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-2012-01138-EHA
Issue Date: December 12, 2014
Expiration Date: February 10, 2015

To Whom It May Concern:

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

APPLICANT: Liberty Natural Gas, LLC
c/o Jason Goldstein
51 John F. Kennedy Parkway, Suite 309
Short Hills, New Jersey 07078

ACTIVITY: Construct a liquefied natural gas deepwater port and associated natural gas transmission line.

WATERWAY: Atlantic Ocean

LOCATION: Approximately 19 miles south of Jones Beach and 31 miles southeast of the entrance to New York Harbor.

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

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

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

The New York District of the U.S. Army Corps of Engineers is serving as one of the cooperating agencies involved in the preparation of an Environmental Impact Statement by the United States Coast Guard (USCG) and Maritime Administration (MARAD). A Notice of Availability for the Draft Environmental Impact Statement (DEIS) was posted in the Federal Register on Friday, Dec 12, 2014, and the DEIS can be viewed on the Federal Docket at "www.regulations.gov" docket number USCG-2013-0363. Copies of the DEIS have been mailed to federal, state, and local government representatives and agencies; elected officials; environmental and public interest groups; Native American tribes; local newspapers and libraries in the project area; and potentially affected landowners and other interested individuals and groups. Information to submit comments on the DEIS can be found on the in the Federal Register Notice. USCG will conduct two public meetings in the project area to receive comments on the DEIS. The New York District Corps of Engineers will participate in the public meetings to gather information on this proposal to assist in the review of the 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.

COMMENTS REGARDING THE PERMIT APPLICATION COULD ALSO 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 provided will become a part of the public record for this action.

The date, time and location of the public meetings are as follows:

New York Session:

DATE:	Wednesday, January 7, 2015
TIME:	Open house 4:30 p.m. to 5:30 p.m. Public Meeting 6:00 p.m. to 8:00 p.m.
LOCATION:	Hilton New York JFK Airport 144-02 135th Avenue Jamaica, New York 11436 Phone: 718-659-0200

Parking is available at the hotel. Bring your parking ticket to the meeting and you will be given another ticket when you sign in so you don't have to pay.

New Jersey Session:

DATE:	Thursday, January 8, 2015
TIME:	Open house 4:30 p.m. to 5:30 p.m. Public Meeting 6:00 p.m. to 8:00 p.m.
LOCATION:	Sheraton Eatontown Hotel 6 Industrial Way East Eatontown, NJ 07724 Phone 732-542-6500

Free parking on site.

Information on project impacts to Endangered and Threatened Species, Essential Fish Habitat, and sites included in or eligible for inclusion in the National Register of Historic Places can be found in the DEIS.

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.

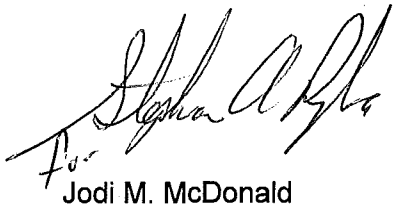
In addition to any required water quality certificate and coastal zone management program concurrence, the applicant has obtained or requested the following governmental authorization for the activity under consideration:

- United States Coast Guard
- Maritime Administration
- United States Environmental Protection Agency
- New York State Department of Environmental Conservation
- New York State Office of General Services

It is requested that you communicate the foregoing information concerning the activity to any persons known by you to be interested and who did not receive a copy of this notice. If you have any questions concerning this application, you may contact this office at (917) 790-8523 and ask for Naomi Handell.

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.



Jodi M. McDonald
Chief, Regulatory Branch

Enclosures

WORK DESCRIPTION

The applicant, Liberty Natural Gas, LLC, has requested Department of the Army authorization for construction of a deepwater port and natural gas pipeline in the Atlantic Ocean, off the coast of Jones Beach, Nassau County, New York.

Overall Description

The proposed Port Ambrose Deepwater Port (Port Ambrose Project, Port or Project) would be located approximately 16.1 nautical miles off of Jones Beach, New York, approximately 27.1 nautical miles from the entrance to New York Harbor, 13.1 nautical miles east of Sandy Hook, New Jersey, and approximately 24.9 nautical miles from Long Branch, New Jersey. The proposed Port facilities would consist of two submerged turret loading buoy (STL Buoy) systems, buoy mooring system, buoy pick-up system, buoy landing pad, flexible riser and umbilical, and the pipeline end manifold (PLEM). The pipeline facilities would consist of two pipeline laterals, a collocated "Y" assembly (CYA), the proposed Mainline, and the subsea tie-in (SSTI) assembly. The STL Buoys would be designed to act as moorings for the purpose-built LNG regasification vessels (LNGRVs) and be the receiving connection for the natural gas unloaded from the LNGRVs and delivered to the proposed Mainline. The proposed Mainline would then connect to the Transcontinental Gas Pipe Line Company (Transco) Lower New York Bay Lateral for delivery to shore.

The STL Buoys would be located in water depths ranging from approximately 100 to 110 feet and separated by approximately 1.62 nautical miles to allow the LNGRVs to weathervane simultaneously without interference and provide for sufficient room for LNGRV maneuverability docking at a vacant buoy when an LNGRV is moored to the second buoy. Each STL Buoy would be permanently secured with eight mooring lines connected to suction anchors. A flexible riser would connect the STL Buoys to the PLEM, which in turn would connect to a pipeline lateral. When not in use, the STL Buoys would be lowered to a landing pad on the seafloor.

The proposed Mainline and pipeline laterals for the proposed Project would be located in both federal and state waters. The pipeline laterals would connect from the PLEM to the CYA. At the CYA, the two laterals would then connect to the proposed Mainline. The lateral on the southwest portion of the proposed Port facilities (Lateral 1) would be 26 inches in diameter and would run from the STL Buoy 1 (southwestern buoy) PLEM approximately 0.76 nautical mile in a northerly direction to the CYA. The lateral on the northeast portion of the proposed Port facilities (Lateral 2) would also be 26 inches in diameter and would run from the STL Buoy 2 (northeastern buoy) PLEM approximately 1.54 nautical miles in a westerly direction to the CYA. The proposed Mainline (pipeline) would extend from the CYA (milepost [MP] 0.00) in a northwesterly direction for approximately 16.8 nautical miles to where it would cross into New York state waters. From there it would continue approximately 2.3 nautical miles in a northwesterly direction to its terminus (MP 21.67) at the Transco Lower New York Bay Lateral connection.

LNGRVs that would call on the proposed Port facilities would be purpose built to call on STL Buoys. Liberty anticipates that the LNGRVs would be registered under the Norwegian International Ship Register through a long-term agreement with Höegh LNG.

The LNGRVs would approach the proposed Port facilities from the south using the Hudson Canyon to Ambrose Traffic Lane. A specially designed mating cone would be incorporated into the LNGRVs' design to facilitate connection of the LNGRVs to the STL Buoys. The STL Buoys would serve as the primary mooring structure for the LNGRVs and would allow for the LNGRVs to rotate around the STL Buoys, or weathervane, in response to prevailing wind, wave, and current directions. The LNGRVs would be equipped to vaporize its LNG cargo to natural gas

through the onboard closed-loop, shell-and-tube vaporization system. When offloading and sendout operations are completed, the LNGRVs would disconnect from the STL Buoys and depart using the Ambrose to Nantucket Traffic Lane.

STL Buoys

The STL Buoy components would consist of the STL Buoy, buoyancy cone, integrated turret, pick-up assembly, and landing pad. It is expected that for each STL Buoy, the mooring system and landing pad would permanently displace approximately 1.6 acres of sea floor, totaling 3.2 acres. The STL Buoys would also function as the mooring system for the LNGRVs.

Each STL Buoy would be 33 feet in height and 24 feet in diameter. Each STL Buoy would have a conical steel structure called a buoyancy cone. The buoyancy cone is designed to reduce the weight of the STL assembly to ensure a smooth transfer of mooring, riser, umbilical, and reaction forces to the LNGRV. The outer shell would be equipped with a heavy duty fender system to absorb impact loads during mating with the LNGRVs.

The top of the STL Buoy would be fitted with a pick-up assembly designed to facilitate retrieval of the STL Buoy from the landing pad. The pick-up assembly would consist of three main components: the three-leg lifting bridle; messenger line with spring buoys; and marker buoys. All of these components together would be approximately 525 feet in length. The STL Buoy would be connected to the messenger line with the three-leg lifting bridle. The messenger line would be fitted with spring buoys as supplemental flotation, as well as one finger buoy and one marker buoy with a flashing light. The finger buoy and marker buoy would be attached to the upper end of the messenger line and be at the surface when the STL Buoy is disconnected.

The STL Buoys would rest on landing pads installed on the seafloor when not in use. The approximately 49-foot-diameter landing pads would be installed to the seafloor using a skirted mud mat or, if necessary, suction anchor. To minimize impact loads while lowering the STL Buoys, fenders would be attached to the anchor pads.

Mooring System

Eight mooring lines would be connected to the suction anchors for each STL Buoy. If necessary, driven piles could be used as an alternative to the suction anchors in the unlikely event geotechnical conditions preclude use of suction anchors. The mooring lines would be two chain segments (upper and lower) and two wire segments (upper and lower). The lower chain segment would be attached to the pad-eye on the suction anchor and the opposite would connect to the lower wire segment. The upper chain segment would connect to the turret connecting link and the upper wire segment. The steel cable segments would be approximately 4.25 inches in diameter and made of sheathed spiral strand wire. Maximum load on chain segments would occur when an LNGRV is moored to the STL Buoy. The chain segments would be designed for a service life of 30 years and 10-year return period wind and wave event. The mooring system would also be designed for a 100-year return period current event and a 100-year storm event while the STL Buoy is idle. From the center of the STL Buoy to the center of each anchor would be up to approximately 3,138 feet. Final design will account for prevailing current and wind and wire cable length may be less.

Eight suction anchors, approximately 26 to 46 feet in outer diameter and 33 feet in length (size is variable and dependent on geotechnical conditions), would be used to secure each STL Buoy. If necessary, driven piles could be used as an alternative to the suction anchors in the unlikely event geotechnical conditions preclude use of suction anchors. The mooring chain would be shackled to the pad-eye at the anchor pile and the vertical elevation of the pad-eye optimized with respect to the moment capacity of the sediment. The suction anchors would be

designed to allow the LNGRVs to maintain station without the use of power, other than brief periods of stern thruster use under certain metocean conditions to prevent cargo sloshing.

Flexible Riser and Umbilical

The riser would be a 14-inch-diameter, flexible, high-pressure natural gas transfer hose that would connect the STL Buoy to the PLEM. The riser would be designed to handle the dynamic loading associated with raising and lowering the STL Buoys.

A holdback tether line would be connected to the flexible riser and umbilical to provide stability to their floating components. The holdback tether would be connected to a 220-ton clump weight tether anchor. The holdback tether line would be approximately 2,946 feet from the riser to the tether anchor.

PLEM

Each STL Buoy would have a PLEM anchored to the seafloor that would serve as the termination point of the STL Buoy system and interface between the flexible riser and the pipeline lateral. Each PLEM would permanently displace a 33-foot by 33-foot area of sea floor. The prefabricated PLEMs would be designed specifically for the physical conditions at the proposed Port facilities.

The PLEM would consist of several valves, and fittings would be mounted on a structure. The structure would be fixed to the seafloor using skirted mud mats or, if necessary, a suction anchor system. The PLEM would be designed to accommodate the dynamic loading applied by the flexible riser, currents and other conditions.

The PLEM would be the termination point for the flexible riser. The PLEM would include a manual isolation valve located downstream of the flexible riser termination flange for installation and maintenance. The PLEM would also include an emergency shutdown (ESD) valve, check valve and manual isolation valve located upstream of the pipeline lateral. The ESD valve would be a fail-safe-close type valve that would be remotely controlled from the LNGRV through the umbilical. The check valve would prevent backflow from the pipeline lateral and the manual isolation valve would allow for isolation of the PLEM from the pipeline lateral during maintenance.

The PLEM would be designed to accommodate removable temporary pig launchers/receivers connected to the subsea valves. In addition, the PLEM piping that would attach to the flexible riser would also be installed with a pre-loaded dewatering pig.

Pipeline Laterals

The proposed Project would include two pipeline laterals, one for each STL Buoy. The pipeline lateral delivering natural gas from the southwestern STL Buoy (Lateral 1) would be approximately 0.76 nautical mile, while the pipeline lateral delivering gas from the northeastern STL Buoy (Lateral 2) would be approximately 1.54 nautical miles. The 26-inch-diameter pipeline laterals would connect each PLEM to the CYA. It is expected that installation of the pipeline laterals would temporarily displace approximately 48,900 cubic yards of seafloor material, over a 24 acre area.

CYA

The CYA would be installed at the connection between the proposed Mainline and the two pipeline laterals. The end of the proposed Mainline would be lifted to the surface, trimmed, and

the CYA welded to the proposed Mainline. It is expected that installation of the CYA would displace approximately 2,800 cubic yards of seafloor material, over a 0.2 acre area.

Mainline

The proposed Mainline would be approximately 18.8 nautical miles in length from the CYA to the terminus at the connection with the Transco Lower New York Bay Lateral. For approximately 16.8 nautical miles, from MP 0.0 to MP 19.3, the proposed Mainline would be located in federal waters. The remaining 2.0 nautical miles, from MP 19.3 to MP 21.67, would be within New York state waters. The proposed Mainline would head in a northwest direction from its beginning point at the CYA to its terminus at the Transco Lower New York Bay Lateral. The proposed Mainline would be 26 inches in diameter and buried to a depth of 4 feet below the sediment for an initial length of 14.8 nautical miles, from MP 0.0 to MP 17.0, and for 1.4 nautical miles, from MP 20.1 to 21.67. For approximately 2.7 nautical miles through the Ambrose anchorage area, from MP 17.0 to MP 21.67, 7 feet of burial below the sediment is required. Mainline installation would be expected to displace approximately 145,700 cubic yards over 53 acres between MP 17.0 and MP 20.1 where 7 feet of burial is required. The remaining installation is expected to displace approximately 363,100 cubic yards over 166 acres.

Utility Crossings

For utility crossings, the use of a mud pump and jetting techniques would be used. Utility crossings would be expected to displace approximately 15,600 cubic yards over 2.6 acres between MP 3.09 and MP 21.42. For the utility crossing for the Neptune Regional Transmission System Power Cable (Neptune Cable) burial, a 4-foot depth for the proposed Mainline may not be possible. In such cases, concrete matting and sand bags would be used. All concrete matting would be buried to a 3-foot depth along the outside edge to mitigate the hazard of anchor strikes or snags from ocean shipping or due to snagging of bottom fishing trawling gear.

Mitigation Statement

The applicant has stated that they have avoided, minimized and mitigated for impacts proposed to the maximum extent practicable by: selection of proposed port site and pipeline route to avoid sensitive biological areas and cultural resources; proposed use of dynamically-positioned vessels to avoid anchor sweep disturbances; and use of backfill plow to backfill the plowed trench with a single pass.

Stated Purpose

The stated purpose of this project is to increase gas market reliability by providing delivery of additional supplies of natural gas to the downstate New York and Long Island market during periods of peak demand.

LIST OF DRAWINGS

DRAWING NO.		TITLE	REVISION
1 OF 31	ACOE-INDEX	DRAWING INDEX	F
2 OF 31	ACOE-GA-001	AREA MAP	E
3 OF 31	ACOE-GA-001N	AREA MAP (NOAA CHART)	E
4 OF 31	ACOE-GA-002A	MAINLINE TO LATERALS TO STL BUOY LAYOUT	D
5 OF 31	ACOE-GA-002B	STL BUOY PROFILE	D
6 OF 31	ACOE-GA-003	STL BUOY LAYOUT	B
7 OF 31	ACOE-GA-004	FLEXIBLE RISER LAYOUT	B
8 OF 31	ACOE-GA-005	STL BUOY MOORING LAYOUT	B
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10 OF 31	ACOE-GA-007	STL BUOY DETAILS	B
11 OF 31	ACOE-GA-008	PLEM DETAILS	B
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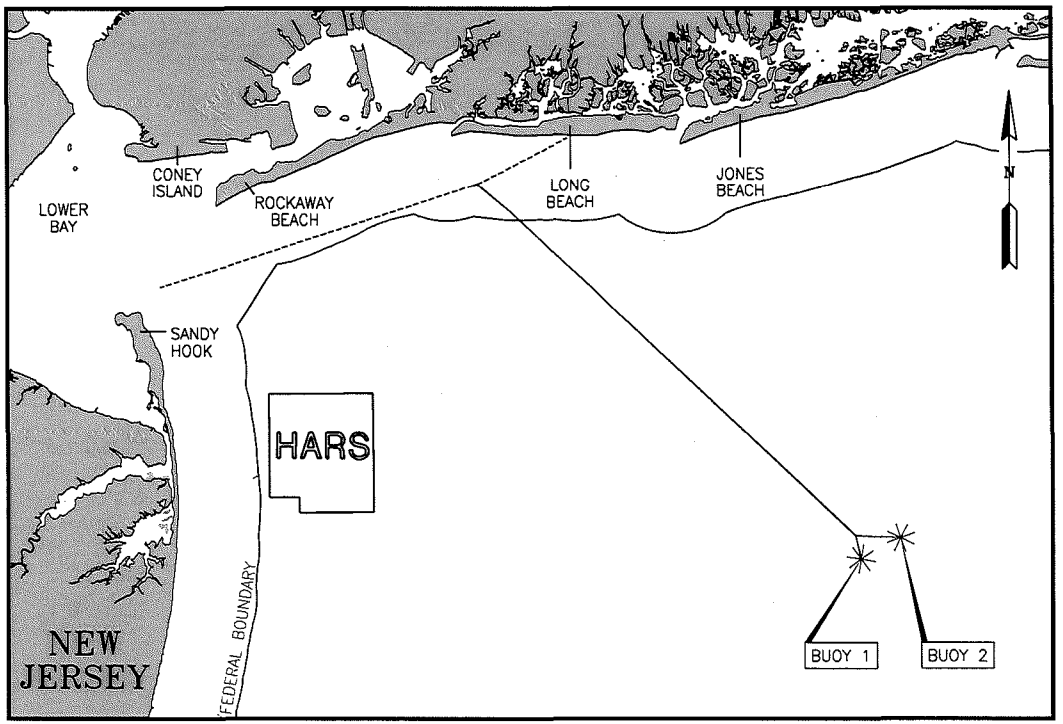
13 OF 31	ACOE-AP-ML002	ALIGNMENT & PROFILE (MAINLINE)	C
14 OF 31	ACOE-AP-ML003	ALIGNMENT & PROFILE (MAINLINE)	C
15 OF 31	ACOE-AP-ML004	ALIGNMENT & PROFILE (MAINLINE)	C
16 OF 31	ACOE-AP-ML005	ALIGNMENT & PROFILE (MAINLINE)	C
17 OF 31	ACOE-AP-ML006	ALIGNMENT & PROFILE (MAINLINE)	E
18 OF 31	ACOE-AP-ML007	ALIGNMENT & PROFILE (MAINLINE)	E
19 OF 31	ACOE-AP-ML008	ALIGNMENT & PROFILE (MAINLINE)	E
20 OF 31	ACOE-AP-LL001	ALIGNMENT & PROFILE (26" LATERAL 1)	C
21 OF 31	ACOE-AP-LL002	ALIGNMENT & PROFILE (26" LATERAL 2)	C
22 OF 31	ACOE-IN-001	TYPICAL UTILITY CROSSING	C
23 OF 31	ACOE-IN-002A	NEPTUNE CROSSING SHT 1 OF 2	C
24 OF 31	ACOE-IN-002B	NEPTUNE CROSSING SHT 2 OF 2	C
25 OF 31	ACOE-IN-003	TYPICAL PLOWED TRENCH	C
26 OF 31	ACOE-IN-004	PLOWED/JETTED TRENCH	B
27 OF 31	ACOE-PF-001A	COLLOCATED "Y" ASSEMBLY	C
28 OF 31	ACOE-PF-001B	COLLOCATED "Y" ASSEMBLY ELEVATION	C
29 OF 31	ACOE-PF-002A	SUBSEA TIE-IN ASSEMBLY	D
30 OF 31	ACOE-PF-002B	SUBSEA TIE-IN ASSEMBLY SECTIONS	C
31 OF 31	ACOE-SK-001	SYSTEM SCHEMATIC	C

PORT AMBROSE PROJECT



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NOTES

NO.	REVISION	DATE	APPR.
F	DRAWING UPDATE/REISSUED FOR PERMIT	10-27-14	R.P.G.
E	MODIFIED DRAWING LIST/RENUMBERED SHEET/ISSUED FOR PERMIT	9-18-14	R.P.G.
D	ISSUED FOR PERMIT	5-16-14	R.P.G.
C	ISSUED FOR PERMIT	3-21-14	R.P.G.
B	FOR CLIENT REVIEW	2-10-14	R.P.G.
A	FOR CLIENT REVIEW	1-31-14	R.P.G.

PORTAMBROSE

Project Consulting Services Engineering, P.C.
2110 POWERS FERRY ROAD, STE. 225
ATLANTA, GA 30339
(770) 618-1020 Fax (770) 618-1025
www.projectconsulting.com
NEW YORK COA: 0009397

LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
DRAWING INDEX

DRAWN BY:	G.J.D.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	1-20-14	PROJ. MGR.:	T.O.
CHECKED BY:	J.H.E.	SHEET:	1 OF 31
DWG. NO.	ACOE-INDEX	REV.	F

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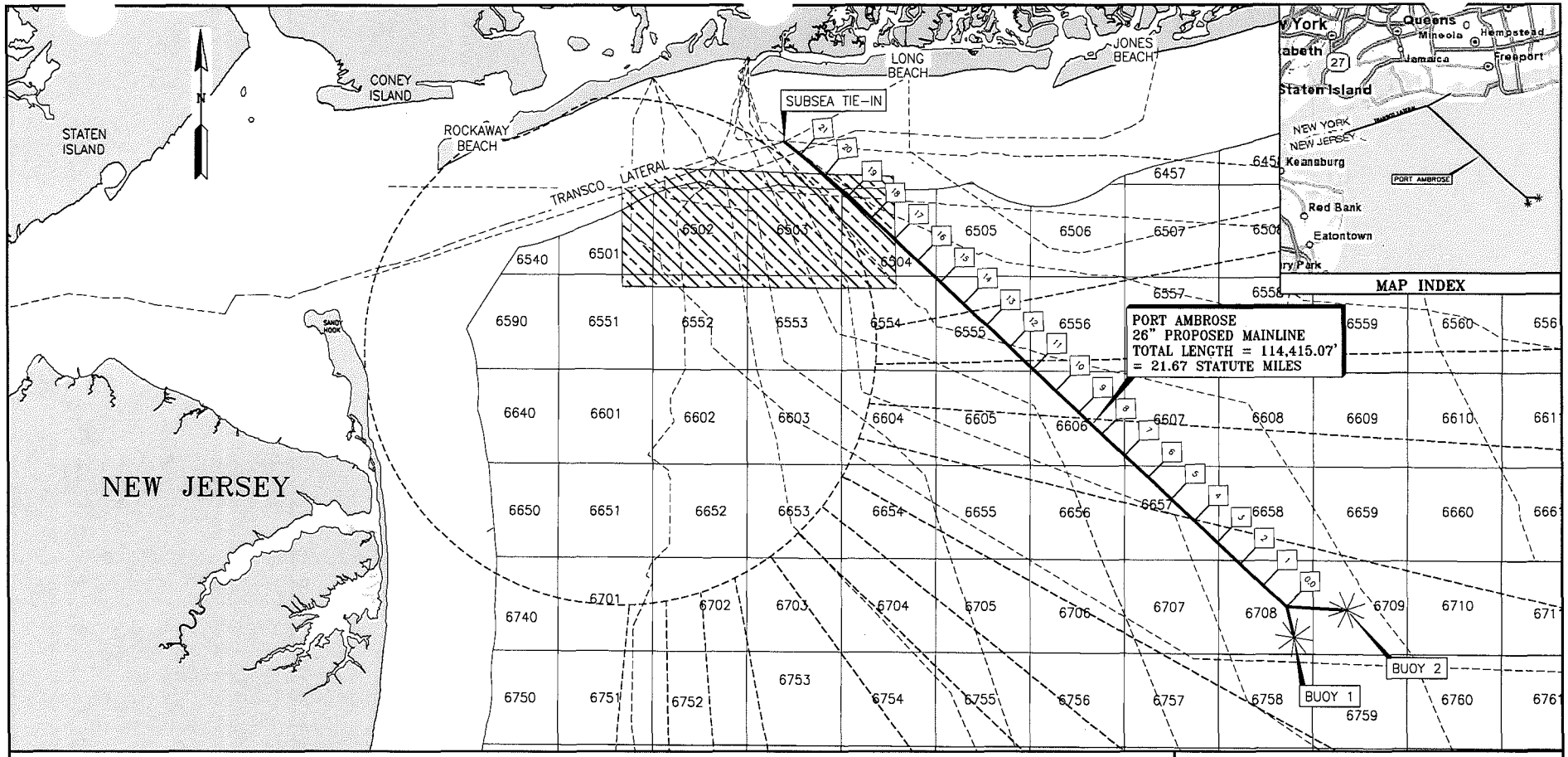

LEGEND

- 6753 – OCS BLOCK NUMBER
- 0.0 – MILE POST REFERENCE (STATUTE MILES)
- 0+00 – STATIONING ALONG CENTERLINE
- PROPOSED ROUTE CENTERLINE
- EXISTING OR CHARTED UTILITIES
- PRECAUTION/FAIRWAY AREA
- GENERAL ANCHORAGE AREA – LONG BRANCH, LONG ISLAND

NOTES

1. GEODETIC INFORMATION BASED UPON NEW JERSEY STATE PLANE COORDINATE SYSTEM, ZONE 2900, NORTH AMERICAN DATUM 1983, U.S. FEET.
2. THE USCG PROVIDED COORDINATES FOR THE GENERAL ANCHORAGE AREA SOUTH OF LONG BRANCH, LONG ISLAND ARE: 40-32-37.6N, 073-49-43.3W; 40-29-17.2N, 073-49-44.4W; 40-29-09.6N, 073-39-52.9W; AND 40-32-18.2N, 073-39-55.4W (J. YUNKER EMAIL DATED 2/20/12).

25,000' 0 50,000'
12,500' 25,000'
SCALE IN FEET

NO.	REVISION	DATE	APPR.
E	RENUMBER SHEET/ISSUED FOR PERMIT	9-18-14	R.P.G.
D	ADDED GENERAL ANCHORAGE/ISSUED FOR PERMIT	5-16-14	R.P.G.
C	ISSUED FOR PERMIT	3-21-14	R.P.G.
B	FOR CLIENT REVIEW	2-10-14	R.P.G.
A	FOR CLIENT REVIEW	1-31-14	R.P.G.

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LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
AREA MAP

DRAWN BY:	E	APPROVED BY:	R.P.G.
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DATE:	1-21-14	PROJ. MGR.:	T.O.
CHECKED BY:	J.H.E.	SHEET:	2 OF 31
DWG. NO.	ACOE-GA-001	REV.	E

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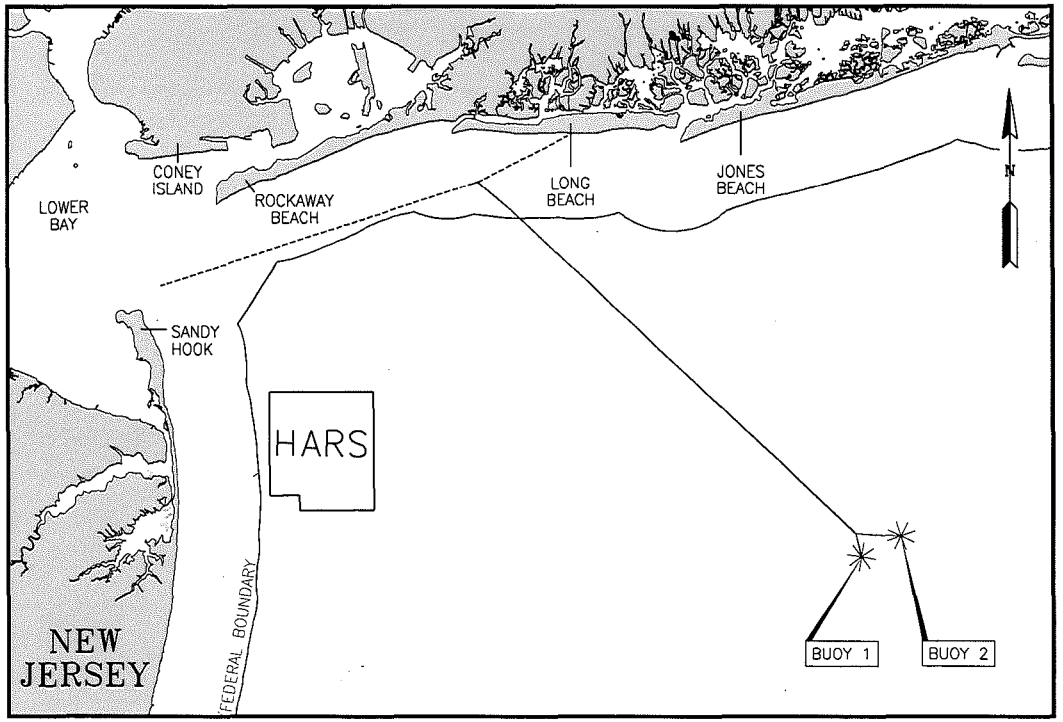

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NO.	REVISION	DATE	APPR.
E	MODIFIED DRAWING LIST/RENUMBERED SHEET/ISSUED FOR PERMIT	9-18-14	R.P.G.
D	ISSUED FOR PERMIT	5-16-14	R.P.G.
C	ISSUED FOR PERMIT	3-21-14	R.P.G.
B	FOR CLIENT REVIEW	2-10-14	R.P.G.
A	FOR CLIENT REVIEW	1-31-14	R.P.G.

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NEW YORK COA: 0009397

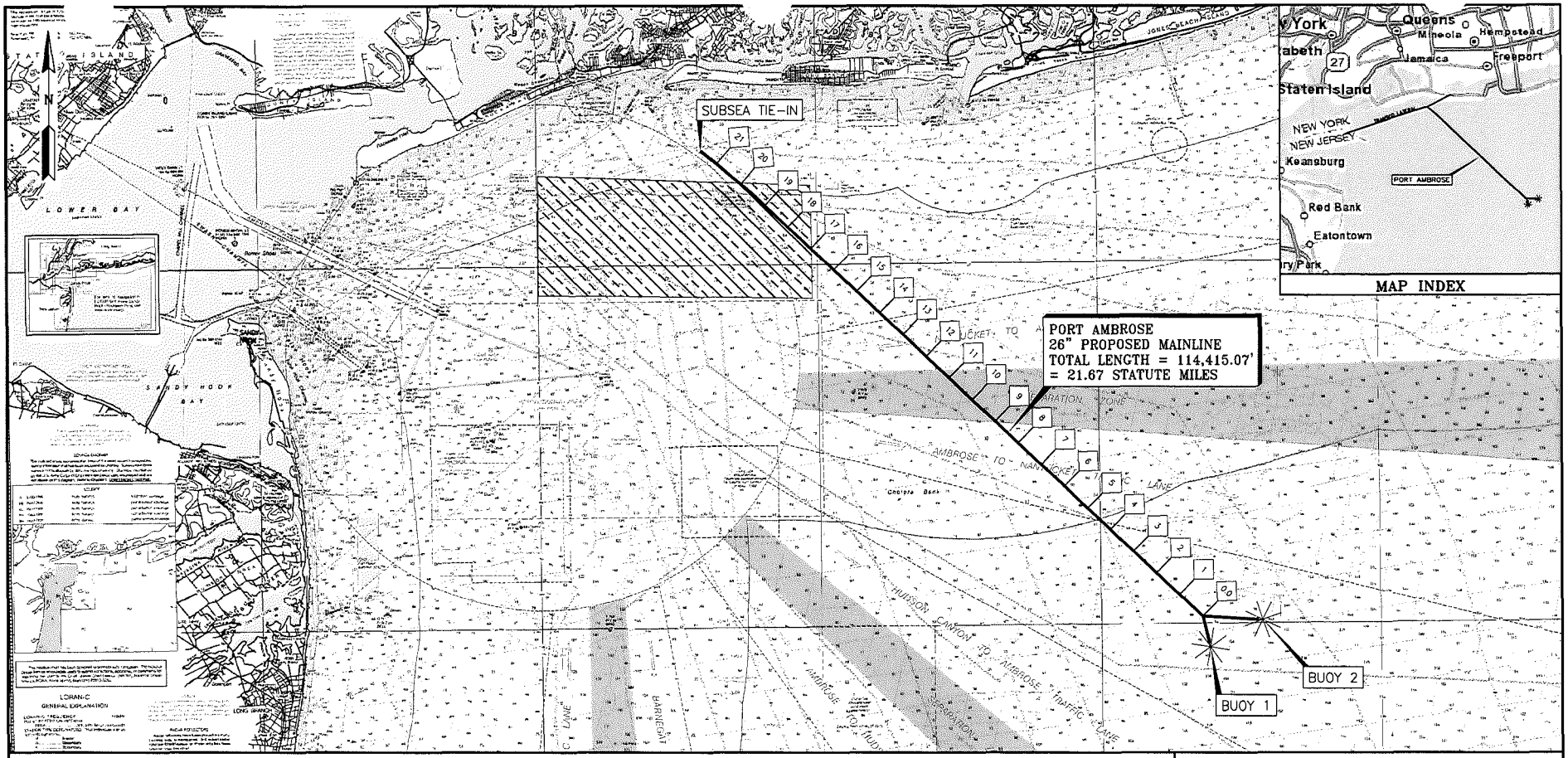
LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
DRAWING INDEX

DRAWN BY:	G.J.D.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	1-20-14	PROJ. MGR.:	T.O.
CHECKED BY:	J.H.E.	SHEET:	1 OF 31

DWG. NO. ACOE-INDEX REV. E

09-18-14 16:14 12078 09 M.F.Z.

NAN-2012-01138-EHA



LEGEND

- 0.0 – MILE POST REFERENCE (STATUTE MILES)
- – PROPOSED ROUTE CENTERLINE
- – GENERAL ANCHORAGE AREA – LONG BRANCH, LONG ISLAND

NOTES

1. GEODETIC INFORMATION BASED UPON NEW JERSEY STATE PLANE COORDINATE SYSTEM, ZONE 2900, NORTH AMERICAN DATUM 1983, U.S. FEET.
2. REFERENCE NOAA CHART 12326, APPROACHES TO NEW YORK, FIRE ISLAND LIGHT TO SEA GIRT, 50TH ED., MAY/06.
3. THE USCG PROVIDED COORDINATES FOR THE GENERAL ANCHORAGE AREA SOUTH OF LONG BRANCH, LONG ISLAND ARE: 40-32-37.6N, 073-49-43.3W; 40-29-17.2N, 073-49-44.4W; 40-29-09.6N, 073-39-52.9W; AND 40-32-18.2N, 073-39-55.4W (J. YUNKER EMAIL DATED 2/20/12).

25,000' 0 50,000'
12,500' 25,000'
SCALE IN FEET

NO.	REVISION	DATE	APPR.
E	RENUMBER SHEET/ISSUED FOR PERMIT	9-18-14	R.P.G.
D	ADDED GENERAL ANCHORAGE/ISSUED FOR PERMIT	5-16-14	R.P.G.
C	ISSUED FOR PERMIT	3-21-14	R.P.G.
B	FOR CLIENT REVIEW	2-10-14	R.P.G.
A	FOR CLIENT REVIEW	1-31-14	R.P.G.

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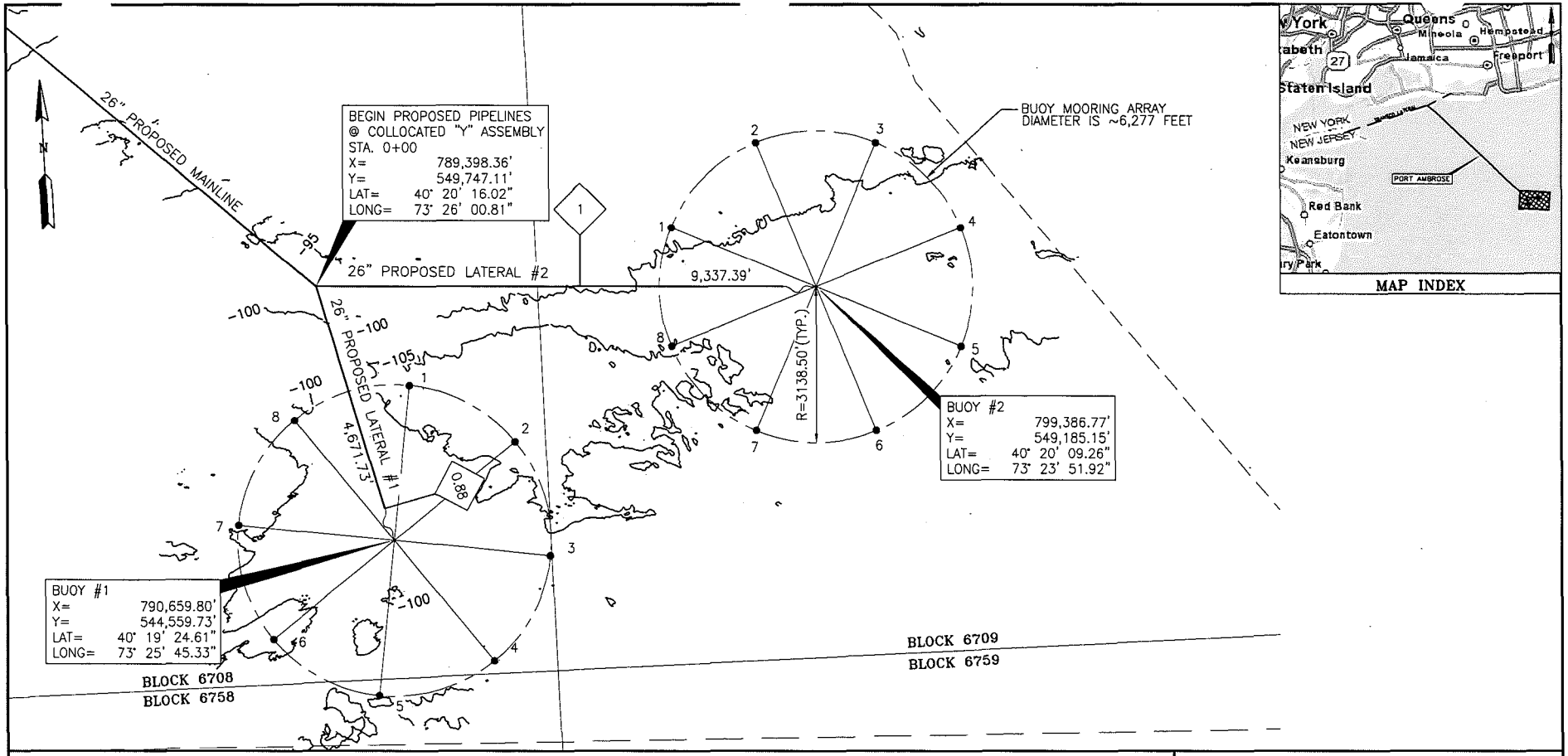
NEW YORK COA: 0009397

LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
AREA MAP (NOAA CHART)

DRAWN BY:	G.J.D.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	1-21-14	PROJ. MGR.:	T.O.
CHECKED BY:	J.H.E.	SHEET:	3 OF 31
DWG. NO.	ACOE-GA-001N	REV.	E

09-18-14 16:37 12078 11 MFZ

NAN-2012-01138-ETA



LEGEND

- 0.0 – MILE POST REFERENCE (STATUTE MILES)
- 5 – HYDROGRAPHIC CONTOURS ARE SHOWN AT 5 FT INTERVALS AND ARE REFERENCED TO MLLW
- PROPOSED ROUTE CENTERLINE
- STL BUOY MOORING LEG
- EXISTING OR CHARTED UTILITIES
- 6753 – OCS BLOCK NUMBER

NOTES

1. GEODETIC INFORMATION BASED UPON NEW JERSEY STATE PLANE COORDINATE SYSTEM, ZONE 2900, NORTH AMERICAN DATUM 1983, U.S. FEET.
2. CONTOURS AND PROFILE BASED UPON MLLW.
3. SEE DRAWINGS ACOE-AP-LL001 AND ACOE-AP-LL002 FOR LATERAL DETAILS.
4. SEE DRAWINGS ACOE-AP-ML001 THROUGH ACOE-AP-ML008 FOR MAINLINE DETAILS.

3,000' 0 6,000'
1,500' 3,000'
SCALE IN FEET

NO.	REVISION	DATE	APPR.
D	DRAWING TITLE CHANGE/RENUMBER SHEET/ISSUED FOR PERMIT	9-18-14	R.P.G.
C	ADDED DIMENSIONS/ISSUED FOR PERMIT	5-16-14	RPG
B	ISSUED FOR PERMIT	3-21-14	RPG
A	FOR CLIENT REVIEW	1-31-14	RPG

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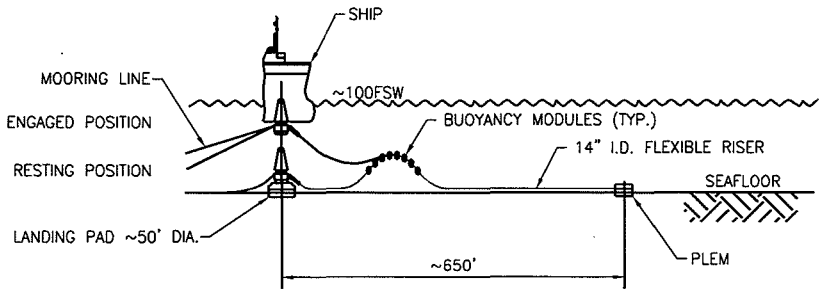
LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
MAINLINE TO LATERALS TO STL BUOY LAYOUT

DRAWN BY:	G.J.D.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	1-20-14	PROJ. MGR.:	T.O.
CHECKED BY:	J.H.E.	SHEET:	4 OF 31

DWG. NO. ACOE-GA-002A REV. D

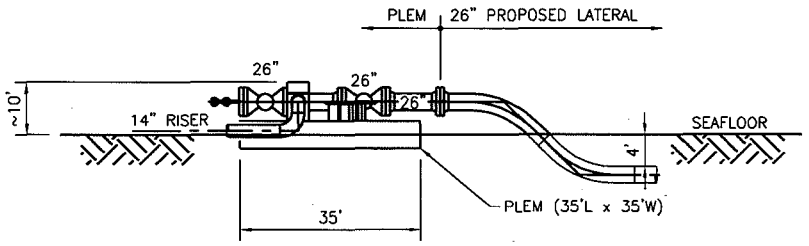
09-26-14 8:45 12078 11 M.F.Z.

NAN-2012-01138-EIIA



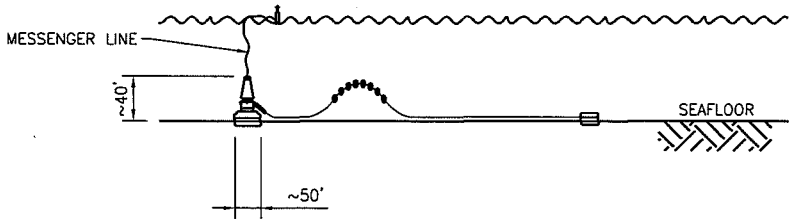
BUOY ARRANGEMENT PROFILE

SCALE: N.T.S.



PIPELINE END MANIFOLD (PLEM) PROFILE

SCALE: N.T.S.



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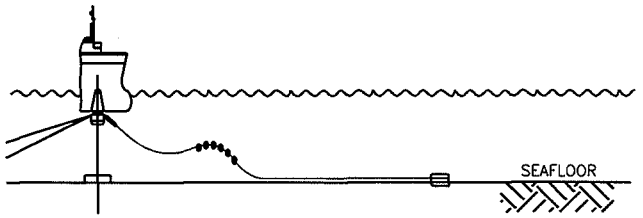

CONNECTED

SCALE: N.T.S.

LEGEND

NOTES

1. GEODETIC INFORMATION BASED UPON NEW JERSEY STATE PLANE COORDINATE SYSTEM, ZONE 2900, NORTH AMERICAN DATUM 1983, U.S. FEET.
2. REFER TO APL DRAWINGS, 1548-APL-W-XD-MG-0001, MOORING ARRANGEMENT, REV. 1, DATED 5-2-09 AND 1548-APL-U-XD-RG-0001, STL RISER SYSTEM, REV. 1, DATED 3-9-08.

NO.	REVISION	DATE	APPR.
D	RENUMBER SHEET/ISSUED FOR PERMIT	9-18-14	R.P.G.
C	ADDED DIMENSIONS/ISSUED FOR PERMIT	5-16-14	R.P.G.
B	ISSUED FOR PERMIT	3-21-14	R.P.G.
A	FOR CLIENT REVIEW	1-21-14	R.P.G.

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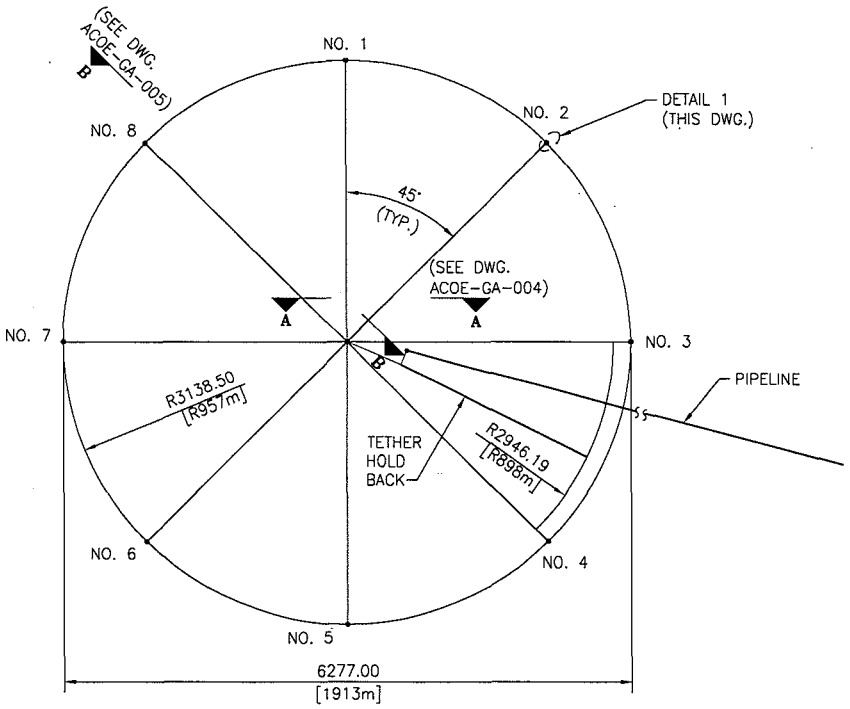
LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
STL BUOY PROFILE

DRAWN BY:	G.J.D.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	1-21-14	PROJ. MGR.:	T.O.
CHECKED BY:	J.H.E.	SHEET:	5 OF 31

DWG. NO. ACOE-GA-002B REV. D

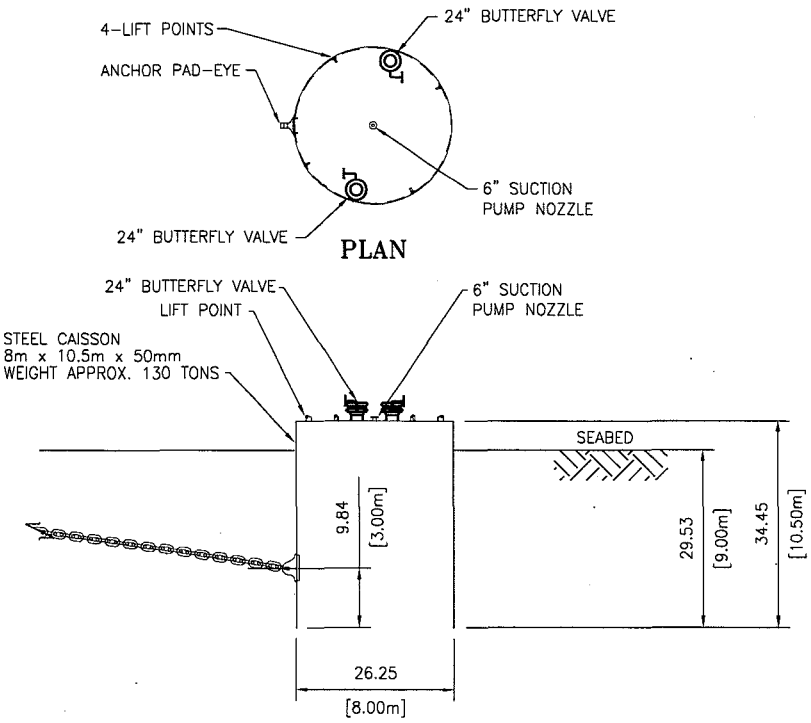
09-18-14 16:29 12078 09 MFZ

NAN-2012-01138-EHA



TYPICAL BUOY LAYOUT DETAIL

SCALE: 1"= 2000'



DETAIL 1 - SUCTION PILE

SCALE: 1"= 30'

LEGEND

NOTES

1. GEODETIC INFORMATION BASED UPON NEW JERSEY STATE PLANE COORDINATE SYSTEM, ZONE 2900, NORTH AMERICAN DATUM 1983, U.S. FEET.
2. SEE DRAWINGS ACOE-AP-LL001 AND ACOE-AP-LL002 FOR LATERAL DETAILS.
3. SEE DRAWINGS ACOE-AP-ML001 THROUGH ACOE-AP-ML008 FOR MAINLINE DETAILS.

NO.	REVISION	DATE	APPR.
B	ISSUED FOR PERMIT	9-17-14	R.P.G.
A	FOR CLIENT REVIEW	9-3-14	R.P.G.

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NEW YORK COA: 0009397

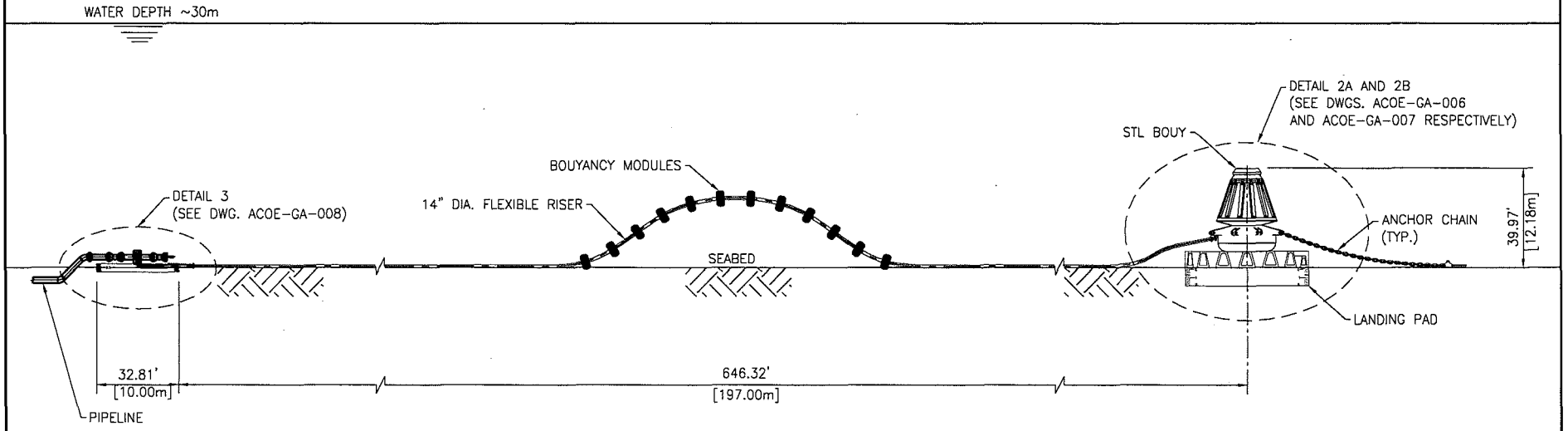
LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
STL BUOY LAYOUT

DRAWN BY: G.J.D.	APPROVED BY: R.P.G.
SCALE: AS NOTED	PROJ. ENGR.: R.P.G.
DATE: 9-3-14	PROJ. MGR.: T.O.
CHECKED BY: R.P.G.	SHEET: 6 OF 31

DWG. NO. ACOE-GA-003 REV. B

09-25-14 15:44 12078 09 M.F.Z.

NAN-2012-01135-EHA



SECTION A-A

(SEE DWG. ACOE-GA-003)
SCALE: 1"= 60'

LEGEND

NOTES

1. GEODETIC INFORMATION BASED UPON NEW JERSEY STATE PLANE COORDINATE SYSTEM, ZONE 2900, NORTH AMERICAN DATUM 1983, U.S. FEET.
2. SEE DRAWINGS ACOE-AP-LL001 AND ACOE-AP-LL002 FOR LATERAL DETAILS.

NO.	REVISION	DATE	APPR.
B	ISSUED FOR PERMIT	9-18-14	R.P.G.
A	FOR CLIENT REVIEW	9-03-14	R.P.G.

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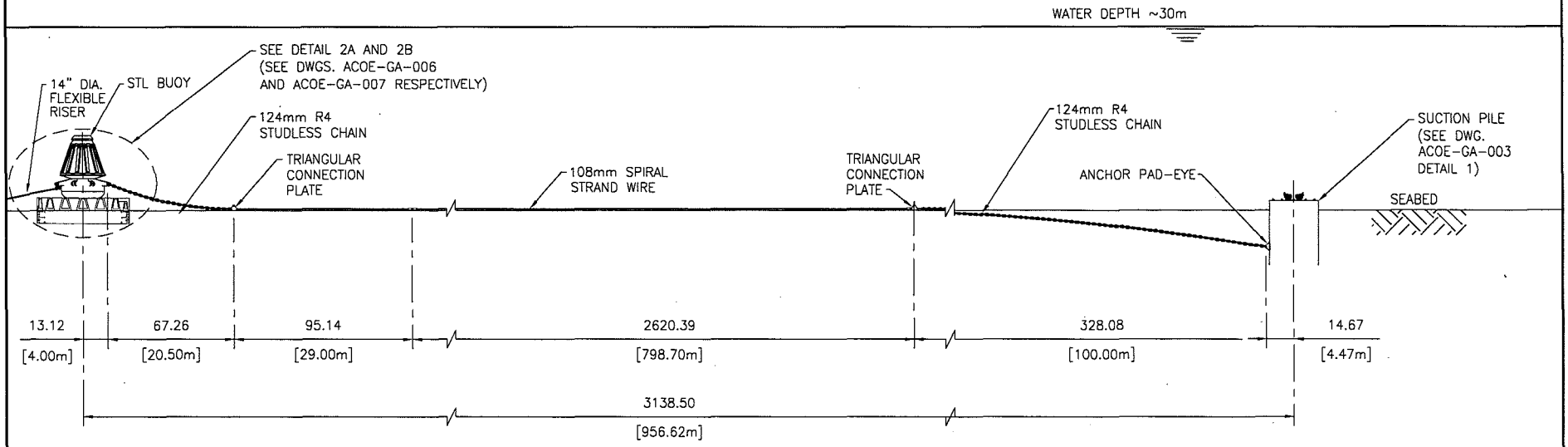
LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
STL FLEXIBLE RISER LAYOUT

DRAWN BY:	M.F.Z.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	9-03-14	PROJ. MGR.:	T.O.
CHECKED BY:	R.P.G.	SHEET:	7 OF 31

DWG. NO. ACOE-GA-004 REV. B

09-25-14 15:49 12078 11 M.F.Z.

NAN-2012-01138-EHH



SECTION B-B

(SEE DWG. ACOE-GA-003)
SCALE: 1"= 80'

LEGEND

NOTES

1. GEODETIC INFORMATION BASED UPON NEW JERSEY STATE PLANE COORDINATE SYSTEM, ZONE 2900, NORTH AMERICAN DATUM 1983, U.S. FEET.
2. BASED UPON MLLW WATER DEPTH.

NO.	REVISION	DATE	APPR.
B	ISSUED FOR PERMIT	9-18-14	R.P.G.
A	FOR CLIENT REVIEW	9-3-14	R.P.G.

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NEW YORK COA: 0009397

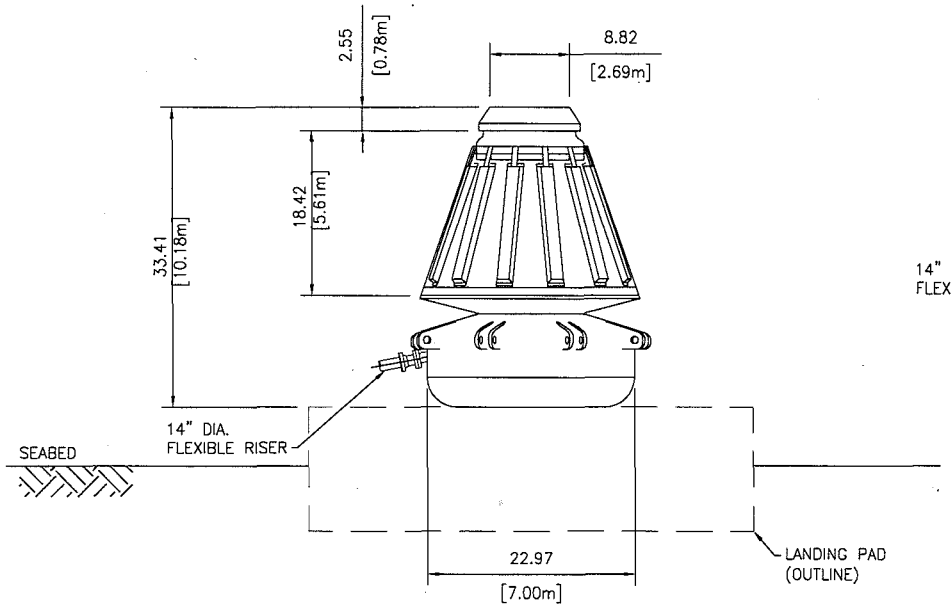
LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
STL BUOY MOORING LAYOUT

DRAWN BY:	G.J.D.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	9-3-14	PROJ. MGR.:	T.O.
CHECKED BY:	R.P.G.	SHEET:	8 OF 31

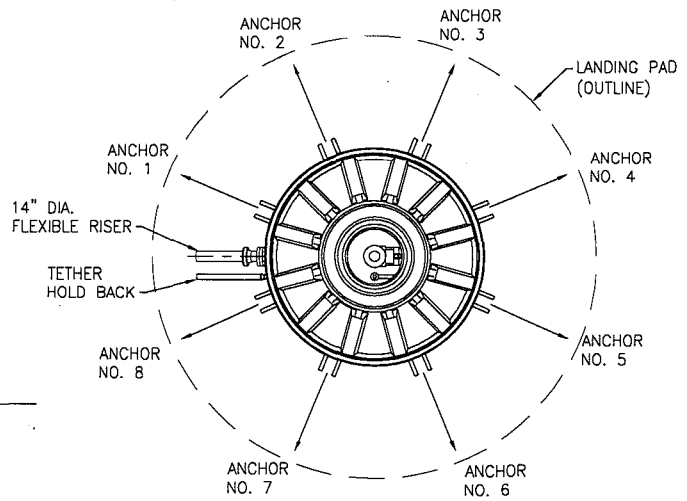
DWG. NO. ACOE-GA-005 REV. B

09-25-14 15:52 12078 09 M.F.Z.

NAN-2012-01138-EIHA



ELEVATION VIEW



PLAN VIEW

DETAIL 2A – STL BUOY

(SEE DWG. ACOE-GA-004)
SCALE: 1"= 20'

LEGEND

NOTES

1. GEODETIC INFORMATION BASED UPON NEW JERSEY STATE PLANE COORDINATE SYSTEM, ZONE 2900, NORTH AMERICAN DATUM 1983, U.S. FEET.
2. CONTOURS AND PROFILE BASED UPON MLLW.
3. SEE DRAWINGS ACOE-AP-LL001 AND ACOE-AP-LL002 FOR LATERAL DETAILS.
4. SEE DRAWINGS ACOE-AP-ML001 THROUGH ACOE-AP-ML008 FOR MAINLINE DETAILS.

NO.	REVISION	DATE	APPR.
B	ISSUED FOR PERMIT	9-18-14	R.P.G.
A	FOR CLIENT REVIEW	9-4-14	R.P.G.

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www.projectconsulting.com
NEW YORK COA: 0009397

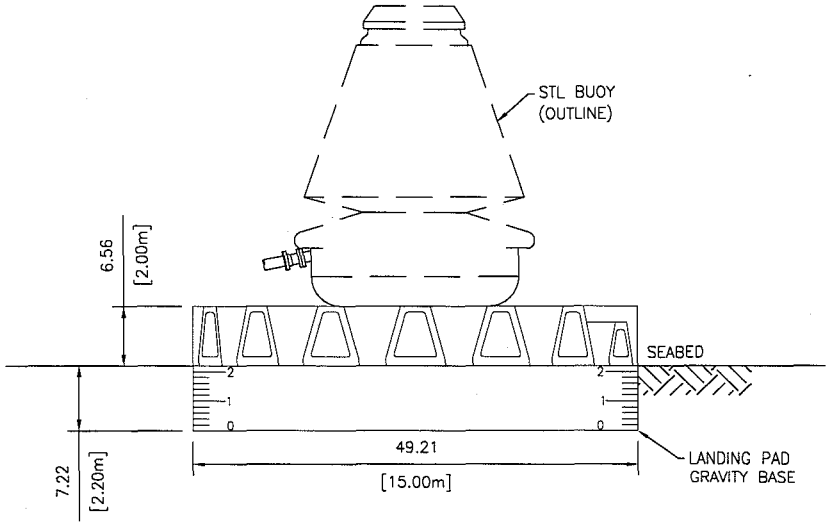
LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
STL BUOY DETAILS

DRAWN BY:	G.J.D.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	9-4-14	PROJ. MGR.:	T.O.
CHECKED BY:	R.P.G.	SHEET:	9 OF 31

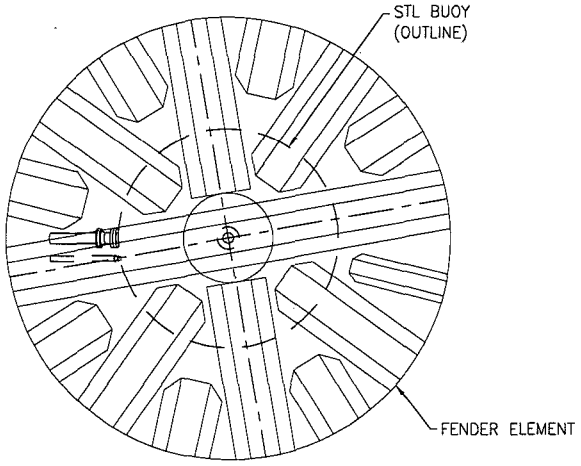
DWG. NO. ACOE-GA-006 REV. B

09-25-14 15:54 12078 08 M.F.Z.

NAN-2012-01136-EHA



ELEVATION VIEW



PLAN VIEW

DETAIL 2B – STL BUOY LANDING PAD

(SEE DWG. ACOE-GA-004)
SCALE: 1"= 20'

LEGEND

NOTES

1. GEODETIC INFORMATION BASED UPON NEW JERSEY STATE PLANE COORDINATE SYSTEM, ZONE 2900, NORTH AMERICAN DATUM 1983, U.S. FEET.
2. CONTOURS AND PROFILE BASED UPON MLLW.
3. SEE DRAWINGS ACOE-AP-LL001 AND ACOE-AP-LL002 FOR LATERAL DETAILS.
4. SEE DRAWINGS ACOE-AP-ML001 THROUGH ACOE-AP-ML008 FOR MAINLINE DETAILS.

NO.	REVISION	DATE	APPR.
B	ISSUED FOR PERMIT	9-18-14	R.P.G.
A	FOR CLIENT REVIEW	9-4-14	R.P.G.

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www.projectconsulting.com
NEW YORK COA: 0009397

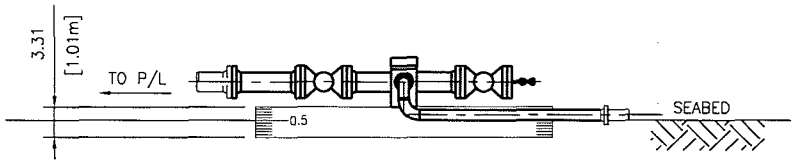
LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
STL BUOY DETAILS

DRAWN BY:	G.J.D.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	9-4-14	PROJ. MGR.:	T.O.
CHECKED BY:	R.P.G.	SHEET:	10 OF 31

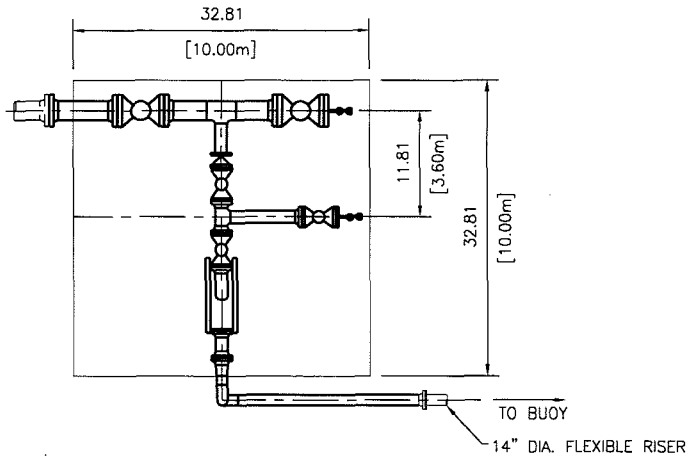
DWG. NO. ACOE-GA-007 REV. B

09-25-14 15:56 12078 08 M.F.Z.

NAN-2012-01138-CHA



ELEVATION



PLAN

DETAIL 3 – PLEM

(SEE DWG. ACOE-GA-004)
SCALE: 1"= 20'

LEGEND

NOTES

1. GEODETIC INFORMATION BASED UPON NEW JERSEY STATE PLANE COORDINATE SYSTEM, ZONE 2900, NORTH AMERICAN DATUM 1983, U.S. FEET.
2. CONTOURS AND PROFILE BASED UPON MLLW.
3. SEE DRAWINGS ACOE-AP-LL001 AND ACOE-AP-LL002 FOR LATERAL DETAILS.

NO.	REVISION	DATE	APPR.
B	ISSUED FOR PERMIT	9-18-14	R.P.G.
A	FOR CLIENT REVIEW	9-4-14	R.P.G.

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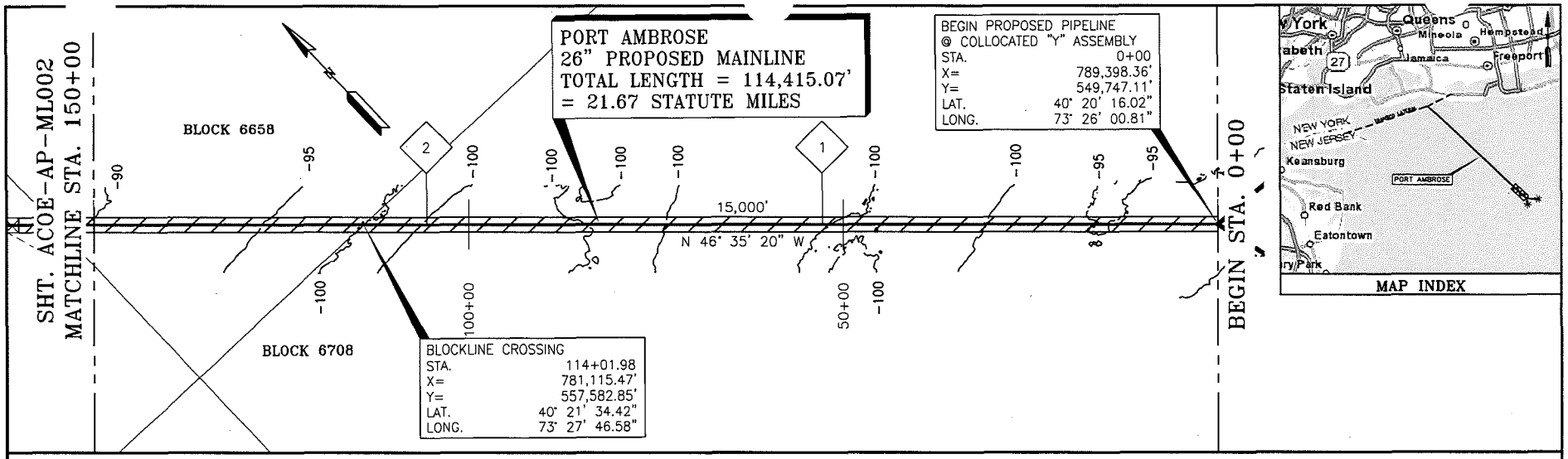
LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
PLEM DETAILS

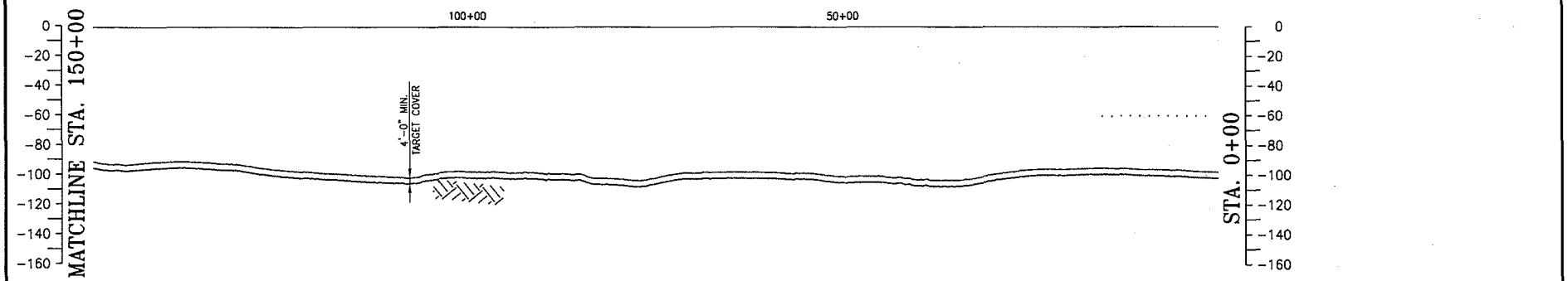
DRAWN BY:	G.J.D.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	9-4-14	PROJ. MGR.:	T.O.
CHECKED BY:	R.P.G.	SHEET:	11 OF 31

DWG. NO. ACOE-GA-008 REV. B

09-25-14 15:58 12078 06 M.F.Z.

NAN-2012-01135-EHA





LEGEND

- 0.0 – MILE POST REFERENCE (STATUTE MILES)
- 5 – HYDROGRAPHIC CONTOURS ARE SHOWN AT 5 FT INTERVALS AND ARE REFERENCED TO MLLW
- 0+00 – STATIONING ALONG CENTERLINE
- PROPOSED ROUTE CENTERLINE
- EXISTING OR CHARTED UTILITIES
- PRECAUTION/FAIRWAY AREA
- STATE/FEDERAL BOUNDARY
- 75' WIDE IMPACT DUE TO LOWERING BY PLOW
- SUPPLEMENTAL LOWERING METHOD
- 6753 – OCS BLOCK NUMBER

NOTES

1. GEODETIC INFORMATION BASED UPON NEW JERSEY STATE PLANE COORDINATE SYSTEM, ZONE 2900, NORTH AMERICAN DATUM 1983, U.S. FEET.
2. CONTOURS AND PROFILE BASED UPON MLLW.

100' 0 200'
50' 100'
SCALE IN FEET (VERTICAL)

2,000' 0 4,000'
1,000' 2,000'
SCALE IN FEET (HORIZONTAL)

NO.	REVISION	DATE	APPR.
C	RENUMBER SHEET/ISSUED FOR PERMIT	9-18-14	R.P.G.
B	ISSUED FOR PERMIT	5-16-14	R.P.G.
A	FOR CLIENT REVIEW	1-31-14	R.P.G.

PORTAMBROSE

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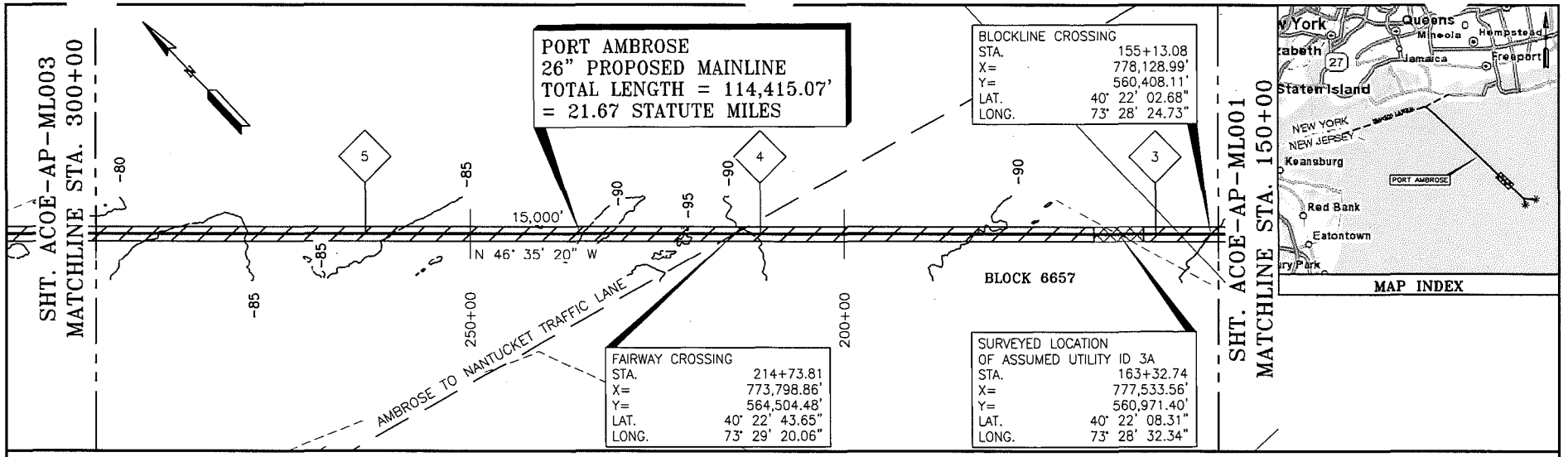
www.projectconsulting.com
NEW YORK COA: 0009397

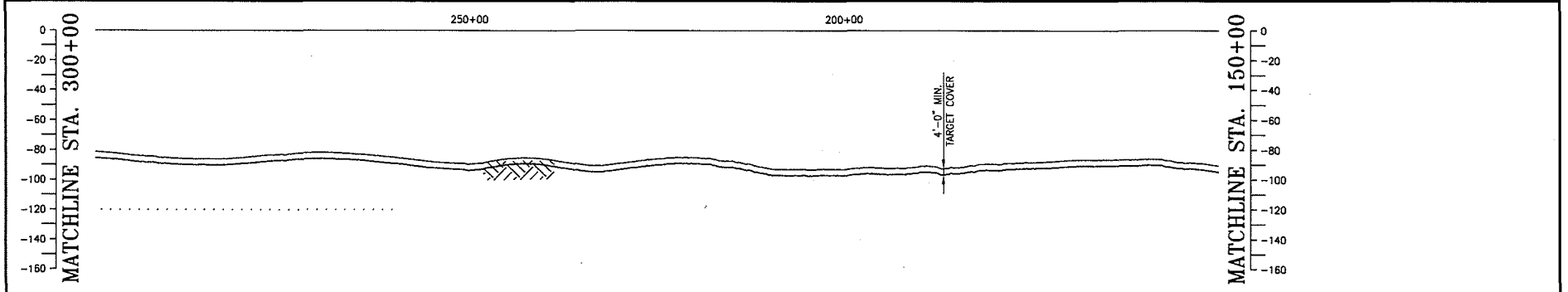
LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
ALIGNMENT & PROFILE (MAINLINE)

DRAWN BY:	G.J.D.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	1-20-14	PROJ. MGR.:	T.O.
CHECKED BY:	J.H.E.	SHEET:	12 OF 31
DWG. NO.	ACOE-AP-ML001	REV.	C

09-26-14 7:52 12078 12 M.F.Z.

NAN-2012-01138-EMA





LEGEND

- 0.0 – MILE POST REFERENCE (STATUTE MILES)
- 5 – HYDROGRAPHIC CONTOURS ARE SHOWN AT 5 FT INTERVALS AND ARE REFERENCED TO MLLW
- 0+00 – STATIONING ALONG CENTERLINE
- PROPOSED ROUTE CENTERLINE
- EXISTING OR CHARTED UTILITIES
- PRECAUTION/FAIRWAY AREA
- STATE/FEDERAL BOUNDARY
- 75' WIDE IMPACT DUE TO LOWERING BY PLOW
- SUPPLEMENTAL LOWERING METHOD
- 6753 – OCS BLOCK NUMBER

NOTES

1. GEODETIC INFORMATION BASED UPON NEW JERSEY STATE PLANE COORDINATE SYSTEM, ZONE 2900, NORTH AMERICAN DATUM 1983, U.S. FEET.
2. CONTOURS AND PROFILE BASED UPON MLLW.

100' 0 200'
50' 100'
SCALE IN FEET (VERTICAL)

2,000' 0 4,000'
1,000' 2,000'
SCALE IN FEET (HORIZONTAL)

NO.	REVISION	DATE	APPR.
C	RENUMBER SHEET/ISSUED FOR PERMIT	9-18-14	R.P.G.
B	ISSUED FOR PERMIT	5-16-14	R.P.G.
A	FOR CLIENT REVIEW	1-31-14	R.P.G.

PORTAMBROSE

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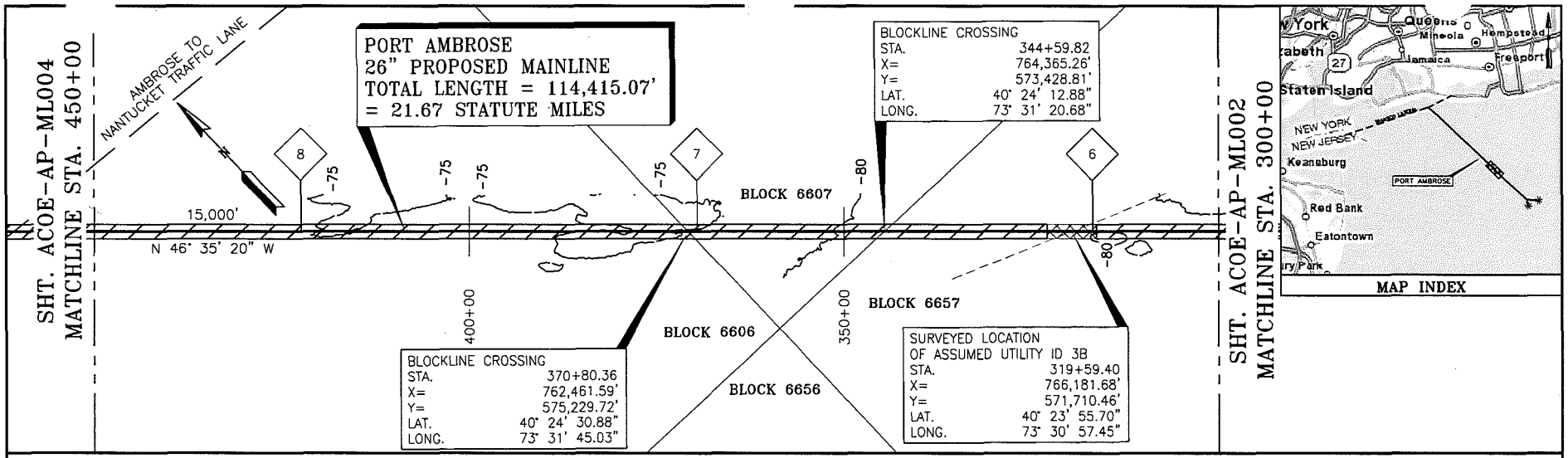
NEW YORK COA: 0009397

LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
ALIGNMENT & PROFILE (MAINLINE)

DRAWN BY:	G.J.D.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	1-20-14	PROJ. MGR.:	T.O.
CHECKED BY:	J.H.E.	SHEET:	13 OF 31
DWG. NO.	ACOE-AP-ML002	REV.	C

09-26-14 7:55 12078 11 M.F.Z.

NAN-2012-01138-EHA



LEGEND

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NOTES

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100' 0 200'
50' 100'
SCALE IN FEET (VERTICAL)

2,000' 0 4,000'
1,000' 2,000'
SCALE IN FEET (HORIZONTAL)

NO.	REVISION	DATE	APPR.
C	RENUMBER SHEET/ISSUED FOR PERMIT	9-18-14	R.P.G.
B	ISSUED FOR PERMIT	5-16-14	R.P.G.
A	FOR CLIENT REVIEW	1-31-14	R.P.G.

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LIBERTY NATURAL GAS, LLC
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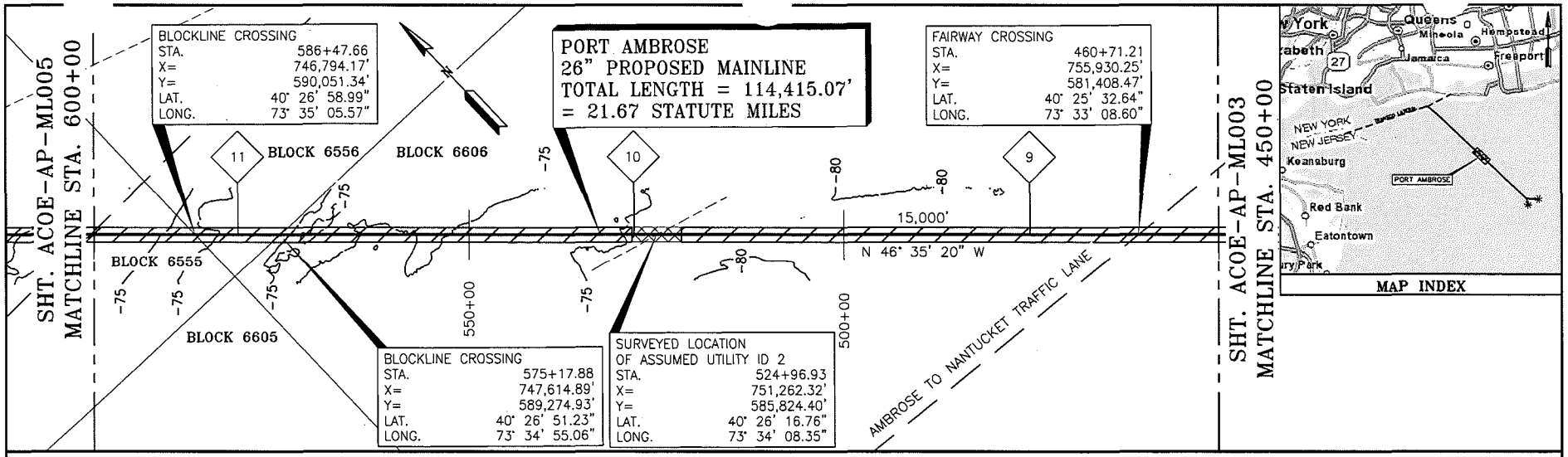
ALIGNMENT & PROFILE (MAINLINE)

DRAWN BY:	G.J.D.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	1-20-14	PROJ. MGR.:	T.O.
CHECKED BY:	J.H.E.	SHEET:	14 OF 31

DWG. NO. ACOE-AP-ML003 REV. C

09-26-14 7:57 12078 10 M.F.Z.

NAN-2012-01138-EHA



LEGEND

- 0.0 – MILE POST REFERENCE (STATUTE MILES)
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NOTES

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100' 0 200'
50' 100'
SCALE IN FEET (VERTICAL)

2,000' 0 4,000'
1,000' 2,000'
SCALE IN FEET (HORIZONTAL)

NO.	REVISION	DATE	APPR.
C	RENUMBER SHEET/ISSUED FOR PERMIT	9-18-14	R.P.G.
B	ISSUED FOR PERMIT	5-16-14	R.P.G.
A	FOR CLIENT REVIEW	1-31-14	R.P.G.

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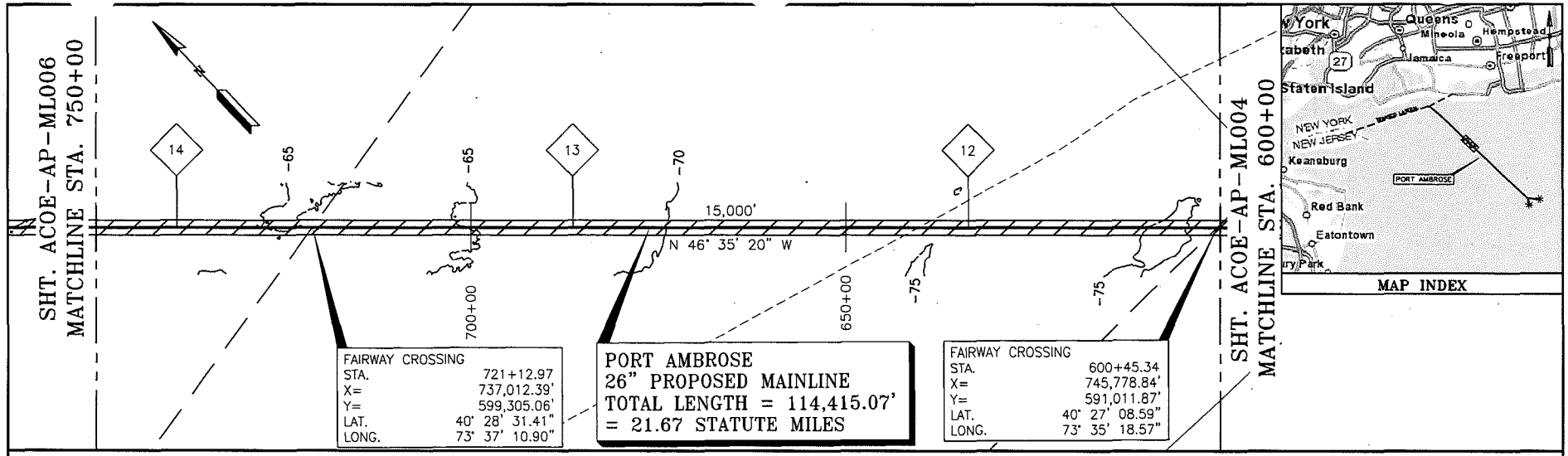
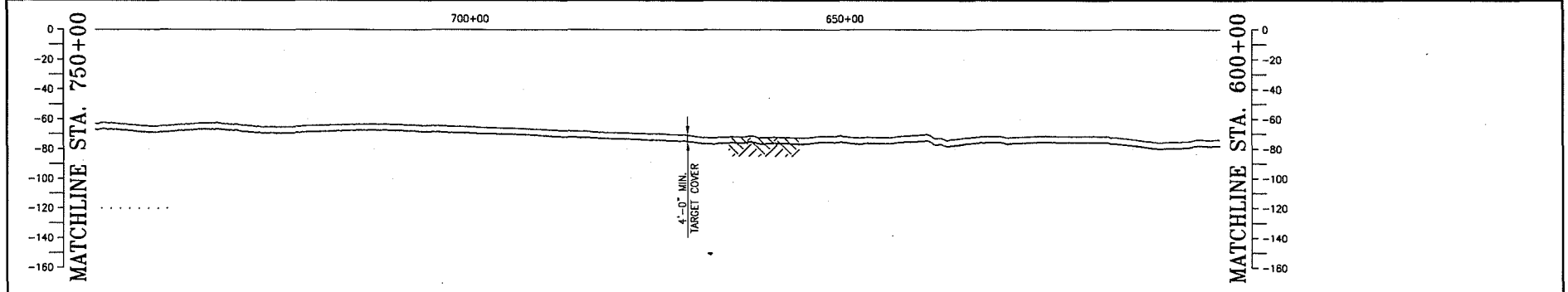
LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
ALIGNMENT & PROFILE (MAINLINE)

DRAWN BY: G.J.D.	APPROVED BY: R.P.G.
SCALE: AS NOTED	PROJ. ENGR.: R.P.G.
DATE: 1-20-14	PROJ. MGR.: T.O.
CHECKED BY: J.H.E.	SHEET: 15 OF 31
DWG. NO. ACOE-AP-ML004	REV. C

09-26-14 8:04 12078 10 M.F.Z.

NAN-2012-01136-EHA





LEGEND

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- 6753 – OCS BLOCK NUMBER

NOTES

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100' 0 200'
50' 100'
SCALE IN FEET (VERTICAL)

2,000' 0 4,000'
1,000' 2,000'
SCALE IN FEET (HORIZONTAL)

NO.	REVISION	DATE	APPR.
C	RENUMBER SHEET/ISSUED FOR PERMIT	9-18-14	R.P.G.
B	ISSUED FOR PERMIT	5-16-14	R.P.G.
A	FOR CLIENT REVIEW	1-31-14	R.P.G.

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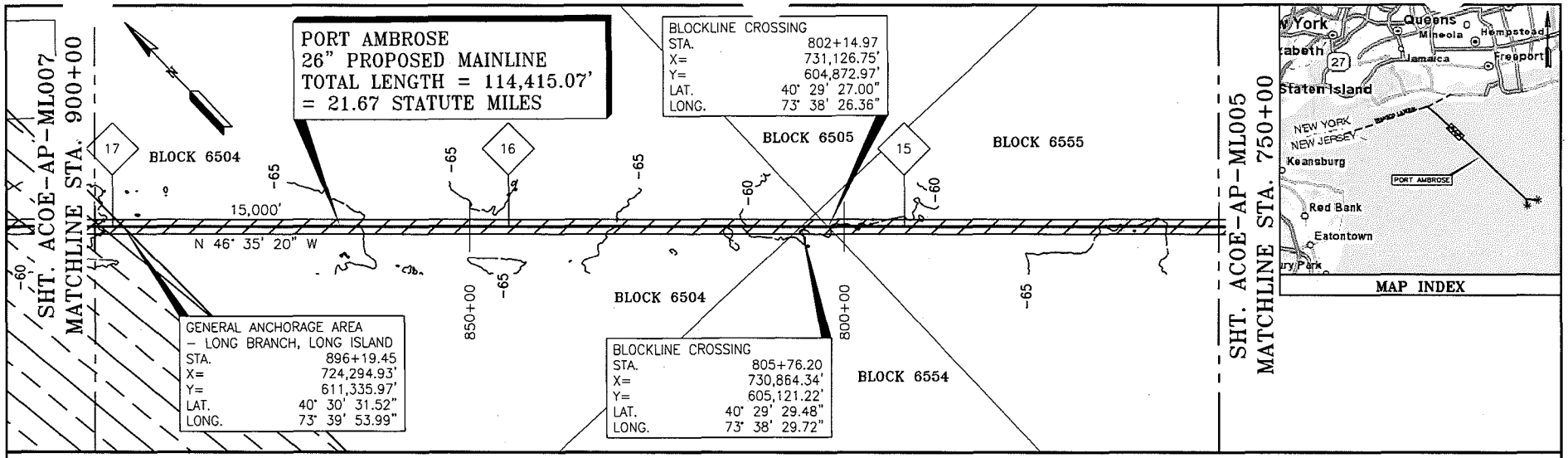
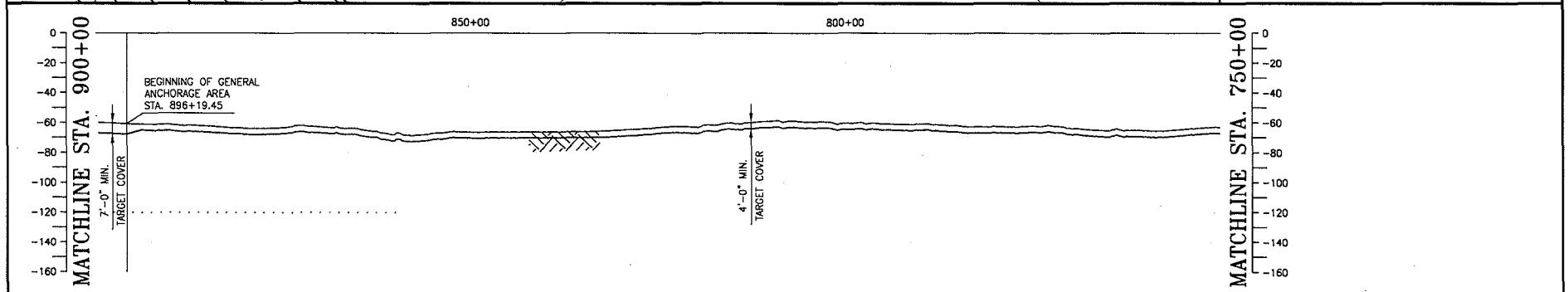
DRAWN BY:	G.J.D.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	1-20-14	PROJ. MGR.:	T.O.
CHECKED BY:	J.H.E.	SHEET:	16 OF 31

DWG. NO. ACOE-AP-ML005 REV. C

09-26-14 8:06 12078 10 M.F.Z.

NAN-2012-01135-EHA





LEGEND

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- SUPPLEMENTAL LOWERING METHOD
- 6753 – OCS BLOCK NUMBER
- GENERAL ANCHORAGE AREA

NOTES

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100' 0 200'
50' 100'
SCALE IN FEET (VERTICAL)

2,000' 0 4,000'
1,000' 2,000'
SCALE IN FEET (HORIZONTAL)

NO.	REVISION	DATE	APPR.
E	RENUMBER SHEET/ISSUED FOR PERMIT	9-18-14	R.P.G.
D	ADDED GENERAL ANCHORAGE/ISSUED FOR PERMIT	5-16-14	R.P.G.
C	ISSUED FOR PERMIT	3-21-14	R.P.G.
B	FOR CLIENT REVIEW	2-10-14	R.P.G.
A	FOR CLIENT REVIEW	1-31-14	R.P.G.

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NEW YORK COA: 0009397

LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
ALIGNMENT & PROFILE (MAINLINE)

DRAWN BY:	G.J.D.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	1-20-14	PROJ. MGR.:	T.O.
CHECKED BY:	J.H.E.	SHEET:	17 OF 31
DWG. NO.	ACOE-AP-ML006	REV.	E

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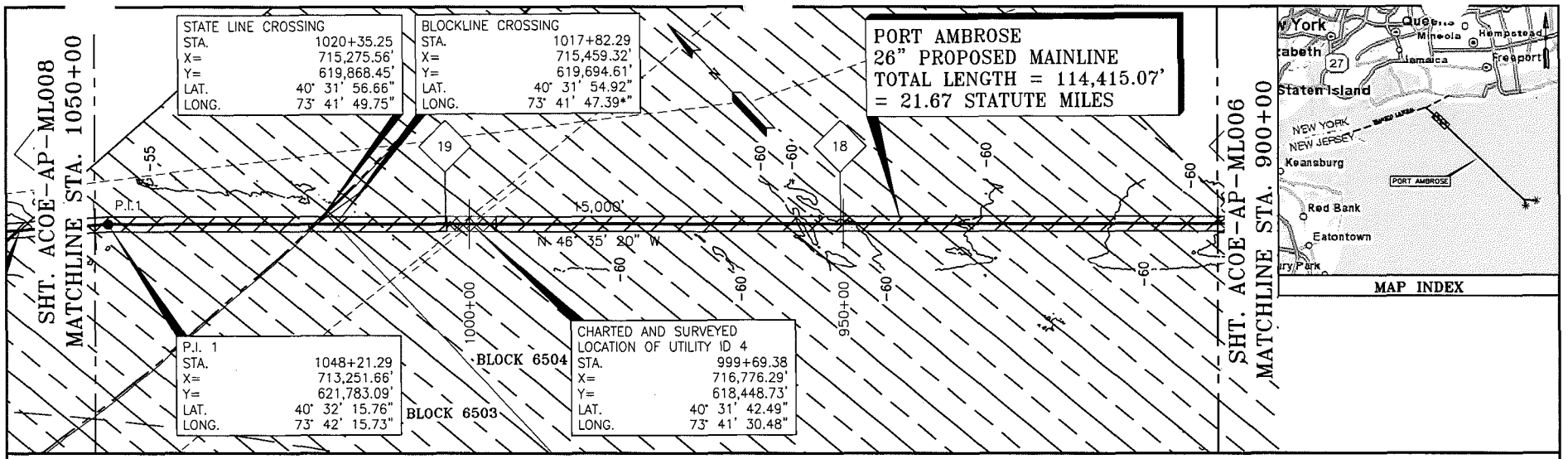
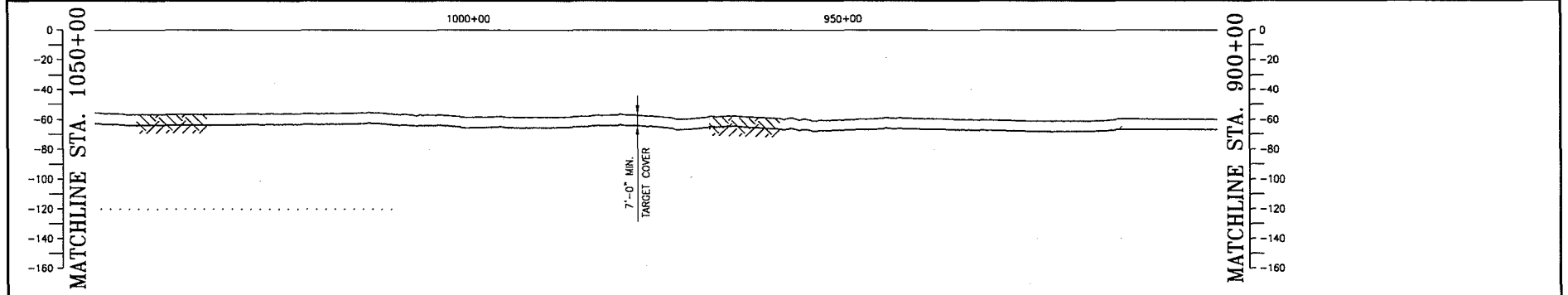
NAN-2012-01138-EIHA





LEGEND

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- 5 – HYDROGRAPHIC CONTOURS ARE SHOWN AT 5 FT INTERVALS AND ARE REFERENCED TO MLLW
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- STATE/FEDERAL BOUNDARY
- 75' WIDE IMPACT DUE TO LOWERING BY PLOW
- SUPPLEMENTAL LOWERING METHOD
- 6753 – OCS BLOCK NUMBER
- GENERAL ANCHORAGE AREA

NOTES

1. GEODETIC INFORMATION BASED UPON NEW JERSEY STATE PLANE COORDINATE SYSTEM, ZONE 2900, NORTH AMERICAN DATUM 1983, U.S. FEET.
2. CONTOURS AND PROFILE BASED UPON MLLW.

100' 0 200'
50' 100'
SCALE IN FEET (VERTICAL)

2,000' 0 4,000'
1,000' 2,000'
SCALE IN FEET (HORIZONTAL)

NO.	REVISION	DATE	APPR.
E	RENUMBER SHEET/ISSUED FOR PERMIT	9-18-14	R.P.G.
D	ADDED GENERAL ANCHORAGE/ISSUED FOR PERMIT	5-16-14	R.P.G.
C	ISSUED FOR PERMIT	3-21-14	R.P.G.
B	FOR CLIENT REVIEW	2-10-14	R.P.G.
A	FOR CLIENT REVIEW	1-31-14	R.P.G.

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NEW YORK COA: 0009397

LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
ALIGNMENT & PROFILE (MAINLINE)

DRAWN BY:	G.J.D.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	1-20-14	PROJ. MGR.:	T.O.
CHECKED BY:	J.H.E.	SHEET:	18 OF 31
DWG. NO.	ACOE-AP-ML007	REV.	E

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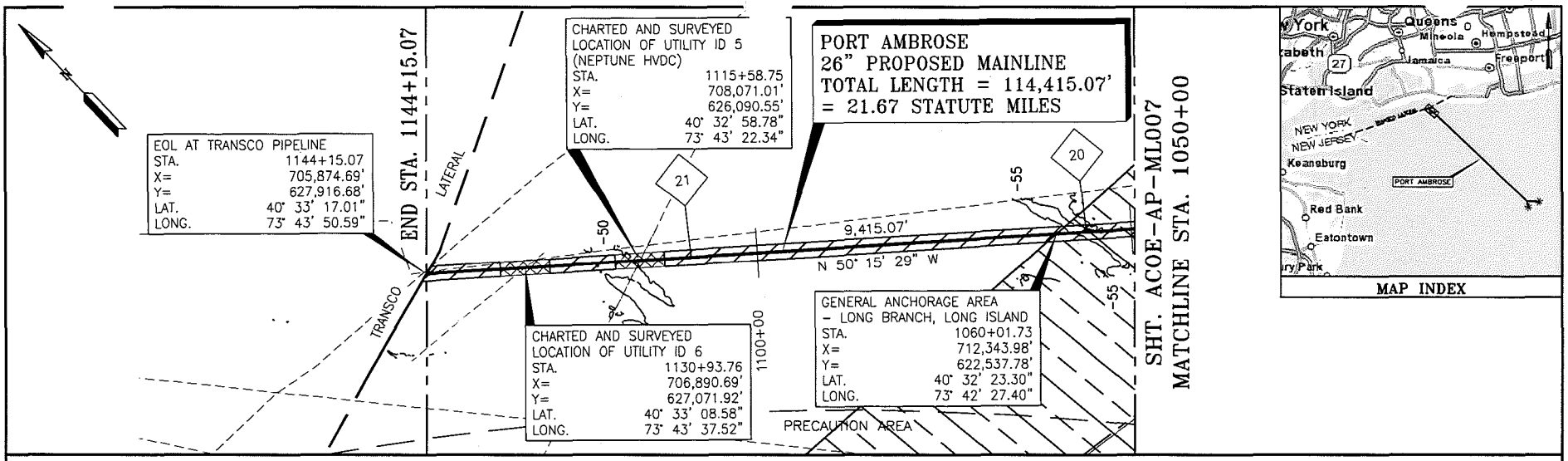
NAN-2012-01135-EHA



LEGEND

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- SUPPLEMENTAL LOWERING METHOD
- 6753 – OCS BLOCK NUMBER
- GENERAL ANCHORAGE AREA – LONG BRANCH, LONG ISLAND

NOTES

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2,000' 0 4,000'
1,000' 2,000'
SCALE IN FEET (HORIZONTAL)

NO.	REVISION	DATE	APPR.
E	RENUMBER SHEET/ISSUED FOR PERMIT	9-18-14	R.P.G.
D	ADDED GENERAL ANCHORAGE/ISSUED FOR PERMIT	5-16-14	R.P.G.
C	ISSUED FOR PERMIT	3-21-14	R.P.G.
B	FOR CLIENT REVIEW	2-10-14	R.P.G.
A	FOR CLIENT REVIEW	1-31-14	R.P.G.

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ALIGNMENT & PROFILE (MAINLINE)

DRAWN BY:	G.J.D.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	1-20-14	PROJ. MGR.:	T.O.
CHECKED BY:	J.H.E.	SHEET:	19 OF 31

DWG. NO. ACOE-AP-ML008 REV. E

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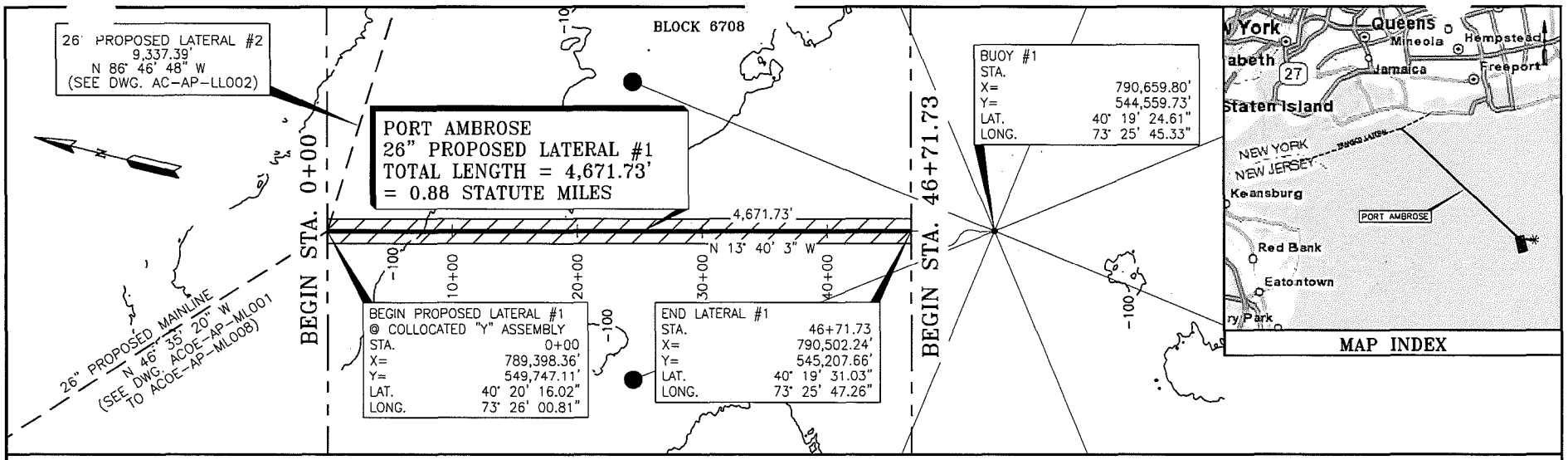
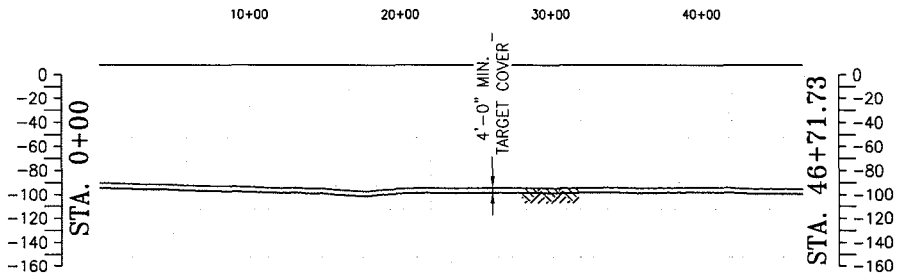
NAN-2012-01138-EMA





LEGEND

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- 5 – HYDROGRAPHIC CONTOURS ARE SHOWN AT 5 FT INTERVALS AND ARE REFERENCED TO MLLW
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- PRECAUTION/FAIRWAY AREA
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NOTES

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2. CONTOURS AND PROFILE BASED UPON MLLW.

120' 0 240'
60' 120'
SCALE IN FEET (VERTICAL)

1,200' 0 2,400'
600' 1,200'
SCALE IN FEET (HORIZONTAL)

NO.	REVISION	DATE	APPR.
C	RENUMBER SHEET/ISSUED FOR PERMIT	9-18-14	R.P.G.
B	ISSUED FOR PERMIT	5-16-14	R.P.G.
A	FOR CLIENT REVIEW	1-31-14	R.P.G.

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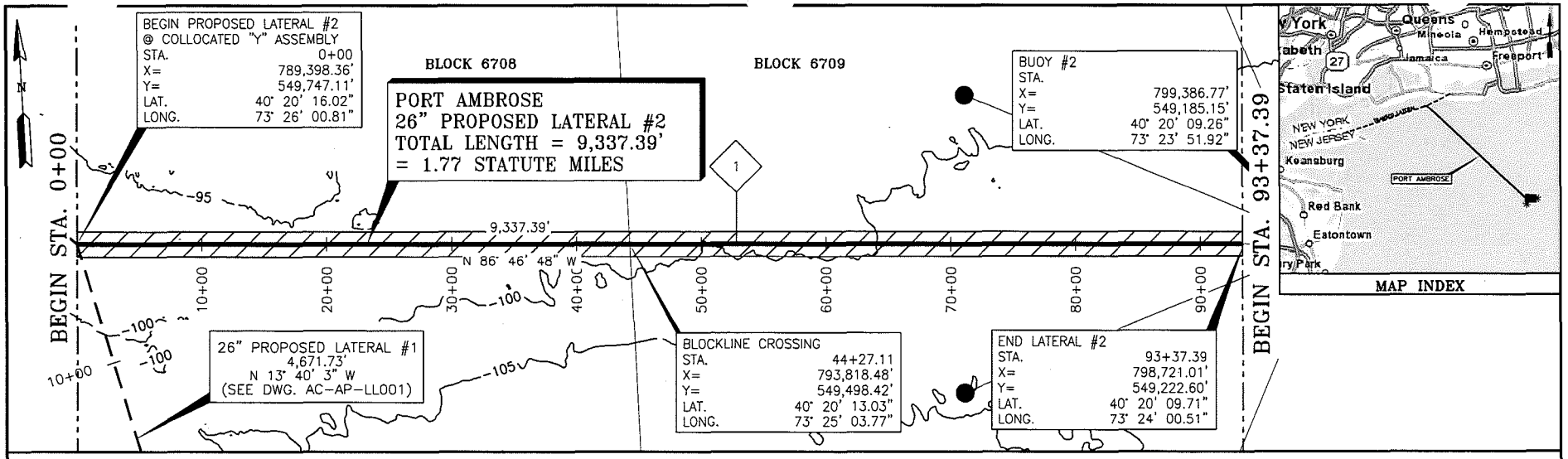
NEW YORK COA: 0009397

LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
ALIGNMENT & PROFILE (26" LATERAL 1)

DRAWN BY:	G.J.D.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	1-20-14	PROJ. MGR.:	T.O.
CHECKED BY:	J.H.E.	SHEET:	20 OF 31
DWG. NO.	ACOE-AP-LL001	REV.	C

09-26-14 7:45 12078 10 M.F.Z.

NAN-2012-01138-EHA



LEGEND

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120' 0 240'
60' 120'
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1,200' 0 2,400'
600' 1,200'
SCALE IN FEET (HORIZONTAL)

NO.	REVISION	DATE	APPR.
C	RENUMBER SHEET/ISSUED FOR PERMIT	9-18-14	R.P.G.
B	ISSUED FOR PERMIT	5-16-14	R.P.G.
A	FOR CLIENT REVIEW	1-31-14	R.P.G.

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NEW YORK COA: 0009397

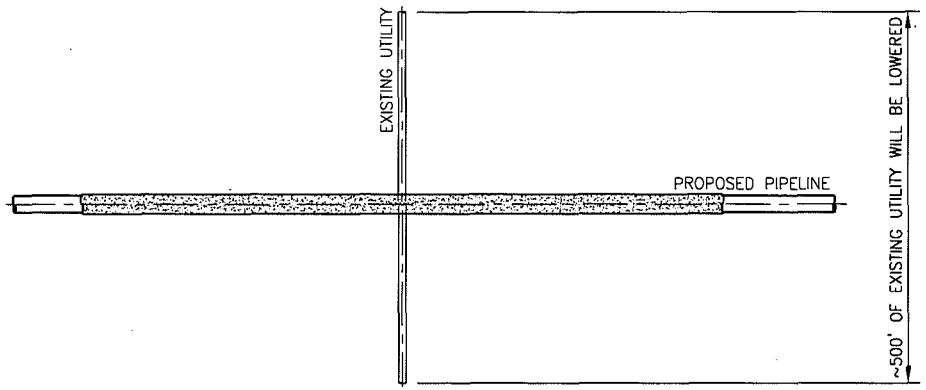
LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
ALIGNMENT & PROFILE (26" LATERAL 2)

DRAWN BY:	G.J.D.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	1-20-14	PROJ. MGR.:	T.O.
CHECKED BY:	J.H.E.	SHEET:	21 OF 31

DWG. NO. ACOE-AP-LL002 REV. C

09-26-14 7:49 12078 09 M.F.Z.

NAN-2012-01135-EHA



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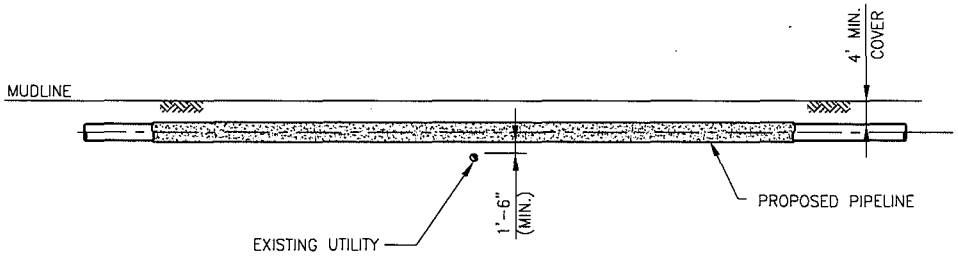
SCALE: N.T.S.



ELEVATION
SCALE: N.T.S.

TABLE OF UTILITY CROSSINGS			
NO.	MILE POST	OWNER	TYPE
3A	3.09	UNKNOWN	CABLE
3B	6.05	UNKNOWN	CABLE
2	9.94	UNKNOWN	CABLE
4	18.93	UNKNOWN	CABLE
6	21.42	UNKNOWN	CABLE

LEGEND

NOTES

NO.	REVISION	DATE	APPR.
C	RENUMBER SHEET/ISSUED FOR PERMIT	9-18-14	RPG
B	ISSUED FOR PERMIT	5-16-14	RPG
A	FOR CLIENT REVIEW	1-31-14	RPG

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Project Consulting Services Engineering, P.C.
2110 POWERS FERRY ROAD, STE. 225
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(770) 618-1020 Fax (770) 618-1025
www.projectconsulting.com
NEW YORK COA: 0009397

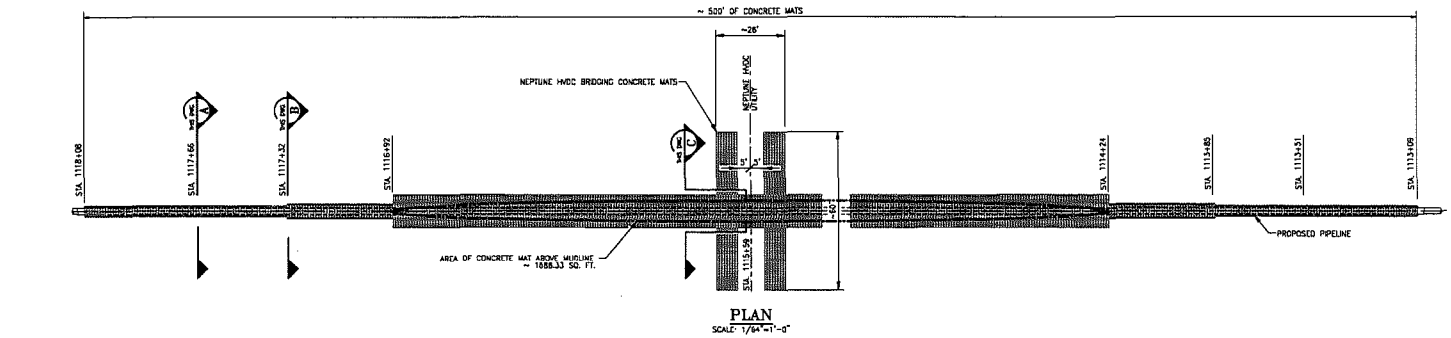
LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
TYPICAL UTILITY CROSSING

DRAWN BY:	G.J.D.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	1-30-14	PROJ. MGR.:	T.O.
CHECKED BY:	J.H.E.	SHEET:	22 OF 31

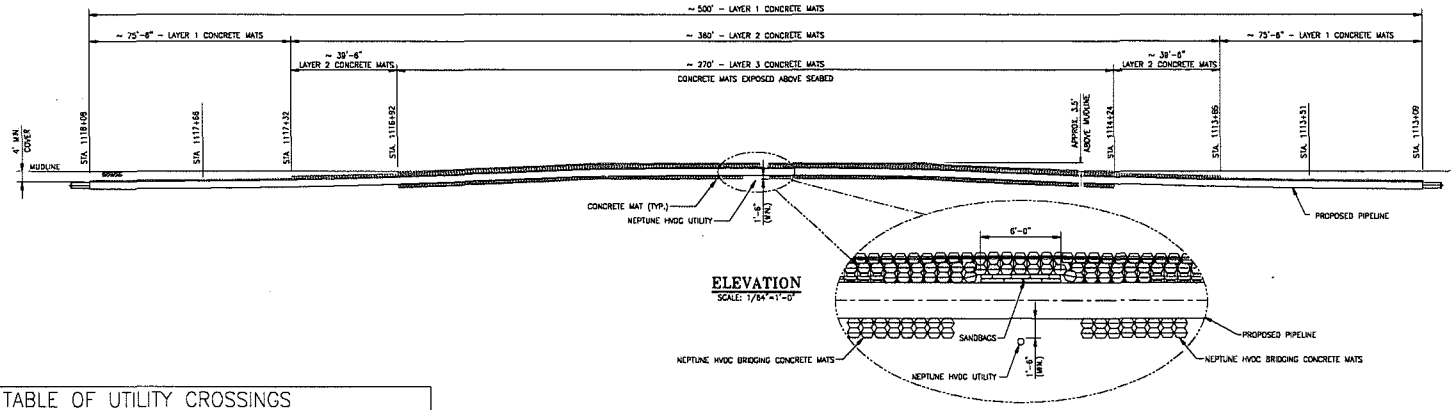
DWG. NO. ACOE-IN-001 REV. C

NAN-2012-01138-~~EHA~~

09-18-14 17:30 12078 07 M.F.Z.



PLAN
SCALE: 1/64"=1'-0"



ELEVATION
SCALE: 1/64"=1'-0"

TABLE OF UTILITY CROSSINGS			
NO.	MILE POST	OWNER	TYPE
5	21.13	NEPTUNE HVDC	CABLE

LEGEND

NOTES

NO.	REVISION	DATE	APPR.
C	ADDED SANDBAGS AND REISSUED FOR PERMIT	10-27-14	RPG
B	ISSUED FOR PERMIT	9-18-14	RPG
A	FOR CLIENT REVIEW	8-14-14	RPG

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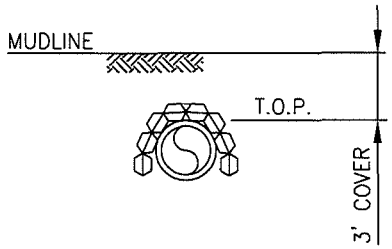
NEW YORK COA: 0009397

LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
NEPTUNE CROSSING SHT 1 OF 2

DRAWN BY:	SNC	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	8/14/14	PROJ. MGR.:	T.O.
CHECKED BY:	R.P.G.	SHEET:	23 OF 31

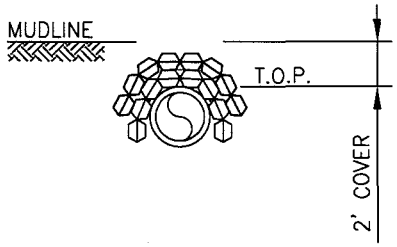
DWG. NO. ACOE-IN-002A REV. C

NAN-2012-01138-EHA



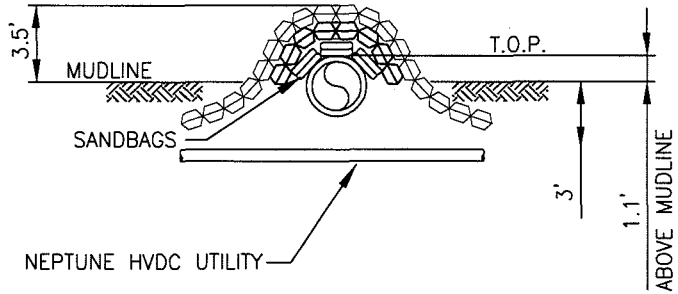
SECTION A
SCALE: 1/8"= 1'-0" (A) ACOE-IN-002A

~ 151' LAYER 1 CONCRETE MATS



SECTION B
SCALE: 1/8"= 1'-0" (B) ACOE-IN-002A

~ 79' LAYER 2 CONCRETE MATS



SECTION C
SCALE: 1/8"= 1'-0" (C) ACOE-IN-002A

~ 270' LAYER 3 CONCRETE MATS

CONCRETE MAT SCHEDULE
20' x 8' x 9" (LWD)

DESCRIPTION	QTY.
NEPTUNE HVDC BRIDGE	12
LAYER 1 COVER	25
LAYER 2 COVER	18
LAYER 3 COVER	34
TOTAL	89

TABLE OF UTILITY CROSSINGS

NO.	MILE POST	OWNER	TYPE
5	21.13	NEPTUNE HVDC	CABLE

LEGEND

NOTES

NO.	REVISION	DATE	APPR.
C	ADDED SANDBAGS AND REISSUED FOR PERMIT	10-27-14	RPG
B	ISSUED FOR PERMIT	9-18-14	RPG
A	FOR CLIENT REVIEW	8-14-14	RPG

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NEW YORK COA: 0009397

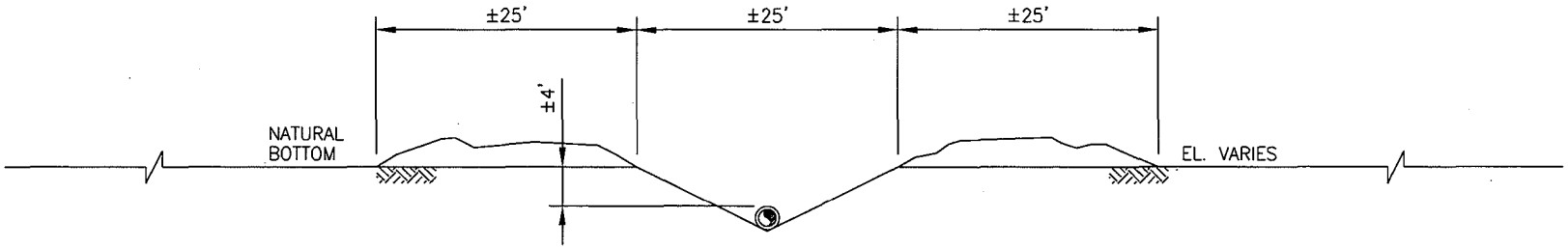
LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
NEPTUNE CROSSING SHT 2 OF 2

DRAWN BY:	SNC	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	8/14/14	PROJ. MGR.:	T.O.
CHECKED BY:	R.P.G.	SHEET:	24 OF 31

DWG. NO. ACOE-IN-002B REV. C

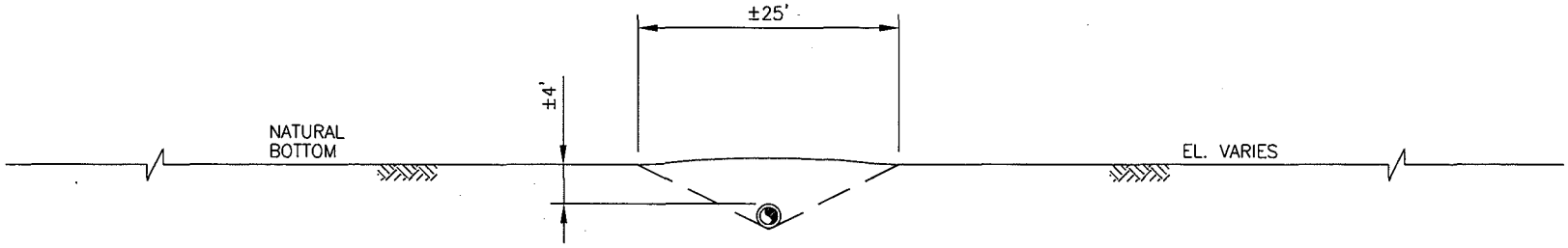
10-31-14 10:59 12078 04 SNC

NAN-2012-01138-EHA



TYPICAL PLOWED TRENCH

SCALE: N.T.S.



TYPICAL BACKFILL PLOWED TRENCH

SCALE: N.T.S.

LEGEND

NOTES

NO.	REVISION	DATE	APPR.
C	RENUMBER SHEET/ISSUED FOR PERMIT	9-18-14	RPG
B	ISSUED FOR PERMIT	5-14-16	RPG
A	FOR CLIENT REVIEW	1-31-14	RPG

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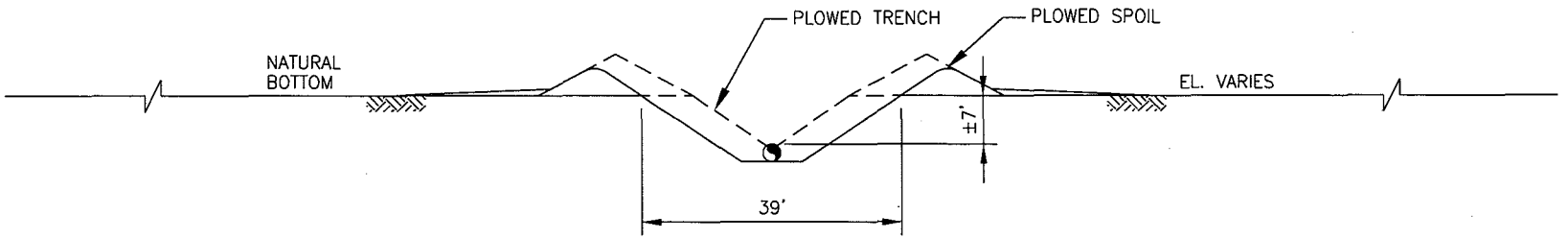
LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
TYPICAL PLOWED TRENCH

DRAWN BY: G.J.D.	APPROVED BY: R.P.G.
SCALE: AS NOTED	PROJ. ENGR.: R.P.G.
DATE: 1-3-14	PROJ. MGR.: T.O.
CHECKED BY: J.H.E.	SHEET: 25 OF 31
DWG. NO. ACOE-IN-003	REV. C

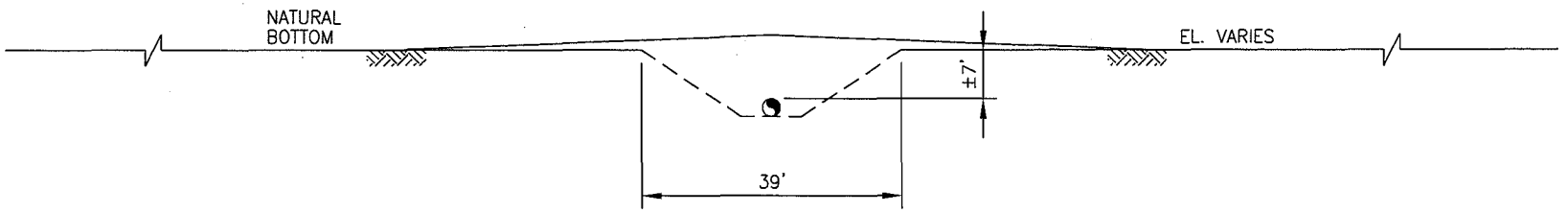
09-18-14 17:33 12078 11 M.F.Z.

NAN-2012-01138 EHA



PLOWED/JETTED TRENCH

SCALE: N.T.S.



BACKFILLED PLOWED/JETTED TRENCH

SCALE: N.T.S.

LEGEND

NOTES

NO.	REVISION	DATE	APPR.
B	RENUMBER SHEET/ISSUED FOR PERMIT	9-18-14	RPG
A	ISSUED FOR PERMIT	5-06-14	RPG

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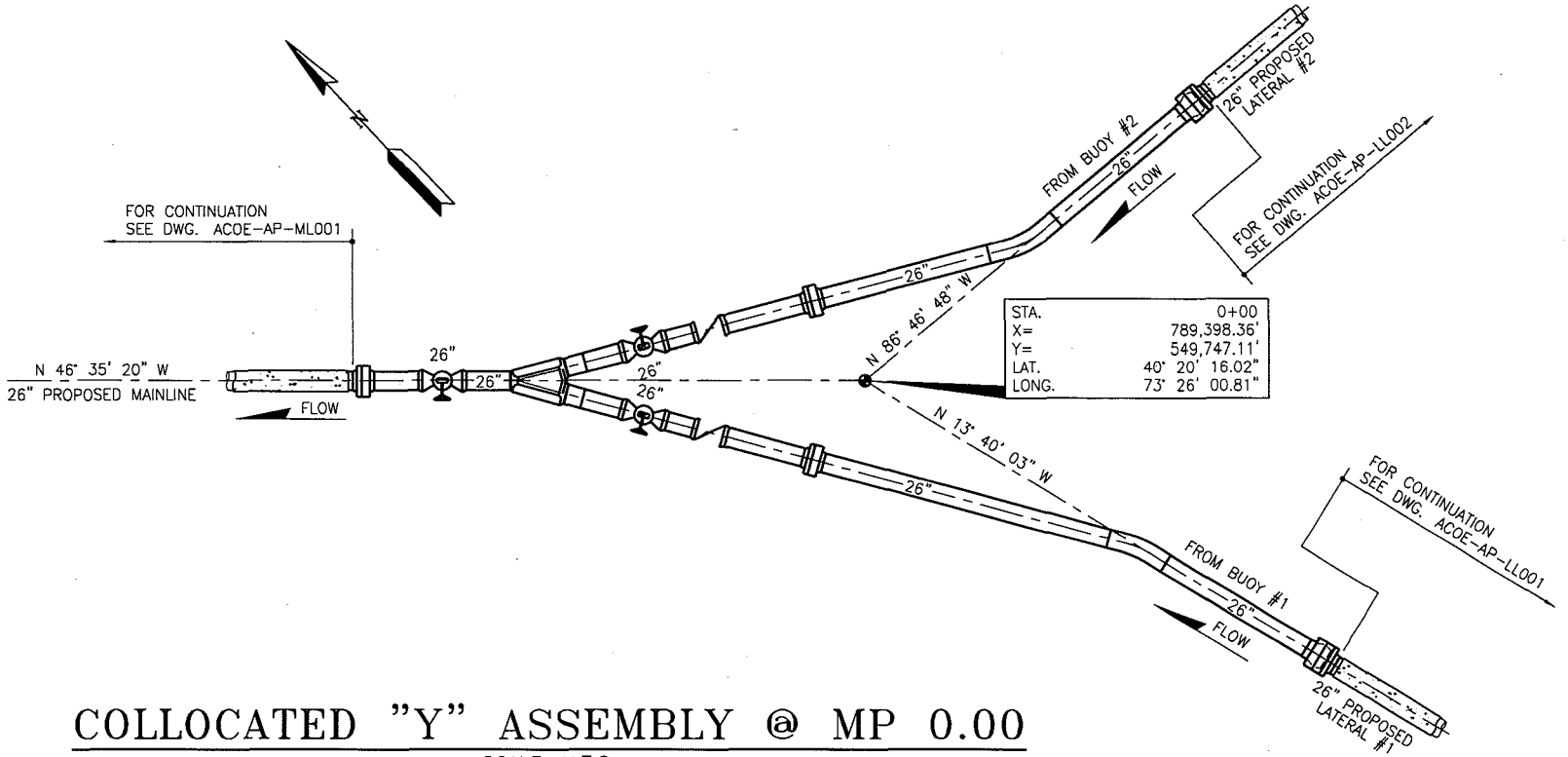
LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
PLOWED/JETTED TRENCH

DRAWN BY:	M.F.Z.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	5-06-14	PROJ. MGR.:	T.O.
CHECKED BY:	J.H.E.	SHEET:	26 OF 31

DWG. NO. ACOE-IN-004 REV. B

09-18-14 17:32 12078 08 MFZ

NAN-2012-01138-EHA



COLLOCATED "Y" ASSEMBLY @ MP 0.00

SCALE: N.T.S.

LEGEND

NOTES

NOTES:

1. PROJECT HORIZONTAL REFERENCE IS THE NEW JERSEY STATE PLANE COORDINATE SYSTEM (2900), NAD 83 IN US SURVEY FEET.
2. SEE DRAWINGS ACOE-AP-ML001 THROUGH ACOE-AP-ML008 FOR DETAILS.

NO.	REVISION	DATE	APPR.
C	RENUMBER SHEET/ISSUED FOR PERMIT	9-18-14	RPG
B	ISSUED FOR PERMIT	5-16-14	RPG
A	FOR CLIENT REVIEW	1-31-14	RPG

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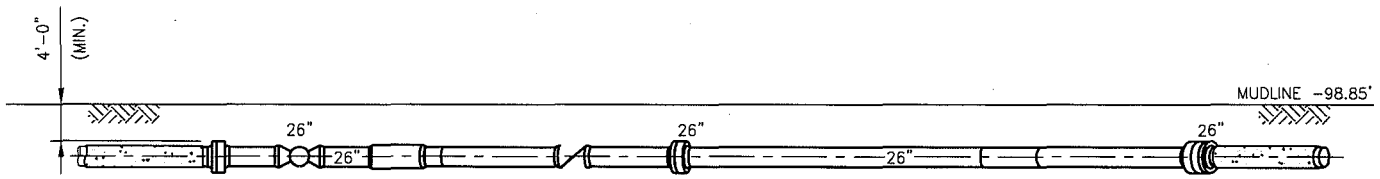
LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
COLLOCATED "Y" ASSEMBLY

DRAWN BY:	G.J.D.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	1-21-14	PROJ. MGR.:	T.O.
CHECKED BY:	J.H.E.	SHEET:	27 OF 31
DWG. NO.	ACOE-PF-001A	REV.	C

10 M.F.Z. 12078 09-25-14 16:57

NAN-2012-01138-EHA



COLLOCATED "Y" ASSEMBLY ELEVATION

SCALE: N.T.S.

LEGEND

NOTES

NOTES:

1. PROJECT HORIZONTAL REFERENCE IS THE NEW JERSEY STATE PLANE COORDINATE SYSTEM (2900), NAD 83 IN US SURVEY FEET.
2. SEE DRAWINGS ACOE-PF-001A AND ACOE-AP-ML001 THROUGH ACOE-AP-ML008 FOR DETAILS.

NO.	REVISION	DATE	APPR.
C	RENUMBER SHEET/ISSUED FOR PERMIT	9-18-14	RPG
B	ISSUED FOR PERMIT	5-16-14	RPG
A	FOR CLIENT REVIEW	1-31-14	RPG

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NEW YORK COA: 0009397

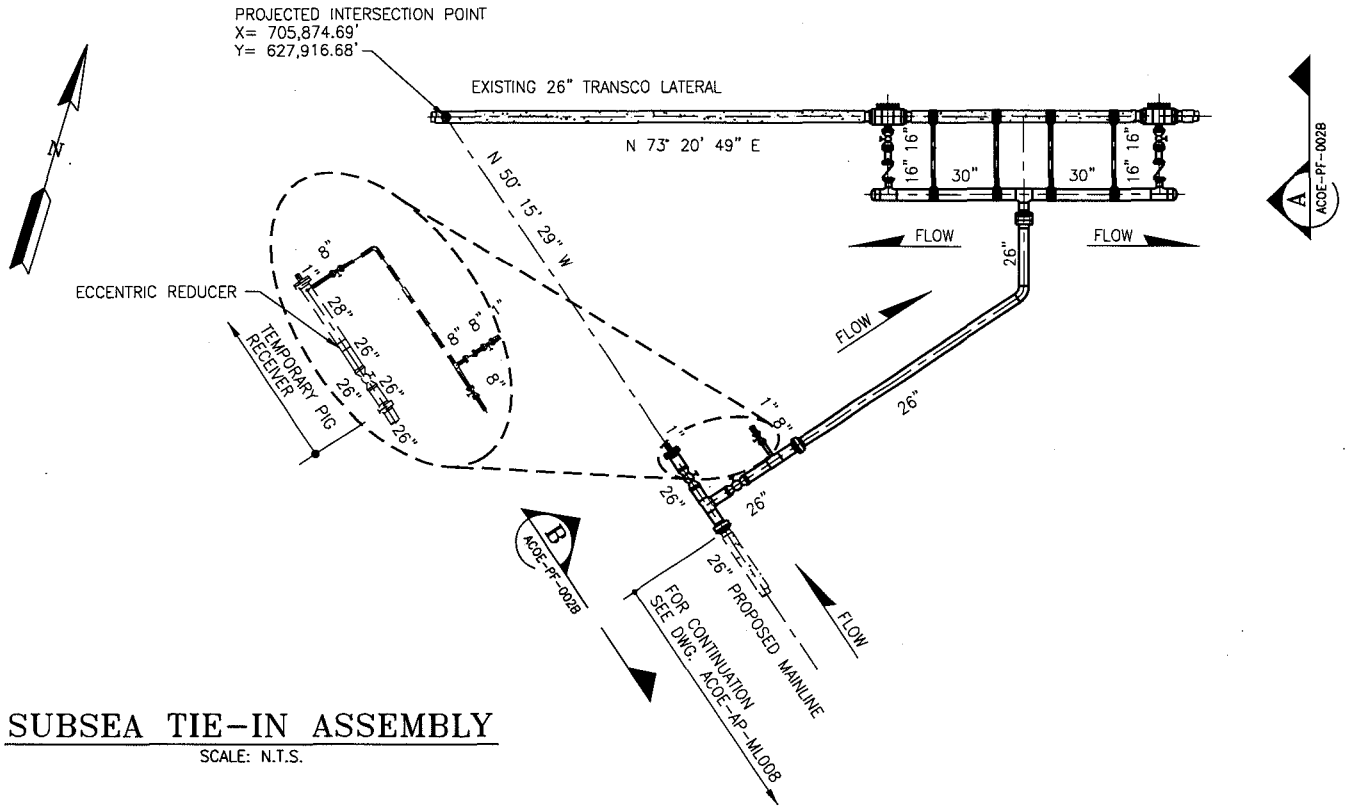
LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
COLLOCATED "Y" ASSEMBLY ELEVATION

DRAWN BY:	G.J.D.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	1-28-14	PROJ. MGR.:	T.O.
CHECKED BY:	J.H.E.	SHEET:	28 OF 31

DWG. NO. ACOE-PF-001B REV. C

09-26-14 14:05 12078 08 M.F.Z.

NAN-2012-01138-EHA



SUBSEA TIE-IN ASSEMBLY

SCALE: N.T.S.

LEGEND

NOTES

NOTES:

1. PROJECT HORIZONTAL REFERENCE IS THE NEW JERSEY STATE PLANE COORDINATE SYSTEM (2900), NAD 83 IN US SURVEY FEET. PROJECT VERTICAL REFERENCE IS MEAN LOWER LOW WATER (MLLW) DATUM FOR THE AREA BASED ON TIDAL ZONING CORRECTORS DEVELOPED FROM WATER LEVEL DATA OBTAINED FROM THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) AND POSITION DATA POST PROCESSED USING A NETWORK OF CONTINUOUSLY OPERATING REFERENCE STATIONS (CORS) MAINTAINED BY THE NATIONAL GEODETIC SURVEY (NGS).

NO.	REVISION	DATE	APPR.
D	RENUMBER SHEET/ISSUED FOR PERMIT	9-18-14	RPG
C	ISSUED FOR PERMIT	5-16-14	RPG
B	FOR CLIENT REVIEW	2-10-14	RPG
A	FOR CLIENT REVIEW	1-31-14	RPG

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www.projectconsulting.com
NEW YORK COA: 0009397

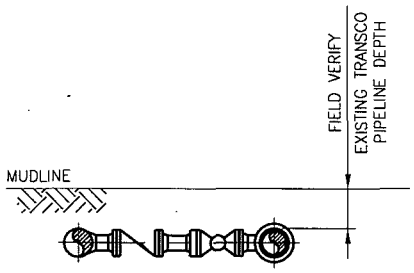
LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
SUBSEA TIE-IN ASSEMBLY

DRAWN BY:	G.J.D.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	1-21-14	PROJ. MGR.:	T.O.
CHECKED BY:	J.H.E.	SHEET:	29 OF 31

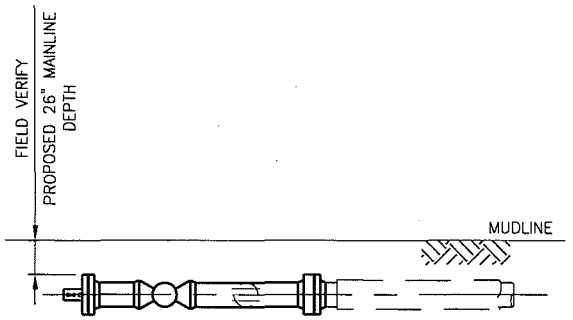
DWG. NO. ACOE-PF-002A REV. D

09-18-14 17:38 12078 12 M.F.Z.

NAN-2012-01138-EHA



SECTION A
SCALE: N.T.S.
ACOE-PF-002A



SECTION B
SCALE: N.T.S.
ACOE-PF-002A

LEGEND

NOTES

NOTES:

1. PROJECT HORIZONTAL REFERENCE IS THE NEW JERSEY STATE PLANE COORDINATE SYSTEM (2900), NAD 83 IN US SURVEY FEET.
2. SEE DRAWINGS ACOE-PF-002A AND ACOE-AP-ML001 THROUGH ACOE-AP-ML008 FOR DETAILS.

NO.	REVISION	DATE	APPR.
C	RENUMBER SHEET/ISSUED FOR PERMIT	9-18-14	RPG
B	ISSUED FOR PERMIT	5-16-14	RPG
A	FOR CLIENT REVIEW	1-31-14	RPG

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www.projectconsulting.com
NEW YORK COA: 0009397

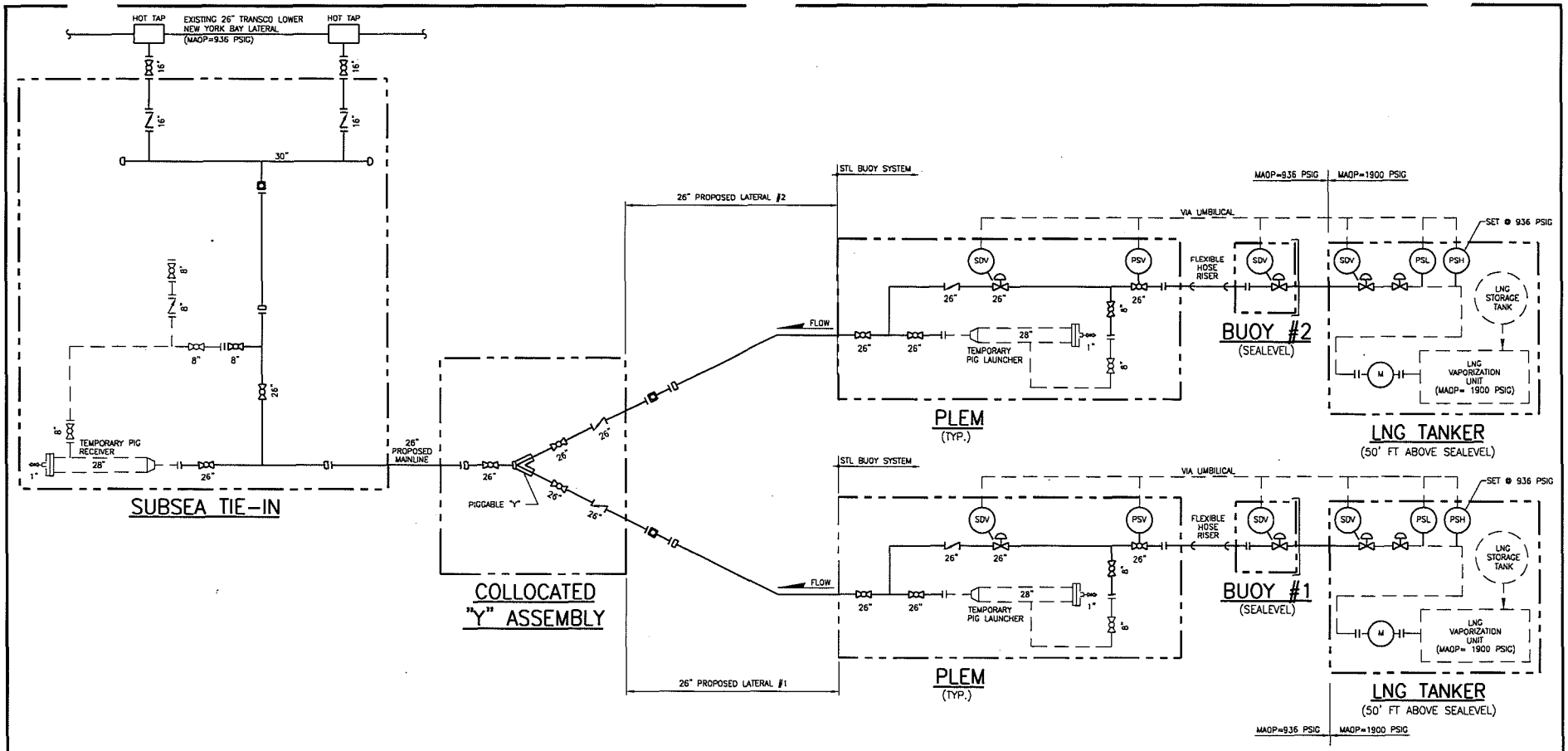
LIBERTY NATURAL GAS, LLC
NEW YORK BIGHT
SUBSEA TIE-IN ASSEMBLY SECTIONS

DRAWN BY:	G.J.D.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	1-21-14	PROJ. MGR.:	T.O.
CHECKED BY:	J.H.E.	SHEET:	30 OF 31

DWG. NO. ACOE-PF-002B REV. C

09 M.F.Z.
09-26-14 16:14 12078

NAN-202-01138-6th



LEGEND

NOTES

NO.	REVISION	DATE	APPR.
C	RENUMBER SHEET/ISSUED FOR PERMIT	9-18-14	RPG
B	ISSUED FOR PERMIT	5-16-14	RPG
A	FOR CLIENT REVIEW	1-31-14	RPG

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www.projectconsulting.com
NEW YORK COA: 0009397

PORT AMBROSE PROJECT
NEW YORK BIGHT
SYSTEM SCHEMATIC

DRAWN BY:	G.J.D.	APPROVED BY:	R.P.G.
SCALE:	AS NOTED	PROJ. ENGR.:	R.P.G.
DATE:	1-21-14	PROJ. MGR.:	T.O.
CHECKED BY:	J.H.E.	SHEET:	31 OF 31

DWG. NO. ACOE-SK-001 REV. C

09-18-14 17:35 12078 07 M.F.Z.

NAN-2012-01138-EHA