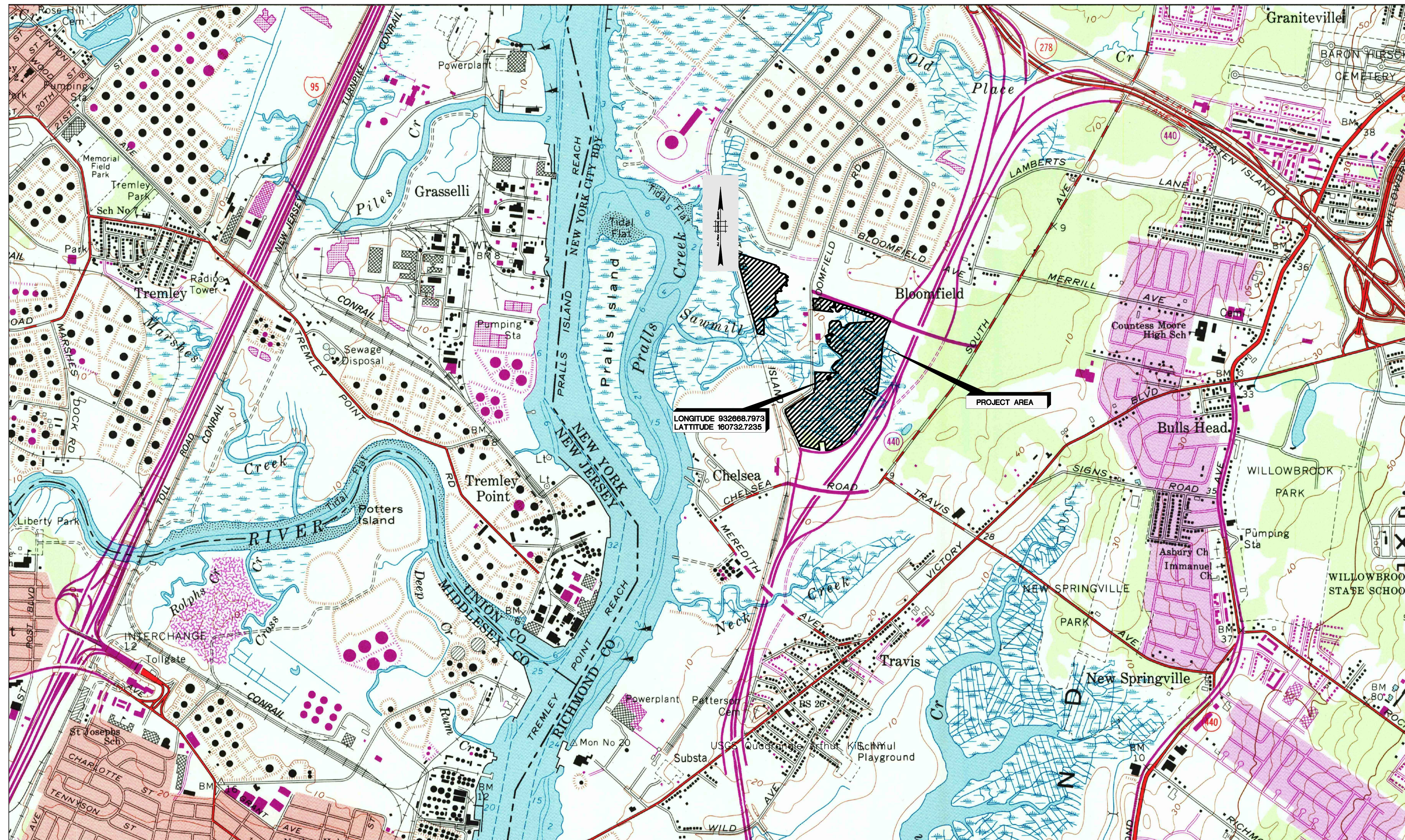
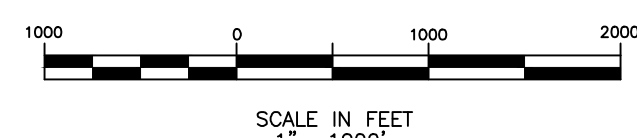


# SAW MILL CREEK PILOT WETLAND MITIGATION BANK STATEN ISLAND, NEW YORK

NEW YORK CITY ECONOMIC DEVELOPMENT CORPORATION



SITE LOCATION MAP



NAN-2013-00259-EHA

INDEX OF DRAWINGS	
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2	GENERAL NOTES AND LEGEND
3	KEY PLAN
4	EXISTING CONDITIONS -WEST-
5	EXISTING CONDITIONS -EAST-
6	EXISTING CHANNEL SECTIONS -1-
7	EXISTING CHANNEL SECTIONS -2-
8	EXISTING CHANNEL SECTIONS -3-
9	PROPOSED GRADING -WEST-
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11	PROJECT AREAS OF INTEREST
12	SURFACE PROFILES
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17	SOIL EROSION AND SEDIMENT CONTROL -WEST-
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19	SOIL EROSION AND SEDIMENT CONTROL -NOTES AND DETAILS-
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21	SOIL EROSION AND SEDIMENT CONTROL -NOTES AND DETAILS-

APPENDIX DRAWINGS	
SHEET NUMBER	SHEET DESCRIPTION
1	BOUNDARY SURVEY OF SAW MILL CREEK PARK
2	BOUNDARY SURVEY OF SAW MILL CREEK PARK

## PERMIT PLANS NOT FOR CONSTRUCTION

**NYCEDC** NEW YORK CITY ECONOMIC DEVELOPMENT CORP.

SAW MILL CREEK PILOT WETLAND MITIGATION BANK  
STATEN ISLAND, NEW YORK

TITLE SHEET

DRAWN BY: MH	APPROVALS			PROJECT NO. 2001984
CHECKED BY: SA	APPROVED BY:	TITLE	DATE	SHEET 1 OF 21
SCALE:				DWG. NO.
DATE: NOVEMBER 2013				

THE LOUIS BERGER & ASSOC. PC  
48 WALL STREET  
16TH FLOOR  
NEW YORK, NY 10005

DONALD B. STEVENS  
N.Y. PROFESSIONAL ENGINEER  
N.Y. P.E. LIC. NO. 091394  
CERTIFICATE OF AUTHORIZATION  
24GA27933700

NO.	DATE	REVISION
	5/14/14	EXPANDED MAP SIZE

**LEGEND**

	EXISTING	PROPOSED
BANK BOUNDARY		
PROPERTY EASEMENTS		
DRAINAGE EASEMENTS		
MAJOR CONTOURS		
MINOR CONTOURS		
ROAD RIGHT OF WAY		
SURFACE WATER		
UNDERGROUND WATER LINE		
UNDERGROUND GAS LINE		
EDGE OF WETLANDS		
EXISTING CROSS-SECTIONS		
MEAN HIGH WATER		
SEA LEVEL RISE		
SPOT ELEVATIONS		
BIOBENCHMARKS		
TIDE GAGES		
WETLAND FLAGS		
SOIL POINTS		
SURVEY BENCHMARKS		
2013 GROUND WATER SAMPLING POINTS		
2013 SOIL BORING POINTS		
2013 SEDIMENT SAMPLING POINTS		
2014 SOIL BORING LOCATION		
2014 SOIL SAMPLE LOCATION		
2014 SEDIMENT SAMPLE LOCATION		
VEGETATION TREE LINE		
VEGETATION BUSH		
VEGETATION TREE		
DEBRIS TO BE REMOVED		
PHOTO LOCATIONS		
LIMIT OF DISTURBANCE		
PLANTING LIMIT AREA--NO HEAVY EQUIPMENT ALLOWED		
FLOATING TURBIDITY BARRIER		
PERMANENT CHAIN-LINK FENCE AND GATES		
SILT FENCE		
CONSTRUCTION FENCE		
HAY BALE		
HABITAT - LOW MARSH		
HABITAT - HIGH MARSH		
HABITAT - SCRUB SHRUB		
HABITAT - UPLAND SLOPE		
AREA OF OVER EXCAVATION		

**GENERAL NOTES**

1. THE HORIZONTAL COORDINATE SYSTEM IS THE NEW YORK STATE PLANE, NORTH AMERICAN DATUM OF 1983, U.S SURVEY FEET (NAD83, FT).
2. ALL ELEVATIONS SHOWN ARE IN NORTH AMERICAN VERTICAL DATUM OF 1988, FEET (NAVD88, FT).
3. THE TOPOGRAPHIC BASE SURVEY (SHORELINE AND UPLAND AREAS SURROUNDING SAW MILL CREEK) WAS CONDUCTED BY GAYRON DE BRUIN LAND SURVEYING AND ENGINEERING, P.C. IN JUNE 2013.
4. THE INFORMATION SHOWN ON THESE PLANS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. ANY DAMAGE TO UTILITIES WILL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
5. SOIL CLASSIFICATION AND BORING LOG DATA PERFORMED BY THE LOUIS BERGER GROUP & ASSOC., PC IS AVAILABLE AT THE BACK OF THE PROJECT SPECIFICATIONS.
6. THE CONTRACTOR SHALL, DURING CONTRACT OPERATIONS, ADHERE TO ALL CONDITIONS SET FORTH IN THE PERMITS.
7. CONSTRUCTION VEHICLES AND STOCKPILE/STORAGE AREAS ARE NOT PERMITTED BEYOND THE LIMITS OF PROPOSED WORK.
8. ANY AREAS DISTURBED OUTSIDE THE DESIGNATED LIMITS OF DISTURBANCE SHALL BE RESTORED TO EXISTING CONDITIONS AT THE CONTRACTOR'S EXPENSE.
9. THE CONTRACTOR SHALL REMOVE ALL DEBRIS IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS.
10. UNLESS OTHERWISE SPECIFIED IN THIS DOCUMENT, OR BY THE ENGINEER, ALL EXCAVATED SOILS MUST BE HANDLED AND DISPOSED OF IN ACCORDANCE WITH 6 NYCRR PART 375: ENVIRONMENTAL REMEDIATION PROGRAMS.
11. HEAVY EQUIPMENT USED IN GRADING OPERATIONS IN WETLANDS MUST OPERATE ON TIMBER MARSH MATS OR EQUIVALENT. NO CONSTRUCTION EQUIPMENT (INCLUDING EXCAVATORS, MARSHMASTERS, ROLLIGONS, MARSH BUGGIES, ARGOS, OR SIMILAR EQUIPMENT) SHALL BE ALLOWED TO TRAVERSE THE GRADED MARSH AND ANY AREA TO BE PLANTED UNDER THIS PROJECT.
12. EXISTING TREES WITHIN THE LIMITS OF DISTURBANCE WHICH MIGHT BE DAMAGED DURING CONSTRUCTION SHALL BE PROTECTED BY A 6 FOOT HIGH ORANGE CONSTRUCTION FENCE, SECURELY ERECTED A MINIMUM OF 5 FEET FROM THE TRUNK OF THE INDIVIDUAL TREES OR FOLLOW THE OUTER PERIMETER OF BRANCHES OR CLUMPS OF TREES. ANY TREE THAT IS DAMAGED DURING THE WORK UNDER THIS CONTRACT SHALL BE REPLACED IN KIND OR AS APPROVED BY THE ENGINEER.
13. THE PROJECT SITE IS SUBJECT TO TIDAL FLOW. THE CONTRACTOR MUST TAKE THIS UNDER CONSIDERATION WHEN PLANNING CONSTRUCTION ACTIVITIES TO ACCOUNT FOR THE VARIATION IN TIDE CYCLES ON A DAILY AND MONTHLY BASIS.
14. THE CONTRACTOR SHALL PROVIDE A TIDAL ENVELOPE PLAN FOR APPROVAL, ADHERING TO ALL DEWATERING MEASURES SET BY THESE PLANS AND BY NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE ENGINEER FOR TEMPORARY PLACEMENT AND STORAGE OF STOCKPILED MATERIALS, EQUIPMENT AND VEHICLES WITHIN THE CONSTRUCTION AREA. THE STAGING AREA SHALL NOT EXCEED THE LIMITS SHOWN WITHIN THESE PLANS, UNLESS APPROVED BY THE ENGINEER.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING PROPOSED WORK WITH THE ENGINEER, PROVIDING ADEQUATE CONTROLS FOR SITE SAFETY, AND MINIMIZING IMPACTS TO ADJACENT PROPERTY OWNERS. UNDER NO CIRCUMSTANCES WILL THE CONTRACTOR INITIATE ACTIVITIES THAT WILL RESTRICT ACCESS OF EMERGENCY VEHICLES.
17. ALL PHASING AND SEQUENCING SHALL BE COORDINATED WITH THE ENGINEER.
18. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS RELATED TO THIS PROJECT PRIOR TO SHOP DRAWING PRODUCTION.
19. CONTRACTOR SHALL SUBMIT COMPLETE SHOP DRAWINGS FOR ALL PARTS OF THE WORK, CONSTRUCTION METHODS AND SEQUENCING WHERE APPLICABLE. NO PERFORMANCE OF THE WORK SHALL COMMENCE WITHOUT PRIOR REVIEW AND APPROVAL OF THE SHOP DRAWINGS BY THE ENGINEER.

MEAN LOWER WATER	-3.10 FT
MEAN LOW WATER	-2.84 FT
MEAN TIDE LEVEL	-0.21 FT
MEAN HIGH WATER	2.42 FT
MEAN HIGHER HIGH WATER	2.67 FT
FEMA 100 YEAR FLOOD ELEVATION	9.00 FT

**NOTE:**

NORMAL TIDE ELEVATIONS CAN BE AS HIGH AS 5 FT (NAVD88).

# PERMIT PLANS NOT FOR CONSTRUCTION



SAW MILL CREEK PILOT WETLAND MITIGATION BANK  
STATEN ISLAND, NEW YORK

**GENERAL NOTES AND LEGEND**

THE LOUIS BERGER & ASSOC, PC  
48 WALL STREET  
16TH FLOOR  
NEW YORK, NY 10005

DONALD B. STEVENS  
N.Y. PROFESSIONAL ENGINEER  
N.Y. P.E. LIC. NO. 091394  
CERTIFICATE OF AUTHORIZATION  
24GA27933700

DRAWN BY: MH	APPROVALS			PROJECT NO.	2001984
CHECKED BY: SA	APPROVED BY:	TITLE	DATE	SHEET 2 OF 21	
SCALE:				DWG. NO.	
DATE: NOVEMBER 2013					

NO.	DATE	REVISION

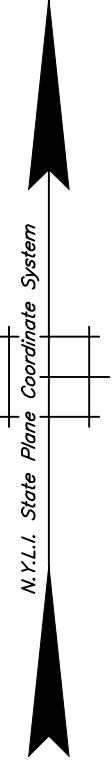
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WEST

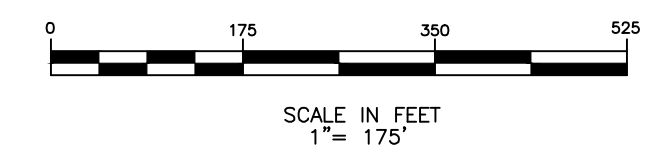
EAST



HABITAT AREAS				
TYPE	SYMBOLS	WEST	EAST	TOTAL
WETLAND RESTORATION (REHABILITATION)	[Symbol]	1.02 ACRES	15.61 ACRES	16.63 ACRES
WETLAND RESTORATION (RE-ESTABLISHMENT)	[Symbol]	5.17 ACRES	1.87 ACRES	7.04 ACRES
TIDAL WETLAND ENHANCEMENT	[Symbol]	7.69 ACRES	26.03 ACRES	33.72 ACRES
FORESTED WETLAND ENHANCEMENT	[Symbol]	0.00 ACRES	1.52 ACRES	1.52 ACRES
UPLAND SLOPE	[Symbol]	0.72 ACRES	0.33 ACRES	1.05 ACRES
BUFFER REHABILITATION	[Symbol]	0.00 ACRES	8.49 ACRES	8.49 ACRES
TOTAL		14.60 ACRES	53.85 ACRES	68.45 ACRES

LEGEND

—	SPRING HIGH WATER	2.62'
—	MEAN HIGH WATER	2.39'
—	MEAN LOW WATER	-2.82'



# PERMIT PLANS NOT FOR CONSTRUCTION

**NYCEDC** NEW YORK CITY ECONOMIC DEVELOPMENT CORP.

SAW MILL CREEK PILOT WETLAND MITIGATION BANK  
STATEN ISLAND, NEW YORK

KEY PLAN

THE LOUIS BERGER & ASSOC. PC  
48 WALL STREET  
16TH FLOOR  
NEW YORK, NY 10005

DONALD B. STEVENS  
N.Y. PROFESSIONAL ENGINEER  
N.Y. P.E. LIC. NO. 091394  
CERTIFICATE OF AUTHORIZATION  
24GA27933700

DRAWN BY: MH	APPROVALS			PROJECT NO.	2001984
CHECKED BY: SA	APPROVED BY:	TITLE	DATE	SHEET 3 OF 21	
SCALE:				DWG. NO.	
DATE: NOVEMBER 2013					

NAN-2013-00259-EHA

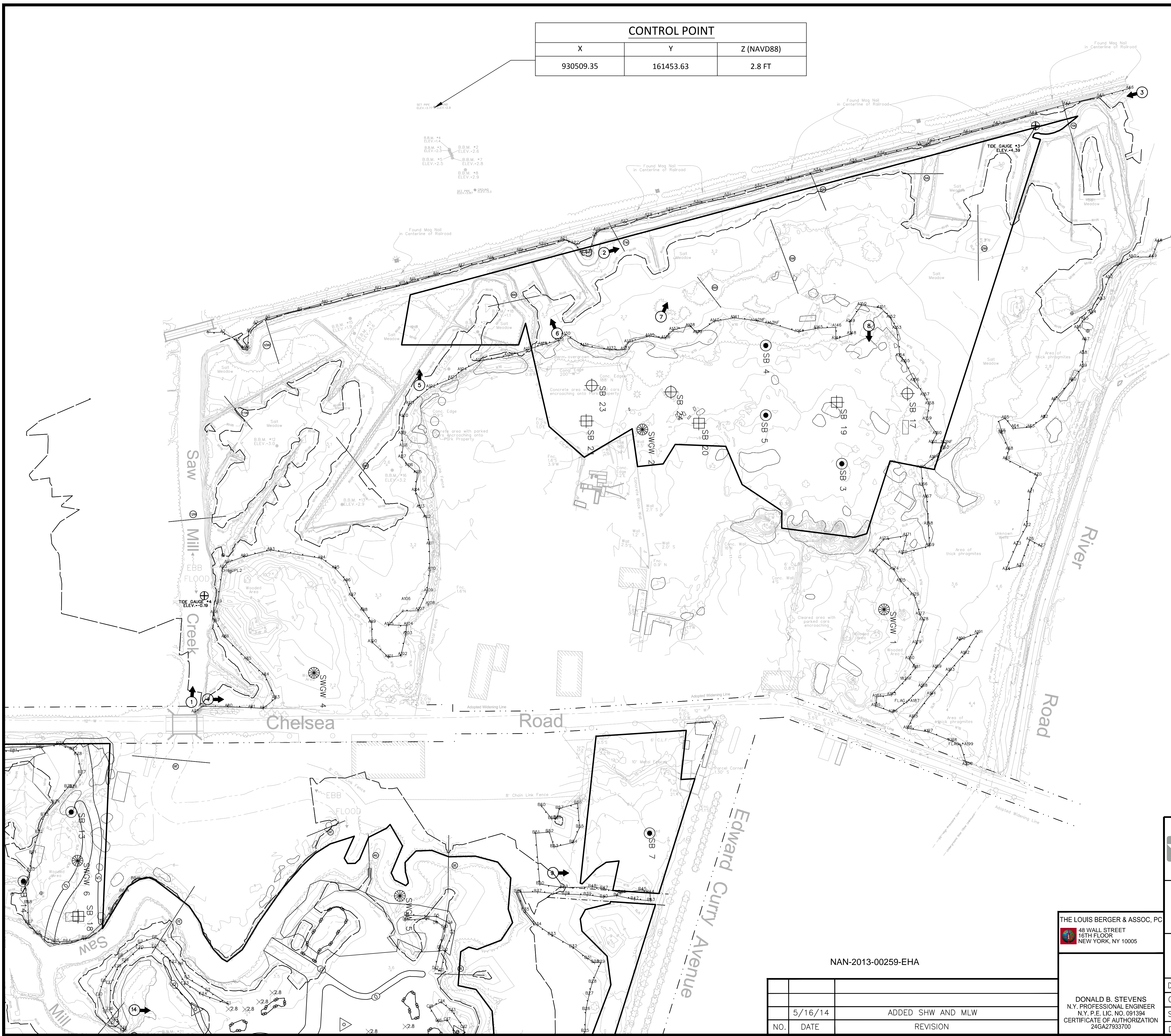
NO.	DATE	REVISION
	5/14/14	ADDED SHW AND MLW

FILE NAME: 2\_KEY MAP.dwg

PLOT TIME: 2014-12-03 13:40:04.04

PROJECT PATH: V:\Operations\0911001\_MARSHES\4\_Deliverables\Drawings\50%\_Design\Plot

CONTROL POINT		
X	Y	Z (NAVD88)
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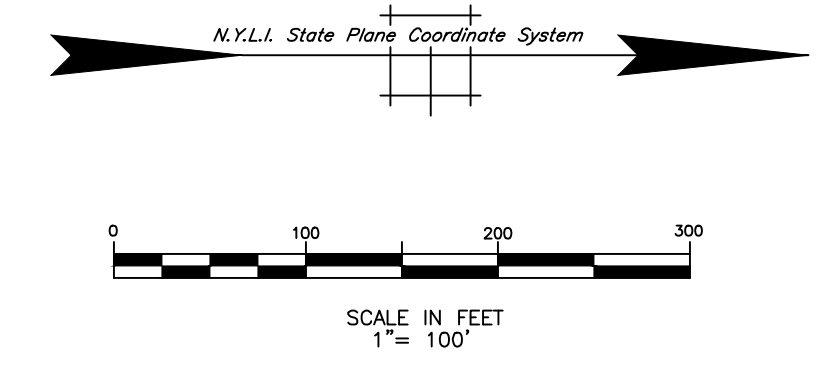


**NOTES**

1. VERTICAL DATUM IN NAVD88.
2. HORIZONTAL DATUM IN NAD83.
3. SEE APPENDIX DRAWINGS: BOUNDARY SURVEY OF SAW MILL CREEK PARK SHEET 1 OF 2 FOR BOUNDARY SURVEY INFORMATION.

**LEGEND**

—	SPRING HIGH WATER	2.62'
—	MEAN HIGH WATER	2.39'
—	MEAN LOW WATER	-2.82'



# PERMIT PLANS NOT FOR CONSTRUCTION

**NYCEDC** NEW YORK CITY ECONOMIC DEVELOPMENT CORP.

SAW MILL CREEK PILOT WETLAND MITIGATION BANK  
STATEN ISLAND, NEW YORK

**EXISTING CONDITIONS - WEST -**

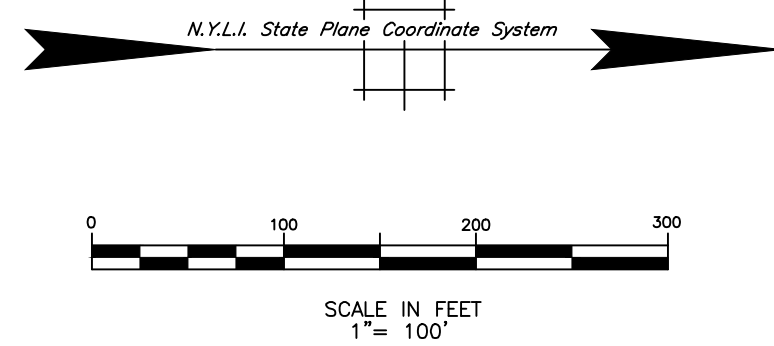
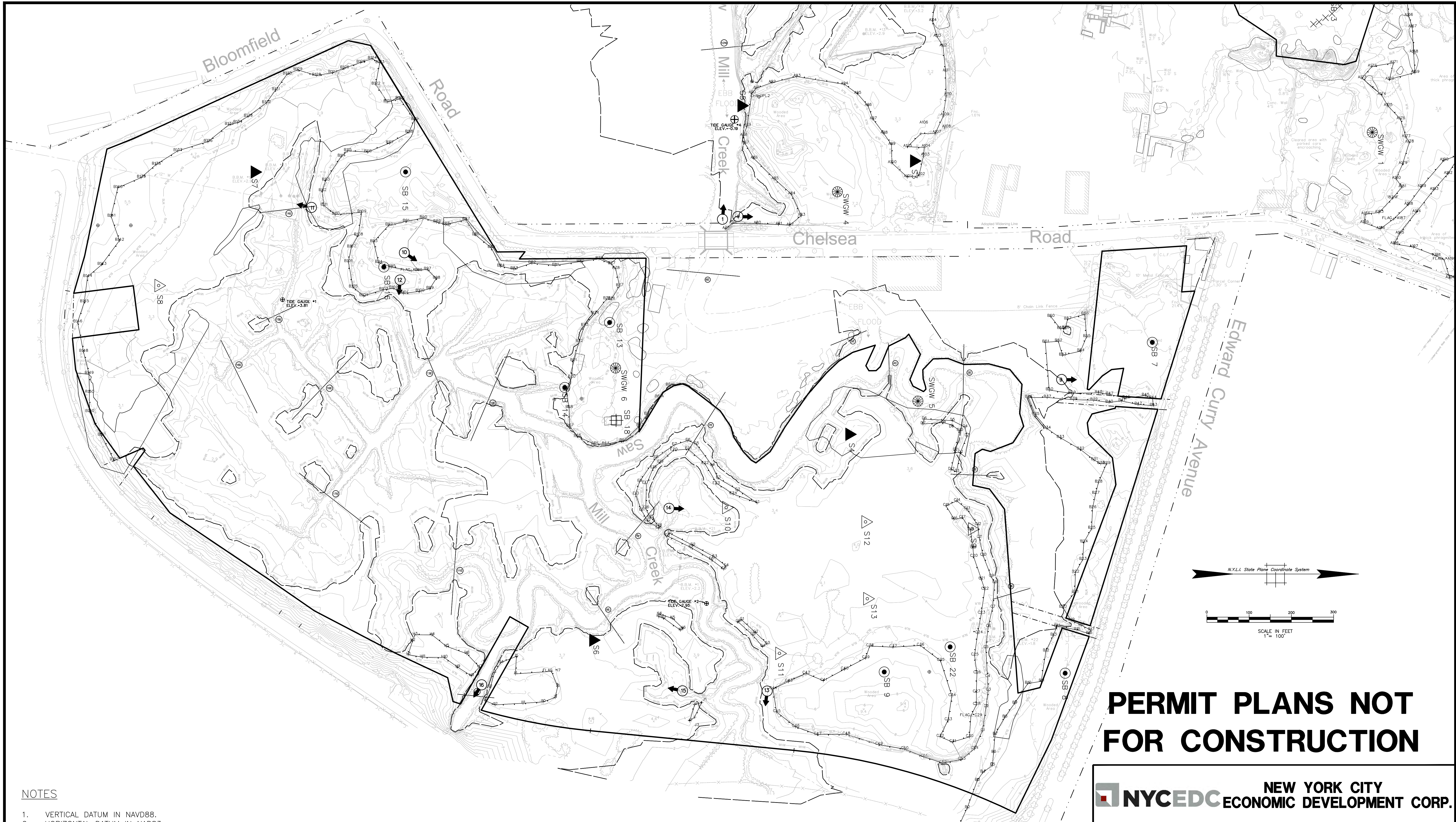
THE LOUIS BERGER & ASSOC. PC  
48 WALL STREET  
16TH FLOOR  
NEW YORK, NY 10005

DONALD B. STEVENS  
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CERTIFICATE OF AUTHORIZATION  
24GA27933700

NAN-2013-00259-EHA

NO.	DATE	REVISION
	5/16/14	ADDED SHW AND MLW

DRAWN BY: MH		APPROVALS			PROJECT NO.
CHECKED BY: SA	APPROVED BY:	TITLE	DATE		2001984
SCALE: AS SHOWN					SHEET 4 OF 21
DATE: NOVEMBER 2013					DWG. NO.



**PERMIT PLANS NOT FOR CONSTRUCTION**

**NOTES**

1. VERTICAL DATUM IN NAVD88.
2. HORIZONTAL DATUM IN NAD83.
3. SEE APPENDIX DRAWINGS: BOUNDARY SURVEY OF SAW MILL CREEK PARK SHEET 1 OF 2 FOR BOUNDARY SURVEY INFORMATION.

**LEGEND**

—	SPRING HIGH WATER	2.62'
—	MEAN HIGH WATER	2.39'
—	MEAN LOW WATER	-2.82'

NAN-2013-00259-EHA

THE LOUIS BERGER & ASSOC, PC  
48 WALL STREET  
46TH FLOOR  
NEW YORK, NY 10005

DONALD B. STEVENS  
N.Y. PROFESSIONAL ENGINEER  
N.Y. P.E. LIC. NO. 091394  
CERTIFICATE OF AUTHORIZATION  
246A27833700

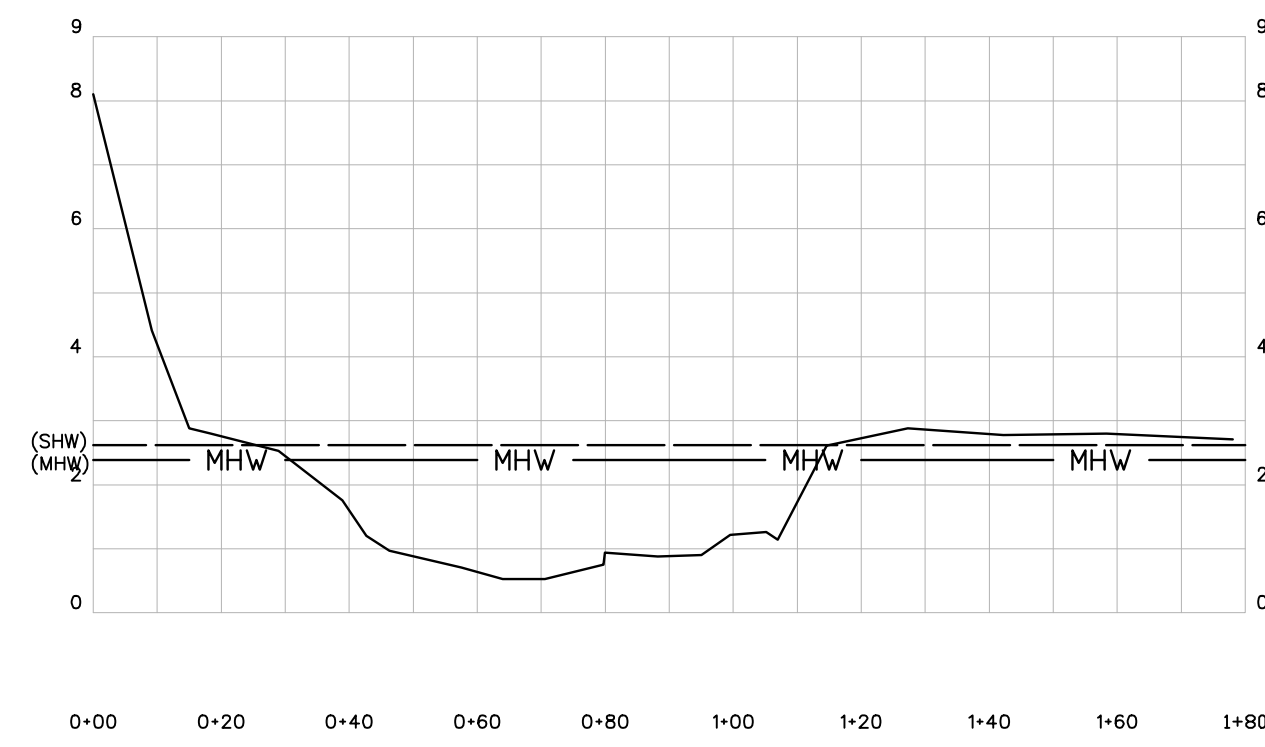
**NEW YORK CITY  
NYCEDC ECONOMIC DEVELOPMENT CORP.**

**SAW MILL CREEK PILOT WETLAND MITIGATION BANK  
STATEN ISLAND, NEW YORK**

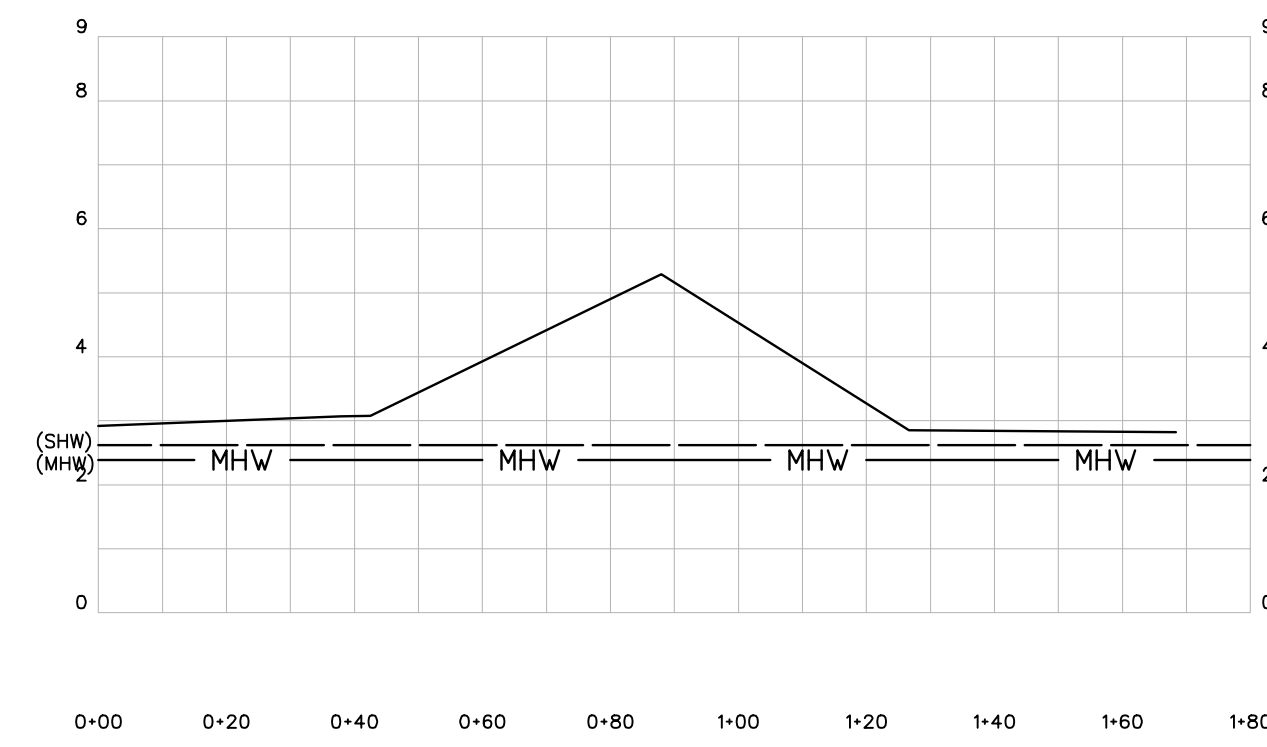
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NO.	DATE	REVISION
	5/16/14	ADDED SHW AND MLW

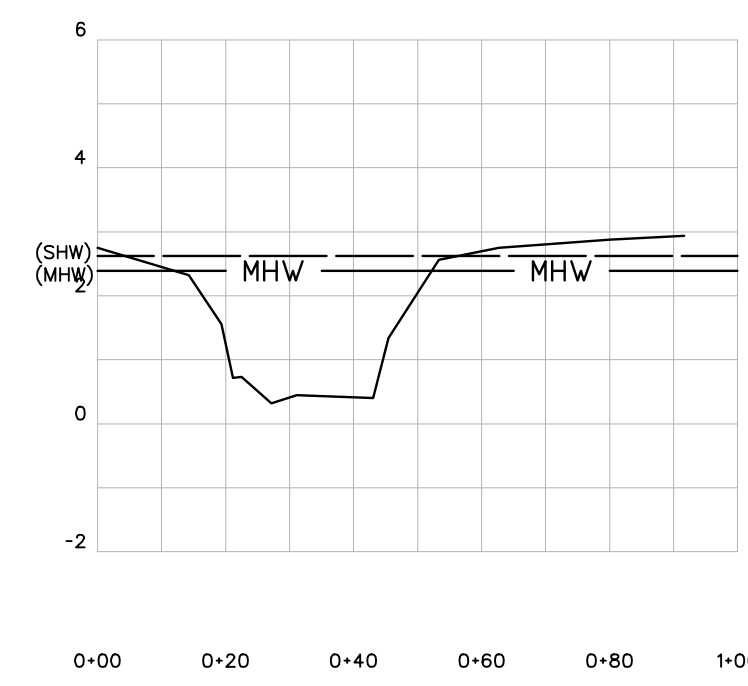
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SCALE: AS SHOWN				DWG. NO.
DATE: NOVEMBER 2013				



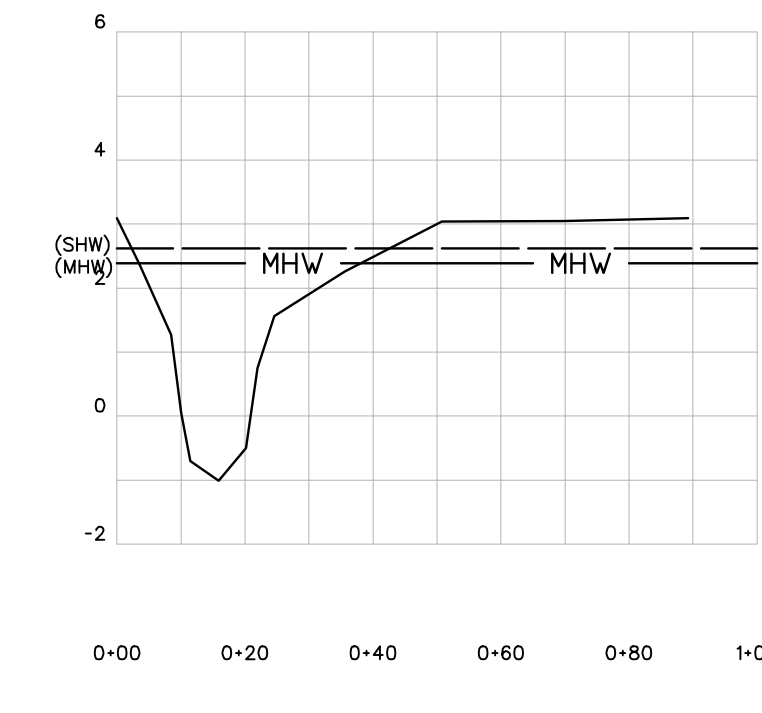
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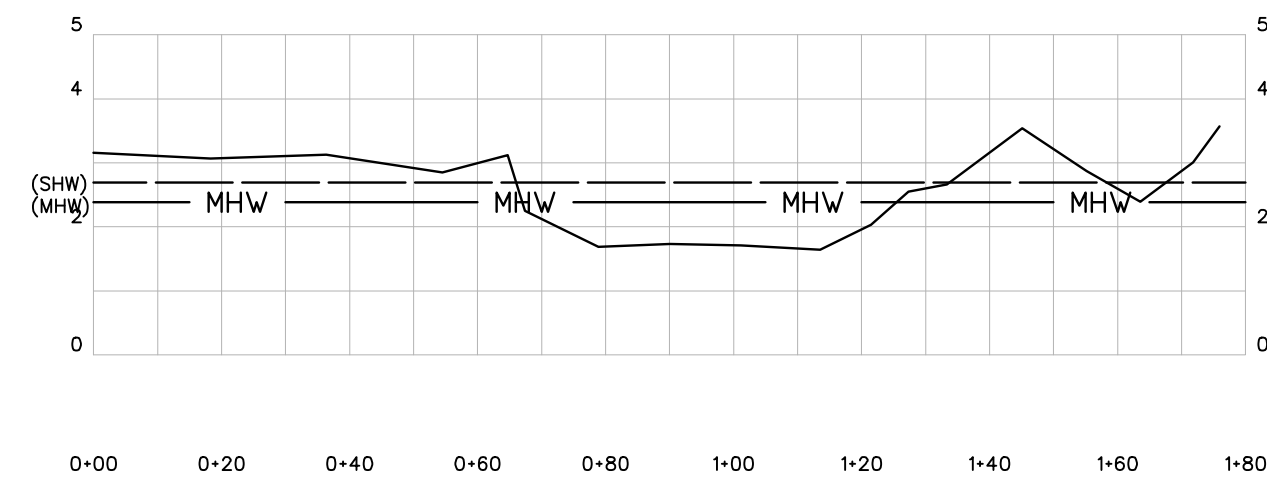
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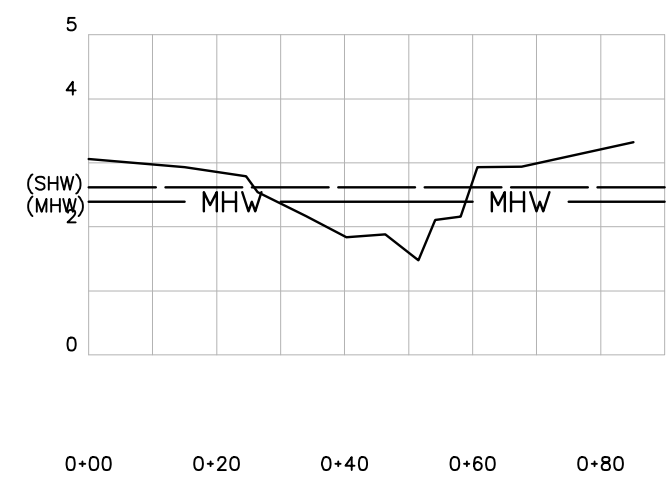
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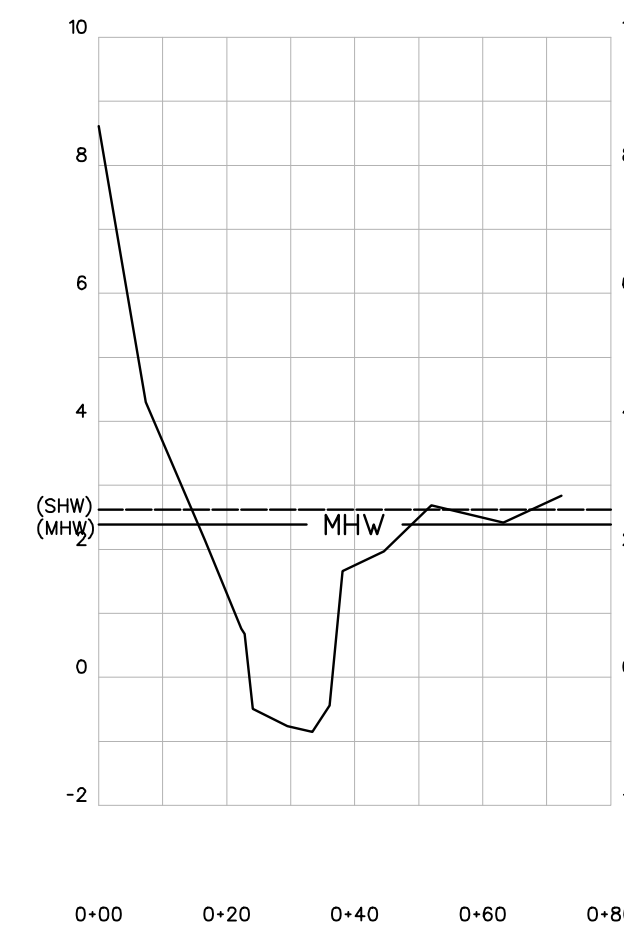
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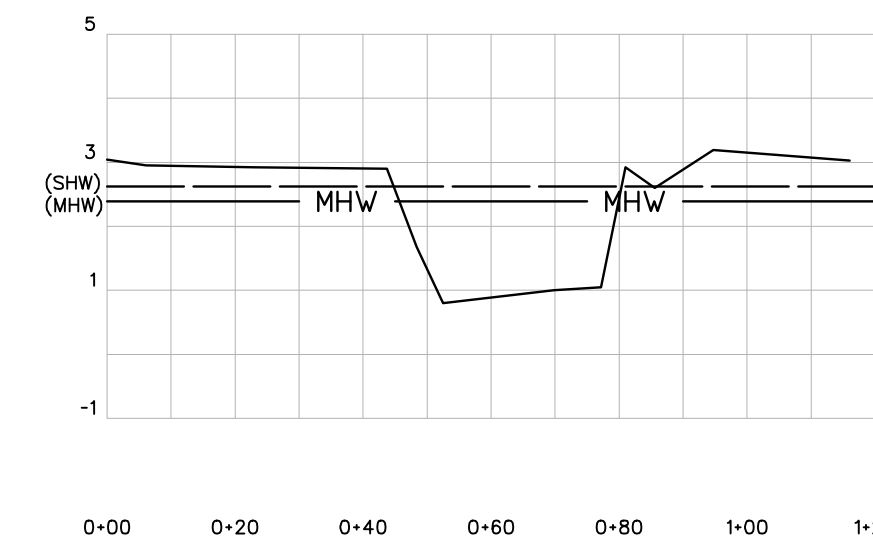
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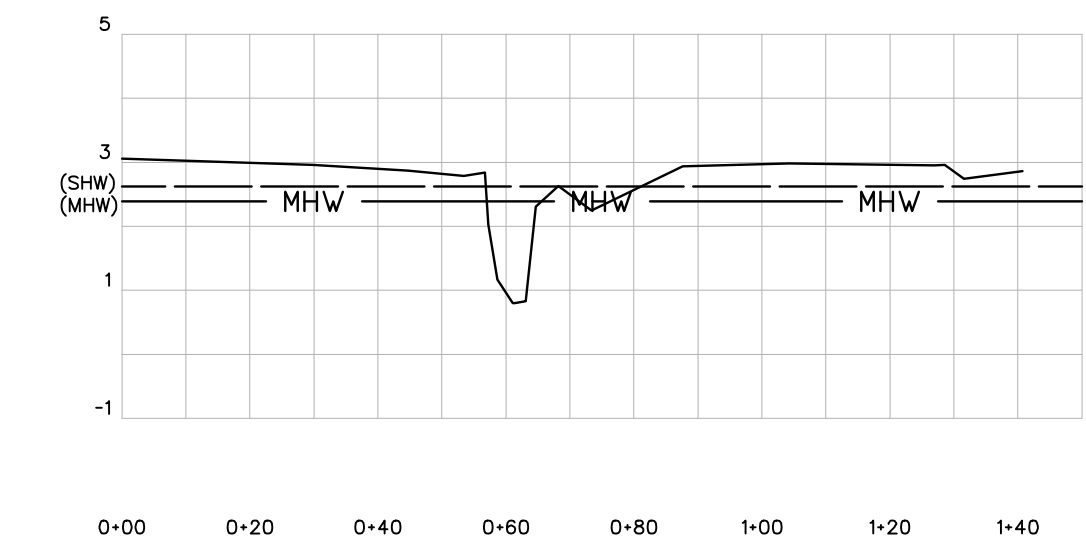
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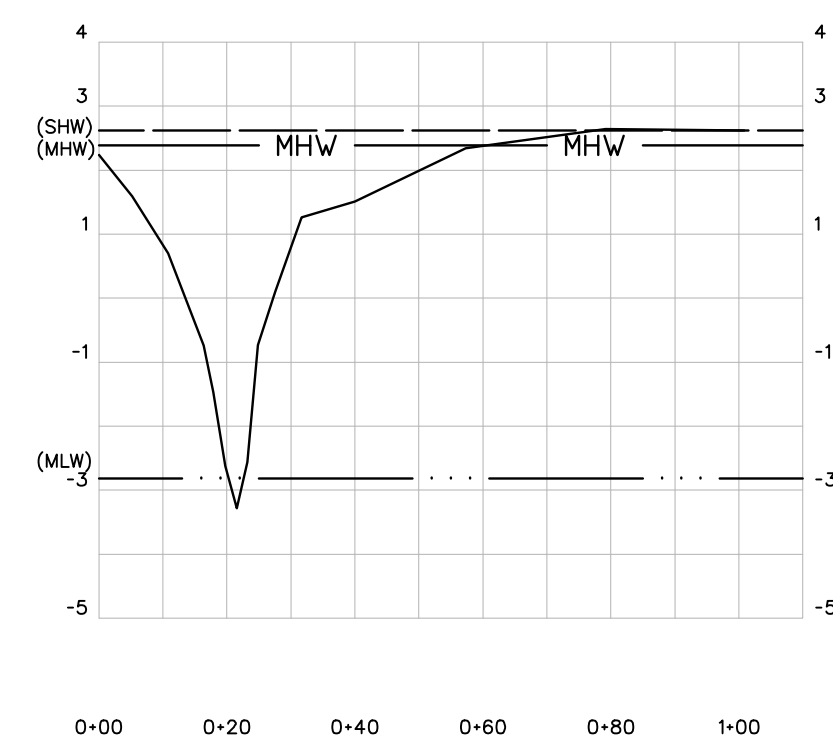
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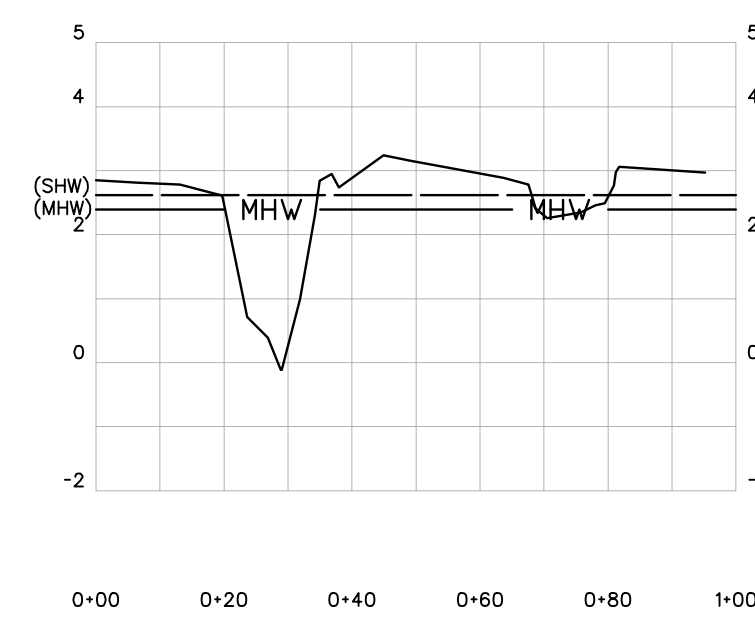
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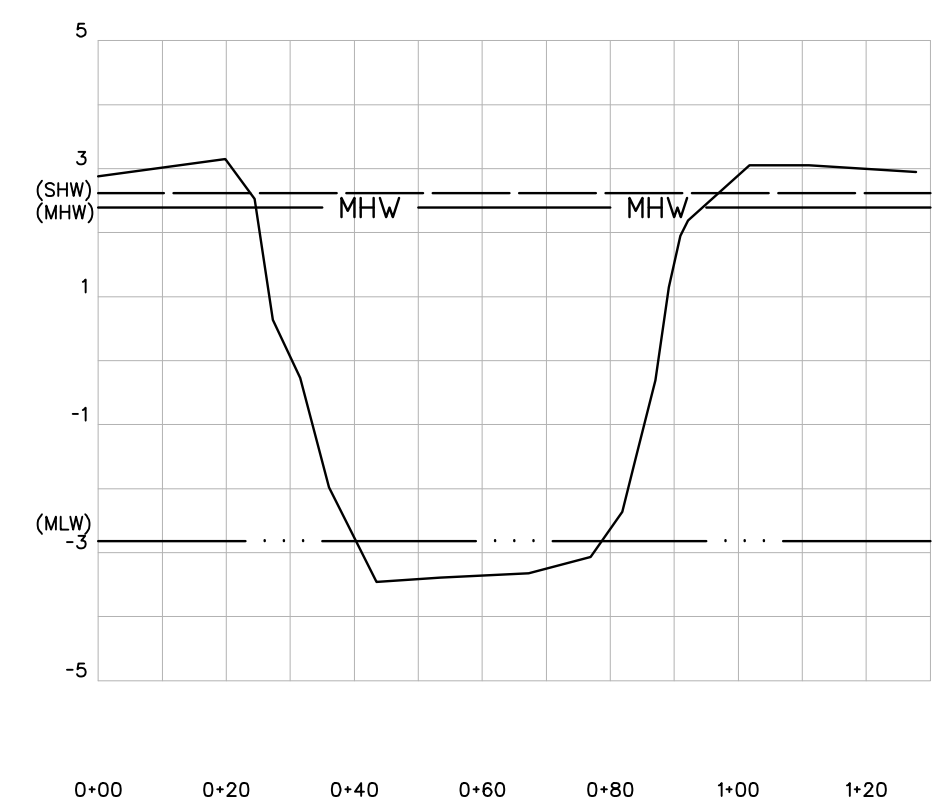
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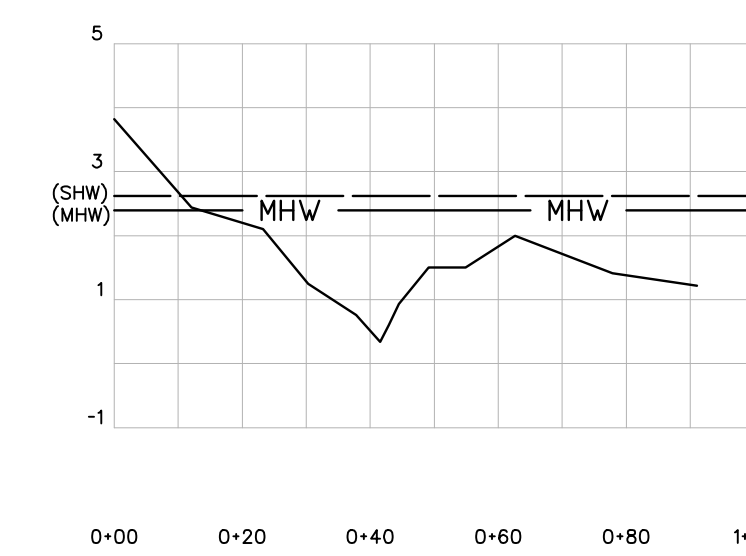
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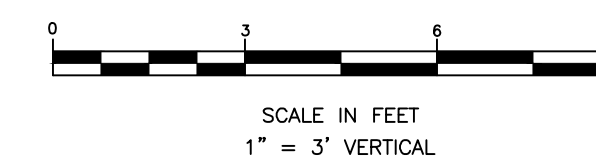
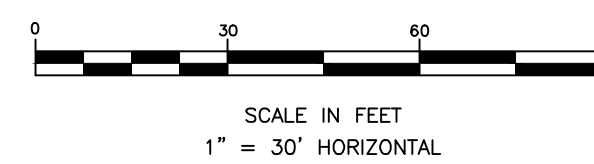
Section 11W



Section 12W



Section 1E



**NOTE**  
1. VERTICAL DATUM IN NAVD88.

**LEGEND**  
 - - - - - SPRING HIGH WATER 2.62' (SHW)  
 ———— MHW 2.39' (MHW)  
 - . . . - MEAN LOW WATER -2.82' (MLW)

NO.	DATE	REVISION
	5/16/14	ADDED SHW, MHW AND MLW

THE LOUIS BERGER & ASSOC. PC  
 48 WALL STREET  
 16TH FLOOR  
 NEW YORK, NY 10005  
 DONALD B. STEVENS  
 N.Y. PROFESSIONAL ENGINEER  
 N.Y. P.E. LIC. NO. 091394  
 CERTIFICATE OF AUTHORIZATION  
 24GA27933700

**PERMIT PLANS NOT FOR CONSTRUCTION**

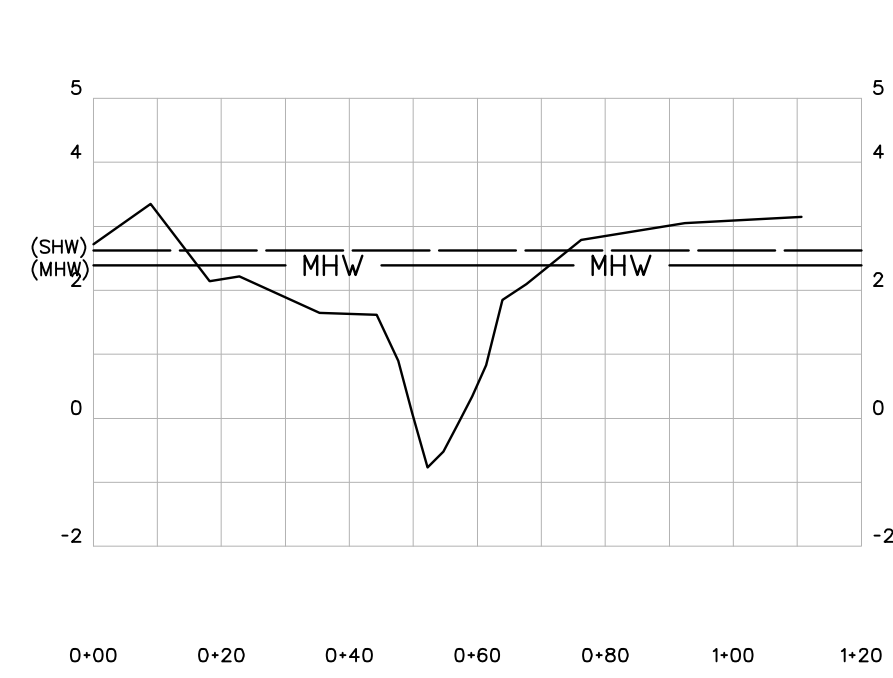
**NYCEDC** NEW YORK CITY ECONOMIC DEVELOPMENT CORP.

SAW MILL CREEK PILOT WETLAND MITIGATION BANK  
 STATEN ISLAND, NEW YORK

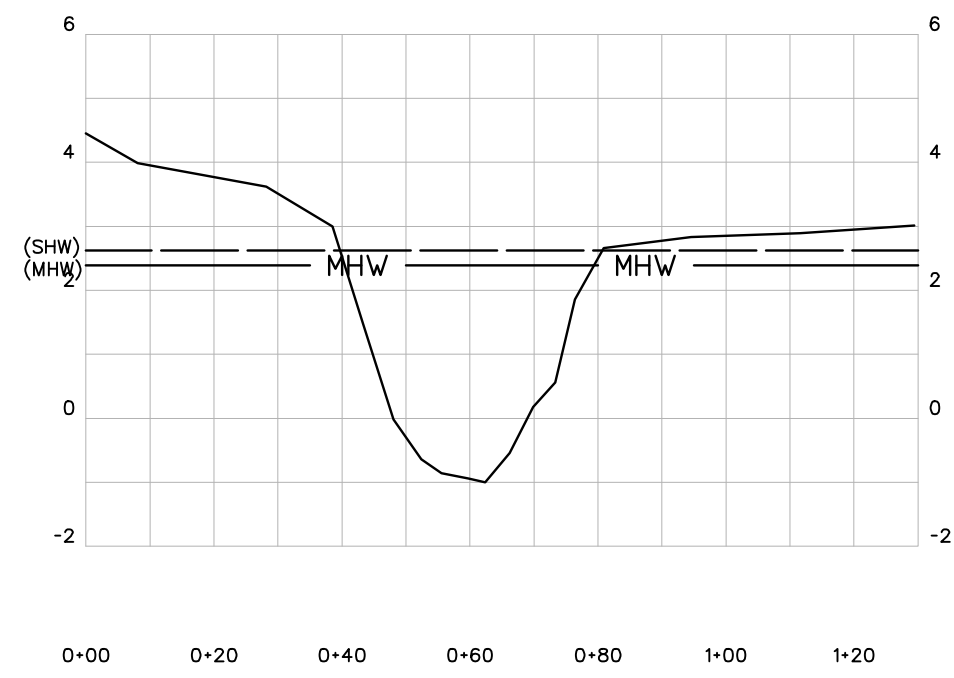
**EXISTING CHANNEL SECTIONS -1-**

DRAWN BY: MH		APPROVALS			PROJECT NO.
CHECKED BY: SA	APPROVED BY:	TITLE	DATE		2001984
SCALE: AS SHOWN					SHEET 6 OF 21
DATE: NOVEMBER 2013					DWG. NO.

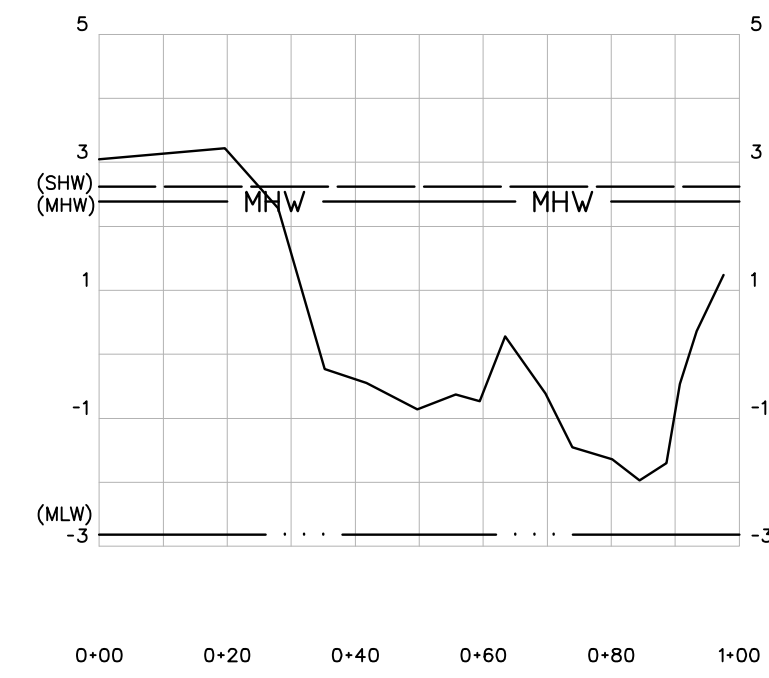
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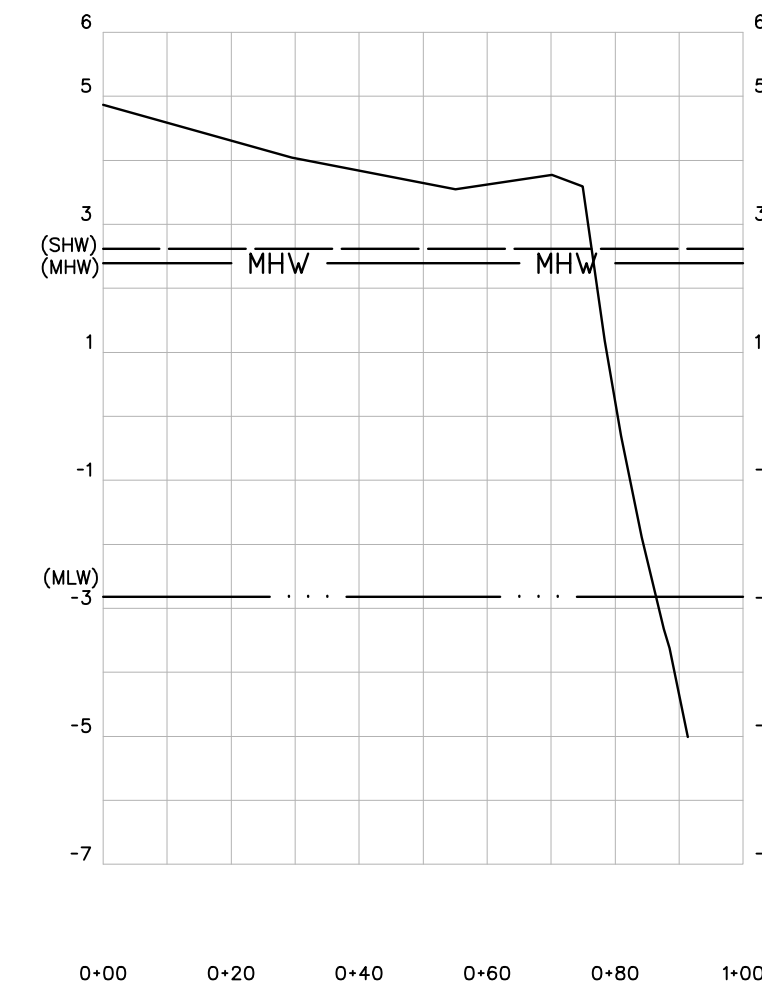
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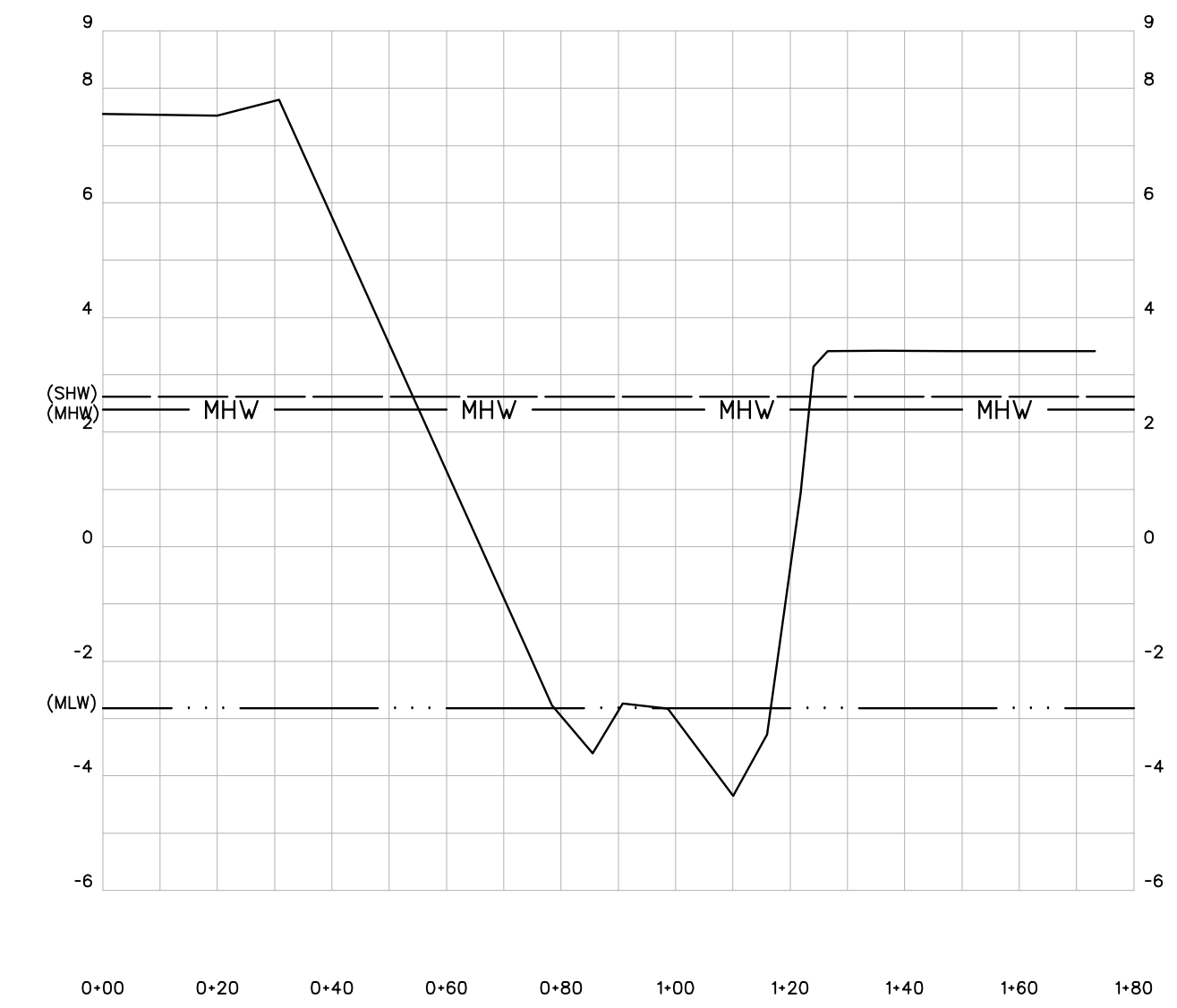
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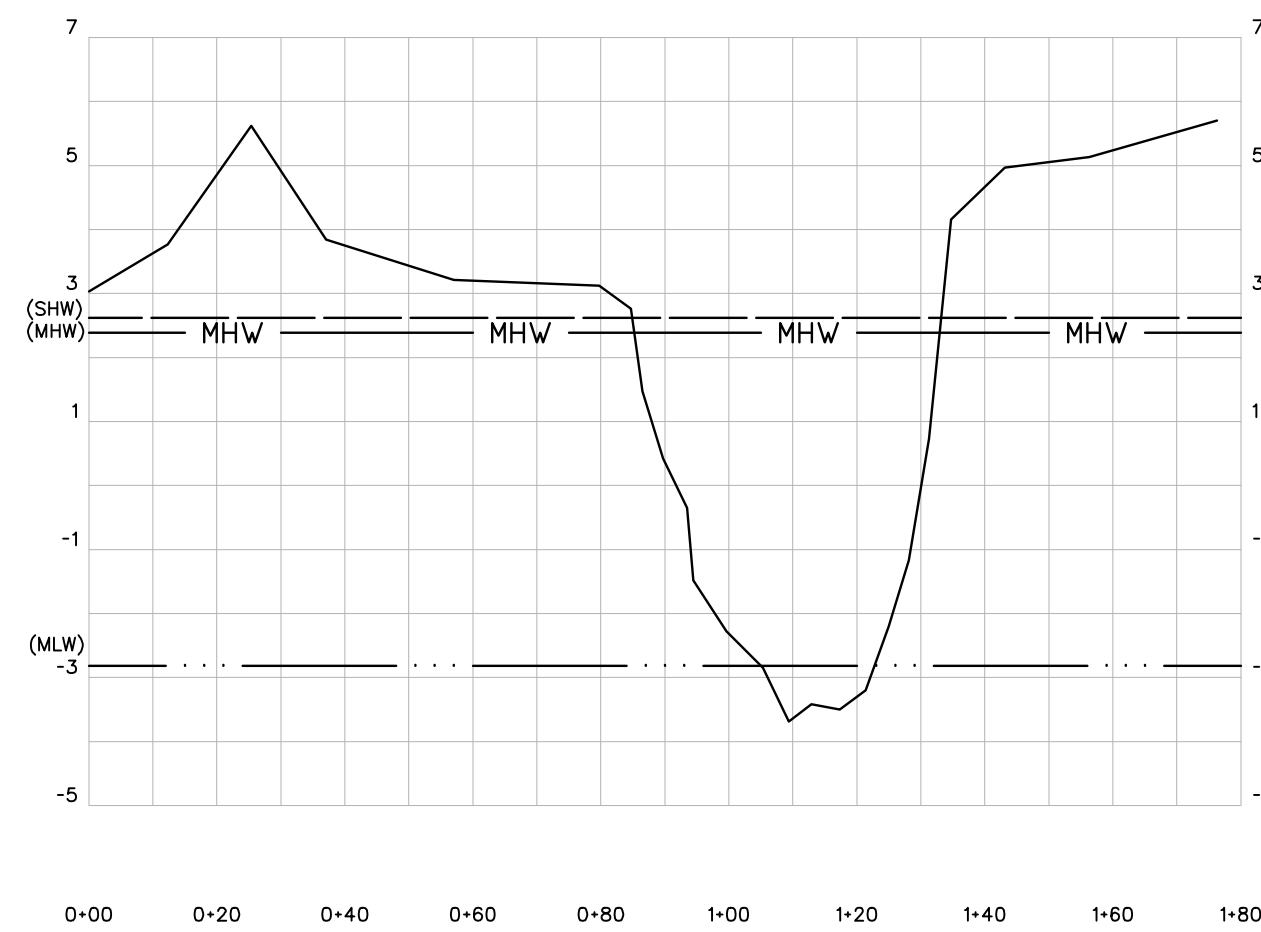
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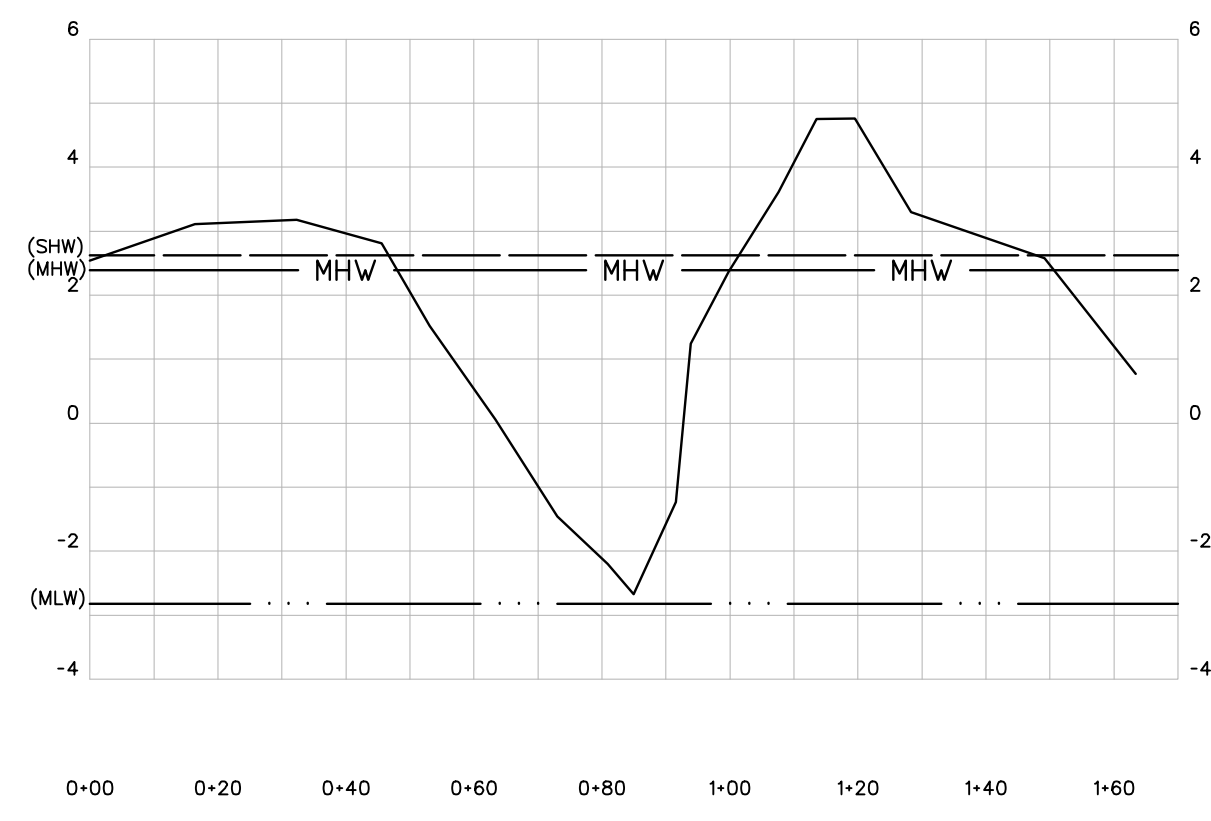
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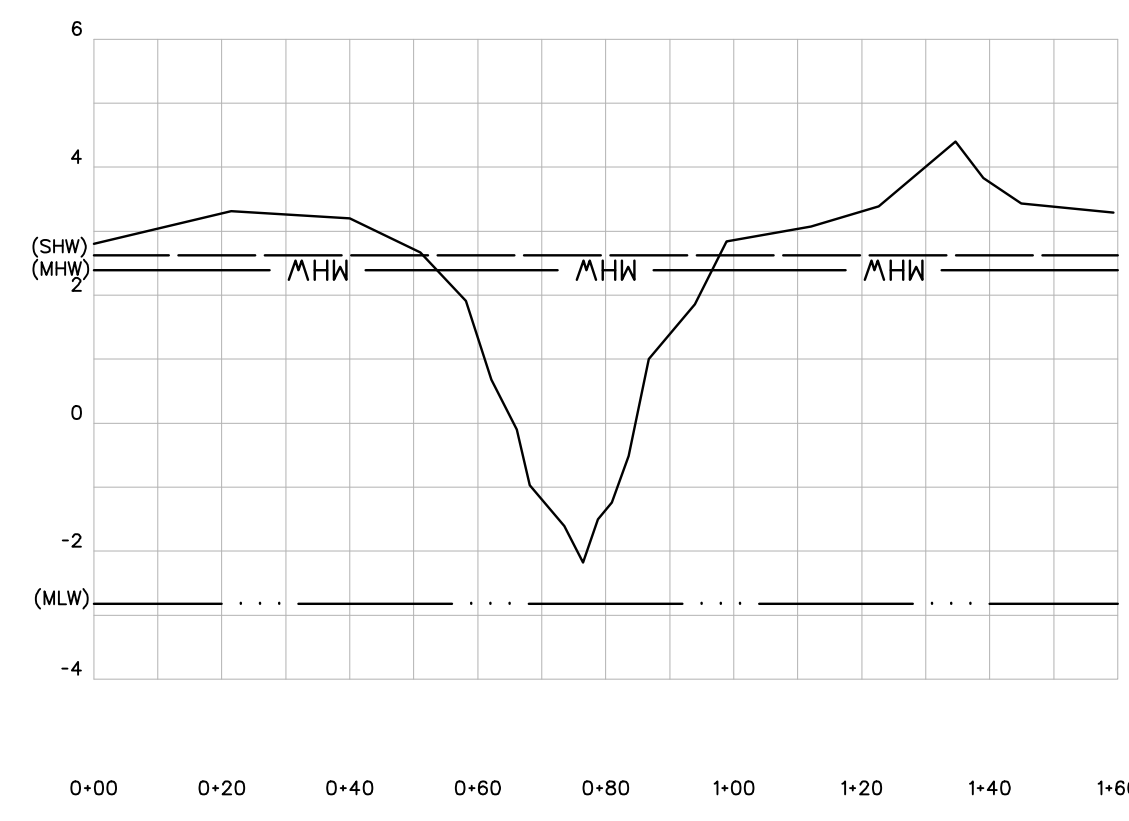
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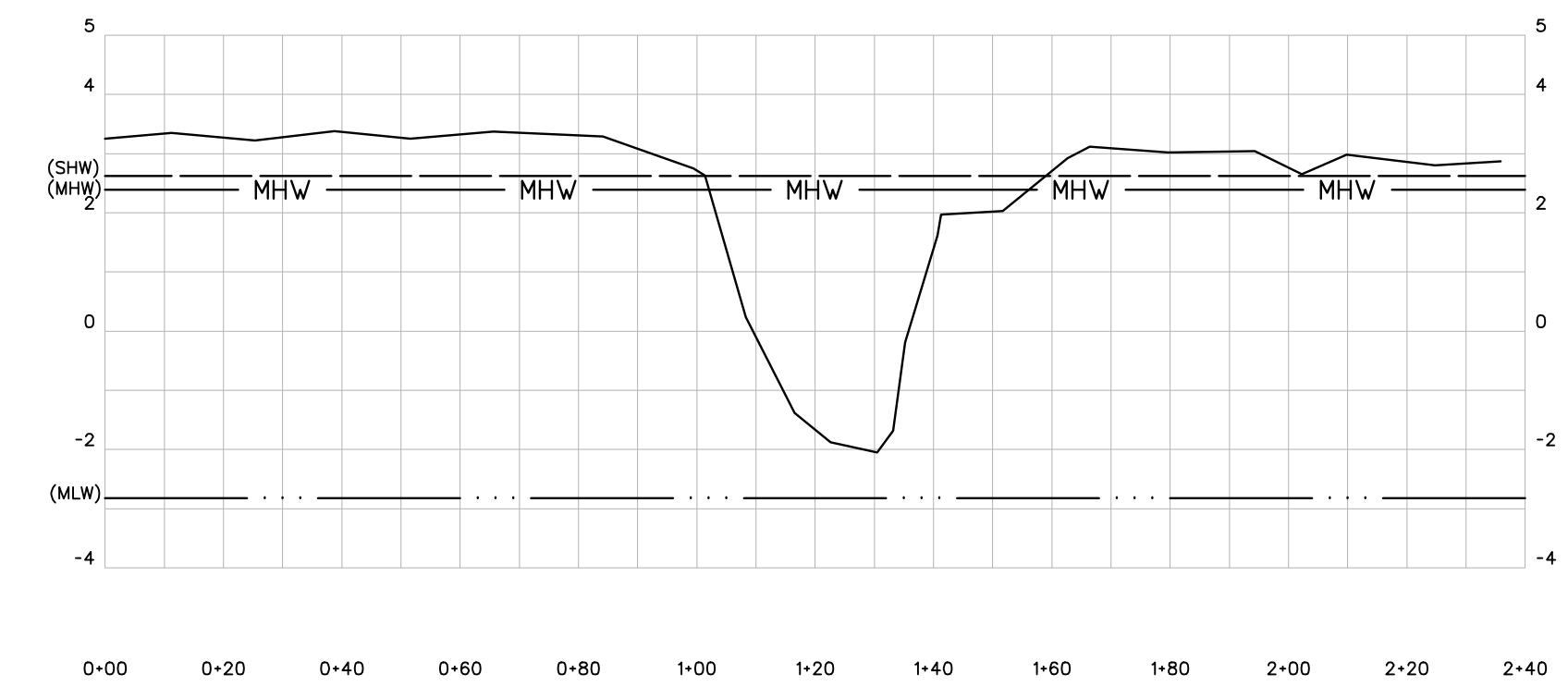
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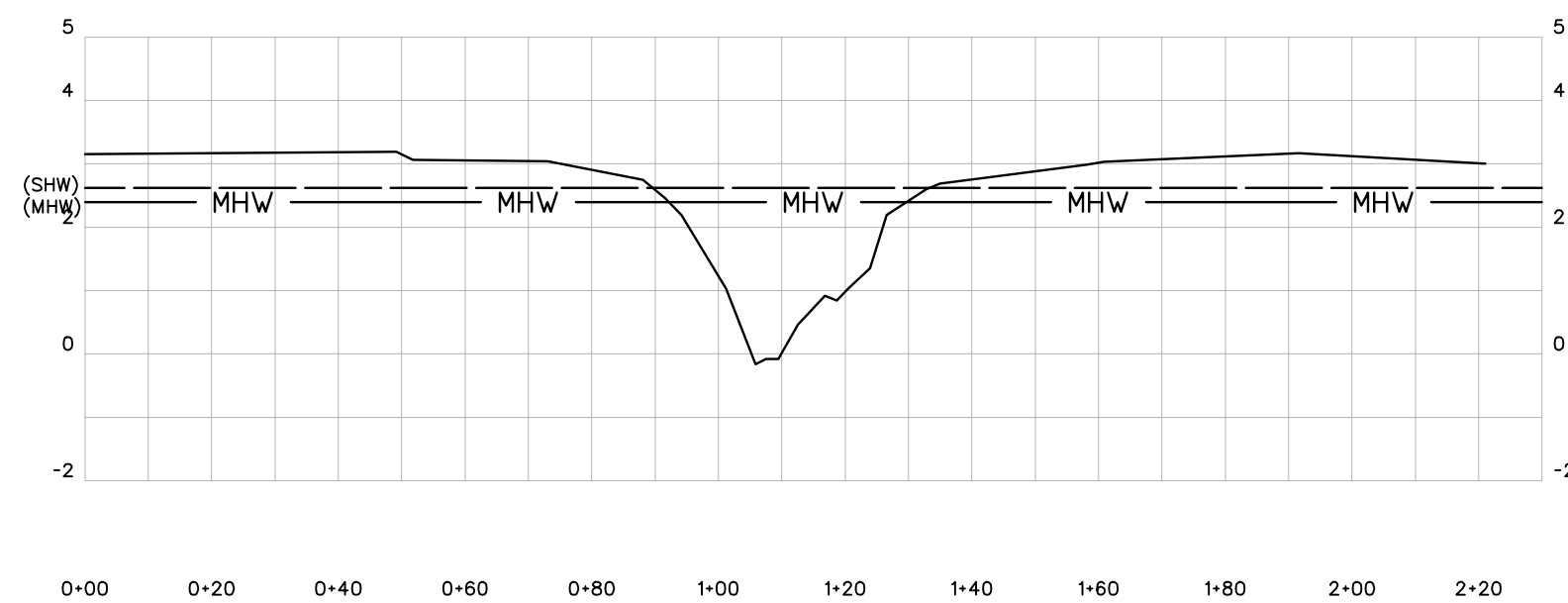
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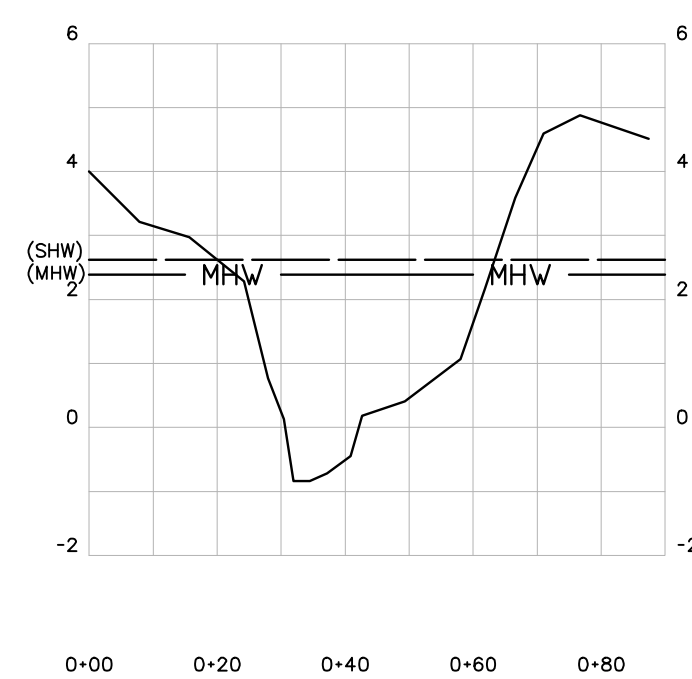
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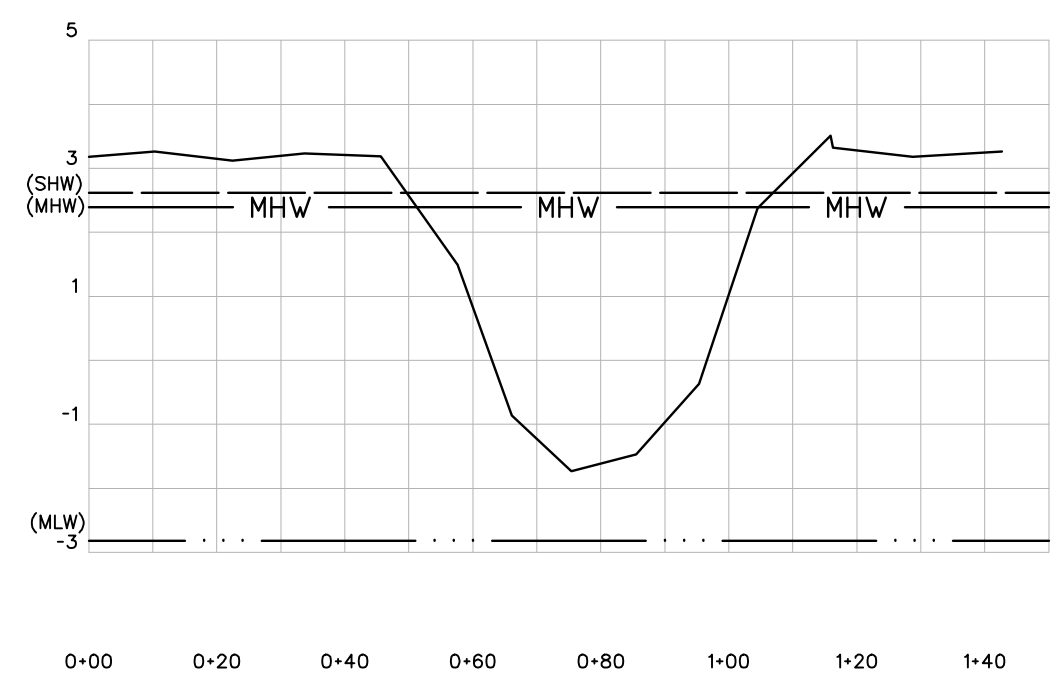
Section 10E



Section 11E



Section 12E



Section 13E

**PERMIT PLANS NOT FOR CONSTRUCTION**

**NYCEDC** NEW YORK CITY ECONOMIC DEVELOPMENT CORP.

SAW MILL CREEK PILOT WETLAND MITIGATION BANK  
STATEN ISLAND, NEW YORK

**EXISTING CHANNEL SECTIONS -2-**

DRAWN BY: MH	APPROVALS			PROJECT NO. 2001984
CHECKED BY: SA	APPROVED BY:	TITLE	DATE	SHEET 7 OF 21
SCALE: AS SHOWN				DWG. NO.
DATE: NOVEMBER 2013				

THE LOUIS BERGER & ASSOC. PC  
48 WALL STREET  
16TH FLOOR  
NEW YORK, NY 10005  
  
DONALD B. STEVENS  
N.Y. PROFESSIONAL ENGINEER  
N.Y. P.E. LIC. NO. 091394  
CERTIFICATE OF AUTHORIZATION  
24GAZ7933700

NAN-2013-00259-EHA

**NOTE**  
1. VERTICAL DATUM IN NAVD88.

**LEGEND**  
 SPRING HIGH WATER 2.62' (SHW)  
 MEAN HIGH WATER 2.39' (MHW)  
 MEAN LOW WATER -2.82' (MLW)

NO.	DATE	REVISION
	5/16/14	ADDED SHW, MHW AND MLW

