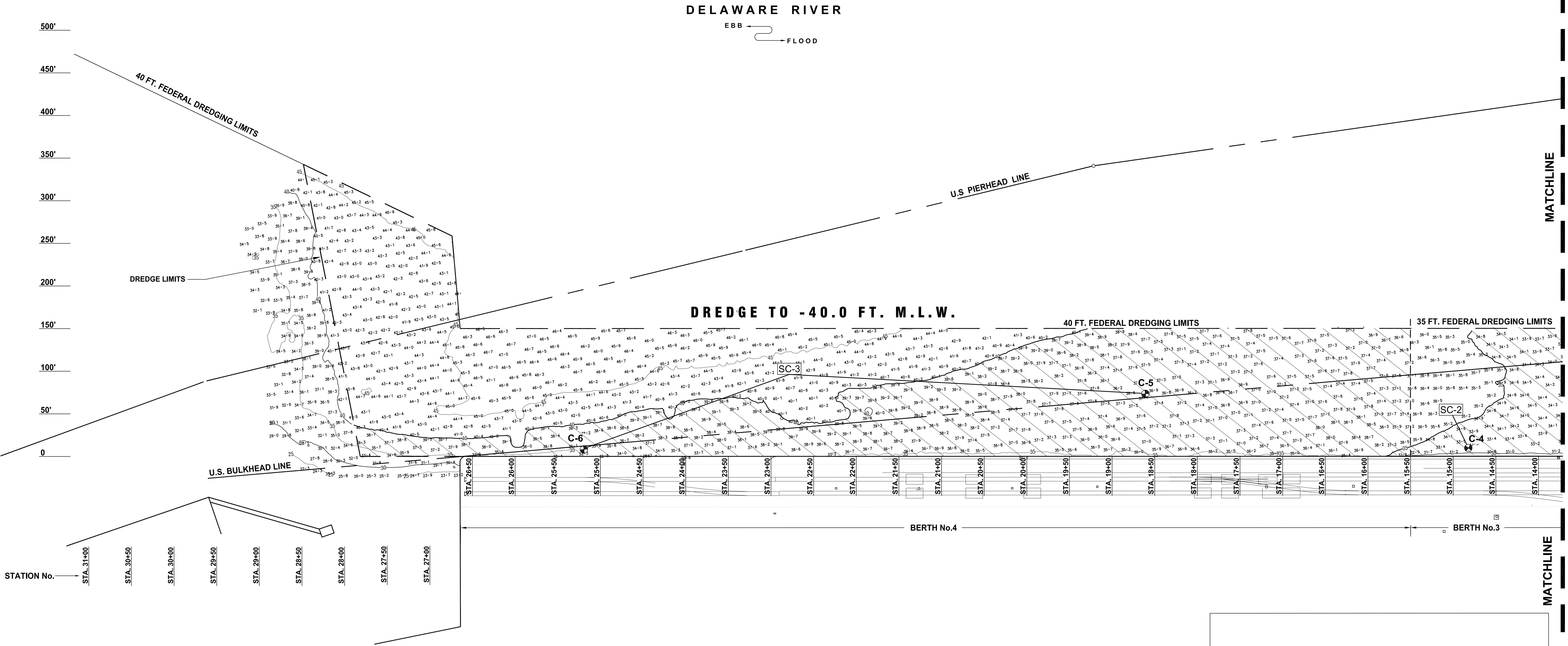
SAMPLING PLAN

1 of 4 1

N.J. PLANE COORDINATE SYSTEM

MATCHLINE

MATCHLINE

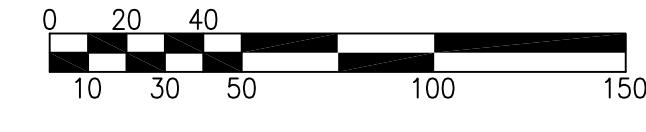
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- ALL SOUNDINGS WERE CONDUCTED USING:
 - APPLANIX POS MV 120 NAVIGATION MOTION SENSOR FOR POSITIONING, HEADING, ATTITUDE, HEAVE AND VELOCITY, CLENDING GLOBAL NAVIGATION SATELLITE SYSTEM (gnSS) WITH AN INERTIAL MEASUREMENT UNIT (IMU) AND GPS AZIMUTH MEASUREMENT SYSTEM (GAMS), AND APPLANIX POSPac MMS (MOBILE MAPPING SUITE)
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 - R2SONIC 2024 (200kHz - HIGH RESOLUTION) MULTIBEAM SONAR SYSTEM UNIT
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- CONTOURS WERE INTERPOLATED WITH TRIMBLE NAVIGATION LIMITED, TERRAMODEL VERSION 10.11.

SITE PLAN

SCALE: 1" = 50.0'

**CORE SAMPLING NOTES:**

- FOR CORE SAMPLE LOCATIONS, SEE "ACTUAL LOCATIONS VIA DGPS" IN THE SAMPLE LOCATION CHART.

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PROFESSIONAL ENGINEERS & CONSULTANTS

900 Dudley Avenue
Cherry Hill, N.J. 08002

Phone 856-342-6600

Fax No. 856-342-8323

SOUTH JERSEY PORT CORPORATION
JOSEPH A. BALZANO MARINE TERMINAL
CAMDEN, NEW JERSEY 08103

drawn MP date 6/28/2022 contract

checked PF FILE Sp-1529 22-050-03

drftg. approval TK

BERTH No. 3 AND BERTH No. 4 dwg. no. rev.

SAMPLING PLAN

2 of 4 1

DELAWARE RIVER

E B B → F L O O D



SITE PLAN

SCALE: 1" = 40'

NOTES

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CORE SAMPLING NOTES:

- FOR CORE SAMPLE LOCATIONS, SEE "ACTUAL LOCATIONS VIA DGPS" IN THE SAMPLE LOCATION CHART.
- CORE SAMPLES WERE TAKEN ON 3/30/2022 & 4/27/2022.

PIER 1 TOTAL ACRES TO BE DREDGED = 0.194

DATUM CHART

NAVD88 +3.22
M.L.L.W. ELEV. 0.00

TK	APPROVALS	
	approved by	for
1	Actual Sampling Locations	by
TK	date	date
rev.	desc.	desc.
seal	seal	seal
drawn	MP	date
checked	PF	6/28/2022
drtg. approval	TK	contract
	Sp-1529	22-050
PIER 1 dwg. no. rev.		
SAMPLING PLAN 3 of 4 1		

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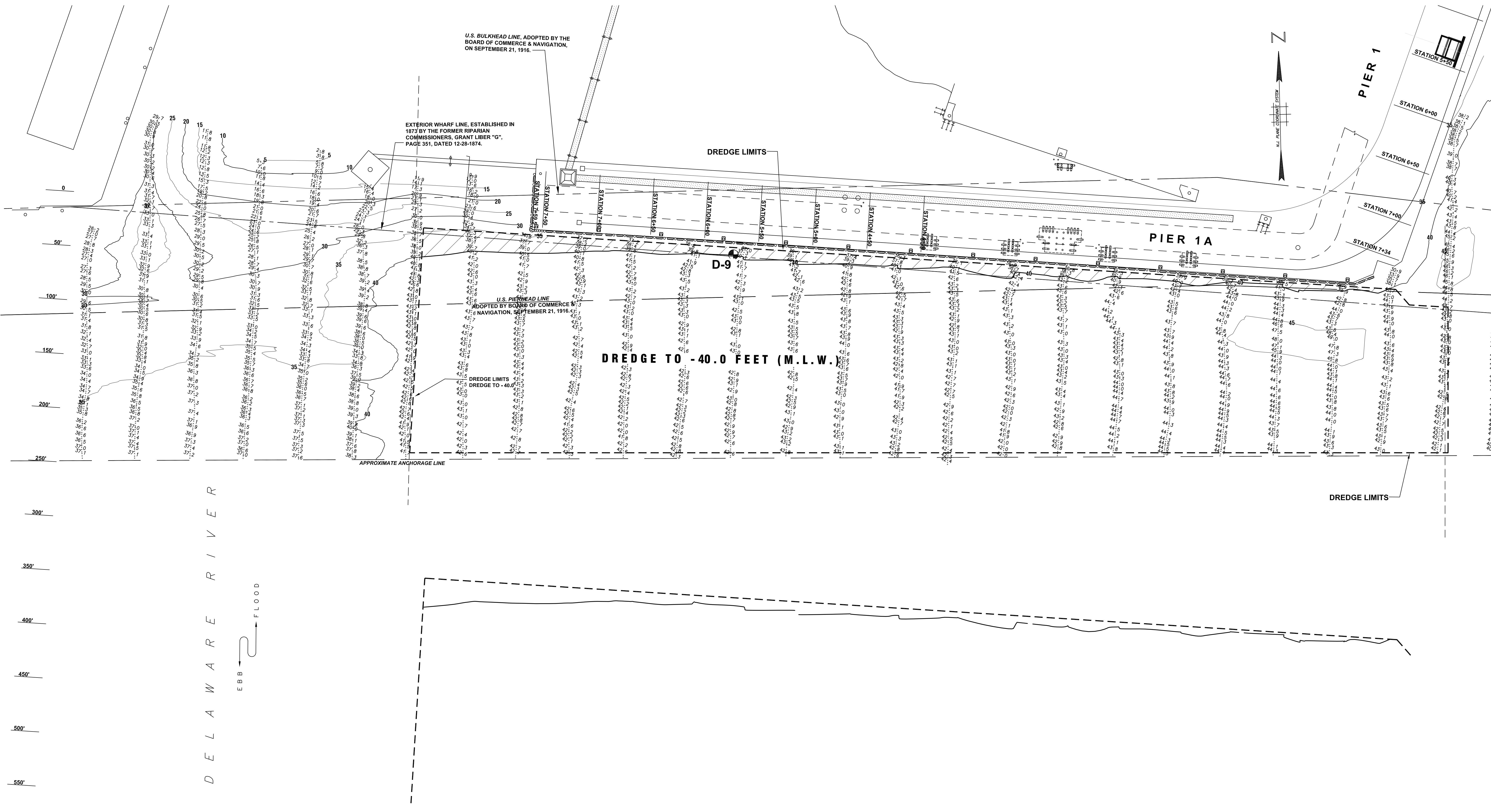
S. T. HUDSON ENGINEERS, INC.
PROFESSIONAL ENGINEERS & CONSULTANTS
900 Dudley Avenue
Cherry Hill, N.J. 08002
Phone 856-342-6600
Fax No. 856-342-8323

SOUTH JERSEY PORT CORPORATION
BROADWAY TERMINAL
CAMDEN, NEW JERSEY 08104

MP FILE Sp-1529 date 6/28/2022 contract
checked PF dwg. no. rev.
drtg. approval TK FILE Sp-1529 22-050

PIER 1 dwg. no. rev.

SAMPLING PLAN 3 of 4 1



NOTES

1. HORIZONTAL CONTROL IS BASED ON NEW JERSEY STATE PLANE COORDINATES, NAD83, AS ESTABLISHED IN THE FIELD AND SOLELY FOR THE USE OF THIS HYDROGRAPHIC SURVEY.

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SOUNDINGS WERE TAKEN ON WEDNESDAY JANUARY 26, 2022

5. THE DECIMAL POINT (.) DENOTES THE SOUNDING LOCATION.

6. SOUNDINGS ARE REFERENCED TO MEAN LOWER LOW WATER (M.L.L.W.) AND EXPRESSED IN FEET AND TENTHS OF A FOOT.

7. CONTOURS WERE INTERPOLATED WITH TRIMBLE NAVIGATION LIMITED SOFTWARE, TERRAMODEL VERSION 10.11.

8. CROSS HATCHING INDICATES AREAS THAT ARE ABOVE THE SPECIFIED MINIMUM DREDGE DEPTH.

9. CHANNEL LOCATION LINES WERE OBTAINED FROM THE UNITED STATES ARMY CORPS OF ENGINEERS.

10. THE INFORMATION DEPICTED IN THIS DRAWING REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

CORE SAMPLING NOTES:

1. FOR CORE SAMPLE LOCATIONS, SEE "ACTUAL LOCATIONS VIA DGPS" IN THE SAMPLE LOCATION CHART.

2. CORE SAMPLES WERE TAKEN ON 3/30/2022 & 4/27/2022.

PIER 1A TOTAL ACRES TO BE DREDGED = 0.746

DATUM CHART

NAVD88 +3.22
M.L.W. ELEV. 0.00

3.22'

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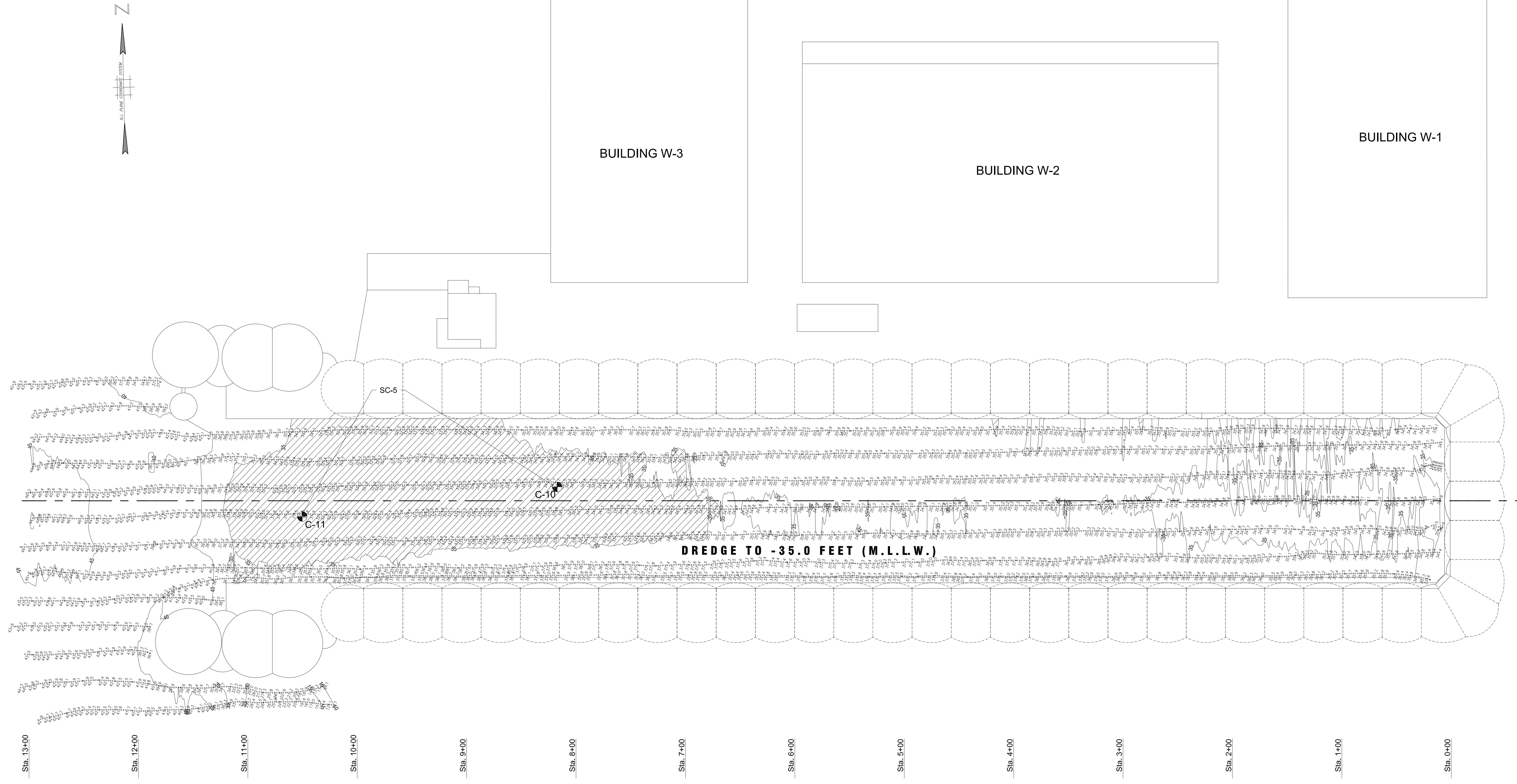
drawn MP date 6/28/2022 contract 22-050-03
checked PF drftg. approval TK FILE Sp-1529

PIER 1A dwg. no. rev.

SAMPLING PLAN 4 of 4 1

DELAWARE RIVER

E B B F L O O D



NOTES

- HORIZONTAL CONTROL IS BASED ON NEW JERSEY STATE PLANE COORDINATES, NAD83, AS ESTABLISHED IN THE FIELD AND SOLELY FOR THE USE OF THIS HYDROGRAPHIC SURVEY.
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- SOUNDINGS WERE TAKEN ON MONDAY, APRIL 4, 2022.
- THE DECIMAL POINT (.) DENOTES THE SOUNDING LOCATION.
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BORING LOCATION CHART				
CALCULATED LOCATIONS VIA PLAN		ACTUAL LOCATIONS VIA DGPS		
NORTHING	EASTING	I.D.	NORTHING	EASTING
392,246.92	316,664.48	C-10	392,217.24	316,962.47
392,197.04	316,770.66	C-11	392,196.00	316,728.78

COMPOSITING SCHEME:	
C-10 + C-11 =	SC-5
TOTAL DREDGE AREA = 45,000 SQUARE FEET or 1.03 ACRES	
TOTAL DREDGE VOLUME = 11,817 CUBIC YARDS (INCLUDING OVERRDREDGE)	

NOTE: CORE SAMPLE LOCATIONS ON THIS CHART ARE IN NAD83- NEW JERSEY STATE PLANE COORDINATES

CORE SAMPLING NOTES:

- FOR CORE SAMPLE LOCATIONS, SEE "ACTUAL LOCATIONS VIA DGPS" IN THE SAMPLE LOCATION CHART.
- CORE SAMPLES WERE TAKEN ON 4/29/2022.

SITE PLAN

SCALE: 1" = 40'

DATUM CHART

NAVD88 +3.11
M.L.L.W. ELEV. 0.00

3.11'

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Fax No. 856-342-8323

SOUTH JERSEY PORT CORPORATION
BROADWAY TERMINAL
CAMDEN, NEW JERSEY 08104

drawn DJU date 6/28/2022 contract
checked SD FILE Sp-1532 22-050-03
drftg. approval TK

PIER 5 dwg. no. rev.

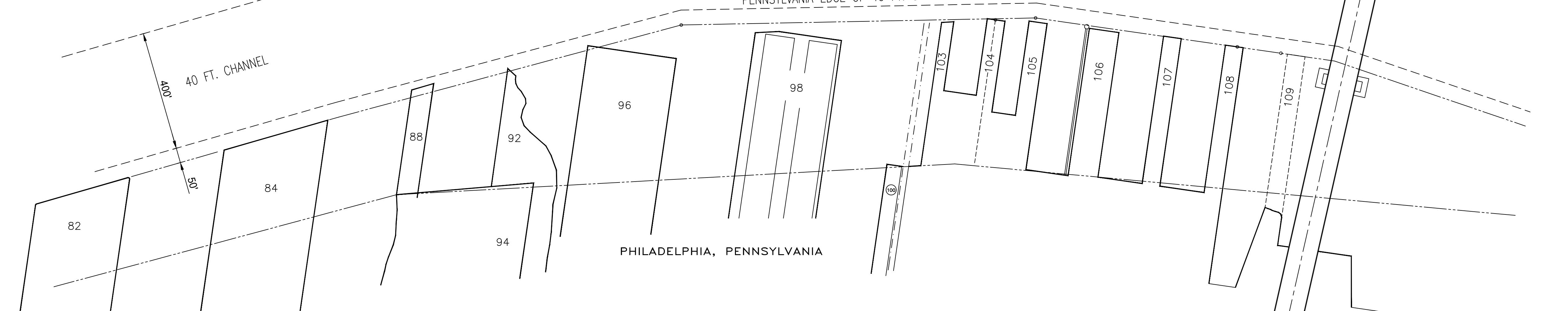
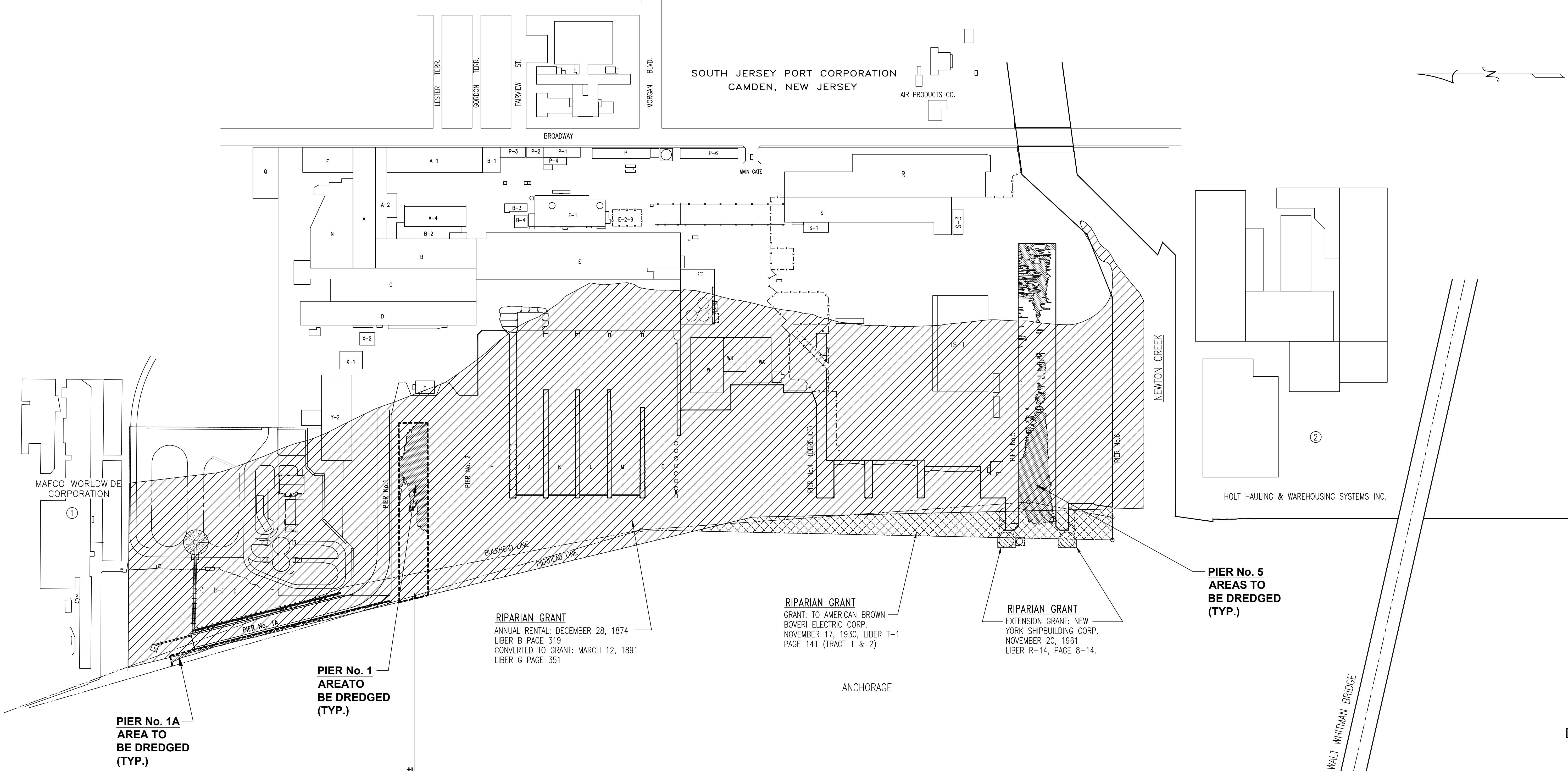
SAMPLING PLAN 1 1

SECTION 8

PERMIT DRAWINGS

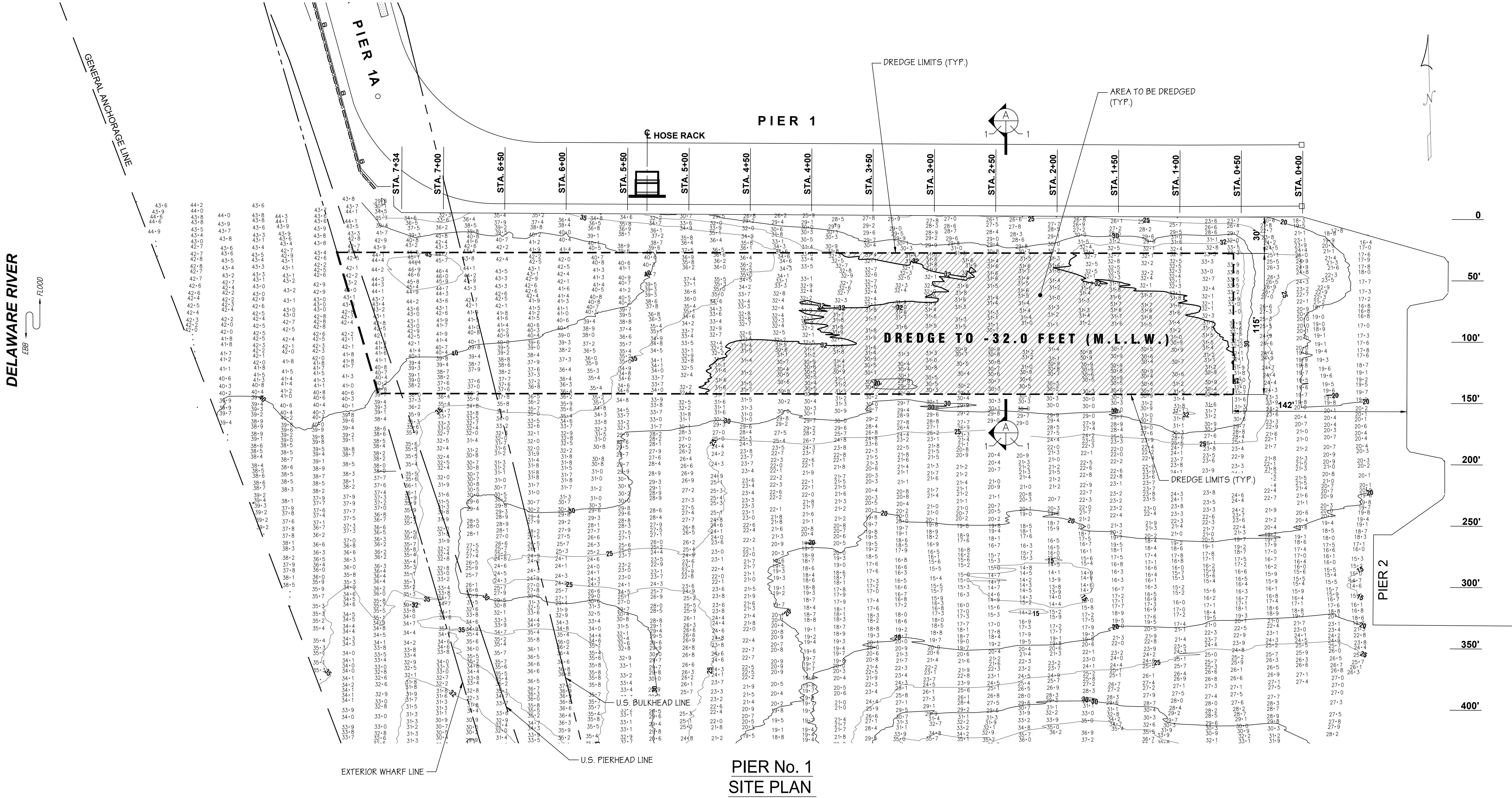
22-050-03

NJDEP AUD APPLICATION
JULY 2022

**ADJACENT PROPERTY OWNERS**

- ① MAFCO WORLDWIDE CORPORATION
- ② HOLT HAULING AND WAREHOUSING SYSTEMS INC.

PERMIT APPLICATION		
NOTE: FINAL DESIGN REQUIRED FOR CONSTRUCTION. THIS DRAWING IS FOR PERMITTING PURPOSES ONLY.		
PROPOSED: MAINTENANCE DREDGING		
AT: BROADWAY TERMINAL - CAMDEN, NJ		
COUNTY OF: CAMDEN COUNTY		
APPLICATION BY: SOUTH JERSEY PORT CORPORATION		
S.T. HUDSON ENGINEERS, INC. PROFESSIONAL ENGINEERS & CONSULTANTS 800 Dudley Avenue Cherry Hill, NJ 08002 Phone 856-342-6600 Fax No. 856-342-8323		
drawn ATF	date 7/12/2022	dwg. no. rev.
contract 22-050-04	FILE Sp-1536	1 of 7 0

**HYDROGRAPHIC SURVEY NOTES:**

1. HORIZONTAL CONTROL IS BASED ON NEW JERSEY STATE PLANE COORDINATES, NAD83, AS ESTABLISHED IN THE FIELD AND SOLELY FOR THE USE OF THIS HYDROGRAPHIC SURVEY.
2. VERTICAL CONTROL WAS OBTAINED FROM KEYNET GPS (TRIMBLE VIRTUAL REVERENCE STATION NETWORK) REAL-TIME KINEMATIC (RTK) CORRECTIONS TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. ALL SOUNDINGS WERE TAKEN USING TRIMBLE SPS855 DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS) WITH FIXED RTK ,HYPACK MAX SOFTWARE AND AN TELEDRY ODOM HYDROTRAC CONTINUOUS RECORDING SURVEY FATHOMETER.
4. SOUNDINGS WERE TAKEN ON WEDNESDAY, JANUARY 26, 2022
5. THE DECIMAL POINT (.) DENOTES THE SOUNDING LOCATION.
6. SOUNDINGS ARE REFERENCED TO MEAN LOWER LOW WATER (M.L.L.W.) AND EXPRESSED IN FEET AND TENTHS OF A FOOT.
7. CONTOURS WERE INTERPOLATED WITH TRIMBLE NAVIGATION LIMITED SOFTWARE, TERRAMODEL VERSION 10.11.
8. CROSS HATCHING INDICATES AREAS THAT ARE ABOVE THE SPECIFIED MINIMUM DREDGE DEPTH.
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10. THE INFORMATION DEPICTED IN THIS DRAWING REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

PIER No. 1 SECTION

SCALE: 1"=10'

PROPOSED DREDGE AREA:

PIER 1 = 33,929 SQ. FT.

PROPOSED VOLUME OF DREDGE MATERIAL:

PIER 1 = 6,582 CUBIC YARDS

DATUM CHART

HIGH TIDE LINE +7.4

MEAN HIGH WATER +6.29

MEAN LOWER LOW WATER 0.0

PERMIT APPLICATION

NOTE: FINAL DESIGN REQUIRED FOR CONSTRUCTION. THIS DRAWING IS FOR PERMITTING PURPOSES ONLY.

PROPOSED: MAINTENANCE DREDGING

AT: BROADWAY TERMINAL - CAMDEN, NJ

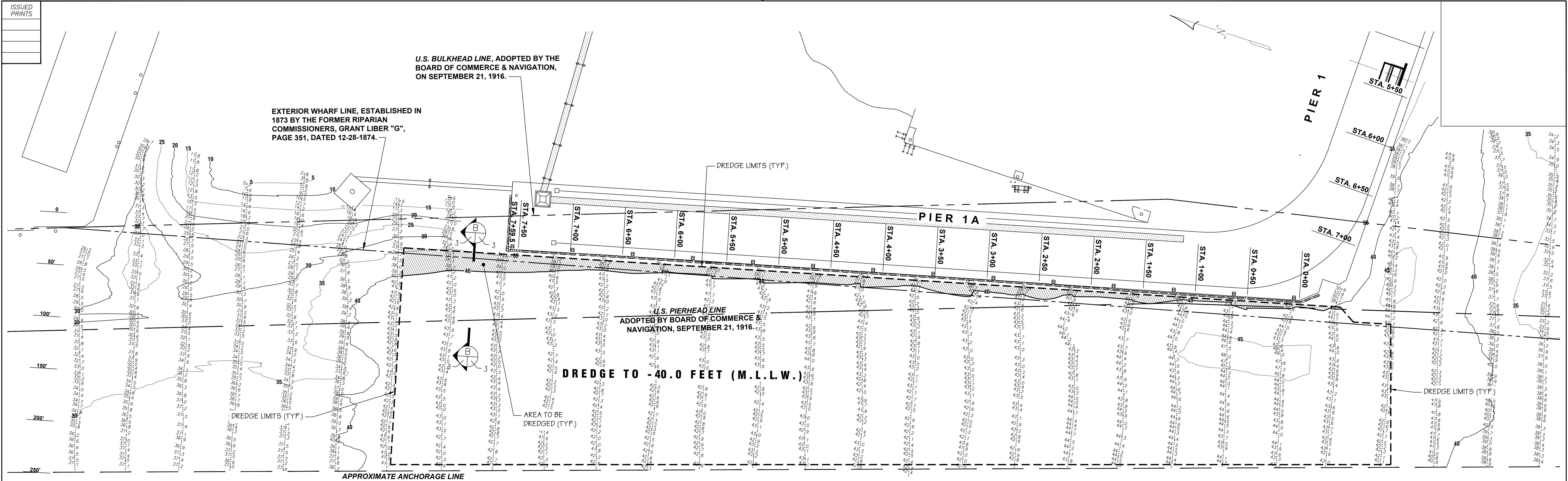
COUNTY OF: CAMDEN COUNTY

APPLICATION BY: SOUTH JERSEY PORT CORPORATION

S.T. HUDSON ENGINEERS, INC.
PROFESSIONAL ENGINEERS & CONSULTANTS800 Dudley Avenue
Cherry Hill, NJ 08002
Phone 856-342-6600
Fax No. 856-342-8323

drawn ATF date 7/12/2022 dwg. no. rev.

contract 22-050-04 FILE Sp-1536 2 of 7 0



DELAWARE RIVER

FLOOD → EBB ←

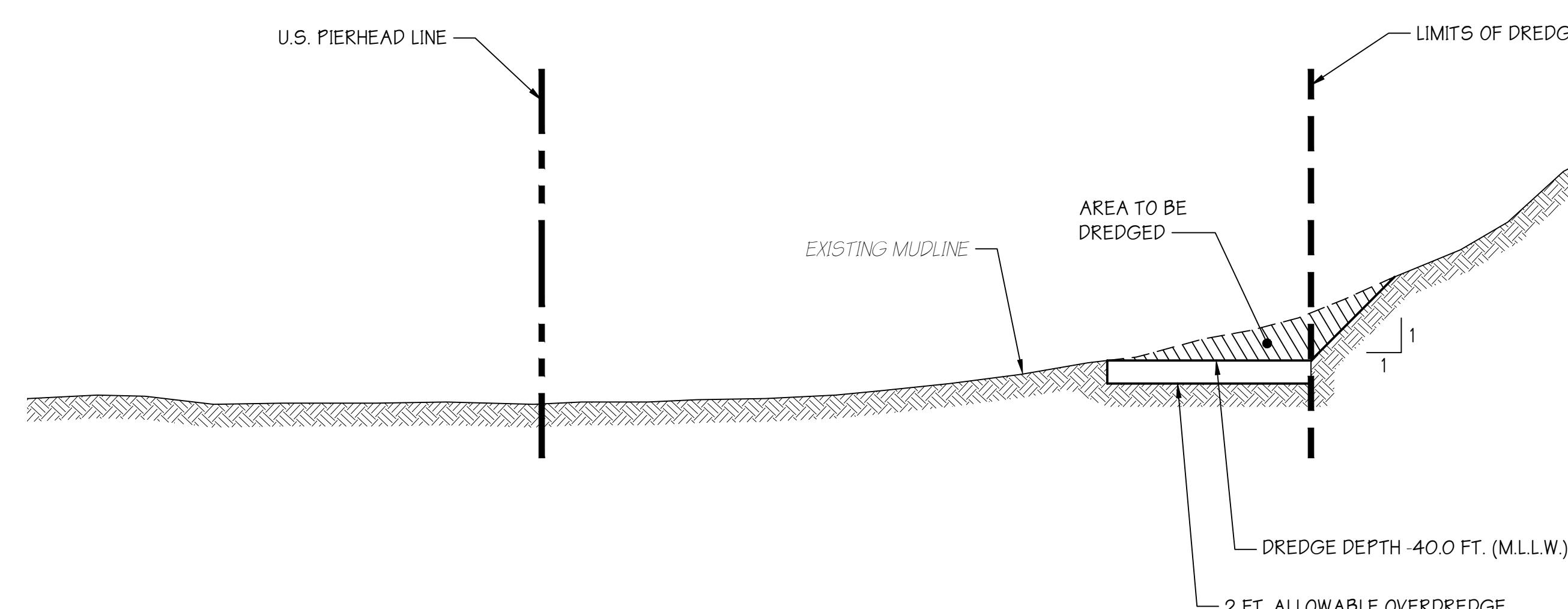
PIER No. 1A SITE PLAN

SCALE: 1"=40'

HIGH TIDE LINE +7.4

MEAN HIGH WATER +6.29

MEAN LOWER LOW WATER 0.0



PIER No. 1A SECTION

SCALE: 1"=10'

3 — B — 3

HYDROGRAPHIC SURVEY NOTES:

1. HORIZONTAL CONTROL IS BASED ON NEW JERSEY STATE PLANE COORDINATES, NAD83, AS ESTABLISHED IN THE FIELD AND SOLELY FOR THE USE OF THIS HYDROGRAPHIC SURVEY.
2. VERTICAL CONTROL WAS OBTAINED FROM KEYNET GPS (TRIMBLE VIRTUAL REVERENCE STATION NETWORK) REAL-TIME KINEMATIC (RTK) CORRECTIONS TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. ALL SOUNDINGS WERE TAKEN USING TRIMBLE SPS855 DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS) WITH FIXED RTK, HYACK MAX SOFTWARE AND AN TELEDYNE ODOM HYDROTRAC CONTINUOUS RECORDING SURVEY FATHOMETER.
4. SOUNDINGS WERE TAKEN ON WEDNESDAY JANUARY 26, 2022.
5. THE DECIMAL POINT (.) DENOTES THE SOUNDING LOCATION.
6. SOUNDINGS ARE REFERENCED TO MEAN LOWER LOW WATER (M.L.L.W.) AND EXPRESSED IN FEET AND TENTHS OF A FOOT.
7. CONTOURS WERE INTERPOLATED WITH TRIMBLE NAVIGATION LIMITED SOFTWARE, TERRAMODEL VERSION 10.11.
8. CROSS HATCHING INDICATES AREAS THAT ARE ABOVE THE SPECIFIED MINIMUM DREDGE DEPTH.
9. CHANNEL LOCATION LINES WERE OBTAINED FROM THE UNITED STATES ARMY CORPS OF ENGINEERS.
10. THE INFORMATION DEPICTED IN THIS DRAWING REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

PROPOSED DREDGE AREA:

PIER 1A = 8,293 SQ. FT.

PROPOSED VOLUME OF DREDGE MATERIAL:

PIER 1A = 3,027 CUBIC YARDS

DATUM CHART

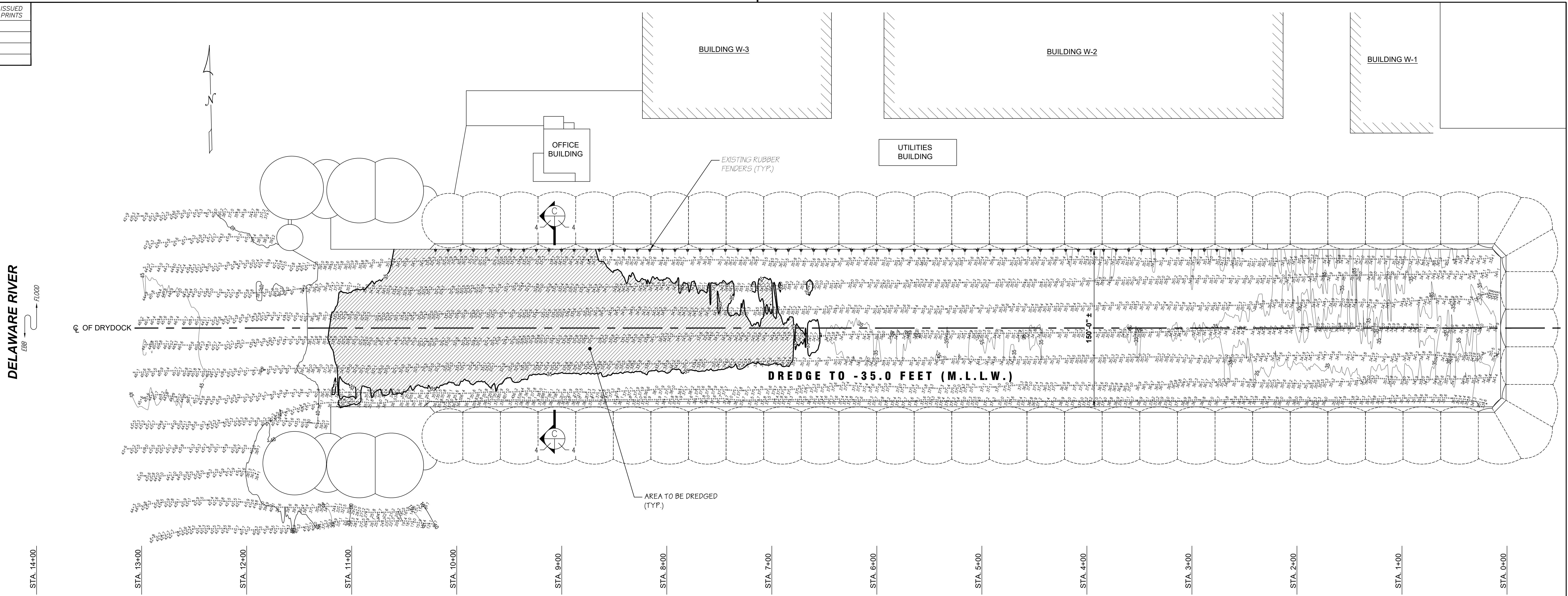
HIGH TIDE LINE +7.4

MEAN HIGH WATER +6.29

MEAN LOWER LOW WATER 0.0

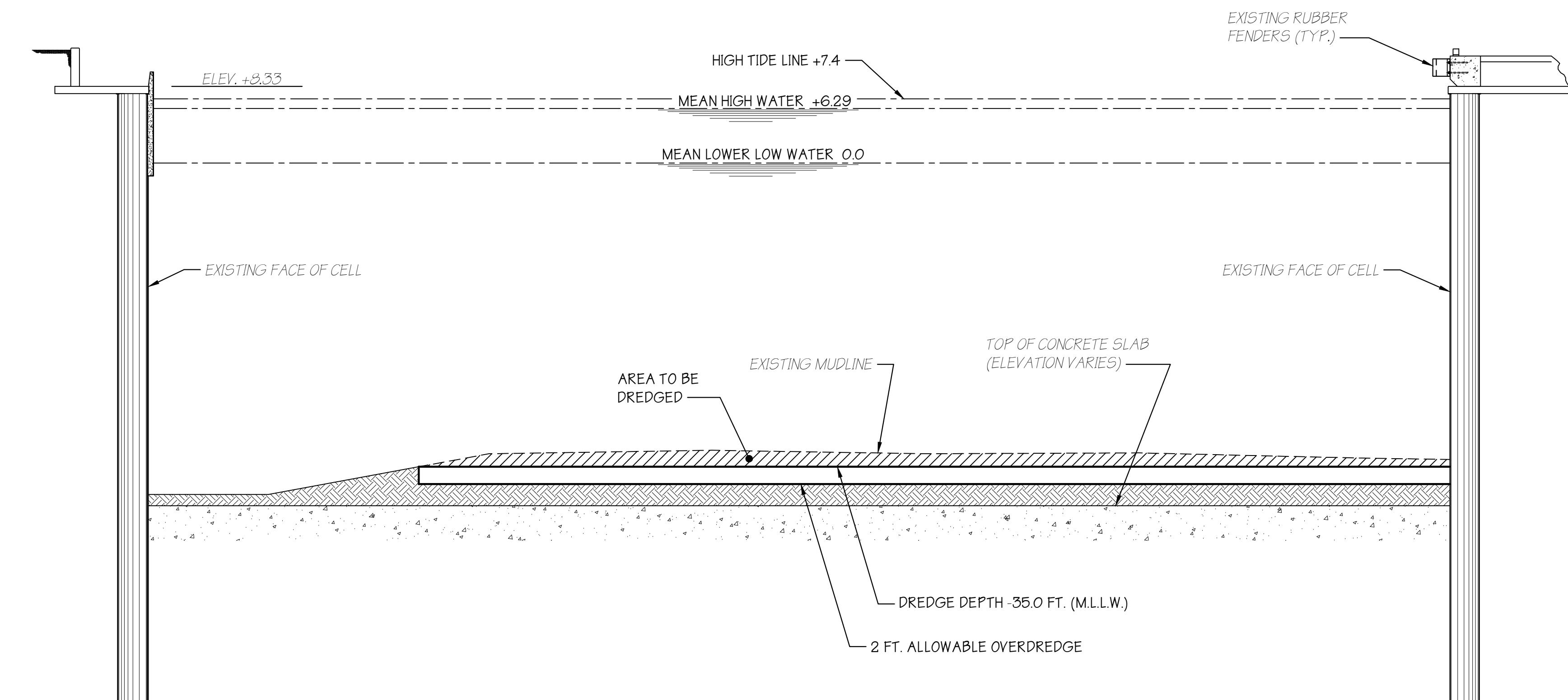
PERMIT APPLICATION		
NOTE: FINAL DESIGN REQUIRED FOR CONSTRUCTION. THIS DRAWING IS FOR PERMITTING PURPOSES ONLY.		
PROPOSED: MAINTENANCE DREDGING		
AT: BROADWAY TERMINAL - CAMDEN, NJ		
COUNTY OF: CAMDEN COUNTY		
APPLICATION BY: SOUTH JERSEY PORT CORPORATION		
S.T. HUDSON ENGINEERS, INC. PROFESSIONAL ENGINEERS & CONSULTANTS 800 Dudley Avenue Cherry Hill, NJ 08002 Phone 856-342-6600 Fax No. 856-342-8323		
drawn ATF	date 7/12/2022	dwg. no. rev.
contract 22-050-04	FILE Sp-1536	3d 7 0

ISSUED
PRINTS



**PIER No. 5
SITE PLAN**

SCALE: 1"=40'



**PIER No. 5
SECTION**

SCALE: 1"=10'

HYDROGRAPHIC SURVEY NOTES:

1. HORIZONTAL CONTROL IS BASED ON NEW JERSEY STATE PLANE COORDINATES, NAD83, AS ESTABLISHED IN THE FIELD AND SOLELY FOR THE USE OF THIS HYDROGRAPHIC SURVEY.
2. VERTICAL CONTROL WAS OBTAINED FROM KEYNET GPS (TRIMBLE VIRTUAL REVERENCE STATION NETWORK) REAL-TIME KINEMATIC (RTK) CORRECTIONS TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. ALL SOUNDINGS WERE TAKEN USING TRIMBLE SPS855 DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS) WITH FIXED RTK HYPACK MAX SOFTWARE AND AN TELEDYNE ODOM HYDROTAC CONTINUOUS RECORDING SURVEY FATHOMETER.
4. SOUNDINGS WERE TAKEN ON MONDAY, APRIL 4, 2022.
5. THE DECIMAL POINT (.) DENOTES THE SOUNDING LOCATION.
6. SOUNDINGS ARE REFERENCED TO MEAN LOWER LOW WATER (M.L.L.W.) AND EXPRESSED IN FEET AND TENTHS OF A FOOT.
7. CONTOURS WERE INTERPOLATED WITH TRIMBLE NAVIGATION LIMITED SOFTWARE, TERRAMODEL VERSION 10.11.
8. CROSS HATCHING INDICATES AREAS THAT ARE ABOVE THE SPECIFIED MINIMUM DREDGE DEPTH.
9. CHANNEL LOCATION LINES WERE OBTAINED FROM THE UNITED STATES ARMY CORPS OF ENGINEERS.
10. THE INFORMATION DEPICTED IN THIS DRAWING REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

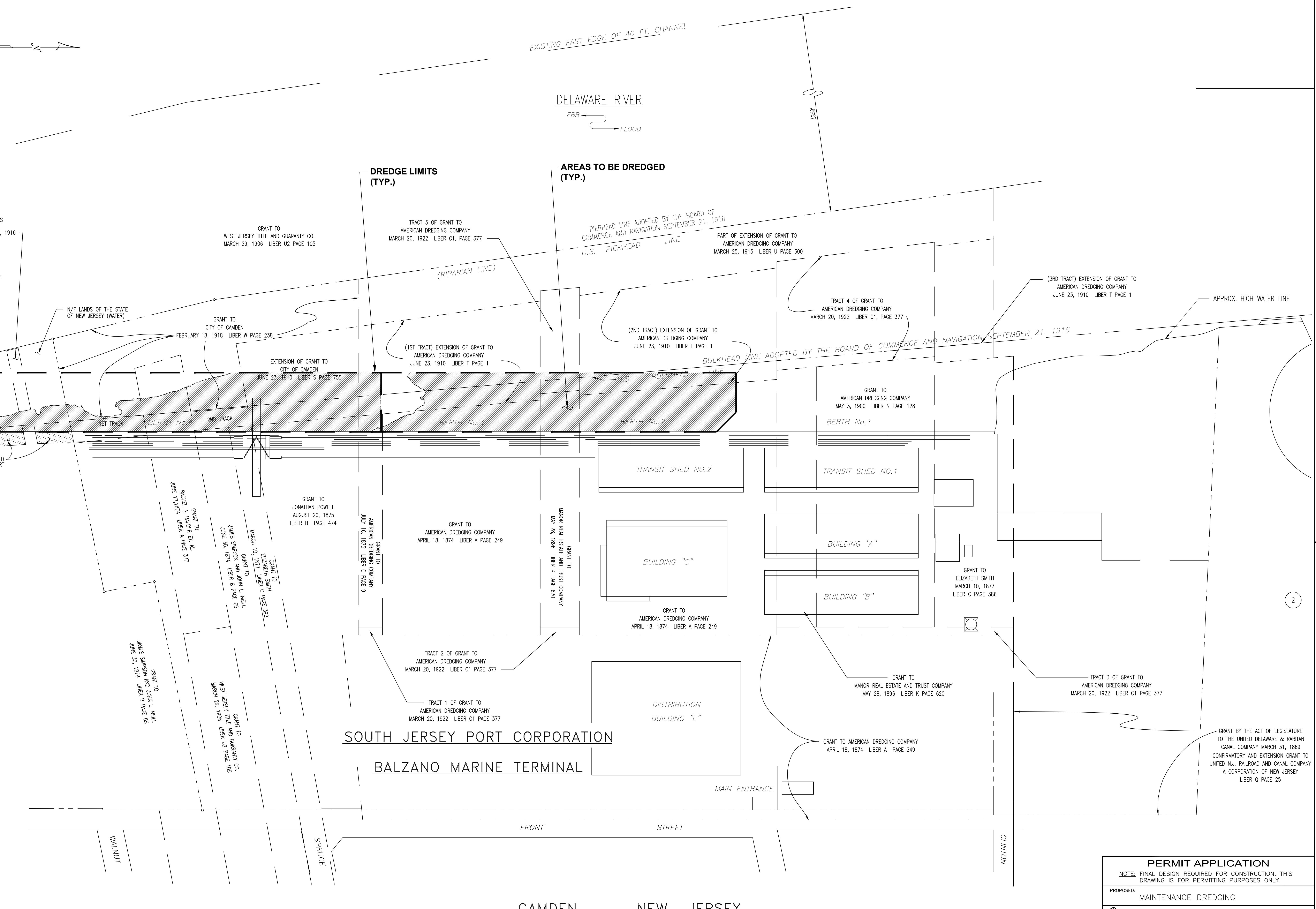
DATUM CHART

HIGH TIDE LINE	+7.4
MEAN HIGH WATER	+6.29
MEAN LOWER LOW WATER	.00

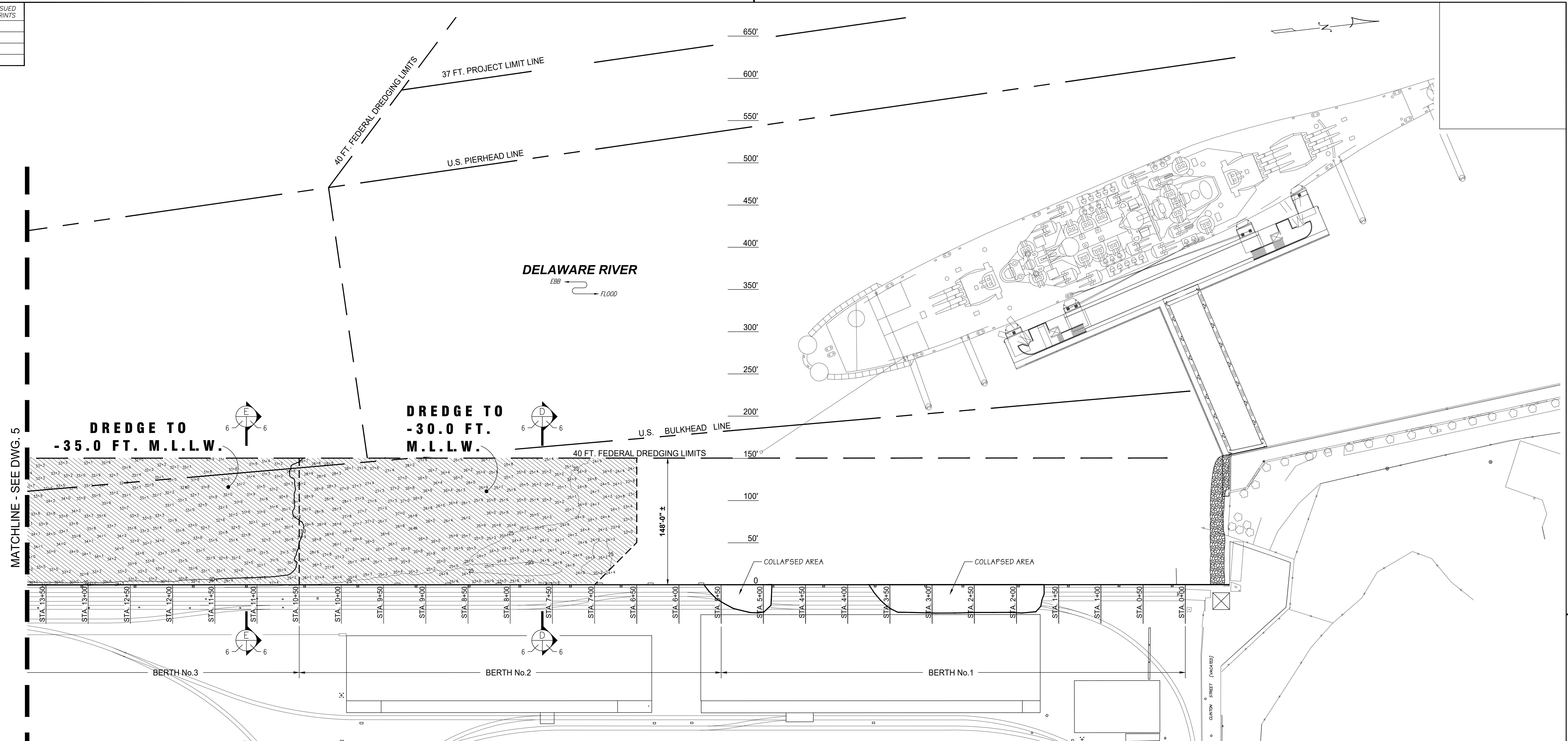
PROPOSED DREDGE AREA:
PIER 5 = 45,000 SQ. FT.

PROPOSED VOLUME OF DREDGE MATERIAL:
PIER 5 = 11,817 CUBIC YARDS

PERMIT APPLICATION		
NOTE: FINAL DESIGN REQUIRED FOR CONSTRUCTION. THIS DRAWING IS FOR PERMITTING PURPOSES ONLY.		
PROPOSED: MAINTENANCE DREDGING		
AT: BROADWAY TERMINAL - CAMDEN, NJ		
COUNTY OF: CAMDEN COUNTY		
APPLICATION BY: SOUTH JERSEY PORT CORPORATION		
S.T. HUDSON ENGINEERS, INC. PROFESSIONAL ENGINEERS & CONSULTANTS 800 Dudley Avenue Cherry Hill, NJ 08002 Phone 856-342-6600 Fax No. 856-342-8323		
drawn ATF	date 7/12/2022	dwg. no. rev.
contract 22-050-04	FILE Sp-1536	4 of 7 0



PERMIT APPLICATION		
NOTE: FINAL DESIGN REQUIRED FOR CONSTRUCTION. THIS DRAWING IS FOR PERMITTING PURPOSES ONLY.		
PROPOSED: MAINTENANCE DREDGING		
AT: BALZANO MARINE TERMINAL, CAMDEN, NJ		
COUNTY OF: CAMDEN COUNTY		
APPLICATION BY: SOUTH JERSEY PORT CORPORATION		
S.T. HUDSON ENGINEERS, INC. PROFESSIONAL ENGINEERS & CONSULTANTS 900 Dudley Avenue Cherry Hill, NJ 08002 Phone 856-342-6600 Fax No. 856-342-8323		
drawn ATF	date 7/12/2022	dwg. no. rev.
contract 22-050-04	FILE Sp-1536	5 of 7 0

**MULTIBEAM HYDROGRAPHIC SURVEY NOTES:**

- ALL SOUNDINGS WERE CONDUCTED USING:
• APPLANIX POS MV 120 NAVIGATION MOTION SENSOR FOR POSITIONING, HEADING, ATTITUDE, HEAVE AND VELOCITY, CLINING GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) WITH AN INERTIAL MEASUREMENT UNIT (IMU) AND GPS AZIMUTH MEASUREMENT SYSTEM (GAMS), AND APPLANIX POSPac MMS (MOBILE MAPPING SUITE)
• HYPACK HYSWEEP SOFTWARE
- SOUNDINGS WERE CONDUCTED ON WEDNESDAY JANUARY 26, 2022
- THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

- SOUNDINGS ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
- HORIZONTAL CONTROL IS BASED ON NEW JERSEY (2900) STATE PLANE COORDINATES NAD83, AS ESTABLISHED IN THE FIELD AND SOLELY FOR THE USE OF THIS HYDROGRAPHIC SURVEY.
- VERTICAL CONTROL WAS OBTAINED FROM KEYNET GPS (TRIMBLE VIRTUAL REFERENCE STATION [VRS] NETWORK) REAL-TIME KINEMATIC (RTK) CORRECTIONS TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), AND CONVERTED TO MEAN LOWER LOW WATER (MLLW), WHICH IS 3.22' BELOW NAVD88. NAVD88 CONVERSION OF 3.22' OBTAINED FROM THE ARMY CORP OF ENGINEERS.
- CONTOURS WERE INTERPOLATED WITH TRIMBLE NAVIGATION LIMITED, TERRAMODEL VERSION 10.11.

PROPOSED DREDGE AREA:

BERTH 2 = 58,750 SQ. FT.
BERTH 3 = 63,941 SQ. FT.

PROPOSED VOLUME OF DREDGE MATERIAL:

BERTH 2 = 12,194 CUBIC YARDS
BERTH 3 = 10,296 CUBIC YARDS

DATUM CHART

HIGH TIDE LINE	+7.4
MEAN HIGH WATER	+6.29
MEAN LOWER LOW WATER	0.0

PERMIT APPLICATION

NOTE: FINAL DESIGN REQUIRED FOR CONSTRUCTION, THIS DRAWING IS FOR PERMITTING PURPOSES ONLY.

PROPOSED:
MAINTENANCE DREDGING

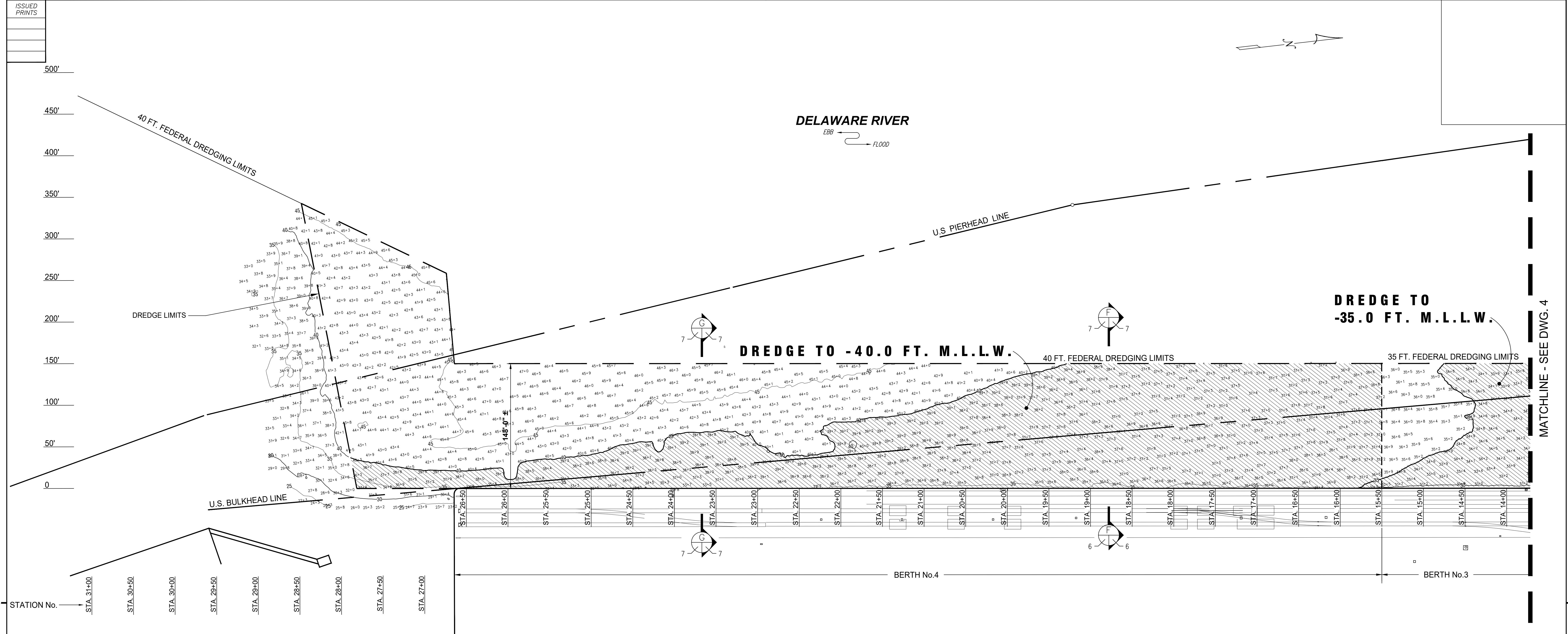
AT:
BALZANO MARINE TERMINAL, CAMDEN, NJ

COUNTY OF:
CAMDEN COUNTY

APPLICATION BY:
SOUTH JERSEY PORT CORPORATION

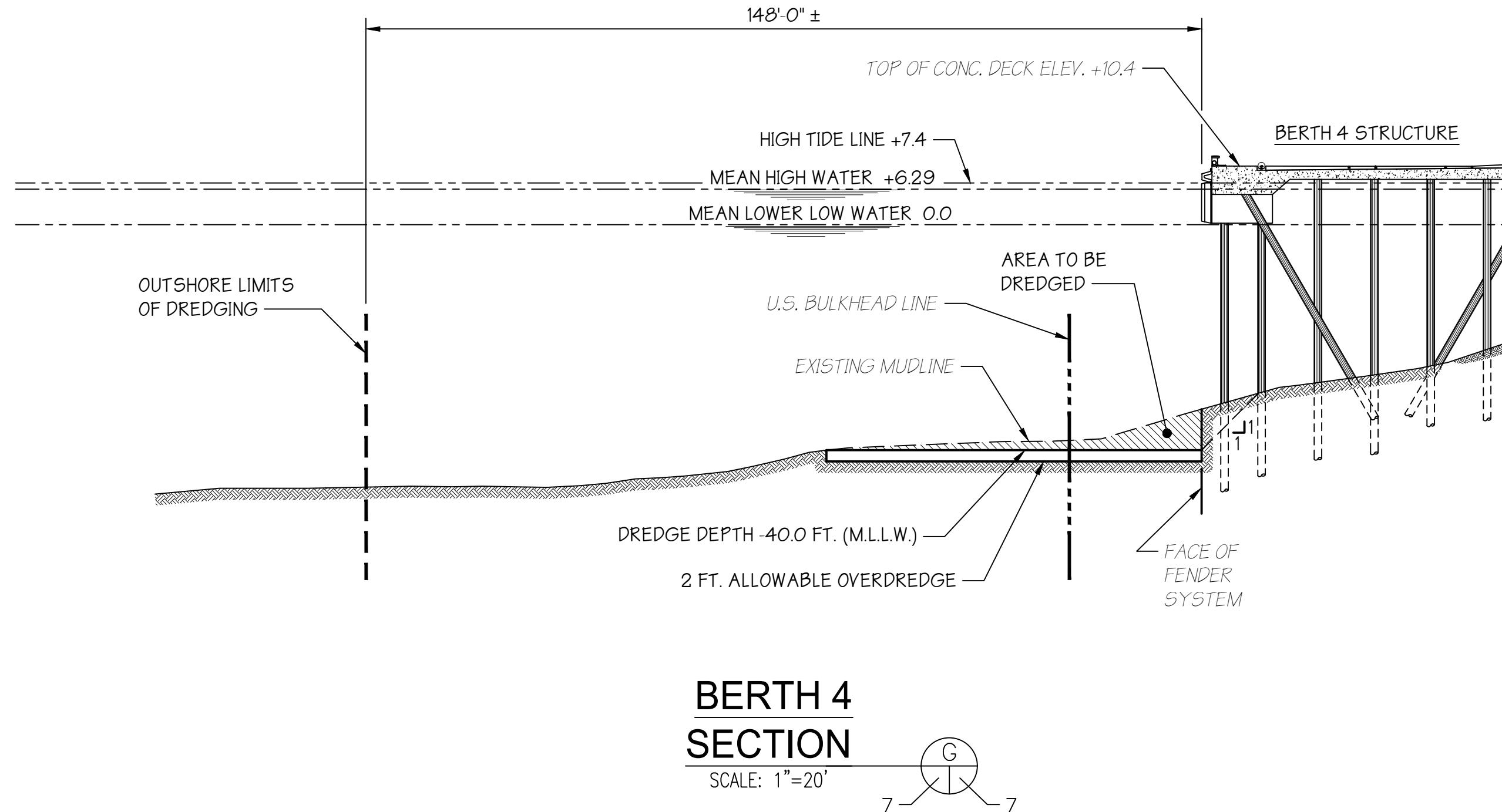
S.T. HUDSON ENGINEERS, INC.
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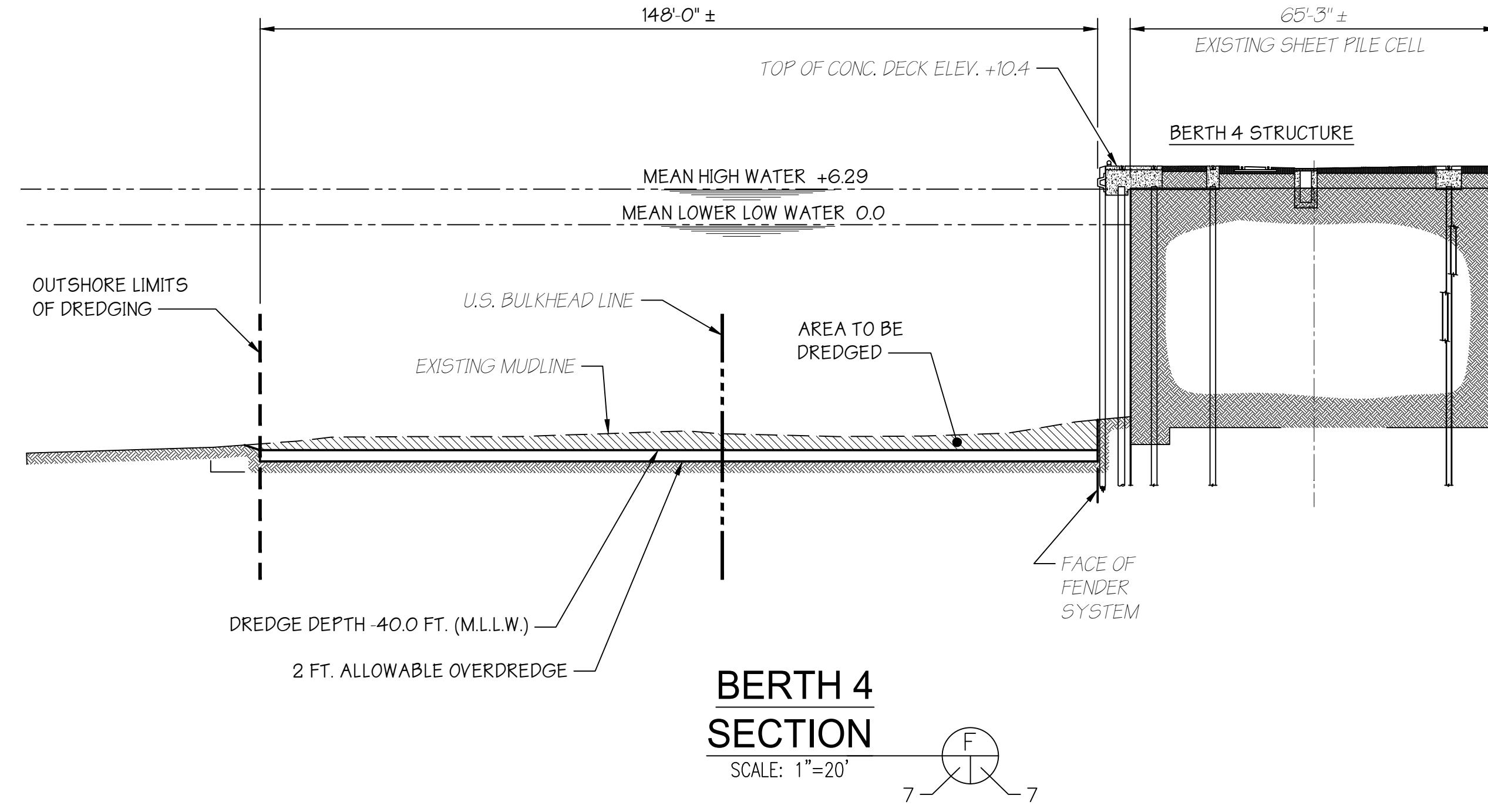
BALZANO TERMINAL - BERTH 4
SITE PLAN

SCALE: 1"=50'



BERTH 4
SECTION

SCALE: 1"=20'



BERTH 4
SECTION

SCALE: 1"=20'

MULTIBEAM HYDROGRAPHIC SURVEY NOTES:

1. ALL SOUNDINGS WERE CONDUCTED USING:
• APPLANIX POS MV 120 NAVIGATION MOTION SENSOR FOR POSITIONING, HEADING, ATTITUDE, HEAVE AND VELOCITY, CLENDING GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) WITH AN INERTIAL MEASUREMENT UNIT (IMU) AND GPS AZIMUTH MEASUREMENT SYSTEM (GAMS), AND APPLANIX POSPAC MMS (MOBILE MAPPING SUITE)
- HYPACK HYSWEEP SOFTWARE
- R2SONIC 2024 (200kHz - HIGH RESOLUTION) MULTIBEAM SONAR SYSTEM UNIT
- VALEPORT miniSVS (SOUND VELOCITY SENSOR) LOCATED AT THE SONAR HEAD MOUNT
- SONTEK CASTAWAY CTD (CONDUCTIVITY, TEMPERATURE, AND DEPTH) FOR SOUND VELOCITY CAST
2. SOUNDINGS WERE CONDUCTED ON WEDNESDAY JANUARY 26, 2022
3. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
4. SOUNDINGS ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
5. HORIZONTAL CONTROL IS BASED ON NEW JERSEY (2900) STATE PLANE COORDINATES NAD83, AS ESTABLISHED IN THE FIELD AND SOLELY FOR THE USE OF THIS HYDROGRAPHIC SURVEY.
6. VERTICAL CONTROL WAS OBTAINED FROM KEYNET GPS (TRIMBLE VIRTUAL REFERENCE STATION [VRS] NETWORK) REAL-TIME KINEMATIC (RTK) CORRECTIONS TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), AND CONVERTED TO MEAN LOWER LOW WATER (MLLW), WHICH IS 3.22' BELOW NAVD88. NAVD88 CONVERSION OF 3.22' OBTAINED FROM THE ARMY CORP OF ENGINEERS.
7. CONTOURS WERE INTERPOLATED WITH TRIMBLE NAVIGATION LIMITED, TERRAMODEL VERSION 10.11.

PERMIT APPLICATION
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PROPOSED:
MAINTENANCE DREDGING

AT:
BALZANO MARINE TERMINAL, CAMDEN, NJ

COUNTY OF:
CAMDEN COUNTY

APPLICATION BY:
SOUTH JERSEY PORT CORPORATION

S.T. HUDSON ENGINEERS, INC.
PROFESSIONAL ENGINEERS & CONSULTANTS

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contract 22-050-04 FILE Sp-1536 7 of 7 0

DATUM CHART

HIGH TIDE LINE	+7.4
MEAN HIGH WATER	+6.29
MEAN LOWER LOW WATER	0.0

PROPOSED DREDGE AREA:
BERTH 4 = 110,850 SQ. FT.

PROPOSED VOLUME OF DREDGE MATERIAL:
BERTH 4 = 20,606 CUBIC YARDS

MEAN LOWER LOW WATER 0.0

APPENDIX A

**DREDGE MATERIAL CHARACTERIZATION
REPORT BY
EUROFINS LABORATORIES
(SENT VIA EMAIL ATTACHMENT)**

22-050-03

NJDEP AUD APPLICATION
JULY 2022

APPENDIX B

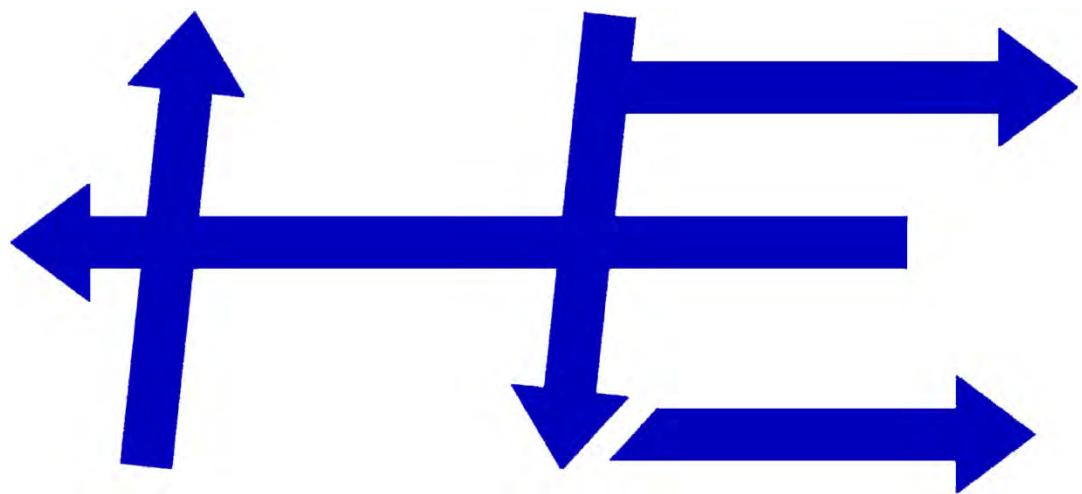
**SEDIMENT ANALYSIS COMPARATIVE
TABLES
(SENT VIA EMAIL ATTACHMENT)**

22-050-03

NJDEP AUD APPLICATION
JULY 2022

PHONE 856-342-6600

FAX 856-342-8323



S.T. HUDSON ENGINEERS, INC.

PROFESSIONAL ENGINEERS & CONSULTANTS

900 DUDLEY AVENUE, CHERRY HILL, NEW JERSEY 08002

VISIT OUR WEBSITE AT [WWW.STHE.COM](http://www.STHE.com)