

Slope Percentage	Existing Area (SF, +/-)	Proposed Area (SF, +/-)	Net Change (SF, +/-)
0 - 10%	38,794	38,719	(75)
10 - 20%	11,778	11,898	120
20 - 30%	5,384	5,355	(29)
30 - 40%	1,766	1,750	(16)
40 - 50%	806	806	-
50 - 100%	2,338	2,338	-
Area from structures	10,821	10,821	
Total	71,687	71,687	-

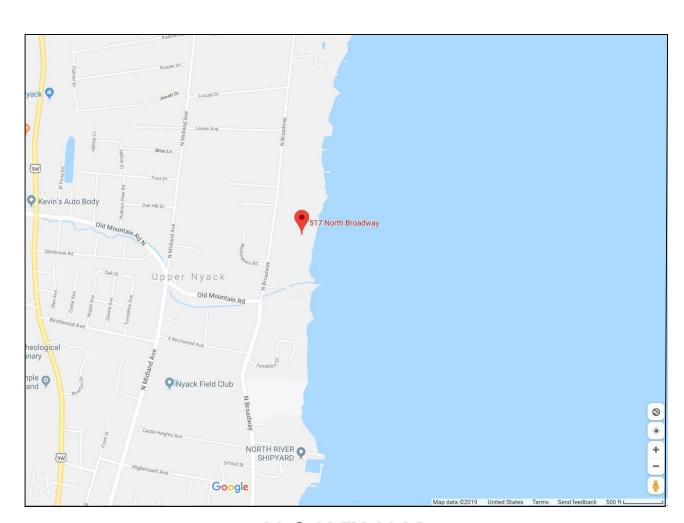
#### **SLOPE ANALYSIS SUMMARY**

	Requirements	Existing	Proposed	Requested
	1	Conditions	Conditions	Variances
19.1 Table of Lot Areas ar	nd Restrictions in	Residence District	s - R-2	
Minimum lot area required (SF +/-)	30,000	71,687	71,687	None
Minimum front footage on streets (ft. +/-)	100	124	124	None
Minimum setback from front street line (ft. +/-)	35	129	129	None
Minimum setback from side and rear lot lines (ft. +/-	25	25	25	None
Minimum livable floor area single floor dwelling				N.T.
(SF +/-)	1,250	N/A	N/A	None
Minimum livable floor area two (2) floor dwellings -				
First floor (SF +/-)	800	4,854	4,854	None
Minimum livable floor area two (2) floor dwellings -				
Second floor (SF +/-)	750	N/A	N/A	None
Maximum structure height (ft. +/-)	35	N/A	N/A	None
Maximum coverage of lot by buildings and structures				
(%)	25%	15.1%	15.1%	None
Maximum coverage of lot by primary building (%)	12%	6.8%	6.8%	None

#### **BULK TABLE**

#### NOTES:

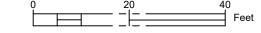
- 1. THE PROPOSED SEAWALL WORK IS REPLACEMENT IN KIND.
- 2. OWNER OF RECORD: 517 NORTH BROADWAY, LLC, 517 NORTH BROADWAY, UPPER NYACK, NY 10960.
- 3. NAME AND ADDRESS OF SURVEYOR OF RECORD: CONTROL POINT ASSOCIATES INC. PC, 17 COMPUTER DRIVE WEST, ALBANY, NY 12205. SURVEY WAS COMPLETED ON OCTOBER 17, 2019.
- 4. ZONING DISTRICT: R-2
- 5. THERE ARE NO NEW PROPOSED STRUCTURES WITHIN SITE PERIMETER. 6. APPROVED SITE PLAN IS VALID FOR 3 YEARS FOLLOWING APPROVAL BY
- VILLAGE OF UPPER NYACK.
- 7. APPLICABLE CONSTRUCTION AND UTILITY STANDARDS WILL BE ADHERED TO FOR THE PROPOSED WORK.
- 8. NO HIGHWAY TREE PLANTING IS NEEDED FOR THE PROPOSED WORK.
- 9. NO DISTURBANCE TO EXISTING UTILITIES WILL OCCUR FROM THIS WORK.
- 10. NO RESTRICTIVE COVENANTS APPLY TO THIS PROPERTY. 11. ELEVATIONS SHOWN ARE IN REFERENCE TO NAVD88.
- 12. PROPOSED PIER AND DOCK STRUCTURES IN HUDSON RIVER ARE DESIGNED BY BUCKMAN ENGINEERING AND REFERENCED IN THE DESIGN DRAWINGS "SEAWALL REHABILITATION AND DOCK WORK" DATED DECEMBER 3, 2020.



**VICINITY MAP** (SOURCE: GOOGLE MAPS)



**EXISTING SITE CONDITIONS** 



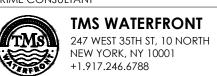
#### 517 North Broadway

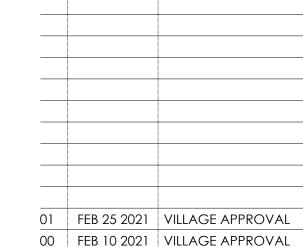
517 NORTH BROADWAY UPPER NYACK, NY 10960

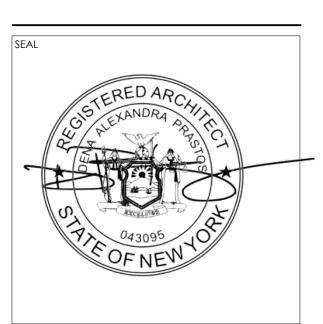
517 NORTH BROADWAY, LLC

517 NORTH BROADWAY UPPER NYACK, NY 1960

PRIME CONSULTANT





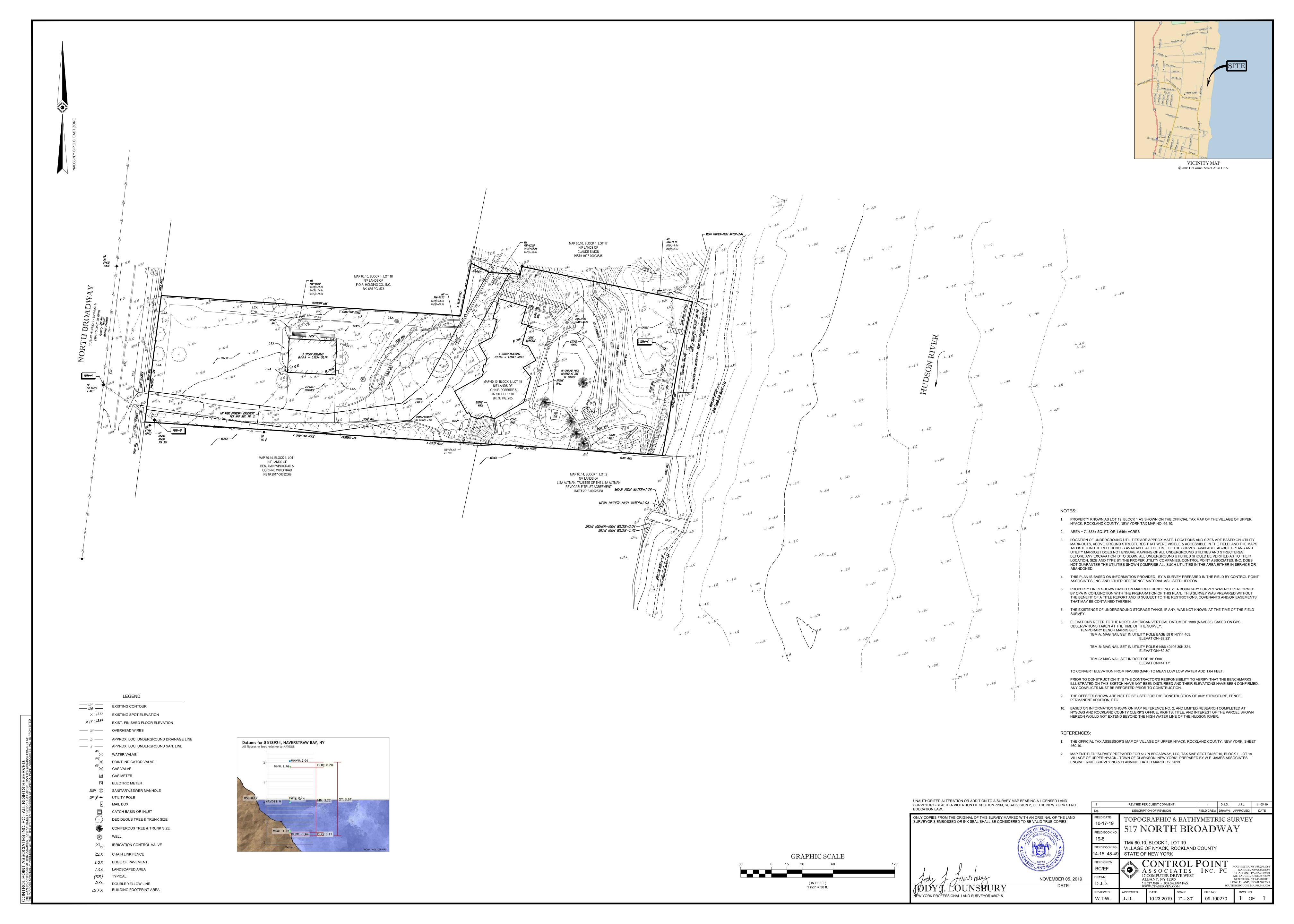


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#### **SITE PLAN**

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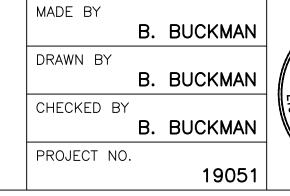
C-100



# SEAWALL REHABILITATION AND DOCK INSTALLATION

517 NORTH BROADWAY UPPER NYACK, NY

NO.	DATE	REVISION	BY	PREPARED BY
				_
				BUCKMAN
				BUCKMAN ENGINEERING, PLLC 255 DEAN STREET
				BROOKLYN, NY 11217



ISSUED FOR CONSTRUCTION

UPPER NYACK, NY 10960 WARNING — IT IS A VIOLATION OF SECTION 7209 OF THE STATE EDUCATION LAW FOR ANY PERSON TO ALTER THIS DRAWING IN ANY WAY UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER. THE ALTERING ENGINEER SHALL AFFIX

RAZ TIROSH 517 NORTH BROADWAY

PREPARED FOR

TITLE OF PROJECT SEAWALL REHABILITATION AND DOCK INSTALLATION

PROJECT LOCATION 517 NORTH BROADWAY UPPER NYACK, NY DRAWING TITLE

TITLE SHEET

DRAWING NO. T-0' 4/1/2021 REVISION NO. SHEET NO. of **12** 

#### INDEX OF MARINE DRAWINGS

<u>SHEET</u>	<b>DRAWING</b>	DRAWING TITLE
1	T-01	TITLE SHEET
2	G-01	GENERAL NOTES
3	MR-01	EXISTING PLAN
4	MR-02	PROPOSED PLAN
5	MR-03	PIER AND DOCK PLAN
6	MR-04	PIER AND DOCK ELEVATIONS
7	MR-05	PIER DETAILS 1
8	MR-06	PIER DETAILS 2
9	MR-07	PIER DETAILS 3
10	MR-08	GANGWAY DETAILS
11	MR-09	FLOATING DOCK DETAILS
12	MR-10	MOORING DETAILS

#### **GENERAL NOTES**

- 1. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- 2. EXISTING TOPGRAPHIC AND BATHYMETRIC INFORMATION IS BASED ON FIELD SURVEY PERFORMED BY CONTROL POINT ASSOCIATES, INC. DATED OCTOBER 17, 2019 AND REPRESENT CONDITIONS OF THE SITE AT THE TIME OF THE SURVEY.
- 3. TIDAL DATA ARE COMPUTED FROM VDATUM 3.9 SOFTWARE PUBLISHED BY THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION.

A	. MEAN	HIGHER HIGH	H WATER (MHHW)	EL.	+2.04
В	. BEAN	HIGH WATER	(MHW)	EL.	+1.76
С	. MEAN	LOW WATER	(MLW)	EL.	-1.47
ח	MEAN	LOWER LOW	WATER (MILW)	FI	_1 64

- 4. THE OWNER HAS SECURED CERTAIN PERMITS REQUIRED BY FEDERAL AND STATE AUTHORITIES FOR THE PROPOSED ACTIVITIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM THE WORK IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE PERMITS. THE CONTRACTOR SHALL POST COPIES OF THE PERMITS AT THE SITE THROUGHOUT THE COURSE OF THE WORK. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN PERMITS ASSOCIATED WITH THE LEGAL DISPOSAL OF CONSTRUCTION DEBRIS. THE CONTRACTOR SHALL SECURE REQUIRED LOCAL AUTHORIZATIONS AND PERMITS.
- 5. PRIOR TO CONSTRUCTION AND FABRICATION OF CONSTRUCTION MATERIALS, THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND DIMENSIONS.

#### **DESIGN CRITERIA**

- 1. DESIGN CRITERIA ARE IN CONFORMANCE WITH "MINIMUM DESIGN LOADS AND ASSOCIATED CRITERIA FOR BUILDINGS AND OTHER STRUCTURES" PUBLISHED BY THE AMERICAN SOCIETY OF PROFESSIONAL ENGINEERS. 2016 (ASCE 7-16).
- 2. THE FACILITY IS DESIGNED FOR TWO CONDITIONS:
  - A. SERVICE CONDITIONS IS THE MAXIMUM ALLOWABLE ENVIRONMENTAL CONDITIONS IN WHICH THE FACILITY MAY REMAIN IN OPERATION. WHEN ENVIRONMENTAL CONDITIONS ARE EXPECTED TO EXCEED SERVICE CONDITIONS, VESSELS SHALL BE MOVED TO A SAFE HARBOR.
  - B. EXTREME CONDITIONS DENOTE THE MAXIMUM ALLOWABLE ENVIRONMENTAL CONDITIONS WITHIN WHICH THE STRUCTURE IS DESIGNED TO MAINTAIN ITS STRUCTURAL INTEGRITY USING SAFETY FACTORS FROM THE CODE.
- 3. DESIGN LIVE LOAD SHALL BE A UNIFORMLY DISTRIBUTED LOAD OF 50 PSF UNLESS NOTED OTHERWISE. NO LIVE LOADING IS ALLOWED FOR EXTREME CONDITIONS.
- 4. THE FACILITY IS DESIGNED TO ACCOMMODATE MOORING AND BERTHING LOADS ASSOCIATED WITH A BOAT WITH 40 FOOT OVERALL LENGTH. THE FLOATING DOCK IS DESIGNED TO ACCOMMODATE MOORING OF TWO DESIGN VESSELS, ONE ON EITHER SIDE OF THE DOCK, CONCURRENTLY.
- 5. DESIGN WIND LOAD PARAMETERS FOR EXTREME CONDITIONS INCLUDE A BASIC WIND SPEED OF 110 MILES PER HOUR, EXPOSURE CATEGORY C, AND STRUCTURAL OCCUPANCY/RISK CATEGORY I. FOR SERVICE CONDITIONS, THE WIND SPEED IS LIMITED TO 55 MILES PER HOUR.
- 6. EXTREME ENVIRONMENTAL CONDITIONS ARE BASED ON A MAXIMUM WATER LEVEL AT ELEVATION +7.0 PER FEMA FIRM PANELS FOR THE SITE. THE DESIGN WAVE IS CHARACTERIZED BY A SIGNIFICANT WAVE HEIGHT OF 4.2 FEET AND A PERIOD OF 3.1 SECONDS.

#### EXCAVATION, BACKFILL, AND COMPACTION

- 1. STRUCTURAL FILL SHALL CONSIST OF BROKEN OR CRUSHED STONE, BANK OR CRUSHED GRAVEL, OR MIXTURES THEREOF. BROKEN OR CRUSHED STONE SHALL CONSIST OF WELL-GRADED, SOUND, TOUGH, DURABLE STONE. BANK OR CRUSHED GRAVEL SHALL CONSIST OF WELL-GRADED, SOUND, TOUGH, DURABLE PARTICLES OF CRUSHED OR UNCRUSHED GRAVEL FREE FROM SOFT, THIN, ELONGATED OR LAMINATED PIECES AND ORGANIC OR OTHER DELETERIOUS SUBSTANCES. STRUCTURAL FILL SHALL BE WELL GRADED WITH 100% MASS PASSING THE 90 mm (3.5 INCH) SIEVE. SUBMIT AN INDEPENDENT GRADATION ANALYSIS AND MODIFIED PROCTOR TEST FOR ENGINEER OF RECORD'S REVIEW.
- 2. THE CONTRACTOR SHALL EXCAVATE, BACKFILL, COMPACT, AND GRADE THE SITE TO THE ELEVATIONS AND LIMITS SHOWN AND AS NEEDED TO MEET THE REQUIREMENTS OF THE WORK.
- 3. STRUCTURAL FILL SHALL BE PLACED IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH. DO NOT PLACE FILL MATERIAL ON SURFACES THAT ARE MUDDY, FROZEN, OR CONTAINING FROST OR ICE. PLACE FILL MATERIALS EVENLY ADJACENT TO STRUCTURES, TO REQUIRED ELEVATIONS. TAKE CARE TO PREVENT WEDGING ACTION OF BACKFILL AGAINST STRUCTURES BY CARRYING THE MATERIAL UNIFORMLY AROUND THE STRUCTURE TO APPROXIMATELY THE SAME ELEVATION IN EACH LIFT.
- 4. CONTROL STRUCTURAL FILL COMPACTION DURING CONSTRUCTION TO PROVIDE THE MINIMUM PERCENTAGE OF DENSITY SPECIFIED FOR EACH AREA AS DETERMINED ACCORDING TO ASTM D1557. STRUCTURAL FILL AREAS SHALL NOT FALL BELOW 95% OF ITS DENSITY AT OPTIMUM MOISTURE CONTENT AS DETERMINED BY THE ABOVE TEST.

#### STRUCTURAL STEEL

- 1. STRUCTURAL STEEL SHALL COMPLY WITH THE CURRENT EDITION OF THE "STEEL CONSTRUCTION MANUAL", PUBLISHED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
- 2. WELDING SHALL CONFORM TO THE 'STRUCTURAL WELDING CODE -STEEL', AS ADOPTED BY THE AMERICAN WELDING SOCIETY (AWS D1.1).
- 3. WELDING ELECTRODES SHALL BE E70XX AND COMPLY WITH AWS A5.1 AND AWS A5.5.
- 4. STRUCTURAL STEEL PLATES AND SHAPES SHALL CONFORM TO ASTM A 572, GRADE 50. STEEL TUBES SHALL CONFORM TO ASTM A500, GRADE B.
- 5. HIGH-STRENGTH BOLTS, NUTS AND WASHERS SHALL BE IN ACCORDANCE WITH "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A 325 BOLTS".
- HIGH STRENGTH STRUCTURAL BOLTS SHALL CONFORM TO ASTM A325 WITH HEX HEADS. NUTS SHALL CONFORM TO ASTM A563.
- WASHERS BETWEEN THE BOLT HEAD OR NUT AND STRUCTURAL STEEL SHALL BE HIGH STRENGTH WASHERS CONFORMING TO ASTM F436. WASHERS AGAINST TIMBER SHALL COMMON DOCK WASHERS.
- ALL STEEL COMPONENTS SHALL BE HOT-DIP GALVANIZED UNLESS NOTED OTHERWISE. GALVANIZING SHALL CONFORM TO ASTM A123 OR ASTM 153 AS APPLICABLE.
- 9. BOLTED CONNECTIONS SHALL USE 3/4" DIAMETER A 325 HIGH STRENGTH BOLTS UNLESS NOTED OTHERWISE.
- 10. CONNECTIONS SHALL BE DESIGNED AND DETAILED BY THE STEEL FABRICATOR EXCEPT FOR THOSE SPECIFICALLY DETAILED IN THE CONTRACT DOCUMENTS.

#### **TIMBER**

- 1. VISUALLY GRADED STRUCTURAL LUMBER AND WOOD CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" AND SUPPLEMENT, "DESIGN VALUES FOR WOOD CONSTRUCTION", NDS 2018, PUBLISEHD BY THE NATIONAL FOREST AND PAPER ASSOCIATION.
- 2. TIMBER SHALL MEET THE REQUIREMENTS OF THE SOUTHERN PINE INSPECTION BUREAU, "STANDARD GRADING RULES FOR SOUTHERN PINE LUMBER". TIMBER GRADE SHALL BE NO 1 OR BETTER.
- 3. TIMBER SHALL BE PRESERVATIVE PRESSURE TREATED.
- 4. CUT AND DRILLED EXPOSED TIMBER AND LUMBER SURFACES SHALL BE LIBERALLY RECOATED BY BRUSH WITH A FIELD TREATMENT ACCEPTED BY THE ENGINEER OF RECORD.

#### STEEL PILES

- 1. STEEL PIPE PILE MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A252, GRADE 3. PILES SHALL BE LONGITUDINALLY WELDED WITH SEAMS SPECIFIED AS COMPLETE PENETRATION WELD.
- 2. STEEL PIPE PILES SHALL BE DRIVEN TO A MINIMUM CAPACITY OR MINIMUM EMBEDMENT LENGTH AS INDICATED ON THE CONTRACT DRAWINGS WHICHEVER IS LARGER.
- 3. DO NOT FIELD SPLICE PILE IN LOWER 40 FEET. BOTH, UPPER AND LOWER SECTIONS OF PILE ENDS, SHALL BE SMOOTH, SQUARE AND FLAT PRIOR TO SPLICING.
- 4. ALL WELDING REQUIRED FOR THE STEEL PIPE PILES SHALL BE FULL PENETRATION WELDS CONFORMING TO AWS D1.1 WELDING CODE AND SHALL BE CAPABLE OF DEVELOPING THE PILE CROSS-SECTION IN TENSION AND BENDING.
- 5. STEEL PIPE PILES SHALL BE SHOP COATED, ON OUTER SURFACES ONLY, TO A MINIMUM OF TEN (10) FEET BELOW THE DESIGN MUDLINE DEPTH ELEVATION OR AS INDICATED ON THE DRAWINGS.

#### PROTECTIVE COATING

- 1. MATERIAL USED FOR FACTORY EPOXY COATING OF ALL SCHEDULED SURFACES SHALL BE BAR-RUST 235 MULTI-PURPOSE EPOXY COATING AS MANUFACTURED BY DEVOE COATINGS OR EQUIVALENT ACCEPTED BY THE ENGINEER OF RECORD.
- 2. FIELD TOUCH-UP COATING SHALL BE IDENTICAL TO FACTORY COATING AND APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.
- 3. PROTECTIVE COATING TOP COAT SHALL BE BLACK UNLESS OTHERWISE INDICATED ON THE DRAWINGS OR BY THE OWNER.
- 4. SURFACES SHALL BE PREPARED IN STRICT ACCORDANCE WITH THE PROTECTIVE COATING SYSTEM MANUFACTURER'S WRITTEN INSTRUCTIONS.
- 5. THE PROTECTIVE COATING SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. COATING IS TO BE APPLIED IN TWO COATS TO ACHIEVE A MINIMUM OVERALL DRY FILM THICKNESS OF 15 MILS.
- 6. ALL HOLIDAYS OR OTHER IMPERFECTIONS IN THE COATING SHALL BE REMOVED OR REPAIRED AT THE CONTRACTORS EXPENSE PRIOR TO FINAL ACCEPTANCE OF THE WORK.

#### PILE DRIVING

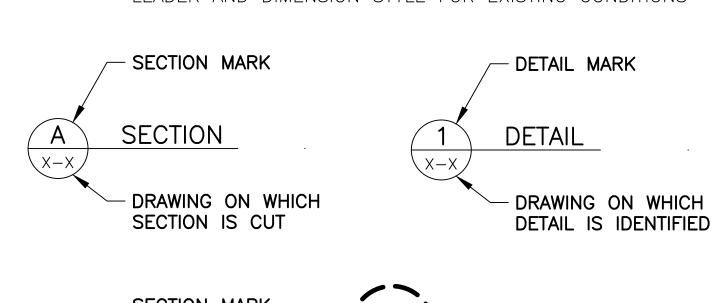
- 1. DRIVE PILES WITH AN AIR OR DIESEL OPERATED HAMMER WITH SUFFICIENT ENERGY AND ENERGY TRANSFER CHARACTERISTICS TO DRIVE THE PILES TO THE REQUIRED CAPACITY AND TOE ELEVATIONS WITHOUT DAMAGING THE PILE HEAD. USE CAUTION NOT TO INJURE THE PILES BY OVER DRIVING AS WOULD BE INDICATED BY REBOUND OF HAMMER OR STAGGERING OF PILE. WHERE REQUIRED. CUT OFF HEADS OF PILES ACCURATELY IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AFTER COMPLETION OF DRIVING.
- 2. DRIVE THE PILES STRAIGHT AND TRUE AT INDICATED LOCATIONS, WITH DEVIATION FROM THE LONGITUDINAL AXIS OF NOT MORE THAN 1/4 INCH PER FOOT.
- 3. LOCATE THE PILES WITHIN 3 INCHES OF THE POSITIONS INDICATED ON THE DRAWINGS.
- 4. WITHDRAW PILES THAT ENCOUNTER UNDERGROUND OBSTRUCTIONS SUFFICIENT TO IMPEDE PILE DRIVING. RE-DRIVE AS CLOSE AS POSSIBLE TO ORIGINAL POSITION, SUBJECT TO REVIEW OF THE OWNER. REMOVE PILES WHICH BREAK OR DRIVE OUT OF LINE. DRIVE ANOTHER PILE IN ITS PLACE.
- 5. DRIVE PILES TO THEIR FULL PENETRATION WITHOUT BENDING, RUPTURING, OR MODERATELY DAMAGING THE PILES. IF FAILURE IN THE ABOVE RESPECTS IS ENCOUNTERED, PULL THE PILE AND DRIVE A NEW PILE AT NO ADDITIONAL COST TO THE OWNER.
- 6. JETTING TO ASSIST PENETRATION WILL NOT BE PERMITTED UNLESS ACCEPTED BY THE ENGINEER OF RECORD. WHERE ACCEPTED, PRE-DRILLING TO ASSIST PENETRATION MAY BE USED WHERE EXTREME DRIVING RESISTANCE IS ENCOUNTERED, OR WHERE VIBRATIONS FROM DRIVING MAY BE DETRIMENTAL TO ADJACENT STRUCTURES.
- 7. WHERE PILES ARE PUSHED UP BY PRESSURE FROM DRIVING OF ADJACENT PILES, RE-DRIVE AS REQUIRED AND AT NO ADDITIONAL COST TO THE OWNER.

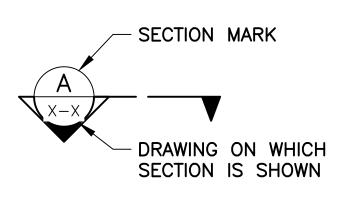
#### ABBREVIATIONS AND SYMBOLS

**ADDITIONAL ALTERNATE** ALT. BOTTOM BOT. CLEAR CLR. COLUMN CONCRETE DRAWING EACH EACH FACE **ELEVATION EQUAL EXISTING** EXIST. FT. OR FOOT GALV. GALVANIZED H.D.G. HOT-DIP GALVANIZED INSIDE DIAMETER I.D. IN. OR INCHES KSI. KIPS PER SQUARE INCH LONG. LONGITUDINAL MAXIMUM NORTH NOT IN CONTRACT ON CENTER OUTSIDE DIAMETER OPP. OPPOSITE PLATE POUNDS PER SQUARE INCH POUNDS PER SQUARE FOOT RADIUS **REINF** REINFORCING REFERENCE REQD. **REQUIRED** SOUTH **SECTION** SIM. SIMILAR SPA. **SPACING** STAINLESS STEEL TYPICAL U.O.N. UNLESS OTHERWISE NOTED CENTERLINE DIAMETER PLUS OR MINUS NORTH ARROW

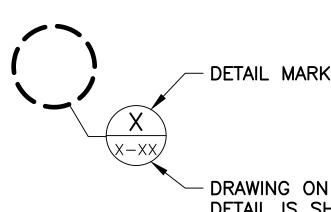
#### DRAWING CONVENTIONS

LEADER AND DIMENSION STYLE FOR PROPOSED CONDITIONS LEADER AND DIMENSION STYLE FOR EXISTING CONDITIONS DETAIL MARK





DRAWING TITLE



DRAWING ON WHICH

DETAIL IS SHOWN

TITLE OF PROJECT

SEAWALL REHABILITATION AND DOCK INSTALLATION

PROJECT LOCATION

GENERAL NOTES

DRAWING NO. G-04/1/2021 REVISION NO. SHEET NO.

2 of 12

NO. DATE REVISION BY PREPARED BY **BUCKMAN** BUCKMAN ENGINEERING, PLLC 255 DEAN STREET

BROOKLYN, NY 11217

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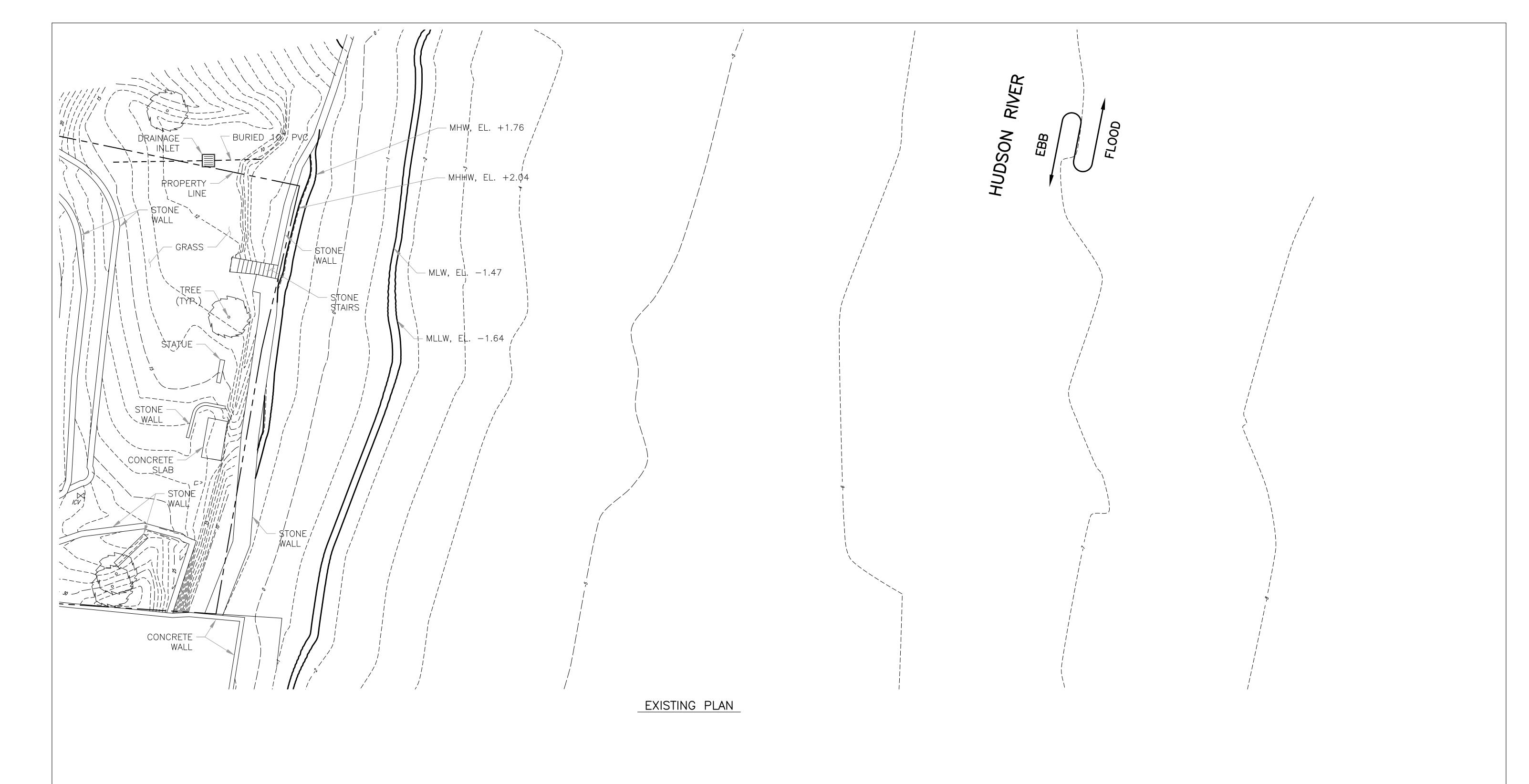
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PREPARED FOR

RAZ TIROSH 517 NORTH BROADWAY UPPER NYACK, NY 10960

517 NORTH BROADWAY UPPER NYACK, NY



#### <u>NOTES</u>

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			BUCKMAN ENGINEERING, PLLC 255 DEAN STREET	PROJECT NO	,		PROFFSSI
			BROOKLYN, NY 11217			19051	12331



ISSUED FOR CONSTRUCTION

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PREPARED	FOR	

RAZ TIROSH 517 NORTH BROADWAY UPPER NYACK, NY 10960

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517 NORTH BROADWAY UPPER NYACK, NY

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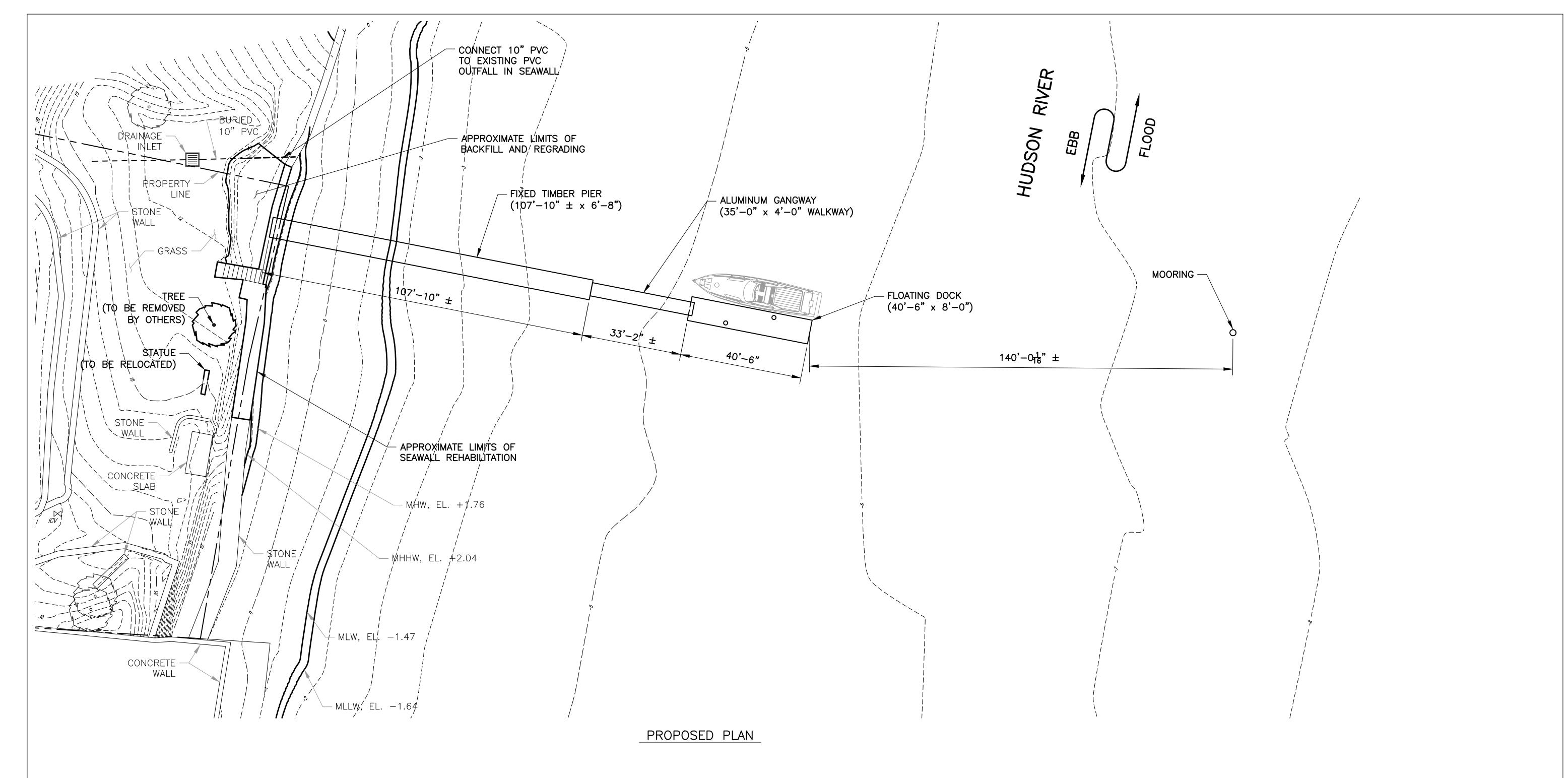
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DRAWING NO. MR-01 4/1/2021 REVISION NO. SHEET NO. 3 of 12



#### **NOTES**

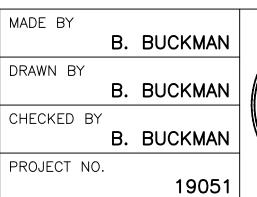
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- 3. COORDINATE WITH OWNER TO DETERMINE LOCATION TO WHERE STATUE WILL BE RELOCATED. OWNER MAY ELECT TO HAVE CONTRACTOR DISPOSE OF STATUE.
- 4. REHABILITATION OF EXISTING SEAWALL SHALL BE PERFORMED BY A CONTRACTOR EXPERIENCED IN BUILDING AND REHABILITATING NATURAL STONE SEAWALLS.
- 5. FOR DETAILED BREAKDOWN OF SEAWALL REPAIRS, REFER TO "PIER AND DOCK PLAN" DRAWING.





4 of 12

NO.	DATE	REVISION	BY	PREPARED BY
				BUCKMAN
				BUCKMAN ENGINEERING, PLLC
				255 DEAN STREET
				BROOKLYN, NY 11217



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ISSUED FOR CONSTRUCTION

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SIGNATURE, THE DATE OF ALTERATION, AND A SPECIFIC DESCRIPTION
OF THE ALTERATION.

RAZ TIROSH
517 NORTH BROADWAY
UPPER NYACK, NY 10960

PREPARED FOR

TITLE OF PROJECT	
SEAWALL REHABILITATION	AND
DOCK INSTALLATION	

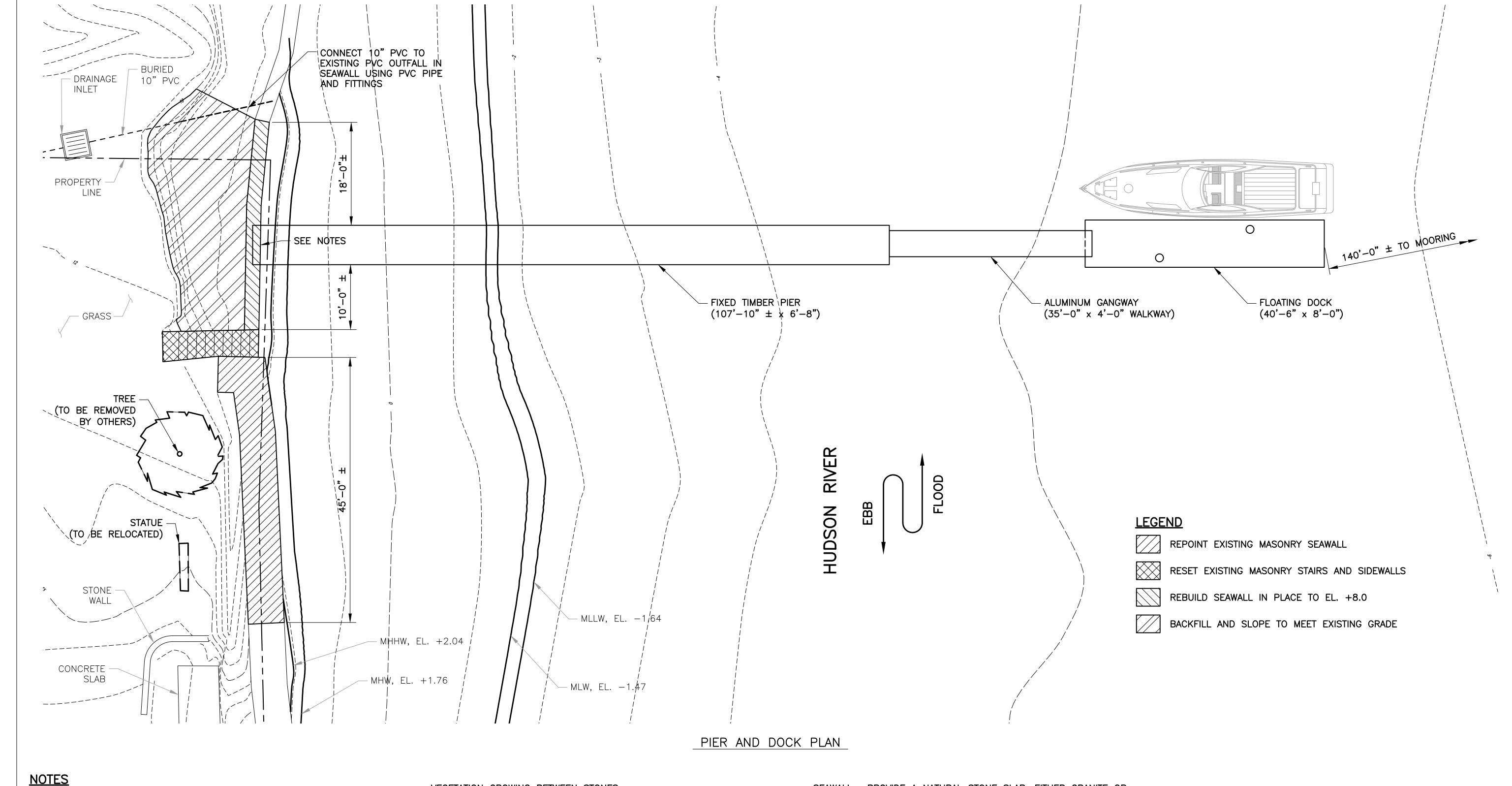
PROJECT	LOCATION

JECT	LOCATION	
	517 NORTH BROADWAY UPPER NYACK, NY	

PROPOSED PLAN

DRAWING TITLE

DRAWING	NO. 1 <b>R</b> —	<b>O</b> '
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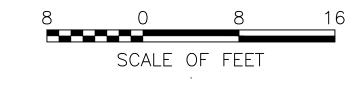
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- 3. PRIOR TO REPOINTING SEAWALL, REMOVE OR KILL EXISTING

VEGETATION GROWING BETWEEN STONES.

- 3. USE CEMENTITIOUS MASONRY GROUT FOR REPOINTING THE SEAWALL.
- 4. WHEN RESETTING OR REBUILDING THE SEAWALL IN PLACE, SET STONES USING CEMENTITIOUS MASONRY GROUT.
- 6. GRADUALLY TAPER TOP OF SEAWALL REBUILT IN PLACE TO MEET TOP OF ADJACENT SEAWALL TO REMAIN.
- 7. SUPPORT THE END OF THE TIMBER PIER IN A POCKET IN THE

SEAWALL. PROVIDE A NATURAL STONE SLAB, EITHER GRANITE OR SLATE, AS A BEARING SEAT FOR THE ENDS OF THE TIMBER STRINGERS. SET THE STONE SLAB TO PROVIDE FULL BEARING AT THE ENDS OF THE STRINGER.

DRAWING TITLE





NO.	DATE	REVISION	BY	PREPARED BY
				BUCKMAN
				BUOKAAN ENGINEEDING BUO
				BUCKMAN ENGINEERING, PLLC 255 DEAN STREET

DRAWN BY CHECKED BY

BROOKLYN, NY 11217

MADE BY B. BUCKMAN B. BUCKMAN B. BUCKMAN PROJECT NO. 19051

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RAZ TIROSH	

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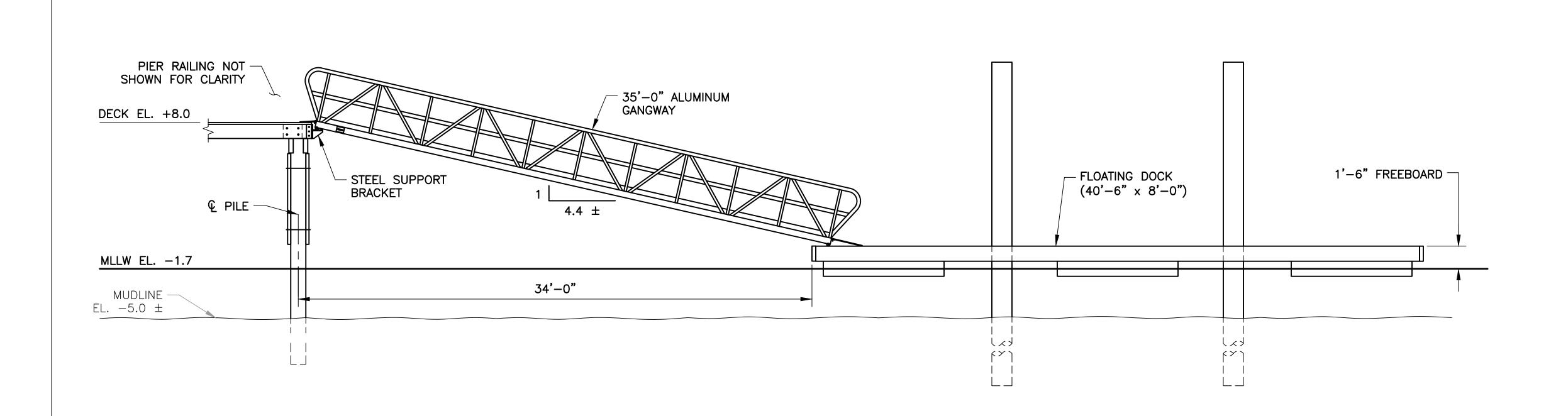
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TITLE OF PROJECT	
SEAWALL REHABILITATION	AN[
DOCK INSTALLATION	

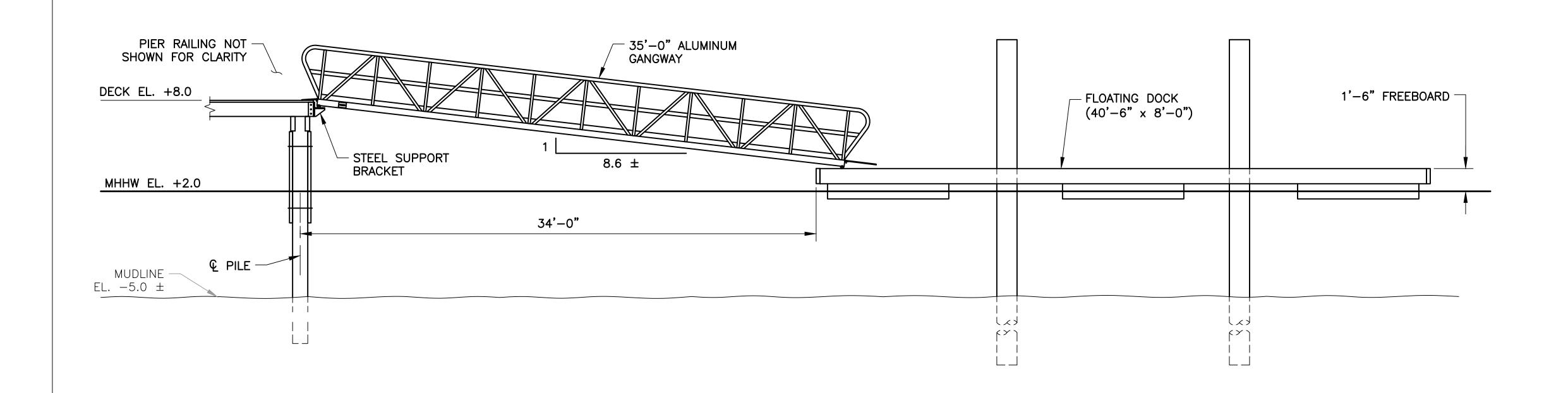
PROJECT	LOCATION			
	517	NORTH	BROA	DWAY
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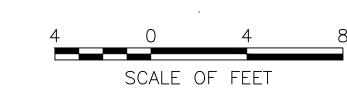
PIER AND DOCK PLAN

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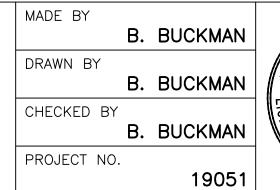


#### TYPICAL PIER FRAMING PLAN





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RAZ TIROSH
517 NORTH BROADWAY
UPPER NYACK, NY 10960

PREPARED FOR

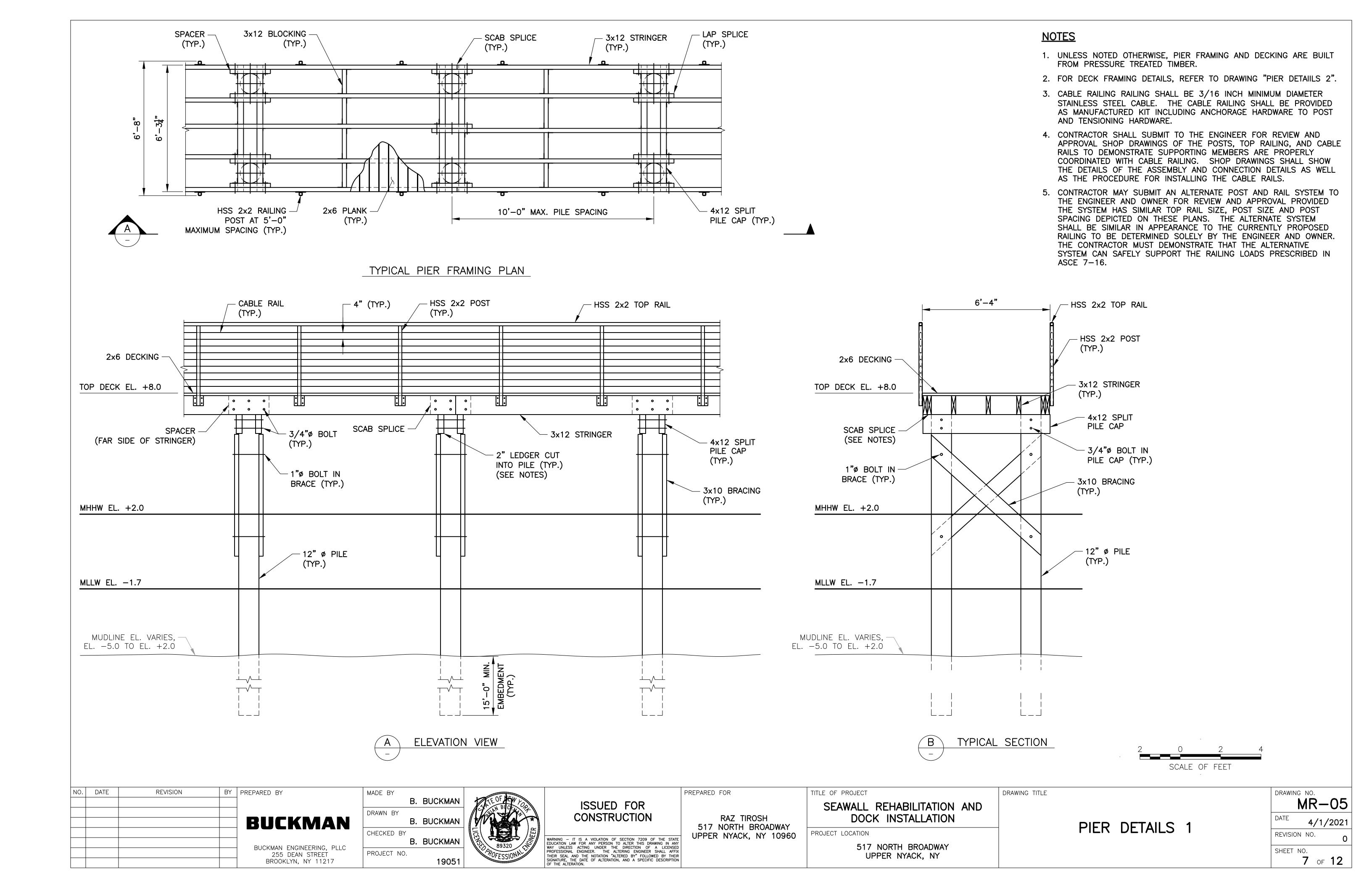
TITLE OF PROJECT SEAWALL REHABILITATION AND DOCK INSTALLATION PROJECT LOCATION

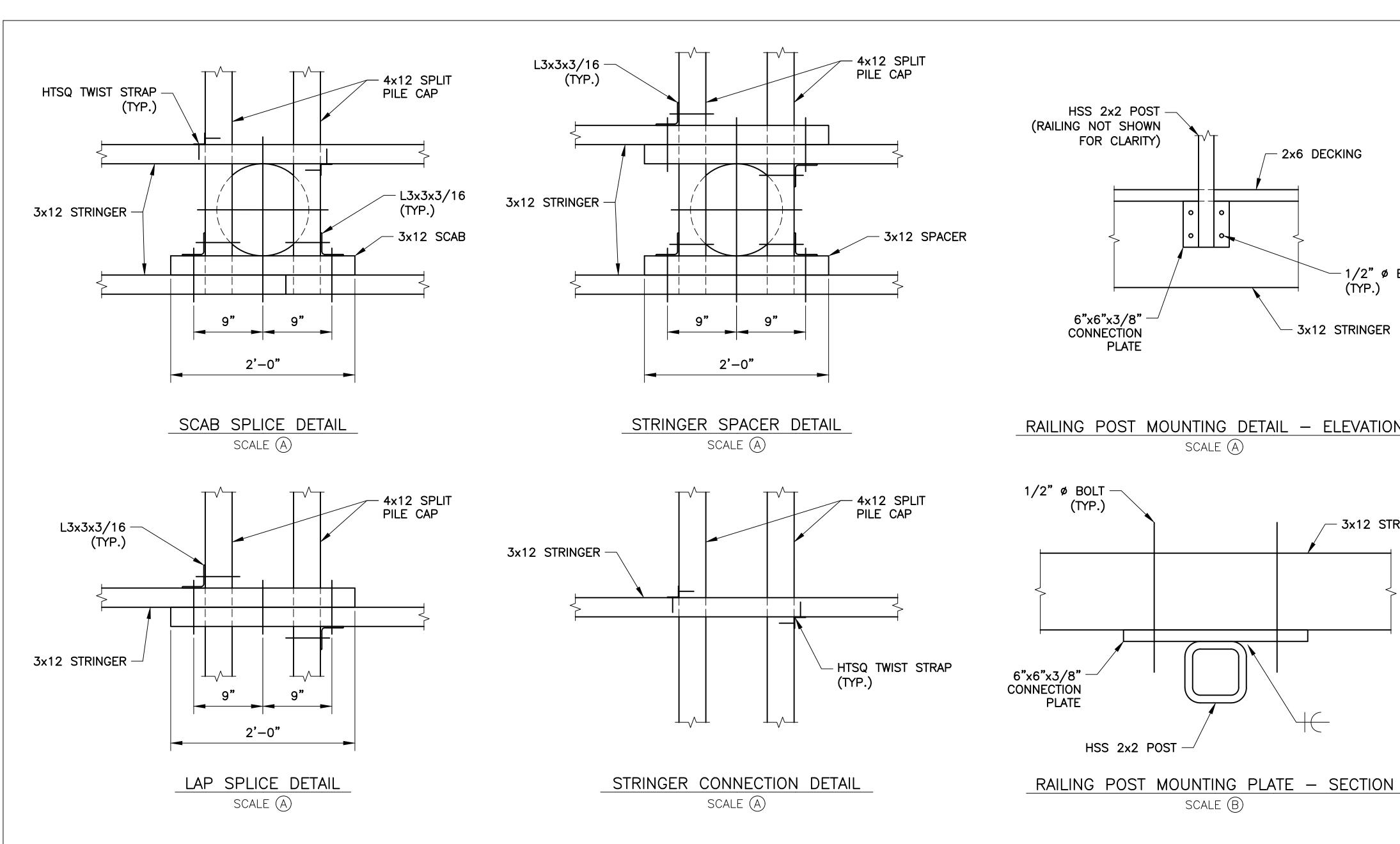
517 NORTH BROADWAY UPPER NYACK, NY

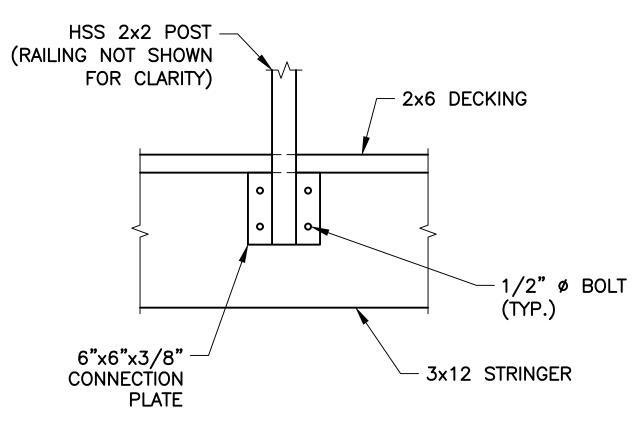
PIER AND	DOCK	<b>ELEVATIONS</b>
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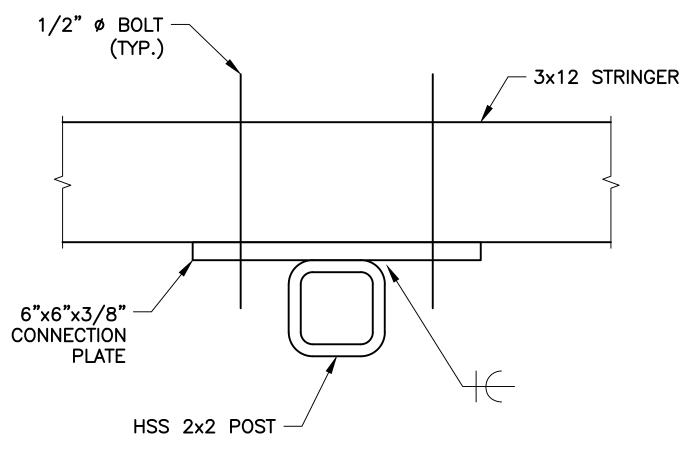
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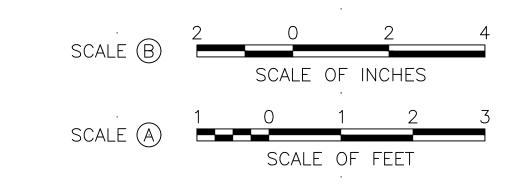
#### RAILING POST MOUNTING DETAIL - ELEVATION SCALE (A)



SCALE B

**NOTES** 

- 1. FOR TYPICAL PIER FRAMING PLAN, REFER TO DRAWING "PIER DETAILS 1".
- 2. HTSQ TWIST STRAP SHALL BE SIMPSON STRONG-TIE MODEL NUMBER HTSQ16ZKT ATTACHED PER USING 8 - 1/4" x 1 1/2" STAINLESS STEEL STEEL SDS SCREWS.
- 3. L3x3x3/16 CONNECTION ANGLE SHALL CONFORM TO ASTM A36 AND SHALL BE HOT-DIP GALVANIZED PER ASTM A123. FASTEN USING TWO 3/4" BOLTS INTO BOTH THE STRINGER AND SPLIT CAP BEAM. PROVIDE STANDARD WASHER BETWEEN BOLT HEAD AND ANGLE. PROVIDE OVERSIZE PLATE WASHER OR OGEE WASHER BETWEEN NUT AND TIMBER BEAM. BOLTS, NUTS, AND WASHERS SHALL BE HOT-DIP GALVANIZED PER ASTM A153.
- 4. HSLQ HIGH SHEAR TRANSFER ANGLE SHALL BE SIMPSON STRONG-TIE MODEL NUMBER HSLQ37 ATTACHED USING 10 -1/4" x 2" STAINLESS STEEL SDS SCREWS.



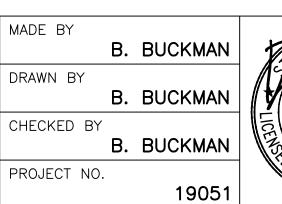
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				BUCKMAN
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				BUCKMAN ENGINEERING, PLLC 255 DEAN STREET
				BROOKLYN, NY 11217

BLOCKING CONNECTION DETAIL

SCALE (A)

3x12 STRINGER

3x12 BLOCKING



- HSLQ SHEAR TRANSFER

ANGLE (TYP.)

3 - 12d NAILS

1/4" MAX. GAP

(3 1/4" LONG) AT EQUAL SPACING

DECK FASTENING DETAIL

SCALE (A)

### ISSUED FOR CONSTRUCTION

- 2x6 PLANK

(TYP.)

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#### RAZ TIROSH 517 NORTH BROADWAY UPPER NYACK, NY 10960

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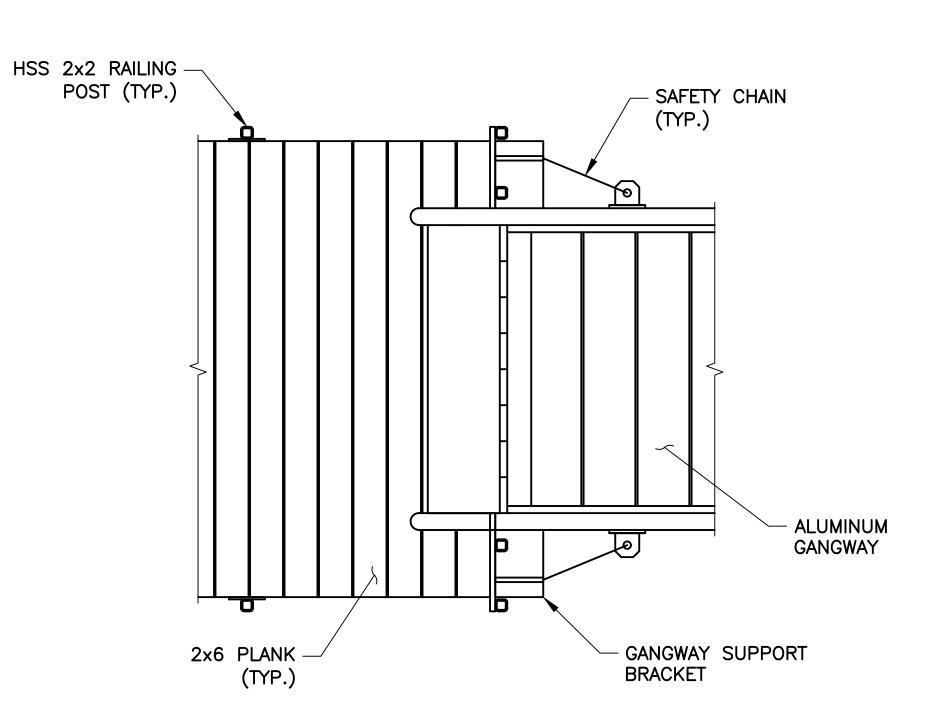
TITLE OF PROJECT SEAWALL REHABILITATION AND DOCK INSTALLATION

PROJECT LOCATION 517 NORTH BROADWAY UPPER NYACK, NY

PIER DETAILS 2

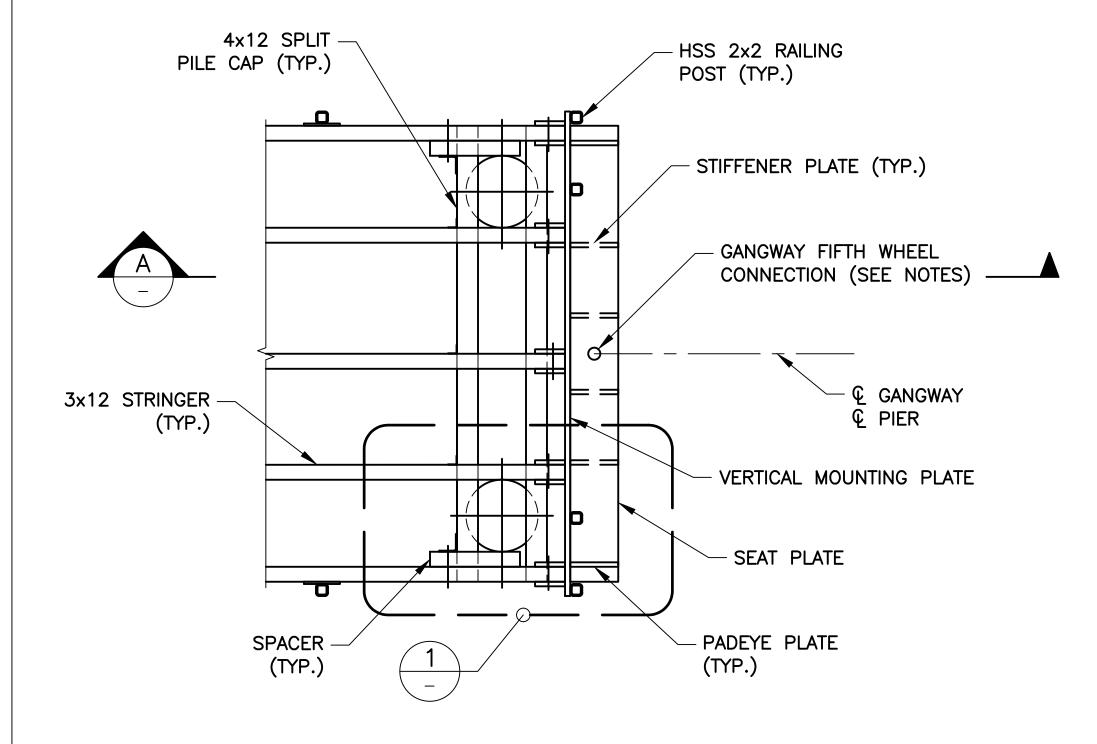
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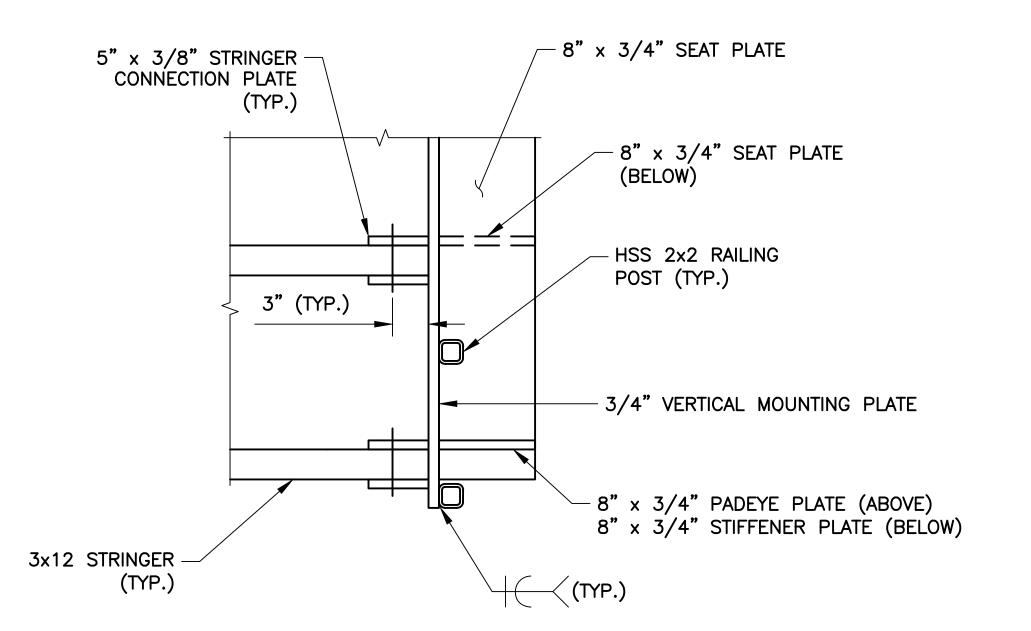
PIER PLAN AT GANGWAY BRACKET

SCALE (A)

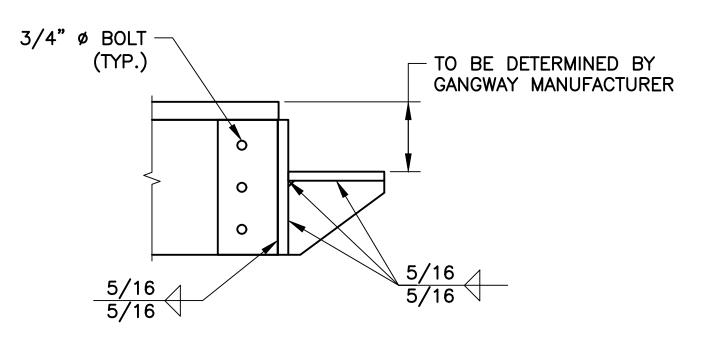


PIER FRAMING AT GANGWAY BRACKET

SCALE (A)









PREPARED FOR

SCALE (B)	12	6	0		12
JUALL (b)		SCALE	OF IN	CHES	
SCALE (A)	1	0	1	2	3
		SCAL	E OF F	EET	

<u>NOTES</u>

1. CONTRACTOR SHALL PROVIDE TO THE ENGINEER FOR REVIEW AND

WITH NECESSARY MODIFICATIONS INDICATED BY THE GANGWAY

2. THE GANGWAY SUPPORT BRACKET SHOP DRAWINGS SHALL ALSO

3. THE GANGWAY SUPPORT BRACKET AND ITS CONNECTION HARDWARE

AND HEIGHT OF SEAT PLATE BELOW TOP OF DECK.

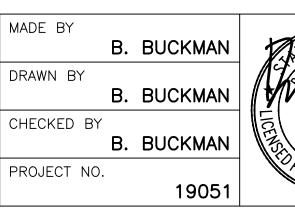
SHOW THE CONNECTIONS FOR THE RAILING POST.

SHALL BE HOT-DIP GALVANIZED.

APPROVAL SHOP DRAWINGS OF THE GANGWAY SUPPORT BRACKET

MANUFACTURE TO ACCOMMODATE THEIR SYSTEM INCLUDING, BUT NOT LIMITED TO, FIFTH WHEEL CONNECTION, SAFETY CHAIN CONNECTION,

NO.	DATE	REVISION	BY	PREPARED BY
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				BUCKMAN ENGINEERING, PLLC
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				BROOKLYN NY 11217



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RAZ TIROSH 517 NORTH BROADWAY UPPER NYACK, NY 10960 SEAWALL REHABILITATION AND DOCK INSTALLATION

PROJECT LOCATION

517 NORTH BROADWAY
UPPER NYACK, NY

DRAWING TITLE

PIER DETAILS 3

DRAWING NO.

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DATE

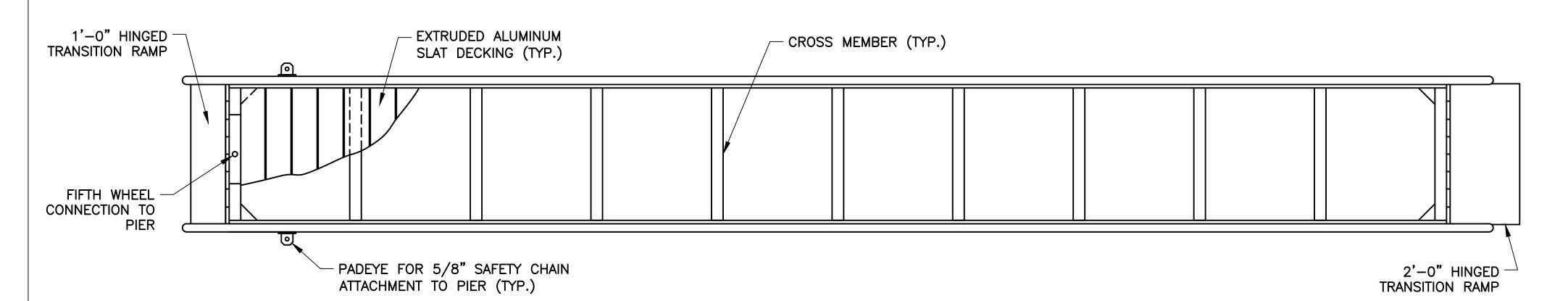
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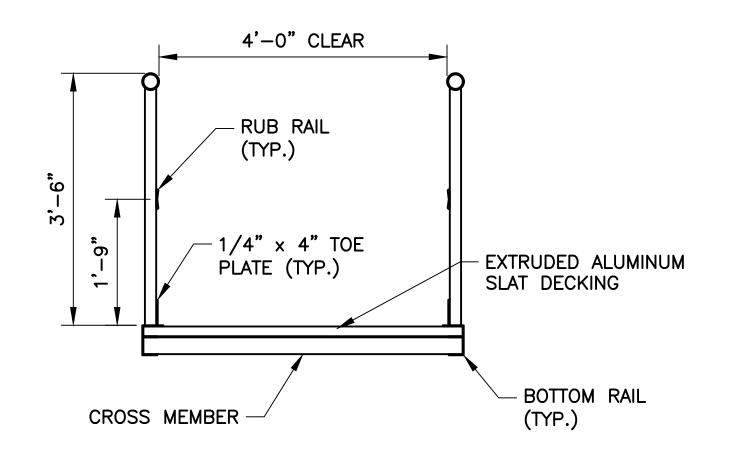
SHEET NO. 9 OF 12

# 1'-0" HINGED TRANSITION RAMP UHMW ROLLER BEARING (TYP.) 35'-0"

#### GANGWAY ELEVATION



#### GANGWAY PLAN



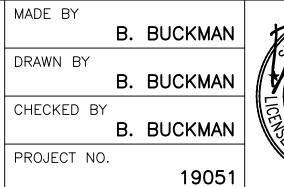
#### GANGWAY TYPICAL SECTION

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F			BUCKMAN
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			BUCKMAN ENGINEERING, PLLC
			255 DEAN STREET
			BROOKLYN, NY 11217

REVISION

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PREPARED FOR

RAZ TIROSH 517 NORTH BROADWAY UPPER NYACK, NY 10960

## SEAWALL REHABILITATION AND DOCK INSTALLATION

PROJECT LOCATION

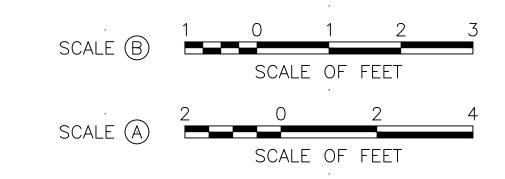
OJECT LOCATION

517 NORTH BROADWAY

UPPER NYACK, NY

#### **GANGWAY NOTES**

- 1. THE WORK COVERED UNDER THIS SECTION SHALL CONSIST OF MANUFACTURING AND SUPPLYING OF A PREFABRICATED ALUMINUM GANGWAY AS SHOWN IN THE PLANS. ALL MATERIALS SHALL BE MANUFACTURED OR DISTRIBUTED BY RAVENS MARINE OR APPROVED EQUAL.
- 2. THE GANGWAY SHALL BE DESIGNED WITH MINIMUM SAFETY FACTORS ON WORKING STRESS WHICH CONFORM TO THOSE SET FORTH IN THE LATEST ISSUE OF THE ALUMINUM ASSOCIATION "SPECIFICATIONS FOR ALUMINUM STRUCTURES" FOR BUILDINGS AND SIMILAR TYPE STRUCTURES. TO ENSURE SPECIFIED CRITERIA HAVE BEEN MET, THE CONTRACTOR SHALL SUBMIT THE FOLLOWING:
  - A. SHOP DRAWINGS SHOWING DIMENSIONAL LAYOUT OF THE GANGWAY.
  - B. SHOP DRAWINGS SHOWING CONNECTION DETAILS INCLUDING, BUT NOT LIMITED TO, ROLLER BEARINGS, FIFTH WHEEL CONNECTION, RAILINGS, TRANSITION RAMPS, AND PLANKS.
  - C. ENGINEERING CALCULATIONS SHOWING COMPLIANCE WITH THE DESIGN CRITERIA SPECIFIED HEREIN. CALCULATIONS MUST BE SIGNED AND SEALED BY AN ENGINEER LICENSED TO PRACTICE IN THE STATE OF NEW YORK.
- 3. ALUMINUM EXTRUSIONS FOR GANGWAY STRUCTURES SHALL BE ALUMINUM ALLOY 6061—T6 EXTRUDED IN ACCORDANCE WITH THE REQUIREMENTS OF FEDERAL SPECIFICATION QQ—A—200.
- 4. STAINLESS STEEL BOLTS, NUTS, WASHERS, AND SCREWS SHALL BE TYPE 304.
- 5. ROLLER BEARINGS SHALL BE UHMW POLYURETHANE WITH BLACK ULTRAVIOLET LIGHT INHIBITOR ADDED.
- 6. EXTRUDED RIBBED DECKING SHALL BE DESIGNED TO WITHSTAND A COMBINED DEAD LOAD AND LIVE LOAD OF 100 POUNDS PER SQUARE FOOT PER INDIVIDUAL SLAT WITH AN ALLOWABLE DEFLECTION OF L/180 WHERE "L" IS THE SPAN OF THE DECKING.
- 7. HANDRAILS SHALL BE DESIGNED TO WITHSTAND A CONCENTRATED LOAD OF 200 POUNDS OR A LINEAR LOAD OF 50 POUNDS PER LINEAR FOOT, WHICHEVER PRODUCES MAXIMUM EFFECT. INTERMEDIATE RAILS SHALL BE DESIGNED FOR A CONCENTRATED LOAD OF 50 POUNDS. THE RAILS SHALL BE DESIGNED TO WITHSTAND THE LOADS ACTING IN ANY DIRECTION.
- 8. GANGWAYS SHALL BE DESIGNED TO WITHSTAND A UNIFORM LIVE LOAD OF 50 POUNDS PER SQUARE FOOT APPLIED VERTICALLY. ALLOWABLE DEFLECTION SHALL BE A MAXIMUM OF L/180 WHERE "L" IS THE LENGTH OF THE GANGWAY.
- 9. DECKING SHALL BE EXTRUDED ALUMINUM SLATS TO PROVIDE A NON-SKID SURFACE AND SHALL NOT EXCEED 9 INCHES IN WIDTH AND NOT MORE THAN 3/8 INCH AIR SPACE BETWEEN THE SLATS. THE LEGS OF EACH SLAT SHALL BE WELDED TO THE SIDE MEMBERS WITH A MINIMUM OF 1-1/4 INCHES OF WELD PER LEG. DECKING SLATS SHALL BE PLACED TRANSVERSELY ON THE GANGWAY.
- 10. HINGED TRANSITION PLATES SHALL HAVE A NON-SKID SURFACE MADE OF DIAMOND PLATE, RIBBED PLATE, SLIP-NOT COATING, OR APPROVED EQUAL.
- 11. HINGE MOUNT EXTRUSIONS SHALL BE WELDED TO THE FRAME OF THE DOCK WITH A CONTINUOUS FILLET WELD UNLESS OTHERWISE SHOWN ON THE PLANS.
- 12. ANY POTENTIALLY CORROSIVE INSTALLATION OF DISSIMILAR METALS SHALL BE PROPERLY INSULATED TO MINIMIZE OR ELIMINATE CORROSION IN A MARINE ENVIRONMENT.
- 13. GANGWAYS SHALL BE SECURELY FASTENED TO THE DOCK.
  MANUFACTURER SHALL DESIGN THE FIFTH WHEEL CONNECTION AND
  INDICATE ANY MODIFICATIONS TO THE STEEL SUPPORT BRACKET
  NECESSARY TO ACCOMMODATE THE GANGWAY CONNECTION.



PIER DETAILS 2

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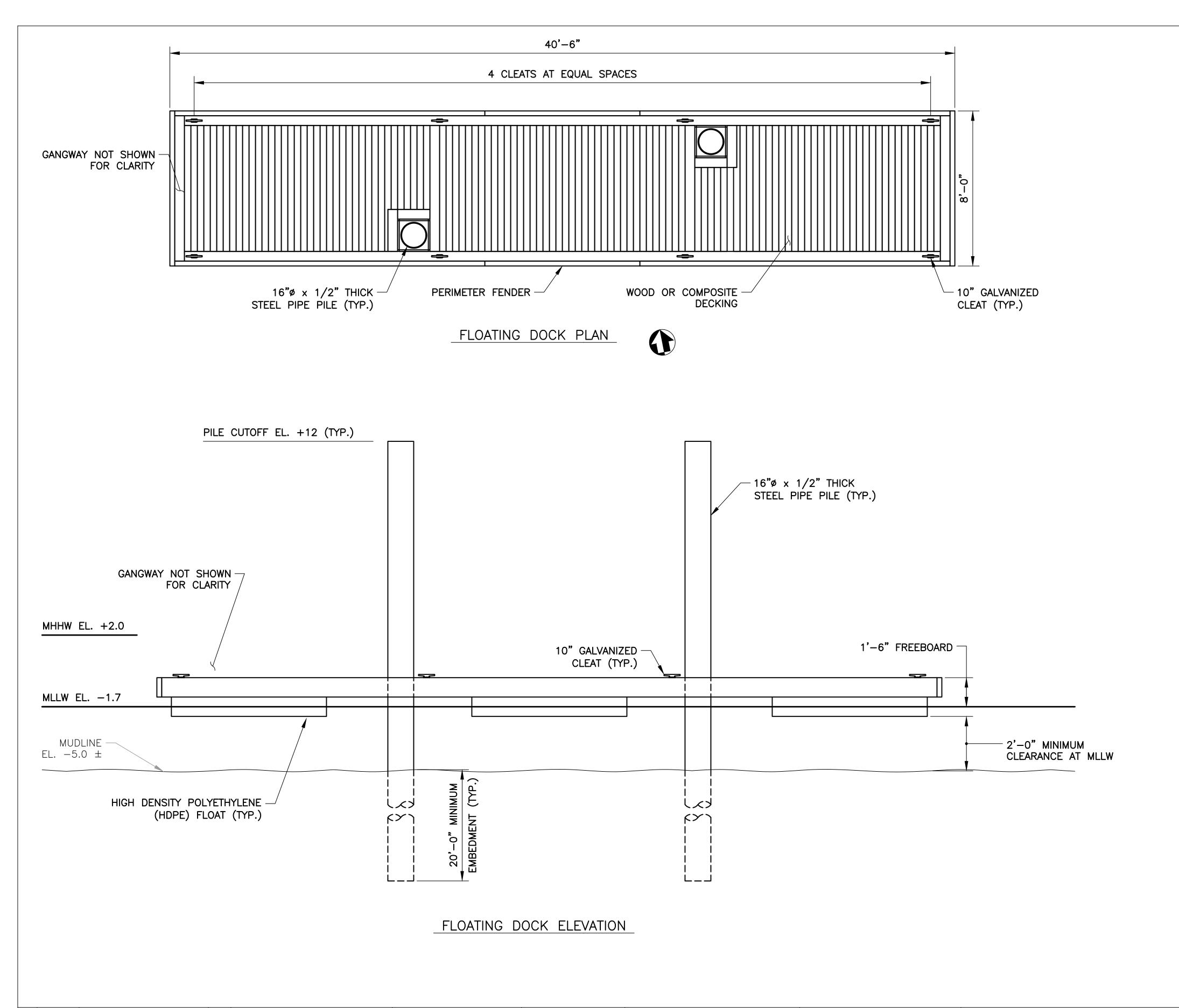
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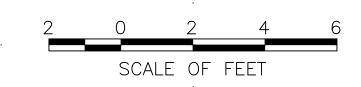
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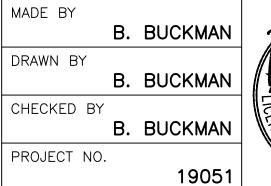


#### FLOATING DOCK NOTES

- 1. THE WORK COVERED UNDER THIS SECTION SHALL CONSIST OF MANUFACTURING AND SUPPLYING OF A FLOATING DOCK SYSTEM AS SHOWN IN THE PLANS.
- 2. THE FLOATING DOCK SYSTEM SHALL BE COMPLETELY PREFABRICATED BY THE CONTRACTOR IN THEIR PLANT AND DELIVERED READY FOR ASSEMBLY AT THE SITE.
- 3. THE GANGWAY SHALL BE DESIGNED WITH LOADS AND MINIMUM SAFETY FACTORS ON WORKING STRESS WHICH CONFORM TO THOSE SET FORTH IN THE LATEST ISSUE OF ASCE MANUALS AND REPORTS ON ENGINEERING PRACTICE NO. 50 PLANNING AND GUIDELINES FOR SMALL CRAFT HARBORS. TO ENSURE SPECIFIED CRITERIA HAVE BEEN MET, THE CONTRACTOR SHALL SUBMIT THE FOLLOWING:
- A. SHOP DRAWINGS SHOWING DIMENSIONAL LAYOUT OF THE FLOATING DOCK.
- B. SHOP DRAWINGS SHOWING CONNECTION DETAILS INCLUDING, BUT NOT LIMITED TO, MOORING HARDWARE, FENDERING, DECKING, INTERNAL PILE WELLS, AND PILE GUIDES.
- C. ENGINEERING CALCULATIONS SHOWING COMPLIANCE WITH THE DESIGN CRITERIA SPECIFIED HEREIN. CALCULATIONS MUST BE SIGNED AND SEALED BY AN ENGINEER LICENSED TO PRACTICE IN THE STATE OF NEW YORK.
- 3. LIVE LOAD FOR THE FLOATING DOCK SHALL BE 50 POUNDS PER SQUARE FOOT ACTING ON THE DOCK AND THE GANGWAY. DEAD LOAD FOR THE FLOATING DOCK SHALL INCLUDE ALL DOCK COMPONENTS PLUS THE REACTION FROM THE GANGWAY.
- 4. THE FLOATING DOCK SHALL BE CONNECTED AND DESIGNED SO AS TO SAFELY WITHSTAND A MINIMUM WIND PRESSURE OF 20 POUNDS PER SQUARE FOOT AGAINST THE AVERAGE PROFILE OF THE BERTHED VESSELS AND EXPOSED PORTIONS OF THE FLOATING DOCK SYSTEM SUPERIMPOSED WITH A 1.0 FOOT WAVE HEIGHT WITH WAVE PERIODS LESS THAN 2 SECONDS. DOCK DESIGN SHALL BE VERIFIED TO BE ADEQUATE TO RESIST LOADS PRODUCED BY THE 100—YEAR STORM EVENT WITH NO VESSELS BERTHED.
- 5. THE FLOTATION UNITS SHALL BE DESIGNED TO MAINTAIN THEIR DESIRED BUOYANCY AND FREEBOARD EVEN IF STRUCTURALLY DAMAGED. CONNECTIONS OF THE FLOTATION SYSTEM WILL BE SO DESIGNED THAT THE SYSTEM WILL EFFECTIVELY ACT AS A SINGLE UNIT. A RIGID SYSTEM IS REQUIRED WHICH WILL NEITHER RACK NOR TWIST IN TORSION UNDER EXTREME DESIGN CONDITIONS.
- 6. THE CONTRACTOR SHALL DEMONSTRATE BY IN WATER—TESTS OR WRITTEN CALCULATIONS THAT THE SYSTEM WILL NOT TILT, LIST, OR PITCH MORE THAN SIX DEGREES FROM HORIZONTAL WHEN A CONCENTRATED LOAD OF 500 POUNDS IS PLACED ANYWHERE ON THE DECK.
- 7. MOORING CLEATS SHALL BE GALVANIZED CAST STEEL, THRU BOLTED INTO THE DOCK STRUCTURE.
- 8. ALL BOLTS, NUTS, AND WASHERS SHALL BE STAINLESS STEEL OR HOT-DIP GALVANIZED.
- 9. ANY POTENTIALLY CORROSIVE INSTALLATION OF DISSIMILAR MATERIALS SHALL BE PROPERLY INSULATED TO MINIMIZE OR ELIMINATE CORROSION IN A MARINE ENVIRONMENT.
- 10. PROVIDE FENDERING ALL AROUND THE PERIMETER OF THE FLOATING DOCK TO PROTECT BOTH THE BOATS AND DOCKS.



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				BROOKLYN, NY 11217	



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#### RAZ TIROSH 517 NORTH BROADW

PREPARED FOR

517 NORTH BROADWAY UPPER NYACK, NY 10960

## SEAWALL REHABILITATION AND DOCK INSTALLATION

PROJECT LOCATION

TITLE OF PROJECT

517 NORTH BROADWAY UPPER NYACK, NY DRAWING TITLE

FLOATING DOCK DETAILS

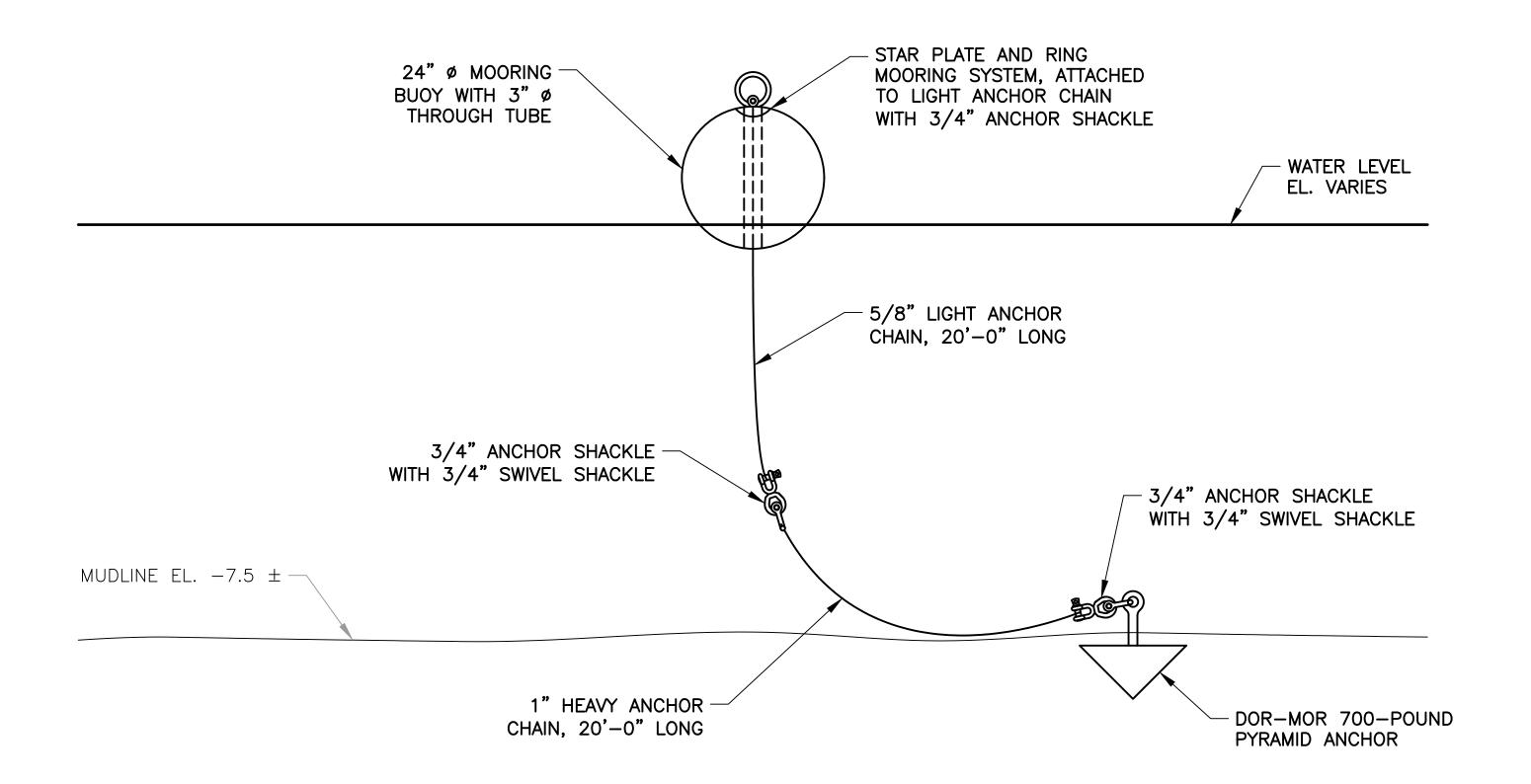
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DATE 4/1/2021

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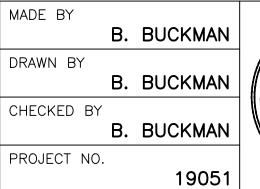
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MOORING DETAIL

NO SCALE

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#### PREPARED FOR

RAZ TIROSH 517 NORTH BROADWAY UPPER NYACK, NY 10960

## SEAWALL REHABILITATION AND

DOCK INSTALLATION
PROJECT LOCATION

517 NORTH BROADWAY

UPPER NYACK, NY

#### DRAWING TITLE

MOORING NOTES

A SCOPE OF 3:1.

APPROVED EQUAL.

GALVANIZED.

BETTER, HOT-DIP GALVANIZED.

SHACKLES, HOT-DIP GALVANIZED.

1. ANCHOR SHALL BE DOR-MOR PYRAMID ANCHOR OR APPROVED EQUAL.

2. LIGHT AND HEAVY ANCHOR CHAIN SHALL BE SCHEDULE 30 CHAIN OR

3. ANCHOR SHACKLES AND SWIVEL SHACKLES SHALL BE SCREW-TYPE

DIAMETER THROUGH HOLE FITTED WITH A PVC TUBE. THE BUOY SHALL HAVE A SEAMLESS, ONE-PIECE POLYETHYLENE SHELL WITH

ULTRAVIOLET LIGHT INHIBITORS. THE CORE SHALL BE CLOSED CELL

5. STAR PLATE AND MOORING RING SHALL CONFORM TO MODEL NUMBER 4400 AS MANUFACTURED BY JIM BUOY OR APPROVED EQUAL. RING

THE STAR PLATE SHALL BE CONCAVE TO FIT THE TOP OF THE MOORING BUOY. RING AND STAR PLATE SHALL BE HOT-DIP

FOAM PROVIDING A BUOYANCY OF AT LEAST 200 POUNDS. MOORING

BUOY SHALL BE MODEL 4403-T AS MANUFACTURED BY JIM BUOY OR

SHALL HAVE 6 INCH DIAMETER AND BE 3/4 INCH THICK. THE STAR

PLATE SHALL BE 1/4 INCH THICK AND 6 INCHES IN OUTER DIAMETER.

4. MOORING BUOY SHALL BE 24 INCH DIAMETER WITH A 3 INCH

ANCHOR SHALL HAVE A HOLDING POWER OF 10 TIMES ITS WEIGHT AT

MOORING DETAILS

PEVISION

MR-10

DATE 4/1/2021

REVISION NO. 0

DRAWING NO.

SHEET NO. **12** OF **12**