

# 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 reply to:  
Public Notice Number: NAN-2019-01564-ESW  
Issue Date: February 11, 2020  
Expiration Date: March 12, 2020

To Whom It May Concern:

The New York District, Corps of Engineers has received several applications for 5 Department of the Army permits 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) to reconfigure new ferry landings at five locations as part of the ongoing New York City ferry system expansion.

**APPLICANT:** New York City Economic Development Corporation  
1 Liberty Plaza  
New York, New York 10006

**ACTIVITY:** Construction of new landings and reconfigured ferry landing structures at five (5) individual locations to expand the existing New York City ferry service

**WATERWAY:** East River and Upper Bay

**LOCATION:** South Williamsburg Ferry Landing, Borough of Brooklyn, Kings County, City of New York, New York (NAN-2019-00899-ESW); Fulton Landing, Borough of Brooklyn, Kings County, City of New York, New York (NAN-2019-00900-ESW); Ferry Point Park, Borough of Bronx, Bronx County, City of New York, New York (NAN-2019-01232-ESW); Richmond Terrace, Borough of Staten Island, Richmond County, City of New York, New York (NAN-2019-01233-ESW); Brooklyn Army Terminal, Borough of Brooklyn, Kings County, City of New York, New York (NAN-2019-01226-ESW)

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

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

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of

Engineers to determine whether to issue, modify, condition or deny a permit for these proposals. To make these decisions, 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 Environmental Assessments and/or an Environmental Impact Statements 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 APPLICATIONS MUST BE PREPARED IN WRITING AND MAILED TO REACH THIS OFFICE BEFORE THE EXPIRATION DATE OF THIS NOTICE, otherwise, it will be presumed that there are no objections to the activity.

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

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

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

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

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

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

CENAN-OP-RE  
PUBLIC NOTICE NO. NAN-2019-01564-ESW

authority of Section 404 (b) of the Clean Water Act and the applicant will obtain water quality certificates or waivers from the appropriate state agency in accordance with Section 401 of the Clean Water Act prior to making the permit decisions.

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 applications that the activities 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 certifications. 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 certifications 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 certifications, and copies of any letters to this office commenting upon this proposal, should be so addressed.

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

- New York State Department of Environmental Conservation

It is requested that you communicate the foregoing information concerning the activities to any persons known by you to be interested and who did not receive a copy of this notice. If you have any questions concerning this application, you may contact this office at (917) 790-8521 and ask for Seika Robinson.

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>.

*Stefan A. Ryba*  
**For and In behalf of**  
Stephan A. Ryba  
Chief, Regulatory Branch

Enclosures

**WORK DESCRIPTION**

The applicant, the New York City Economic Development Corporation, has requested Department of the Army authorization for the construction of various ferry landing structures at multiple locations to expand the existing New York City ferry system. The proposed landings are being reviewed concurrently under separate project application numbers.

**East River**

1. **South Williamsburg Landing (NAN-2019-00899-ESW):** (Latitude 40.70857, Longitude -73.96989) Borough of Brooklyn, Kings County, City of New York, New York: Remove the existing water taxi barge, gangway, and timber fender system. Construct a new 15-foot-wide by 16.5-foot-long concrete platform (with four (4) 16-inch-diameter hollow steel piles filled with approximately 3 cubic yards of flowable concrete within the plane of Spring High Water and a 10-foot-wide by 80-foot-long ramp leading to a 35-foot-wide by 90-foot-long barge (anchored by six (6) 36-inch-diameter hollow steel piles with associated anode cathodic protection) to service up to two ferry vessels at one time. Construct three (3) 36-inch-diameter hollow steel monopiles with floating donut fendering for a total diameter of approximately 72-inches. The total length of structures will extend approximately 156 linear feet into the waterway from the plane of Mean Low Water. The total length of structures and berthed ferries will extend a total of approximately 205 linear feet into the waterway from the plane of Mean Low Water.
2. **Fulton Landing NAN-2019-00900-ESW:** (Latitude 40.7035469, Longitude -73.9952958) Borough of Brooklyn, Kings County, City of New York, New York: Remove the existing water taxi barge, gangway, and timber fender system. Construct a new 15.25-foot-wide by 10.25-foot-long concrete platform (with four (4) 16-inch-diameter hollow steel piles) filled with approximately 2 cubic yards of flowable concrete within the plane of Spring High Water, and a 10-foot-wide by 65-foot-long ramp leading to a 32-foot-wide by 110-foot-long barge (relocated from the 90<sup>th</sup> Street landing) (anchored by six (6) 36-inch-diameter hollow steel piles with associated anode cathodic protection) to service up to two ferry vessels at one time. Construct seven (7) 36-inch-diameter hollow steel monopiles with floating donut fendering for a total diameter of approximately 72-inches. The total length of structures and berthed ferries will extend a total of approximately 180 linear feet into the waterway from the plane of Mean Low Water.
3. **Ferry Point Park Landing NAN-2019-01232-ESW:** (Latitude 40.8059659, Longitude -73.8370974) Ferry Point Park, Borough of Bronx, Bronx County, City of New York, New York: Construct a new 15-foot-wide by 80-foot-long upland concrete platform and a 10-foot-wide by 80-foot-long ramp leading to a 15-foot-wide by 10-foot-long platform and another 10-foot-wide by 80-foot-long ramp leading to a 35-foot-wide by 90-foot-long barge (anchored by six (6) 36-inch-diameter hollow steel piles with associated anode cathodic protection) to service up to two ferry vessels at one time. Both platforms will be supported by eight (8) 18-inch diameter hollow steel piles filled with approximately two cubic yards of flowable concrete within the plane of Spring High Water. Construct four (4) 36-inch-diameter hollow steel monopiles with floating donut fendering for a total diameter of approximately 72-inches. The total length of structures and berthed ferries will extend a total of approximately 160 linear feet into the waterway from the plane of Mean Low Water.

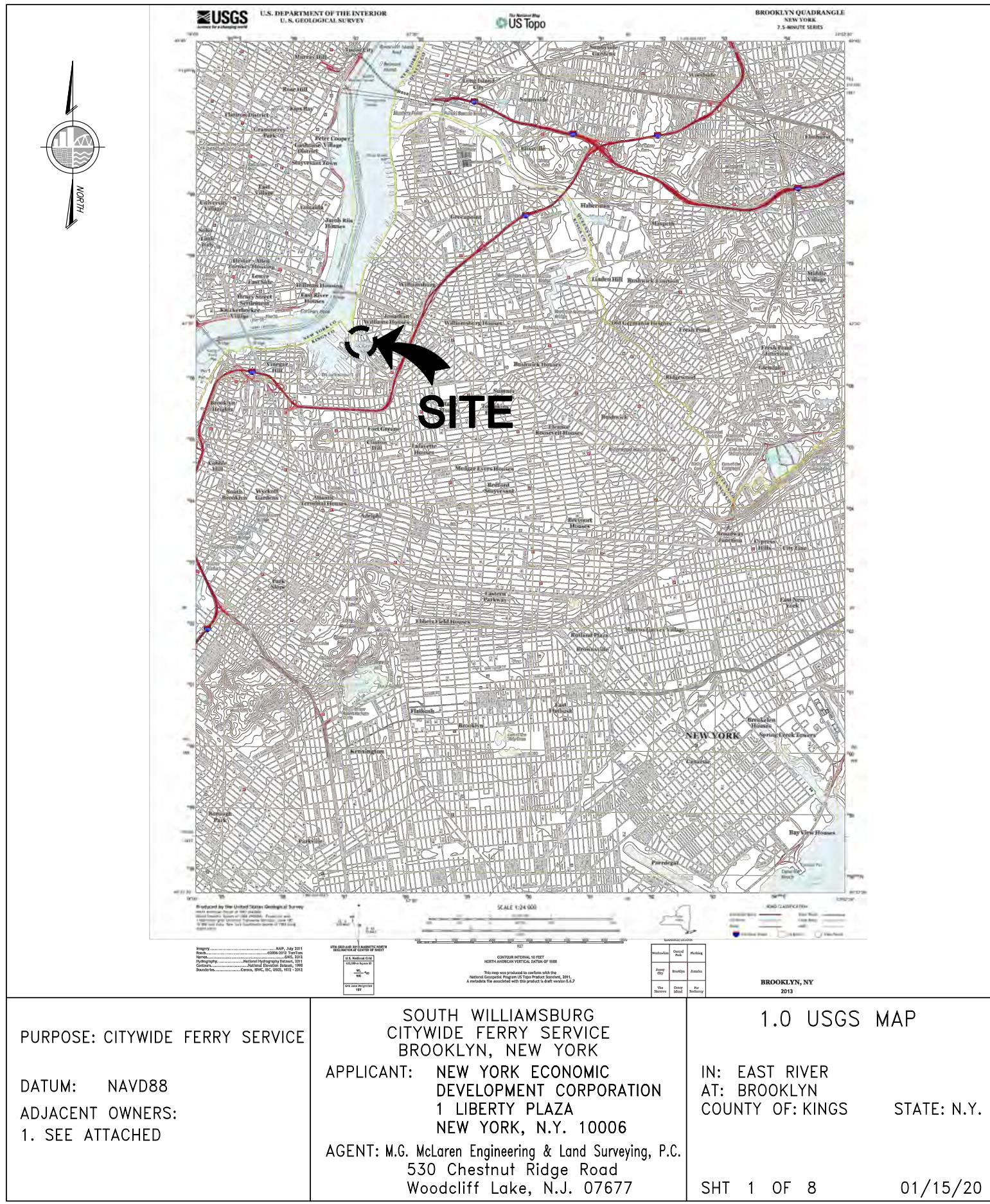
**Upper Bay**

4. **St. George Landing NAN-2019-01233-ESW:** Latitude 40.6456277, Longitude -74.0749734) Richmond Terrace, Borough of Staten Island, Richmond County, City of New York, New York: Construct a new 20-foot-wide by 163-foot-long concrete pier supported by twenty-seven (27) 24-inch diameter hollow steel piles filled with approximately 28-cubic yards of flowable concrete within the plane of Spring High Water. Extending from the concrete pier, construct a 10-foot-wide by 80-foot-long ramp leading to a 35-foot-wide by 90-foot-long barge (anchored by eight (8) 36-inch-diameter hollow steel piles with associated anode cathodic protection) to service up to two ferry vessels at one time. Construct six (6) 36-inch-diameter hollow steel monopiles with floating donut fendering for a total diameter of approximately 72-inches. The total length of structures will extend approximately 345 linear feet into the waterway from the plane of Mean High Water. The total length of structures and berthed ferries will extend a total of approximately 376 linear feet into the waterway from the plane of Mean High Water.
5. **Brooklyn Army Terminal Pier 4 North Landing NAN-2019-01226-ESW:** (Latitude 40.64716, Longitude -74.02624) Brooklyn Army Terminal, Borough of Brooklyn, Kings County, City of New York, New York: Construct a new 15-foot-wide by 5-foot-long concrete platform (with two (2) 24-inch-diameter hollow steel piles) and a 10-foot-wide by 65-foot-long ramp leading to an approximately 35-foot-wide by 108.5-foot-long barge (anchored by six (6) 36-inch-diameter hollow steel piles) to service up to two ferry vessels at one time. The total length of structures will extend approximately 171 linear feet into the waterway. The total length of structures and berthed ferries will extend a total of approximately 323 linear feet into the waterway.

Additional regulated work includes the removal and replacement of approximately 423-linear feet of timber fendering system (including 59, 12-inch diameter piles) along Pier 4 at the Brooklyn Army Terminal. An additional 517-linear feet of fendering system will also be constructed along Pier 4 including 123 additional 12-inch diameter timber piles.

The applicant has avoided, minimized, and mitigated for impacts by utilizing best management practices such as turbidity curtains around the work areas and a 20-minute soft-start during pile driving prior to utilizing impact hammering for aquatic species to leave the area before sound pressure increases.

The stated purpose of the project is to expand the existing New York City Ferry System to provide an affordable and convenient transportation system, connecting residential areas to business districts and employment centers.





PURPOSE: CITYWIDE FERRY SERVICE  
DATUM: NAVD88  
ADJACENT OWNERS:  
1. SEE ATTACHED

SOUTH WILLIAMSBURG  
CITYWIDE FERRY SERVICE  
BROOKLYN, NEW YORK  
APPLICANT: NEW YORK ECONOMIC  
DEVELOPMENT CORPORATION  
1 LIBERTY PLAZA  
NEW YORK, N.Y. 10006  
AGENT: M.G. McLaren Engineering & Land Surveying, P.C.  
530 Chestnut Ridge Road  
Woodcliff Lake, N.J. 07677

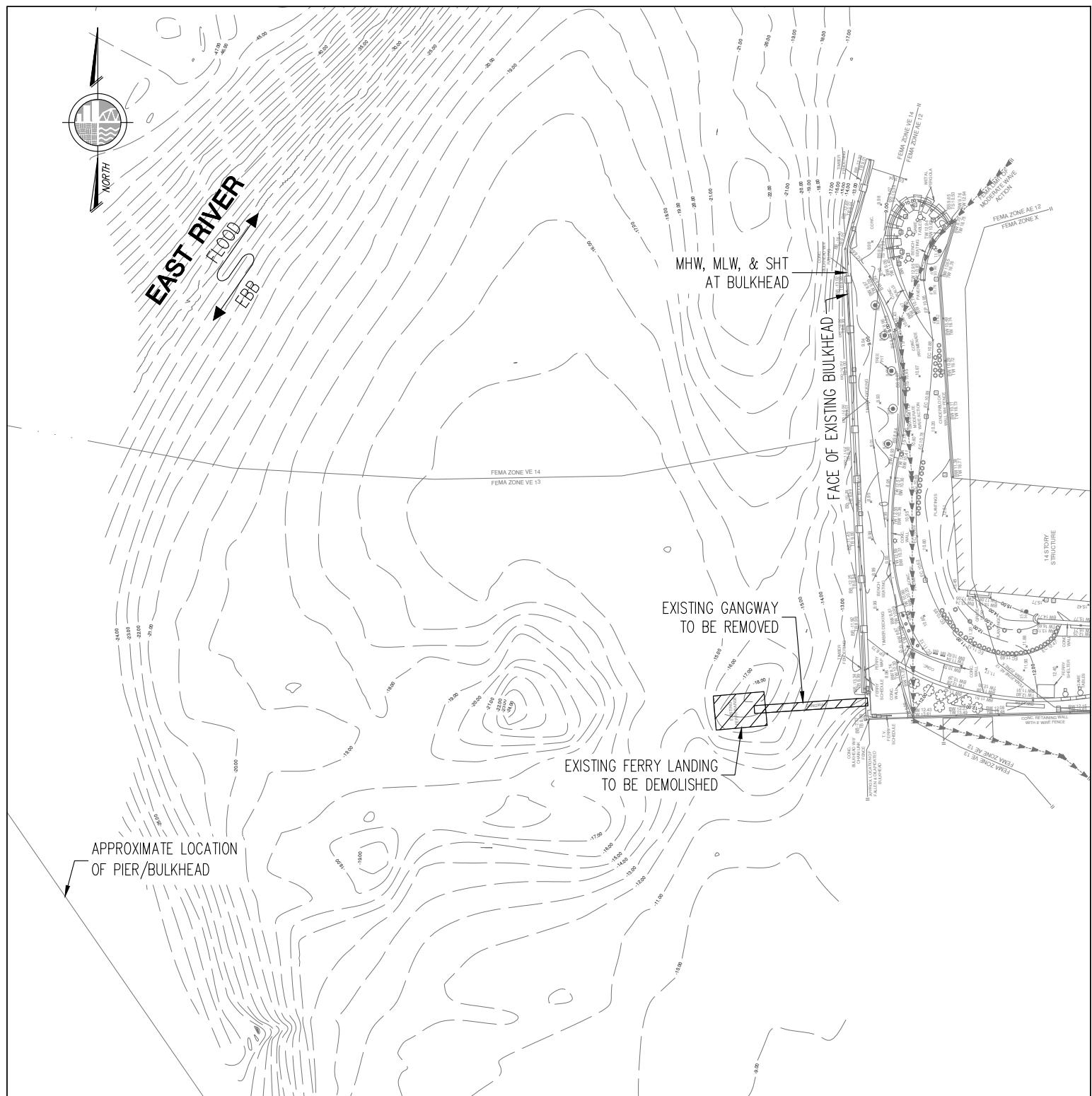
**2.0 LOCATION MAP**  
IN: EAST RIVER  
AT: BROOKLYN  
COUNTY OF: KINGS STATE: N.Y.

TIDAL DATUM CHART	
	NAVD88 (ft)
500-YR RETURN PERIOD	14.0
100-YR RETURN PERIOD	10.9
50-YR RETURN PERIOD	9.7
10-YR RETURN PERIOD	6.9
SPRING HIGH TIDE (SHT)	2.37
MEAN HIGHER-HIGH WATER (MHHW)	2.20
MEAN HIGH WATER (MHW)	1.87
NAVD88	0.00
MEAN DIURNAL TIDE LEVEL (DTL)	-0.21
LOCAL MEAN SEA LEVEL (LMSL)	-0.24
MEAN TIDE LEVEL (MTL)	-0.27
MEAN LOW WATER (MLW)	-2.40
MEAN LOWER-LOW WATER (MLLW)	-2.62

NOTE(S):

1. WATER ELEVATIONS SHOWN FOR PROJECT SITE BASED ON NOAA VDATUM V. 3.7 "NEW JERSEY/NEW YORK/CONNECTICUT-NORTHERN NJ, NY HARBOR, WESTERN LONG ISLAND SOUND, V. 3.7".
2. RETURN PERIOD STILLWATERS ARE EXTRACTED FROM FEMA'S CITY OF NEW YORK PRELIMINARY FLOOD INSURANCE STUDY DATED 12/05/13.

PURPOSE: CITYWIDE FERRY SERVICE  DATUM: NAVD88  ADJACENT OWNERS: 1. SEE ATTACHED	SOUTH WILLIAMSBURG CITYWIDE FERRY SERVICE BROOKLYN, NEW YORK  APPLICANT: NEW YORK ECONOMIC DEVELOPMENT CORPORATION 1 LIBERTY PLAZA NEW YORK, N.Y. 10006  AGENT: M.G. McLaren Engineering & Land Surveying, P.C. 530 Chestnut Ridge Road Woodcliff Lake, N.J. 07677	3.0 TIDAL DATA  IN: EAST RIVER AT: BROOKLYN COUNTY OF: KINGS STATE: N.Y.  SHT 3 OF 8 01/15/20
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PURPOSE: CITYWIDE FERRY SERVICE

DATUM: NAVD88

ADJACENT OWNERS:  
1. SEE ATTACHED

#### SOUTH WILLIAMSBURG CITYWIDE FERRY SERVICE BROOKLYN, NEW YORK

APPLICANT: NEW YORK ECONOMIC  
DEVELOPMENT CORPORATION  
1 LIBERTY PLAZA  
NEW YORK, N.Y. 10006

AGENT: M.G. McLaren Engineering & Land Surveying, P.C.  
530 Chestnut Ridge Road  
Woodcliff Lake, N.J. 07677

#### 4.0 EXISTING SITE PLAN

IN: EAST RIVER

AT: BROOKLYN

COUNTY OF: KINGS

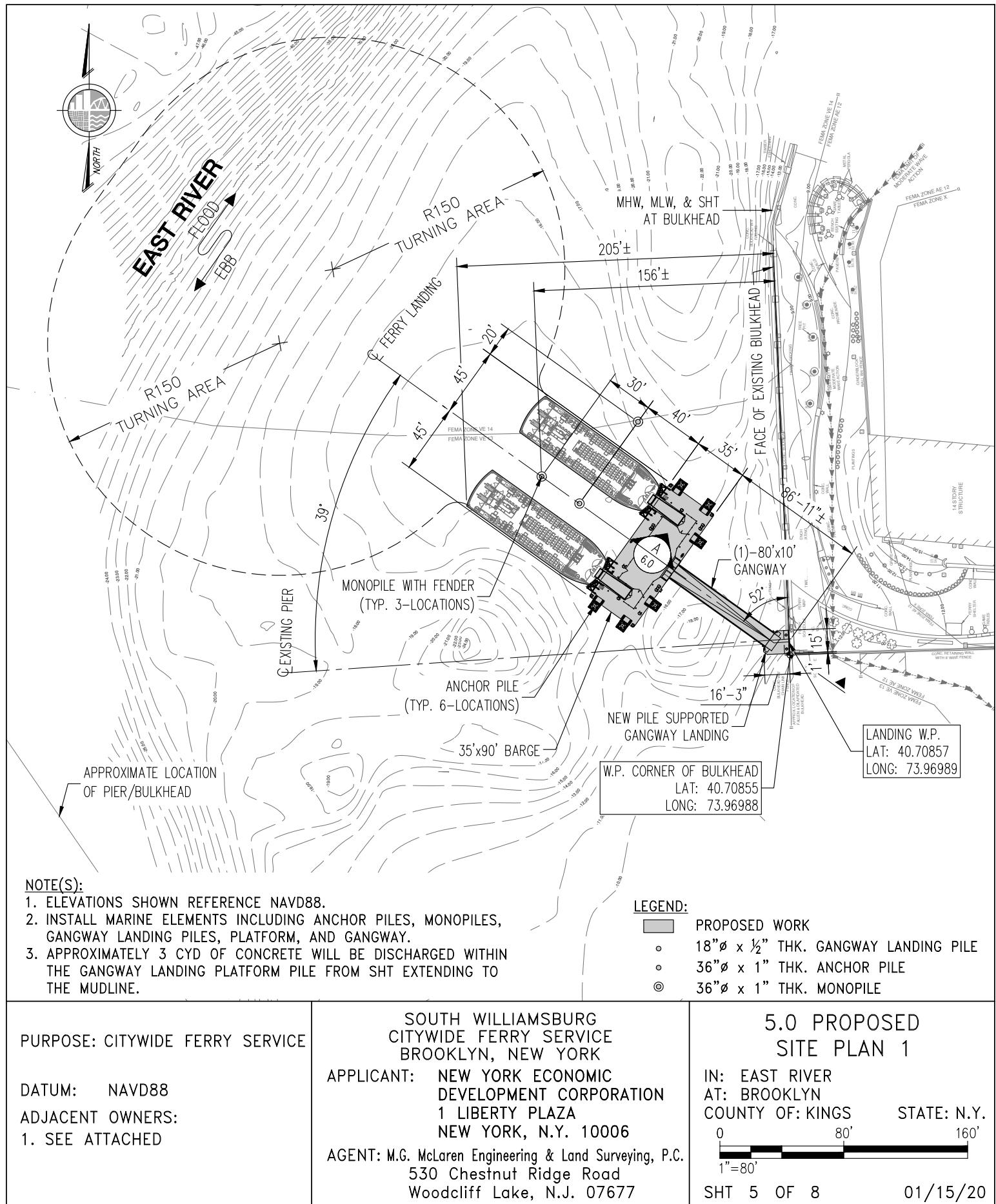
STATE: N.Y.

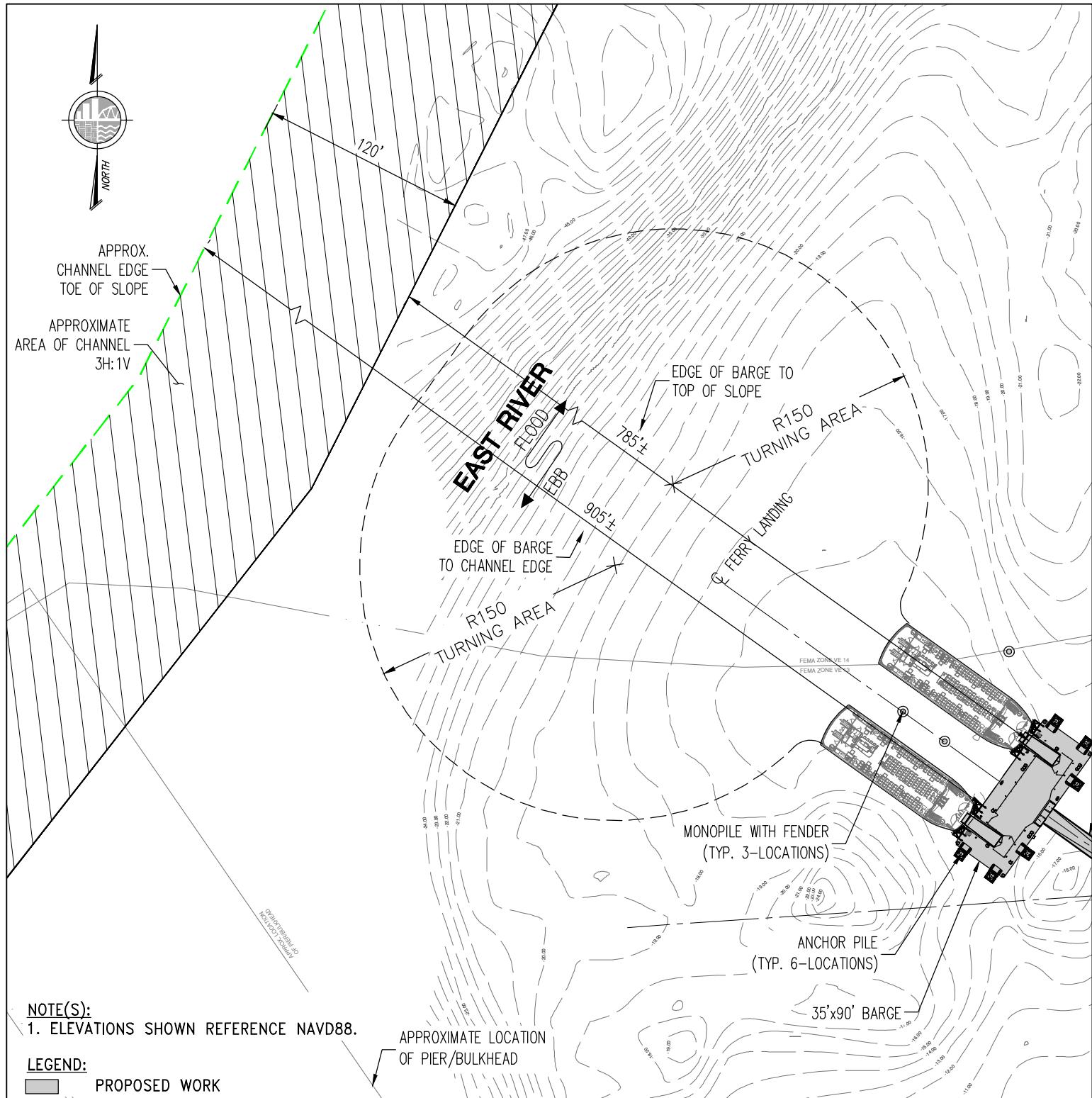
0 80' 160'

1"=80'

SHT 4 OF 8

01/15/20





NOTE(S):

1. ELEVATIONS SHOWN REFERENCE NAVD88.

**LEGEND:**

## PROPOSED WORK

**PURPOSE: CITYWIDE FERRY SERVICE**

DATUM: NAVD88

**ADJACENT OWNERS:**

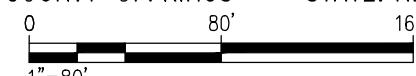
SOUTH WILLIAMSBURG  
CITYWIDE FERRY SERVICE  
BROOKLYN, NEW YORK

APPLICANT: NEW YORK ECONOMIC  
DEVELOPMENT CORPORATION  
1 LIBERTY PLAZA  
NEW YORK, N.Y. 10006

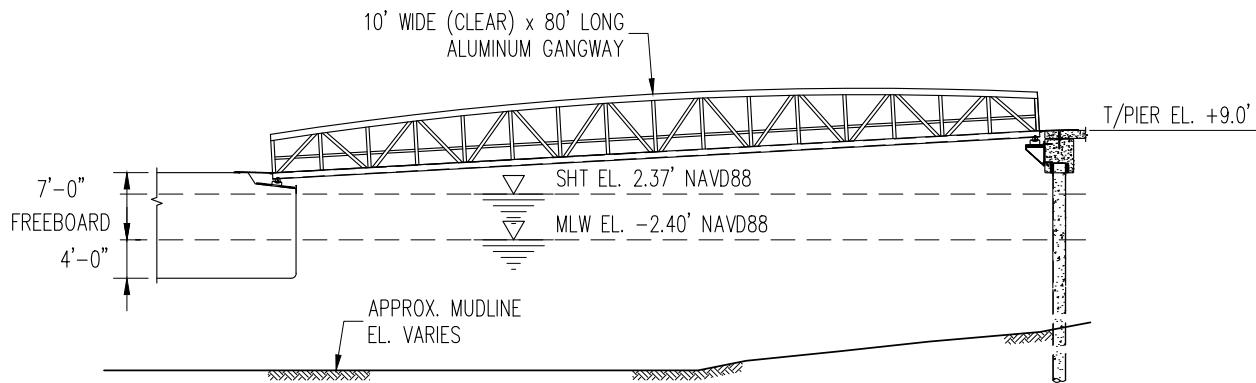
AGENT: M.G. McLaren Engineering & Land Surveying, P  
530 Chestnut Ridge Road  
Woodcliff Lake, N.J. 07677

## 5.1 PROPOSED SITE PLAN 2

IN: EAST RIVER  
AT: BROOKLYN  
COUNTY OF: KINGS STATE: N.Y.

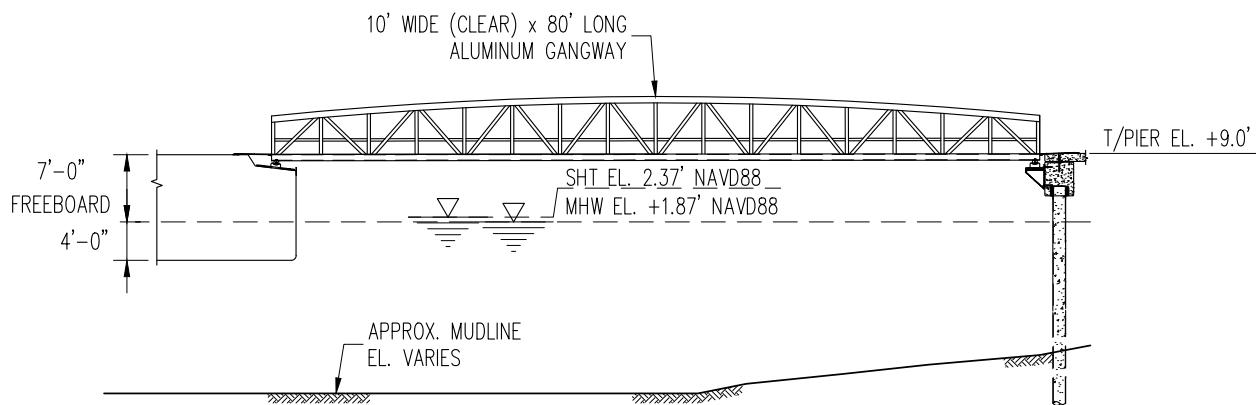


SHT 6 OF 8



**PROPOSED ELEVATION @ MEAN LOW WATER**

NOTE: ELEVATIONS SHOWN REFERENCE NAVD88.



**PROPOSED ELEVATION @ MEAN HIGH WATER**

NOTE: ELEVATIONS SHOWN REFERENCE NAVD88.

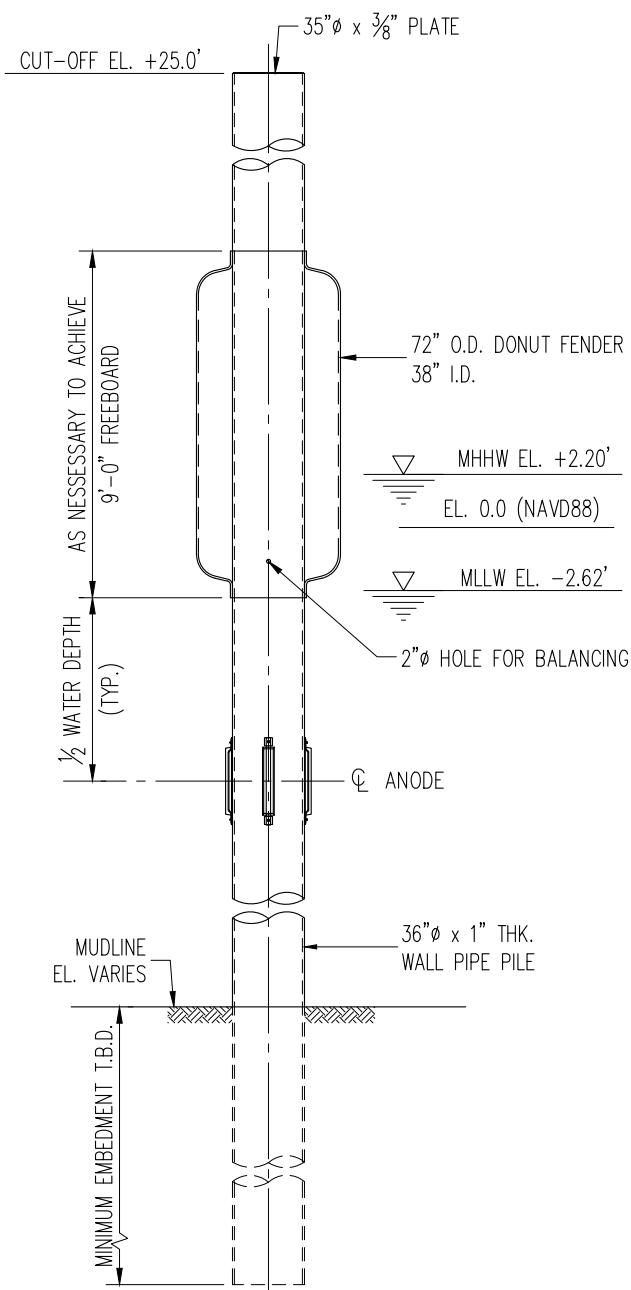
PURPOSE: CITYWIDE FERRY SERVICE  
DATUM: NAVD88  
ADJACENT OWNERS:  
1. SEE ATTACHED

SOUTH WILLIAMSBURG  
CITYWIDE FERRY SERVICE  
BROOKLYN, NEW YORK

APPLICANT: NEW YORK ECONOMIC  
DEVELOPMENT CORPORATION  
1 LIBERTY PLAZA  
NEW YORK, N.Y. 10006  
AGENT: M.G. McLaren Engineering & Land Surveying, P.C.  
530 Chestnut Ridge Road  
Woodcliff Lake, N.J. 07677

6.0 PROPOSED ELEVATIONS

IN: EAST RIVER  
AT: BROOKLYN  
COUNTY OF: KINGS STATE: N.Y.  
0 20' 40'  
1"=20'  
SHT 7 OF 8 01/15/20

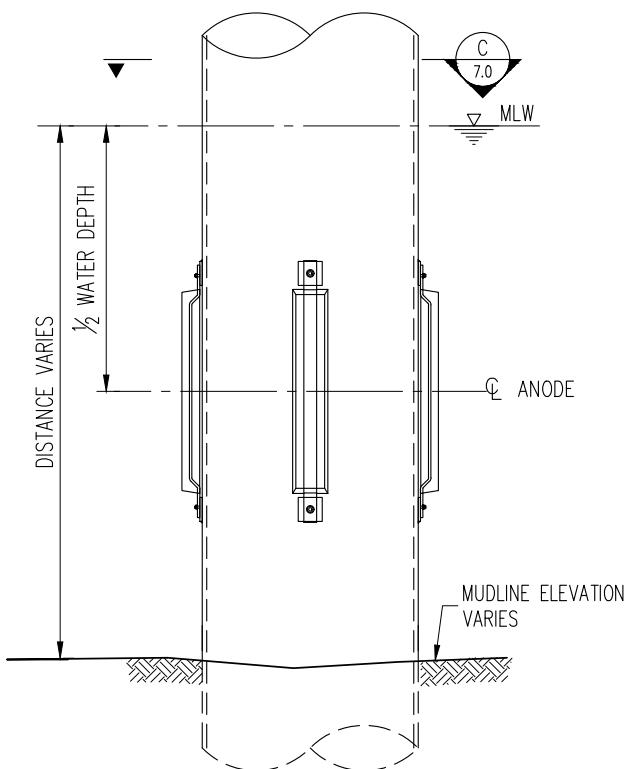


**A MONOPILE ELEVATION**

1/8" = 1'-0"

NOTE(S):

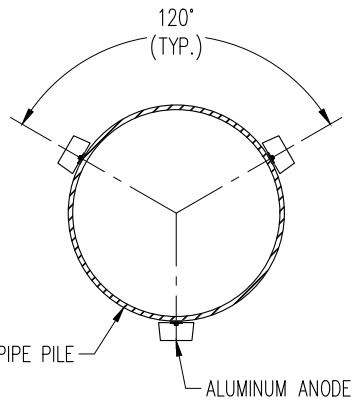
- MONOPILES TO BE COATED AS PER SPEC 02361 TO MIN. 10' BELOW MUMLINE.



**B PILE ANODE LOCATION**

3/8"=1-0"

NOTE(S): ALL ANCHOR PILES, MONOPILES AND PIER/PLATFORM PILES SHALL RECEIVE ANODES.



**C SECTION**

7.0 3/8"=1-0"

PURPOSE: CITYWIDE FERRY SERVICE

DATUM: NAVD88

ADJACENT OWNERS:  
1. SEE ATTACHED

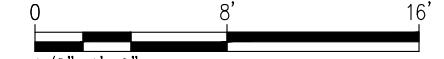
SOUTH WILLIAMSBURG  
CITYWIDE FERRY SERVICE  
BROOKLYN, NEW YORK

APPLICANT: NEW YORK ECONOMIC  
DEVELOPMENT CORPORATION  
1 LIBERTY PLAZA  
NEW YORK, N.Y. 10006

AGENT: M.G. McLaren Engineering & Land Surveying, P.C.  
530 Chestnut Ridge Road  
Woodcliff Lake, N.J. 07677

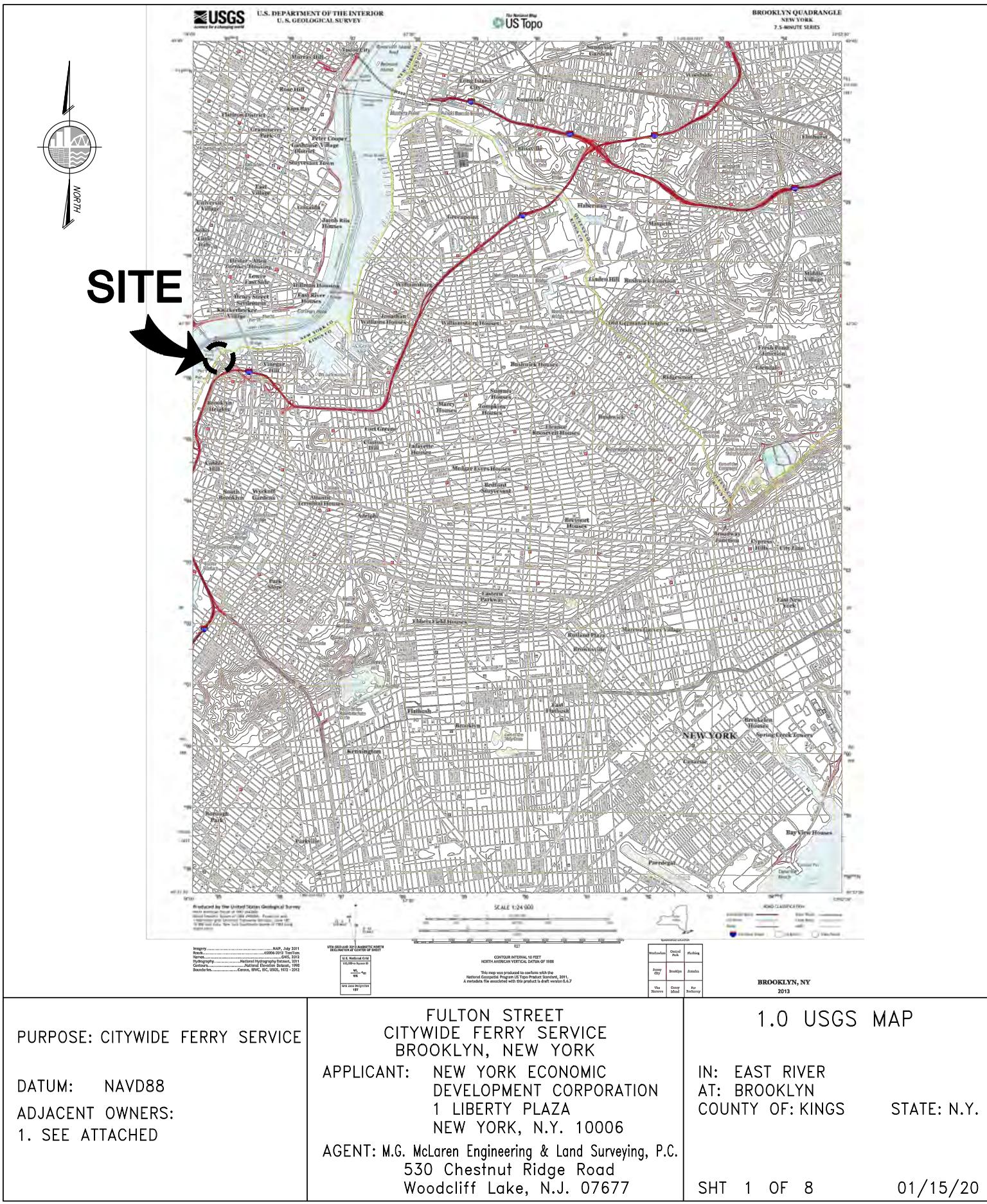
7.0 MONOPILE DETAILS

IN: EAST RIVER  
AT: BROOKLYN  
COUNTY OF: KINGS STATE: N.Y.



SHT 8 OF 8

01/15/20





PURPOSE: CITYWIDE FERRY SERVICE  
DATUM: NAVD88  
ADJACENT OWNERS:  
1. SEE ATTACHED

FULTON STREET  
CITYWIDE FERRY SERVICE  
BROOKLYN, NEW YORK  
APPLICANT: NEW YORK ECONOMIC  
DEVELOPMENT CORPORATION  
1 LIBERTY PLAZA  
NEW YORK, N.Y. 10006  
AGENT: M.G. McLaren Engineering & Land Surveying, P.C.  
530 Chestnut Ridge Road  
Woodcliff Lake, N.J. 07677

## 2.0 LOCATION MAP

IN: EAST RIVER  
AT: BROOKLYN  
COUNTY OF: KINGS STATE: N.Y.

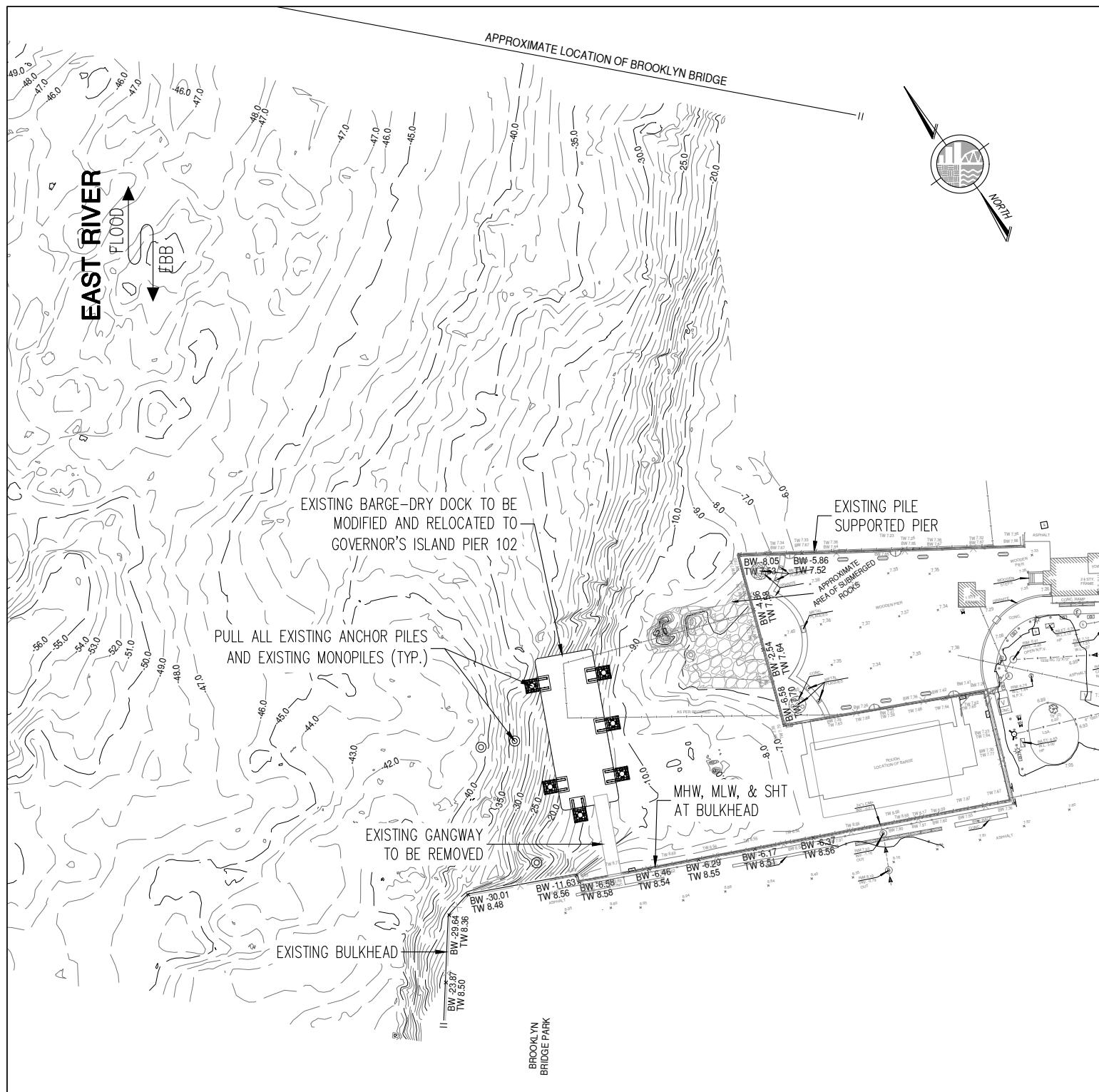
SHT 2 OF 8 01/15/20

TIDAL DATUM CHART	
	NAVD88 (ft)
500-YR RETURN PERIOD	14.7
100-YR RETURN PERIOD	11.2
50-YR RETURN PERIOD	9.8
10-YR RETURN PERIOD	6.8
SPRING HIGH TIDE (SHT)	2.36
MEAN HIGHER-HIGH WATER (MHHW)	2.17
MEAN HIGH WATER (MHW)	1.80
NAVD88	0.00
LOCAL MEAN SEA LEVEL (LMSL)	-0.36
MEAN DIURNAL TIDE LEVEL (DTL)	-0.38
MEAN TIDE LEVEL (MTL)	-0.46
MEAN LOW WATER (MLW)	-2.72
MEAN LOWER-LOW WATER (MLLW)	-2.92

NOTE(S):

1. WATER ELEVATIONS SHOWN FOR PROJECT SITE BASED ON NOAA VDATUM V. 3.7 "NEW JERSEY/NEW YORK/CONNECTICUT-NORTHERN NJ, NY HARBOR, WESTERN LONG ISLAND SOUND, V. 3.7".
2. RETURN PERIOD STILLWATERS ARE EXTRACTED FROM FEMA'S CITY OF NEW YORK PRELIMINARY FLOOD INSURANCE STUDY DATED 12/05/13.

PURPOSE: CITYWIDE FERRY SERVICE  DATUM: NAVD88  ADJACENT OWNERS: 1. SEE ATTACHED	FULTON STREET CITYWIDE FERRY SERVICE BROOKLYN, NEW YORK  APPLICANT: NEW YORK ECONOMIC DEVELOPMENT CORPORATION 1 LIBERTY PLAZA NEW YORK, N.Y. 10006  AGENT: M.G. McLaren Engineering & Land Surveying, P.C. 530 Chestnut Ridge Road Woodcliff Lake, N.J. 07677	3.0 TIDAL DATA  IN: EAST RIVER AT: BROOKLYN COUNTY OF: KINGS STATE: N.Y.  SHT 3 OF 8 01/15/20
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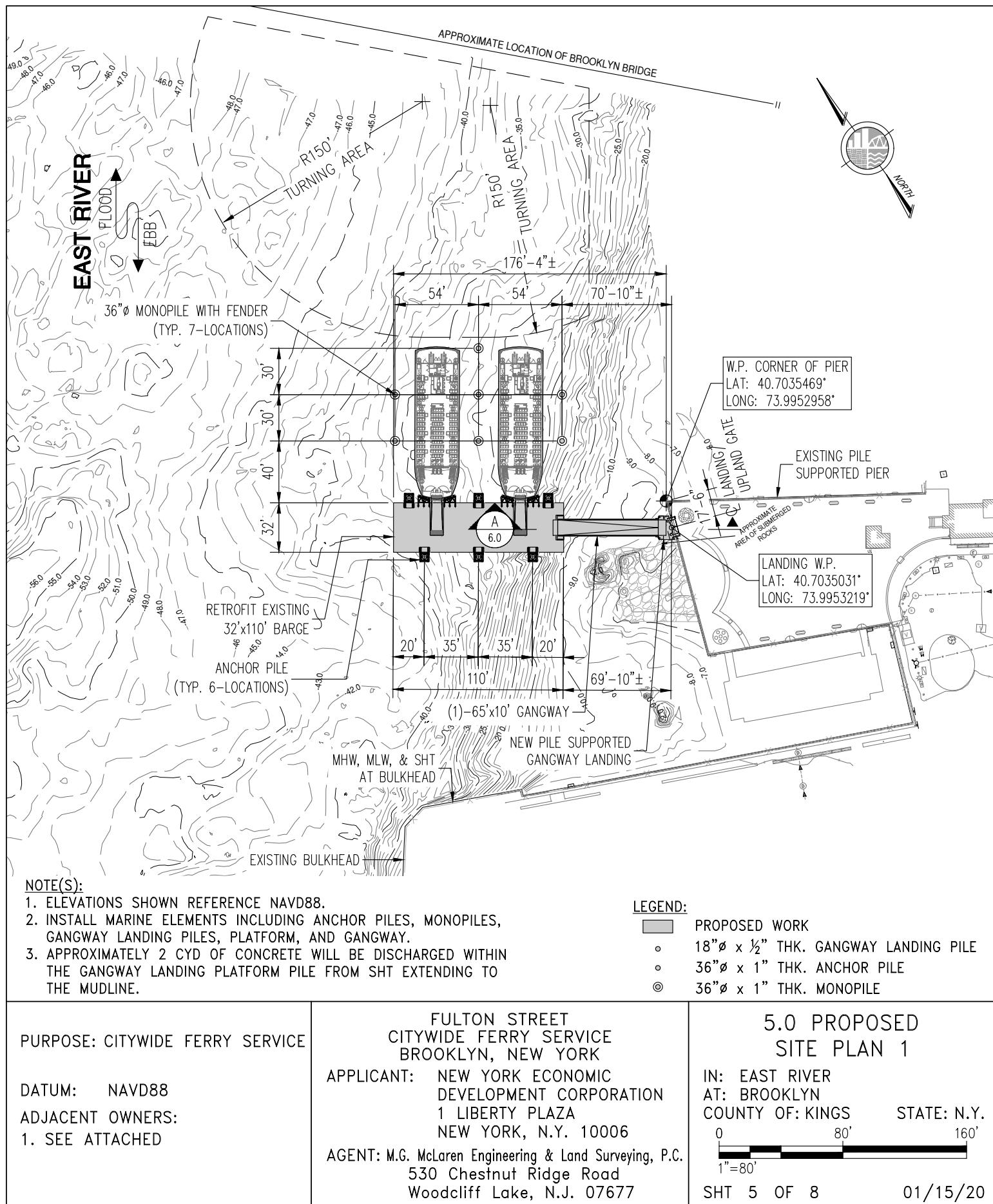


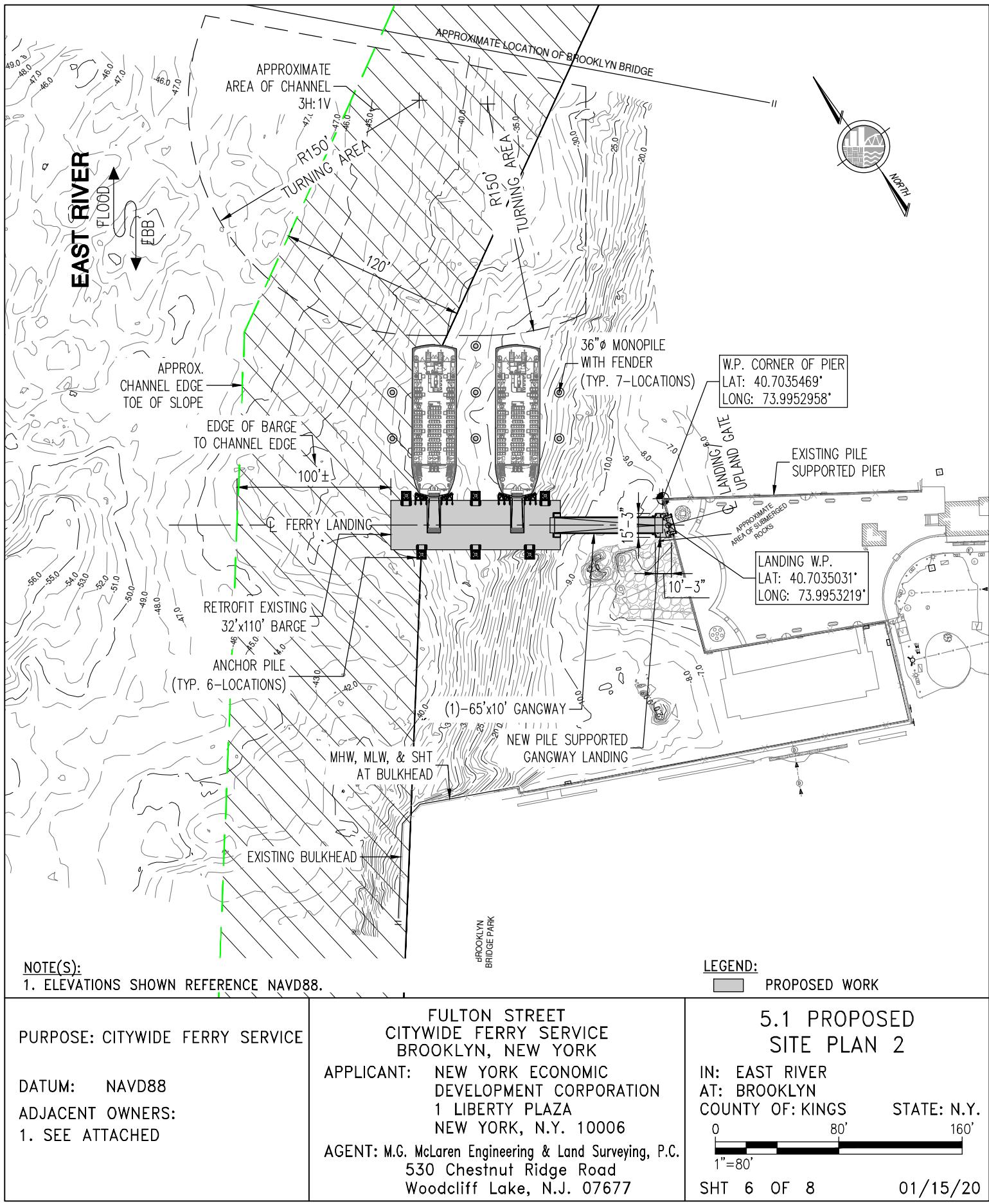
PURPOSE: CITYWIDE FERRY SERVICE  
DATUM: NAVD88  
ADJACENT OWNERS:  
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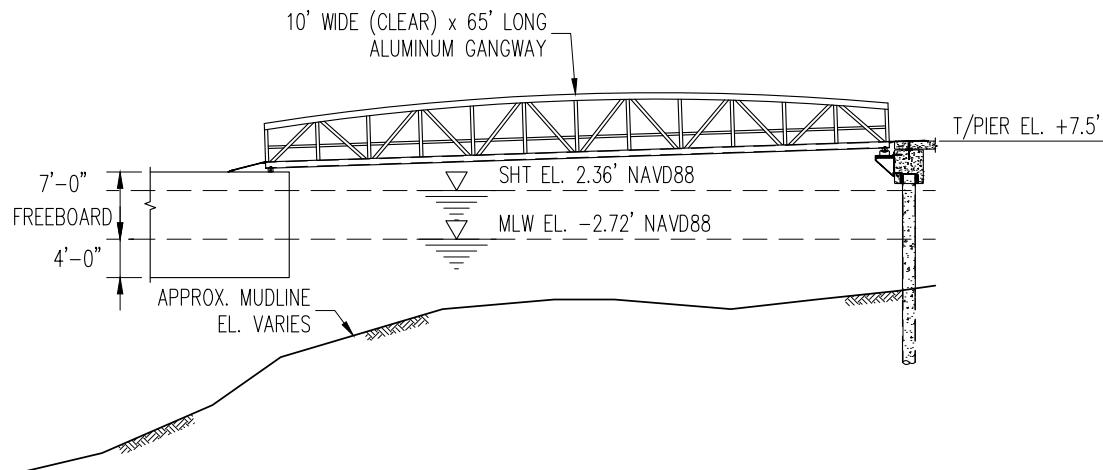
FULTON STREET  
CITYWIDE FERRY SERVICE  
BROOKLYN, NEW YORK  
APPLICANT: NEW YORK ECONOMIC  
DEVELOPMENT CORPORATION  
1 LIBERTY PLAZA  
NEW YORK, N.Y. 10006  
AGENT: M.G. McLaren Engineering & Land Surveying, P.C.  
530 Chestnut Ridge Road  
Woodcliff Lake, N.J. 07677

#### 4.0 EXISTING SITE PLAN

IN: EAST RIVER  
AT: BROOKLYN  
COUNTY OF: KINGS STATE: N.Y.  
0 80' 160'  
1"=80'  
SHT 4 OF 8 01/15/20



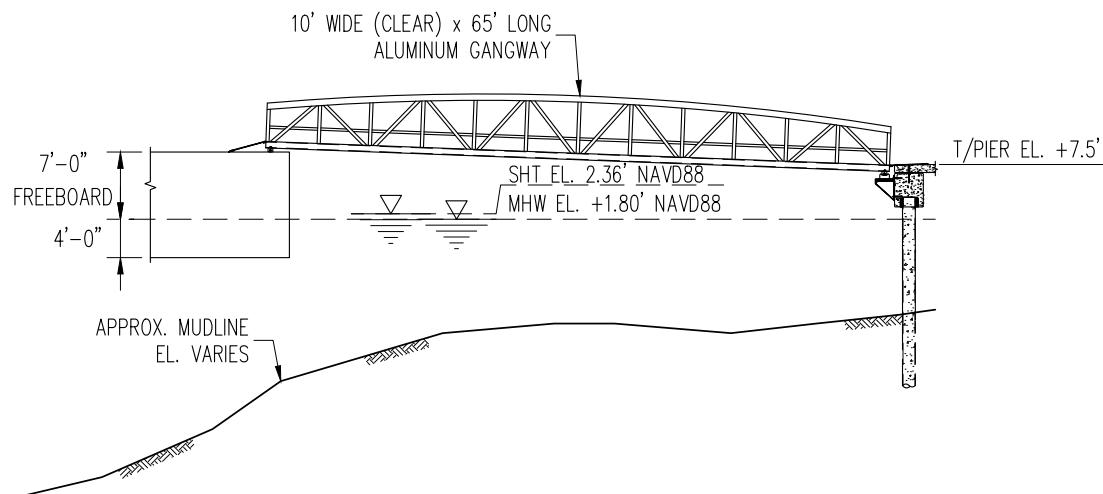




**A**  
6.0

### **PROPOSED ELEVATION @ MEAN LOW WATER**

NOTE: ELEVATIONS SHOWN REFERENCE NAVD88.



**B**  
6.0

### **PROPOSED ELEVATION @ MEAN HIGH WATER**

NOTE: ELEVATIONS SHOWN REFERENCE NAVD88.

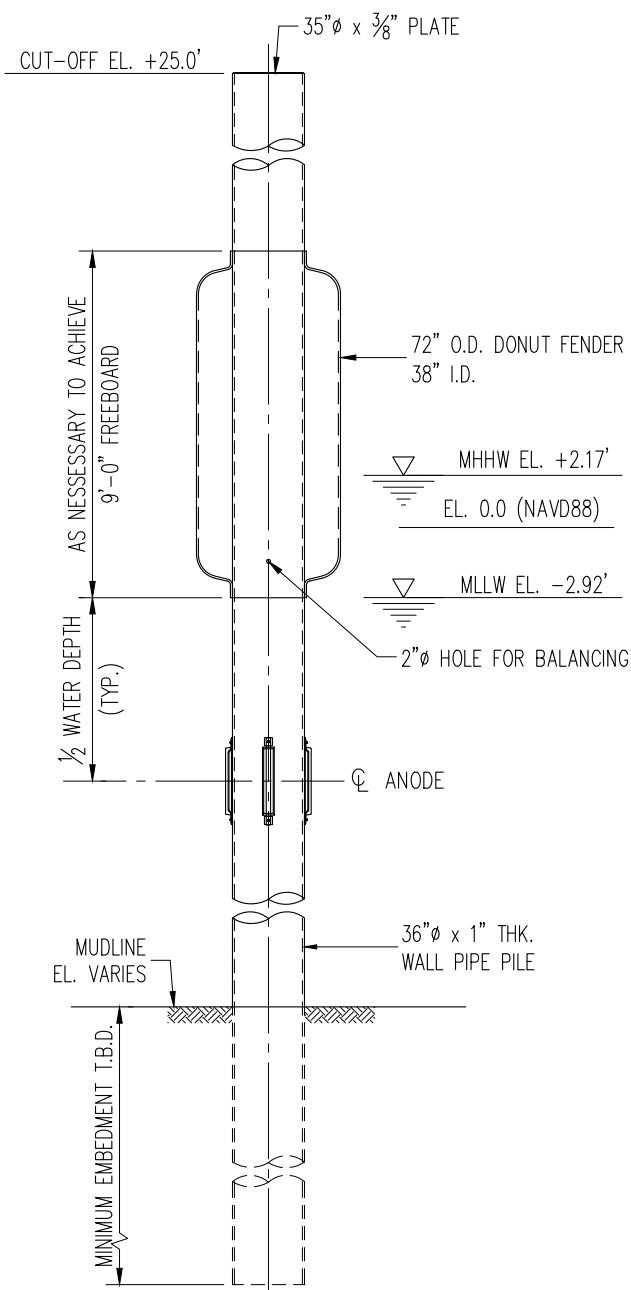
PURPOSE: CITYWIDE FERRY SERVICE  
  
DATUM: NAVD88  
  
ADJACENT OWNERS:  
1. SEE ATTACHED

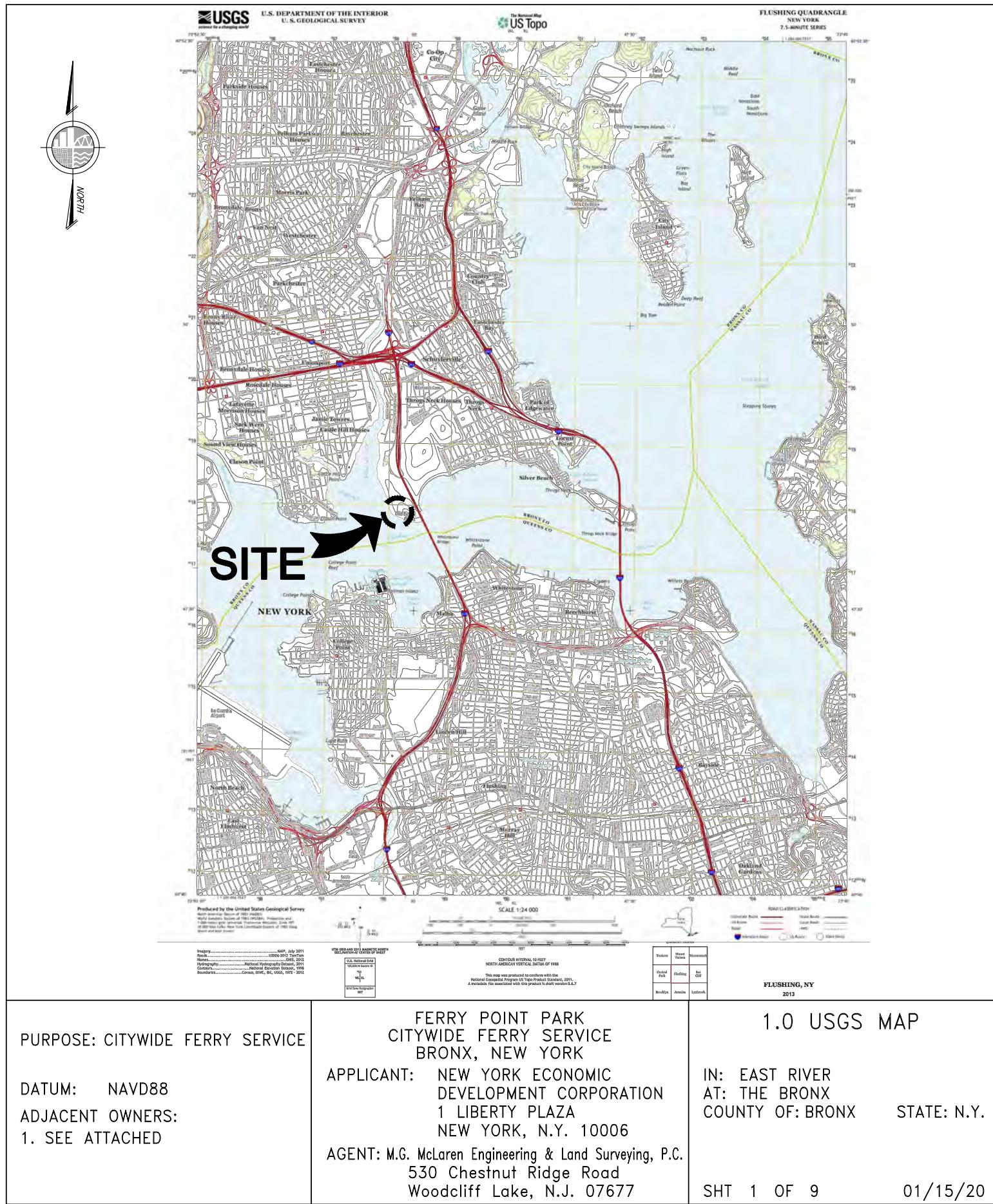
FULTON STREET  
CITYWIDE FERRY SERVICE  
BROOKLYN, NEW YORK  
  
APPLICANT: NEW YORK ECONOMIC  
DEVELOPMENT CORPORATION  
1 LIBERTY PLAZA  
NEW YORK, N.Y. 10006  
  
AGENT: M.G. McLaren Engineering & Land Surveying, P.C.  
530 Chestnut Ridge Road  
Woodcliff Lake, N.J. 07677

### 6.0 PROPOSED ELEVATIONS

IN: EAST RIVER  
AT: BROOKLYN  
COUNTY OF: KINGS STATE: N.Y.  
0 20' 40'  
1"=20'

SHT 7 OF 8 01/15/20







PURPOSE: CITYWIDE FERRY SERVICE

DATUM: NAVD88

ADJACENT OWNERS:  
1. SEE ATTACHED

**FERRY POINT PARK  
CITYWIDE FERRY SERVICE  
BRONX, NEW YORK**

APPLICANT: NEW YORK ECONOMIC  
DEVELOPMENT CORPORATION  
1 LIBERTY PLAZA  
NEW YORK, N.Y. 10006

AGENT: M.G. McLaren Engineering & Land Surveying, P.C.  
530 Chestnut Ridge Road  
Woodcliff Lake, N.J. 07677

**2.0 LOCATION MAP**

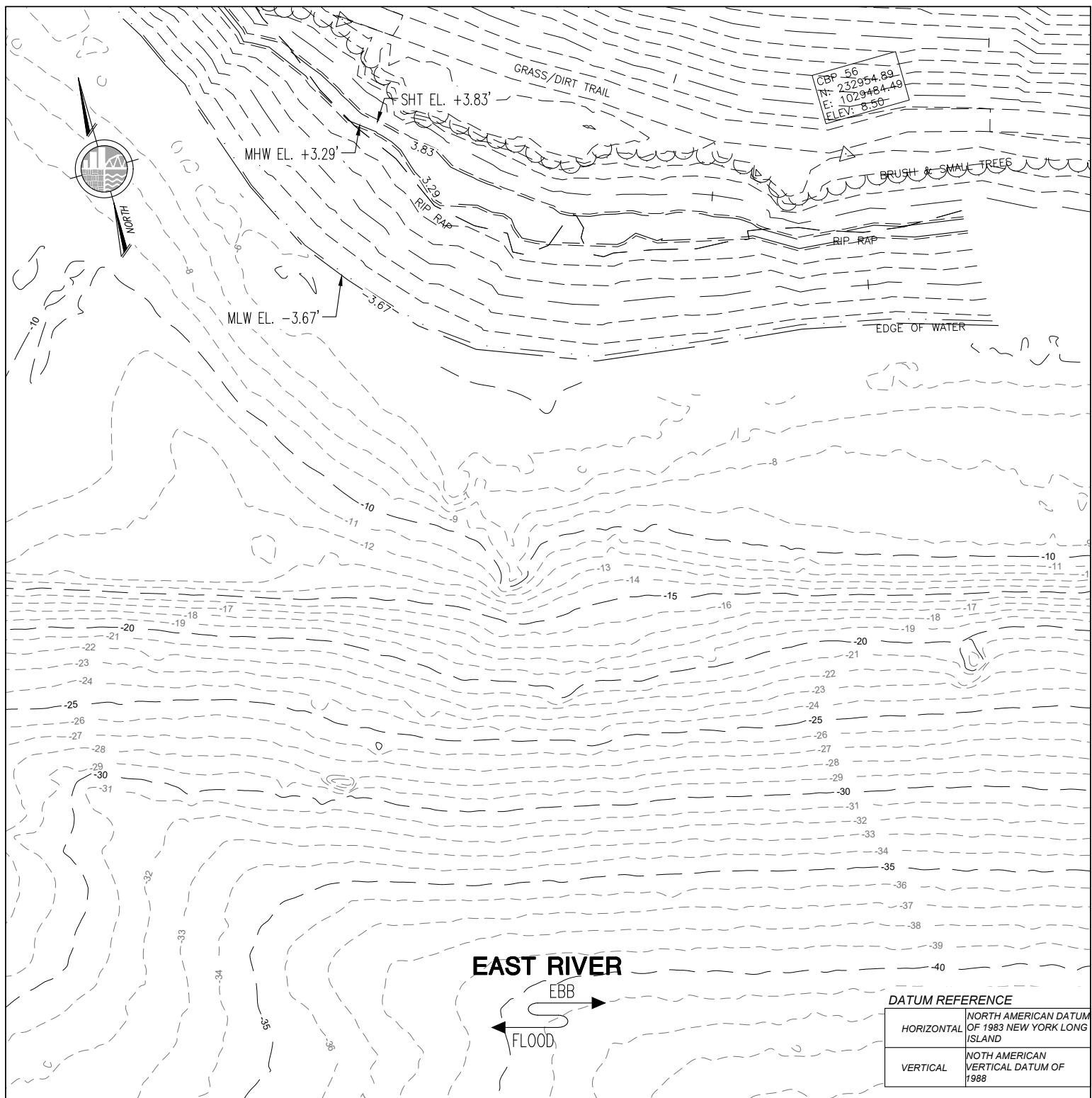
IN: EAST RIVER  
AT: THE BRONX  
COUNTY OF: BRONX STATE: N.Y.

TIDAL DATUM CHART	
	NAVD88 (ft)
500-YR RETURN PERIOD	15.0
100-YR RETURN PERIOD	13.0
50-YR RETURN PERIOD	12.0
10-YR RETURN PERIOD	9.7
SPRING HIGH TIDE (SHT)	3.83
MEAN HIGHER-HIGH WATER (MHHW)	3.65
MEAN HIGH WATER (MHW)	3.29
NAVD88	0.00
MEAN DIURNAL TIDE LEVEL (DTL)	-0.16
LOCAL MEAN SEA LEVEL (LMSL)	-0.18
MEAN TIDE LEVEL (MTL)	-0.19
MEAN LOW WATER (MLW)	-3.67
MEAN LOWER-LOW WATER (MLLW)	-3.96

NOTE(S):

1. WATER ELEVATIONS SHOWN FOR PROJECT SITE BASED ON NOAA VDATUM V. 3.7 "NEW JERSEY/NEW YORK/CONNECTICUT-NORTHERN NJ, NY HARBOR, WESTERN LONG ISLAND SOUND, V. 3.7".
2. RETURN PERIOD STILLWATERS ARE EXTRACTED FROM FEMA'S CITY OF NEW YORK PRELIMINARY FLOOD INSURANCE STUDY DATED 12/05/13.

PURPOSE: CITYWIDE FERRY SERVICE  DATUM: NAVD88  ADJACENT OWNERS: 1. SEE ATTACHED	FERRY POINT PARK CITYWIDE FERRY SERVICE BRONX, NEW YORK  APPLICANT: NEW YORK ECONOMIC DEVELOPMENT CORPORATION 1 LIBERTY PLAZA NEW YORK, N.Y. 10006  AGENT: M.G. McLaren Engineering & Land Surveying, P.C. 530 Chestnut Ridge Road Woodcliff Lake, N.J. 07677	3.0 TIDAL DATA  IN: EAST RIVER AT: THE BRONX COUNTY OF: BRONX STATE: N.Y.  SHT 3 OF 9 01/15/20
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PURPOSE: CITYWIDE FERRY SERVICE

DATUM: NAVD88

ADJACENT OWNERS:  
1. SEE ATTACHED

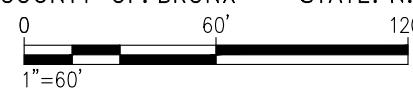
FERRY POINT PARK  
CITYWIDE FERRY SERVICE  
BRONX, NEW YORK

APPLICANT: NEW YORK ECONOMIC  
DEVELOPMENT CORPORATION  
1 LIBERTY PLAZA  
NEW YORK, N.Y. 10006

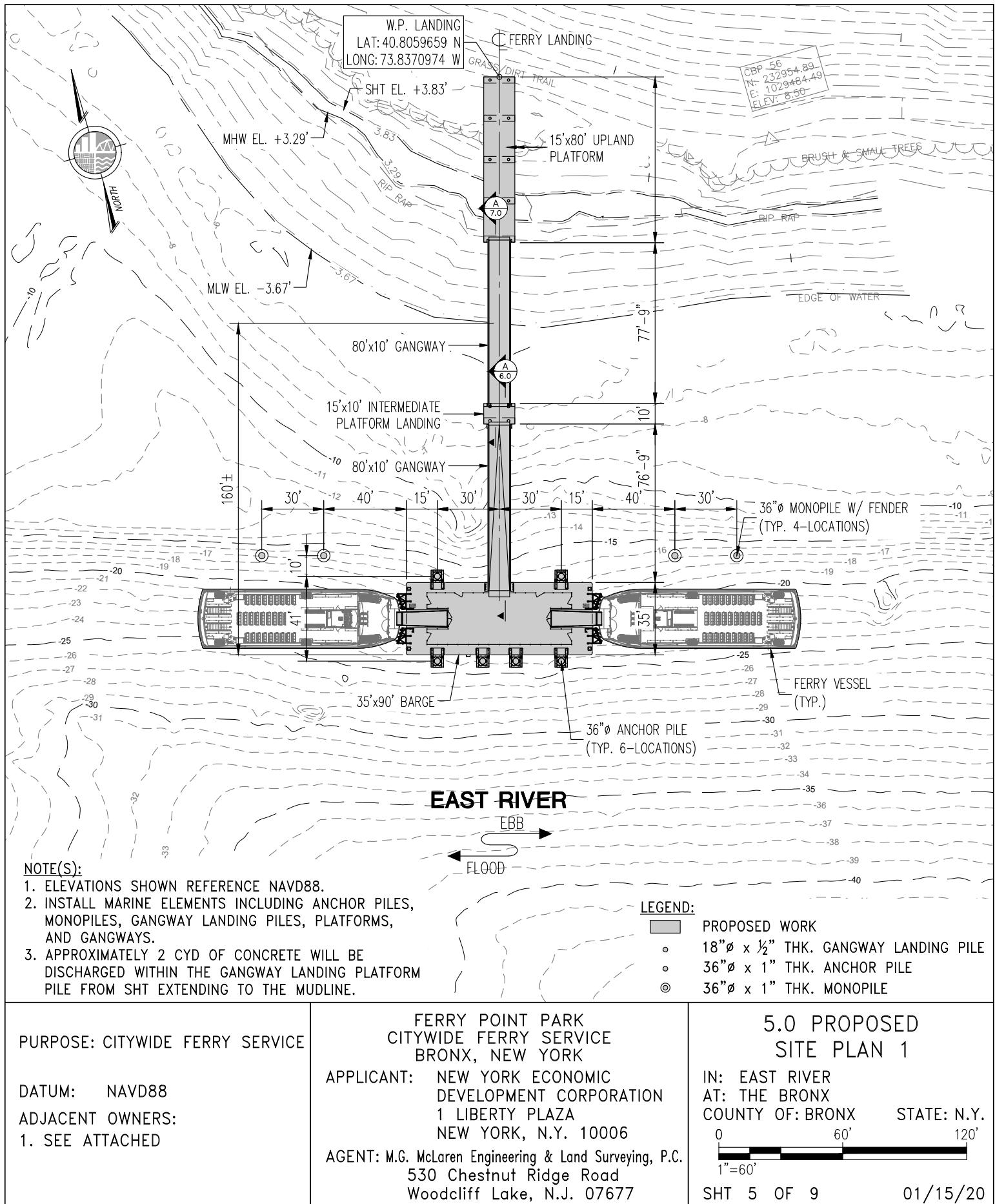
AGENT: M.G. McLaren Engineering & Land Surveying, P.C.  
530 Chestnut Ridge Road  
Woodcliff Lake, N.J. 07677

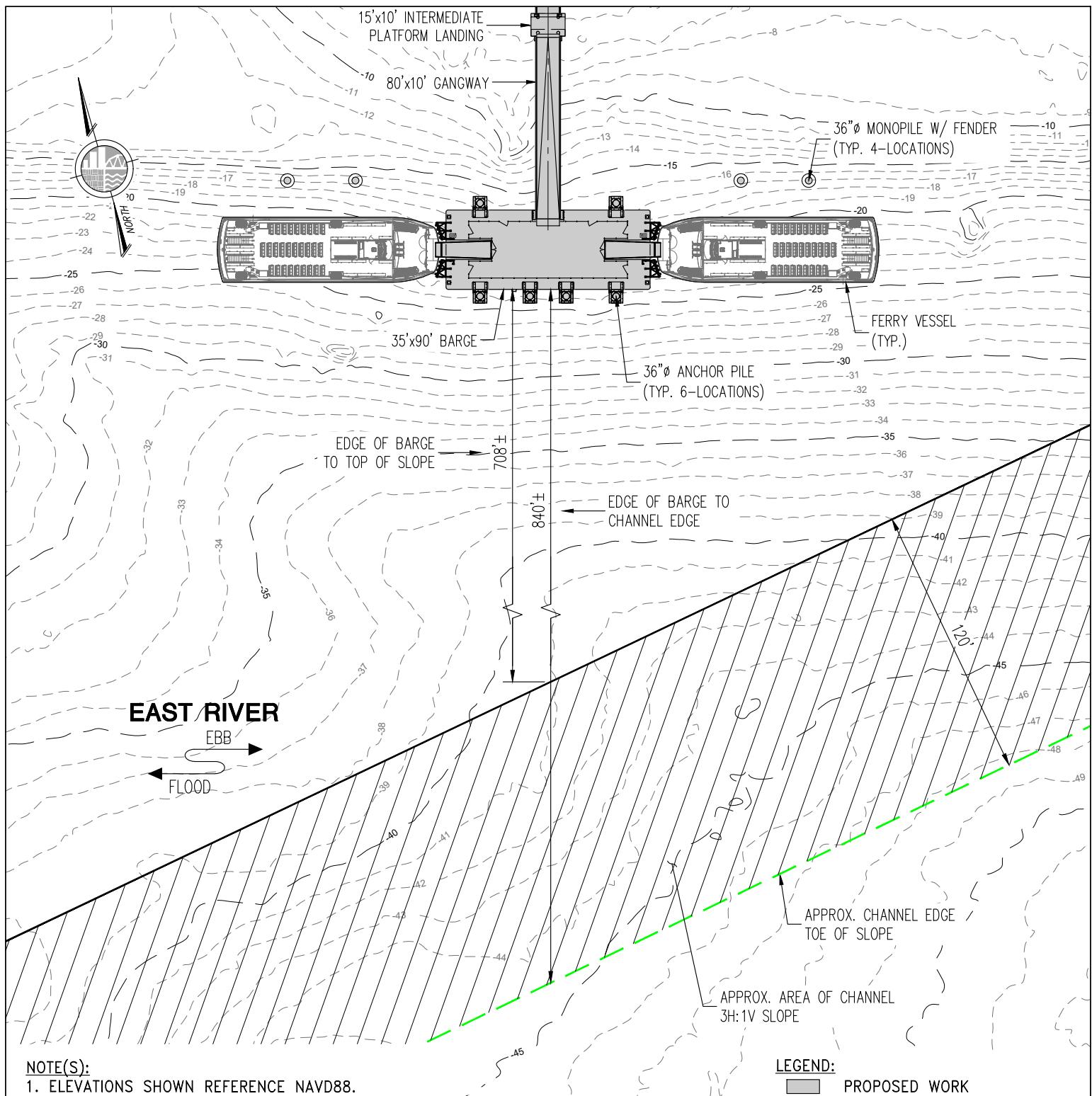
#### 4.0 EXISTING SITE PLAN

IN: EAST RIVER  
AT: THE BRONX  
COUNTY OF: BRONX STATE: N.Y.



SHT 4 OF 9 01/15/20





PURPOSE: CITYWIDE FERRY SERVICE

DATUM: NAVD88

ADJACENT OWNERS:  
1. SEE ATTACHED

FERRY POINT PARK  
CITYWIDE FERRY SERVICE  
BRONX, NEW YORK

APPLICANT: NEW YORK ECONOMIC  
DEVELOPMENT CORPORATION  
1 LIBERTY PLAZA  
NEW YORK, N.Y. 10006

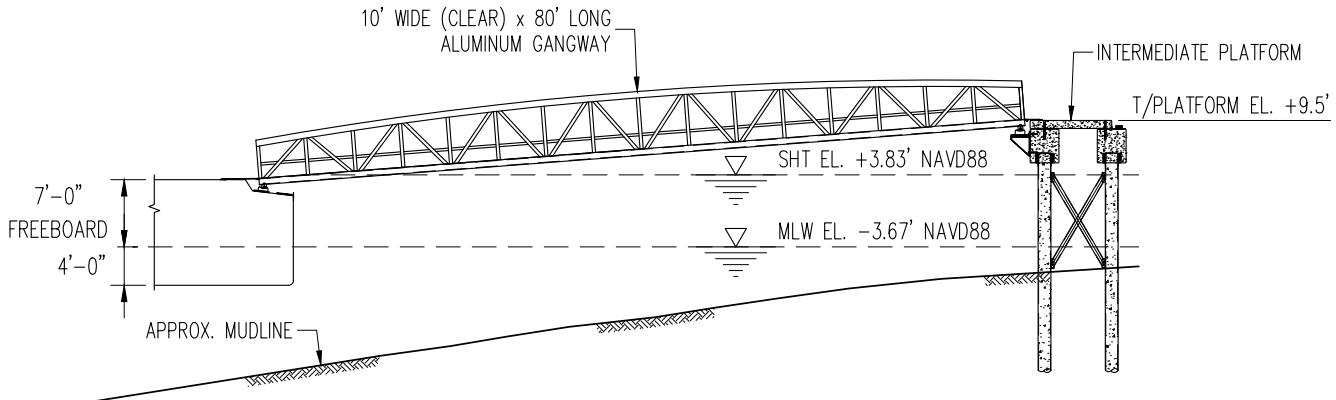
AGENT: M.G. McLaren Engineering & Land Surveying, P.C.  
530 Chestnut Ridge Road  
Woodcliff Lake, N.J. 07677

### 5.1 PROPOSED SITE PLAN 2

IN: EAST RIVER  
AT: THE BRONX  
COUNTY OF: BRONX STATE: N.Y.

0 60' 120'  
1"=60'

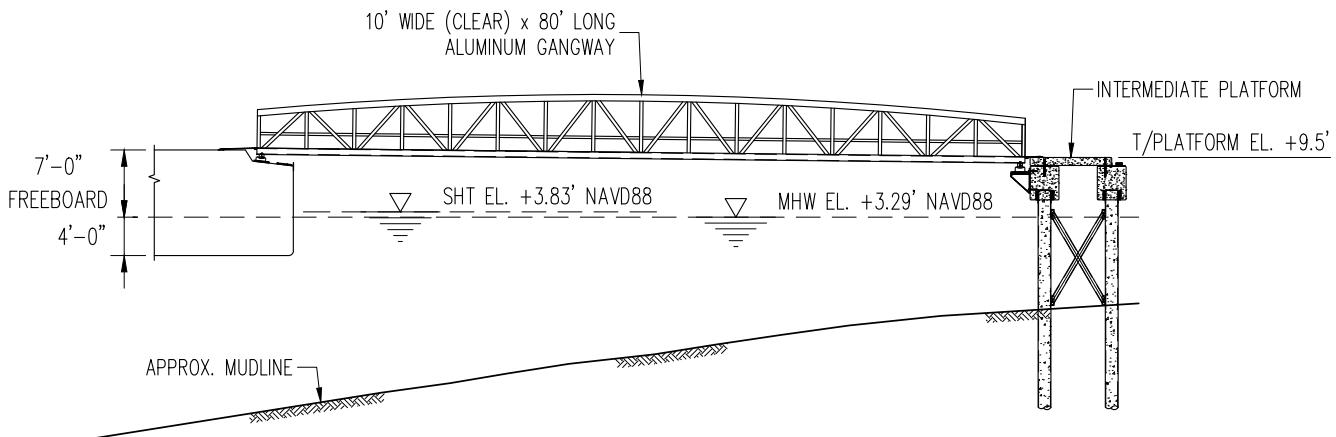
SHT 6 OF 9 01/15/20



**A**  
6.0

### **PROPOSED ELEVATION @ MEAN LOW WATER**

NOTE: SEE DWG. 7.0 PROPOSED UPLAND GANGWAY ELEVATION  
FOR DETAIL ON UPLAND CONNECTION.



**B**  
6.0

### **PROPOSED ELEVATION @ MEAN HIGH WATER**

NOTE: SEE DWG. 7.0 PROPOSED UPLAND GANGWAY ELEVATION  
FOR DETAIL ON UPLAND CONNECTION.

PURPOSE: CITYWIDE FERRY SERVICE  
  
DATUM: NAVD88  
  
ADJACENT OWNERS:  
1. SEE ATTACHED

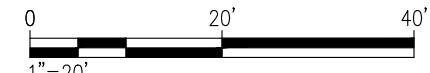
FERRY POINT PARK  
CITYWIDE FERRY SERVICE  
BRONX, NEW YORK

APPLICANT: NEW YORK ECONOMIC  
DEVELOPMENT CORPORATION  
1 LIBERTY PLAZA  
NEW YORK, N.Y. 10006

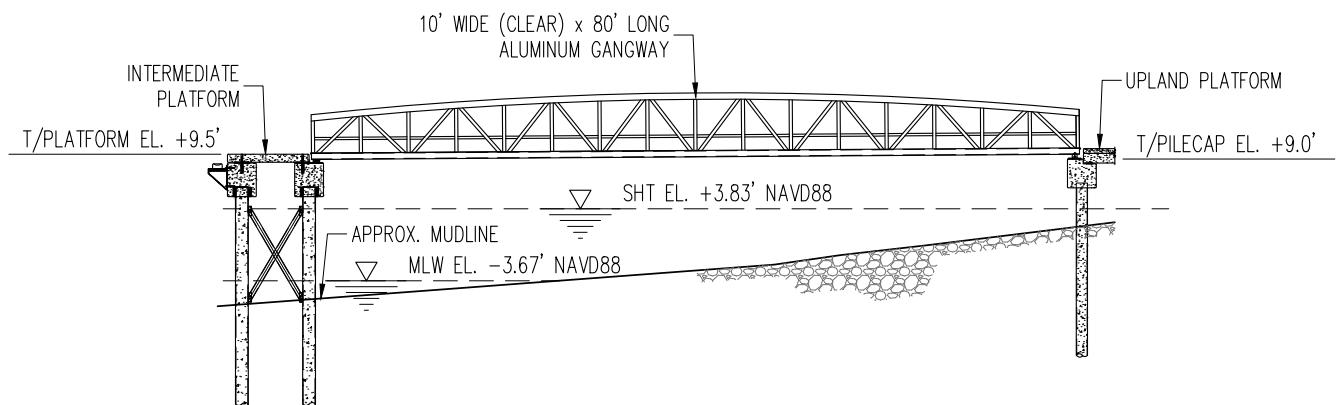
AGENT: M.G. McLaren Engineering & Land Surveying, P.C.  
530 Chestnut Ridge Road  
Woodcliff Lake, N.J. 07677

**6.0 PROPOSED OFFSHORE  
GANGWAY ELEVATIONS**

IN: EAST RIVER  
AT: THE BRONX  
COUNTY OF: BRONX STATE: N.Y.

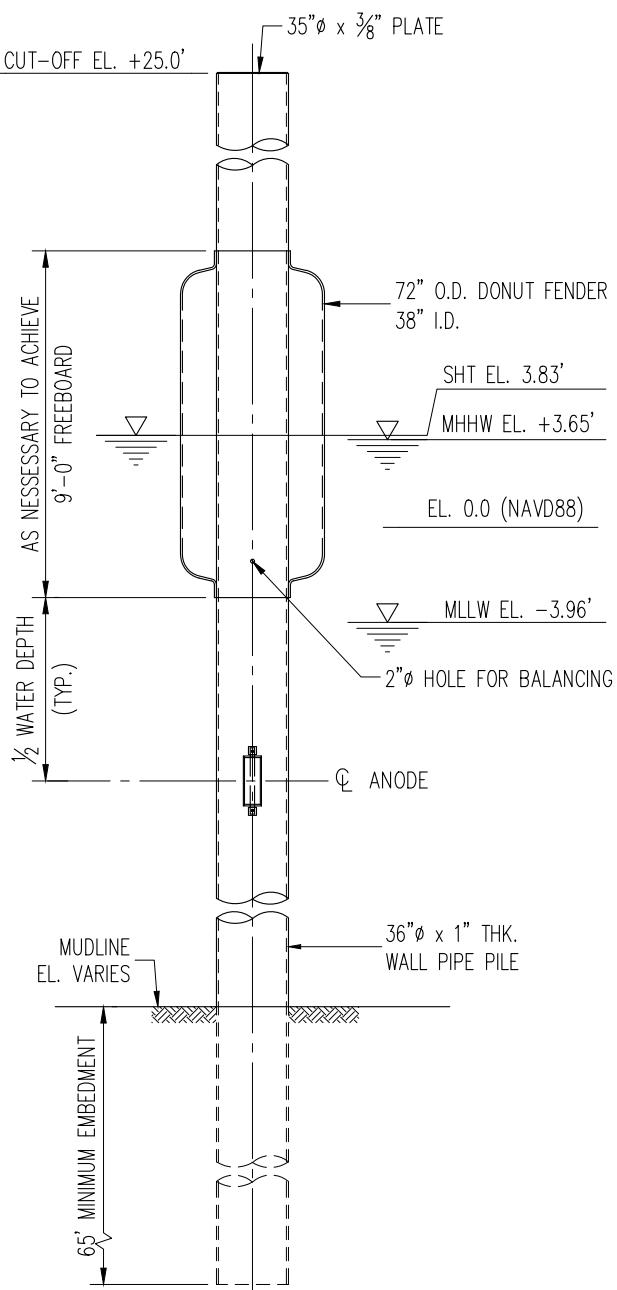


SHT 7 OF 9 01/15/20

**A**  
7.0**PROPOSED ELEVATION @ MEAN LOW WATER**

NOTE: SEE DWG. 6.0 PROPOSED OFFSHORE GANGWAY ELEVATION  
FOR DETAIL ON BARGE CONNECTION.

PURPOSE: CITYWIDE FERRY SERVICE  DATUM: NAVD88  ADJACENT OWNERS: 1. SEE ATTACHED	FERRY POINT PARK CITYWIDE FERRY SERVICE BRONX, NEW YORK  APPLICANT: NEW YORK ECONOMIC DEVELOPMENT CORPORATION 1 LIBERTY PLAZA NEW YORK, N.Y. 10006  AGENT: M.G. McLaren Engineering & Land Surveying, P.C. 530 Chestnut Ridge Road Woodcliff Lake, N.J. 07677	7.0 PROPOSED UPLAND GANGWAY ELEVATION  IN: EAST RIVER AT: THE BRONX COUNTY OF: BRONX STATE: N.Y.  0 20' 40' 1"=20'  SHT 8 OF 9 01/15/20
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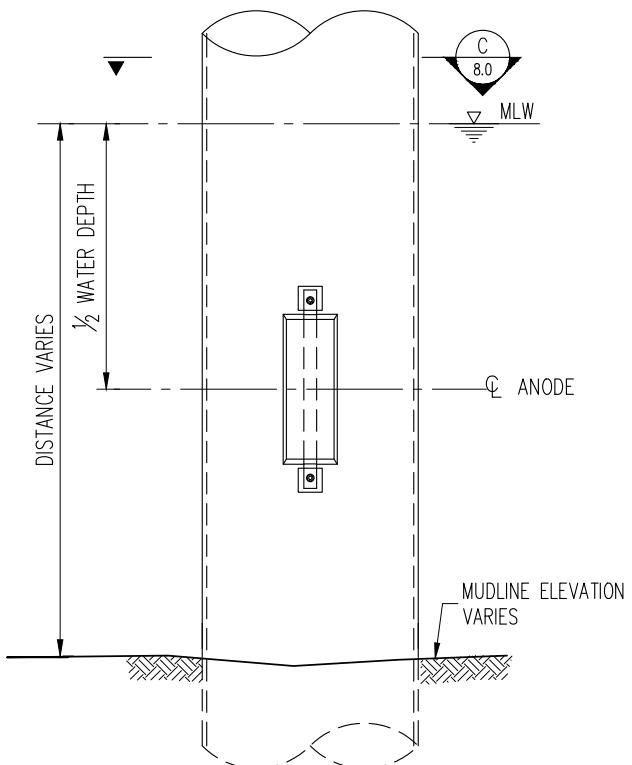
**A MONOPILE ELEVATION**

8.0

1/8" = 1'-0"

NOTE(S):

- MONOPILES TO BE COATED AS PER SPEC 02361 TO MIN. 10' BELOW MUDLINE.

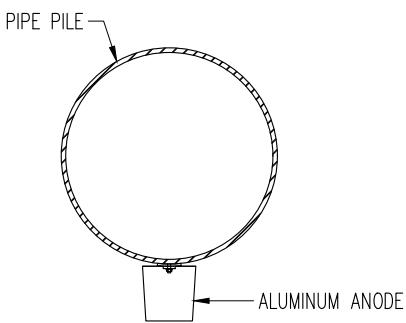


**B PILE ANODE LOCATION**

8.0

3/8"=1-0"

NOTE(S): ALL ANCHOR PILES SHALL RECEIVE ANODES.



**C SECTION**

8.0

3/8"=1-0"

PURPOSE: CITYWIDE FERRY SERVICE  
  
DATUM: NAVD88  
  
ADJACENT OWNERS:  
1. SEE ATTACHED

FERRY POINT PARK  
CITYWIDE FERRY SERVICE  
BRONX, NEW YORK  
  
APPLICANT: NEW YORK ECONOMIC  
DEVELOPMENT CORPORATION  
1 LIBERTY PLAZA  
NEW YORK, N.Y. 10006  
  
AGENT: M.G. McLaren Engineering & Land Surveying, P.C.  
530 Chestnut Ridge Road  
Woodcliff Lake, N.J. 07677

8.0 MONOPILE DETAILS  
  
IN: EAST RIVER  
AT: THE BRONX  
COUNTY OF: BRONX STATE: N.Y.  
  
0 8' 16'  
1/8"=1'-0"  
SHT 9 OF 9 01/15/20

		<p><b>1.0 USGS MAP</b></p> <p>IN: NEW YORK BAY AT: STATEN ISLAND COUNTY OF: RICHMOND STATE: N.Y.</p> <p>SHT 1 OF 9      01/15/20</p>
<p>PURPOSE: CITYWIDE FERRY SERVICE</p> <p>DATUM: NAVD88</p> <p>ADJACENT OWNERS: 1. SEE ATTACHED</p>	<p><b>ST. GEORGE FERRY LANDING CITYWIDE FERRY SERVICE</b></p> <p>APPLICANT: NEW YORK ECONOMIC DEVELOPMENT CORPORATION 1 LIBERTY PLAZA NEW YORK, N.Y. 10006</p> <p>AGENT: M.G. McLaren Engineering &amp; Land Surveying, P.C. 530 Chestnut Ridge Road Woodcliff Lake, N.J. 07677</p>	



PURPOSE: CITYWIDE FERRY SERVICE

DATUM: NAVD88

ADJACENT OWNERS:  
1. SEE ATTACHED

### ST. GEORGE FERRY LANDING CITYWIDE FERRY SERVICE

APPLICANT: NEW YORK ECONOMIC  
DEVELOPMENT CORPORATION  
1 LIBERTY PLAZA  
NEW YORK, N.Y. 10006

AGENT: M.G. McLaren Engineering & Land Surveying, P.C.  
530 Chestnut Ridge Road  
Woodcliff Lake, N.J. 07677

### 2.0 LOCATION MAP

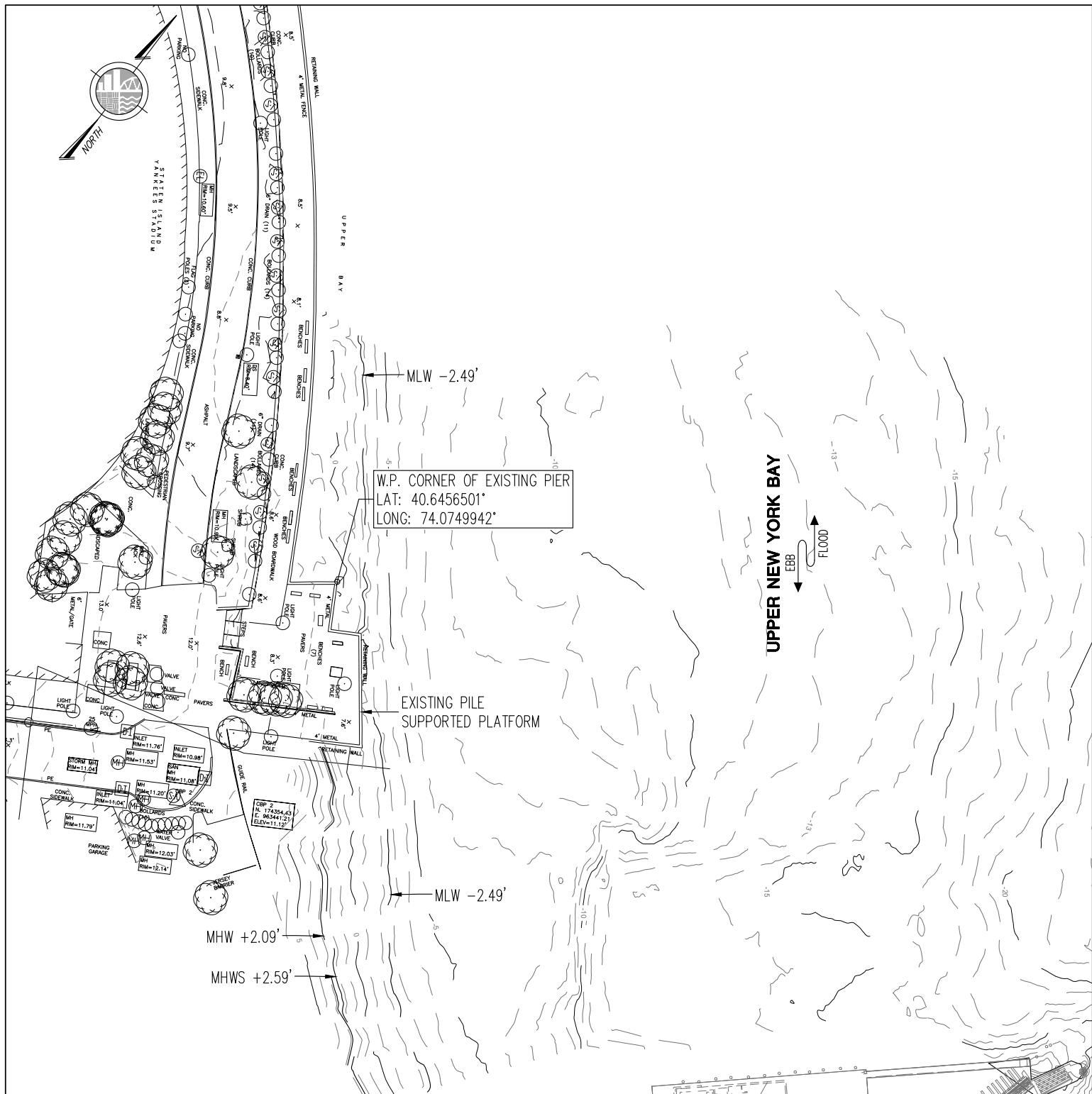
IN: NEW YORK BAY  
AT: STATEN ISLAND  
COUNTY OF: RICHMOND STATE: N.Y.

TIDAL DATUM CHART	
	NAVD88 (ft)
500-YR RETURN PERIOD	14.8
100-YR RETURN PERIOD	11.4
50-YR RETURN PERIOD	10.0
10-YR RETURN PERIOD	7.1
MEAN HIGH WATER SPRING (MHWS)	2.59
MEAN HIGHER-HIGH WATER (MHHW)	2.42
MEAN HIGH WATER (MHW)	2.09
NAVD88	0.00
LOCAL MEAN SEA LEVEL (LMSL)	-0.19
MEAN TIDE LEVEL (MTL)	-0.20
MEAN LOW WATER (MLW)	-2.49
MEAN LOWER-LOW WATER (MLLW)	-2.71

**NOTE(S):**

1. WATER ELEVATIONS SHOWN FOR PROJECT SITE BASED ON NOAA VDATUM V. 3.7 "NEW JERSEY/NEW YORK/CONNECTICUT-NORTHERN NJ, NY HARBOR, WESTERN LONG ISLAND SOUND, V. 3.7".
2. RETURN PERIOD STILLWATERS ARE EXTRACTED FROM FEMA'S CITY OF NEW YORK PRELIMINARY FLOOD INSURANCE STUDY DATED 12/05/13.

PURPOSE: CITYWIDE FERRY SERVICE  DATUM: NAVD88  ADJACENT OWNERS: 1. SEE ATTACHED	ST. GEORGE FERRY LANDING CITYWIDE FERRY SERVICE  APPLICANT: NEW YORK ECONOMIC DEVELOPMENT CORPORATION 1 LIBERTY PLAZA NEW YORK, N.Y. 10006  AGENT: M.G. McLaren Engineering & Land Surveying, P.C. 530 Chestnut Ridge Road Woodcliff Lake, N.J. 07677	3.0 TIDAL DATA  IN: NEW YORK BAY AT: STATEN ISLAND COUNTY OF: RICHMOND STATE: N.Y.  SHT 3 OF 9 01/15/20
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PURPOSE: CITYWIDE FERRY SERVICE

DATUM: NAVD88

ADJACENT OWNERS:

1. SEE ATTACHED

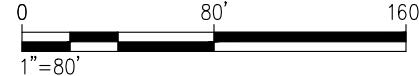
### ST. GEORGE FERRY LANDING CITYWIDE FERRY SERVICE

APPLICANT: NEW YORK ECONOMIC  
DEVELOPMENT CORPORATION  
1 LIBERTY PLAZA  
NEW YORK, N.Y. 10006

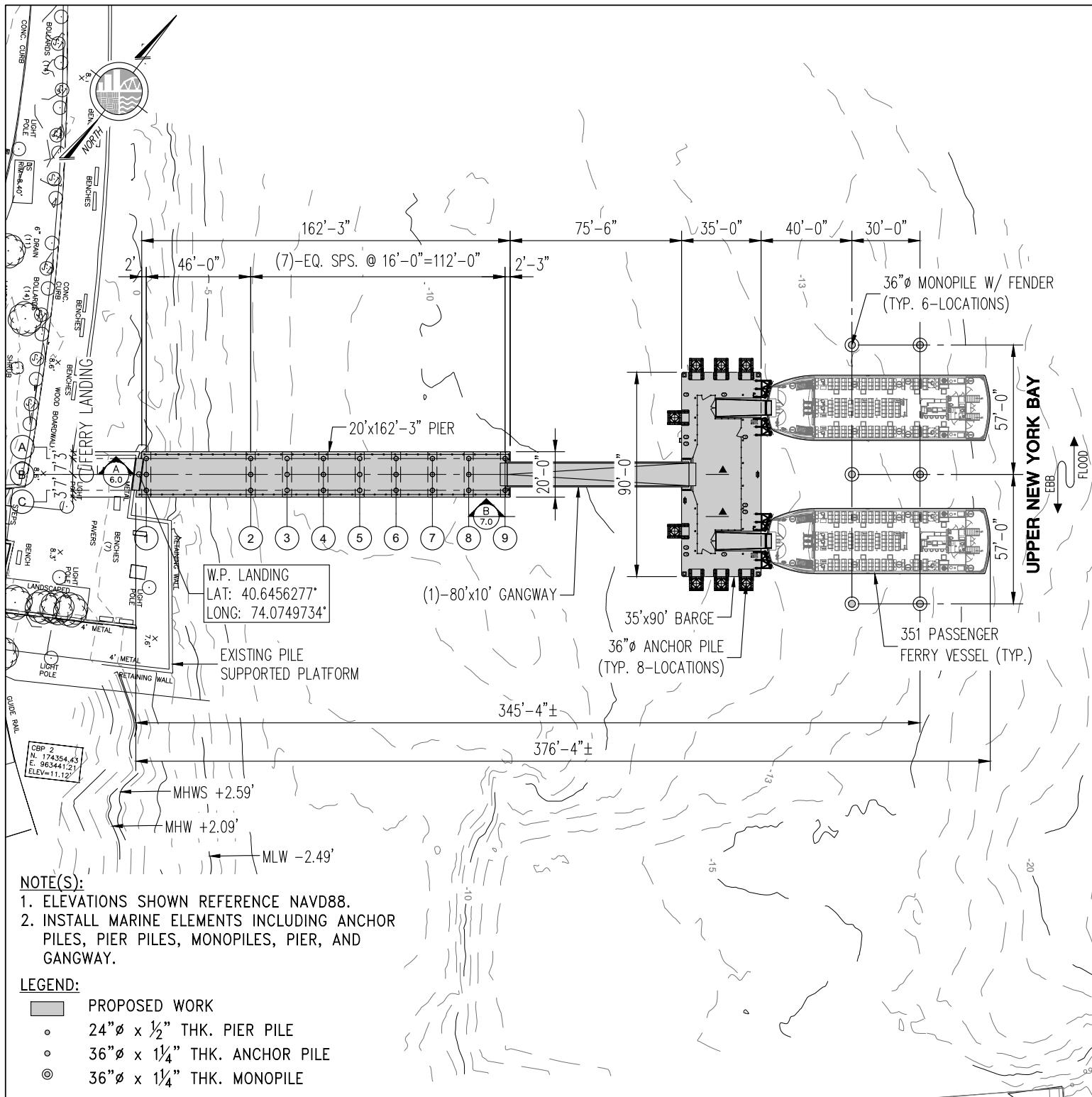
AGENT: M.G. McLaren Engineering & Land Surveying, P.C.  
530 Chestnut Ridge Road  
Woodcliff Lake, N.J. 07677

### 4.0 EXISTING SITE PLAN

IN: NEW YORK BAY  
AT: STATEN ISLAND  
COUNTY OF: RICHMOND STATE: N.Y.



SHT 4 OF 9 01/15/20



PURPOSE: CITYWIDE FERRY SERVICE

DATUM: NAVD88

ADJACENT OWNERS:

1. SEE ATTACHED

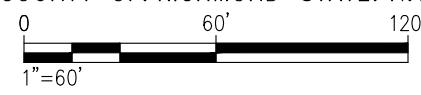
### ST. GEORGE FERRY LANDING CITYWIDE FERRY SERVICE

APPLICANT: NEW YORK ECONOMIC  
DEVELOPMENT CORPORATION  
1 LIBERTY PLAZA  
NEW YORK, N.Y. 10006

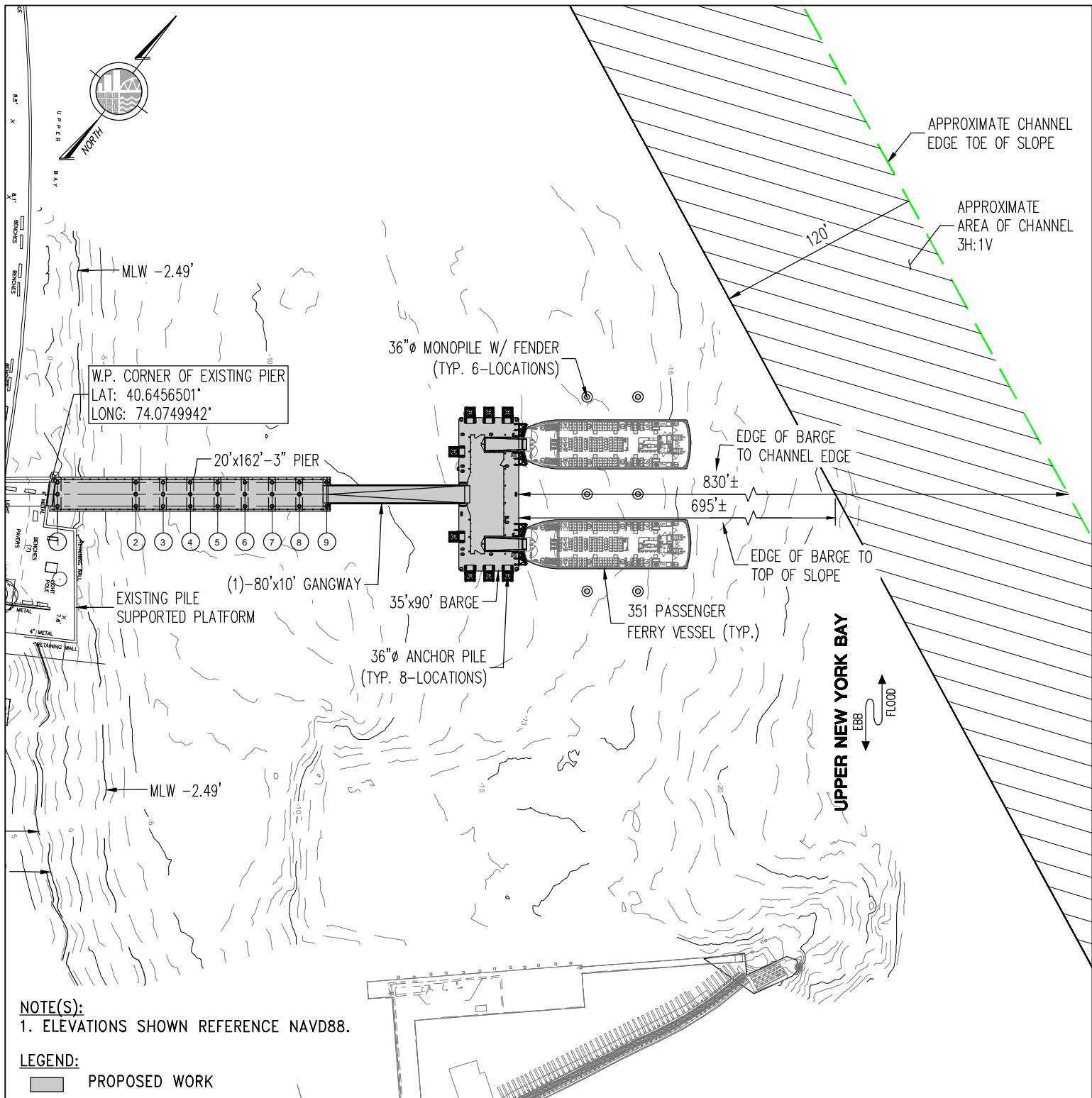
AGENT: M.G. McLaren Engineering & Land Surveying, P.C.  
530 Chestnut Ridge Road  
Woodcliff Lake, N.J. 07677

### 5.0 PROPOSED SITE PLAN 1

IN: NEW YORK BAY  
AT: STATEN ISLAND  
COUNTY OF: RICHMOND STATE: N.Y.



SHT 5 OF 9 01/15/20



NOTE(S):

1. ELEVATIONS SHOWN REFERENCE NAVD88.

LEGEND:

PROPOSED WORK

PURPOSE: CITYWIDE FERRY SERVICE

DATUM: NAVD88

ADJACENT OWNERS:

1. SEE ATTACHED

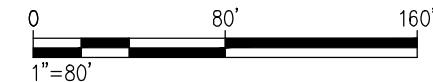
**ST. GEORGE FERRY LANDING  
CITYWIDE FERRY SERVICE**

APPLICANT: NEW YORK ECONOMIC  
DEVELOPMENT CORPORATION  
1 LIBERTY PLAZA  
NEW YORK, N.Y. 10006

AGENT: M.G. McLaren Engineering & Land Surveying, P.C.  
530 Chestnut Ridge Road  
Woodcliff Lake, N.J. 07677

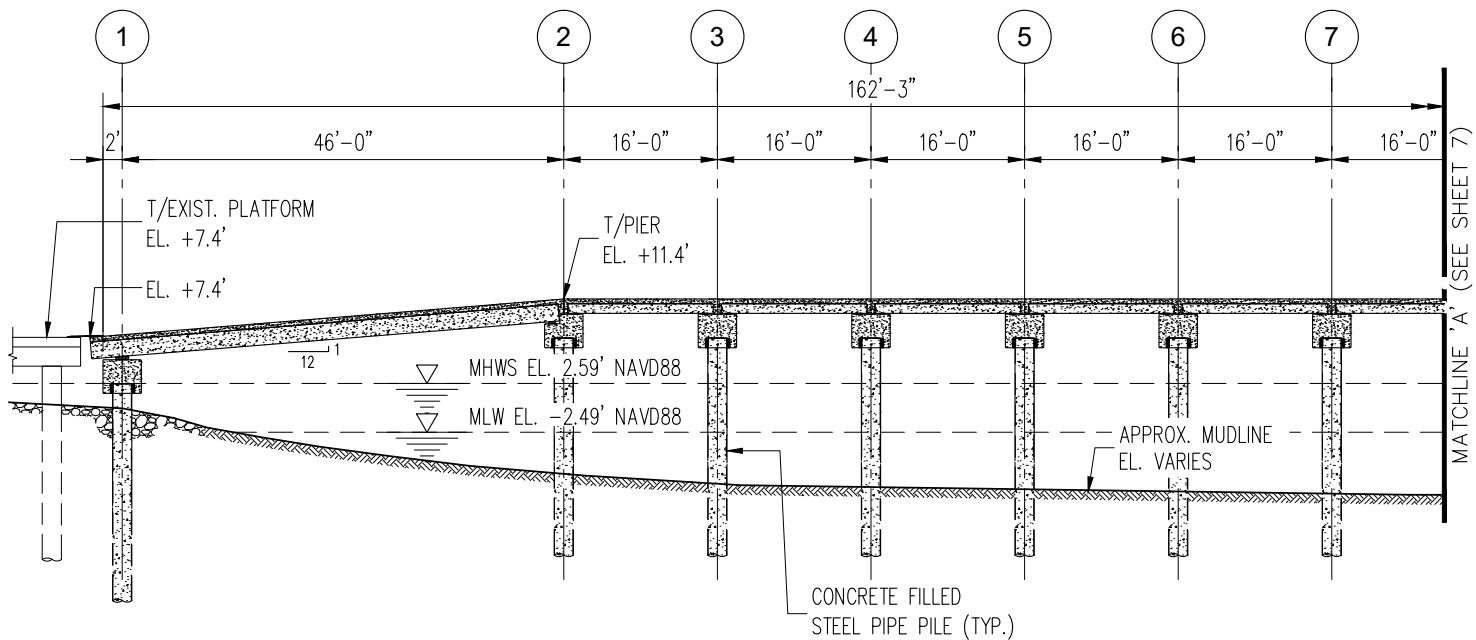
**5.1 PROPOSED  
SITE PLAN 2**

IN: NEW YORK BAY  
AT: STATEN ISLAND  
COUNTY OF: RICHMOND STATE: N.Y.



SHT 6 OF 9

01/15/20



**A**  
6.0

### PROPOSED PIER ELEVATION

NOTE(S): APPROXIMATELY 28 CYD OF CONCRETE WILL BE DISCHARGED WITHIN THE PILES FROM MHWS EXTENDING TO THE MUDLINE.

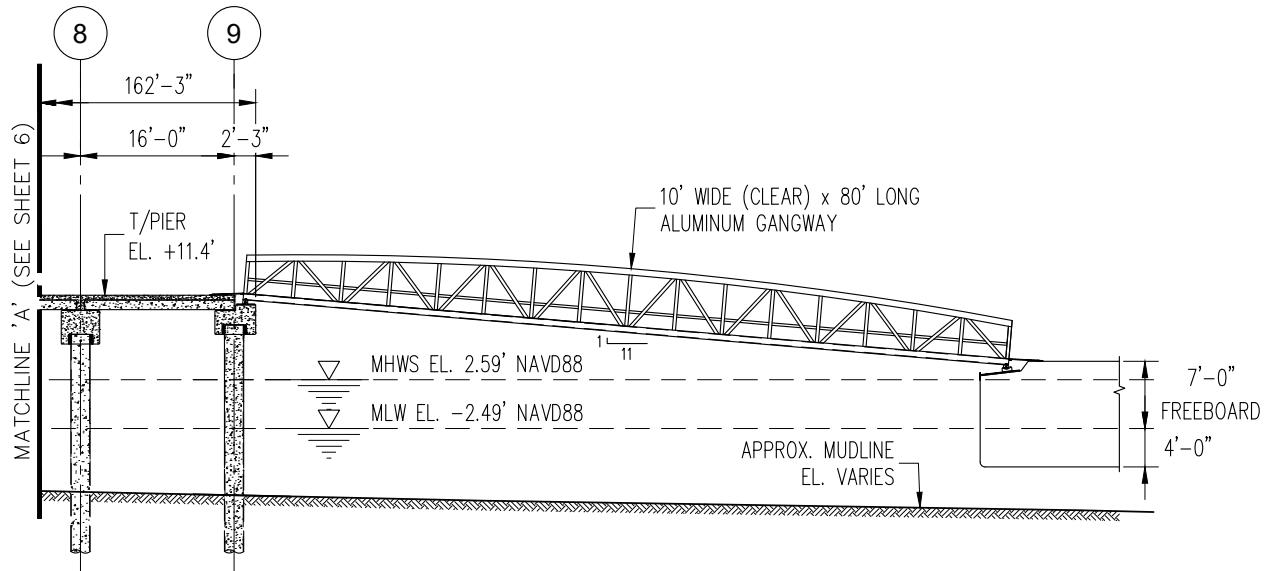
PURPOSE: CITYWIDE FERRY SERVICE  
DATUM: NAVD88  
ADJACENT OWNERS:  
1. SEE ATTACHED

ST. GEORGE FERRY LANDING  
CITYWIDE FERRY SERVICE  
APPLICANT: NEW YORK ECONOMIC  
DEVELOPMENT CORPORATION  
1 LIBERTY PLAZA  
NEW YORK, N.Y. 10006  
AGENT: M.G. McLaren Engineering & Land Surveying, P.C.  
530 Chestnut Ridge Road  
Woodcliff Lake, N.J. 07677

### 6.0\_PROPOSED PIER ELEVATION

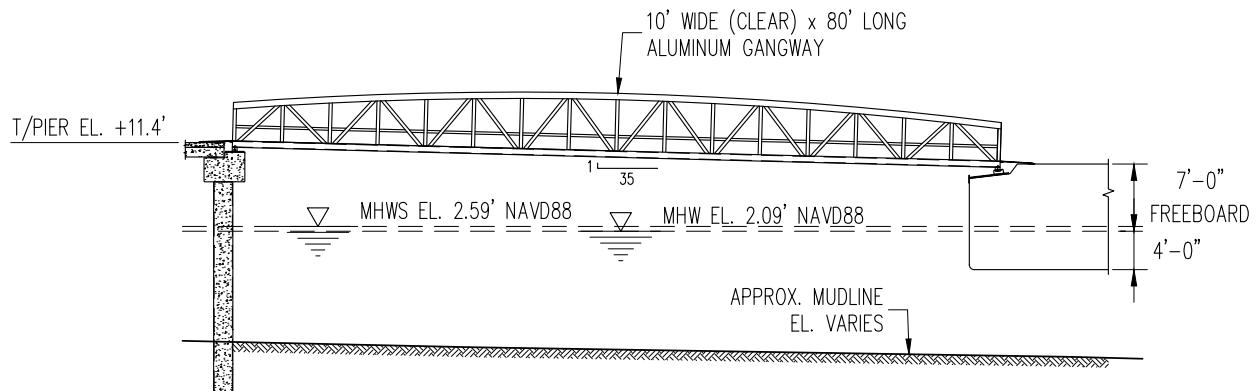
IN: NEW YORK BAY  
AT: STATEN ISLAND  
COUNTY OF: RICHMOND STATE: N.Y.  
0 20' 40'  
1"=20'

SHT 7 OF 9 01/15/20



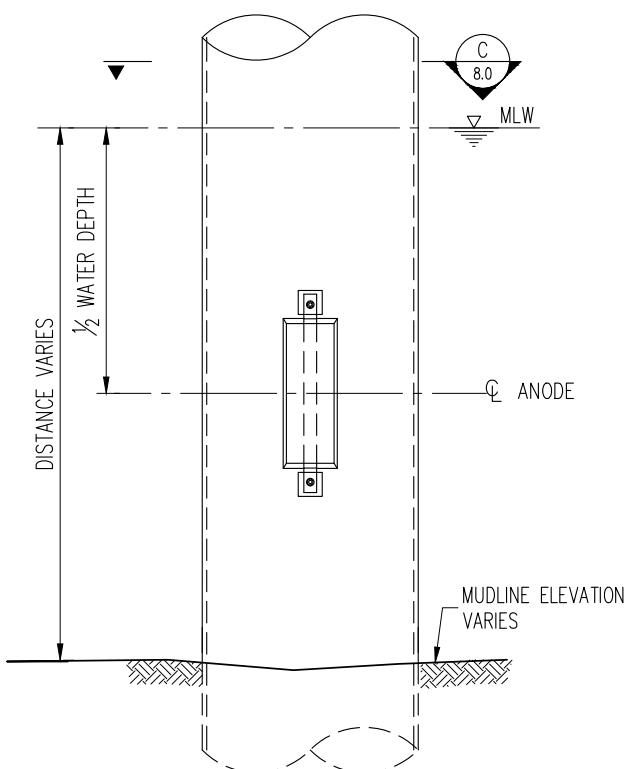
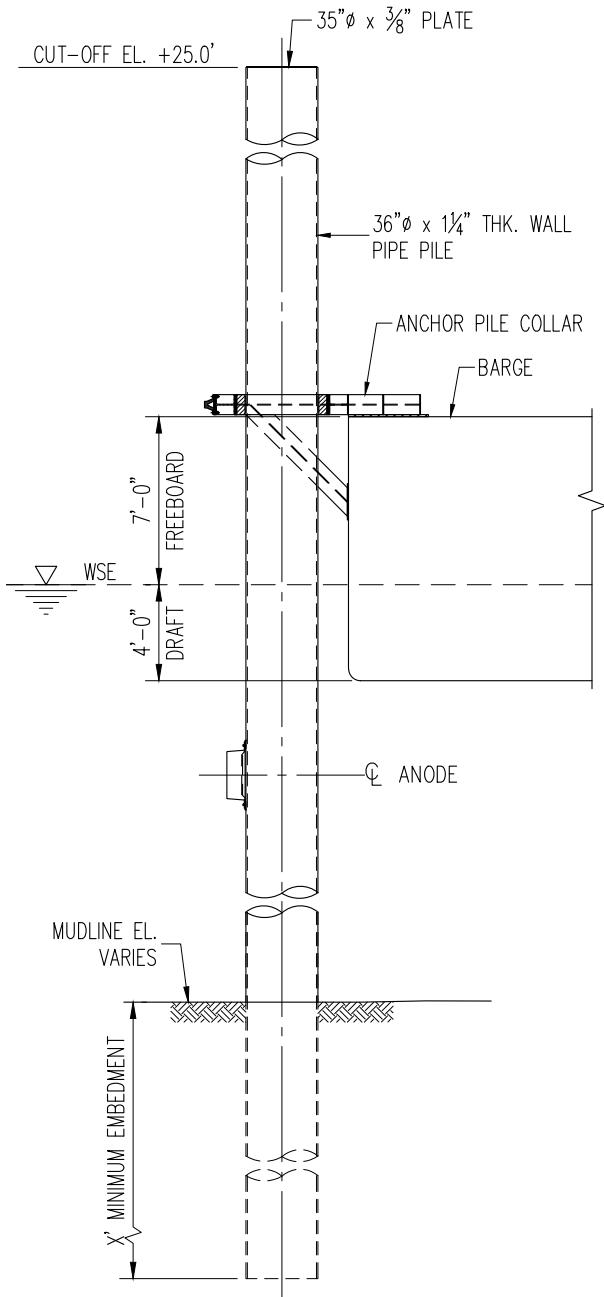
**A PROPOSED ELEVATION @ MEAN LOW WATER**

NOTE(S): ELEVATIONS SHOWN REFERENCE NAVD88.



**B PROPOSED ELEVATION @ MEAN HIGH WATER**

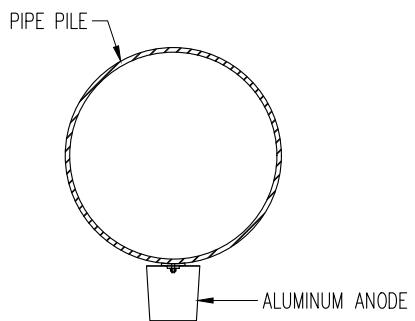
PURPOSE: CITYWIDE FERRY SERVICE  DATUM: NAVD88  ADJACENT OWNERS: 1. SEE ATTACHED	ST. GEORGE FERRY LANDING CITYWIDE FERRY SERVICE  APPLICANT: NEW YORK ECONOMIC DEVELOPMENT CORPORATION 1 LIBERTY PLAZA NEW YORK, N.Y. 10006  AGENT: M.G. McLaren Engineering & Land Surveying, P.C. 530 Chestnut Ridge Road Woodcliff Lake, N.J. 07677	7.0_PROPOSED ELEVATIONS  IN: NEW YORK BAY AT: STATEN ISLAND COUNTY OF: RICHMOND STATE: N.Y.  0 20' 40' 1"=20' SHT 8 OF 9 01/15/20
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**B PILE ANODE LOCATION**

3/8"=1'-0"

NOTE(S): ALL ANCHOR PILES SHALL RECEIVE ANODES.



**A ANCHOR PILE ELEVATION**

8.0

1/8" = 1'-0"

NOTE(S):

1. ANCHOR PILES TO BE COATED AS PER SPEC 02361 TO MIN. 10' BELOW MUDLINE.

**C SECTION**

8.0

3/8"=1'-0"

PURPOSE: CITYWIDE FERRY SERVICE

DATUM: NAVD88

ADJACENT OWNERS:  
1. SEE ATTACHED

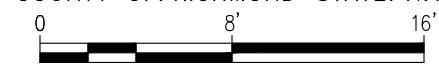
ST. GEORGE FERRY LANDING  
CITYWIDE FERRY SERVICE

APPLICANT: NEW YORK ECONOMIC  
DEVELOPMENT CORPORATION  
1 LIBERTY PLAZA  
NEW YORK, N.Y. 10006

AGENT: M.G. McLaren Engineering & Land Surveying, P.C.  
530 Chestnut Ridge Road  
Woodcliff Lake, N.J. 07677

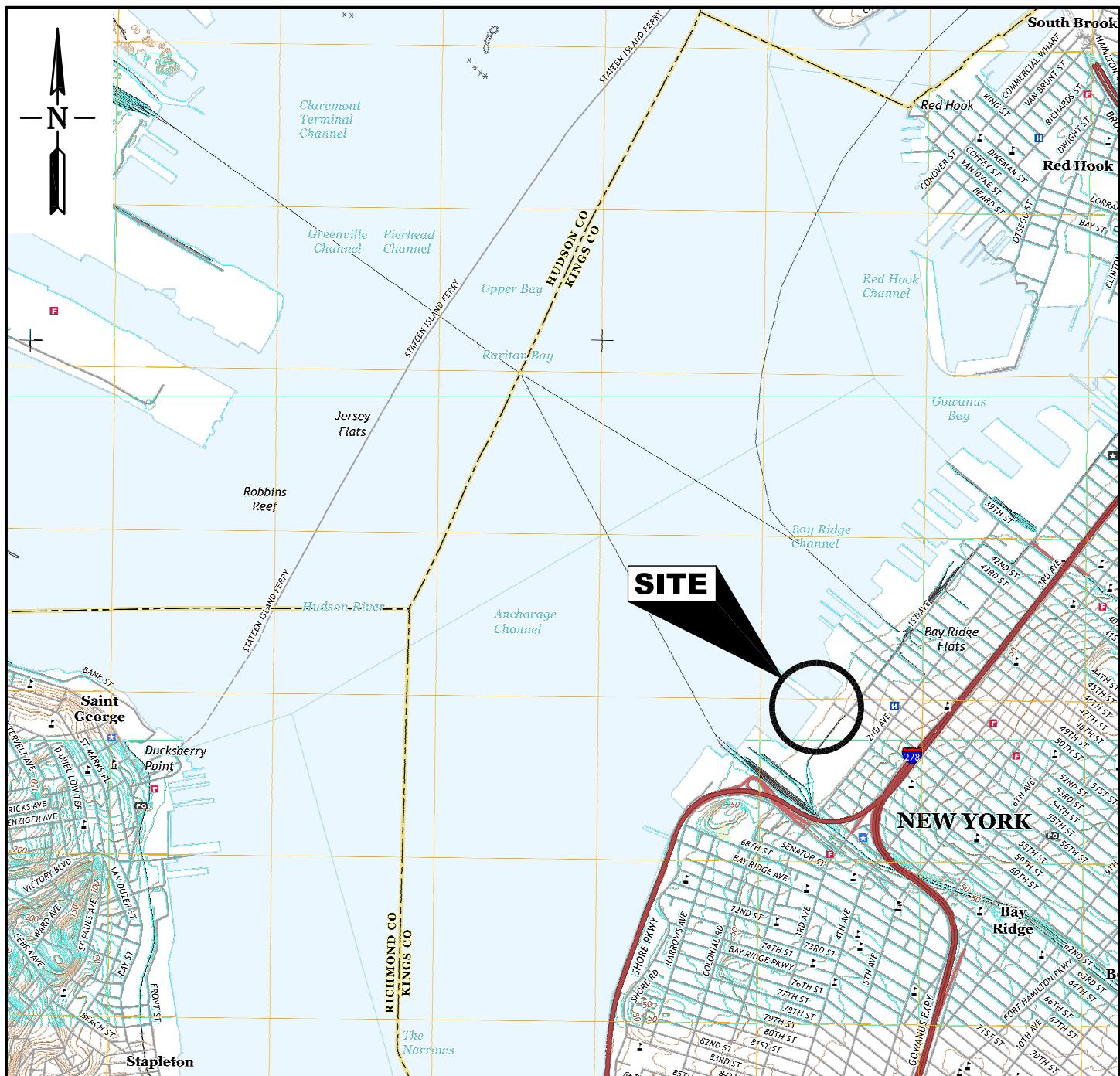
8.0\_ANCHOR PILE DETAILS

IN: NEW YORK BAY  
AT: STATEN ISLAND  
COUNTY OF: RICHMOND STATE: N.Y.



SHT 9 OF 9

01/15/20



TAKEN FROM USGS  
JERSEY CITY QUADRANGLE  
NEW JERSEY - NEW YORK  
7.5 MINUTE SERIES

### VICINITY MAP

0 3000 6000 FT.

SCALE 1"=3000'-0"

REV. 1 - 1/6/2020

FOR PERMIT USE ONLY  
NOT FOR CONSTRUCTION

DATUM: NAV88

APPLICATION BY: BROOKLYN ARMY TERMINAL

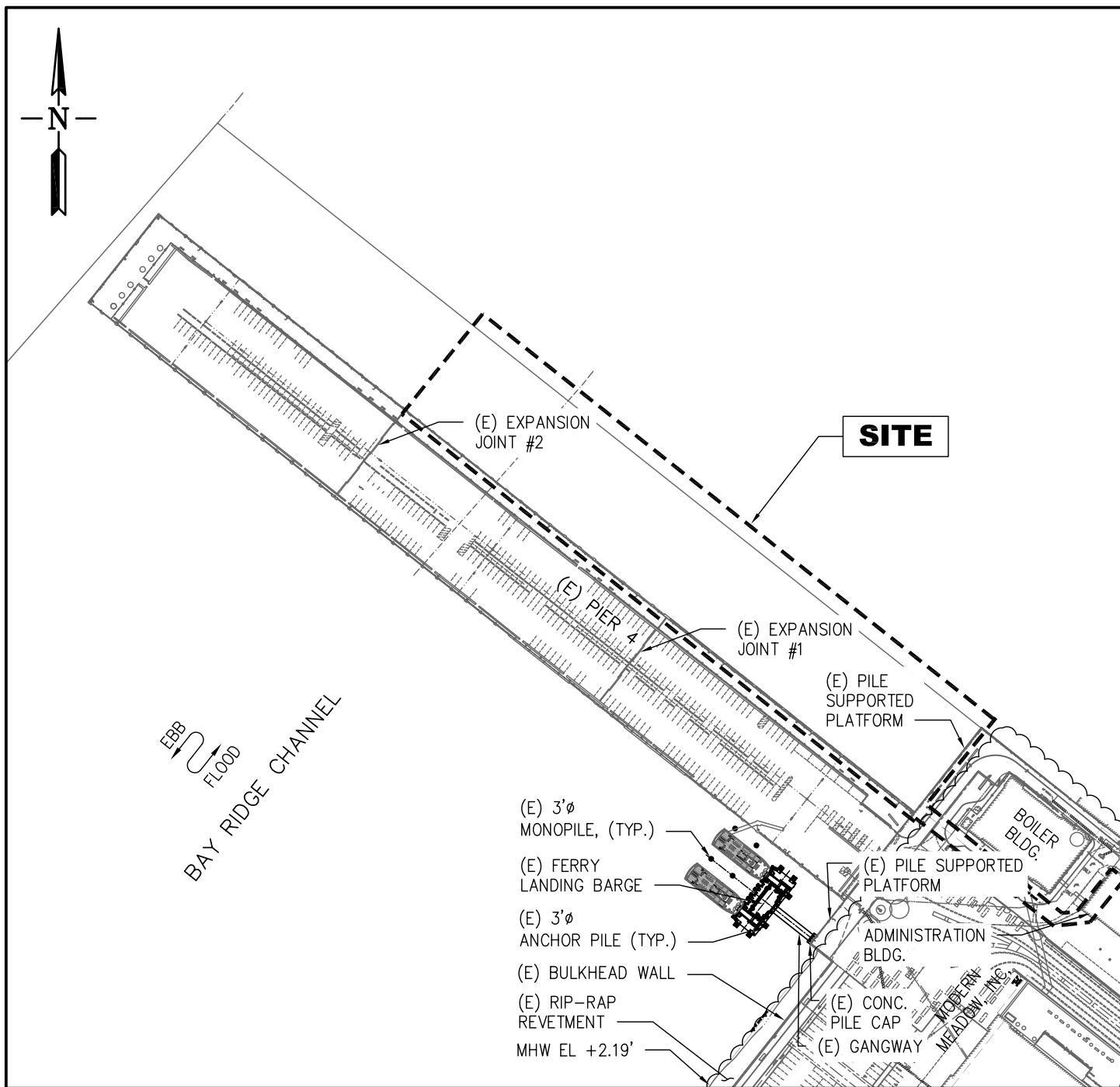
APPLICATION NO.:

AGENT: BTMI ENGINEERING, P.C. (COWI)

PIER 4 NORTH DOCK COMMERCIAL  
BERTH FACILITY AND FERRY LANDING  
UPPER BAY/ BAY RIDGE CHANNEL  
BROOKLYN  
COUNTY OF KINGS  
STATE OF NEW YORK

DATE: 06/10/19

SHEET 1 OF 20



SURVEY PREPARED BY STANTEC

EXISTING SITE PLAN

0 200 400 FT.

SCALE 1"=200'-0"

REV. 1 - 1/6/2020

FOR PERMIT USE ONLY  
NOT FOR CONSTRUCTION

DATUM: NAV88

APPLICATION BY: BROOKLYN ARMY TERMINAL

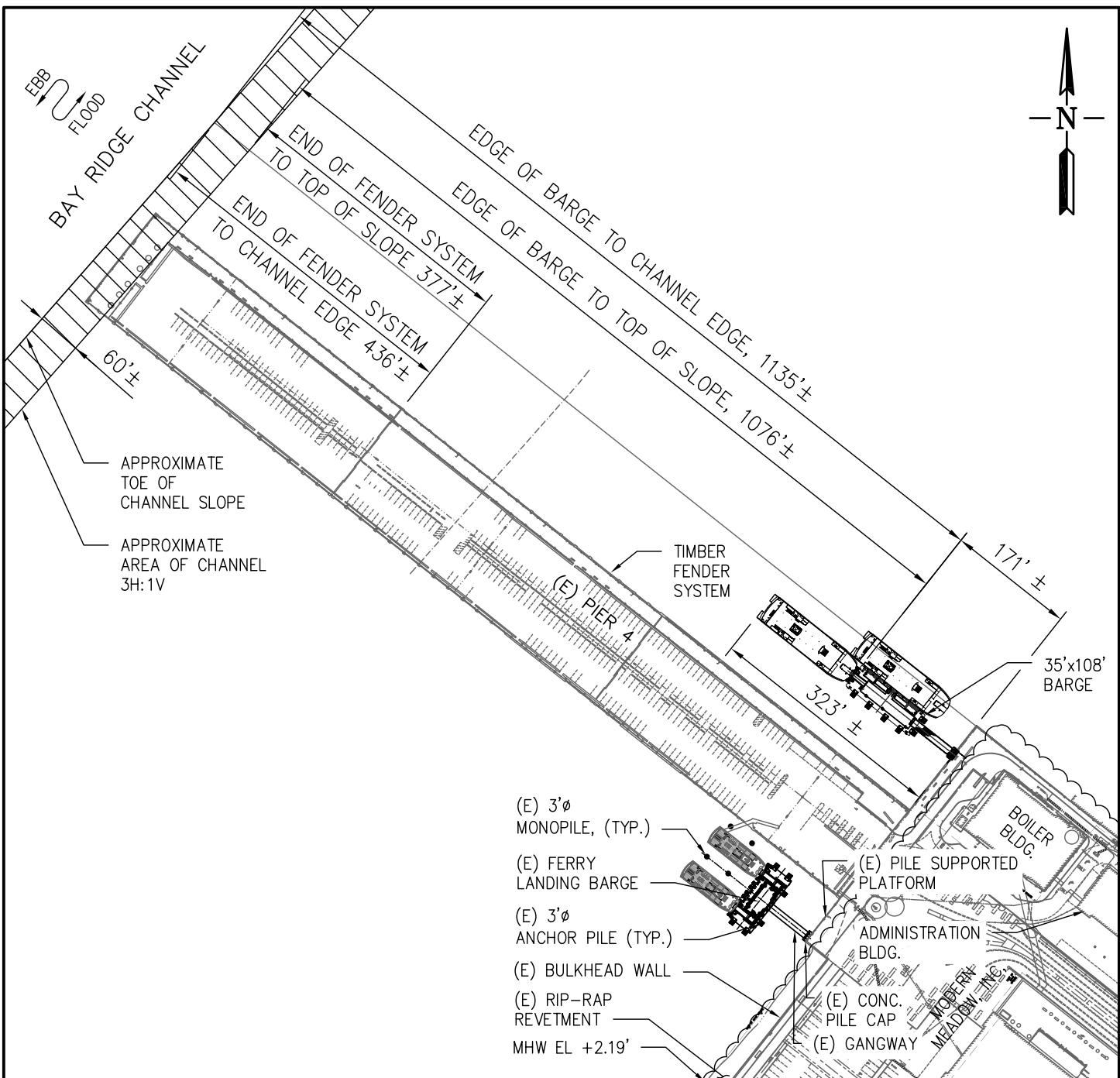
APPLICATION NO.:

AGENT: BTMI ENGINEERING, P.C. (COWI)

PIER 4 NORTH DOCK COMMERCIAL  
BERTH FACILITY AND FERRY LANDING  
UPPER BAY/ BAY RIDGE CHANNEL  
BROOKLYN  
COUNTY OF KINGS  
STATE OF NEW YORK

DATE: 06/10/19

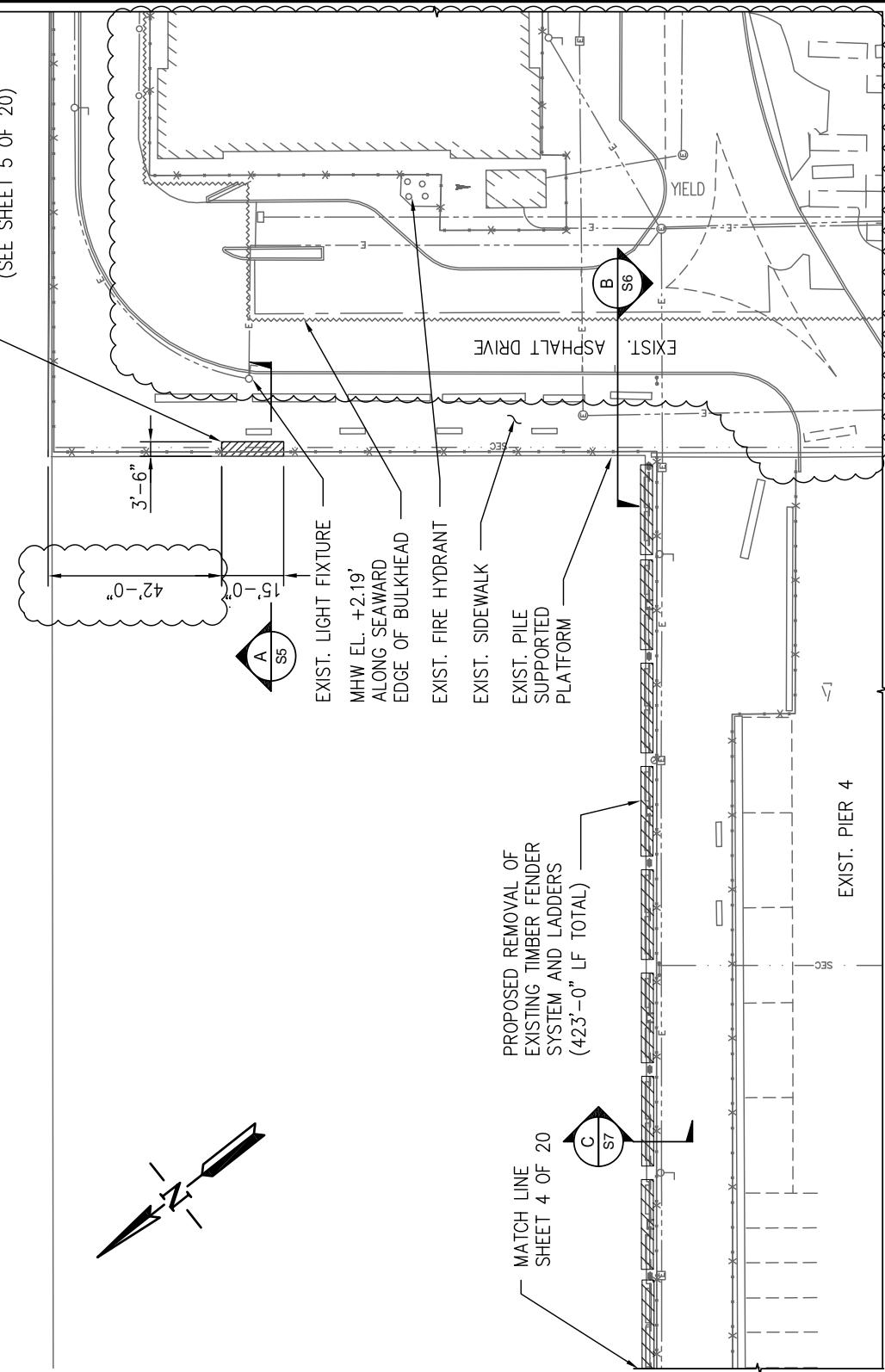
SHEET 2 OF 20



DATUM: NAV88 APPLICATION BY: BROOKLYN ARMY TERMINAL APPLICATION NO.:  AGENT: BTMI ENGINEERING, P.C. (COWI)	PIER 4 NORTH DOCK COMMERCIAL BERTH FACILITY AND FERRY LANDING UPPER BAY/ BAY RIDGE CHANNEL BROOKLYN COUNTY OF KINGS STATE OF NEW YORK  DATE: 02/04/20
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PROPOSED MODIFICATION  
OF EXIST. RAIL AND  
PLATFORM  
(SEE SHEET 5 OF 20)

FLOOD  
EBB  
BAY RIDGE CHANNEL



PROPOSED DEMOLITION PLAN—SHEET 1 OF 2

FOR PERMIT USE ONLY  
NOT FOR CONSTRUCTION

REV. 1 – 1/6/2020

DATUM: NAV88

APPLICATION BY: BROOKLYN ARMY TERMINAL

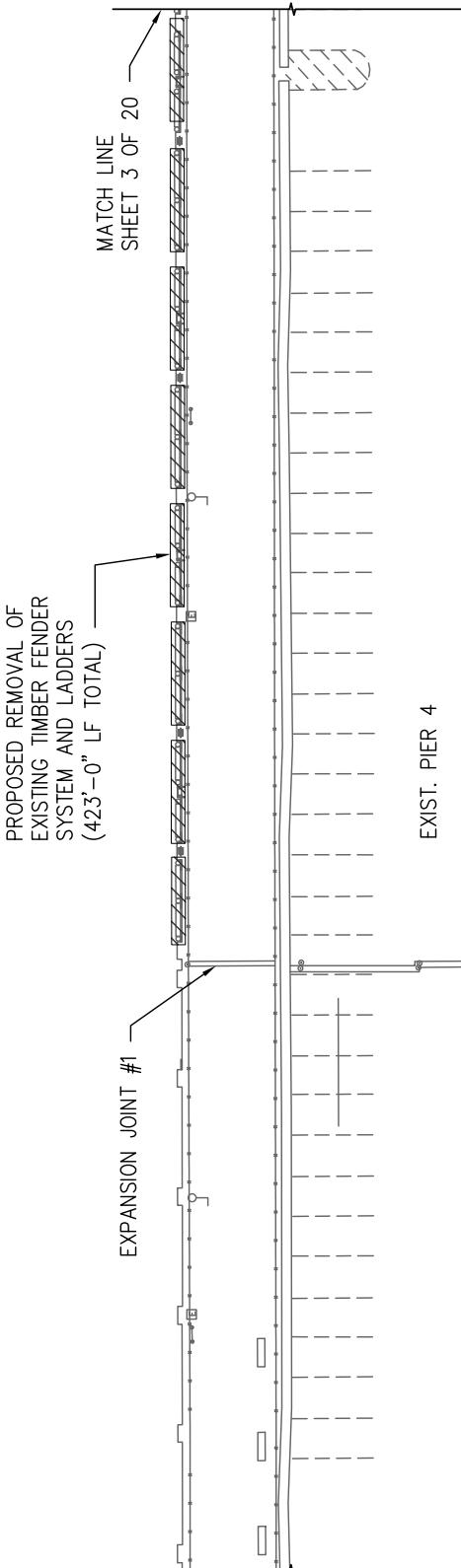
APPLICATION NO.:

AGENT: BTMI ENGINEERING, P.C. (COWI)

PIER 4 NORTH DOCK COMMERCIAL BERTH FACILITY AND FERRY LANDING  
UPPER BAY/ BAY RIDGE CHANNEL BROOKLYN  
COUNTY OF KINGS  
STATE OF NEW YORK

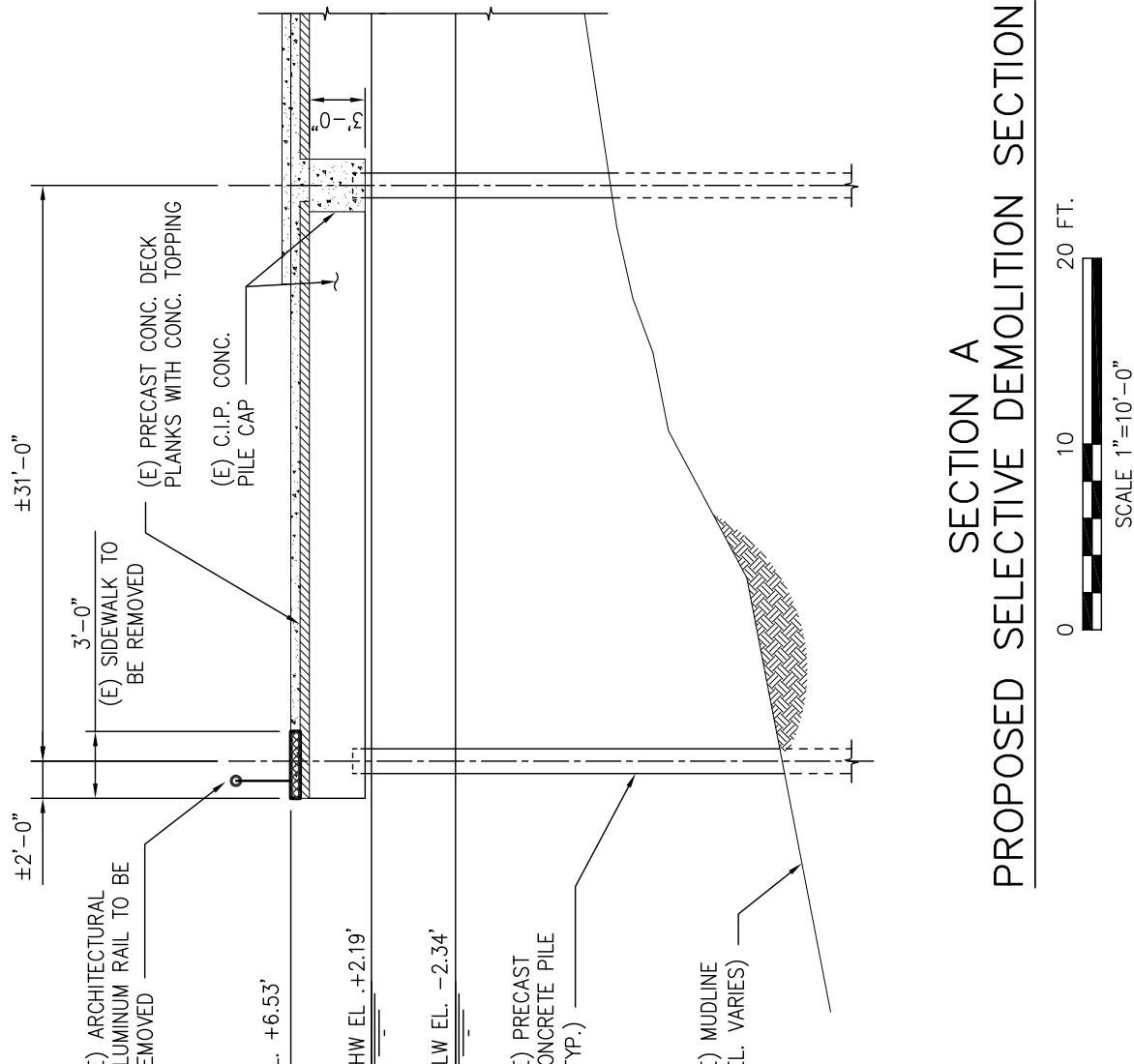
DATE: 06/11/19

SHEET 3 OF 20



FOR PERMIT USE ONLY  
NOT FOR CONSTRUCTION

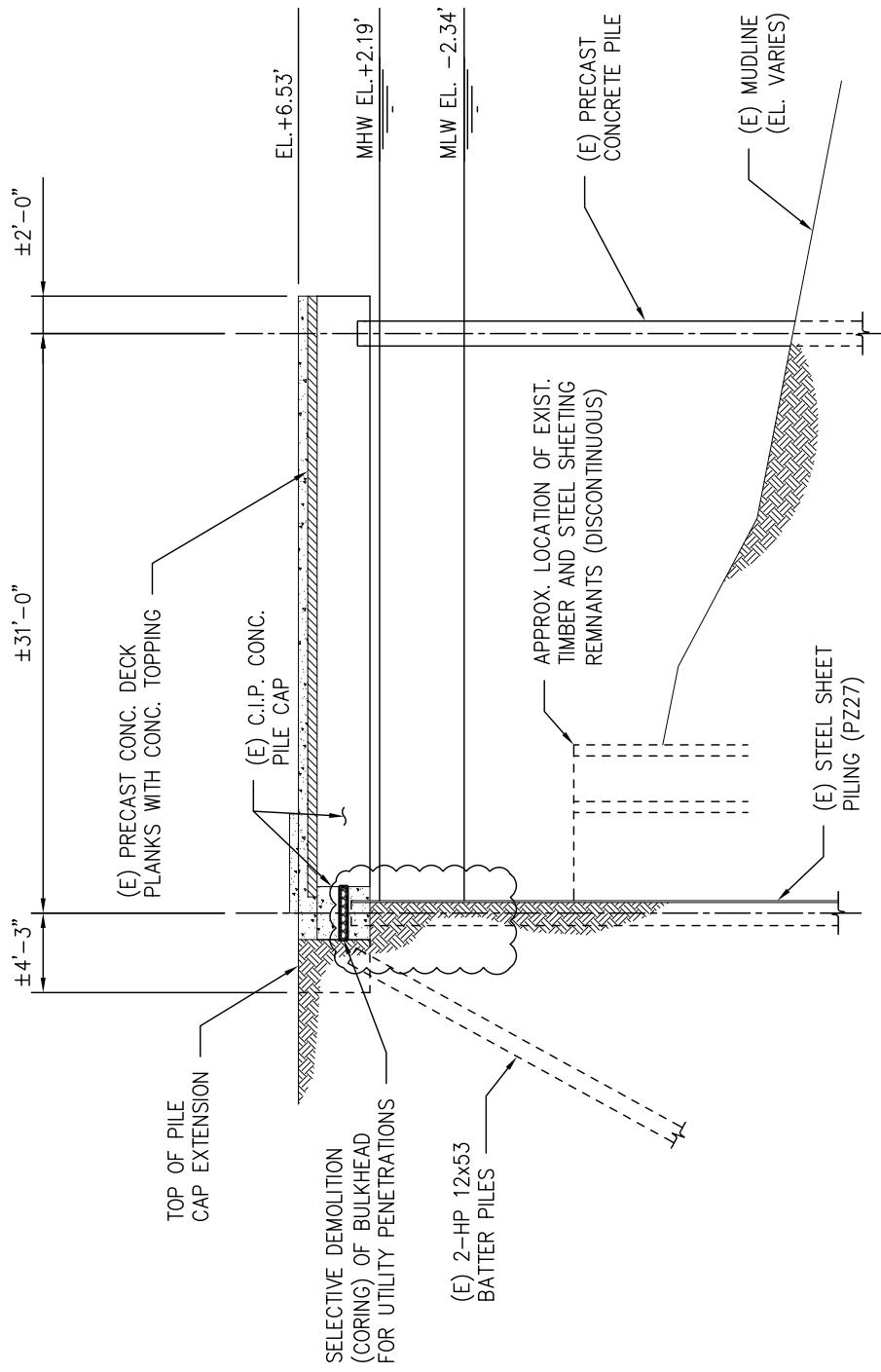
	DATUM: NAV88 APPLICATION BY: BROOKLYN ARMY TERMINAL APPLICATION NO.: AGENT: BTMI ENGINEERING, P.C. (COWI)	PIER 4 NORTH DOCK COMMERCIAL BERTH FACILITY AND FERRY LANDING UPPER BAY/ BAY RIDGE CHANNEL BROOKLYN COUNTY OF KINGS STATE OF NEW YORK DATE: 06/11/19	SHEET 4 OF 20
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REV. 1 – 1/6/2020

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	DATUM: NAV88 APPLICATION BY: BROOKLYN ARMY TERMINAL APPLICATION NO.: AGENT: BTMI ENGINEERING, P.C. (COWI)	PIER 4 NORTH DOCK COMMERCIAL BERTH FACILITY AND FERRY LANDING UPPER BAY/ BAY RIDGE CHANNEL BROOKLYN COUNTY OF KINGS STATE OF NEW YORK
		DATE: 06/11/19 SHEET 5 OF 20

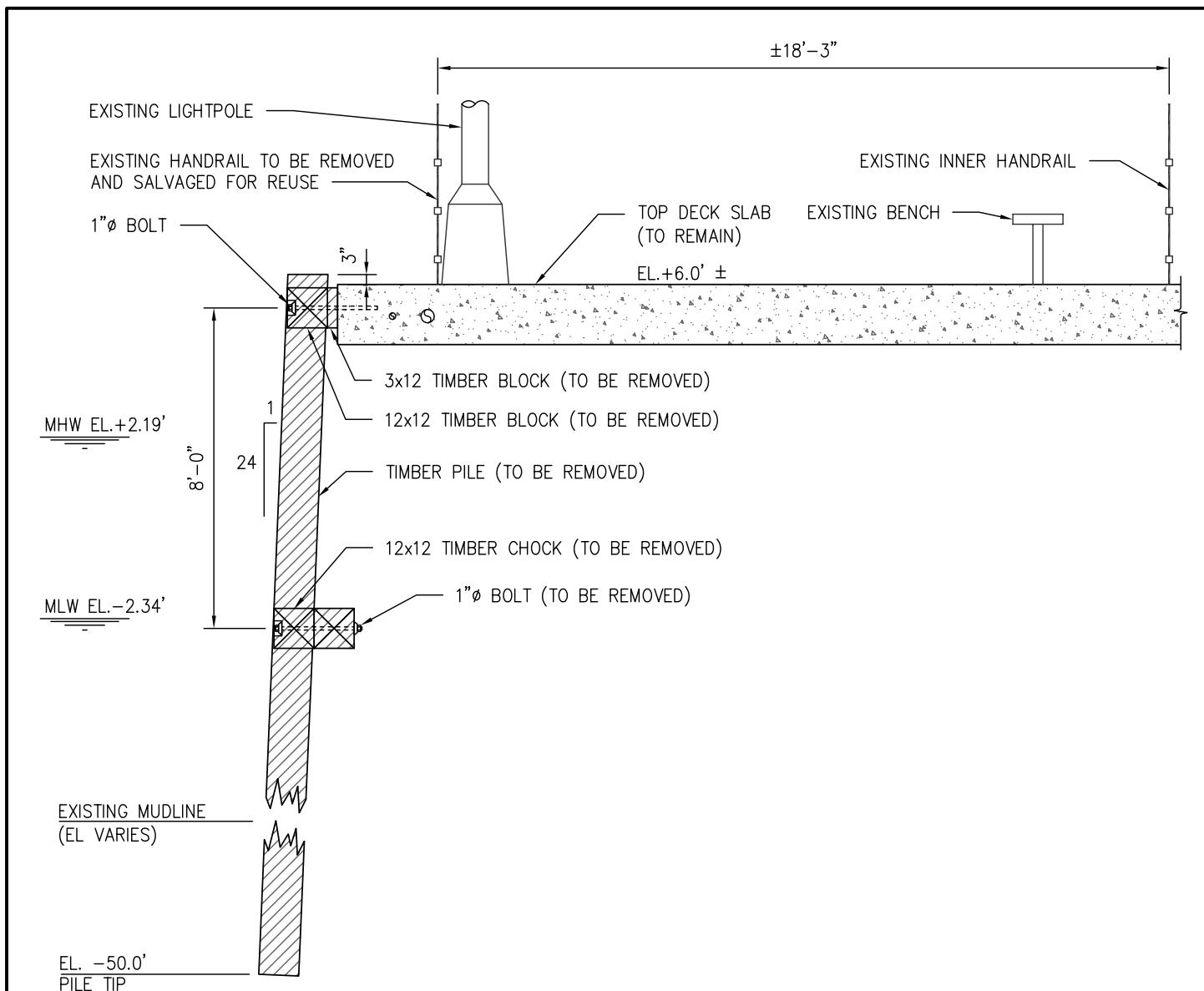


**PROPOSED SELECTIVE DEMOLITION SECTION**

REV. 1 – 1/6/2020

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	<p>DATUM: NAV88 APPLICATION BY: BROOKLYN ARMY TERMINAL APPLICATION NO.: AGENT: BTMI ENGINEERING, P.C. (COWI)</p>	<p>PIER 4 NORTH DOCK COMMERCIAL BERTH FACILITY AND FERRY LANDING UPPER BAY/ BAY RIDGE CHANNEL BROOKLYN COUNTY OF KINGS STATE OF NEW YORK</p>
		<p>DATE: 06/11/19</p>



**SECTION C**  
**PROPOSED TIMBER FENDER SYSTEM DEMOLITION SECTION**

4 FT      1 FT      0      4 FT  
 $\frac{1}{4}'' = 1'-0''$

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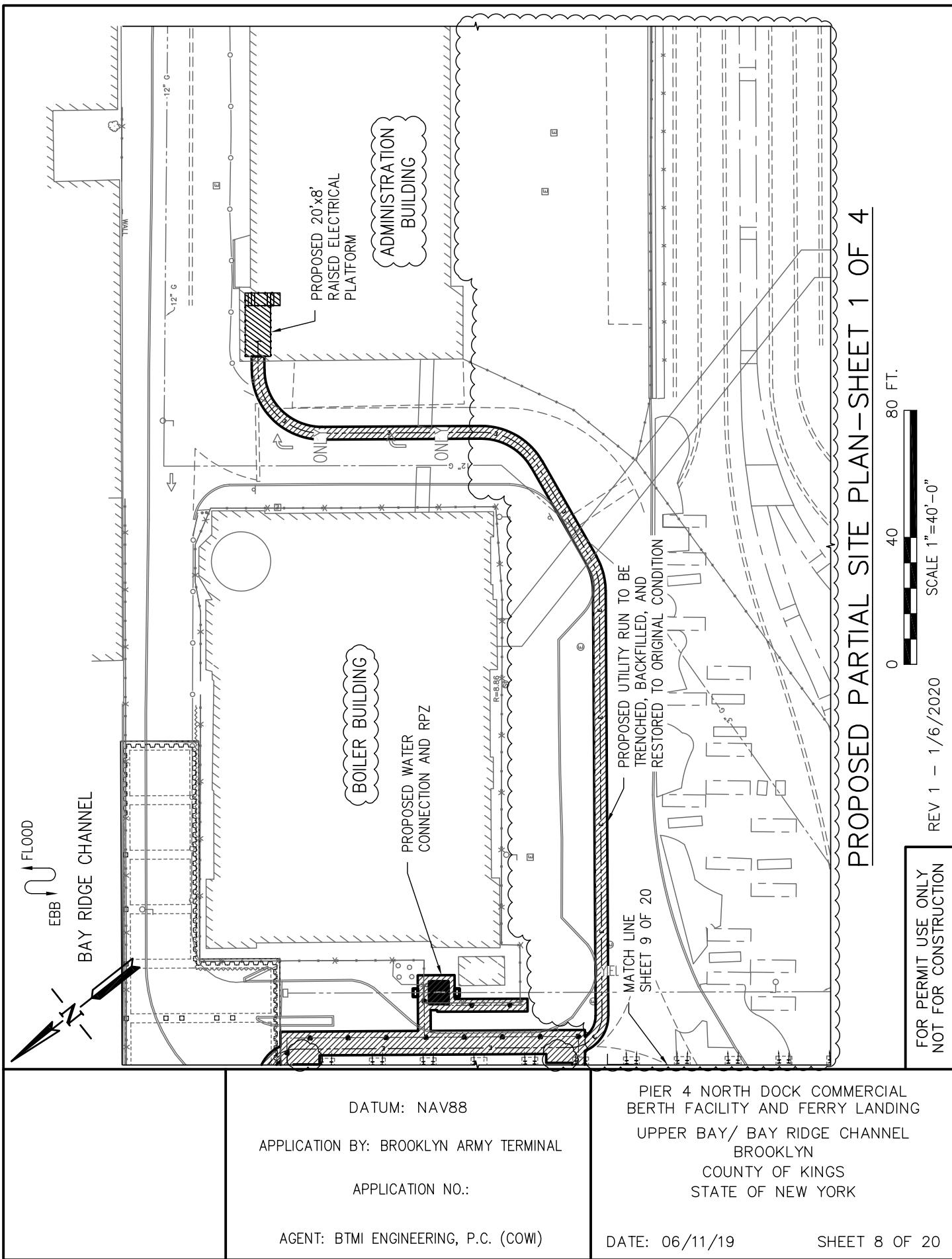
REV. 1 – 1/6/2020

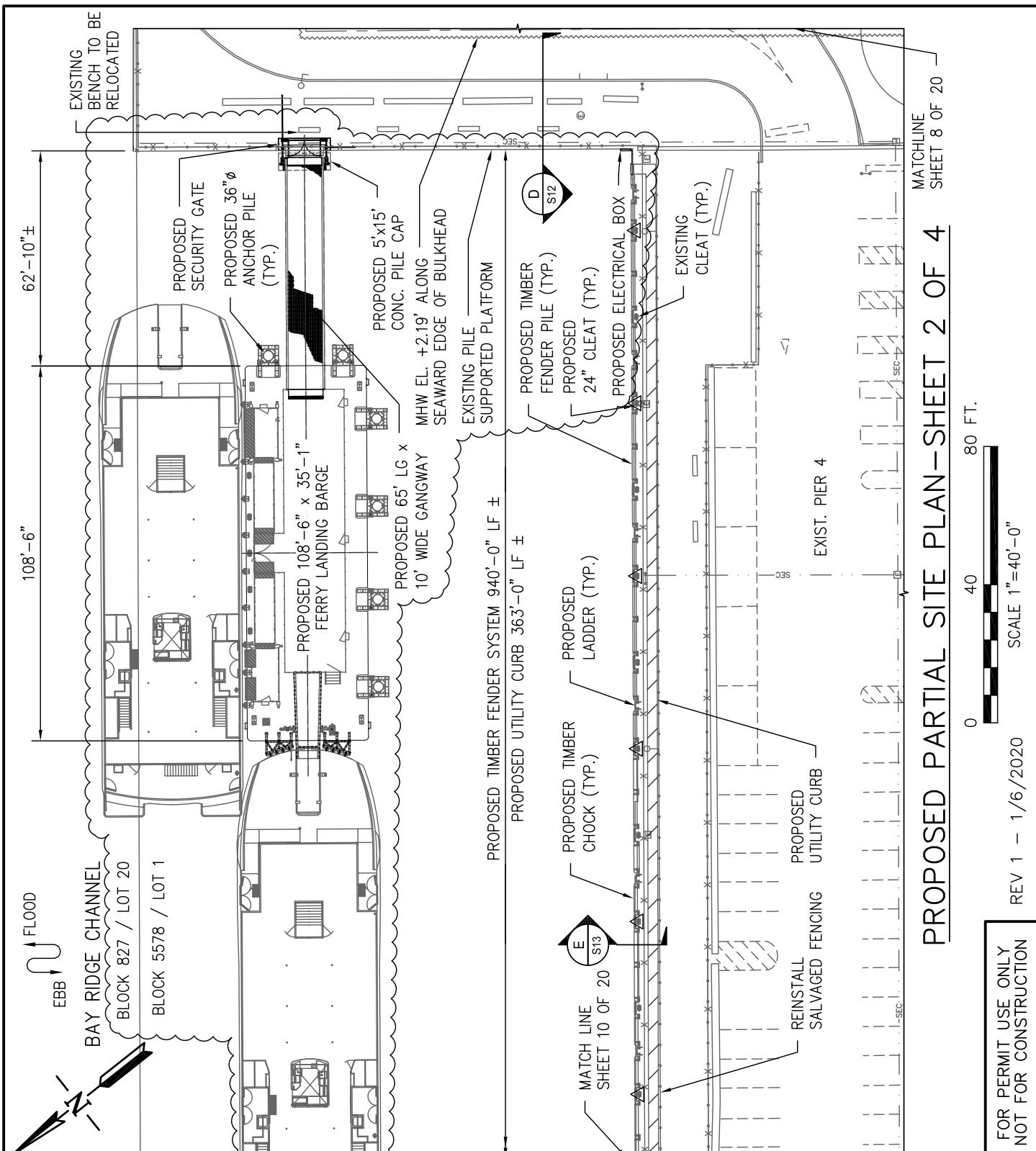
DATUM: NAV88  
 APPLICATION BY: BROOKLYN ARMY TERMINAL  
 APPLICATION NO.:  
 AGENT: BTMI ENGINEERING, P.C. (COWI)

PIER 4 NORTH DOCK COMMERCIAL  
FACILITY AND FERRY LANDING  
UPPER BAY/ BAY RIDGE CHANNEL  
BROOKLYN  
COUNTY OF KINGS  
STATE OF NEW YORK

DATE: 06/11/19

SHEET 7 OF 20





DATUM: NAV88

APPLICATION BY: BROOKLYN ARMY TERMINAL

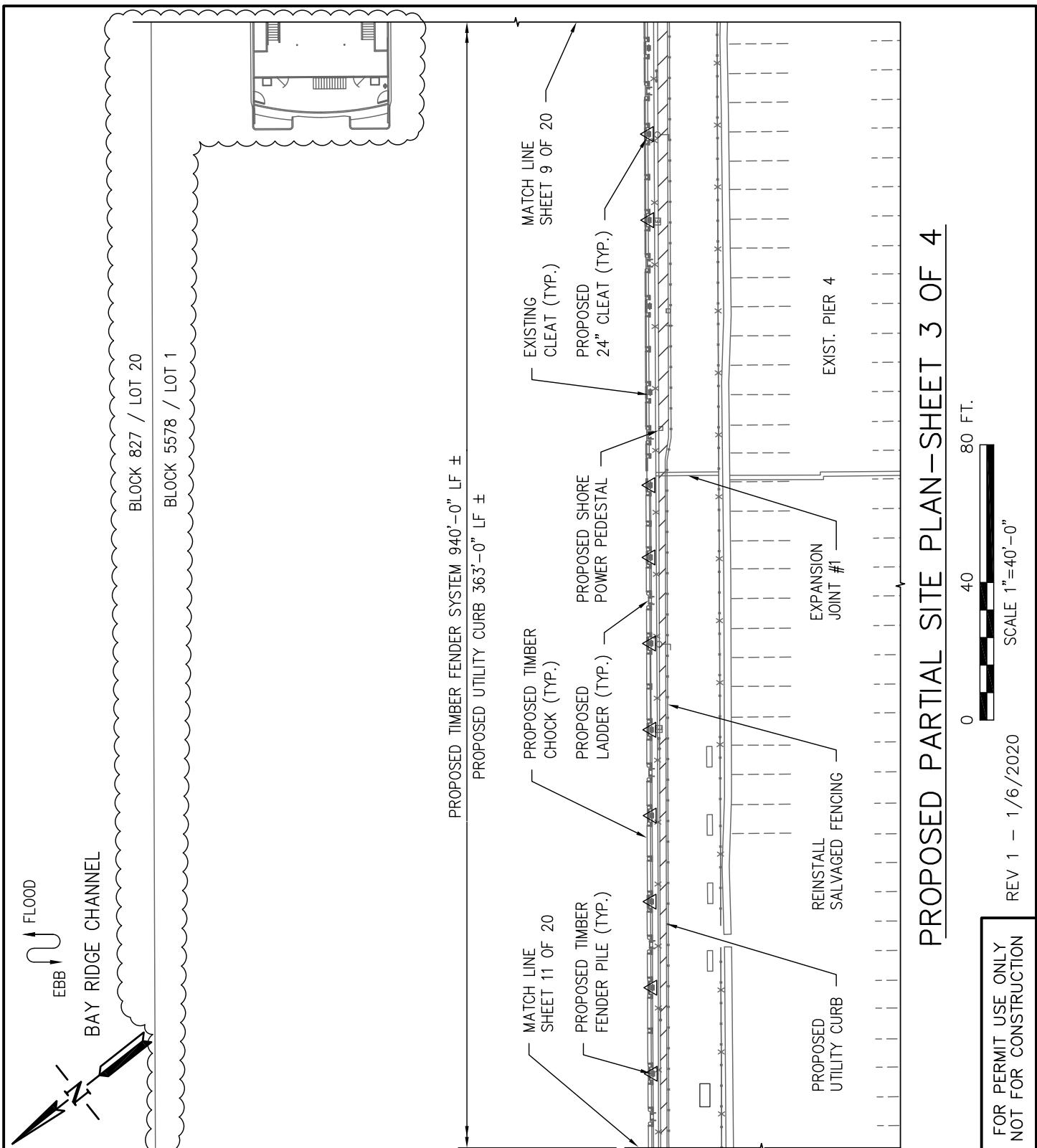
APPLICATION NO.:

AGENT: BTMI ENGINEERING, P.C. (COWI)

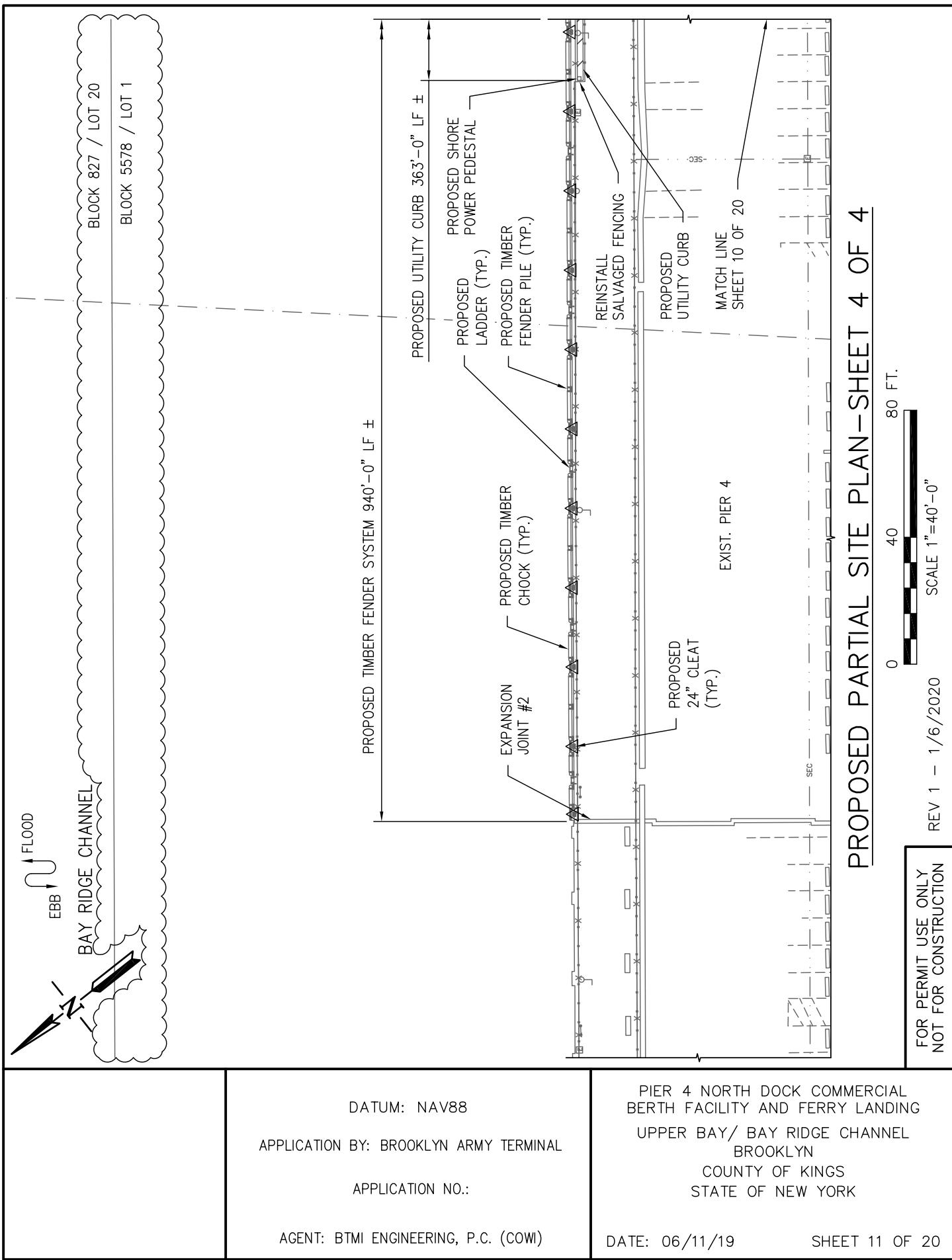
PIER 4 NORTH DOCK COMMERCIAL  
BERTH FACILITY AND FERRY LANDING  
UPPER BAY/ BAY RIDGE CHANNEL  
BROOKLYN  
COUNTY OF KINGS  
STATE OF NEW YORK

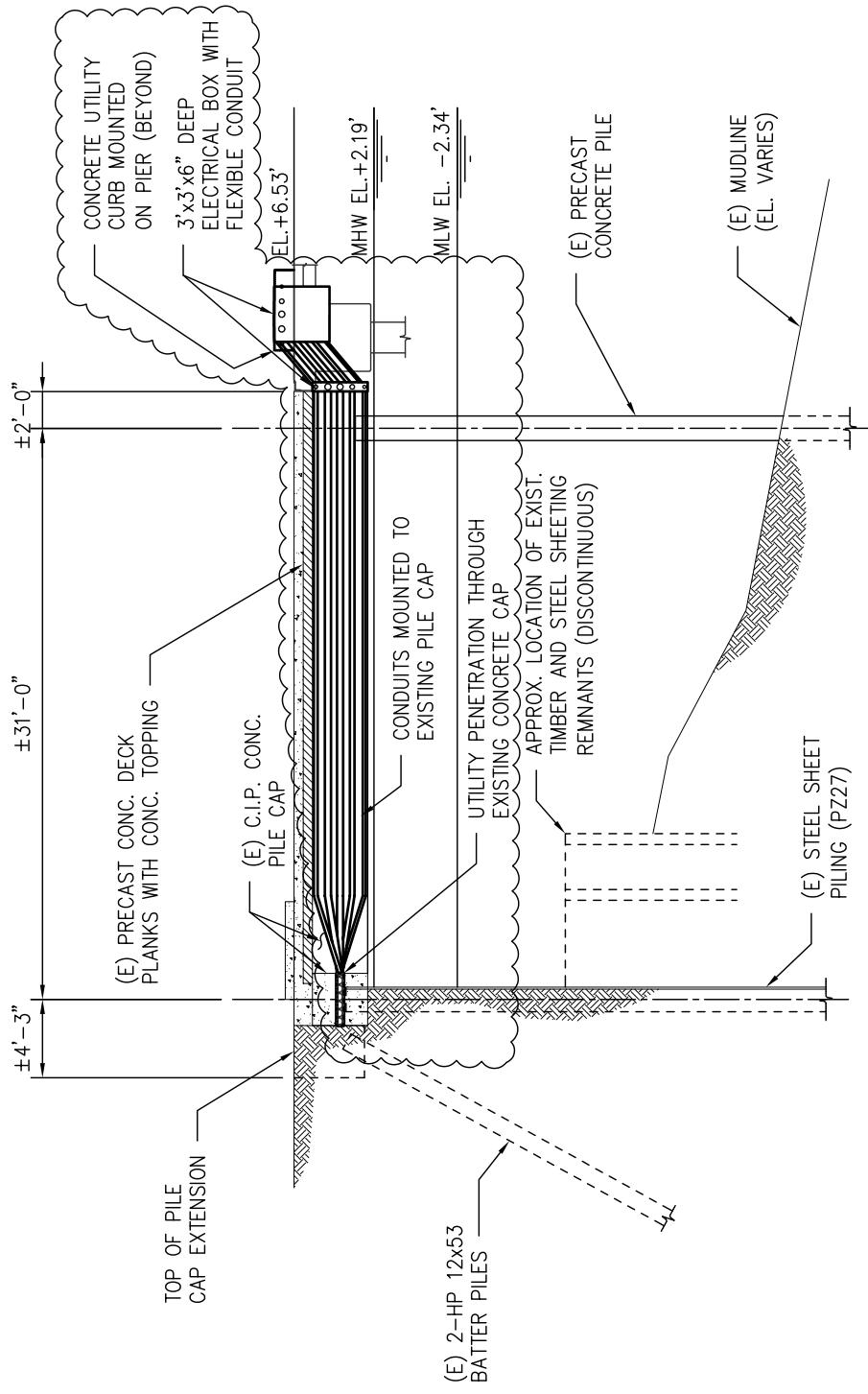
DATE: 06/11/19

SHEET 9 OF 20

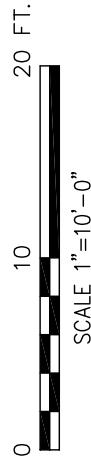


	DATUM: NAV88 APPLICATION BY: BROOKLYN ARMY TERMINAL APPLICATION NO.: AGENT: BTMI ENGINEERING, P.C. (COWI)	PIER 4 NORTH DECK COMMERCIAL BERTH FACILITY AND FERRY LANDING UPPER BAY/ BAY RIDGE CHANNEL BROOKLYN COUNTY OF KINGS STATE OF NEW YORK DATE: 06/11/19 SHEET 10 OF 20
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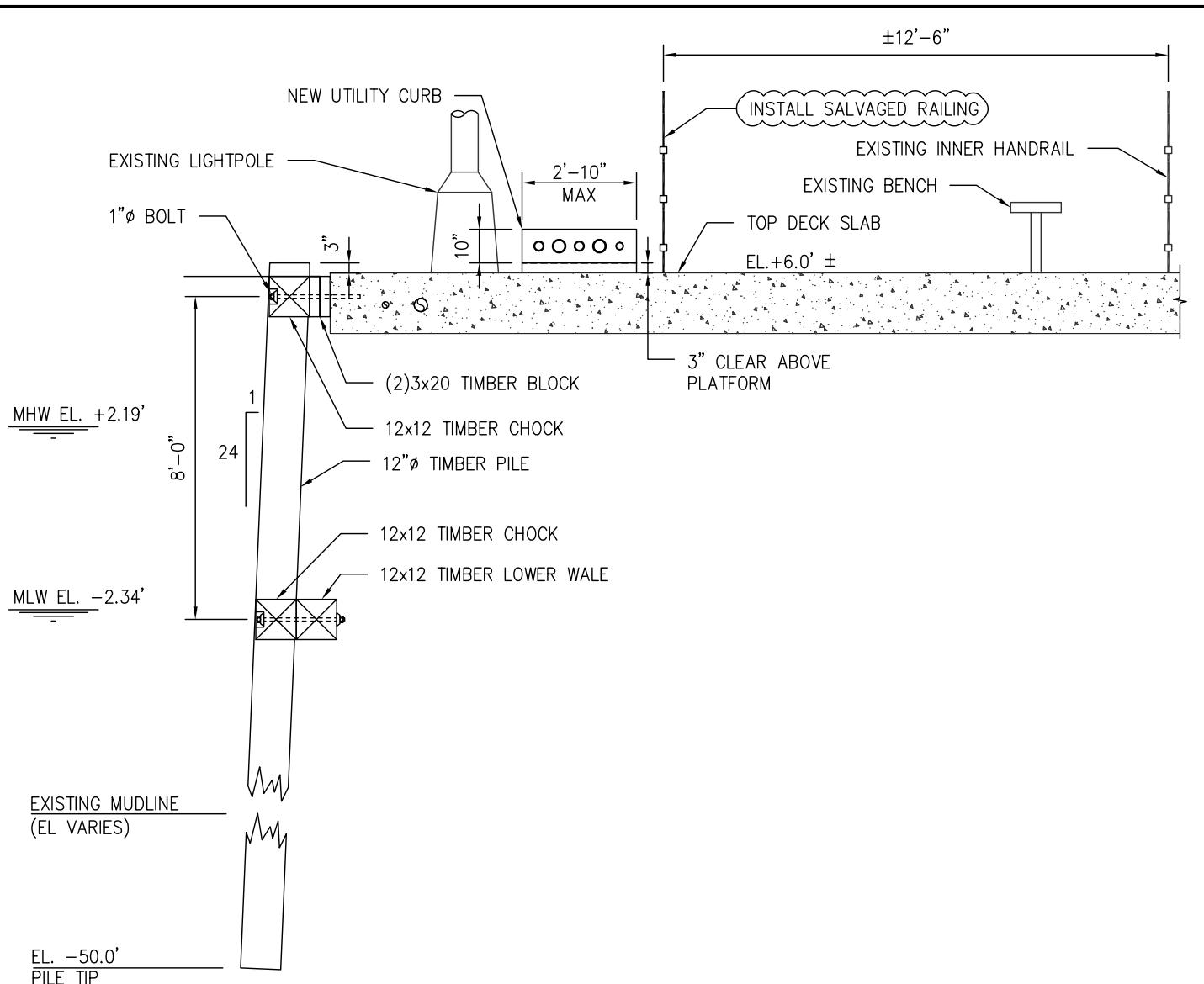
### PROPOSED SECTION D



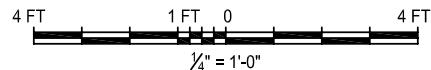
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	<p>DATUM: NAV88 APPLICATION BY: BROOKLYN ARMY TERMINAL APPLICATION NO.: AGENT: BTMI ENGINEERING, P.C. (COWI)</p>	<p>PIER 4 NORTH DOCK COMMERCIAL BERTH FACILITY AND FERRY LANDING UPPER BAY/ BAY RIDGE CHANNEL BROOKLYN COUNTY OF KINGS STATE OF NEW YORK</p>
		<p>DATE: 06/11/19</p>



## SECTION E PROPOSED TIMBER FENDER AND UTILITY CURB SECTION



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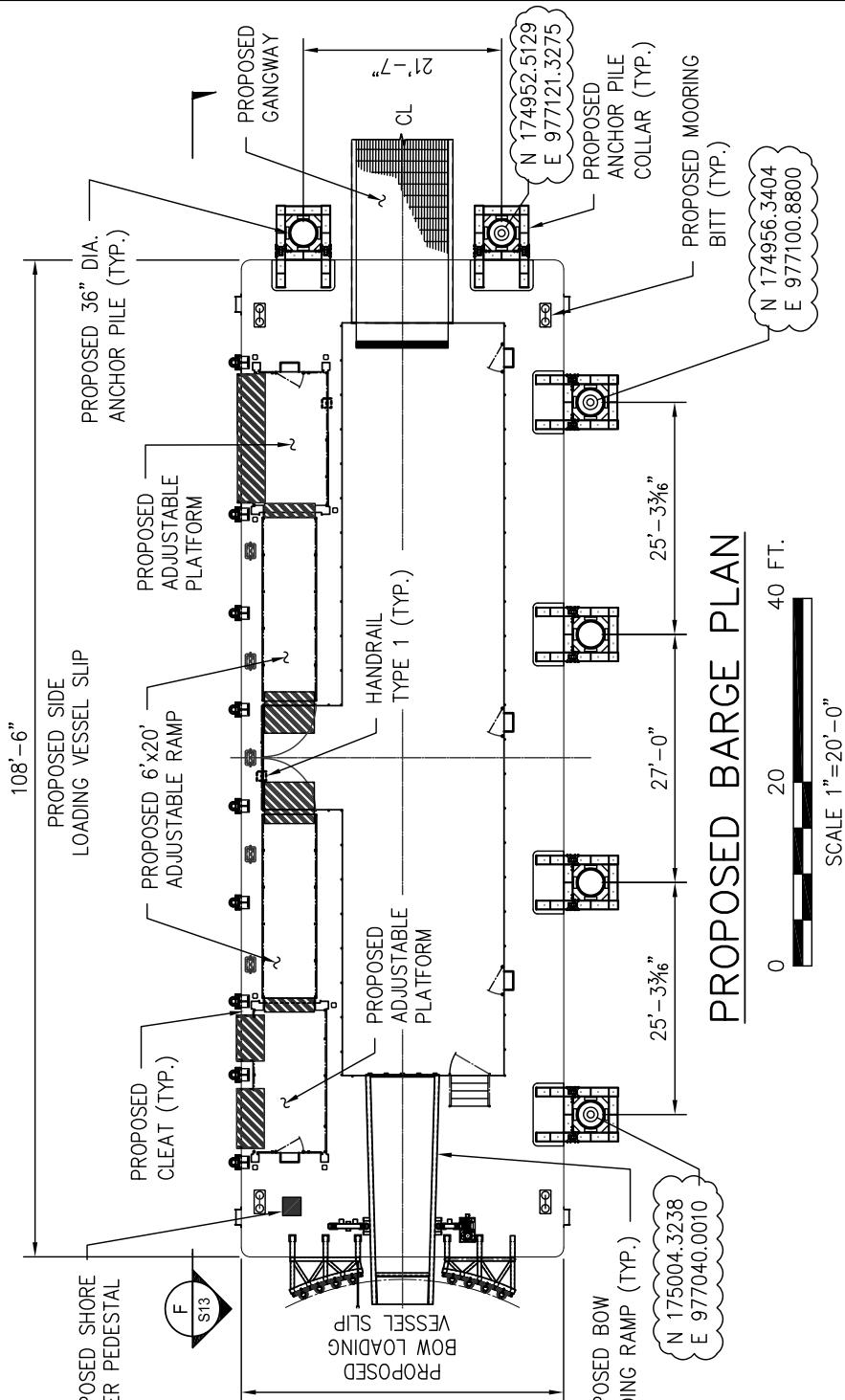
REV. 1 – 1/6/2020

DATUM: NAV88  
APPLICATION BY: BROOKLYN ARMY TERMINAL  
APPLICATION NO.:  
AGENT: BTMI ENGINEERING, P.C. (COWI)

PIER 4 NORTH DOCK COMMERCIAL  
FACILITY AND FERRY LANDING  
UPPER BAY/ BAY RIDGE CHANNEL  
BROOKLYN  
COUNTY OF KINGS  
STATE OF NEW YORK

DATE: 06/11/19

SHEET 13 OF 20

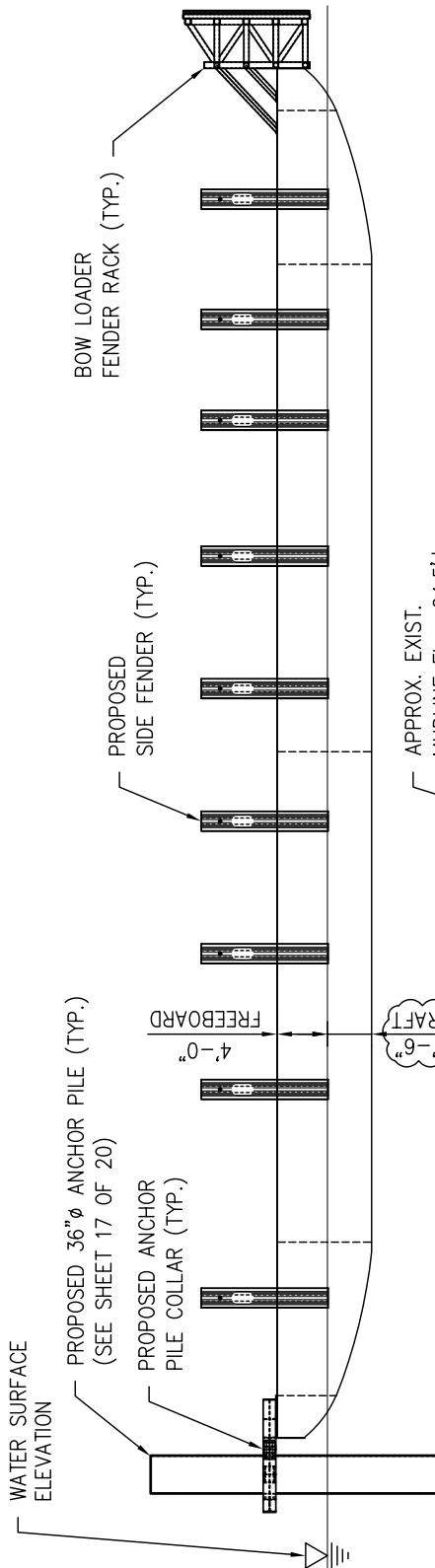


### PROPOSED BARGE PLAN

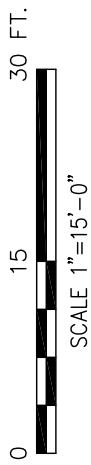
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	<p>DATUM: NAV88</p> <p>APPLICATION BY: BROOKLYN ARMY TERMINAL</p> <p>APPLICATION NO.:</p> <p>AGENT: BTMI ENGINEERING, P.C. (COWI)</p>	<p>PIER 4 NORTH DOCK COMMERCIAL BERTH FACILITY AND FERRY LANDING</p> <p>UPPER BAY/ BAY RIDGE CHANNEL BROOKLYN</p> <p>COUNTY OF KINGS</p> <p>STATE OF NEW YORK</p>
		<p>DATE: 06/12/19</p> <p>SHEET 14 OF 20</p>



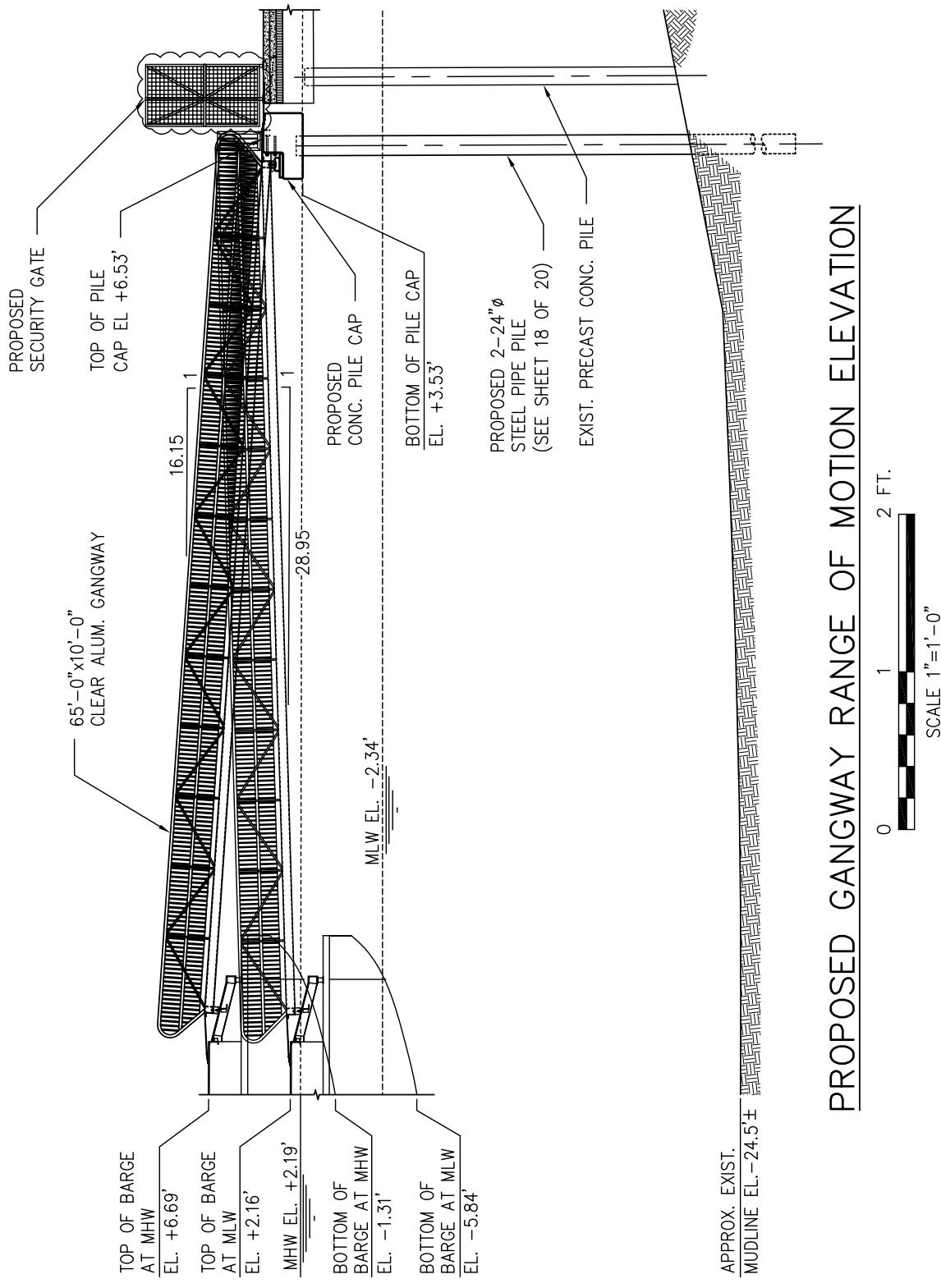
SECTION F  
PROPOSED BARGE ELEVATION



REV. 1 – 1/6/2020

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	<p>DATUM: NAV88</p> <p>APPLICATION BY: BROOKLYN ARMY TERMINAL</p> <p>APPLICATION NO.:</p> <p>AGENT: BTMI ENGINEERING, P.C. (COWI)</p>	<p>PIER 4 NORTH DOCK COMMERCIAL BERTH FACILITY AND FERRY LANDING</p> <p>UPPER BAY/ BAY RIDGE CHANNEL BROOKLYN</p> <p>COUNTY OF KINGS</p> <p>STATE OF NEW YORK</p>
		<p>DATE: 06/12/19</p> <p>SHEET 15 OF 20</p>



DATUM: NAV88  
APPLICATION BY: BROOKLYN ARMY TERMINAL  
APPLICATION NO.:  
AGENT: BTMI ENGINEERING, P.C. (COWI)

PIER 4 NORTH DOCK COMMERCIAL  
BERTH FACILITY AND FERRY LANDING  
UPPER BAY/ BAY RIDGE CHANNEL  
BROOKLYN  
COUNTY OF KINGS  
STATE OF NEW YORK

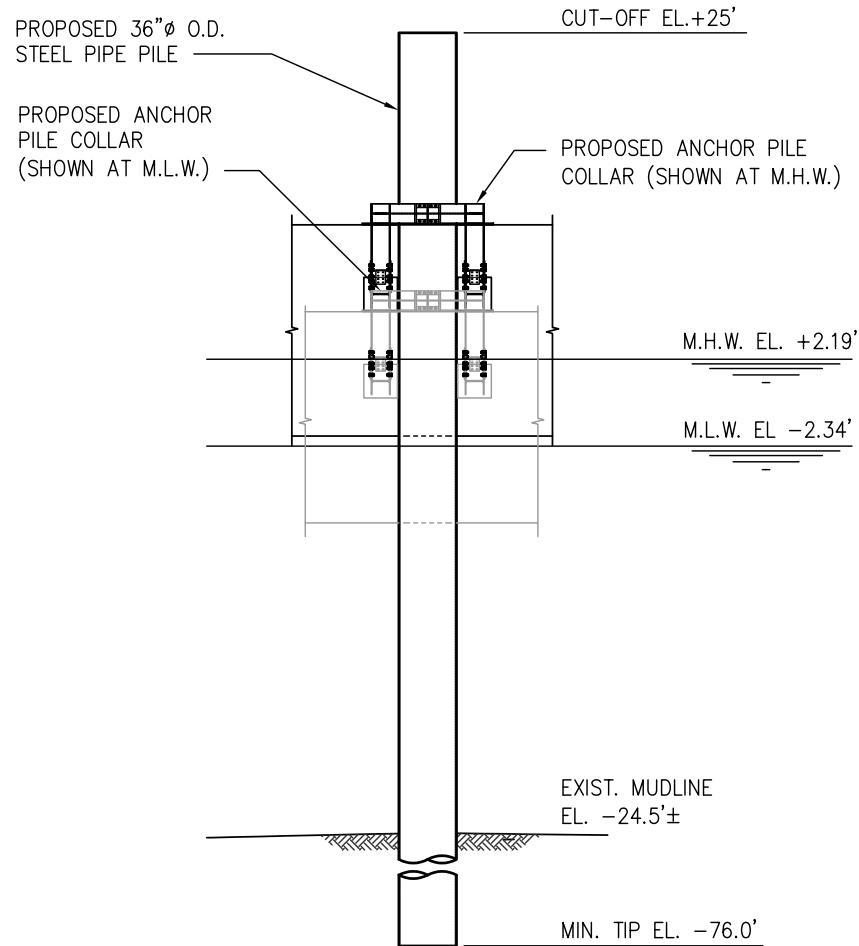
DATE: 06/12/19

SHEET 16 OF 20

REV. 1 – 1/6/2020

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ANCHOR PILE SCHEDULE					
PILE ID	QUANTITY	PILE O.D. (IN.)	PILE WALL THICKNESS (IN.)	TIP EL. (FT.)	CUT-OFF EL. (FT.)
ANCHOR	6	36	1.25	-76±	+25.0±



### PROPOSED ANCHOR PILE ELEVATION

0            10            20 FT.  
  
 SCALE 1"=10'-0"

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REV. 1 - 1/6/2020

DATUM: NAV88

APPLICATION BY: BROOKLYN ARMY TERMINAL

APPLICATION NO.:

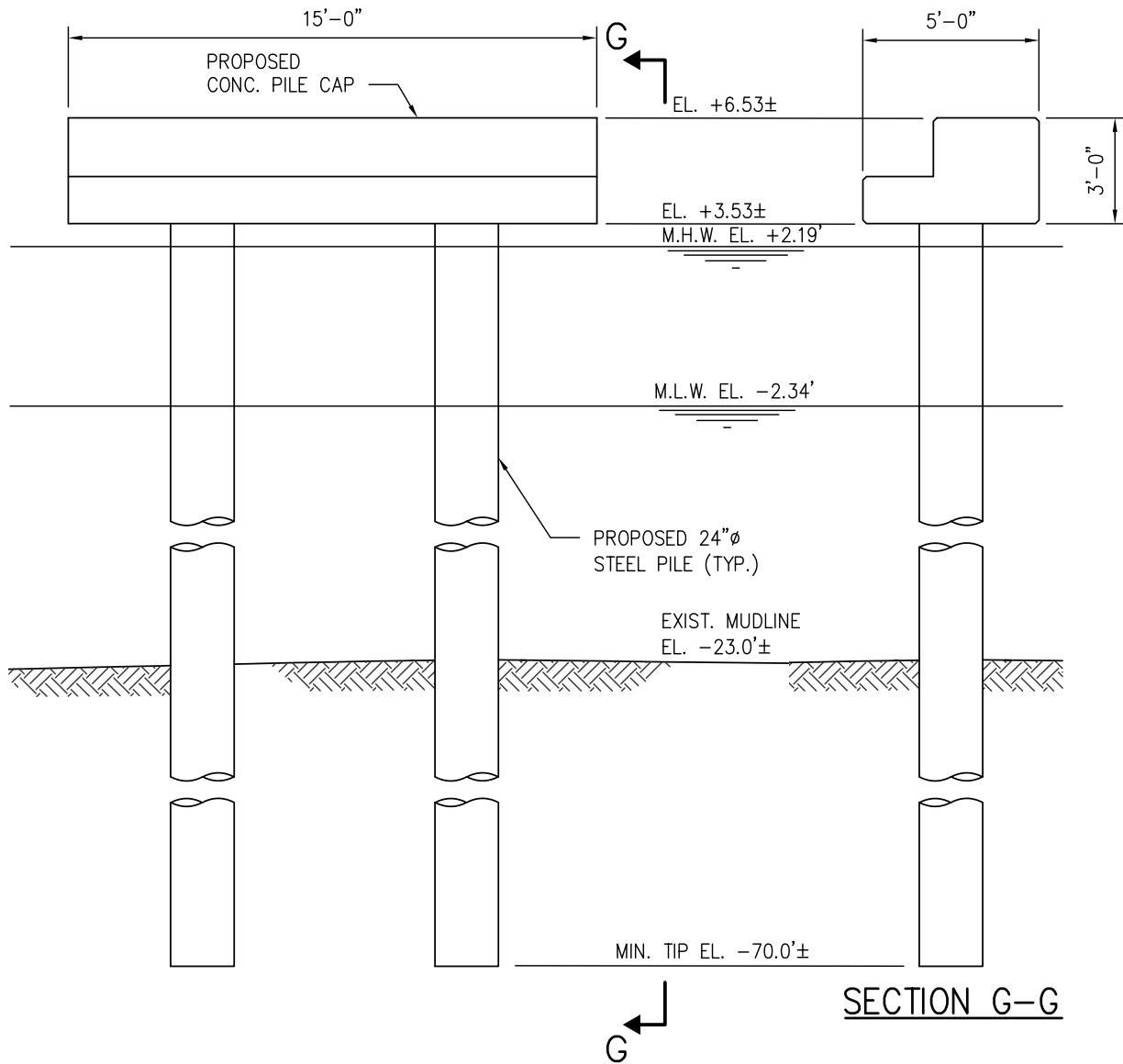
AGENT: BTMI ENGINEERING, P.C. (COWI)

PIER 4 NORTH DOCK COMMERCIAL  
BERTH FACILITY AND FERRY LANDING  
UPPER BAY/ BAY RIDGE CHANNEL  
BROOKLYN  
COUNTY OF KINGS  
STATE OF NEW YORK

DATE: 06/12/19

SHEET 17 OF 20

CAP BEAM PILES					
PILE ID	QUANTITY	PILE O.D. (IN.)	PILE WALL THICKNESS (IN.)	TIP EL. (FT.)	CUT-OFF EL. (FT.)
ANCHOR	2	24	$\frac{3}{4}$ "	-70.0±	+3.78'±



### PROPOSED CAP BEAM PILE ELEVATION

0 5 10 FT.

SCALE 1"=5'-0"

REV. 1 – 1/6/2020

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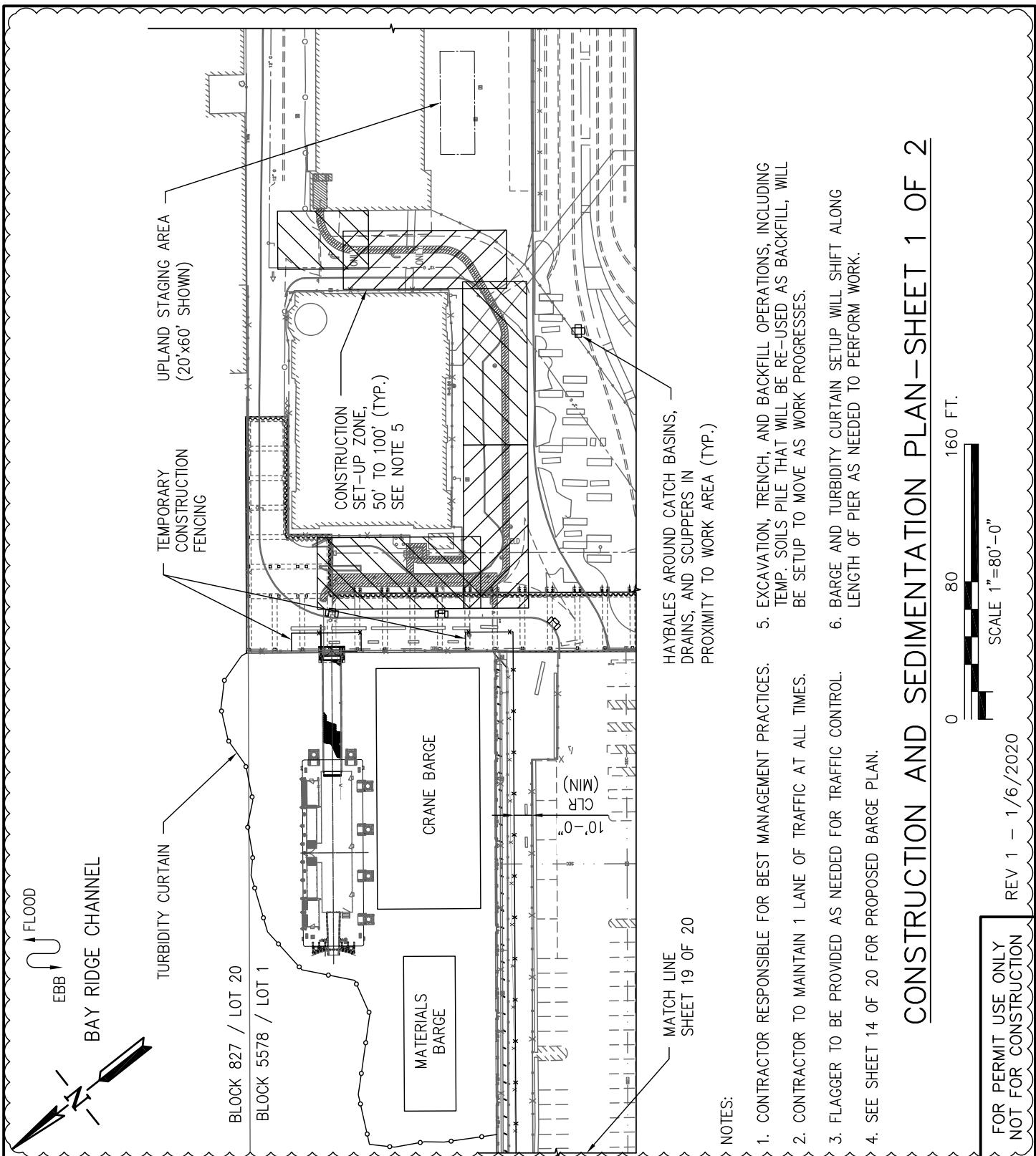
DATUM: NAV88  
APPLICATION BY: BROOKLYN ARMY TERMINAL  
APPLICATION NO.:

PIER 4 NORTH DOCK COMMERCIAL  
BERTH FACILITY AND FERRY LANDING  
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BROOKLYN  
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STATE OF NEW YORK

AGENT: BTMI ENGINEERING, P.C. (COWI)

DATE: 06/12/19

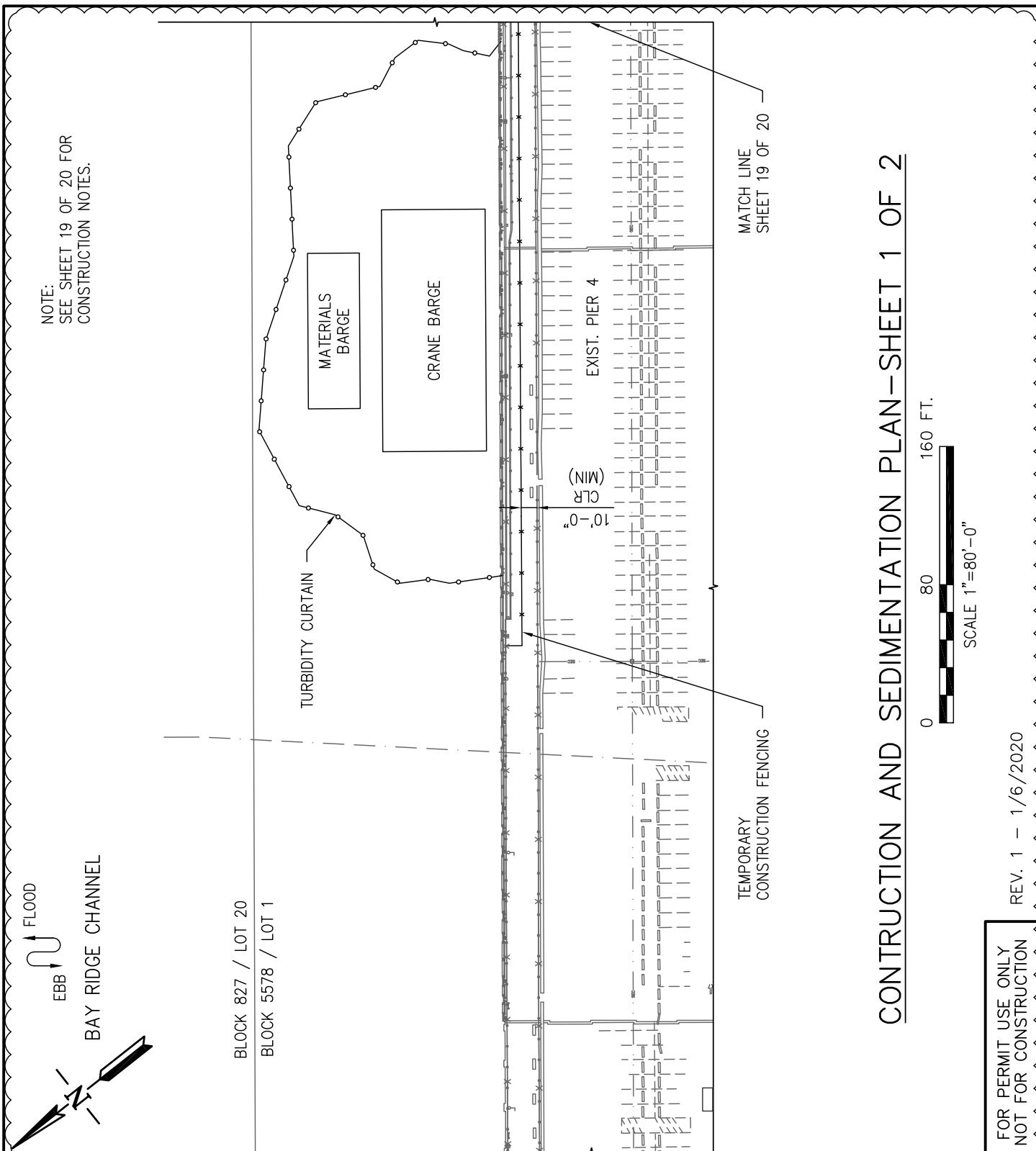
SHEET 18 OF 20



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REV 1 - 1/6/2020

DATUM: NAV88	PIER 4 NORTH DOCK COMMERCIAL BERTH FACILITY AND FERRY LANDING
APPLICATION BY: BROOKLYN ARMY TERMINAL	UPPER BAY/ BAY RIDGE CHANNEL BROOKLYN
APPLICATION NO.:	COUNTY OF KINGS STATE OF NEW YORK
AGENT: BTMI ENGINEERING, P.C. (COWI)	DATE: 06/11/19



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