



# PUBLIC NOTICE

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

**In replying refer to:**  
Public Notice Number: **NAN-2022-00900-EMI**  
Issue Date: **November 7, 2022**  
Expiration Date: **January 6, 2023**

## **ANNOUNCEMENT OF PUBLIC HEARINGS AND REQUEST FOR PUBLIC COMMENT**

To Whom It May Concern:

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

APPLICANT: New York City Economic Development Corporation

ACTIVITY: Port Facility Upgrades

WATERWAY: Bay Ridge Channel/Upper New York Bay

LOCATION: South Brooklyn Marine Terminal (SBMT)– 2<sup>nd</sup> Avenue between 29<sup>th</sup> and 39<sup>th</sup> Street, Borough of Brooklyn, Kings County, City of New York, New York

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

The Bureau of Ocean Energy Management (BOEM) is the lead federal agency for this project, as the proposed activities are viewed as a connected action to the Empire Wind project in accordance with the National Environmental Policy Act (NEPA) pursuant to 40 CFR 1508.25 (a)(1). BOEM will be responsible for coordinating review in accordance with the NEPA. Pursuant to 40 CFR 1501.8, the United States Army Corps of Engineers New York District (Corps of Engineers) is serving as one of the cooperating agencies involved in the preparation of an Environmental Impact Statement for the Empire Wind 1 (EW1) and Empire Wind 2 (EW2) project by the BOEM. A Notice of Availability for the Draft Environmental Impact Statement (DEIS) inclusive of the SBMT, EW1, and EW2 projects will be posted on the BOEM website at <https://www.boem.gov/renewable-energy/state-activities/empire-wind> on November 18, 2022. Comments on the DEIS may be submitted directly to BOEM at <https://www.boem.gov/renewable-energy/state-activities/empire-wind>.

Separate Public Notices for the EW1 and EW2 projects can be found at <https://www.nan.usace.army.mil/Missions/Regulatory/Regulatory-Public-Notices/>. The public notices will be posted under the following application numbers:

- Empire Wind 1 – NAN-2022-00901-EMI
- Empire Wind 2 – NAN-2022-00902-EMI

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect

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

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

ALL COMMENTS REGARDING THE PERMIT APPLICATION MUST BE PREPARED IN WRITING AND EMAILED TO **CENAN.PublicNotice@usace.army.mil** TO REACH THIS OFFICE BEFORE THE EXPIRATION DATE OF THIS NOTICE, otherwise, it will be presumed that there are no objections to the activity. Please include the application number, **NAN-2022-00900-EMI**, in the subject of the email. Please note, this office cannot accept portable drives including but not limited to flash drives, USB drives (thumb drives), external hard drives (sometimes called mini hard drives), and portable CD/DVD-ROM drives.

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

BOEM will be conducting three (3) virtual public meetings for the South Brooklyn Marine Terminal and Empire Wind Project to receive comments on the DEIS. Pursuant to public hearing requirements described in 33 CFR 327, the Corps of Engineers will jointly participate in all three (3) of the public meetings/hearings, as listed below, to gather information on this proposal to assist in the review of the Department of the Army permit application for the proposed activity and will consider public comments on the material matters at issue with respect to activities regulated by the Corps. Please note that for comments and information specific to the Corps of Engineers action, according to procedures described in 33 CFR 327, the hearing will not include discussion or responses to comments expressed by speakers. The date and time of the joint Corps of Engineers public hearings/BOEM DEIS public meetings are as follows, all hearings are virtual; links to the hearing/meeting information may be found at <https://www.boem.gov/renewable-energy/state-activities/empire-wind>.

Joint Corps of Engineers Public Hearings/BOEM DEIS Public Meeting Dates and Start Times:  
Wednesday December 7, 2022 at 5:00 PM

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Tuesday December 13, 2022 at 5:00 PM  
Thursday December 15, 2022 at 1:00 PM

As the lead federal agency, BOEM is reviewing the project for potential impacts on Federally-listed threatened or endangered species and their designated critical habitat pursuant to section 7 of the Endangered Species Act as amended. BOEM is coordinating with the NMFS and/or U.S. Fish and Wildlife Service on listed species under their jurisdiction and the ESA consultation will be concluded prior to the final decision.

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act (Public Law 104-267), requires all Federal agencies to consult with the National Oceanic and Atmospheric Administration Fisheries Service (NOAA/FS) on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). Further consultation with the National Marine Fisheries Service regarding EFH conservation recommendations is being conducted by BOEM as the lead federal agency and will be concluded prior to the final decision.

Based on their initial review, the BOEM has determined that the proposed work may impact properties listed in, or eligible for listing in, the National Register of Historic Places. Additional review and consultation to fulfil requirements under Section 106 of the National Historic Preservation Act of 1966, as amended, will be ongoing as part of the permit review process.

Reviews of activities pursuant to Section 404 of the Clean Water Act will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404 (b) of the Clean Water Act and the applicant will obtain a water quality certificate or waiver from the appropriate state agency in accordance with Section 401 of the Clean Water Act prior to a permit decision.

Pursuant to Section 307 (c) of the Coastal Zone Management Act of 1972 as amended [16 U.S.C. 1456 (c)], for activities under consideration that are located within the coastal zone of a state which has a federally approved coastal zone management program, the applicant has certified in the permit application that the activity complies with, and will be conducted in a manner that is consistent with, the approved state coastal zone management program. By this public notice, we are requesting the state's concurrence with, objection to, or waiver of the applicant's certification. No permit decision will be made until one of these actions occur. For activities within the coastal zone of New York State, the applicant's certification and accompanying information is available from the Consistency Coordinator, New York State Department of State, Division of Coastal Resources and Waterfront Revitalization, Coastal Zone Management Program, One Commerce Plaza, 99 Washington Avenue, Albany, New York 12231, Telephone (518) 474-6000. Comments regarding the applicant's certification, and copies of any letters to this office commenting upon this proposal, should be so addressed.

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

- New York State Department of Environmental Conservation

It is requested that you communicate the foregoing information concerning the activity to any persons known by you to be interested and who did not receive a copy of this notice. If you have any questions concerning this application, you may contact Christopher Minck, of this office at

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[Christopher.W.Minck@usace.army.mil](mailto:Christopher.W.Minck@usace.army.mil) or (917) 790-8547.

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

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

A handwritten signature in black ink, appearing to read "Stephan A. Ryba". The signature is fluid and cursive, with a long horizontal stroke at the end.

Stephan A. Ryba  
Chief, Regulatory Branch

Enclosures

**WORK DESCRIPTION**

The applicant, New York City Economic Development Corporation (NYCEDC), has requested Department of the Army authorization for port upgrades including construction of bulkhead improvements, new pile supported and floating platforms, new fenders for vessel mooring, and dredging at the South Brooklyn Marine Terminal (SBMT) in Bay Ridge Channel/Upper New York Bay in the Borough of Brooklyn, Kings County, City of New York, New York.

**Pier 39:**

Along the south side of Pier 39, replace approximately 1,055 feet of bulkhead approximately 32 inches seaward of the existing bulkhead cap (or six-feet seaward of the existing bulkhead). Discharge approximately 4,035 cubic yards (CY) of fill below the plane of Spring High Water (SHW) behind the new bulkhead over approximately 0.1477 acres.

Along the west side of Pier 39, install approximately 689 linear feet of new sheet pile toe wall approximately three-feet seaward of the existing bulkhead. The toe wall would be installed to -70 ft NAVD88 and would be cut so the top of the sheet pile would extend five-feet above the existing mudline. The area between the cut toe wall and bulkhead would be filled with approximately 319 CY of concrete below the plane of SHW over approximately 0.0475 acres.

Cone fendering will be installed along the new approximate 627 linear feet of bulkhead along the south side of the pier and along the approximately 689 linear feet of existing bulkhead along the west side of the pier.

**Pier 35:**

Along the west side of Pier 35, install a new landward sheet pile wall, excavate the fill behind and remove the existing solid filled cofferdam cells (approximately 0.4581 acres) down to the existing mudline. Construct a new sloped riprap revetment at a 2:1 slope over approximately 0.2037 acres by discharging approximately 4,101 CY of stone to tie into the existing stone revetments on the north and south sides. In total, approximately 6,164 CY of fill below SHW will be removed. Above the revetment, extending from the existing pier, construct an approximately 321.5-foot-wide by 197-foot-long concrete platform supported by approximately two-hundred and sixteen (216) 48-inch diameter hollow steel pipe piles with associated concrete pile plugs. Extending north and south from the seaward end of the platform will be two (2) five-foot-wide by approximately 92.5-foot-long catwalks extending to approximately 15-foot-wide by 17-foot-long dolphin tie-off platforms supported by four (4) 48-inch diameter hollow steel pipe piles with concrete pile plugs.

Along the north side of Pier 35, approximately 10,678 CY of material will be excavated and a new riprap slope will be constructed at a 3:1 slope along an approximately 110-foot-wide by 421-foot-long area. Above the new revetment, construct an approximately 100-foot-wide by 100-foot-long concrete platform supported by approximately forty-six (46) in-water 36-inch diameter steel pipe piles with associated concrete pile plugs. Additionally, install four (4) approximately 16-foot-wide by 16-foot-long concrete dolphin tie-off platforms supported by four (4) 24-inch diameter steel pipe piles with concrete pile plugs. One (1) dolphin platform will be located on the west side of the platform, connected by an approximately three-foot-wide by 60-foot-long fixed catwalk and three (3) dolphin platforms will be located on the east side of the platform connected by one (1) approximately three-foot-wide by 40-foot-long and two (2) approximately three-foot-wide by 54.5-foot-long fixed catwalks. Fendering will be installed on three of the dolphins as well as along the main platform.

**32<sup>nd</sup>-33<sup>rd</sup> Street:**

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Remove the existing low-level relieving platform including the concrete headwall and cut the existing timber piles to the mudline. The platform will be replaced with a new high level relieving platform ranging from approximately 9-30 feet wide by 223 feet long supported by approximately thirty-nine (39) 20-inch diameter hollow steel piles within the footprint of the existing platform. A new steel sheet pile bulkhead will be installed landward of the existing timber bulkhead. Approximately 340 CY of stone would be discharged over an approximately 6,700 square foot area beneath the platform to create a stone revetment scour layer. In total, approximately 1,040 cy of fill below SHW will be removed.

From the new high-level relieving platform construct an approximately five-foot-wide by 30-foot-long tidal self-adjusting ramp leading to an approximately 15-foot-wide by 224-foot-long concrete float structure with associated foam fendering supported by fourteen (14) 30-inch diameter hollow steel pipe spud piles.

**Dredging:**

Mechanically dredge, with ten-years maintenance approximately 189,000 CY of material to varying depths ranging between -25.0 NAVD88 and -41.0 feet NAVD88 with 1-2 feet of allowable over dredge over approximately 620,700 square feet (approximately 14.2 acres). All dredged material will be placed on a scow, followed by water decanting and transported to a state-approved upland disposal site. The material may be beneficially reused, depending on its suitability for such uses.

Along Pier 35 North (Area 1), approximately 10,300 CY would be dredged to -29.4 feet NAVD88 feet (-26.5 feet at MLLW) with 2 feet of allowable over dredge depth for an additional approximately 8,000 CY of material over approximately 125,500 square feet (2.9 acres).

Along Pier 39 West (Area 2.1A), approximately 44,500 CY of material would be dredged to -41.0 feet NAVD88 (-38.1 feet MLLW) with 1 foot of allowable over dredge for an additional approximately 3,500 CY of material over approximately 93,700 square feet (2.2 acres). The dredge depth is inclusive of an additional three feet of dredging for the placement of approximately 1 foot of clean sand that would be installed over the approximately 2.2-acre area to create a one-foot-thick, clean sand cap.

Along Pier 39 West (Area 2.1B), approximately 5,700 CY of material would be dredged to -38.0 feet NAVD88 (-35.1 feet MLLW) with 2 feet of allowable over dredge for an additional approximately 2,400 CY of material over approximately 26,700 square feet (0.6 acres).

Along Pier 39 North (Areas 2.2.1), approximately 11,000 CY of material would be dredged to -25.0 feet NAVD88 (-22.1 feet MLLW) with 2 feet of allowable over dredge for an additional approximately 12,900 CY of material over approximately 168,100 square feet (3.9 acres).

Along Pier 35 West (Area 2.2.2), approximately 4,100 CY of material would be dredged to -25.0 feet NAVD88 (-22.1 feet MLLW) with 2 feet of allowable over dredge for an additional approximately 3,700 CY over approximately 56,500 square feet (1.3 acres).

Along Pier 39 South (Area 2.3), approximately 79,600 CY of material would be dredged to -38.0 feet NAVD88 (-35.1 feet MLLW) with 1 foot of allowable over dredge for an additional approximately 3,300 CY over approximately 150,200 square feet (3.4 acres). The dredge depth is inclusive of an additional three feet of dredging for the placement of approximately 1 foot of clean sand that would be installed over the approximately 3.4-acre area to create a one-foot-thick, clean sand cap.

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A total of approximately 9,033 CY of clean sand would be placed in area 2.1A and 2.3

The applicant plans to conduct one (1) additional dredging event within the ten-year maintenance dredging period removing approximately 60,000-70,000 CY from within the same dredging area and placement at a state-approved upland facility.

The applicant has s avoided, minimized, and mitigated for potential impacts proposed to the maximum extent practicable by limiting the dredged area to the minimum area required for safe usage at the upgraded port facility and by removing existing in-water fill to offset fill placed into the waterway. Best Management Practices (BMPs) including the use of a closed environmental clamshell bucket during dredging as well as turbidity curtains will be used as feasible. Additional BMPs include the use of a cushioned hammer and a soft start during pile driving.

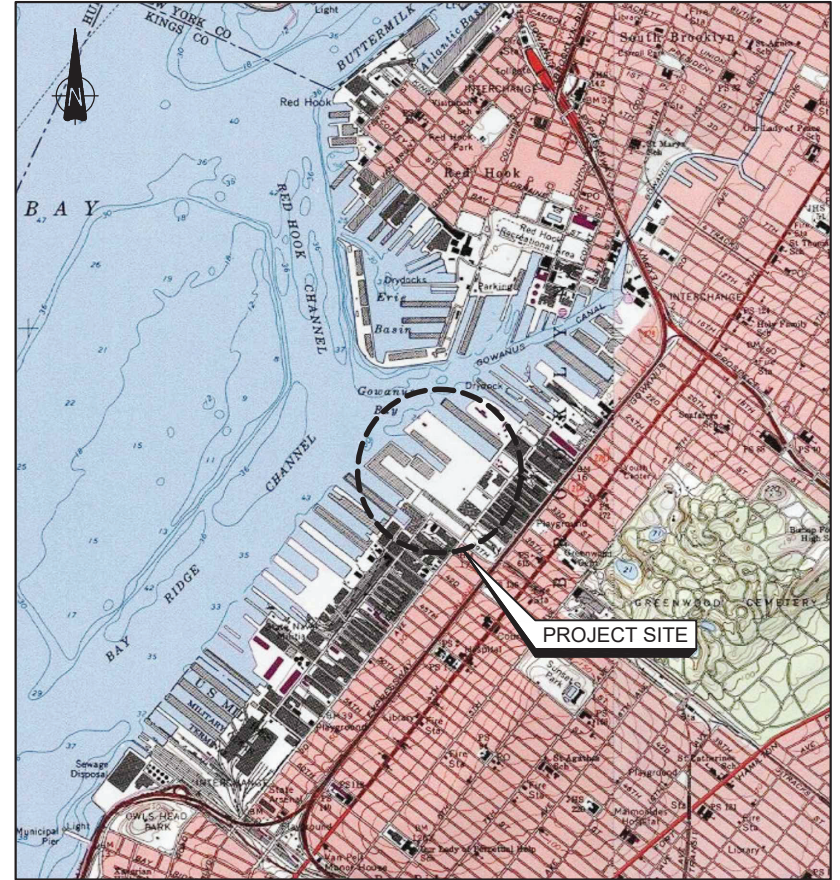
The applicant's stated purpose of this project is to upgrade SBMT to enable it to serve as a staging facility and operations-and-maintenance base for the offshore wind industry.



**VICINITY MAP**  
N.T.S.

**NOTES:**

- APPROXIMATE COORDINATES FOR SOUTH BROOKLYN MARINE TERMINAL (SBMT) PROJECT LOCATION:  
 POSITION TYPE STATE PLANE - NEW YORK LONG ISLAND, 3104  
 DEGREES LAT LONG: 40.6607341°, -074.0153184°  
 DEGREES MINUTES: 40°39.64404', -074°00.91910'  
 DEGREES MINUTES SECONDS: 40°39'38.6427", -074°00'55.1462"  
 STATE PLANE X Y (US SURVEY FEET): 980,000.00 (E), 180,000.00 (N)
- VERTICAL DATUM IS MHW UNLESS OTHERWISE NOTED.  
 MHW IS 2.05' ABOVE NAVD88.



**LOCATION MAP**  
N.T.S.

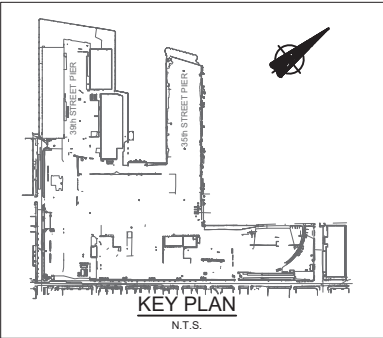
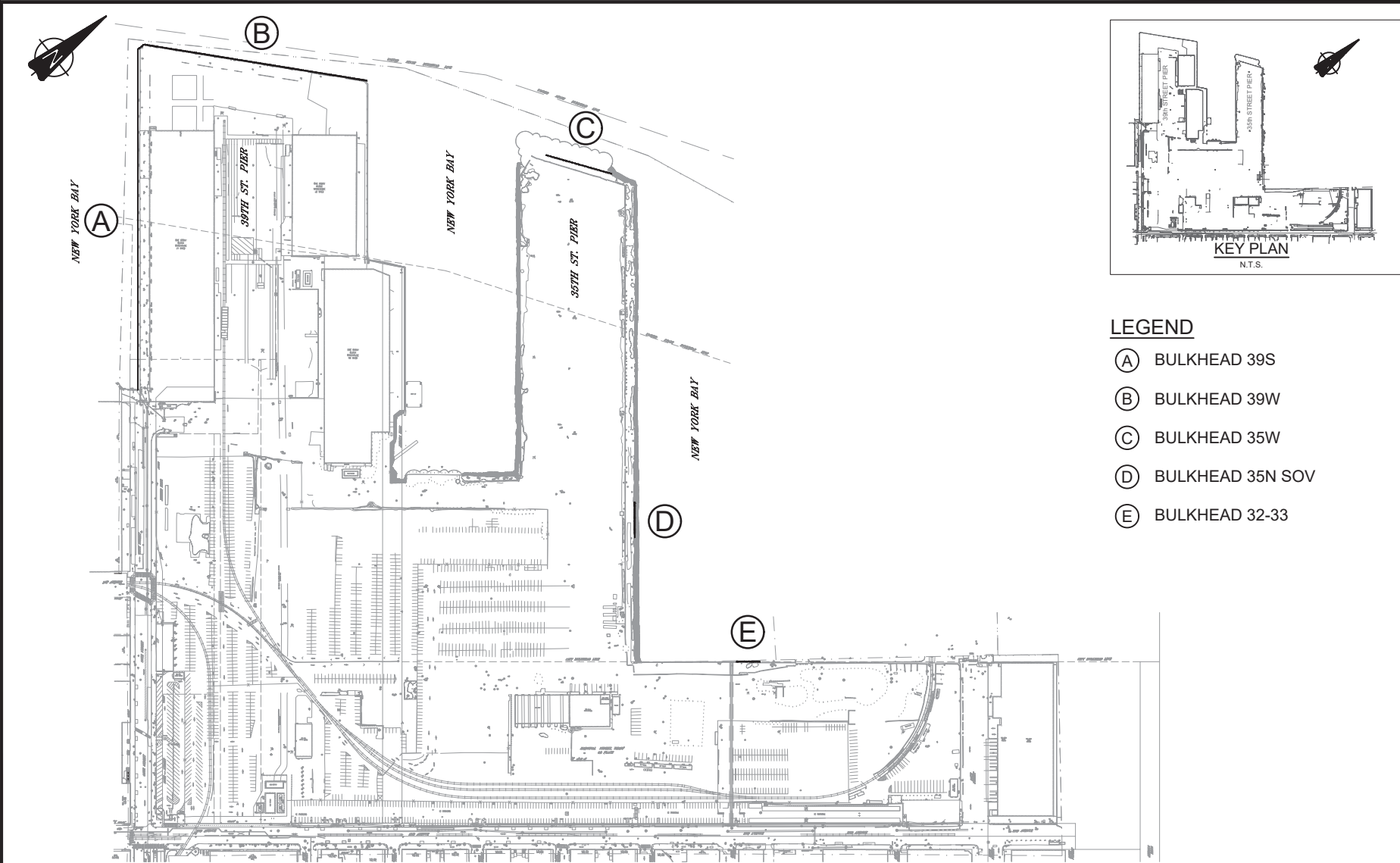
ADJACENT PROPERTY OWNERS:	IN: BROOKLYN	APPLICATION NO.: NAN-2022-00900-EMI
1. BUSH TERMINAL	NEAR / AT: NEW YORK CITY	APPLICANT NAME: NYC EDC
2. NEW YORK CITY TRANSIT AUTHORITY	COUNTY: KINGS COUNTY	PROJECT: SOUTH BROOKLYN MARINE TERMINAL
3. CONSOLIDATED EDISON COMPANY	STATE: NEW YORK	LOCATION: 29TH TO 39TH ST, BROOKLYN, NEW YORK
		SHEET 1 OF 34 DATE: OCTOBER 18, 2022



<b>PERMIT SHEET LIST</b>	
<b>SHEET NO.</b>	<b>SHEET TITLE</b>
1	COVER SHEET - VICINITY AND LOCATION MAP
2	PERMIT SHEET LIST
3	BULKHEAD REPAIR PLAN 39S, 39W, 35N, 32-33
4	NEW FENDERS PLAN
5	NEW WHARF PLAN
6	PIER 39 - SITE PLAN
7	PIER 39S - HEAVY LIFT PLATFORM PLAN
8	PIER 39S - HEAVY LIFT PLATFORM SECTION
9	PIER 39SE - BULKHEAD SECTION
10	PIER 39W - HEAVY LIFT PLATFORM PLAN
11	PIER 39W - HEAVY LIFT PLATFORM SECTION
12	PIER 35W - HEAVY LIFT PLATFORM PLAN
13	PIER 35W - EXISTING COFFER CELL PLAN
14	PIER 35W - HEAVY LIFT PLATFORM ENLARGED PLAN
15	PIER 35W - EXISTING COFFER CELL SECTION
16	PIER 35W - HEAVY LIFT PLATFORM SECTION
17	PIER 35N - SOV WHARF AND BULKHEAD PLAN
18	PIER 35N - EXISTING REVETMENT SECTION
19	PIER 35N - SOV WHARF SECTION
20	PIER 35N - SOV WHARF BULKHEAD
21	BULKHEAD 32 TO 33 - EXISTING CONDITION PLAN
22	BULKHEAD 32 TO 33 - PLAN
23	BULKHEAD 32 TO 33 - EXISTING CONDITION SECTION
24	BULKHEAD 32 TO 33 - SECTION
25	CTV FLOATING PLATFORM PLAN
26	CTV FLOATING PLATFORM SECTIONS
27	PROPOSED DREDGING SUMMARY
28	PROPOSED DREDGING SUMMARY AND SPECIAL CONDITIONS
29	PIER 39 - DREDGING PLAN

<b>PERMIT SHEET LIST</b>	
<b>SHEET NO.</b>	<b>SHEET TITLE</b>
30	PIER 35W - DREDGING PLAN
31	PIER 35N - DREDGING PLAN - AREA 1
32	PIER 35N - DREDGING TYPICAL SECTIONS - AREA 1
33	PIER 39W - DREDGING TYPICAL SECTIONS - AREA 2.1
34	PIER 39S AND 39N - DREDGING SECTIONS - AREA 2.2 AND 2.3

APPLICATION NO.: NAN-2022-00900-EMI
APPLICANT NAME: NYC EDC
PROJECT: SOUTH BROOKLYN MARINE TERMINAL
LOCATION: 29TH TO 39TH ST, BROOKLYN, NEW YORK
SHEET 2 OF 34
DATE: OCTOBER 18, 2022

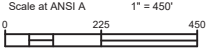


**LEGEND**

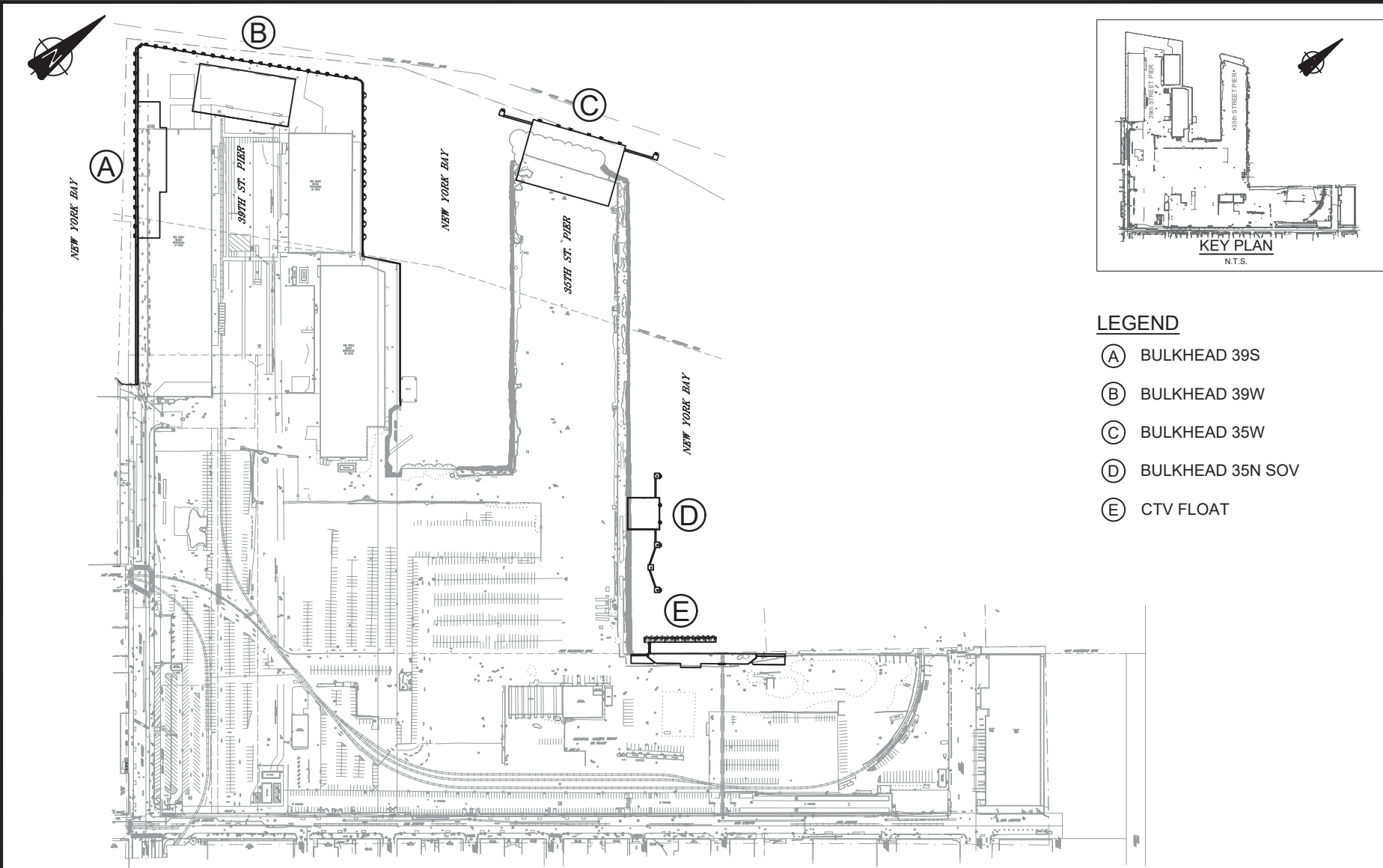
- (A) BULKHEAD 39S
- (B) BULKHEAD 39W
- (C) BULKHEAD 35W
- (D) BULKHEAD 35N SOV
- (E) BULKHEAD 32-33

**BULKHEAD REPAIR PLAN 39S, 39W, 35N, 32-33**

SCALE: 1" = 450'



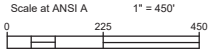
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APPLICANT NAME: NYC EDC
PROJECT: SOUTH BROOKLYN MARINE TERMINAL
LOCATION: 29TH TO 39TH ST, BROOKLYN, NEW YORK
SHEET 3 OF 34
DATE: OCTOBER 18, 2022



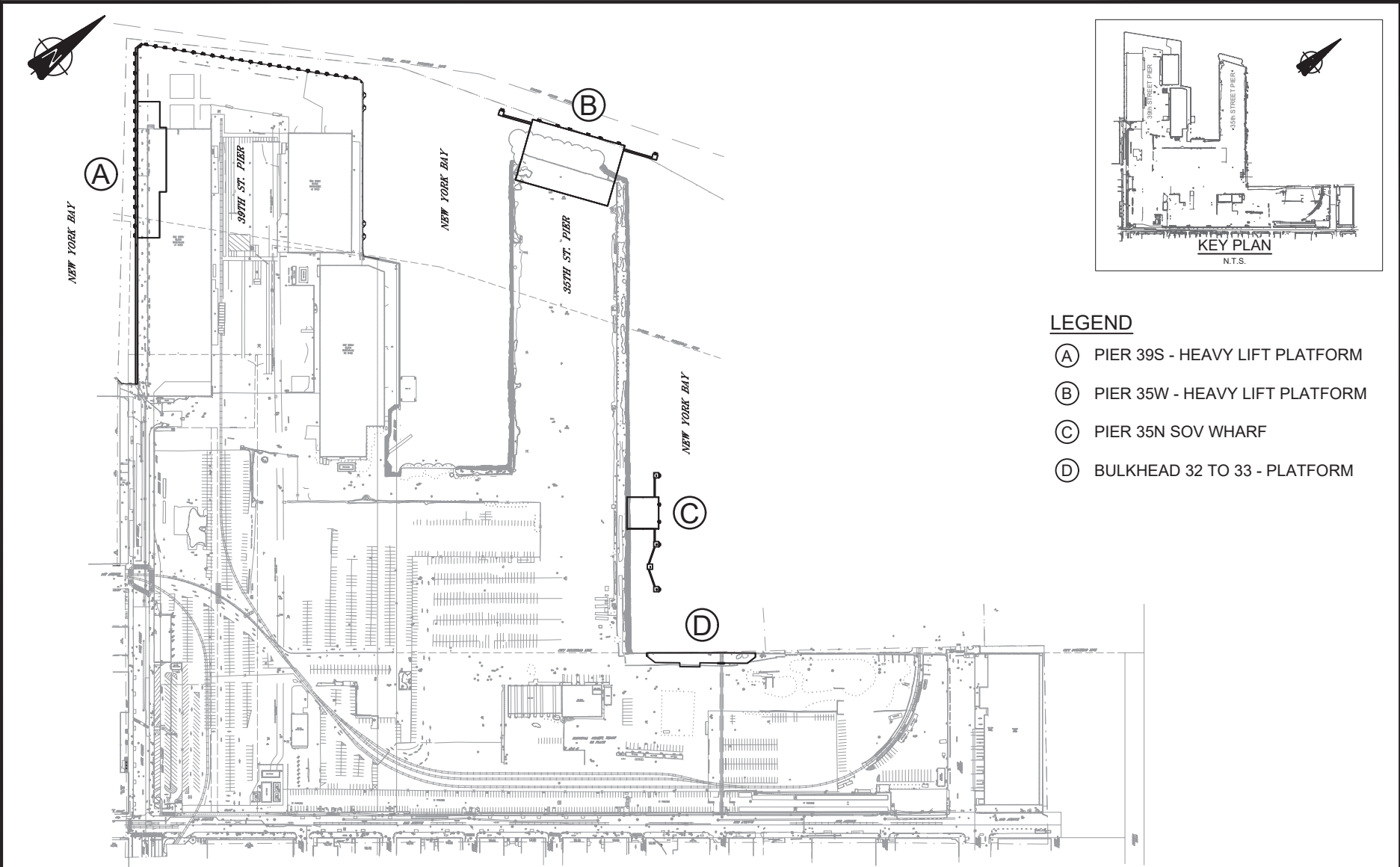
**LEGEND**

- (A) BULKHEAD 39S
- (B) BULKHEAD 39W
- (C) BULKHEAD 35W
- (D) BULKHEAD 35N SOV
- (E) CTV FLOAT

**NEW FENDERS PLAN**  
SCALE: 1" = 450'



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PROJECT: SOUTH BROOKLYN MARINE TERMINAL
LOCATION: 29TH TO 39TH ST, BROOKLYN, NEW YORK
SHEET 4 OF 34
DATE: OCTOBER 18, 2022



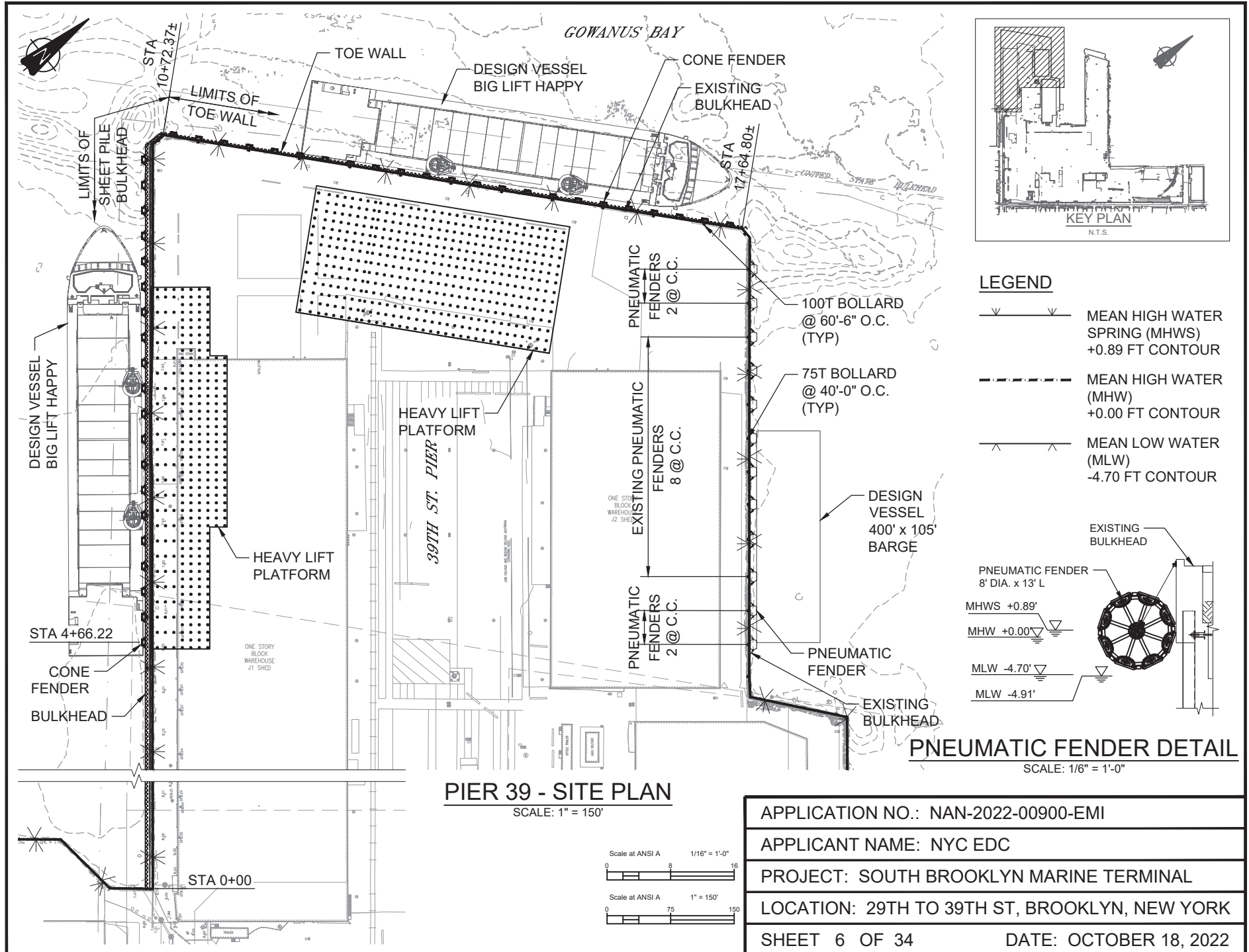
**LEGEND**

- (A) PIER 39S - HEAVY LIFT PLATFORM
- (B) PIER 35W - HEAVY LIFT PLATFORM
- (C) PIER 35N SOV WHARF
- (D) BULKHEAD 32 TO 33 - PLATFORM

**NEW WHARF PLAN**  
SCALE: 1" = 450'



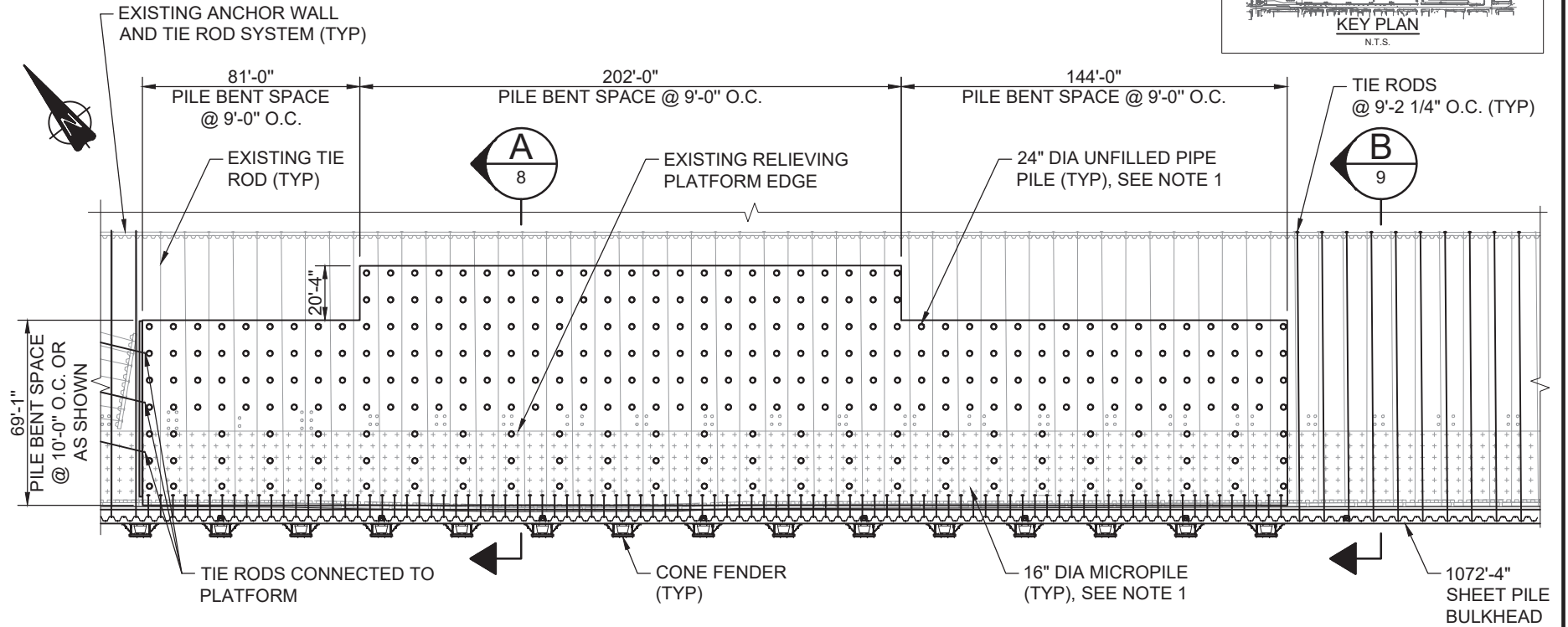
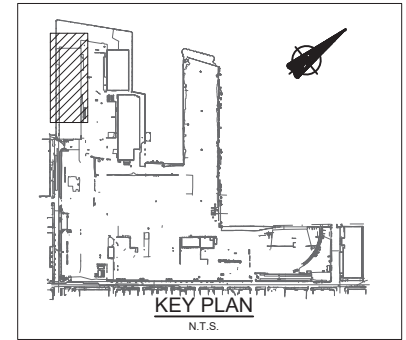
APPLICATION NO.: NAN-2022-00900-EMI
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LOCATION: 29TH TO 39TH ST, BROOKLYN, NEW YORK
SHEET 5 OF 34
DATE: OCTOBER 18, 2022



APPLICATION NO.: NAN-2022-00900-EMI
APPLICANT NAME: NYC EDC
PROJECT: SOUTH BROOKLYN MARINE TERMINAL
LOCATION: 29TH TO 39TH ST, BROOKLYN, NEW YORK
SHEET 6 OF 34
DATE: OCTOBER 18, 2022

**NOTES:**

1. PLATFORM IS SUPPORTED BY (276 NO.S) 24" DIA x 1" THICK PIPE PILES. ESTIMATED PILE LENGTH IS 145 FEET.

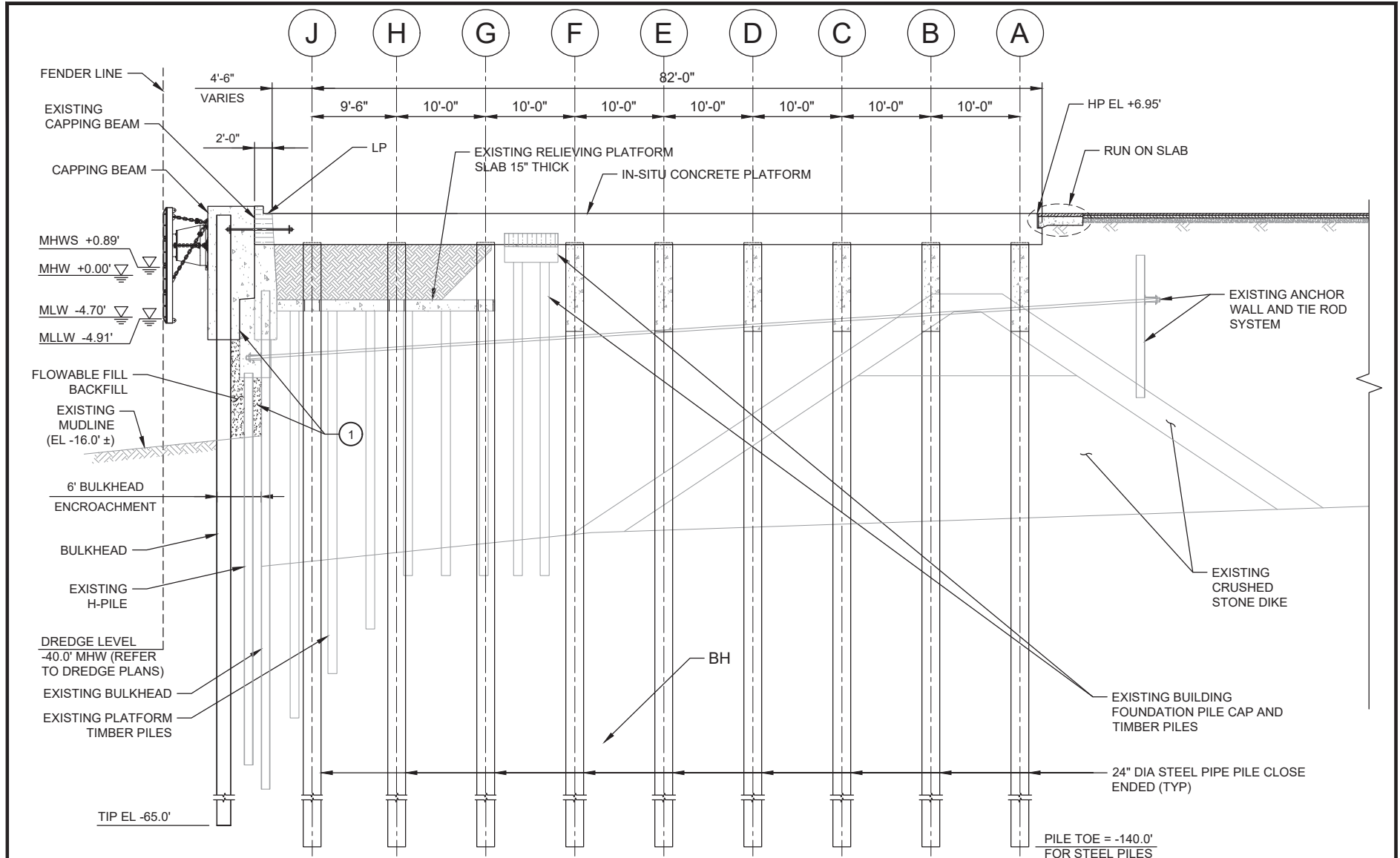


**PIER 39S - HEAVY LIFT PLATFORM PLAN**

SCALE: 1" = 60'-0"



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PROJECT: SOUTH BROOKLYN MARINE TERMINAL
LOCATION: 29TH TO 39TH ST, BROOKLYN, NEW YORK
SHEET 7 OF 34
DATE: OCTOBER 18, 2022

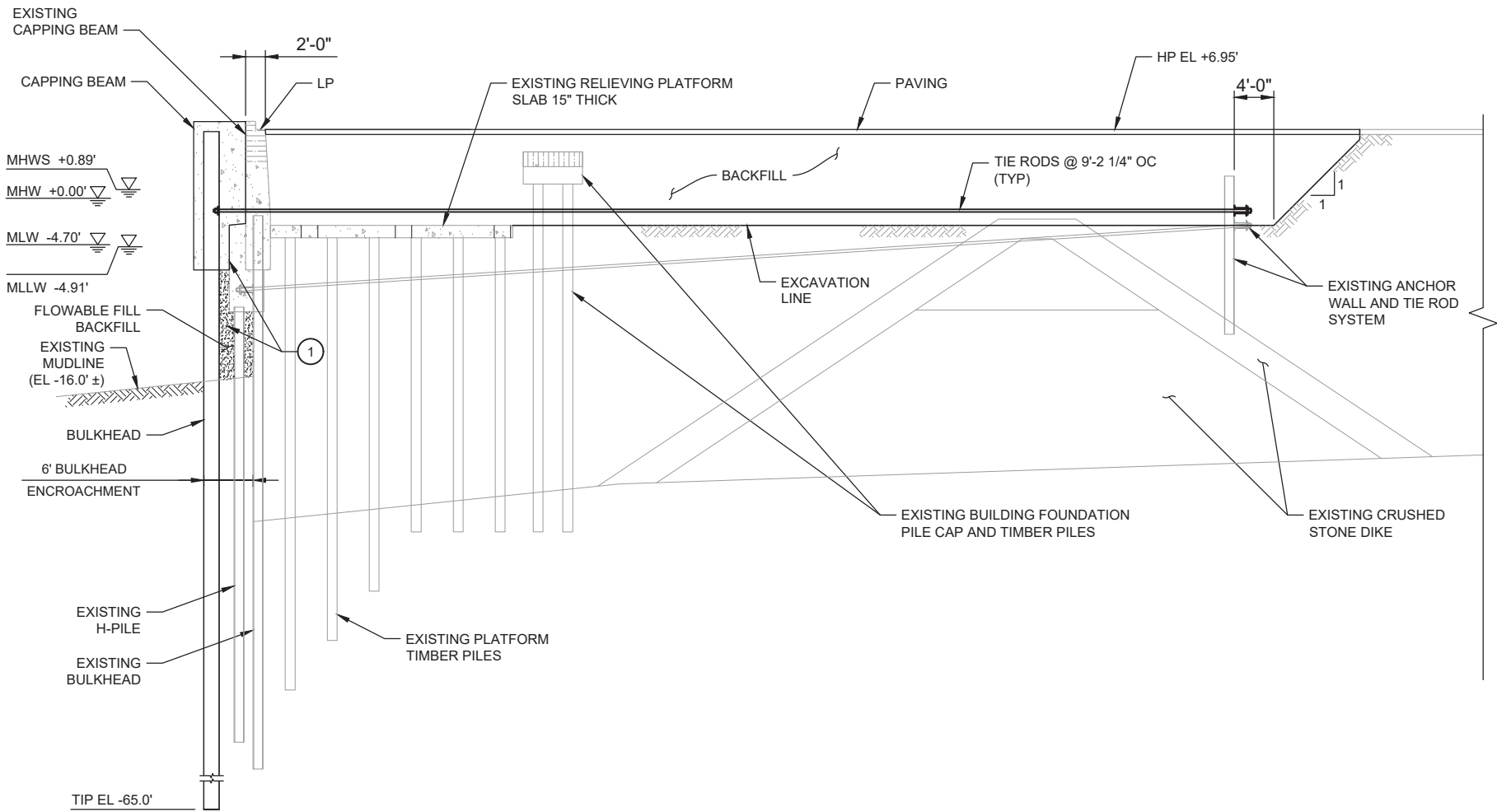


**A** PIER 39S - HEAVY LIFT PLATFORM SECTION  
 7 SCALE: 1/16" = 1'-0"

SUMMARY OF IN-WATER QUANTITIES (BELOW MHWS)			
LOCATION	DESCRIPTION	VOLUME (CY)	AREA (AC)
1	FLOWABLE FILL / CONCRETE	4,035	0.1477



APPLICATION NO.: NAN-2022-00900-EMI
APPLICANT NAME: NYC EDC
PROJECT: SOUTH BROOKLYN MARINE TERMINAL
LOCATION: 29TH TO 39TH ST, BROOKLYN, NEW YORK
SHEET 8 OF 34
DATE: OCTOBER 28, 2022



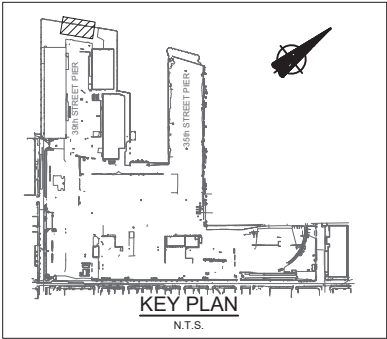
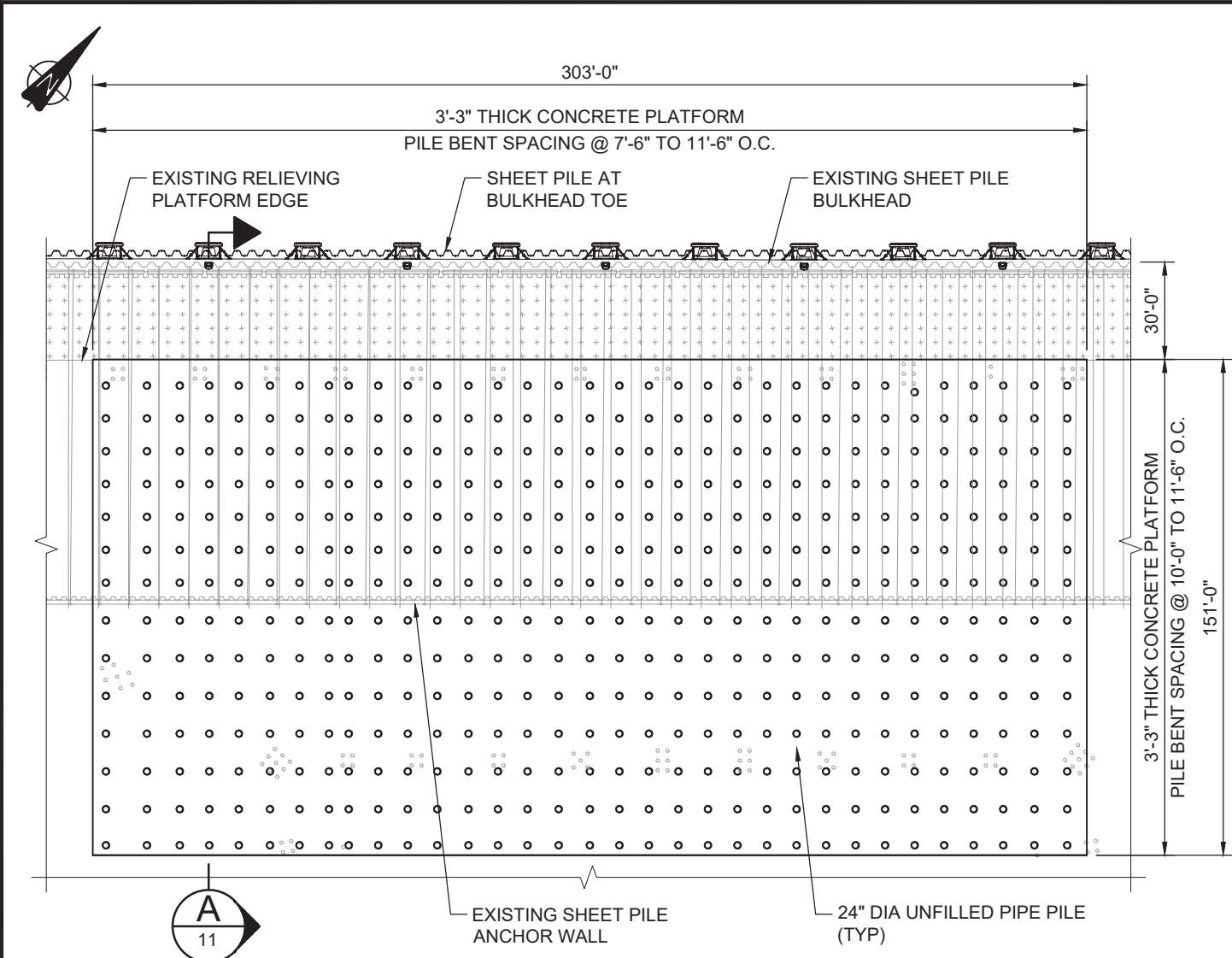
**B** PIER 39SE - BULKHEAD SECTION  
 SCALE: 1/16" = 1'-0"

SUMMARY OF IN-WATER QUANTITIES (BELOW MHWS)			
LOCATION	DESCRIPTION	VOLUME (CY)	AREA (AC)
1	FLOWABLE FILL / CONCRETE	4,035	0.1477



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APPLICANT NAME: NYC EDC
PROJECT: SOUTH BROOKLYN MARINE TERMINAL
LOCATION: 29TH TO 39TH ST, BROOKLYN, NEW YORK
SHEET 9 OF 34
DATE: OCTOBER 28, 2022





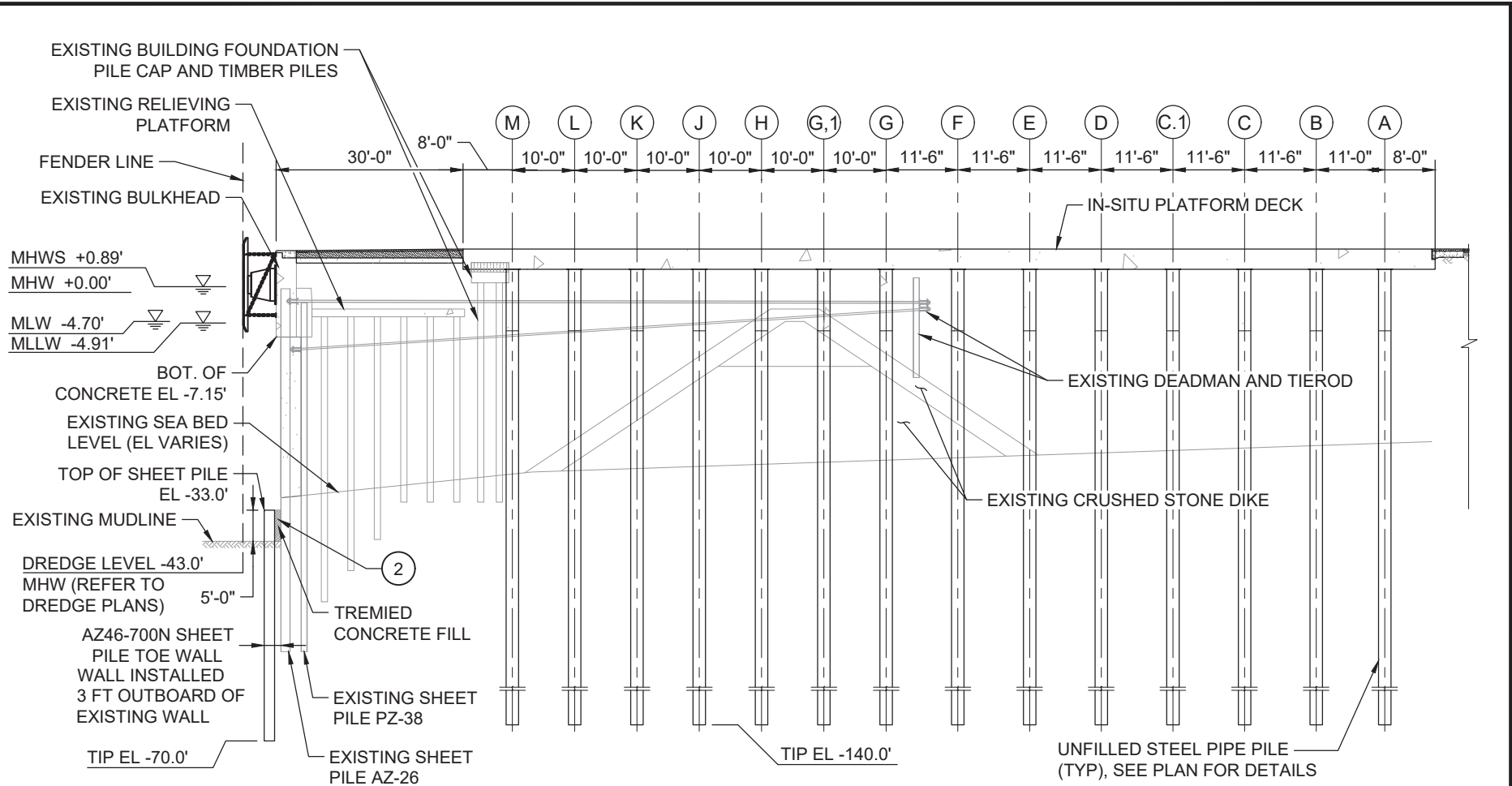
**NOTES:**  
 PLATFORM IS SUPPORTED BY (462) 24" DIA x 1" THK PIPE PILES.  
 ESTIMATED PILE LENGTH IS 145 FEET.

**PIER 39W - HEAVY LIFT PLATFORM PLAN**

SCALE: 1" = 50'



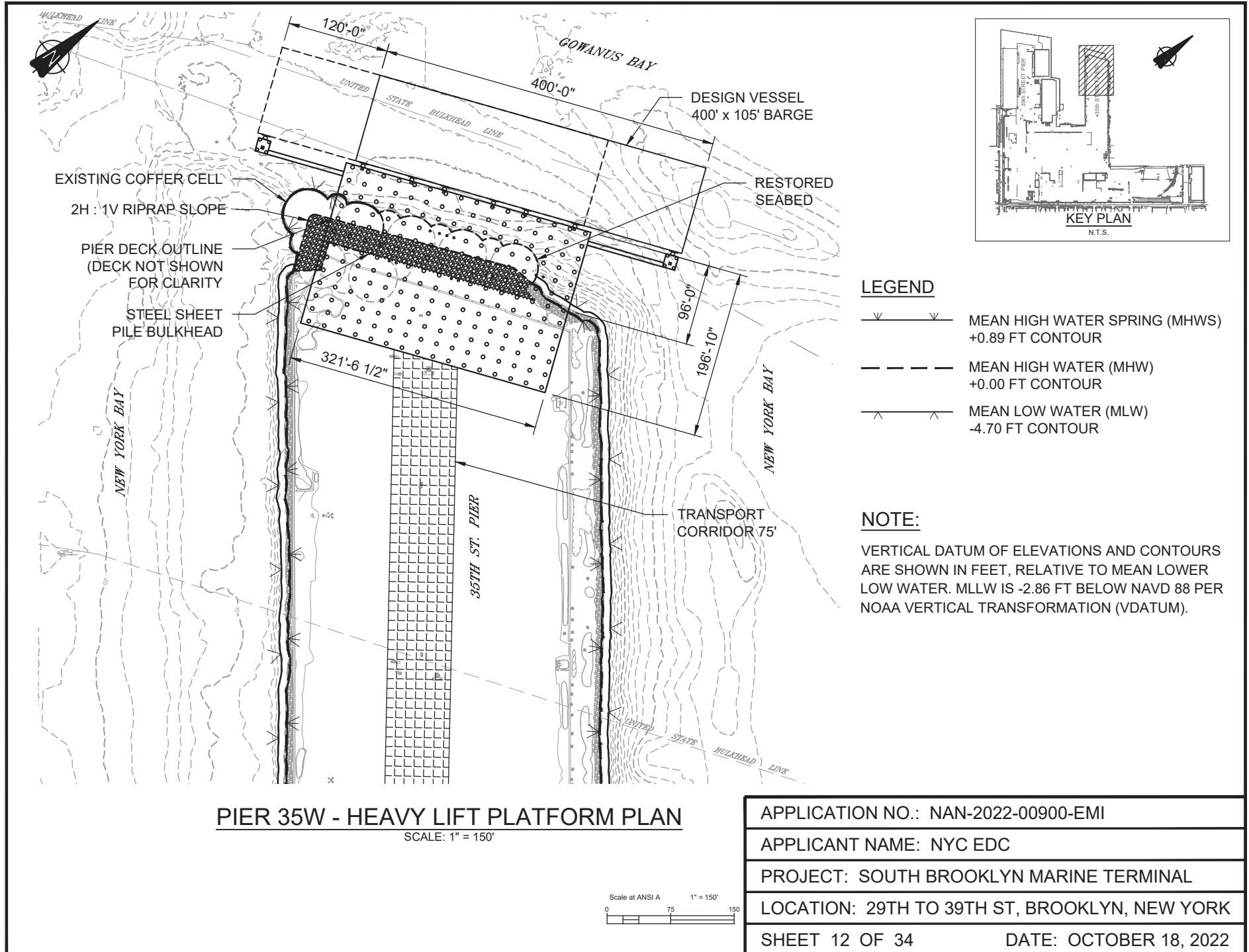
APPLICATION NO.: NAN-2022-00900-EMI
APPLICANT NAME: NYC EDC
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**A** PIER 39W - HEAVY LIFT PLATFORM SECTION  
10 NTS

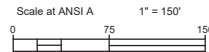
SUMMARY OF IN-WATER QUANTITIES (BELOW MHS)			
LOCATION	DESCRIPTION	VOLUME (CY)	AREA (AC)
2	TREMIED CONCRETE FILL	383	0.0475

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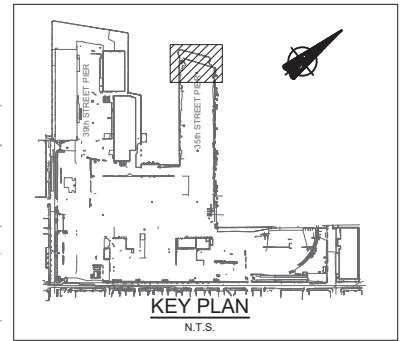
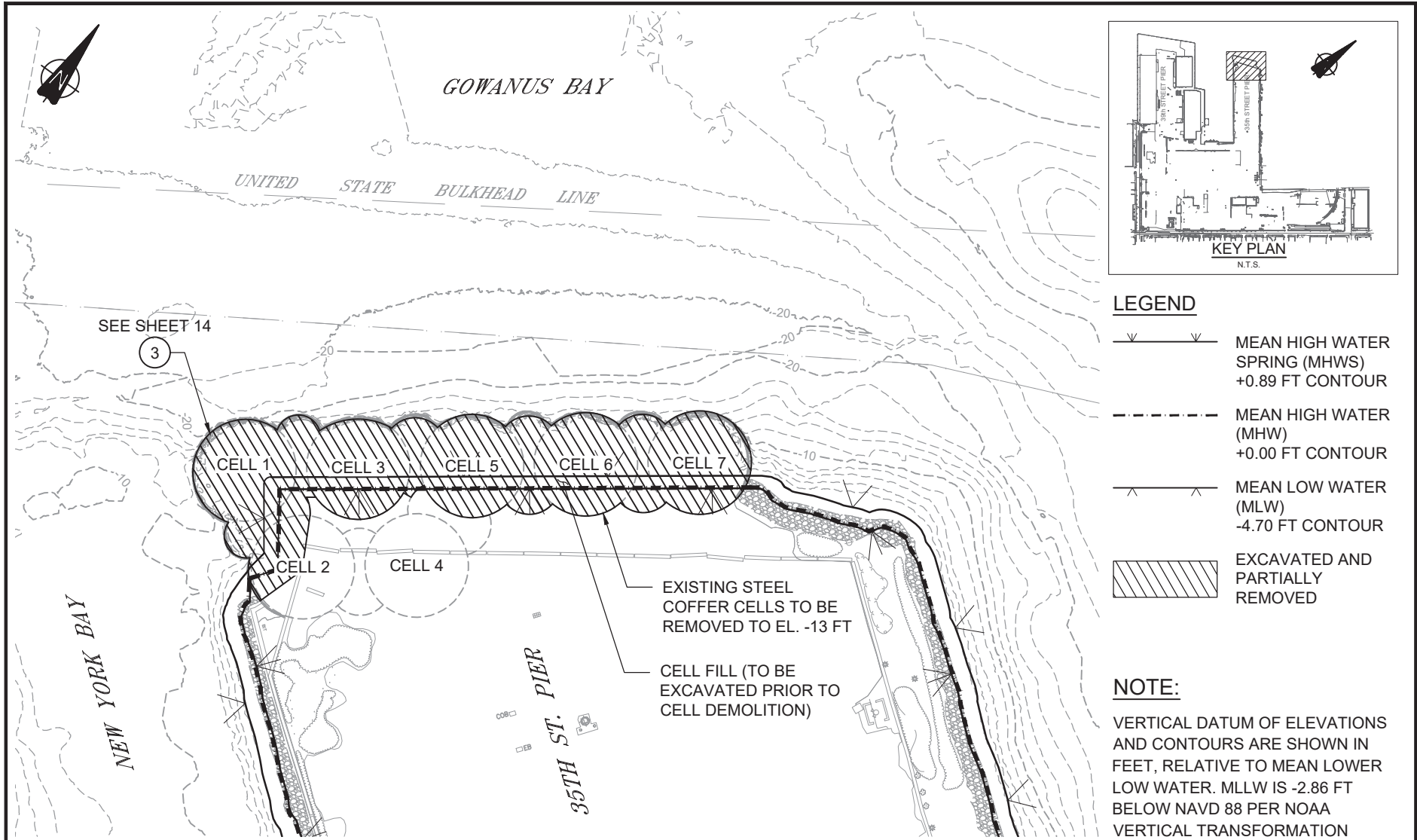


**PIER 35W - HEAVY LIFT PLATFORM PLAN**

SCALE: 1" = 150'



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**LEGEND**

- MEAN HIGH WATER SPRING (MHWS) +0.89 FT CONTOUR
- MEAN HIGH WATER (MHW) +0.00 FT CONTOUR
- MEAN LOW WATER (MLW) -4.70 FT CONTOUR
- EXCAVATED AND PARTIALLY REMOVED

**NOTE:**

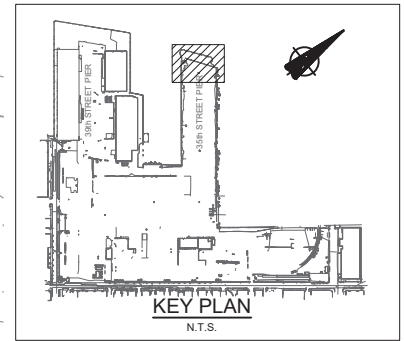
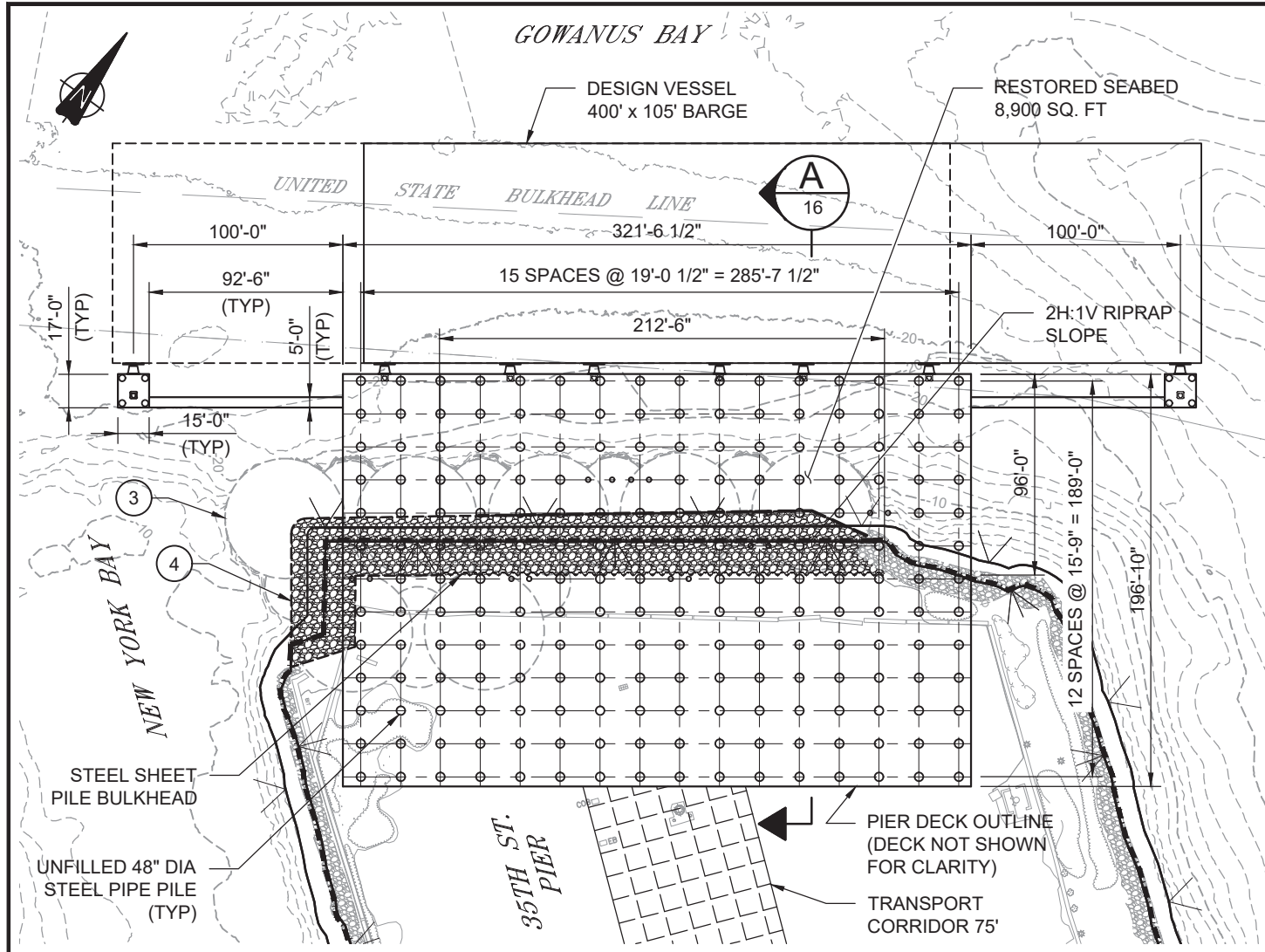
VERTICAL DATUM OF ELEVATIONS AND CONTOURS ARE SHOWN IN FEET, RELATIVE TO MEAN LOWER LOW WATER. MLLW IS -2.86 FT BELOW NAVD 88 PER NOAA VERTICAL TRANSFORMATION (VDATUM)

**PIER 35W - EXISTING COFFER CELL PLAN**

SCALE: 1" = 80'



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**LEGEND**

- MEAN HIGH WATER SPRING (MHWS) +0.89 FT CONTOUR
- MEAN HIGH WATER (MHW) +0.00 FT CONTOUR
- MEAN LOW WATER (MLW) -4.70 FT CONTOUR

**NOTES:**

1. PLATFORM AND DOLPHINS ARE SUPPORTED BY (216) 48" DIA STEEL PIPE PILES.
2. VERTICAL DATUM OF ELEVATIONS AND CONTOURS ARE SHOWN IN FEET, RELATIVE TO MEAN LOWER LOW WATER. MLLW IS -2.86 FT BELOW NAVD 88 PER NOAA VERTICAL TRANSFORMATION (VDATUM).

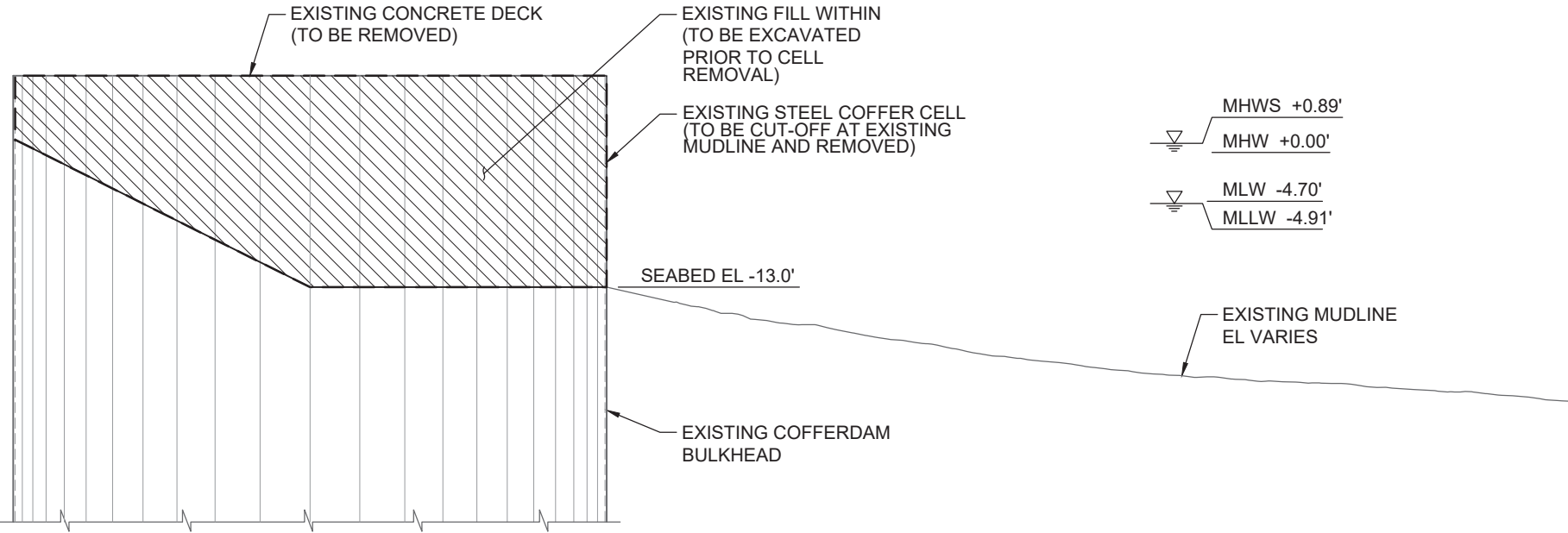
**PIER 35W - HEAVY LIFT PLATFORM ENLARGE PLAN**

SCALE: 1" = 80'

SUMMARY OF IN-WATER QUANTITIES (BELOW MHWS)			
LOCATION	DESCRIPTION	VOLUME (CY)	AREA (AC)
3	CELL FILL REMOVAL	(10,265)	(0.4581)
4	RIPRAP REVETMENT	4,101	0.2037
	NET QUANTITIES	(6,164)	(0.2544)



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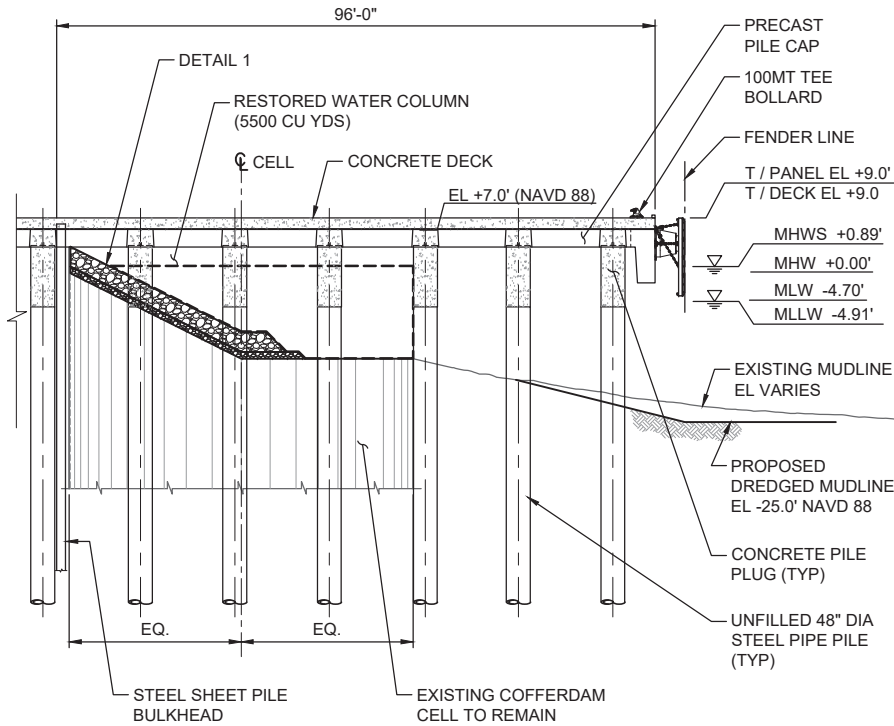


**PIER 35W - EXISTING COFFER CELL SECTION**

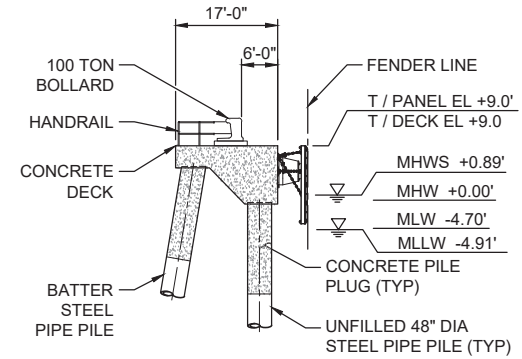
SCALE: 1/16" = 1'-0"



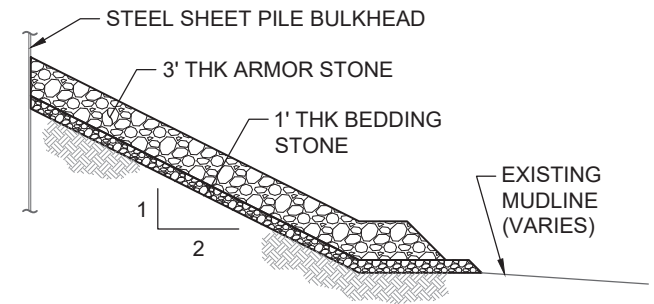
APPLICATION NO.: NAN-2022-00900-EMI
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**A** PIER 35W - HEAVY LIFT PLATFORM SECTION  
 14 SCALE: 1/32" = 1'-0"



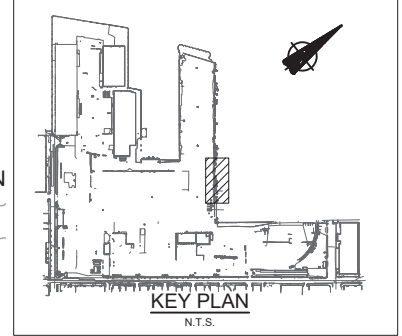
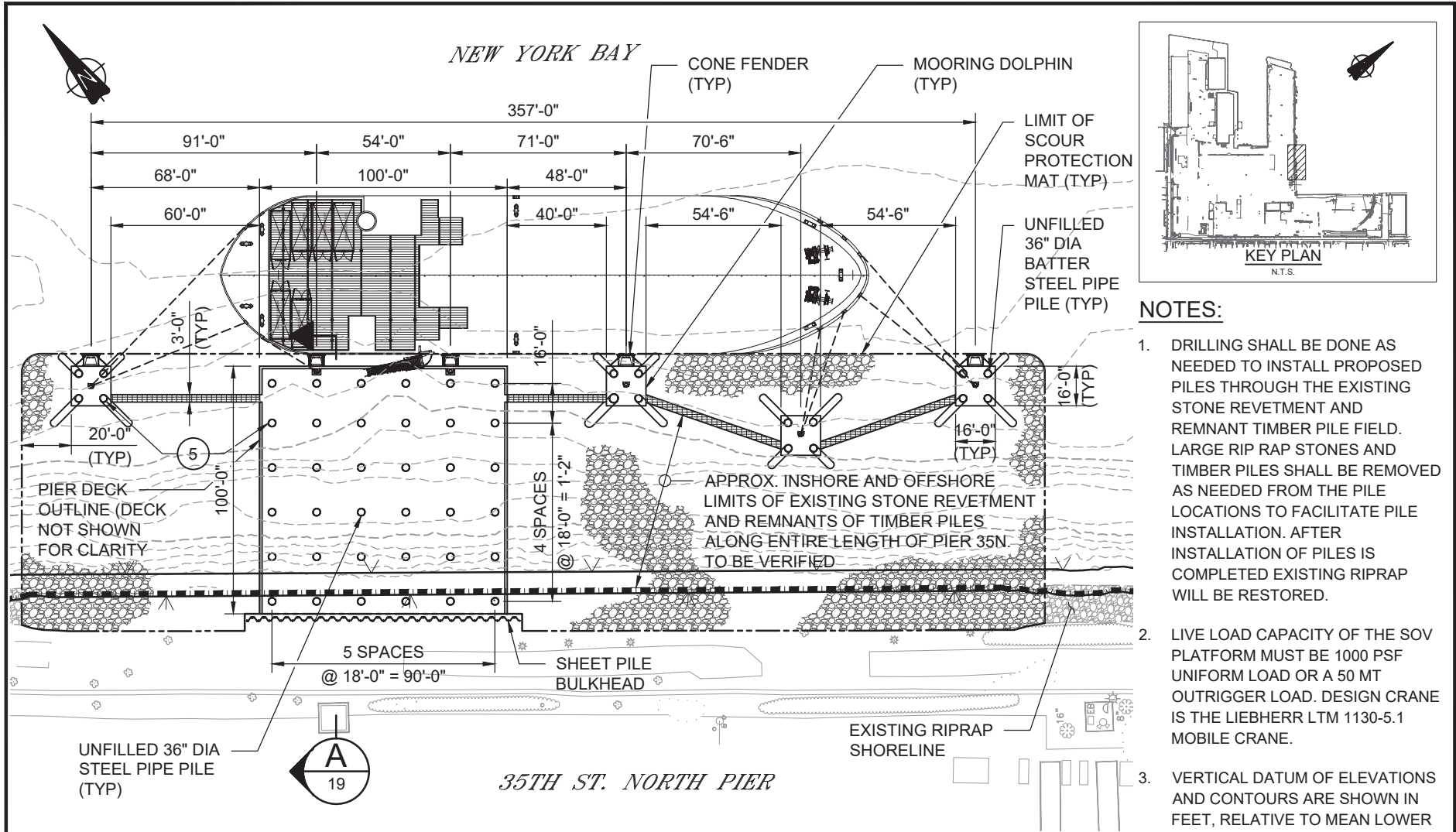
**DOLPHIN SECTION**  
 SCALE: 1/32" = 1'-0"



**1** DETAIL  
 - N.T.S.



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- NOTES:**
1. DRILLING SHALL BE DONE AS NEEDED TO INSTALL PROPOSED PILES THROUGH THE EXISTING STONE REVETMENT AND REMNANT TIMBER PILE FIELD. LARGE RIP RAP STONES AND TIMBER PILES SHALL BE REMOVED AS NEEDED FROM THE PILE LOCATIONS TO FACILITATE PILE INSTALLATION. AFTER INSTALLATION OF PILES IS COMPLETED EXISTING RIPRAP WILL BE RESTORED.
  2. LIVE LOAD CAPACITY OF THE SOV PLATFORM MUST BE 1000 PSF UNIFORM LOAD OR A 50 MT OUTRIGGER LOAD. DESIGN CRANE IS THE LIEBHERR LTM 1130-5.1 MOBILE CRANE.
  3. VERTICAL DATUM OF ELEVATIONS AND CONTOURS ARE SHOWN IN FEET, RELATIVE TO MEAN LOWER LOW WATER. MLLW IS -2.86 FT BELOW NAVD 88 PER NOAA VERTICAL TRANSFORMATION (VDATUM).

**PIER 35N - SOV WHARF AND BULKHEAD PLAN**

SCALE: 1" = 60'

**LEGEND**

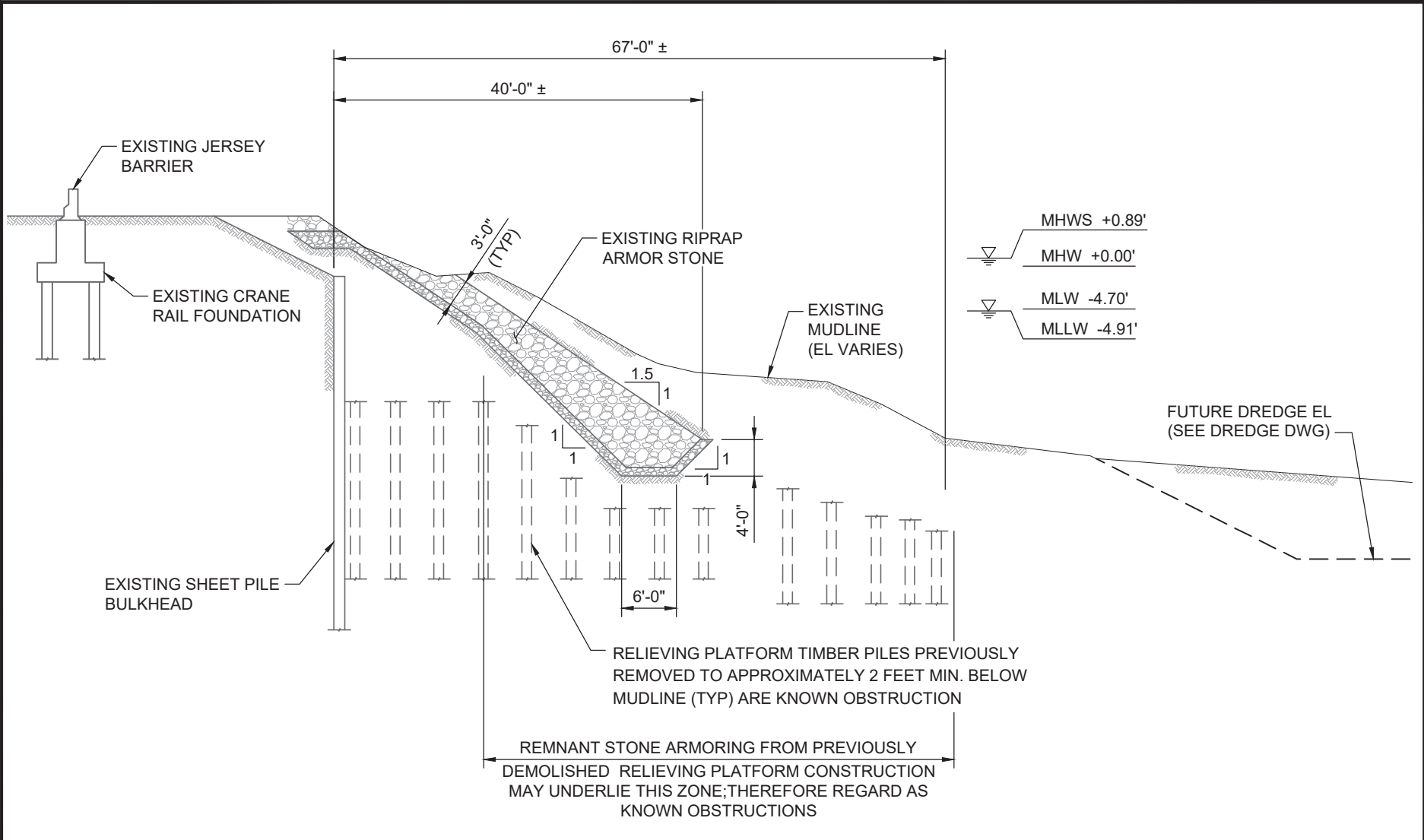
- MEAN HIGH WATER SPRING (MHWS) +0.89 FT CONTOUR
- MEAN HIGH WATER (MHW) +0.00 FT CONTOUR
- MEAN LOW WATER (MLW) -4.70 FT CONTOUR

SUMMARY OF IN-WATER QUANTITIES (BELOW MHWS)			
LOCATION	DESCRIPTION	NO.	AREA (AC)
5	36" OD STEEL PIPE PILES	46	0.00746



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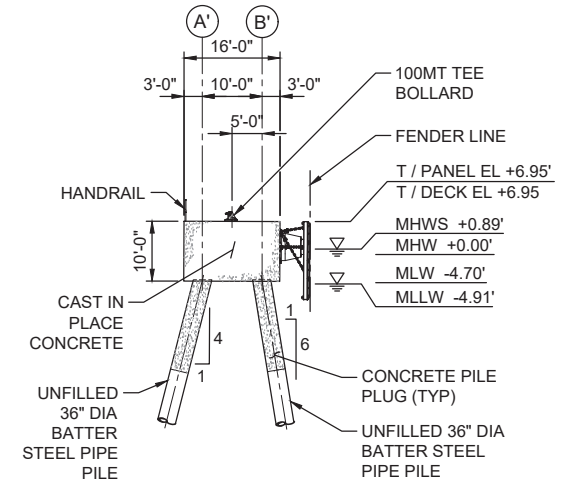
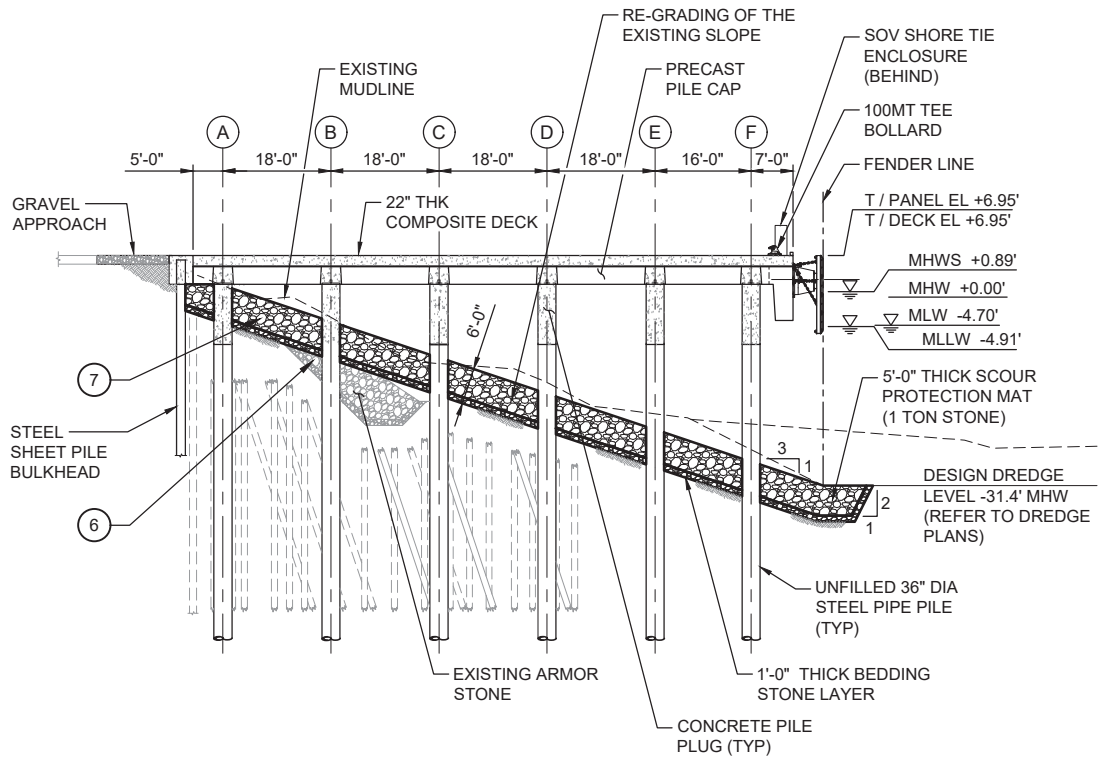


**PIER 35N - EXISTING REVETMENT SECTION**

SCALE: 1/16" = 1'-0"



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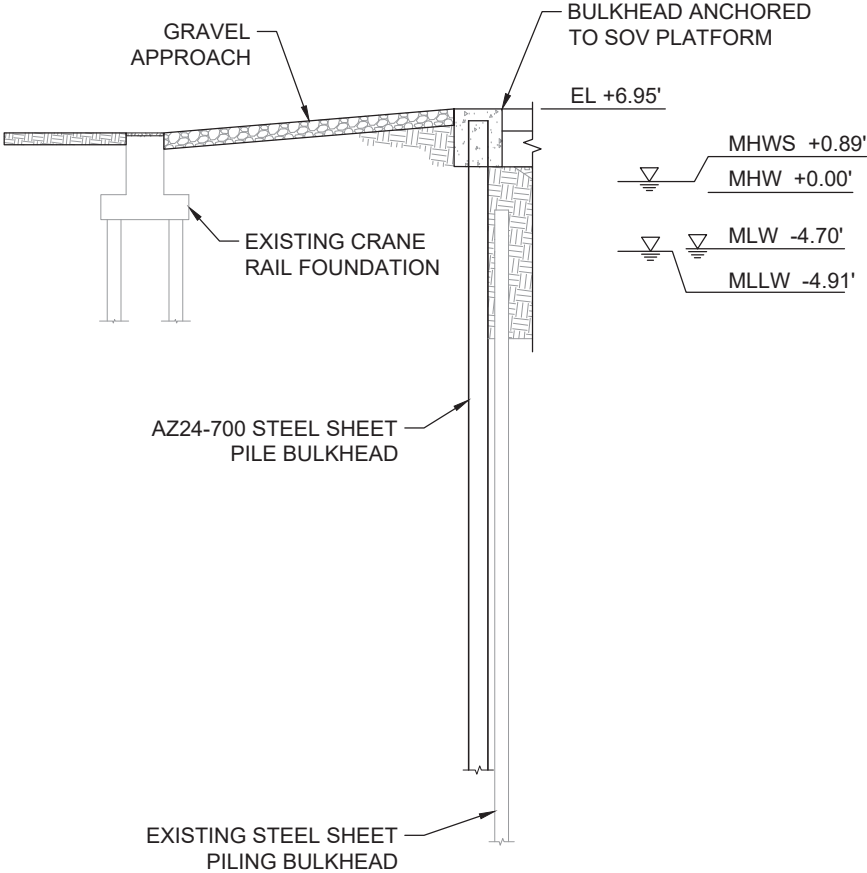
**DOLPHIN SECTION**  
SCALE: 1/32" = 1'-0"

**A PIER 35N - SOV WHARF SECTION**  
SCALE: 1/32" = 1'-0"

SUMMARY OF IN-WATER QUANTITIES (BELOW MHWS)			
LOCATION	DESCRIPTION	VOLUME (CY)	AREA (AC)
6	RIPRAP SLOPE REMOVAL	(10,678)	(1.1031)
7	RIPRAP REVETMENT	10,678	1.1031
	NET QUANTITIES	0	0



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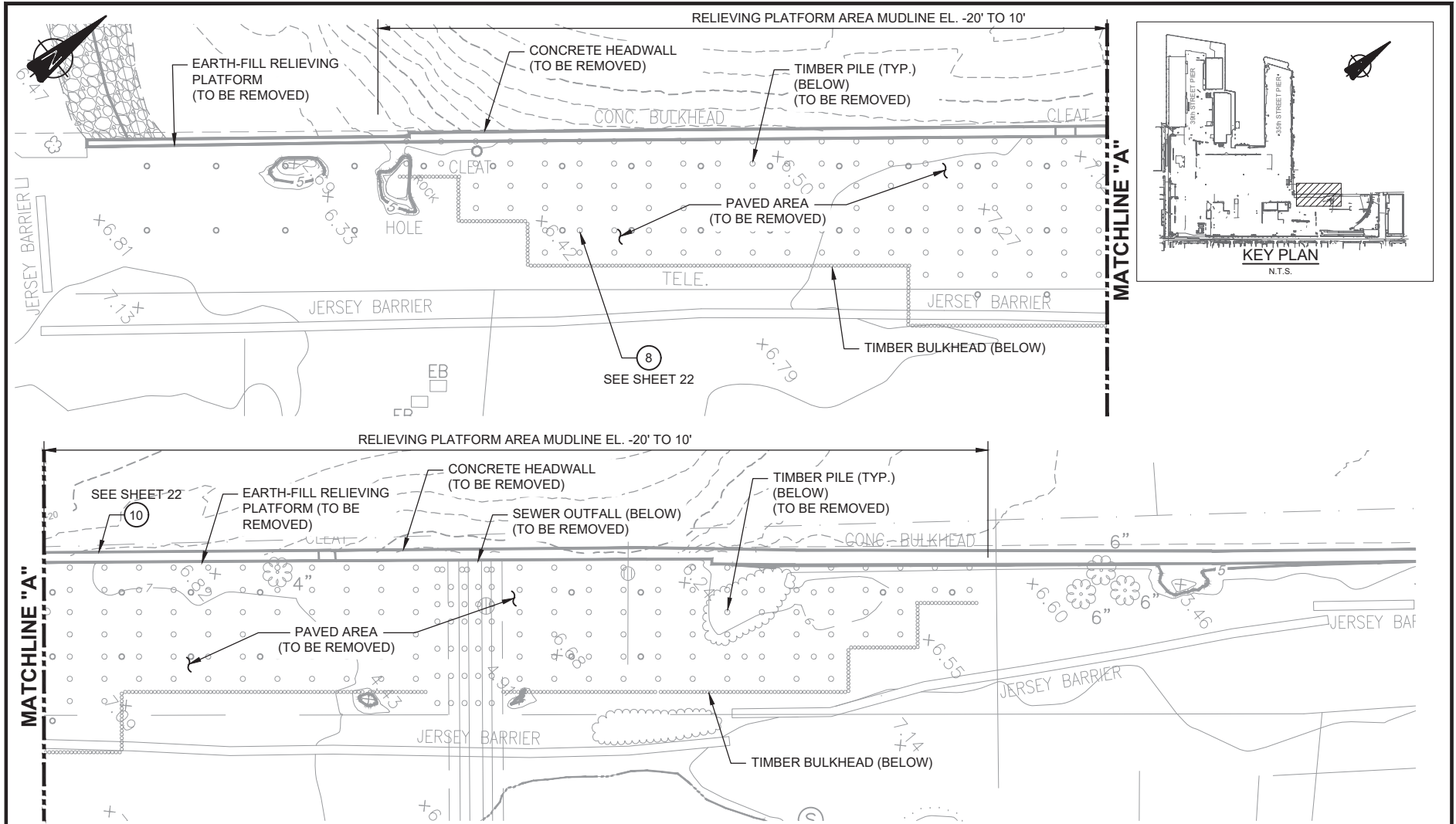


**PIER 35N - SOV WHARF BULKHEAD SECTION**

SCALE: 1/16" = 1'-0"



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**BULKHEAD 32 TO 33 - EXISTING CONDITION PLAN**

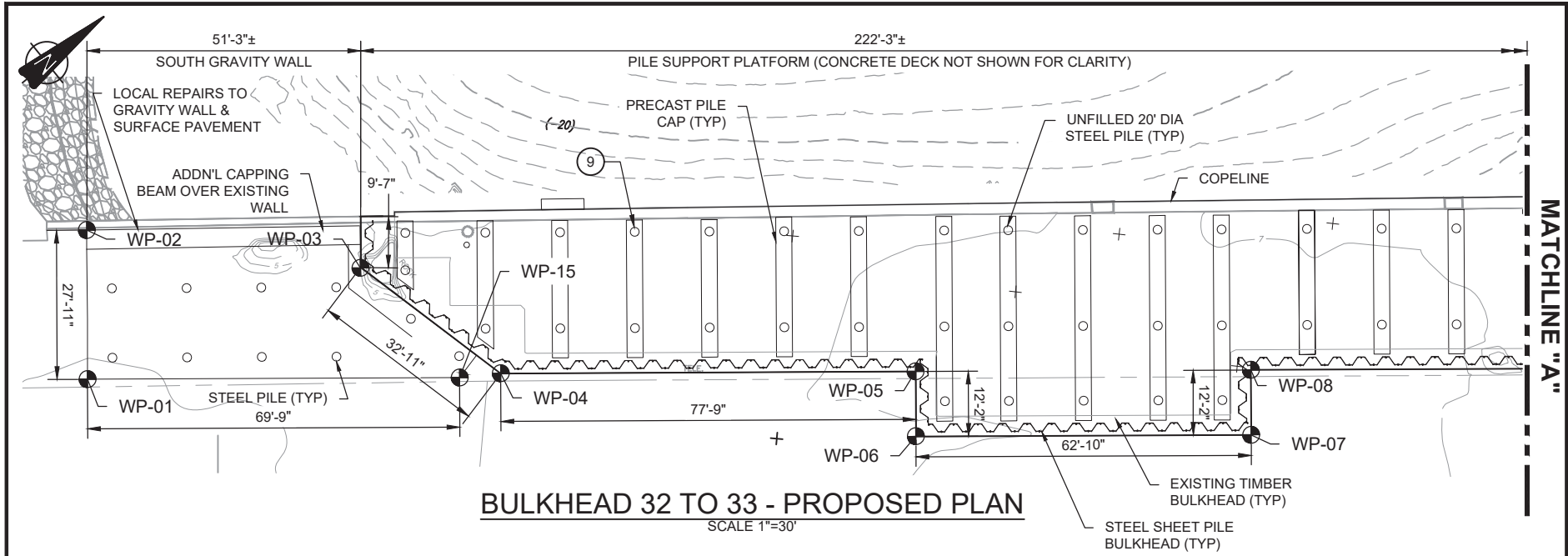
SCALE 1"=30'

**NOTE:**

VERTICAL DATUM OF ELEVATIONS AND CONTOURS ARE SHOWN IN FEET, RELATIVE TO MEAN LOWER LOW WATER. MLLW IS -2.86 FT BELOW NAVD 88 PER NOAA VERTICAL TRANSFORMATION (VDATUM).

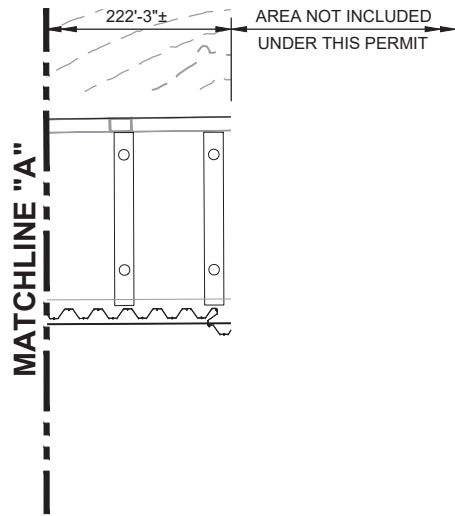


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**BULKHEAD 32 TO 33 - PROPOSED PLAN**

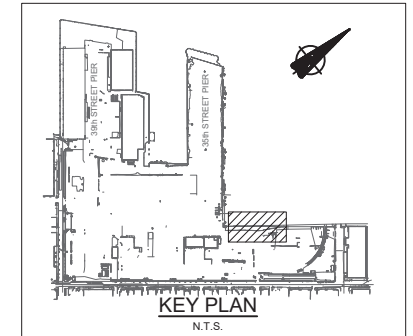
SCALE 1"=30'



SUMMARY OF IN-WATER QUANTITIES (BELOW MHWS)		
LOCATION	DESCRIPTION	COUNT
8	REMOVE 12" OD TIMBER PILES <sup>(1)</sup>	255
9	20" OD STEEL PIPE PILES <sup>(2)</sup>	39

SUMMARY OF IN-WATER QUANTITIES (BELOW MHWS)			
LOCATION	DESCRIPTION	VOLUME (CY)	AREA (AC)
10	FILL PLATFORM REMOVAL <sup>(1)</sup>	(1,380)	
11	ARMOR STONE MAT <sup>(2)</sup>	340	0.1558
	NET QUANTITIES	(1,040)	0.1558

- NOTES:**  
 1. SEE SHEET 23.  
 2. SEE SHEET 24.

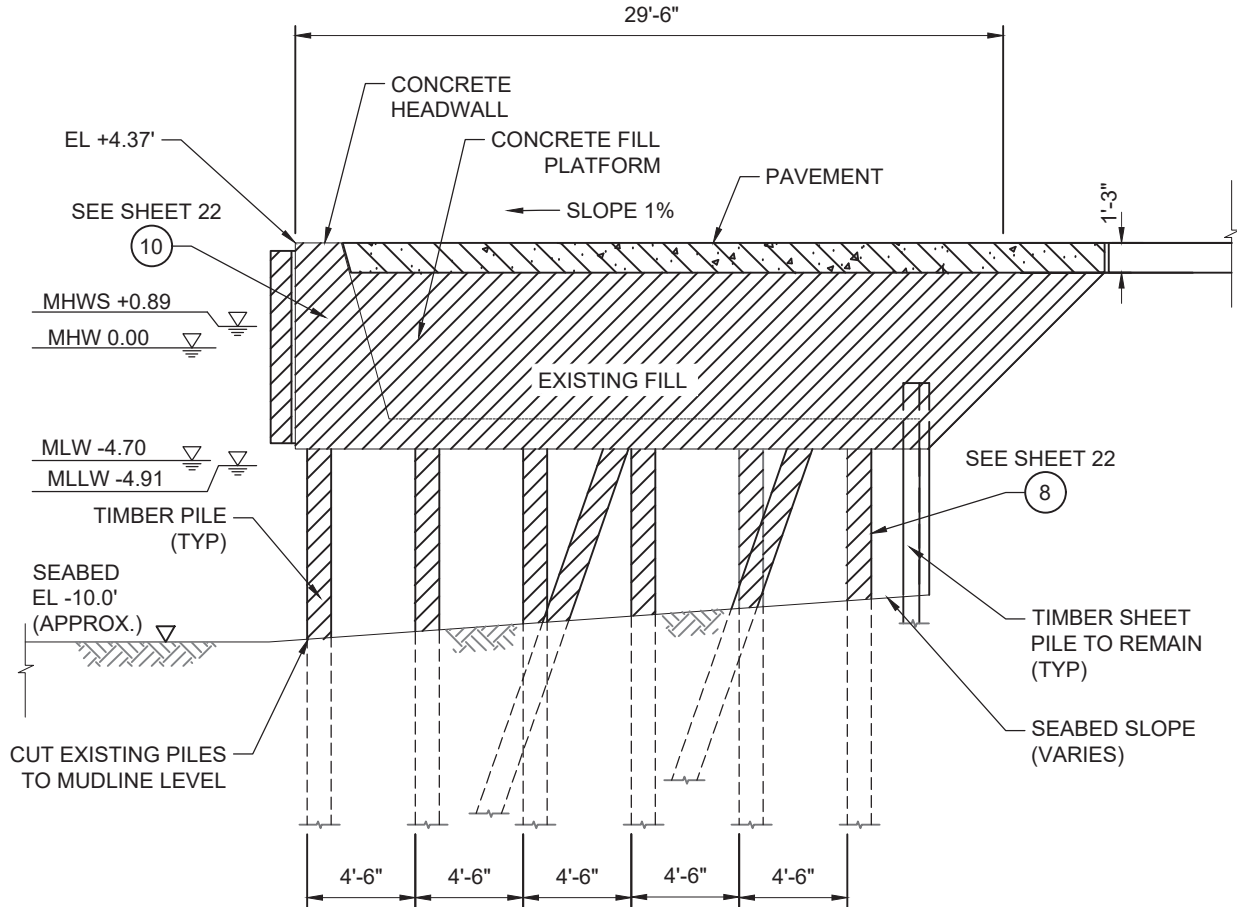


**NOTE:**

VERTICAL DATUM OF ELEVATIONS AND CONTOURS ARE SHOWN IN FEET, RELATIVE TO MEAN LOWER LOW WATER. MLLW IS -2.86 FT BELOW NAVD 88 PER NOAA VERTICAL TRANSFORMATION (VDATUM).




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**BULKHEAD 32 TO 33 - EXISTING CONDITION SECTION**

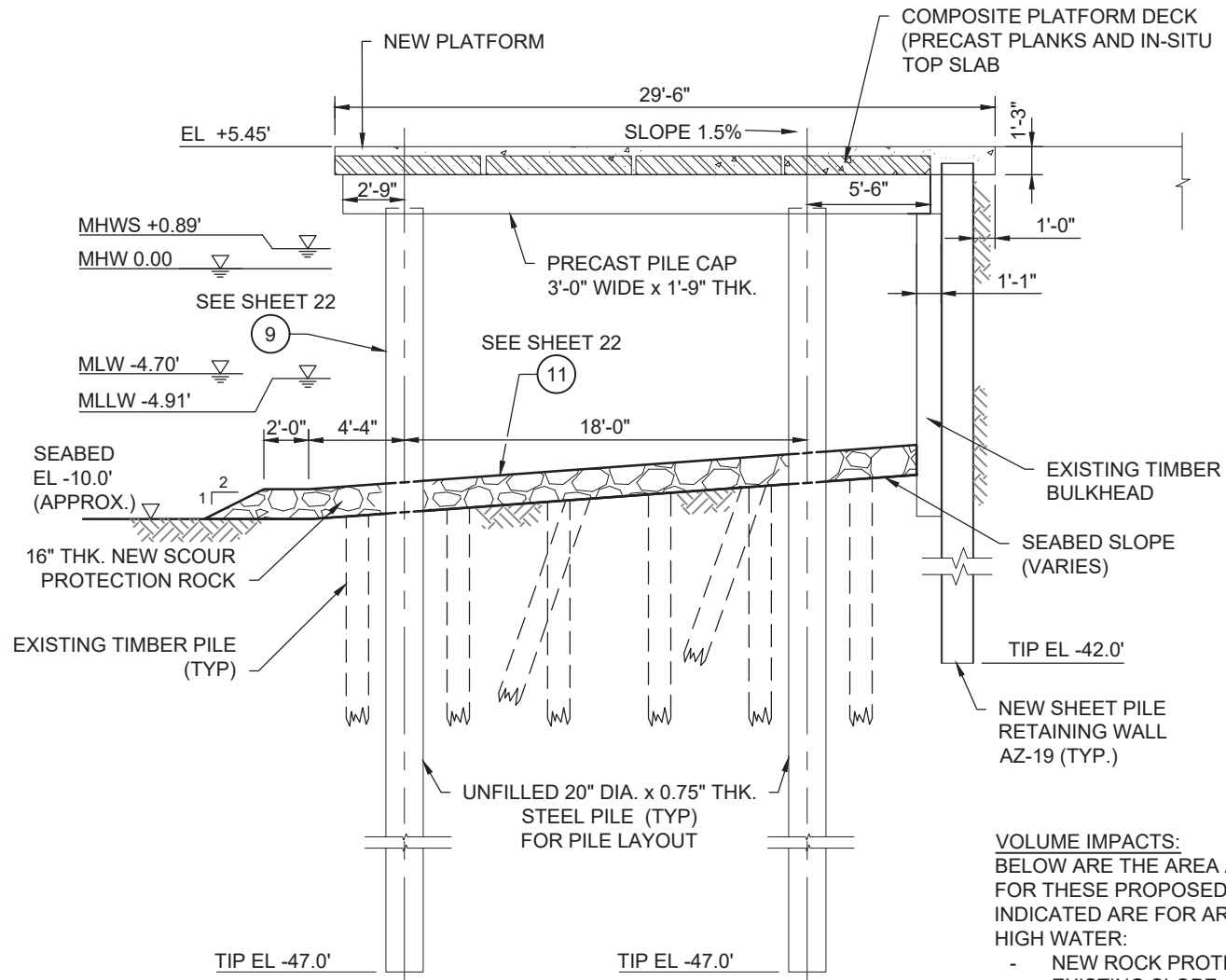
SCALE: 1/8" = 1'-0"

**LEGEND:**

 TO BE REMOVED



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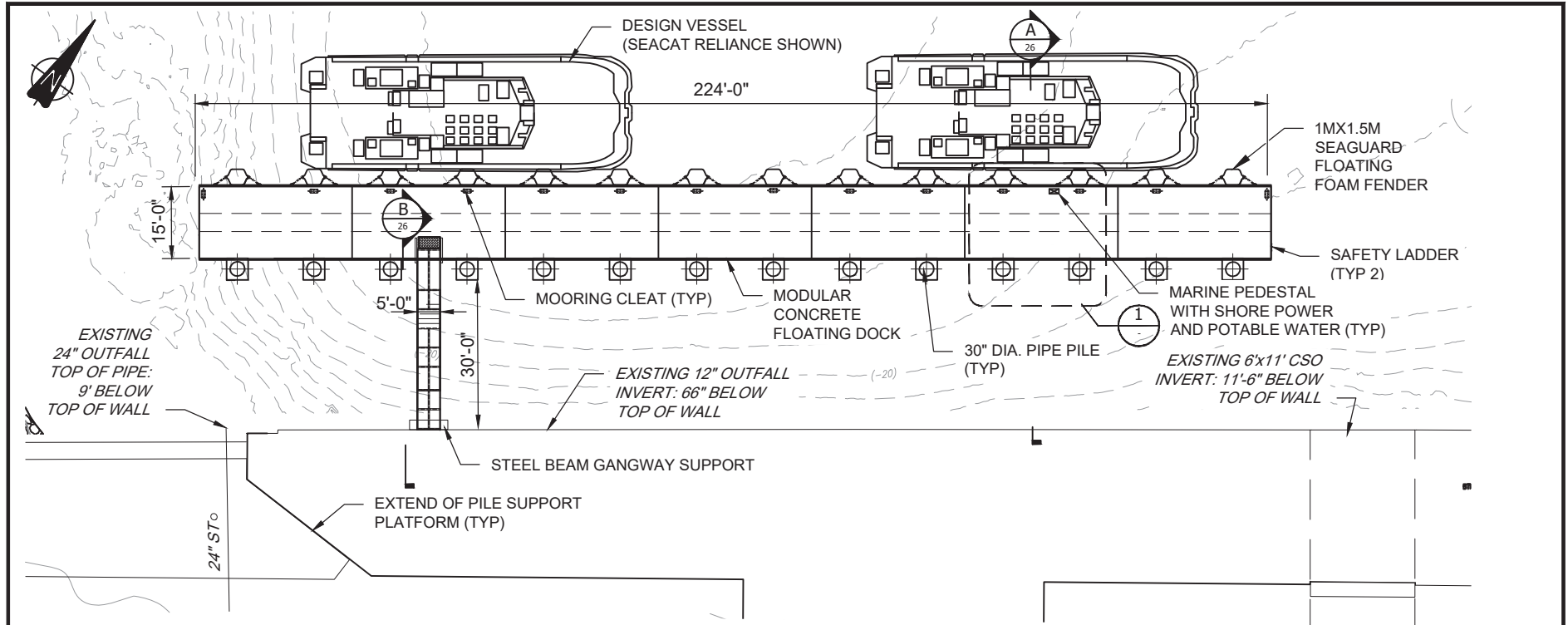
VOLUME IMPACTS:  
 BELOW ARE THE AREA AND VOLUME IMPACTS FOR THESE PROPOSED UPGRADES. ALL VALUES INDICATED ARE FOR AREAS BELOW SPRING HIGH WATER:

- NEW ROCK PROTECTION LAYER OVER EXISTING SLOPE: 340 CU.YARD (VOLUME), 6700 SQ.FT (AREA)

**BULKHEAD 32 TO 33 - SECTION**  
 SCALE: 1/8" = 1'-0"



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**NOTE:**

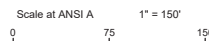
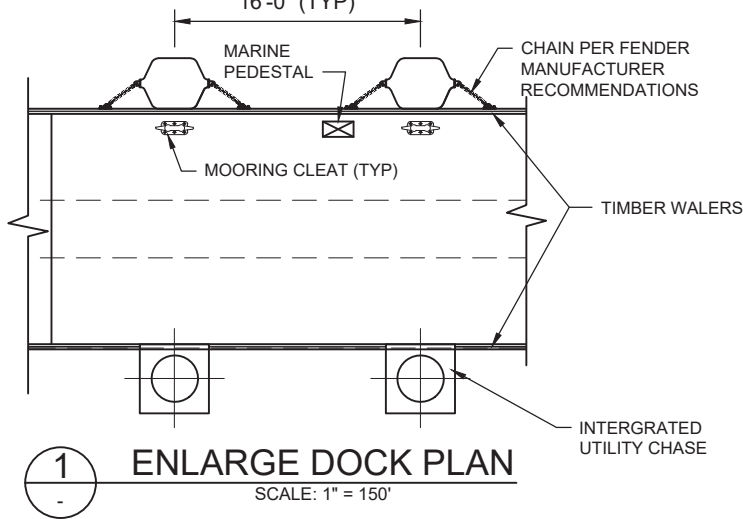
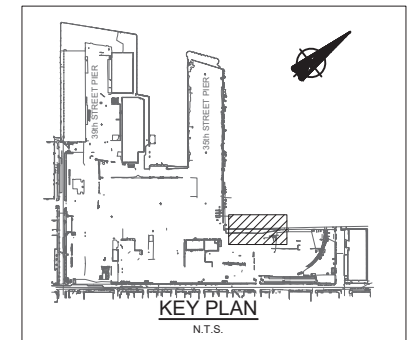
VERTICAL DATUM OF ELEVATIONS AND CONTOURS ARE SHOWN IN FEET, RELATIVE TO MEAN LOWER LOW WATER. MLLW IS -4.91 FT BELLOW NAVD 88 PER NOAA VERTICAL TRANSFORMATION (VDATUM). 16'-0" (TYP)

**BULKHEAD 32 TO 33 - PLAN**

SCALE: 1" = 400'

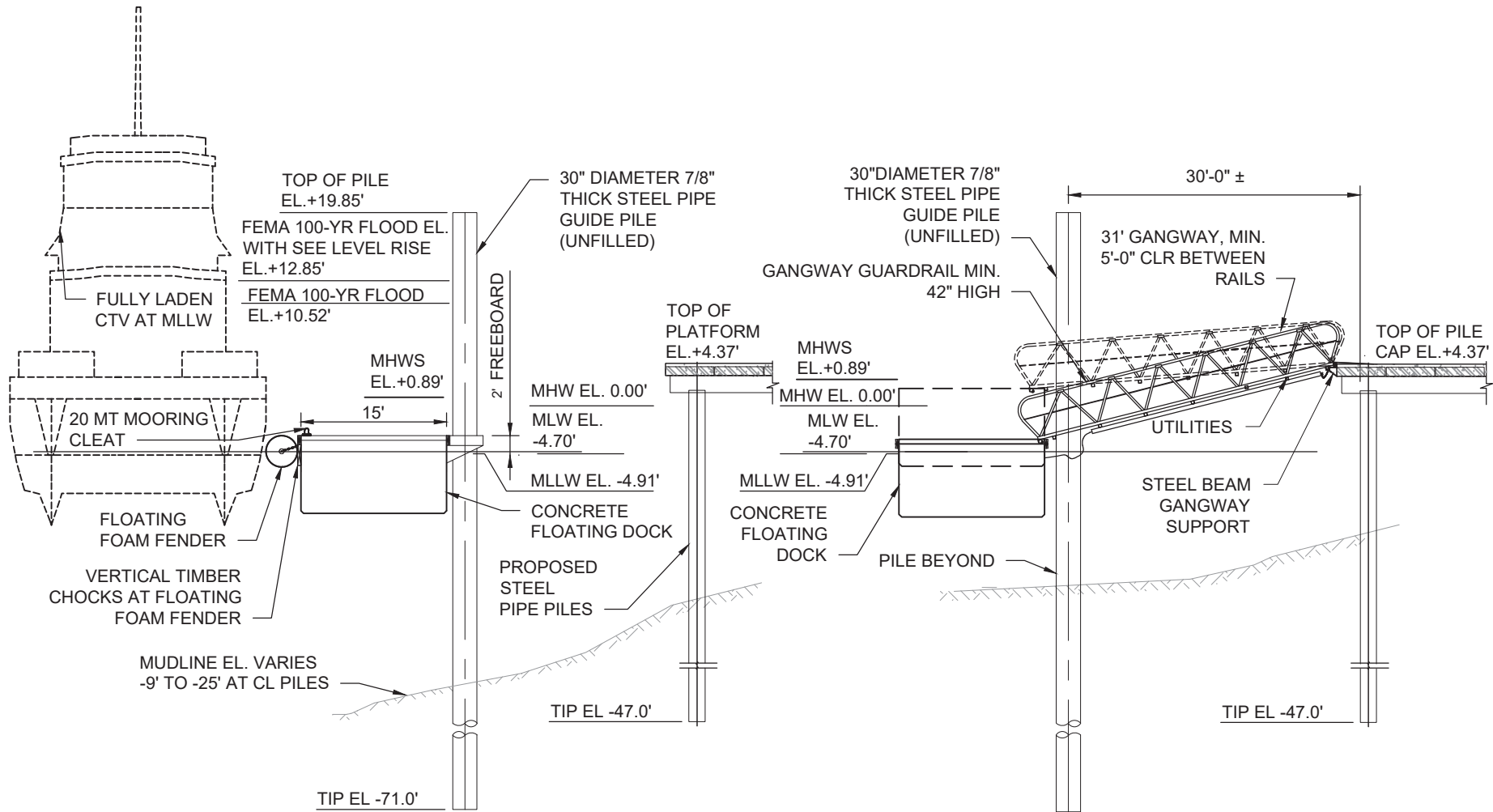
**LEGEND:**

-  MARINE PEDESTAL
-  MOORING CLEAT
-  FLOATING FOAM FENDER
-  SAFETY LADDER



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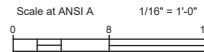


**A** CTV FLOATING PLATFORM - SECTION  
 SCALE: 1/16" = 1'-0"

**B** CTV FLOATING PLATFORM - SECTION  
 SCALE: 1/16" = 1'-0"


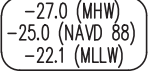

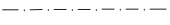




**NOTE:**

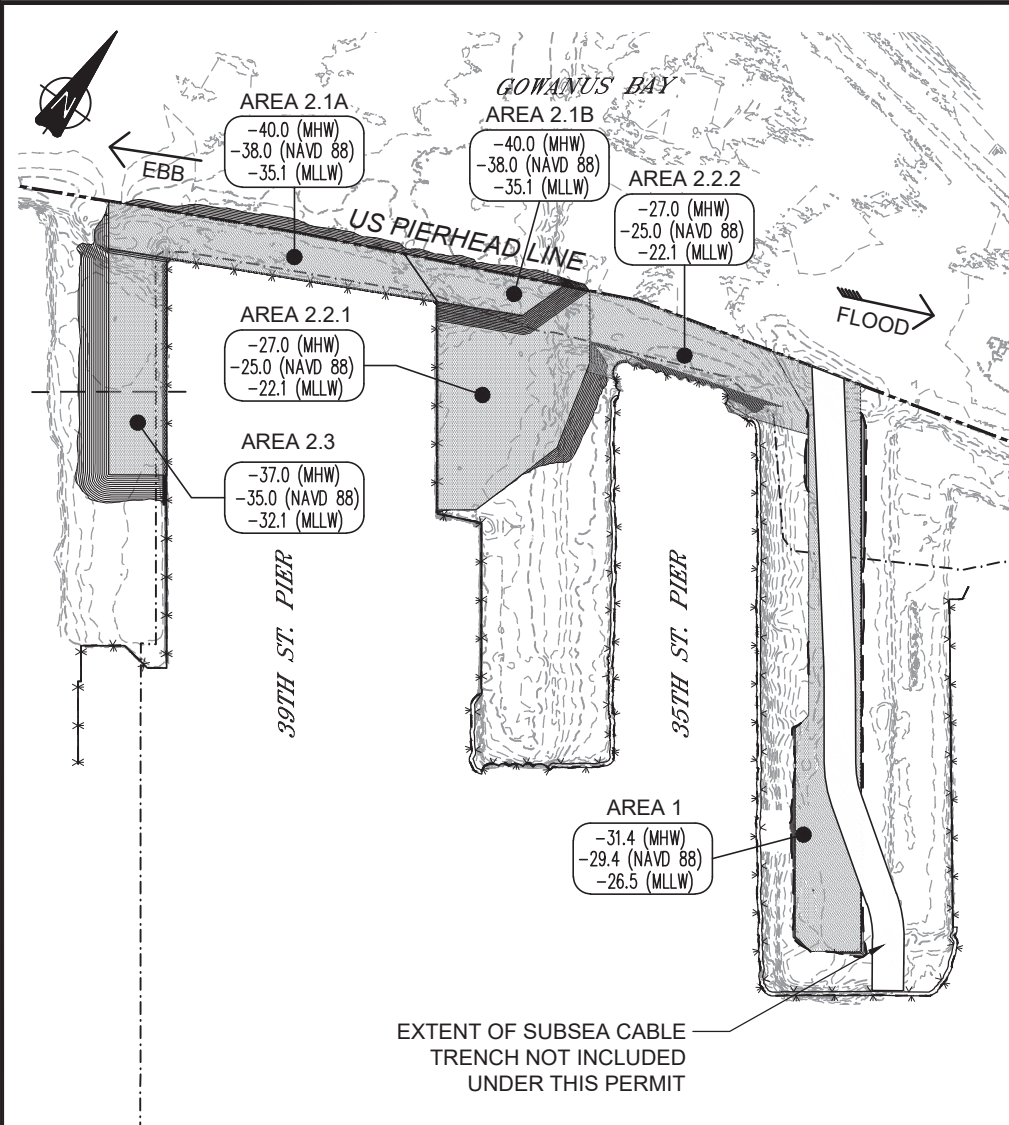
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**LEGEND:**

-  EXTENT OF SUBSEA CABLE TRENCH NOT INCLUDED UNDER THIS PERMIT
-  DESIGN DREDGE DEPTHS FOR NAVIGATION (MHW) (NAVD 88) (MLLW)
-  FEDERAL CHANNEL LIMITS
-  USABLE TERMINAL BOUNDARY
-  MEAN HIGH WATER SPRING (MHWS) +0.89 FT LIMITS
-  MEAN HIGH WATER (MHW) +0.00 FT LIMITS
-  MEAN LOW WATER (MLW) -4.70 FT LIMITS
-  LIMITS OF BASIN DREDGING



EXTENT OF SUBSEA CABLE TRENCH NOT INCLUDED UNDER THIS PERMIT

**PROPOSED DREDGING SUMMARY**

SCALE: 1" = 500'

- (A) TOTAL VOLUME INCLUDES SAND CAP DEEPENING BUT EXCLUDING OVERDREDGE.
- (B) VOLUME ALLOWS FOR 2 FT OVER DEPTH ALLOWANCE
- (C) VOLUME ACCOUNTS FOR 1 FT OVER DEPTH ALLOWANCE.



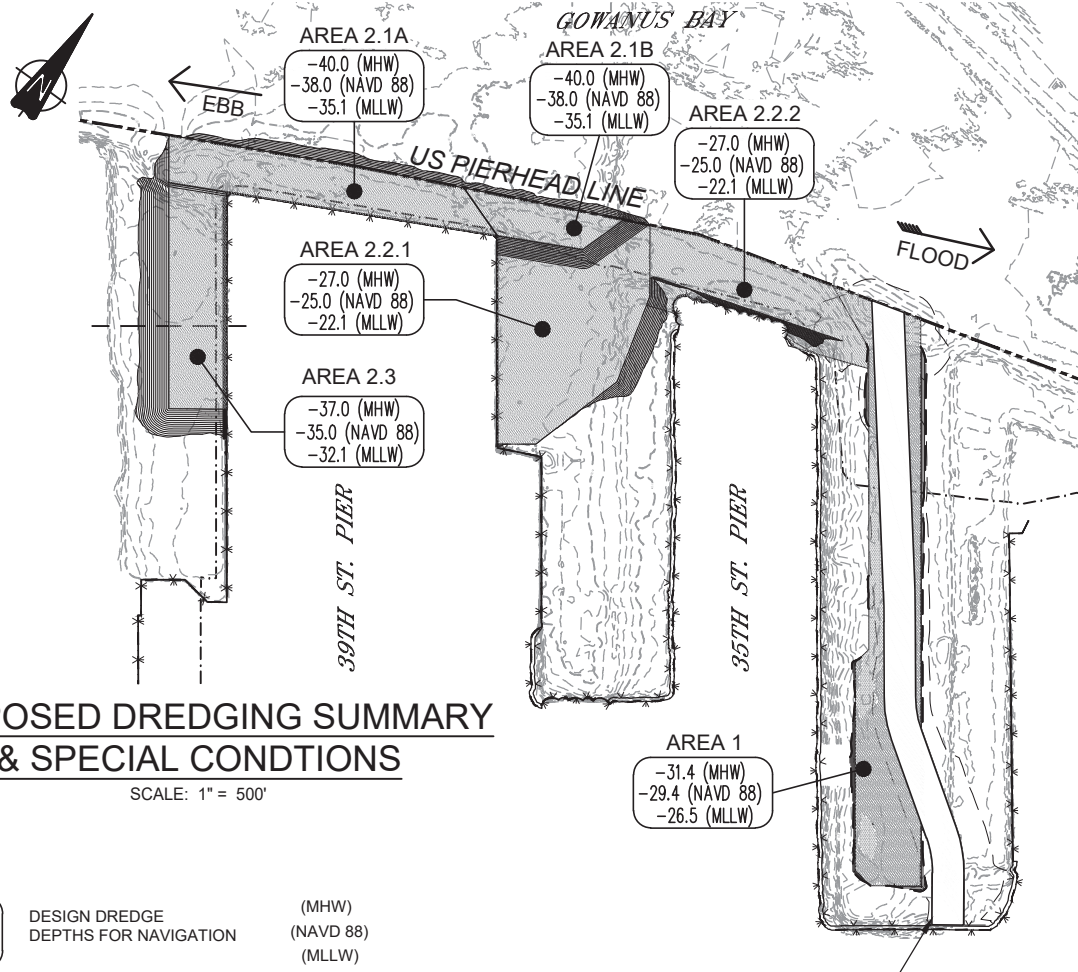
**DREDGE MATERIAL**

DREDGING AREA	LOCATION	VOLUME TO DESIGN DEPTH (CU YDS)	VOLUME IN OVER DEPTH (CU YDS) <sup>(B)</sup>	TOTAL DREDGE VOLUME (CU YDS)
AREA 1	35th ST PIER NORTH	10,300	8,000 <sup>(B)</sup>	18,300
AREA 2.1A	39th ST PIER WEST	44,500 <sup>(A)</sup>	3,500 <sup>(C)</sup>	48,000
AREA 2.1B	39th ST PIER WEST	5,700	2,400 <sup>(B)</sup>	8,100
AREA 2.2.1	39th ST PIER NORTH	11,000	12,900 <sup>(B)</sup>	23,900
AREA 2.2.2	35th ST PIER WEST	4,100	3,700 <sup>(B)</sup>	7,800
AREA 2.3	39th ST PIER SOUTH	79,600 <sup>(A)</sup>	3,300 <sup>(C)</sup>	82,900
TOTALS		155,200	33,800	189,000

**DREDGING AREAS**

DREDGING AREA	LOCATION	TOTAL DREDGING AREA (SQ FT)	TOTAL DREDGING AREA (ACRES)
AREA 1	35th ST PIER NORTH	125,500	2.9
AREA 2.1A	39th ST PIER WEST	93,700	2.2
AREA 2.1B	39th ST PIER WEST	26,700	0.6
AREA 2.2.1	39th ST PIER NORTH	168,100	3.9
AREA 2.2.2	35th ST PIER WEST	56,500	1.3
AREA 2.3	39th ST PIER SOUTH	150,200	3.4
TOTALS		620,700	14.2

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**PROPOSED DREDGING SUMMARY  
& SPECIAL CONDITONS**

SCALE: 1" = 500'

**LEGEND:**

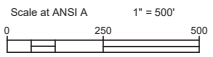
- |  |                                     |                              |
|--|-------------------------------------|------------------------------|
| -27.0 (MHW)<br>-25.0 (NAVD 88)<br>-22.1 (MLLW) | DESIGN DREDGE DEPTHS FOR NAVIGATION | (MHW)<br>(NAVD 88)<br>(MLLW) |
|--|-------------------------------------|------------------------------|
- |          |  |
|----------|--|
|          | FEDERAL CHANNEL LIMITS                                       |
|          | USABLE TERMINAL BOUNDARY                                     |
| ▽      ▽ | MEAN HIGH WATER SPRING (MHWS) +0.89 FT LIMITS                |
|          | MEAN HIGH WATER (MHW) +0.00 FT LIMITS                        |
| ∧      ∧ | MEAN LOW WATER (MLW) -4.70 FT LIMITS                         |
|          | EXTENT OF SUBSEA CABLE TRENCH NOT INCLUDED UNDER THIS PERMIT |
|          | LIMITS OF BASIN DREDGING                                     |

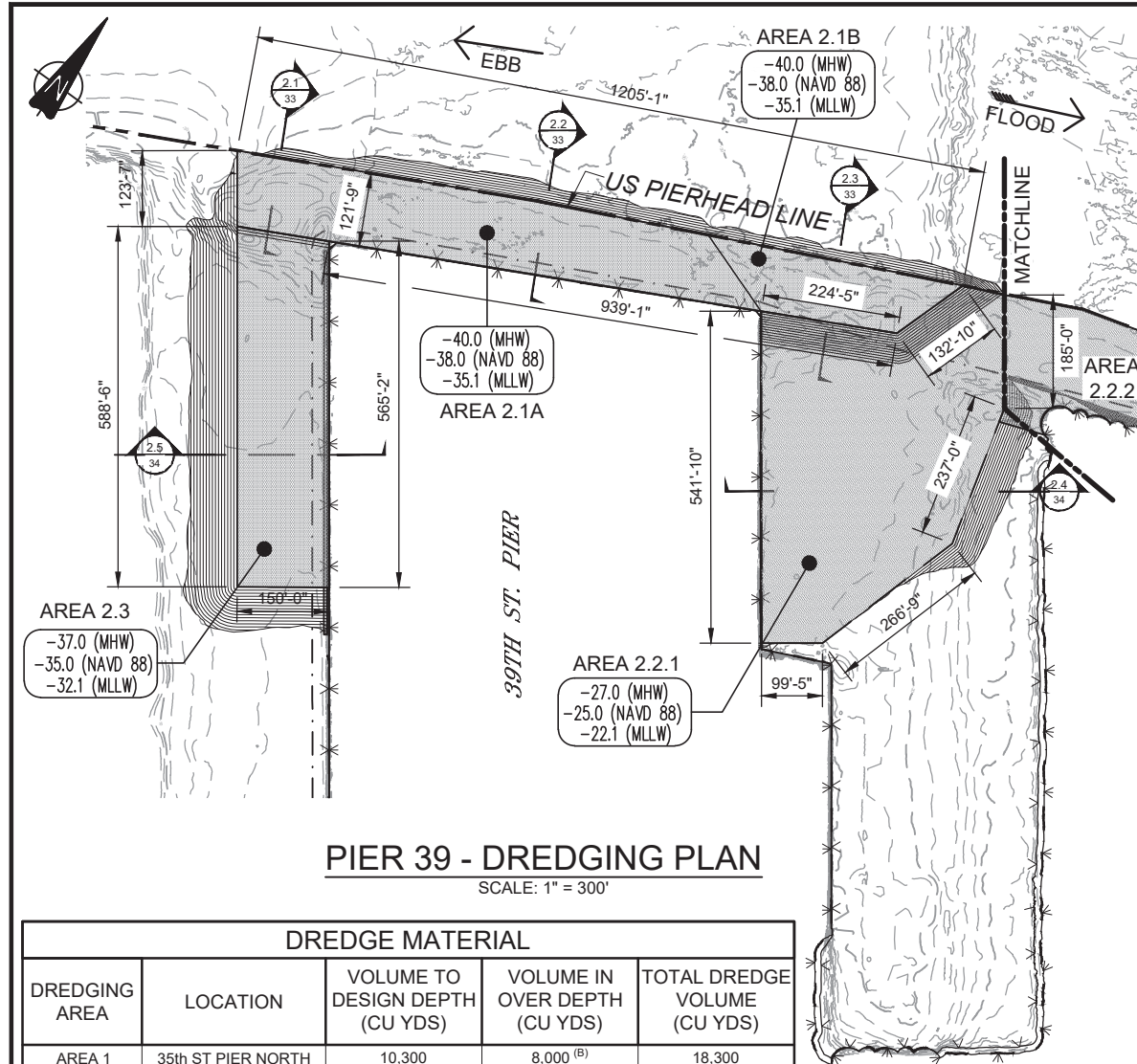
EXTENT OF SUBSEA CABLE TRENCH NOT INCLUDED UNDER THIS PERMIT

**SPECIAL CONDITIONS**

1. DUE TO CLASS C CONTAMINATION IN THE DREDGE MATERIAL, MONITORING OF THE OVERLYING DECANT WATER WILL BE REQUIRED. PRIOR TO COMMENCEMENT OF DREDGING, THE DREDGE CONTRACTOR SHALL SUBMIT A DETAILED DEWATERING PLAN TO NYSDEC FOR REVIEW AND APPROVAL.
2. DUE TO CLASS C CONTAMINATION IN THE DREDGE MATERIAL, AN ENVIRONMENTAL BUCKET WITH THE FOLLOWING CRITERIA MUST BE DETAILED FOR USE IN THE DREDGE PLAN:
  - A. CLOSED (SEALED) ENVIRONMENTAL (CLAMSHELL) BUCKET WITH SEALING GASKETS OR AN OVERLAPPING SEALED DESIGN AT THE JAWS AND SEALS OR FLAPS POSITIONED AT LOCATIONS OF VENT OPENINGS SHALL BE USED TO MINIMIZE SEDIMENT RE-SUSPENSION AT THE DREDGING SITE.
  - B. SEALS OR FLAPS DESIGNED OR INSTALLED AT THE JAWS AND LOCATIONS OF VENT OPENINGS MUST TIGHTLY COVER THESE OPENINGS WHILE THE BUCKET IS LIFTED THROUGH THE WATER COLUMN AND INTO THE BARGE.
  - C. THE CLOSED ENVIRONMENTAL (CLAMSHELL) BUCKET DREDGE SHALL BE EQUIPPED WITH SENSORS TO ENSURE COMPLETE CLOSURE OF THE BUCKET BEFORE LIFTING THROUGH THE WATER.
3. TURBIDITY CURTAINS SHALL BE POSITIONED TO ENCLOSE DREDGE WORK AREA 1, AREA 2.2.1 AND 2.3 PRIOR TO THE COMMENCEMENT OF DREDGING ACTIVITIES. THE CURTAINS WILL REMAIN IN PLACE FOR AT LEAST TWO HOURS AFTER DREDGING IS COMPLETED. ALL DREDGING AND BARGE DECANTING WILL TAKE PLACE WITHIN THE CONFINES OF THE TURBIDITY CURTAIN ENCLOSURE, WHICH WILL BE REGULARLY INSPECTED AND MAINTAINED TO ENSURE CONTINUOUS PROPER OPERATION. UPON OBSERVATION OF A PLUME OUTSIDE THE CONFINES OF THE TURBIDITY CURTAIN, THE CONTAINMENT AREA SHALL BE EXAMINED FOR BREACHES. ANY IDENTIFIED BREACHES IN THE CURTAIN SHALL BE IMMEDIATELY REPAIRED.
4. VISUAL MONITORING WILL BE PERFORMED DURING DREDGING TO MONITOR IMPACTS ON WATER QUALITY. IN AREAS WHERE TURBIDITY CURTAINS ARE NOT UTILIZED, VISUAL MONITORING WILL BE PERFORMED DURING DREDGING TO MONITOR IMPACTS ON WATER QUALITY. IF A SUBSTANTIAL VISIBLE CONTRAST TO NATURAL CONDITIONS (AS DEFINED AT 6 NYCRR PART 703.2) IS OBSERVED BEYOND THE MIXING ZONE, DREDGING ACTIVITIES WILL BE REDUCED TO MINIMIZE SEDIMENT RELEASE TO THE WATER COLUMN UNTIL THERE IS NO VISIBLE CONTRAST.

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**PIER 39 - DREDGING PLAN**

SCALE: 1" = 300'

**GENERAL NOTES**

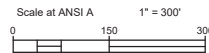
- HORIZONTAL CONTROL IS NY STATE PLANE COORDINATE SYSTEM NAD 1983, LONG ISLAND LAMBERT - ZONE 3104, US SURVEY FEET.
- AN ESTIMATED TOTAL VOLUME OF 189,000 CY OF SEDIMENTS WILL BE REMOVED VIA MECHANICAL DREDGING (NEW DREDGING). ALL DREDGED MATERIAL WILL BE MOVED OFFSITE VIA BARGE AND DISPOSED OF OFFSITE, IN AN UPLAND LOCATION APPROVED IN ADVANCE BY NYSDEC, IN ACCORDANCE WITH ALL REGULATIONS AND PERMIT REQUIREMENTS.
- DESIGN DREDGE DEPTHS ARE THE REQUIRED DEPTHS FOR SHIP BERTHING. THESE DEPTHS DO NOT INCLUDE AN OVER DREDGE.
- DREDGE BASINS SHOWN DEPICT THE AREA OF CONSTANT DREDGE DEPTH. SIDE SLOPES OF 4H:1V UNLESS OTHERWISE NOTED, WILL BE EXTENDED OUTWARD TO CREATE A STABLE SLOPE TO TRANSITION FROM THE DESIGN BASIN TO ADJACENT AREAS OF THE SEABED. OVER DREDGE WILL NOT BE PERFORMED ON SIDE SLOPES.
- BARGE POSITIONING METHOD TO BE DETERMINED.
- REFER TO FIGURES 32, 33 AND 34 FOR CROSS SECTIONS AT THE DREDGING AREA LOCATIONS.
- AN ADDITIONAL 3 FEET OF SAND CAP DEEPENING BENEATH THE NAVIGATION DESIGN DREDGE DEPTH IS PROVIDED IN AREA 2.1 AND AREA 2.3 TO ACCOMMODATE A 1 FEET SAND CAP. SEE CROSS SECTIONS ON SHEETS 32-34.

**LEGEND:**

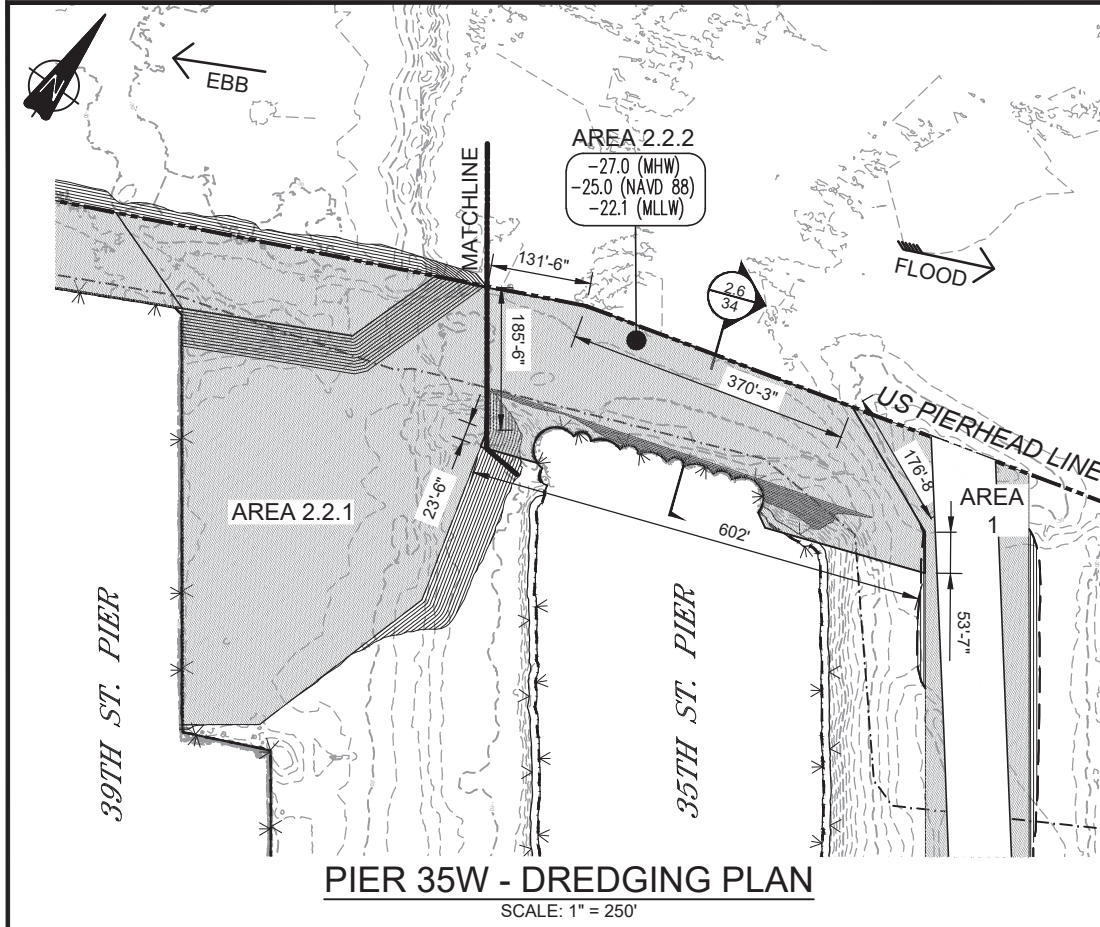
- 27.0 (MHW)  
-25.0 (NAVD 88)  
-22.1 (MLLW) DESIGN DREDGE DEPTHS FOR NAVIGATION (MHW, NAVD 88, MLLW)
- FEDERAL CHANNEL LIMITS
- USABLE TERMINAL BOUNDARY
- vv MEAN HIGH WATER SPRING (MHWs) +0.89 FT LIMITS
- MEAN HIGH WATER (MHW) +0.00 FT LIMITS
- ^^ MEAN LOW WATER (MLW) -4.70 FT LIMITS
- LIMITS OF BASIN DREDGING

DREDGE MATERIAL				
DREDGING AREA	LOCATION	VOLUME TO DESIGN DEPTH (CU YDS)	VOLUME IN OVER DEPTH (CU YDS)	TOTAL DREDGE VOLUME (CU YDS)
AREA 1	35th ST PIER NORTH	10,300	8,000 <sup>(B)</sup>	18,300
AREA 2.1A	39th ST PIER WEST	44,500 <sup>(A)</sup>	3,500 <sup>(C)</sup>	48,000
AREA 2.1B	39th ST PIER WEST	5,700	2,400 <sup>(B)</sup>	8,100
AREA 2.2.1	39th ST PIER NORTH	11,000	12,900 <sup>(B)</sup>	23,900
AREA 2.2.2	35th ST PIER WEST	4,100	3,700 <sup>(B)</sup>	7,800
AREA 2.3	39th ST PIER SOUTH	79,600 <sup>(A)</sup>	3,300 <sup>(C)</sup>	82,900
TOTALS		155,200	33,800	189,000

- (A) TOTAL VOLUME INCLUDES SAND CAP DEEPENING BUT EXCLUDING OVERDREDGE.  
 (B) VOLUME ALLOWS FOR 2 FT OVER DEPTH ALLOWANCE  
 (C) VOLUME ACCOUNTS FOR 1 FT OVER DEPTH ALLOWANCE.



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**PIER 35W - DREDGING PLAN**  
SCALE: 1" = 250'

**GENERAL NOTES**

1. HORIZONTAL CONTROL IS NY STATE PLANE COORDINATE SYSTEM NAD 1983, LONG ISLAND LAMBERT - ZONE 3104, US SURVEY FEET.
2. AN ESTIMATED TOTAL VOLUME OF 189,000 CY OF SEDIMENTS WILL BE REMOVED VIA MECHANICAL DREDGING (NEW DREDGING). ALL DREDGED MATERIAL WILL BE MOVED OFFSITE VIA BARGE AND DISPOSED OF OFFSITE, IN AN UPLAND LOCATION APPROVED IN ADVANCE BY NYSDEC, IN ACCORDANCE WITH ALL REGULATIONS AND PERMIT REQUIREMENTS.
3. DESIGN DREDGE DEPTHS ARE THE REQUIRED DEPTHS FOR SHIP BERTHING. THESE DEPTHS DO NOT INCLUDE AN OVER DREDGE.
4. DREDGE BASINS SHOWN DEPICT THE AREA OF CONSTANT DREDGE DEPTH. SIDE SLOPES OF 4H:1V UNLESS OTHERWISE NOTED, WILL BE EXTENDED OUTWARD TO CREATE A STABLE SLOPE TO TRANSITION FROM THE DESIGN BASIN TO ADJACENT AREAS OF THE SEABED. OVER DREDGE WILL NOT BE PERFORMED ON SIDE SLOPES
5. BARGE POSITIONING METHOD TO BE DETERMINED.
6. REFER TO FIGURES 32, 33 AND 34 FOR CROSS SECTIONS AT THE DREDGING AREA LOCATIONS.

**LEGEND:**

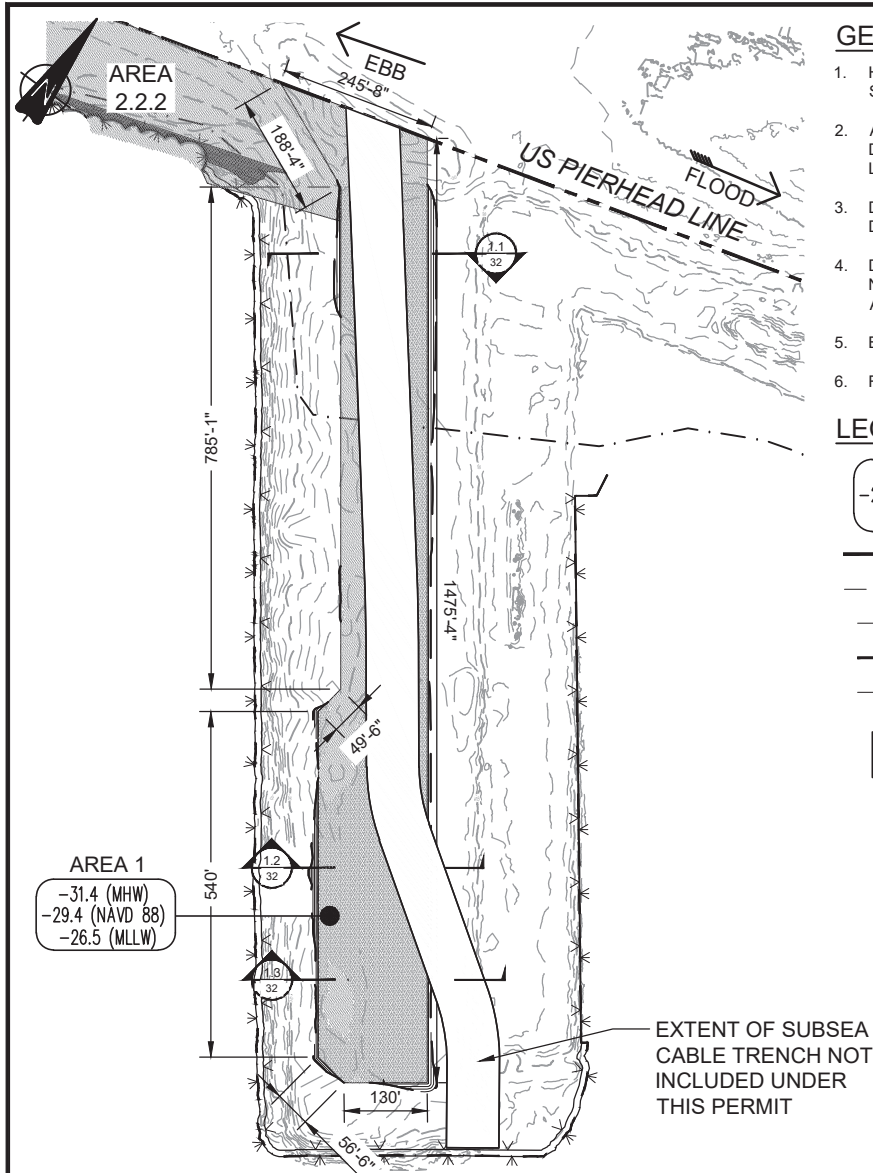
- 27.0 (MHW)  
-25.0 (NAVD 88)  
-22.1 (MLLW) DESIGN DREDGE DEPTHS FOR NAVIGATION (MHW) (NAVD 88) (MLLW)
- FEDERAL CHANNEL LIMITS
- - - - - USABLE TERMINAL BOUNDARY
- ∇ ∇ MEAN HIGH WATER SPRING (MHS) +0.89 FT LIMITS
- MEAN HIGH WATER (MHW) +0.00 FT LIMITS
- ∧ ∧ MEAN LOW WATER (MLW) -4.70 FT LIMITS
- EXTENT OF SUBSEA CABLE TRENCH NOT INCLUDED UNDER THIS PERMIT
- LIMITS OF BASIN DREDGING

DREDGE MATERIAL				
DREDGING AREA	LOCATION	VOLUME TO DESIGN DEPTH (CU YDS)	VOLUME IN OVER DEPTH (CU YDS)	TOTAL DREDGE VOLUME (CU YDS)
AREA 1	35th ST PIER NORTH	10,300	8,000 <sup>(B)</sup>	18,300
AREA 2.1A	39th ST PIER WEST	44,500 <sup>(A)</sup>	3,500 <sup>(C)</sup>	48,000
AREA 2.1B	39th ST PIER WEST	5,700	2,400 <sup>(B)</sup>	8,100
AREA 2.2.1	39th ST PIER NORTH	11,000	12,900 <sup>(B)</sup>	23,900
AREA 2.2.2	35th ST PIER WEST	4,100	3,700 <sup>(B)</sup>	7,800
AREA 2.3	39th ST PIER SOUTH	79,600 <sup>(A)</sup>	3,300 <sup>(C)</sup>	82,900
TOTALS		155,200	33,800	189,000

(A) TOTAL VOLUME INCLUDES SAND CAP DEEPENING BUT EXCLUDING OVERDREDGE.  
 (B) VOLUME ALLOWS FOR 2 FT OVER DEPTH ALLOWANCE  
 (C) VOLUME ACCOUNTS FOR 1 FT OVER DEPTH ALLOWANCE.



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**PIER 35N - DREDGING PLAN - AREA 1**

SCALE: 1" = 300'

- (A) TOTAL VOLUME INCLUDES SAND CAP DEEPENING BUT EXCLUDING OVERDREDGE.
- (B) VOLUME ALLOWS FOR 2 FT OVER DEPTH ALLOWANCE
- (C) VOLUME ACCOUNTS FOR 1 FT OVER DEPTH ALLOWANCE.

**GENERAL NOTES**

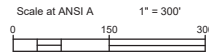
1. HORIZONTAL CONTROL IS NY STATE PLANE COORDINATE SYSTEM NAD 1983, LONG ISLAND LAMBERT - ZONE 3104, US SURVEY FEET.
2. AN ESTIMATED TOTAL VOLUME OF 189,000 CY OF SEDIMENTS WILL BE REMOVED VIA MECHANICAL DREDGING (NEW DREDGING). ALL DREDGED MATERIAL WILL BE MOVED OFFSITE VIA BARGE AND DISPOSED OF OFFSITE, IN AN UPLAND LOCATION APPROVED IN ADVANCE BY NYSDEC, IN ACCORDANCE WITH ALL REGULATIONS AND PERMIT REQUIREMENTS.
3. DESIGN DREDGE DEPTHS ARE THE REQUIRED DEPTHS FOR SHIP BERTHING. THESE DEPTHS DO NOT INCLUDE AN OVER DREDGE.
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5. BARGE POSITIONING METHOD TO BE DETERMINED.
6. REFER TO FIGURES 32, 33 AND 34 FOR CROSS SECTIONS AT THE DREDGING AREA LOCATIONS.

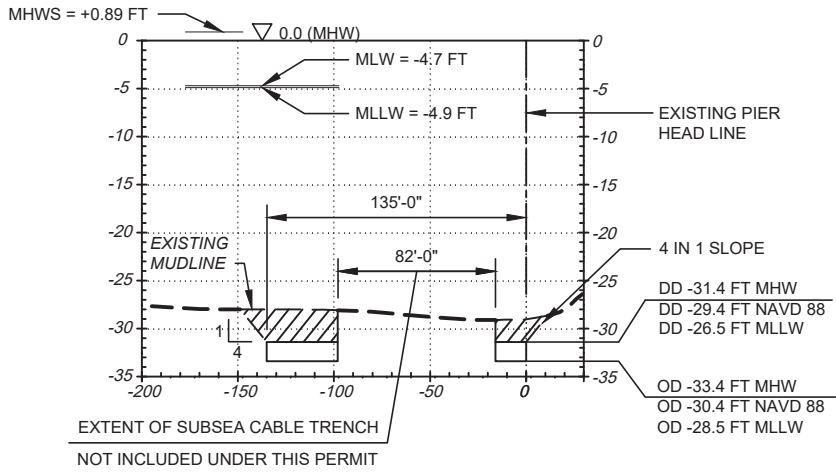
**LEGEND:**

- 31.4 (MHW)  
-25.0 (NAVD 88)  
-26.5 (MLLW) DESIGN DREDGE DEPTHS FOR NAVIGATION (MHW) (NAVD 88) (MLLW)
- FEDERAL CHANNEL LIMITS
- USABLE TERMINAL BOUNDARY
- MEAN HIGH WATER SPRING (MHWS) +0.89 FT LIMITS
- MEAN HIGH WATER (MHW) 0.00 FT LIMITS
- MEAN LOW WATER (MLW) -4.70 FT LIMITS
- EXTENT OF SUBSEA CABLE TRENCH NOT INCLUDED UNDER THIS PERMIT
- LIMITS OF BASIN DREDGING

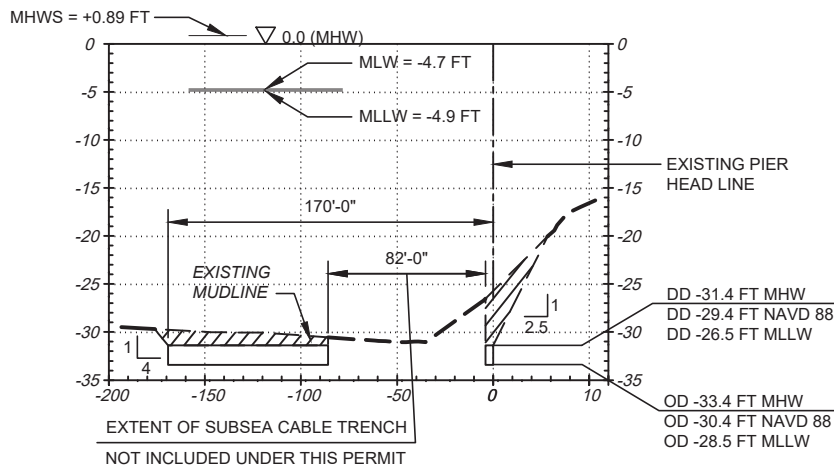
DREDGE MATERIAL				
DREDGING AREA	LOCATION	VOLUME TO DESIGN DEPTH (CU YDS)	VOLUME IN OVER DEPTH (CU YDS)	TOTAL DREDGE VOLUME (CU YDS)
AREA 1	35th ST PIER NORTH	10,300	8,000 <sup>(B)</sup>	18,300
AREA 2.1A	39th ST PIER WEST	44,500 <sup>(A)</sup>	3,500 <sup>(C)</sup>	48,000
AREA 2.1B	39th ST PIER WEST	5,700	2,400 <sup>(B)</sup>	8,100
AREA 2.2.1	39th ST PIER NORTH	11,000	12,900 <sup>(B)</sup>	23,900
AREA 2.2.2	35th ST PIER WEST	4,100	3,700 <sup>(B)</sup>	7,800
AREA 2.3	39th ST PIER SOUTH	79,600 <sup>(A)</sup>	3,300 <sup>(C)</sup>	82,900
TOTALS		155,200	33,800	189,000

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**PIER 35N-DREDGING  
TYPICAL SECTION - AREA 1**  
1.1  
31  
SCALES: HORIZ: 1" = 100' / VERT: 1" = 20'



**PIER 35N-DREDGING  
TYPICAL SECTION - AREA 1**  
1.2  
31  
SCALES: HORIZ: 1" = 100' / VERT: 1" = 20'

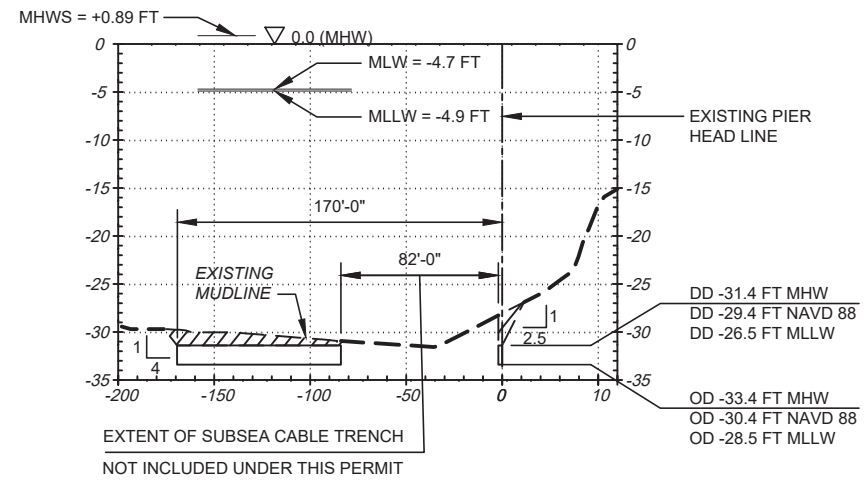
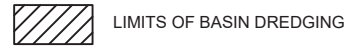
**GENERAL NOTES**

- ELEVATIONS AND LEVEL SHOWN IN FEET RELATIVE TO BOTH MEAN HIGH WATER, NAVD 88 AND MEAN LOWER LOW WATER AS NOTED.
- FEDERAL CHANNEL LIMITS SHOWN ARE APPROXIMATE, OBTAINED FROM NOAA CHART NO. 123334.

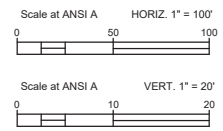
**ABBREVIATIONS:**

- DD ..... DESIGN DEPTH
- SCD ..... SAND CAP DEEPENING
- OD ..... ALLOWABLE OVER DEPTH

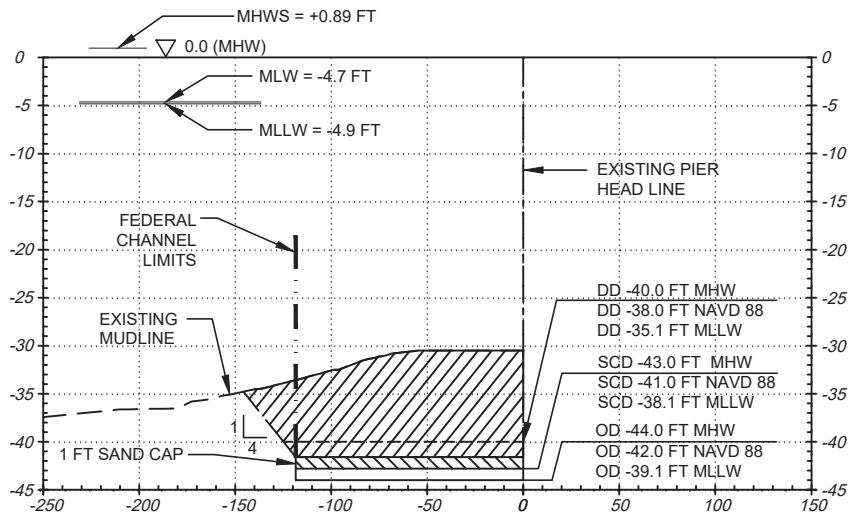
**LEGEND:**



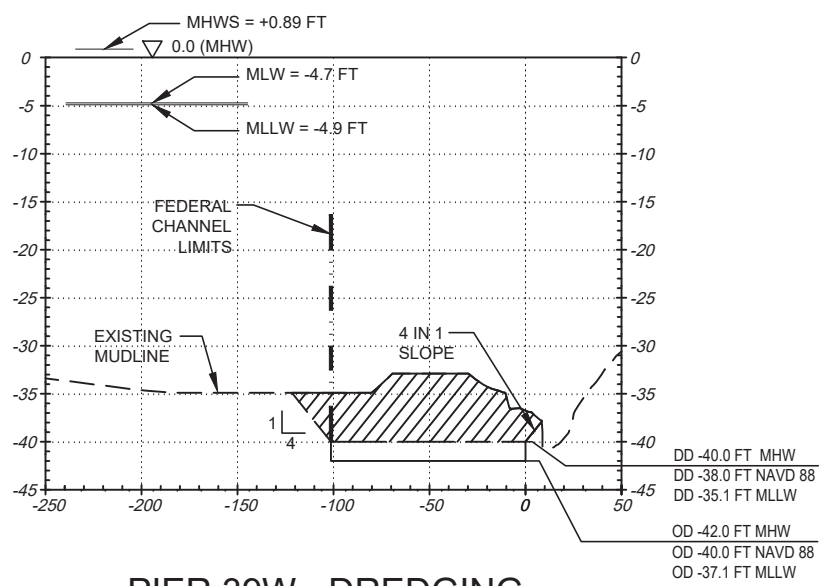
**PIER 35N-DREDGING  
TYPICAL SECTION - AREA 1**  
1.3  
31  
SCALES: HORIZ: 1" = 100' / VERT: 1" = 20'



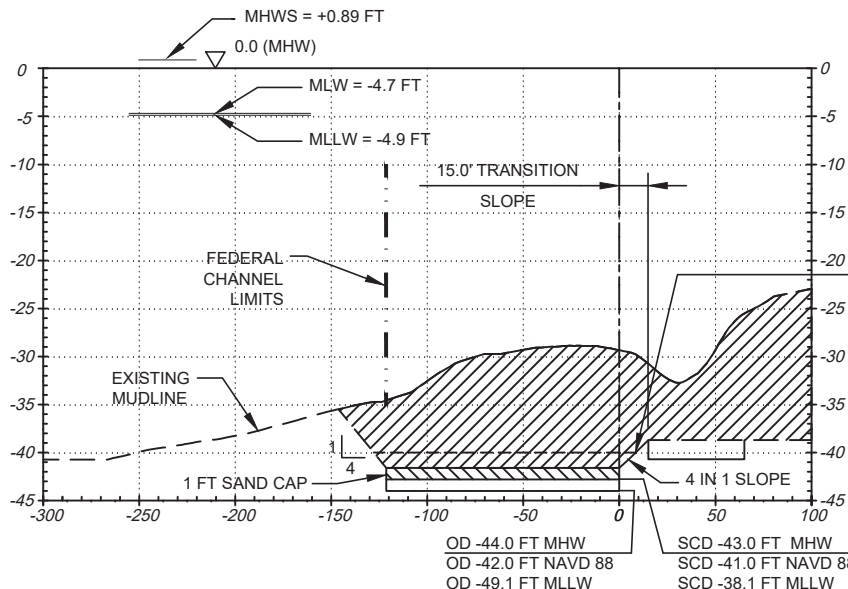
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**PIER 39W - DREDGING**  
**2.2**  
**29**  
**TYPICAL SECTION - AREA 2.1A**  
 SCALES: HORIZ: 1" = 100' / VERT: 1" = 20'



**PIER 39W - DREDGING**  
**2.3**  
**29**  
**TYPICAL SECTION - AREA 2.1B**  
 SCALES: HORIZ: 1" = 100' / VERT: 1" = 20'



**PIER 39W - DREDGING**  
**2.1**  
**29**  
**TYPICAL SECTION - AREA 2.1A**  
 SCALES: HORIZ: 1" = 100' / VERT: 1" = 20'

DD -40.0 FT MHW  
 DD -38.0 FT NAVD 88  
 DD -35.1 FT MLLW



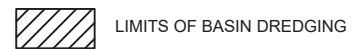
**GENERAL NOTES**

1. ELEVATIONS AND LEVEL SHOWN IN FEET RELATIVE TO BOTH MEAN HIGH WATER, NAVD 88 AND MEAN LOWER LOW WATER AS NOTED.
2. FEDERAL CHANNEL LIMITS SHOWN ARE APPROXIMATE, OBTAINED FROM NOAA CHART NO. 123334.
3. 3 FEET SAND CAP DEEPENING IN AREA 2.1A TO ACCOMMODATE 1 FEET SAND SAND.

**ABBREVIATIONS:**

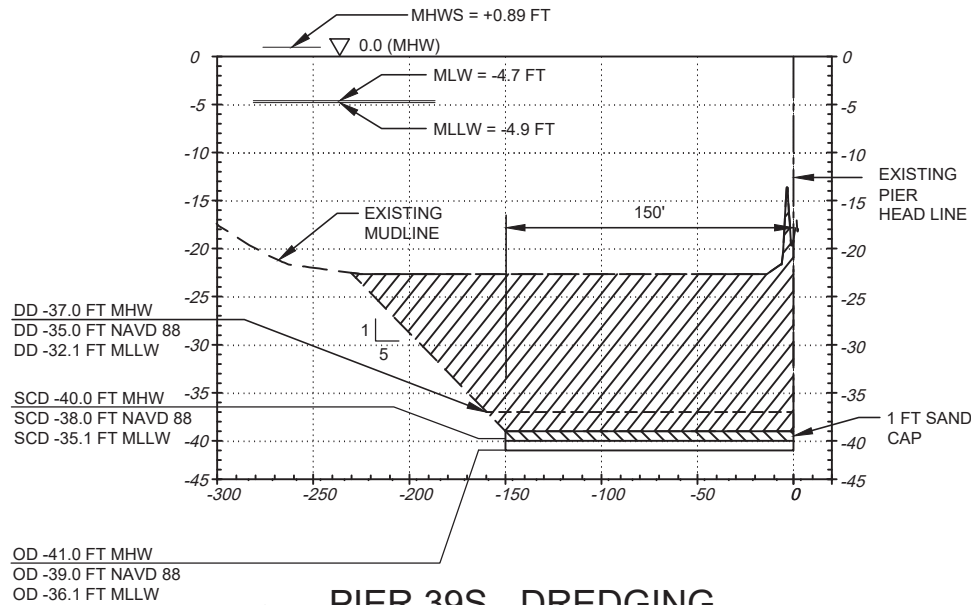
- DD ..... DESIGN DEPTH
- SCD ..... SAND CAP DEEPENING
- OD ..... ALLOWABLE OVER DEPTH

**LEGEND:**

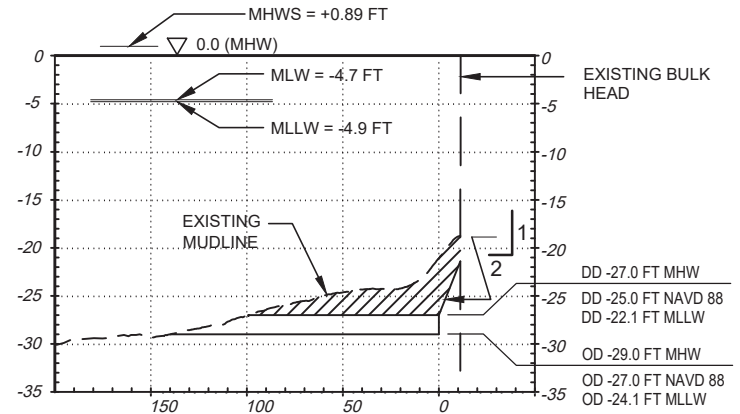


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**2.5**  
**PIER 39S - DREDGING**  
**TYPICAL SECTION - AREA 2.3**  
 SCALES: HORIZ: 1" = 100' / VERT: 1" = 20'



**2.6**  
**PIER 35W - DREDGING**  
**TYPICAL SECTION - AREA 2.2**  
 SCALES: HORIZ: 1" = 100' / VERT: 1" = 20'

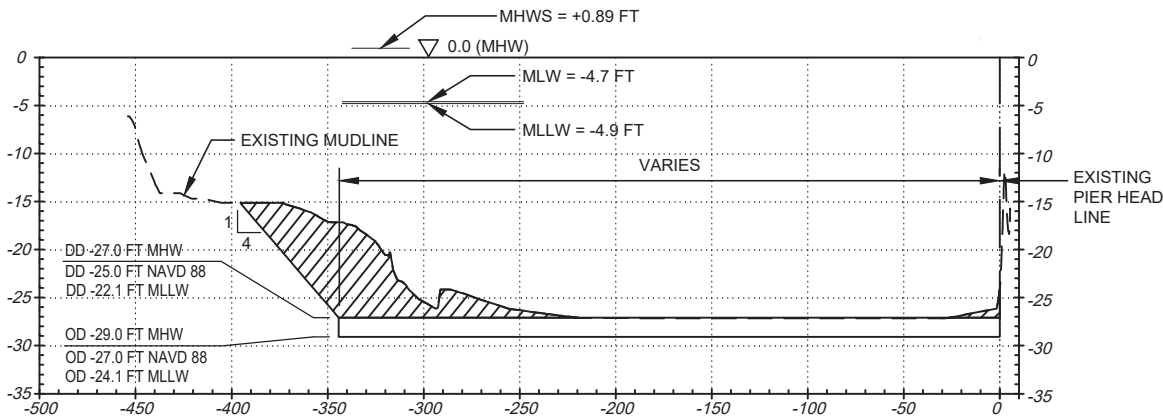
**GENERAL NOTES**

- ELEVATIONS AND LEVEL SHOWN IN FEET RELATIVE TO BOTH MEAN HIGH WATER, NAVD 88 AND MEAN LOWER LOW WATER AS NOTED.
- FEDERAL CHANNEL LIMITS SHOWN ARE APPROXIMATE, OBTAINED FROM NOAA CHART NO. 123334.
- 3 FEET SAND CAP DEEPENING IN AREA 2.3 TO ACCOMMODATE 1 FEET SAND CAP.

**ABBREVIATIONS:**

- DD ..... DESIGN DEPTH  
 SCD..... SAND CAP DEEPENING  
 OD ..... ALLOWABLE OVER DEPTH

**LEGEND:**



**2.4**  
**PIER 39N - DREDGING**  
**TYPICAL SECTION - AREA 2.2.1**  
 SCALES: HORIZ: 1" = 100' / VERT: 1" = 20'



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