



Oliver Stedman Government Center
4808 Tower Hill Road; Suite 116
Wakefield, RI 02879
401-783-3370

PUBLIC RE-NOTICE

File Number: 2019-03-024

Date: July 2, 2019

This office has under consideration the application of:

**The Town of South Kingstown
180 High Street
Wakefield, RI 02879**

for a State of Rhode Island Assent to construct and maintain:

A 350' long steel sheetpile seawall with concrete cap and riprap toe protection to be constructed within the Town's right-of-way along Matunuck Beach Road. The purpose of the proposed seawall is to protect Matunuck Beach Road and associated Town infrastructure from shoreline erosion. The project represents Phase 2 of the Town's infrastructure project for this section of Matunuck Beach Road whereby Phase 1 consisted of 200' long segment of similar seawall construction immediately to the east which was permitted by the CRMC in July 2012 and completed during the summer of 2018. As with phase 1, the project requires a special exception from 650-RICR-20-00-1.3.1(G)(3)(a) for the construction of structural shoreline protection bordering Type 1 waters (see § 1.2.1(B)(2)(c) of this Subchapter). The project further requires a setback variance where the proposed seawall is located inland of the coastal feature but designed to function as structural shoreline protection within the applicable setback. The Town has requested a special exception and a variance for the proposed project.

Project Location:	Matunuck Beach Road
City/Town:	South Kingstown
Plat/Lot:	Plat 92-2 / (lot not applicable – in roadway right-of-way)
Waterway:	Atlantic Ocean

Plans of the proposed work may be seen at the CRMC office in Wakefield.

In accordance with the Administrative Procedures Act (Chapter 42-35 of the Rhode Island General Laws) you may request a hearing on this matter.

You are advised that if you have good reason to enter protests against the proposed work it is your privilege to do so. It is expected that objectors will review the application and plans thoroughly, visit site of proposed work if necessary, to familiarize themselves with the conditions and cite what law or laws, if any, would in their opinion be violated by the work proposed.

If you desire to protest, you must attend the scheduled hearing and give sworn testimony. A notice of the time and place of such hearing will be furnished you as soon as possible after receipt of your request for hearing. If you desire to request a hearing, to receive consideration, it should be in writing **(with your correct mailing address, e-mail address and valid contact number)** and be received at this office on or before August 2, 2019.



1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

SCALE IN FEET

St. Jean Engineering, LLC	MATUNUCK BEACH ROAD SOUTH KINGSTOWN, RHODE ISLAND USGS Map Section: Kingston, RI Quadrangle 2001	DATE JUNE 14, 2019
Civil and Structural Engineering 209 Arnold Neck Drive, Warwick, RI 02886 Tel: (401)398-0999 st.jean.engineering@verizon.net	LOCATION: MATUNUCK BEACH ROAD SOUTH KINGSTOWN, RI 02879	APPLICATION BY: TOWN OF SOUTH KINGSTOWN 180 HIGH STREET SOUTH KINGSTOWN, RI 02879
	SHEET OF 2 14	No. 4997 REGISTERED PROFESSIONAL ENGINEER

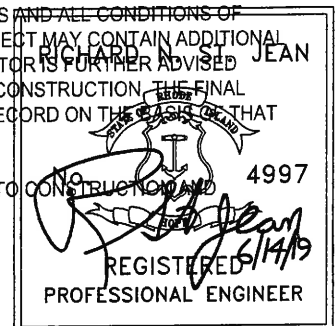
DESCRIPTION OF WORK

THE WORK COVERED UNDER THESE CONTRACT DOCUMENTS, INCLUDING THE DRAWINGS, GENERAL NOTES, AND SPECIFICATIONS AND ALL AMENDMENTS, CONSISTS OF PROVIDING ALL PLANT, LABOR, SUPERVISION, EQUIPMENT, APPLIANCES AND MATERIALS AND IN PERFORMING ALL OPERATIONS IN CONNECTION WITH THE CONSTRUCTION OF A SHORELINE PROTECTION SYSTEM COMPRISED OF A SHEETPILE BULKHEAD STRUCTURE AND STONE TOE PROTECTION.

THE CONTRACTOR SHALL PROVIDE ALL ITEMS AND ACCESSORIES REQUIRED TO COMPLETE ALL ASPECTS OF THE WORK NEEDED FOR A COMPLETE AND PROPER INSTALLATION, ALL IN STRICT ACCORDANCE WITH THE CONTRACT DOCUMENTS.

GENERAL NOTES:

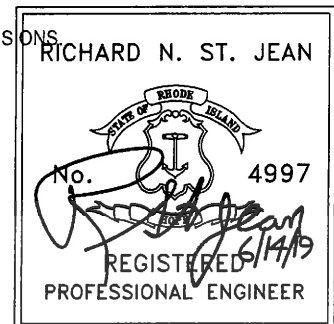
1. FOR PROPERTY LINES SHOWN REFER TO PLAN ENTITLED "LOCATION PLAN, LOTS 1, 2, 3, 4, 5, 6, 7, 8 ASSESSOR'S MAP 92-3", SHEET 1 OF 2, DATED JULY 2011, PREPARED BY PINCH LAND SURVEYING.
2. LANDSIDE TOPOGRAPHY AND EXISTING CONDITIONS PLAN INFORMATION WAS DEVELOPED FROM A FIELD SURVEY PERFORMED DURING NOVEMBER OF 2017 BY NATIONAL LAND SURVEYORS AND DEVELOPERS. IT SHALL BE NOTED THAT THE TOPOGRAPHY SEAWARD OF THE PROPOSED ROADWAY PROTECTION HAS CHANGED DUE TO EROSION, ESPECIALLY ON LOTS 1 & 2, SINCE THE SURVEY.
3. HYDROGRAPHIC INFORMATION SHOWN IS DEVELOPED FROM A PLAN ENTITLED "DIGITAL SIDESCAN SONAR MOSAIC: MATUNUCK - GREEN HILL SHOREFACE, RHODE ISLAND", DATED SEPTEMBER 30, 2006, PREPARED BY JOHN C. BOOTHROYD, ET AL, AND BATHYMETRIC INFORMATION PROVIDED BY SOUTH KINGSTOWN'S GIS INFORMATION DEPARTMENT. THIS SHALL BE CONSIDERED APPROXIMATE AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR AS REQUIRED PRIOR TO ANY CONSTRUCTION.
4. SOUNDINGS AND UPLAND TOPOGRAPHY ARE REFERENCED TO NAVD88. BENCHMARKS ARE INDICATED ON THE PINCH LAND SURVEYING PLAN, SHEET 1 OF 2.
5. THIS PLAN WAS PRODUCED FOR PURPOSES OF DESIGN, PLANNING AND THE CONSTRUCTION OF A NEW SHORELINE PROTECTION SYSTEM ALONG A DEFINED LENGTH OF MATUNUCK BEACH ROAD. USE OF THIS PLAN FOR ANY OTHER WORK IS AT THE SOLE RISK OF THE END USER.
6. ANY UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO VERIFY THE LOCATION OF ALL UTILITIES, GRADES, AND DIMENSIONS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY DIG SAFE AND LOCAL UTILITIES TO VERIFY THE EXACT LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO START OF ANY CONSTRUCTION. REPORT TO THE ENGINEER ALL OBSERVATIONS AND DISCREPANCIES BEFORE PROCEEDING WITH ANY WORK.
7. ALL WORK SHALL CONFORM TO THE RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2010 EDITION WITH THE LATEST APPROVED COMPILATIONS, AND THE REQUIREMENTS AND CONDITIONS OF ALL REGULATORY PERMITS ISSUED FOR THE WORK. THE CONTRACTOR SHALL BRING ANY DISCREPANCIES BETWEEN THE NOTES ON THE DRAWINGS AND THE RIDOT SPECIFICATIONS TO THE ATTENTION OF THE ENGINEER. CONFLICTING REQUIREMENTS SHALL GENERALLY DEFER TO THE RIDOT SPECIFICATIONS UNLESS SPECIFICALLY INSTRUCTED BY THE ENGINEER OF RECORD. APPLICABLE SECTIONS OF THE RIDOT STANDARD SPECIFICATIONS INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
 - a. EARTHWORK: PART 200, SECTIONS 202 AND 203, AND PART 300, SECTIONS 301, 302 AND 303.
 - b. CONCRETE FORMWORK: PART 800, SECTION 808
 - c. CONSTRUCTION AND EXPANSION JOINTS: PART 800, SECTION 808
 - d. CAST-IN-PLACE CONCRETE: PART 600, SECTION 601 AND PART 800, SECTION 808.
 - e. STEEL SHEET PILE WALL: PART 800 SECTION 805.
8. THESE DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE PROJECT REGULATORY PERMITS AND ALL CONDITIONS OF THOSE PERMITS. THE CONTRACTOR IS ADVISED THAT THE REGULATORY PERMITS FOR THIS PROJECT MAY CONTAIN ADDITIONAL REQUIREMENTS THAT, AFTER ANY ADDENDUM, SUPERSEDE THE DRAWING NOTES. THE CONTRACTOR IS FURTHER ADVISED THAT IN THE CASE OF ANY DISCREPANCIES WITHIN THE CONTRACT DOCUMENTS FOUND BEFORE CONSTRUCTION, THE FINAL DECISION AS TO WHAT INFORMATION TAKES PRECEDENCE WILL BE MADE BY THE ENGINEER OF RECORD ON THE BASIS OF THAT INTENT.
9. ALL EXISTING CONDITIONS AND DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND FABRICATION OR ORDERING OF ANY CONSTRUCTION MATERIALS.



St. Jean Engineering, LLC Civil and Structural Engineering 209 Arnold Neck Drive, Warwick, RI 02886 Tel: (401)398-0999 st.jean.engineering@verizon.net	MATUNUCK BEACH ROAD SOUTH KINGSTOWN, RHODE ISLAND GENERAL NOTES 1 of 6 LOCATION: MATUNUCK BEACH ROAD SOUTH KINGSTOWN, RI 02879 APPLICATION BY: TOWN OF SOUTH KINGSTOWN 180 HIGH STREET SOUTH KINGSTOWN, RI 02879	DATE JUNE 14, 2019 SHEET 4 OF 14
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GENERAL NOTES CONTINUED:

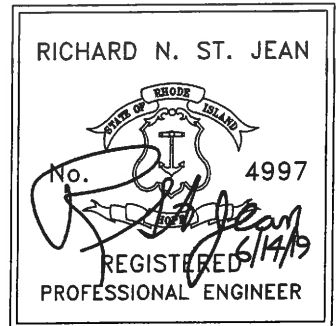
10. ALL SECTIONS AND DETAILS APPLY TO SAME AND SIMILAR CONDITIONS UNLESS SPECIFICALLY NOTED OTHERWISE HEREIN.
11. DAMAGE TO ANY PROPERTY, PRIVATE OR OF PUBLIC TRUST, OCCURRING DURING THE CONSTRUCTION BY THE CONTRACTOR, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AT THE EXPENSE OF THE CONTRACTOR. THE CONTRACTOR SHALL CONDUCT A PRE AND POST CONSTRUCTION SURVEY OF ADJACENT STRUCTURES (REFER TO REQUIREMENTS OUTLINED IN SPECIFICATION 02413 - STEEL SHEET PILE INSTALLATION), TO THE SATISFACTION OF THE TOWN OF SOUTH KINGSTOWN PRIOR TO DRIVING ANY SHEET PILING.
12. THE CONTRACTOR SHALL SAFEGUARD AND PROTECT ALL EXCAVATIONS.
13. THE CONTRACTOR SHALL USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK.
14. THE CONTRACTOR SHALL PROTECT ANY FOUNDATIONS AND STRUCTURES THAT ARE SLATED TO REMAIN AFTER COMPLETION OF THE PROJECT.
15. THE CONTRACTOR SHALL USE EQUIPMENT ADEQUATE IN SIZE, CAPACITY, AND NUMBERS, AND PROPERLY MAINTAINED WITH REGARD TO THE SAFETY OF OPERATOR, OTHER WORKMEN, AND GENERAL PUBLIC.
16. THE CONTRACTOR SHALL PROTECT ALL WETLANDS AND COASTAL RESOURCES FROM INTRUSION BY TURBID WATERS, CONSTRUCTION DEBRIS, CONSTRUCTION EQUIPMENT, OR PERSONNEL DURING ALL WORK ACTIVITIES.
17. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL NECESSARY PERMITS, LICENSES, CERTIFICATES OF INSPECTION, AND PAY ALL LEGAL FEES IN CONNECTION WITH THE WORK OF THIS CONTRACT. THE OWNER HAS OBTAINED NECESSARY REGULATORY PERMITS REQUIRED FOR THE WORK IN REGULATED AREAS. THE CONTRACTOR SHALL REQUEST COPIES OF THOSE REGULATORY PERMITS AND MAKE PROVISION IN THIS WORK AND IN THE COST OF THE WORK FOR ALL APPLICABLE CONDITIONS OF THOSE PERMITS. FAILURE TO CONSIDER ANY CONDITION OF THE REGULATORY PERMITS AS A PART OF THE BID SHALL NOT RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITY TO APPLY THOSE CONDITIONS TO HIS WORK AT NO ADDITIONAL COST TO THE OWNER.
18. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PROTECT FROM DAMAGE ALL UTILITIES, UTILITY STRUCTURES, FUEL LINES & TANKS OR ANY UNKNOWN UTILITIES OR STRUCTURES PRIOR TO ANY WORK.
19. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RESTORE ALL LANDSCAPING, INCLUDING BUT NOT LIMITED TO LAWN, TREES, PLANTINGS, FENCES, ETC. DAMAGED BY THE CONTRACTOR DURING THE COURSE OF THE PROJECT.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT & POSITIONING OF ALL PROPOSED STRUCTURES AS SHOWN ON THE PROJECT DRAWINGS.
21. CONTRACTOR SHALL REMOVE EXCESS MATERIALS AND DISPOSE OFFSITE.
22. CONTRACTOR SHALL NOT STORE ANY MATERIALS BELOW MHW ELEVATION.
23. PROTECT OPEN EXCAVATIONS AND STOCKPILED SOIL FROM EROSION.
24. THE JOBSITE SHALL BE SECURED WITH A TEMPORARY FENCE AT ALL TIMES. PROVISIONS SHALL BE MADE TO SECURE THE WORK AREA AND PROTECT THE PUBLIC FROM HARMS WAY DURING THE COURSE OF THE WORK AND DURING PERIODS WHEN THE CONTRACTORS EMPLOYEES ARE NOT ON SITE (WEEKENDS, HOLIDAYS, SHUT DOWNS, ETC.).
25. ALL TRAFFIC CONTROL SHALL CONFORM TO THE LATEST EDITION OF THE MUTCD WITH ALL REVISIONS.



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	LOCATION: MATUNUCK BEACH ROAD SOUTH KINGSTOWN, RI 02879	APPLICATION BY: TOWN OF SOUTH KINGSTOWN 180 HIGH STREET SOUTH KINGSTOWN, RI 02879	SHEET OF 5 14

REFERENCE PLANS/DOCUMENTS:

1. LOCATION PLAN, LOTS 1, 2, 3, 4, 5, 6, 7, 8 ASSESSOR'S PLAN 92-3, SHEET 1 OF 2, DATED: JULY 2011
PREPARED BY: PINCH LAND SURVEYING - MARKING: STAMPED
2. EXISTING TOPOGRAPHY, LOTS 1, 2, 3, 4, 5, 6, 7, 8 ASSESSOR'S PLAN 92-3, SHEET 1 OF 2
DATED: JULY 2011
PREPARED BY: PINCH LAND SURVEYING - MARKING: STAMPED
3. DIGITAL SIDESCAN SONAR MOSAIC: MATUNUCK - GREEN HILL SHOREFACE, RHODE ISLAND
DATED: SEPTEMBER 30, 2006
PREPARED BY: JOHN C. BOOTHROYD, ET AL
4. SOUTH KINGSTOWN GIS INFORMATION DEPARTMENT: LATEST BATHYMETRIC INFORMATION AVAILABLE FROM TOWN.
5. FEMA FLOOD INSURANCE STUDY, WASHINGTON COUNTY, RI, DATED OCTOBER 19, 2010.
6. CRMC ASSENT 2011-09-005



STEEL SHEET PILE COATING

1. THE UPPER 20 FT OF BOTH THE FRONT AND BACK SURFACES OF THE STEEL SHEETS FURNISHED AND ERECTED SHALL BE SHOP PRIMED WITH CARBOGUARD 888 OR APPROVED EQUAL AND COATED WITH BITUMASTIC 300 M COAL TAR EPOXY AS MANUFACTURED BY CARBOLINE. COATING SYSTEM SHALL BE BLACK IN COLOR.
2. ALL SURFACES SHALL BE CLEANED, AT A MINIMUM, TO STEEL STRUCTURES PAINTING COUNCIL SURFACE PREPARATION SPECIFICATIONS SSPC-SP3 PRIOR TO THE APPLICATION OF THE COATING SYSTEM. ALL WORK CLEANED IN ONE DAY MUST BE COATED ON THAT DAY AS SOON AS POSSIBLE AFTER BLASTING. THE EPOXY SHALL BE APPLIED WHEN THE SURFACE AND AIR TEMPERATURES ARE AT LEAST 50 DEGREES FAHRENHEIT. ALL SURFACES TO BE COATED SHALL BE COMPLETELY DRY, FREE OF MOISTURE, SOIL, DUST, SALT, AND GRIT AT THE TIME OF COATING.
3. THE COATING SHALL BE APPLIED WITH BRUSH OR SPRAY IN AT LEAST TWO COATS TO A MINIMUM DRY FILM THICKNESS OF 16 MILS. EACH COAT SHALL BE COMPLETELY CURED BEFORE SUCCEEDING COATS ARE APPLIED AS PER MANUFACTURER'S INSTRUCTIONS. PREPARATION AND APPLICATION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND IN THE PRESENCE OF AN OWNER'S REPRESENTATIVE. COATED SURFACES, EXCEPT FOR SPLICED AREAS, SHALL NOT BE IMMERSSED FOR AT LEAST 14 DAYS AFTER THE APPLICATION OF THE COATING. AFTER DRIVING, ABRADED AND OTHERWISE DAMAGED AREAS OF COATING ABOVE LOW WATER SHALL BE GENEROUSLY COATED WITH THE MATERIAL SPECIFIED BELOW FOR THIS PURPOSE.
4. THE REPAIRING OF DAMAGED OR ABRADED SURFACES, INCLUDING COATING AREAS REMOVED FROM WELDING, OF THE COAL TAR EPOXY COATING SHALL BE DONE WITH THE COAL TAR EPOXY MATERIAL OF THE SAME TYPE USED FOR THE INITIAL APPLICATION; OR OTHER MATERIAL RECOMMENDED FOR THIS PURPOSE BY THE MANUFACTURER OF THE COATING MATERIALS AND APPROVED BY THE OWNER. REPAIR COATINGS SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS AND DIRECTIONS.
5. THE COATING SHALL BE READILY APPLIED WITHOUT THINNING. IF THINNING IS DESIRED BY THE CONTRACTOR, ADDITIONAL COATS MAY BE REQUIRED TO ACHIEVE THE SPECIFIED FILM THICKNESS. THINNING SHALL NOT BE DONE WITHOUT THE PRIOR APPROVAL OF THE OWNER.
6. SATISFACTORY PERFORMANCE WILL BE THE BASIS OF ACCEPTANCE OF THE COMPLETED WORK BY THE OWNER. ACCEPTANCE OF THE COMPLETED WORK SHALL BE BASED UPON VISUAL INSPECTION BY THE OWNERS' REPRESENTATIVE FOR PINHOLES, FILM CONTINUITY, AND QUALITY OF APPLICATION. DETECTION OF INADEQUATELY COATED AREAS WILL BE INDICATED BY THE OWNER BY CIRCLING THESE AREAS IN CHALK. THESE AREAS SHALL BE REPAIRED BY THE CONTRACTOR. AT HIS OWN EXPENSE.
7. THE FINISHED COATING SHALL GENERALLY BE SMOOTH AND SEMI-GLOSS. SAGS, DIMPLING, OR CURTAINING SHALL BE CAUSE FOR REJECTION.
8. THE CONTRACTOR SHALL SUBMIT A CERTIFIED STATEMENT BY THE RESPONSIBLE COATING SUPPLIER THAT THE WORK WAS DONE IN CONFORMANCE WITH THESE SPECIFICATIONS.

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TOE PROTECTION CONSTRUCTION NOTES:

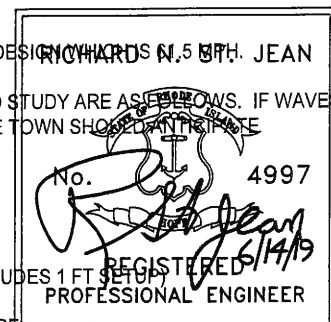
1. THE TOE PROTECTION SHALL BE COMPRISED OF AN ARMOR LAYER WITH GEOTEXTILE FABRIC REQUIRED AS SPECIFIED.
2. ARMOR STONES SHALL BE PLACED IN AT LEAST A TWO LAYER THICKNESS.
3. ALL STONES USED IN THE CONSTRUCTION OF THE TOE PROTECTION SHALL BE HARD, DURABLE, AND CLEAN, WITHOUT CRACKS, CLEAVAGES OR LAMINATIONS. THEY SHOULD BE CHEMICALLY STABLE IN FRESH OR SALT WATER AND SHOULD NOT WEATHER DUE TO TEMPERATURE CHANGES OR WET/DRY CYCLES.
4. ARMOR STONES GEOMETRY SHALL BE SUCH THAT THE SMALLEST DIMENSION SHOULD NOT BE LESS THAN ONE-THIRD OF THE LARGEST DIMENSION.
5. THE SIZE OF THE ARMOR STONES SHALL BE A MAXIMUM OF 1.25 W (W = 11 TONS WHICH IS THE AVERAGE WEIGHT SPECIFIED) AND A MINIMUM OF 0.75 W. APPROXIMATELY 75 PERCENT OF THE STONES SHALL BE EQUAL TO, OR LARGER THAN, W.
6. ARMOR UNITS IN THE COVER LAYER SHALL BE PLACED IN AN ORDERLY MANNER TO OBTAIN GOOD WEDGING OR INTERLOCKING ACTION BETWEEN INDIVIDUAL UNITS.
7. THREE LAYERS OF GEOTEXTILE FABRIC ARE REQUIRED AGAINST ALL SOIL INTERFACE AND ALONG THE FACE OF THE SHEET PILE WALL. THIS SHALL BE COMPRISE OF 2 LAYERS OF MIRAFI 140N OR EQUIVALENT PLACED ON THE SOIL WITH A LAYER OF MIRAFI 600X OR EQUIVALENT PLACED ABOVE. THE 140N IS REQUIRED TO ACT AS A FILTER TO STOP THE MIGRATION OF FINE SOIL INTO/THROUGH THE REVETMENT STONE. THE 600X IS REQUIRED TO PROTECT THE 140N FROM BEING DAMAGED BY THE LARGE STONES AND CONSTRUCTION ACTIVITY. ADDITIONAL LAYERS OF GEOTEXTILE FABRIC SHALL BE REQUIRED IF IT IS DETERMINED THAT THE 3 LAYER FABRIC SYSTEM IS BEING DAMAGED DURING CONSTRUCTION.
8. TEMPORARY SHEETING OR OTHER TYPE OF SOE SYSTEM IS REQUIRED ADJACENT TO THE OCEAN MIST BUILDING AND OUTWARD OF THE TOE AND AT THE WEST END TO ALLOW SATISFACTORY PLACEMENT OF THE SOE PROTECTION SYSTEM STONE AND TO PROTECT THE ADJACENT STRUCTURES. THE CONTRACTOR SHALL SUBMIT THE PROPOSED SOE SYSTEM DESIGN AND DETAILS TO THE ENGINEER FOR REVIEW. THIS SHALL INCLUDE A PLAN TO MONITOR THE OCEAN MIST BUILDING DURING ANY SHEET PILE INSTALLATION. IF IT IS DETERMINED THAT THE INSTALLATION IS CAUSING UNACCEPTABLE MOVEMENT AND VIBRATION OR DAMAGE TO THE BUILDING THE CONTRACTOR SHALL REVISE HIS OPERATIONS ACCORDINGLY. THE MAXIMUM ALLOWABLE PEAK PARTICLE VELOCITY (PPV) AT THE OCEAN MIST BUILDING IS 0.50 INCHES/SEC. THIS LIMIT ALSO APPLIES DURING INSTALLATION OF THE PERMANENT SHEETS.
9. SETTLEMENT MONITORING POINTS SHALL BE ESTABLISHED AT THE FOUNDATIONS ADJACENT TO THE SHEET PILE INSTALLATION ALONG THE WEST SIDE OF THE OCEAN MIST BUILDING. THESE SHALL BE MONITORED THROUGHOUT SHEET PILE INSTALLATION WORK. IF MOVEMENT IS NOTED THE CONTRACTOR SHALL STOP WORK AND REVISE OPERATIONS ACCORDINGLY. ANY DAMAGE CAUSED SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.

DESIGN CRITERIA:

1. ALL DIMENSIONS ARE IN DECIMAL FEET UNLESS OTHERWISE NOTED. ELEVATIONS ARE REFERENCED TO NAVD88.
2. SEISMIC LOAD - NONE
3. LIVE LOAD SHEETPILE - THE WALL HAS BEEN DESIGNED FOR UNIFORMLY DISTRIBUTED LIVE LOAD BEHIND THE WALL OF 250 POUNDS PER SQUARE FOOT. THIS IS CONSIDERED NORMAL CONDITIONS WITH THE TOE PROTECTION IN PLACE AS DESIGNED AND INDICATED HEREIN. IF THE TOE PROTECTION IS DAMAGED BY A STORM AND SCOUR IS REALIZED THE WALL IS CONSIDERED STABLE AND CAN RESIST A UNIFORMLY DISTRIBUTED LIVE LOAD OF 100 PSF; THIS ASSUMES A MAXIMUM SCOUR DEPTH TO 3 FT BELOW THE MLW ELEVATION; THE WALL WILL DEFLECT ABOUT 6" AT THE TOP UNDER THIS LOAD SCENARIO BUT IT WILL REMAIN STABLE WITH A SATISFACTORY FACTOR OF SAFETY. THE TOE PROTECTION, IF DAMAGED, SHALL BE REPAIRED AS SOON AS POSSIBLE TO ENSURE WALL STABILITY.
4. TIDAL RANGE - 3.01 FEET
5. WIND - 3 SEC GUST WIND SPEED = 120 MPH. USE 8 HOUR DURATION WIND FOR WAVE GENERATION DESIGN.
6. WAVES - THE STORM SURGE AND WAVE HEIGHT DATA OBTAINED FROM THE AVAILABLE FEMA FLOOD STUDY ARE AS SHOWN. IF WAVES ARE IN EXCESS OF THE FOLLOWING DAMAGE MAY OCCUR TO THE WALL AND TOE PROTECTION. THE TOWN SHOULD ANTICIPATE MAINTENANCE WILL BE REQUIRED THOUGHOUT THE LIFE OF THE SYSTEM.

100 YR SIGNIFICANT WAVE HEIGHT TOE PROTECTION (Hs):	9.2 FT (BREAKING WAVE)
100 YR SIGNIFICANT WAVE HEIGHT TOE PROTECTION (H10):	11.6 FT (BREAKING WAVE)
100 YR STORM STILLWATER HEIGHT (1%):	11.3 FT NGVD88; 13.03 FT MLW
100 YR DESIGN WAVE CREST EL BULKHEAD:	8.8 FT NGVD88; 20.53 FT MLW (INCLUDES 1 FT SETUP)

7. TEMPERATURE RANGE = 60 DEGREES FAHRENHEIT ABOVE AND BELOW MEAN AMBIENT TEMPERATURE



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FIELD WELD 1/2" X 5" WELDED
HEADED STUDS 18" O.C. VERTICAL

#4 TIES @ 12"

#6 @ 12" EW/EF

MIN
TYP

STEEL SHEET PILE

PLAN VIEW

SCALE: $\frac{3}{4}" = 1'-0"$

MATCH PATTERN ON EXPOSED FACE
OF EXISTING WALL

FINAL GRADE AT WALL

CONCRETE CAP OF PROPOSED SHEET PILE WALL

SCALE: $\frac{1}{2}" = 1'-0"$

BOTTOM OF CONCRETE

RICHARD N. ST. JEAN



No. 4997

REGISTERED 6/14/19

PROFESSIONAL ENGINEER

ISSUED FOR PERMITTING

MATUNUCK BEACH ROAD - SOUTH KINGSTOWN, RHODE ISLAND
SHOULDER PROTECTION

St. Jean
Engineering, LLC

Civil and Structural Engineering
209 Arnold Neck Drive, Warwick, RI 02886
Tel: (401) 396-0999 stjeanengineering@verizon.net

LOCATION:
MATUNUCK BEACH ROAD
SOUTH KINGSTOWN, RI 02879

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180 HIGH STREET
SOUTH KINGSTOWN, RI 02879

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SHEET

OF

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