Project: North Cove Cellular Steel Sheet Pile Date: 11/13/15

**Encasement** 

Engineer: McLaren Engineering Group RE: Addendum #2

# of Pages: 9 pages

The following revisions and/or clarifications are to be made to the Request for Proposals for "North Cove Cellular Steel Sheet Pile Encasement." They are a result of issues discussed at the pre-proposal conference held on October 28, 2015, inquiries made by prospective proposers and additional requirements imposed by BPCA.

### **Clarifications:**

1. Revisions have been made to contract drawings; attached. All changes are clouded.

- 2. Quantities revised on the wall length. Total LF, straight line, is 435 LF, with a total arc length for the caissons at 454 LF. Previous values were incorrect and the totals have been adjusted for the pullback to Bent 25 within the scope.
- 3. The work terminates at Bent 25 inside the tunnel. At Bent 24 there is an obstruction indicated and it will not be dealt with at this time.
- 4. The intent is not to fill the voids in the caissons, rather, to protect the face. The contractor is to provide non-structural plate/timber or other patch on any holes in the sheeting to prevent non-quantifiable void filling behind the sheets. Currently there is no scope for the complete stabilization of the cells upland in this contract.
- 5. The intent of the J-bolts is for them to lock against the sheetpile interlocks so they don't spin during tightening. The contractor can supply alternate methods with the bid.
- 6. The active intake structure requires PANYNJ coordination to shut down/alternate pumps.
- 7. The bid due date has changed to 3pm November 19, 2015.
- 8. Attached is new Exhibit B Cost Proposal page
- 9. The mandatory Pre Award meetings will be held on November 23 & 24, 2015

**Questions:** (answers to all question are shown in Italics immediately after the question) for example:

1 - Repair plan on S-132 refers to a continuation on S-133. This drawing is missing.

The scope of work terminates at Bent 107 inside the Path Tunnel, therefore, Drawing S-133 is not necessary for this bid. Please disregard that continuation sheet.

2 - Section C on S-140. Where is this section taken from?

C/S-140 is taken from a cross section on Partial Plan C, Sheet S-132 as corrected in the drawings Revision No. 1 (attached).

3 - Do you have soundings? From the drawings we cannot tell the depth of the encasement, so we cannot establish a quantity of work.

Please refer to the 4th column in the charts located on S-120. Provided are the distances from the pilecap to the mudline; pilecaps are 3'-6" deep. The drawings have been revised/clarified to denote this measurement and calculation.

See response to Question 2.		
• • •	•	addendum have been received e submitted. This document must be
Print Name Number of pages received:	Signature <fill in=""></fill>	Date

4 - Section F and G on S-140 refer to Detail A on S-132. There is no detail A on S-132.

## EXHIBIT D

EAIIIDII D
COST PROPOSAL (Proposer to submit executed Cost Proposal on its letterhead)  Date:
Battery Park City Authority One World Financial Center - 24th Floor New York, New York 10281
Attention: Mr. Michael LaMancusa Contracts Administrator
Dear Mr. LaMancusa,
The undersigned (the "Proposer") hereby proposes to provide all specified work necessary to perform the work for the <b>North Cove Cellular Sheet Pile Encasement Repairs</b> . The Proposer agrees to commence the Work immediately upon receipt of the Initial Letter of Intent in accordance with the terms stipulated in the following pages, for the sum written below.
A. Base Proposal – 354 LF
A total Lump Sum Total amount of \$ ( Dollars and Cents) to perform all Work as described in the Authority's Request for Proposals for the Scope of Work (Exhibit A).
Alternate – Additional 100 LF A total Lump Sum Total amount of \$ ( Dollars and Cents) to perform all Work as described in the Authority's Request for Proposals for the Scope of Work (Exhibit A).
<ul> <li>B. <u>Itemized Proposal and Labor Rates</u></li> <li>1. The Proposer has submitted with its proposal an itemized cost for the Work, according to the attached schedule of items, for the Scope of Work in Appendix V.</li> </ul>
2. The Proposer has submitted with its proposal, labor rates for all trades, including all costs except overhead and profit. Prices shown include base hourly rate, overtime rate, insurance and benefits.  Name of Proposer:
Par.

Title: \_\_\_\_\_

# BATTERY PARK CITY AUTHORITY NORTH COVE CELLULAR SHEET PILE ENCASEMENT

BATTERY PARK CITY ESPLANADE NEW YORK, NEW YORK OCTOBER, 2015

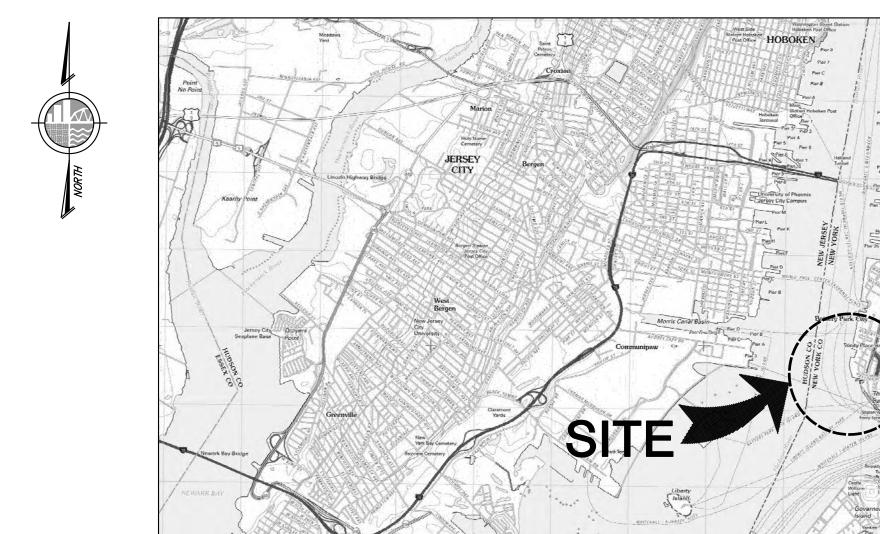
PREPARED BY:



SHEET TITLE

ESPLANADE TYPICAL SECTIONS

& REPAIR SECTIONS



# LOCATION PLAN

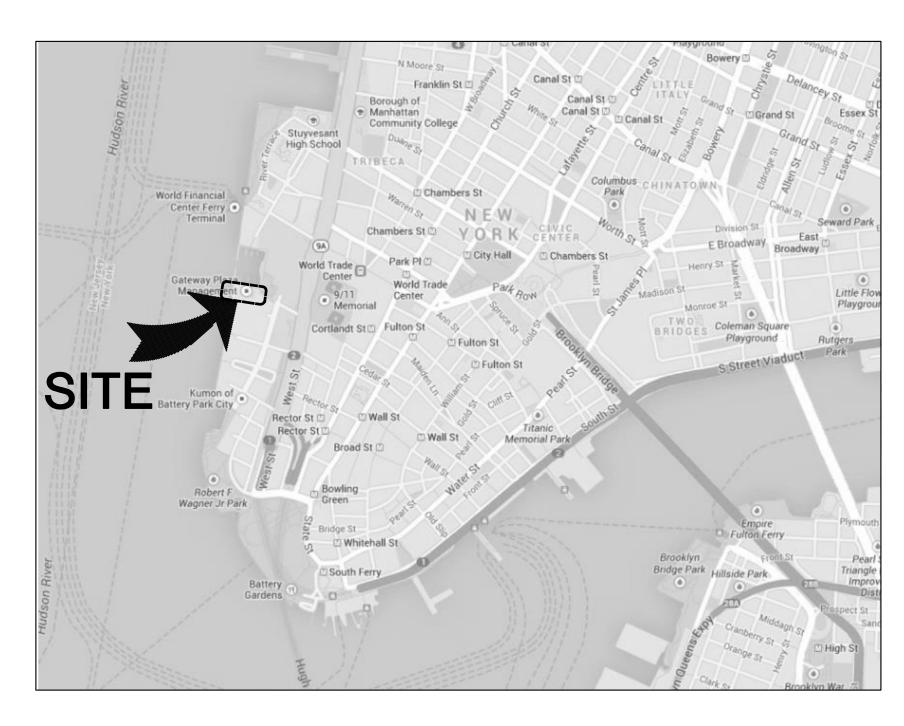
# DRAWING LIST:

DRAWING NO.

S-140

S-110	COVER SHEET
S-120	GENERAL NOTES
S-131	FACILITY PLAN
S-131A	SHEET PILE REMEDIATION PLAN
S-132	REPAIR PLANS & DETAILS





**VICINITY MAP** 

BID SET (NOT FOR CONSTRUCTION) OCTOBER 13, 2015

ıwings\100% Drawings\CAD\S—110 Cover Sheet.dwg PLOI IIME: Wed, 04 Nov 2015 — 1:20pm LASI SAVE: Iue, 0.

# GENERAL NOTES:

- 1. ALL WORK SHALL CONFORM WITH ALL FEDERAL, STATE, COUNTY OR LOCAL CODES HAVING JURISDICTION OVER SUCH WORK. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THAT PORTION OF THE WORK.
- 2. CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS, METHODS, AND SAFETY OF WORK.
- DIMENSIONS SHOWN ON THESE CONTRACT PLANS HAVE BEEN OBTAINED FROM LIMITED FIELD SURVEY AND MAY NOT ACCURATELY REFLECT ACTUAL FIELD CONDITIONS. ACCORDINGLY, THE CONTRACTOR WILL BE RESPONSIBLE FOR MAKING FIELD MEASUREMENTS OF ALL EXISTING STRUCTURES IMPACTED BY THE NEW WORK TO ASSURE CONSISTENCY WITH THE PROPOSED CONSTRUCTION PLANS; THAT IS THE CONTRACTOR SHALL FIELD VERIFY ACTUAL CONDITIONS, DIMENSIONS, CLEARANCES, ELEVATIONS, AND OTHER INFORMATION INDICATED IN THE DOCUMENTS PRIOR TO ORDERING ANY MATERIALS, COMMENCING ANY FABRICATIONS, OR PERFORMING ANY WORK. THE CONTRACTOR SHALL NOTIFY THE OWNERS REPRESENTATIVE OF ANY FIELD CONDITIONS WHICH MAY DIFFER FROM THAT REPRESENTED PRIOR TO COMMENCING WORK.
- 4. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL VISIT THE SITE AND SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF ANY UTILITIES, STRUCTURES, OR ANY OTHER ELEMENTS WHICH MAY IMPEDE WORK. UTILITY AND/OR STRUCTURE RELOCATIONS, IF NECESSARY, SHALL BE COORDINATED THROUGH THE OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST.
- 5. PRIOR TO COMMENCING ANY WORK, THE CONTRACTOR SHALL SCHEDULE AND COORDINATE ALL WORK THROUGH THE OWNER'S REPRESENTATIVE AND ANY OTHER OCCUPYING TENANT WHO WILL BE AFFECTED BY REPAIR OPERATIONS. THE CONTRACTOR SHALL COORDINATE THE WORK SO AS TO MINIMIZE INTERRUPTIONS IN FACILITY OPERATIONS. (ACCESS AND EGRESS).
- 6. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE OSHA REGULATIONS AND SAFETY PROCEDURES TO ENSURE PERSONNEL HEALTH AND SAFETY. THE CONTRACTOR MUST MAINTAIN A SAFE AND CLEAN WORKING ENVIRONMENT AND SHALL ASSURE PROPER PERSONAL EQUIPMENT AT ALL TIMES. IN AREAS WHERE PEDESTRIAN AND/OR VEHICULAR TRAFFIC MAY BE AFFECTED BY THE WORK, THE CONTRACTOR SHALL CORDON OFF THE WORK AREA.
- 7. THE CONTRACTOR SHALL EXERCISE EXTREME CARE TO PREVENT DAMAGE TO EXISTING STRUCTURES BY OR AS A RESULT OF HIS OPERATIONS. ANY DAMAGE RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AS DIRECTED BY THE OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST.
- 8. ALL DEBRIS AS A RESULT OF, OR IN THE IMMEDIATE VICINITY OF THE WORK SHALL BE RECOVERED AND PROPERLY DISPOSED OF BY THE CONTRACTOR AT NO ADDITIONAL COST.
- 9. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT ANY CONSTRUCTION DEBRIS OR WASTE FROM FALLING INTO THE WATER. ANY DEBRIS FALLING INTO THE WATER SHALL BE RECOVERED AND PROPERLY DISPOSED OF.
- 10. CONTRACTOR'S STORAGE AREA: DUE TO THE SITE'S WATERFRONT LOCATION, ALL NECESSARY MEASURES SHALL BE TAKEN TO PREVENT BY ANY METHOD, OIL, CONSTRUCTION DEBRIS, STOCKPILED MATERIALS, AND OTHER MATERIALS ON THE SITE, FROM ENTERING THE WATERWAY. STAGING/LAYDOWN AREAS, AS APPROVED BY THE OWNER'S REPRESENTATIVE, SHALL BE RESTORED BY THE CONTRACTOR TO THE EXISTING CONDITION. IN ADDITION, THE CONTRACTOR SHALL REPLACE ALL DAMAGED MATERIALS AS A RESULT OF HIS OPERATIONS, TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
- 11. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE PROPER SHOP DRAWINGS SIGNED AND SEALED FOR FALSEWORK, FORMWORK, STAGING, BRACING, SHEETING, SHORING, ETC. BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW YORK.
- 12. CONTRACTOR SHALL IMPLEMENT THOSE DIMENSIONS IDENTIFIED AS "MINIMUM" OR "MAXIMUM" AS INDICATED.
- 13. CONTRACTOR SHALL INSTALL FLOATING BOOM AND TURBIDITY CURTAINS DURING MARINE CONSTRUCTION TO CONTAIN OIL, DEBRIS AND OTHER RUNOFF.
- 14. ALL REFERENCES IN THESE NOTES TO "ENGINEER" INDICATE THE ENGINEER OF RECORD, McLAREN ENGINEERING. ALL REFERENCES TO "OWNER" INDICATES THE HUGH L. CAREY BATTERY PARK CITY AUTHORITY.
- 15. IN CASE OF CONTRADICTION BETWEEN THE DRAWINGS, THE SPECIFICATIONS, AND THE CODES, OR IF ANY CHANGE IS REQUIRED, THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY. NO CHANGE SHALL BE MADE BY CONTRACTOR WITHOUT WRITTEN APPROVAL OF THE ENGINEER. THE HIERARCHY OF GOVERNANCE IS AS FOLLOWS: BPCA CONTRACT, DRAWINGS & THEN SPECIFICATIONS. IN ALL CASES THE MORE STRINGENT REQUIREMENTS MUST BE APPLIED FOR BIDDING & CONSTRUCTION PURPOSES.

# PERMITTING/ACCESS:

- 1. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH THE TERMS AND CONDITIONS OF ALL PERMITS ISSUED BY ANY REGULATING AGENCY HAVING JURISDICTION OVER THE WORK OF THIS PROJECT INCLUDING BUT NOT LIMITED TO THE DEC, USACE, AND DSBS. THE CONTRACTOR MUST NOTIFY ALL REGULATING AGENCIES TWO WEEKS PRIOR TO COMMENCING WORK.
- 2. NO WORK SHALL COMMENCE WITHOUT APPROVALS REQUIRED BY THE CITY OF NEW YORK, STATE OF NEW YORK, DEC, USACE, DSBS AND ALL OTHER APPLICABLE AGENCIES HAVING JURISDICTION WITHIN THE PROJECT SITE.
- 3. CONTRACTOR TO OBTAIN WORK PERMITS THROUGH NEW YORK CITY DEPARTMENT OF SMALL BUSINESS SERVICES (SBS). FEES ASSOCIATED WITH THE WORK PERMIT OR WORK PERMIT RENEWAL TO BE PAID BY CONTRACTOR.
- 4. ACTIVE INTAKE STRUCTURE AT BENTS 83-84 HAS TO BE SECURED AND SHUT DOWN FOR DIVER SAFETY. CONTRACTOR TO COORDINATE DIRECTLY WITH PANYNJ.

# NEW YORK CITY FLOOD RESISTANT CONSTRUCTION:

- 1. THE PROPOSED WORK DOES NOT ENCROACH ON THE FLOODWAY, ALTER THE WATERCOURSE OR MODIFY A SAND DUNE IN A V-ZONE AND THEREFORE DOES NOT REQUIRE TECHNICAL CERTIFICATION ACCORDING TO SECTION G103 OF THE CODE.
- 2. THE PROPOSED WORK IS NOT LOCATED IN A REGULATORY FLOODWAY.
- 3. THE PROPOSED WORK DOES NOT INCLUDE ANY ENCLOSED STRUCTURES AND IS NOT SUBJECT TO THE CERTIFICATION REQUIREMENTS OF CODE SECTION G104.5.
- 4. FLOOD ZONE COMPLIANCE INSPECTION REQUIREMENT IS INDICATED UNDER THE INSPECTIONS SECTION OF THESE NOTES. ELEVATION AND FLOOD SHIELD INSPECTIONS ARE NOT APPLICABLE.
- 5. RETAINING WALLS AND FILL HAS BEEN DESIGNED AND SPECIFIED IN ACCORDANCE WITH SECTION G303.7 AND DOES NOT DIRECT WATER OR WAVES TOWARD ANY BUILDING.
- 6. THE PROPOSED WORK IS AN UNOCCUPIED ACCESSORY STRUCTURE, IS NOT REQUIRED FOR ANY BUILDING EGRESS AND IS NOT REQUIRED FOR SUPPORT OR FLOOD PROTECTION OF ANY BUILDING. THE REQUIREMENTS OF CODE SECTION G304 ARE NOT APPLICABLE. THE STRUCTURE HAS BEEN DESIGNED TO PREVENT FLOTATION, COLLAPSE AND LATERAL MOVEMENT RESULTING FROM HYDROSTATIC LOADS, INCLUDING THE EFFECTS OF BUOYANCY, DURING CONDITIONS OF FLOODING TO THE DESIGN FLOOD ELEVATION.
- 7. THE PROPOSED WORK HAS BEEN DESIGNED IN ACCORDANCE WITH ASCE 24-05 REQUIREMENTS FOR EROSION CONTROL STRUCTURES AND IS NOT ATTACHED TO THE FOUNDATION OR SUPERSTRUCTURE OF ANY STRUCTURE, WILL NOT FOCUS OR INCREASE THE FLOOD FORCES OR EROSION IMPACTS ON ANY ADJACENT STRUCTURE.

# SUBMITTALS:

THE CONTRACTOR SHALL SUPPLY ALL SUBMITTALS AS STATED IN THE PROJECT SPECIFICATIONS INCLUDING BUT NOT LIMITED TO:

- 1. SHOP DRAWINGS AND STRUCTURAL CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW YORK FOR THE METHOD OF SUPPORT, SPACING AND STABILIZATION OF FORMWORK FOR PILE ENCASEMENTS.
- 2. SUPPLIER'S TECHNICAL PRODUCT DATA, INCLUDING SPECIFICATIONS AND INSTALLATION INSTRUCTIONS FOR THE EPOXY GROUT TO BE PLACED, FRP FORMWORK, POINTS, STANDOFFS SEALS, JOINT EPOXY SCREWS & ALL TEMPORARY ITEMS FROM #1 ABOVE WHEN STRUCTURAL IN NATURE.
- 3. REFER TO THE SPECIFICATIONS FOR ADDITIONAL SUBMITTALS REQUIREMENTS AND PROCEDURES.

# SHEET PILE ENCASEMENT

- 1. CLEAN STEEL SURFACE FREE OF ALL LOOSE DEBRIS, FOREIGN MATTER AND BUILD UP OF RUST BY PRESSURE WASHING AT 3000 PSI.
- 2. SET REINFORCEMENT CAGE. INSTALL J-BOLTS THROUGH SHEET PILES AT INTERLOCKS TO TIE REINFORCEMENT CAGE IN PLACE.
- SECURE FORM WORK IN PLACE WITH BOTTOM SEAL. USE J-BOLTS
  TO SECURE FORMS. THE CONTRACTOR IS RESPONSIBLE FOR THE
  STABILITY OF THE FORM WORK DURING THE CONCRETE PLACEMENT.
- 4. FORMS SHALL BE RIGID, AND SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT THE FLUID PRESSURE OF THE CONCRETE MIX AND OF SUFFICIENT IMPERMEABILITY TO PREVENT SEAWATER FROM CONTAMINATING THE CONCRETE MIX DURING INSTALLATION.

- 5. ALL FORMS SHALL REMAIN IN PLACE, BRACING AND SHORING & ARE TO BE REMOVED.
- 6. CONTRACTOR SHALL SUBMIT CALCULATIONS TO JUSTIFY AND CONFIRM METHOD OF CONCRETE MIX PLACEMENT. CALCULATIONS SHALL CONSIDER BENDING OF FORMS, HEIGHT OF LIFT TO BE PLACED, PUMP PRESSURES AND STRONGBACKS.

# 7. PROCEDURE:

- A. THE CONCRETE MIX SHALL BE INJECTED, AT EQUAL PRESSURES, INTO ONE OR MORE INJECTION PORTS INSTALLED AT THE BOTTOM OF THE FORMWORK. THE PORT(S) SHALL BE PLACED A MINIMUM OF 12" ABOVE THE BOTTOM.
- B. THE CONTRACTOR, AT HIS OPTION, MAY INSTALL MULTIPLE LEVELS OF CONCRETE MIX PORTS TO MINIMIZE THE PUMPING PRESSURES. IF THIS OPTION IS SELECTED, INJECT CONCRETE MIX FIRST AT THE LOWEST CONCRETE MIX PORT. AS THE CONCRETE MIX APPEARS AT THE NEXT HIGHER PORT LEVEL, AND IT HAS BEEN DETERMINED THAT THE SPACE BETWEEN THE CAISSON AND FORM WORK IS FILLED TO THAT LEVEL, CAP THE LOWER PORT AND CONTINUE INJECTING CONCRETE MIX THROUGH THE NEXT HIGHER OPEN PORT. REPEAT THIS PROCESS FROM PORT LEVEL TO PORT LEVEL UNTIL THE CONCRETE MIX REACHES THE TOP OF THE CAISSON.
- C. THE INJECTION PROCESS SHALL BE CONTINUOUS, EXCEPT WHEN BRIEFLY INTERRUPTED TO RELOCATE THE INJECTOR TO THE NEXT HIGHER PORT EXCEPT AS NOTED IN (D) BELOW. DURING CONCRETE MIX PLACEMENT, THE INJECTION FLOW RATE SHALL BE CONTROLLED TO PREVENT AIR AND/OR WATER ENTRAPMENT WITHIN THE FORM WORK CAVITY. THE NOZZLE MUST BE CONTINUOUSLY SUBMERGED IN THE CONCRETE MIX AS IT IS PUMPED, AND A TREMIE MUST BE MAINTAINED, I.E. CONCRETE MIX SHALL NOT BE ALLOWED TO DROP THROUGH THE WATER COLUMN AT ANY TIME.
- D. REMOVE ANY BRACING MATERIALS AFTER COMPLETION OF CONCRETE MIX INJECTION AND CLEAN FORM WORK EXTERIOR OF ANY EXCESS CONCRETE MIX OR OTHER EXTRANEOUS MATERIAL.
- E. MIXING AND PUMPING EQUIPMENT APPROVED BY THE ENGINEER SHALL BE USED IN PREPARATION AND HANDLING OF THE CONCRETE MIX. ALL OIL AND OTHER RUST INHIBITORS SHALL BE REMOVED FROM THE MIXING DRUMS, STIRRING MECHANISMS AND OTHER PORTIONS OF THE EQUIPMENT IN CONTACT WITH THE CONCRETE MIX BEFORE THE MIXERS ARE USED.
- F. ALL MATERIALS SHALL BE ACCURATELY BATCHED PER THE MANUFACTURERS INSTRUCTIONS. FOR CHANGES TO THE PROCEDURE FOR PUMPABILITY, THE MANUFACTURER MUST PROVIDE WRITTEN CONFIRMATION THAT THE PROCEDURES ARE ACCEPTABLE AND THAT THE QUALITY OF THE CONCRETE IS NOT DIMINISHED.
- G. ALTERNATE PUMPING METHODS SHALL BE SUBMITTED TO THE ENGINEER AND SHOULD HAVE THE MANUFACTURERS CONCURRENCE IN WRITING.
- 8. COMPLETION WINDOWS. ALL STEEL SHEETING SHOULD BE FORMED W/IN 24 HRS OF CLEANING. FINAL CONCRETE MIX PUMPING AND HAND PACK SHALL NOT EXCEED 72 HOURS AFTER THE CLEANING.

MBD (FT)	TIDAL DATA FOR THE BATTERY	NAVD 88 (FT)
+9.62	HIGHEST OBSERVED WATER LEVEL (10/30/2012)	+11.27
+0.49	MEAN HIGHER HIGH WATER (MHHW)	+2.14
+0.15	MEAN HIGH WATER (MHW)	+1.8
0.00	BOROUGH PRESIDENT OF MANHATTAN (MBD)	+1.65
-2.13	MEAN TIDE LEVEL (MTL)	-0.48
-2.75	NATIONAL GEODETIC VERTICAL DATUM — 1929 (NGVD 29)	-1.1
-4.41	MEAN LOW WATER (MLW)	-2.76
-4.63	MEAN LOWER LOW WATER (MLLW)	-2.98
-8.70	LOWEST OBSERVED WATER LEVEL (02/02/1976)	-7.05

# NOTE: ALL ELEVATIONS IN FEET.

ELEVATIONS SHOWN HEREON REFER TO THE NAVD 88 VERTICAL DATUM WHICH IS 1.1 FT ABOVE NGVD 1929 (UNITED STATES COASTAL AND GEODETIC SURVEY, MEAN SEA LEVEL, SANDY HOOK NEW JERSEY).

	MUSI ····	MUDLINE	PILECAP TO	CLEAR SPACE	AVERAGE STEEL	NO. OF	UC! ===
PILE BENT	MUDLINE DESCRIPTION		MUDLINE DISTANCE (in.)	BETWEEN NEAREST PILE AND CELL WALL (in.)		SHEETS BETWEEN	HOLES IN SHEET PILES
81	RIP RAP	0"	40''	36"	0.255	N/A	
81 to 82	VARIES	UP TO 48"	N/A	N/A	0.209	18	12"H x 7" \ 14"H x 8"\
82	RIP RAP	0''	97''	12"	0.298	N/A	
82 to 83	VARIES	UP TO 48"	N/A	N/A		20	
83	VARIES	UP TO 48"	138"	10"	0.360	N/A	INTAK STRUCTUR
83 to 84	SILT	>48''	N/A	N/A		17	INTAK STRUCTUR
84	SILT	12"	156"	31"	0.345	N/A	INTAK STRUCTUR
84 TO 85	VARIES	UP TO 36"	N/A	N/A		18	
85	SILT	>48"	126"	8''	0.356	N/A	
85 TO 86	VARIES	UP TO 48"	N/A	N/A		18	
86	RIP RAP	0''	48''	6''	0.372	N/A	
86 TO 87	RIP RAP	0''	N/A	N/A		20	1"H x 1" W 4" x 1"
87	RIP RAP	0''	36"	24"	0.221	N/A	
87 TO 96	RIP RAP	0''	N/A	N/A		25	
96	RIP RAP	0"	80"	46''	0.350	N/A	
96 TO 97	RIP RAP	0''	N/A	N/A		17	
		MUDLINE	PILECAP TO	CLEAR SPACE	AVERAGE STEEL	NO. OF	CONTROL OF THE PROPERTY OF THE
JII E BENI I	MUDLINE DESCRIPTION		MUDLINE DISTANCE (in.)	BETWEEN NEAREST PILE AND CELL WALL (in.)	THICKNESS IN	SHEETS BETWEEN	HOLES IN SHEET PILES
97	RIP RAP	0''	68"	66''	0.345	N/A	
97 TO 98	RIP RAP	0''	N/A	N/A		17	
98	RIP RAP	0''	70''	72''	0.354	N/A	
98 TO 99	RIP RAP	0"	N/A	N/A		20	
99	RIP RAP	0''	80''	60''	0.343	N/A	
99 TO 100/101	VARIES	UP TO 48"	N/A	N/A		28	
100/101	RIP RAP	0''	92"	60''	0.373	N/A	
101 TO 102	RIP RAP	0''	N/A	N/A		18	
102	RIP RAP	0''	60"	54"	0.393	N/A	
102 TO 103		0''	N/A	N/A		20	
103		0"	80"	48''	0.252	N/A	
103 TO 104	RIP RAP	0''	N/A	N/A		18	
104	RIP RAP	0''	68"	60''	0.360	N/A	
104 TO 105	RIP RAP	0''	N/A	N/A		18	
105	RIP RAP	0"	78"	60''	0.343	N/A	
105 TO	RIP RAP	227				16	
211 E BENI 1	MUDLINE	MUDLINE	PILECAP TO MUDLINE	CLEAR SPACE BETWEEN NEAREST	AVERAGE STEEL	NO. OF SHEETS	HOLES IN
		(in.)	DISTANCE (in.)	PILE AND CELL WALL (in.)	SHEET PILES (in.)	BETWEEN	SHEET PILES
106 106 TO	RIP RAP	50]	73"	SETT-0402	0.350	N/A	
107/27	RIP RAP					15	
27	RIP RAP			48''	0.392	N/A	
27 TO 26	RIP RAP	0''	N/A	N/A		12	
26	RIPRAP	0"	32"	57''	0.367	N/A	
26 TO 25	RIP RAP	0''	N/A	N/A		16	
25	RIP RAP	0''	36"	36"	0.376	N/A	
25 TO 24	RIP RAP	0''	N/A	N/A		16	
24	RIP RAP	0"	43"	8''	0.357	N/A	

BID SET
(NOT FOR CONSTRUCTION)
OCTOBER 13, 2015

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OR.

SHEET TITLE

PROJECT NO.

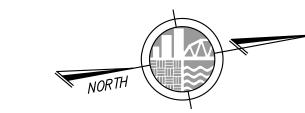
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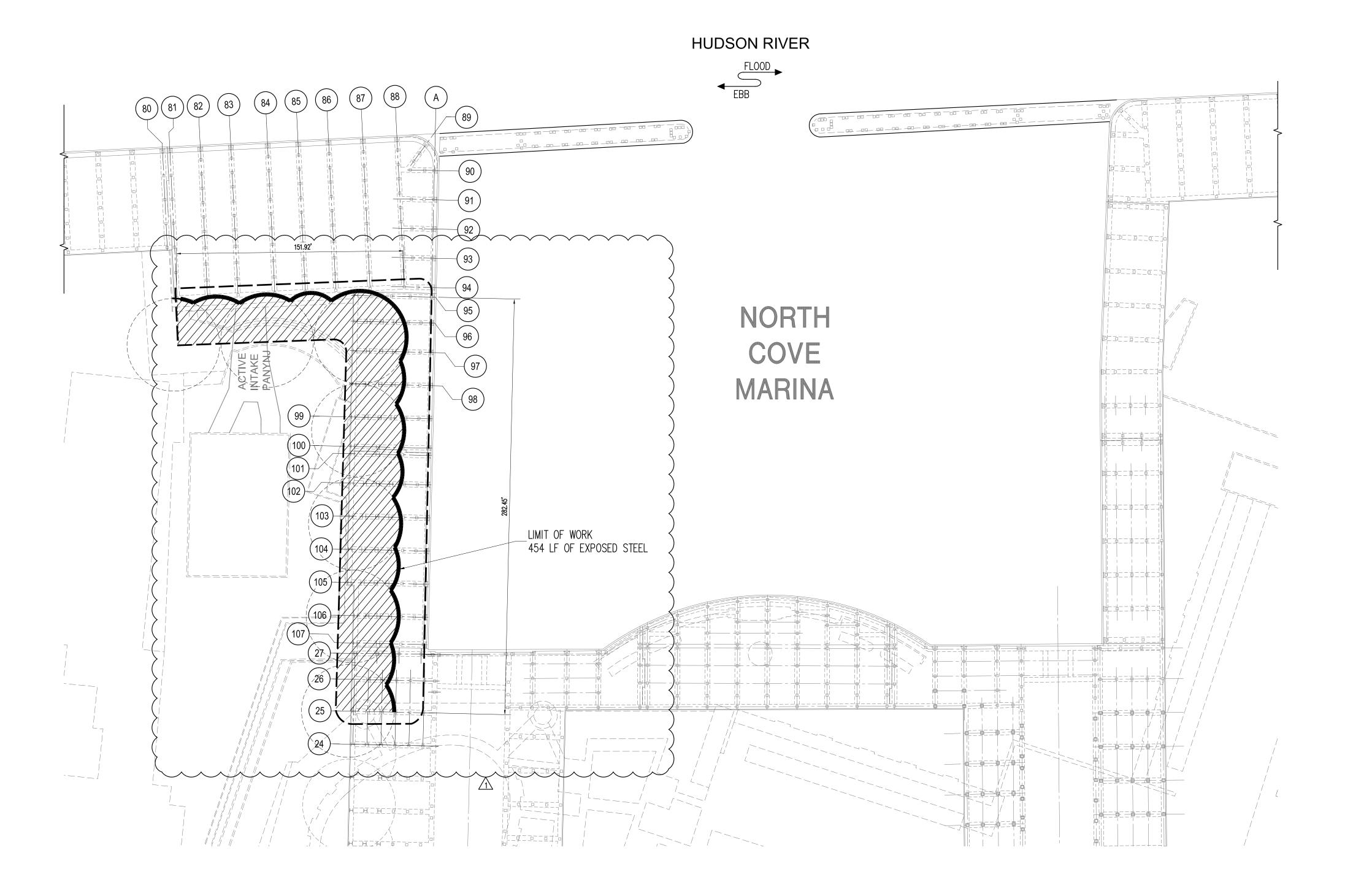
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BID SET
(NOT FOR CONSTRUCTION)
OCTOBER 13, 2015

40' 20' 0 40' 80'

SCALE: 1" = 40'

NOTE: WORK LIMITS
BENT 25 TO 27
BENT 81 TO 107
BENT 107 - 27 SPAN

**FACILITY PLAN** 

NOTE: EXISTING STRUCTURAL INFORMATION TAKEN FROM AS-BUILT "BATTERY PARK CITY" DRAWINGS DEVELOPED BY MUESER, RUTLEDGE, WENTWORTH, AND JOHNSTON CONSULTING ENGINEERS, DATED JUNE 17, 1974.

PROJECT NO.

140950.09

SCALE

AS NOTED

DATE

10/15/15

DRAWN BY

CFA

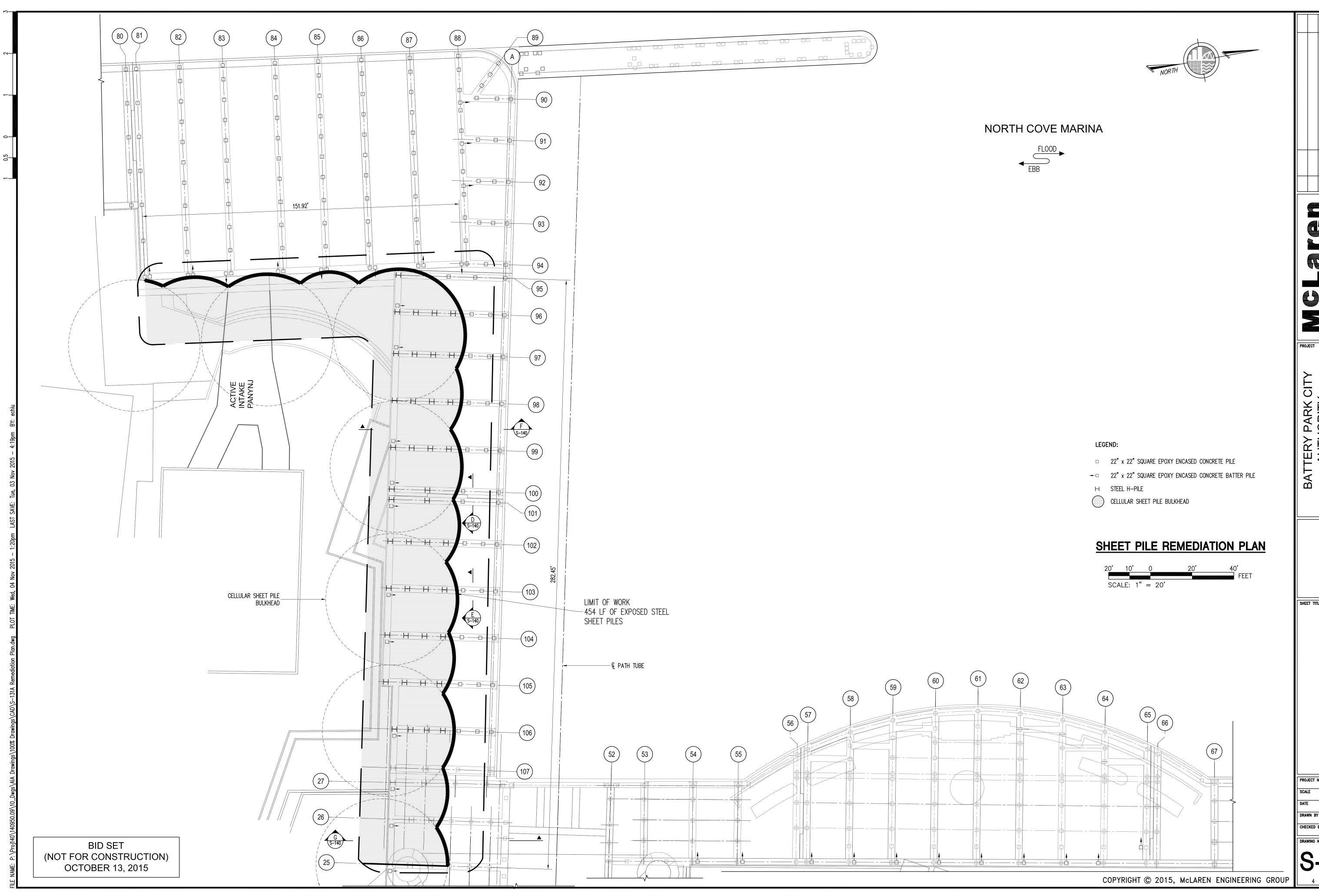
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**FACILITY** 

S-131

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SHEET PILE REMEDIATION PLA

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T NO.	140950.09	
	AS NOTED	
	10/15/15	
BY	CFA	
D BY	SLS	
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