PUBLIC NOTICE

REQUEST FOR PERMISSION TO ALTER A U.S. ARMY CORPS OF ENGINEERS PROJECT UNDER SECTION 408

TITLE: Borough of Ocean Gate – Construction of a Wave Energy Dissipation Dune System at the Ocean Gate Shoreline Protection Federal Project on the Toms River in the Borough of Ocean Gate, Ocean County, New Jersey

PUBLIC NOTICE IDENTIFICATION NUMBER: NAP-2018-00820-46

PUBLIC NOTICE COMMENT PERIOD:

Begins: **03 September 2021**

Expires: **03 October 2021**

Interested parties are hereby notified that an application has been received for a Department of the Army Section 408 permission for certain work at or near a federal project of the United States, as described below and shown on attached figures. Written comments are being solicited from anyone having an interest in the requested alteration. Comments will become part of the U.S. Army Corps of Engineers' (USACE's) administrative record and will be considered in determining whether to approve the request. Comments supporting, opposing, or identifying concerns that should be considered by the USACE in its decision process are all welcome.

This public notice is not a paid advertisement and is for public information only. Issuance of this notice does not imply USACE endorsement of the project as described.

1. REQUESTER: In compliance with 33 USC 408 (Section 14 of the Rivers and Harbors Act of 1899; hereinafter Section 408), the Borough of Ocean Gate has requested permission to construct a wave energy dissipation dune system at the Ocean Gate Shoreline Protection Federal Project on the Toms River in the Borough of Ocean Gate, Ocean County, New Jersey. The Ocean Gate Shoreline Protection Federal Project was constructed in 2002 under Section 14 of the Flood Control Act of 1946 Continuing Authorities Program.

2. LOCATION: The proposed project is located at the southern shoreline of the Toms River, along West Riviera Avenue and East Riviera Avenue in the Borough of Ocean Gate, Ocean County, New Jersey; between approximate coordinates: 39.929820, -74.142383 and 39.928680, -74.124282.

3. LOCATION MAP(S)/DRAWING(S): Please see attached Project Plans 1 through 9.

4. REQUESTER'S PROPOSED ACTION: Construction of a wave energy dissipation dune system at the Ocean Gate Shoreline Protection Federal Project via installation of articulated

concrete matting, restoration of vegetation, removal of existing timber and concrete breakwater revetment, and the relocation of the existing concrete revetment to stabilize the proposed dunes. Also proposed is the extension of an existing 18-inch diameter reinforced concrete outfall pipe through the proposed dunes. Public access is proposed on the existing boardwalk at twelve locations: east of Ocean Gate Avenue, Asbury Avenue, East Chelsea Avenue, Wildwood Avenue, East Longport Avenue, west of Stone Harbor Avenue, Stone Harbor Avenue, Monmouth Avenue, west of Anglesea Avenue, Anglesea Avenue, Newport Avenue and Narragansette Avenue.

Beach replenishment and dune creation is proposed to occur along the entire length of the existing boardwalk along West Rivera Avenue and East Rivera Avenue. Once the material has been placed, concrete articulated block will be installed and topped a minimum of 3.0-inches of sand. Native plantings are also proposed to be installed in these areas.

The stated purpose of the project is to dissipate high velocity waves from the Toms River and to control beach erosion.

5. REGULATORY AUTHORITY: This request will be reviewed according to the provisions of Section 14 of the Rivers and Harbors Act of 1899 (33 U.S.C. 408). A requestor has the responsibility to acquire all other permissions or authorizations required by federal, state, and local laws or regulations, including any required permits from the USACE Regulatory Program under Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403), Section 404 of the Clean Water Act (33 USC Section 1344) and/or Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 USC 1413). Any Section 10/404/103 permit decision associated with the proposed alteration is separate from and will not be included in the Section 408 permission decision. An approval under Section 408 does not grant any property rights or exclusive privileges nor does it authorize any injury to the property or rights of others.

6. ENVIRONMENTAL COMPLIANCE: A decision on a Section 408 request is a federal action, and therefore subject to the National Environmental Policy Act (NEPA) and other environmental compliance requirements. While ensuring compliance is the responsibility of USACE, the requester is providing all information that the Philadelphia District identifies as necessary to satisfy all applicable federal laws, executive orders, regulations, policies, and ordinances. Based on information provided by the applicant to date, current Corps regulations governing NEPA implementation, and/or the contents of existing NEPA documentation if available, it is likely that the proposed action will be determined to be categorically excluded from the need to prepare an Environmental Assessment (EA) or Environmental Impact Statement (EIS). This determination will be finalized following completion of agency coordination and prior to issuance of the Section 408 Permission Decision.

7. EVALUATION: As part of its evaluation, USACE will first make a determination that the submittal from the requestor is complete. The Philadelphia District is working closely with the requestor to ensure that all required technical plans, maps, drawings, and specifications are provided and are complete. Once the package is complete, a District-led review will be conducted to determine, in accordance with Engineering Circular (EC) 1165-2-216, whether

the proposed alteration will impair the usefulness of the USACE Project or be injurious to the public interest, as follows:

A. *Impair the Usefulness of the Project Determination*. The Philadelphia District's Section 408 review team will determine if the proposed alteration will limit the ability of the federally authorized project to function as authorized, or will compromise or change any authorized project conditions, purposes or outputs.

B. *Injurious to the Public Interest Determination*. Proposed alterations will be reviewed to determine the probable impacts, including cumulative impacts, on the public interest. Evaluation of the probable impacts that the proposed alteration to the USACE project may have on the public interest requires a careful weighing of all those factors that are relevant in each particular case. Factors that may be relevant to the public interest depend upon the type of USACE project being altered and may include, but are not limited to, such things as conservation, economic development, historic properties, cultural resources, environmental impacts, water supply, water quality, flood hazards, floodplains, residual risk, induced damages, navigation, shore erosion or accretion, and recreation. The decision whether to approve an alteration will be determined by the consideration of whether benefits are commensurate with risks. If the potential detriments are found to outweigh the potential benefits, then it may be determined that the proposed alteration is injurious to the public interest.

8**. SOLICITATION OF COMMENTS:** The USACE is soliciting comments from the public; federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of the proposed activity. Any comments received will be considered by USACE to determine whether to issue, modify, condition, or deny a permission for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and other public interest factors listed above. Comments are considered in making a final determination whether the proposed action will be categorically excluded from the need to prepare further NEPA documentation. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

A. It should be noted that materials submitted as part of the Section 408 request become part of the public record and are thus available to the general public under the procedures of the Freedom of Information Act (FOIA). Individuals may submit a written request to the Philadelphia District Corps of Engineers, Office of Counsel to obtain copies of said materials under the FOIA.

B. It is presumed that all parties viewing this notice will wish to respond to this public notice; therefore, a lack of response will be interpreted as meaning that there is no objection to the project as described.

9. **COMMENT SUBMISSION AND ADDITIONAL INFORMATION:** Written comments on the described work should reference the USACE Public Notice Identification Number found on the first page of this notice. Comments must reach this office no later than the stated expiration date of the Public Notice to become part of the record and be considered in the

decision. Comments or requests for additional information should be mailed or emailed to the following address:

Email: JuanCarlos.Corona@usace.army.mil
Mailing Address:
U.S. Army Corps of Engineers
Philadelphia District
ATTN: Juan Carlos Corona
7th Floor
100 Penn Square East
Philadelphia, PA 19107-3390

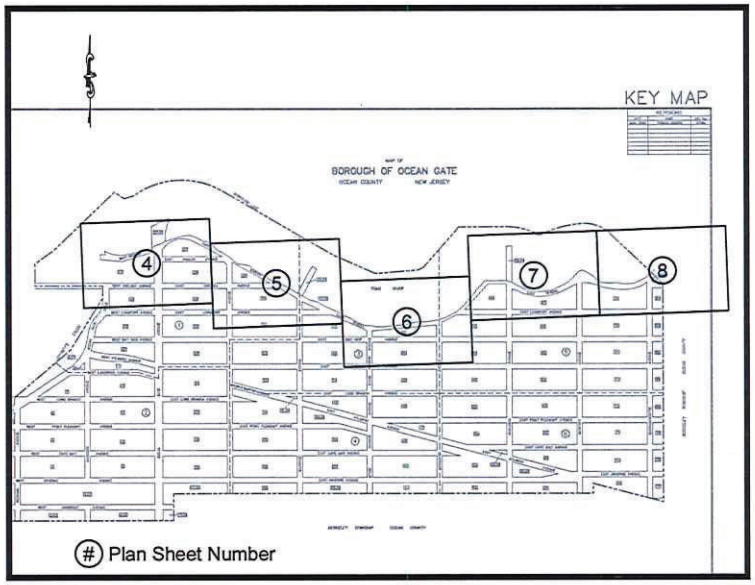
CONTRACT DRAWINGS FOR THE

BOROUGH OF OCEAN GATE

H.M.G.P. WAVE ENERGY DISSIPATION AND FLOOD MITIGATION

OCEAN COUNTY · NEW JERSEY

BOROUGH OF OCEAN GATE
MAYOR PAUL J. KENNEDY
COUNCIL PRESIDENT DAVE KENDRICK
COUNCIL MEMBERS JOELLA NICASTRO JOHN SERPICA MARK HAUG ALEX MARTINEZ LAURA PADHAM-IARIA
CLERK ILEANA VAZQUEZ-GALLIPOLI



PROJECT LOCATION MAP

N.T.S.

(PORTION OF KEYMAP SHEET OF THE BOROUGH OF OCEAN GATE TAX MAPS)

SHEET INDEX	
SHEET #	DESCRIPTION
1	TITLE SHEET
2	NOTES AND CALCULATIONS
3	STANDARD LEGEND
4 - 8	PROPOSED IMPROVEMENT PLANS
9	CONSTRUCTION DETAILS

GENERAL NOTES:

1. THE BOROUGH H.M.G.P. COMMITTEE DIRECTED THE REMOVAL OF THE GROINS AS THE SCOURING AND SAND DEPOSITING HAS NEGATIVELY IMPACTED THE RESIDENTS. THE REMOVAL WILL REDUCE EXCESSIVE SCOUR AT SELECT AREAS OF THE SHORELINE. THE BOROUGH UNDERSTANDS THE REMOVAL WILL REQUIRE MAINTENANCE TO ENSURE THE BEACH WILL REMAIN STABLE.
2. ARTICULATED CONCRETE MATTING IS TO BE ARMORFLEX 70-T BY CONTECH OR AN APPROVED EQUAL. THE MATTING CONSISTS OF A FLEXIBLE, INTERLOCKING SERIES OF BLOCKS THAT ARE USED AS HARD ARMOR EROSION CONTROL WHILE STILL ALLOWING FULL VEGETATION TO GROW. THE ARTICULATED CONCRETE MATTING SHALL BE LACED LONGITUDINALLY WITH REVETMENT CABLES.
3. THE DUNE SYSTEM WILL BE COMPOSED OF APPROXIMATELY 3300 LINEAR FEET OF SHORELINE WITH A TYPICAL WIDTH OF 20 FEET. THE DUNE SYSTEM WILL HAVE A TYPICAL ELEVATION OF 5.0. ALL VOLUMES AND CROSS SECTIONS CAN BE FOUND ON SHEETS 9-12 IN THE PLANS TITLED "BOROUGH OF OCEAN GATE H.M.G.P. WAVE ENERGY DISSIPATION AND FLOOD MITIGATION. PUBLIC ACCESS WILL EXIST IN 12 LOCATIONS WHERE THERE WILL BE A BREAK IN THE DUNE FENCING TO ALLOW FOR PEDESTRIAN TRAFFIC. ALL PUBLIC ACCESS POINTS WILL BE FREE OF VEGETATION AND OUTFITTED WITH NON-SLIP BEACH ACCESS MATS.

RVE 1901
REMINGTON & VERNICK ENGINEERS
9 ALLEN STREET
TOMS RIVER, NJ 08753
(732) 286-9220, FAX (732) 505-8416
WEB SITE ADDRESS : WWW.RVE.COM
Certificate of Authorization: 24 GA 28003300
~ENGINEERING EXCELLENCE~
ALAN B. DITTENHOFER
NJ PROFESSIONAL ENGINEER LIC. No. 37672

PLANS WHICH DO NOT BEAR AN EMBOSSED SEAL ARE NOT VALID.

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#	REVISION	DATE	BY

TITLE SHEET

BOROUGH OF OCEAN GATE
H.M.G.P. WAVE ENERGY DISSIPATION AND FLOOD MITIGATION
BOROUGH OF OCEAN GATE OCEAN COUNTY NEW JERSEY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	SCALE:
JK / PS	PH	PH	AS SHOWN
DATE: 6 - 30 - 21		SHEET No.: 1 of 9	
JOB No.: 15.22 - U - 029			

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CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. ANY ERRORS OR DISCREPANCIES FOUND SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
2. LOCATION OF EXISTING UTILITIES ARE APPROXIMATE AND MUST BE VERIFIED IN THE FIELD PRIOR TO THE START OF CONSTRUCTION.
3. ALL PAVED AND CONCRETE AREAS, STRUCTURES AND FEATURES (FENCING, LANDSCAPING, DRIVEWAYS, ETC.) DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO A CONDITION AT LEAST EQUAL TO THAT WHICH EXISTED PRIOR TO THE START OF CONSTRUCTION.
4. ALL GRASSED AREAS DISTURBED DURING CONSTRUCTION SHALL BE TOPSOILED AND SEEDED. SEEDING SHALL BE NJSCS TYPE A-3.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND PRESERVATION OF UNDERGROUND AND SURFACE UTILITIES AND STRUCTURES AT OR ADJACENT TO THE SITE OF CONSTRUCTION AND IT SHALL BE AT HIS OWN EXPENSE TO REPAIR OR REPLACE ANYTHING THAT HE DAMAGES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION LAYOUT OF THE PROJECT. PAYMENT SHALL BE INCLUDED UNDER THE VARIOUS ITEMS IN THE BID SCHEDULE.
7. RESTORATION OF DISTURBED AREAS, EXCEPT AS INDICATED ON THE BID FORM, SHALL BE PERFORMED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER. EMBANKMENT, TOPSOIL AND SEEDING CONSTRUCTION ADJACENT TO THE SIDEWALKS AND CURBS SHALL BE IN ACCORDANCE WITH N.J.D.O.T. STANDARDS AND SHALL BE INCLUDED UNDER THE UNIT PRICE BID FOR "SITE RESTORATION".
8. THE ATTENTION OF THE CONTRACTOR IS DIRECTED TO THE FACT THAT THE APPROXIMATE LOCATIONS OF ROADWAY FACILITIES AND UTILITY STRUCTURES THAT MAY BE ENCOUNTERED WITHIN AND ADJACENT TO THE LIMITS OF THE WORK ARE SHOWN ON THE PLANS. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION IS NOT GUARANTEED BY THE ENGINEER AND THE CONTRACTOR IS ADVISED TO VERIFY IN THE FIELD ALL THE FACTS CONCERNING THE LOCATIONS OF THESE FACILITIES PRIOR TO CONSTRUCTION.
9. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL MATERIALS AS INDICATED HEREIN IN ACCORDANCE WITH ALL FEDERAL, STATE, COUNTY AND LOCAL REGULATIONS. NO ADDITIONAL PAYMENT SHALL BE MADE, BUT THE COST THEREOF SHALL BE INCLUDED IN THE VARIOUS ITEMS IN THE BID SCHEDULE.
10. DUE TO THE ONGOING NATURE OF UTILITY INSTALLATIONS AND REPAIRS, THE CONTRACTOR SHALL COORDINATE DIRECTLY WITH ALL UTILITIES TO ACCOMMODATE THEIR WORK AND SCHEDULES. ANY ROADWAY BASE REPAIRS OR RESURFACING SHOWN THAT MAY BE IN CONFLICT WITH UTILITY WORK BY OTHERS SHALL BE POSTPONED UNTIL THE UTILITIES HAVE COMPLETED THEIR UNDERGROUND UTILITY WORK. THE CONTRACTOR SHALL REQUEST AN EXTENSION OF TIME TO COMPLETE THE WORK IN ACCORDANCE WITH THE SPECIFICATIONS, HOWEVER ADDITIONAL PAYMENT FOR EXTENSION OF TIME SHALL NOT BE MADE.
11. UNDERCUT ANY ZONES OF INSTABILITY DISCLOSED BY THE PROOFROLLING, AS DETERMINED BY THE ON-SITE REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER, AND REPLACE THE UNDERCUT MATERIAL WITH CONTROLLED STRUCTURAL FILL AS DEFINED HEREIN. AS REQUIRED, RAISE THE GROUND SURFACE TO THE PROPOSED SUBGRADE ELEVATION WITH CONTROLLED STRUCTURAL FILL. THE GRANULAR PORTION OF THE ON-SITE SOILS PREVIOUSLY EXCAVATED CAN BE USED AS A COMPONENT OF THE STRUCTURAL FILL ONLY IF THE SOIL IS WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY THE MODIFIED PROCTOR TEST (ASTM D 1557).
12. CONTROLLED STRUCTURAL FILL SHOULD CONSIST OF INORGANIC, READILY COMPACTABLE, PREDOMINANTLY WELL-GRADED GRANULAR SOILS WITH NO MORE THAN 12% FINES (MATERIAL PASSING THE NO. 200 SIEVE) AND A MAXIMUM PARTICLE SIZE OF 3 INCHES. THE MOISTURE CONTENT OF THE FILL MATERIALS SHOULD BE CONTROLLED TO WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT, AS DETERMINED BY ASTM D 1557, BY WETTING, AERATION OR BLENDING, AS NECESSARY. CONTROLLED FILL SHOULD BE PLACED IN LOOSE HORIZONTAL LIFTS WITH A MAXIMUM THICKNESS OF 9 INCHES. IT IS RECOMMENDED THAT CONTROLLED FILL WITHIN THE CONSTRUCTION AREA BE COMPACTED TO AT LEAST 90% OF THE MAXIMUM DRY DENSITY, AS DETERMINED BY THE MODIFIED PROCTOR TEST (ASTM D 1557). IN ADDITION, IT IS RECOMMENDED THAT ALL FILLS BE STABLE WITHOUT SIGNIFICANT MOVEMENT UNDER CONSTRUCTION TRAFFIC, AS JUDGED BY THE GEOTECHNICAL ENGINEER'S REPRESENTATIVE ON-SITE. QUALITY CONTROL TESTING OF IN-PLACE FILL DENSITIES SHOULD BE CONDUCTED THROUGHOUT THE ENTIRE EARTHWORK OPERATION.
13. ALTHOUGH THERE ARE TWO ITEMS FOR "CLEARING SITE" AND "SOIL EROSION AND SEDIMENT CONTROL" ON THE PLANS, THERE IS ONE BID ITEM FOR ALL LOCATIONS. THE BID ITEM SHALL INCLUDE ALL LOCATIONS IN PREPARATION OF EACH BID ITEM.
14. ALL FILL MATERIAL TO BE SUITABLE TO NJDEP AND OCEAN COUNTY SOIL EROSION AND SEDIMENT CONTROL STANDARDS FOR DUNE AND BEACH REPLENISHMENT. ANY SUBSTITUTION MUST BE APPROVED BY THE ENGINEER.
15. PRIOR TO THE BEGINNING OF CONSTRUCTION ALL SOIL EROSION AND SEDIMENT CONTROL MUST BE IN PLACE.
16. CONTRACTOR TO COORDINATE ALL STOCKPILE AREAS FOR FILL MATERIAL WITH THE TOWNSHIP PRIOR TO ANY CONSTRUCTION OR MATERIALS BROUGHT TO THE SITE.

WATER DISTURBANCE AREA CALCULATIONS ONLY:

Volume Summary							
Name	Type	Cut Factor	Fill Factor	2d Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)
Area-1	bounded	1.000	1.000	12035.46	0.08	1177.53	1177.46<Fill>
Area-2	bounded	1.000	1.000	10378.91	0.30	761.19	760.89<Fill>
Area-3	bounded	1.000	1.000	15091.99	1.47	1041.13	1039.65<Fill>
Area-4	bounded	1.000	1.000	20944.99	0.01	1335.88	1335.87<Fill>
Area-5	bounded	1.000	1.000	2652.86	0.00	78.95	78.95<Fill>
Area-6	bounded	1.000	1.000	39976.82	0.34	3403.19	3402.85<Fill>
Area-7	bounded	1.000	1.000	28696.55	0.03	2197.77	2197.74<Fill>

Totals				
	2d Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)
Total	129777.58	2.22	9995.63	9993.41<Fill>

* Value adjusted by cut or fill factor other than 1.0

NOTES:
1. THE ABOVE CALCULATIONS ARE A CUT AND FILL ANALYSIS FOR THE PROPOSED EARTHWORK FROM THE MEAN HIGH WATERLINE TO BELOW THE WATER LINE. THIS IS ONLY FOR THE BEACH REPLENISHMENT BELOW THE MEAN HIGH WATER LINE FOR EACH SECTION.
2. THE CALCULATIONS ARE SAMPLED IN A 3D TIN FORMAT FROM THE EXISTING TOPOGRAPHY TO THE PROPOSED CONTOURS AND IS SAMPLED EVERY FOOT FOR AN ACCURATE RESULT.
3. THE SAMPLING METHODS USED ARE FROM AUTOCAD CIVIL 3D SOFTWARE USING THE EARTHWORK VOLUMES.

RVE 1901
REMINGTON & VERNICK ENGINEERS
9 ALLEN STREET
TOMS RIVER, NJ 08753
(732) 286-0220, FAX (732) 505-8416
WEB SITE ADDRESS : WWW.RVE.COM
Certification of Authorization: 24 GA 28003300
~ENGINEERING EXCELLENCE~

ALAN B. DITTENHOFER
NJ PROFESSIONAL ENGINEER LIC. No. 37872

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No.	REVISION	DATE	BY	CK

NOTES AND CALCULATIONS

BOROUGH OF OCEAN GATE

H.M.G.P. WAVE ENERGY DISSIPATION AND FLOOD MITIGATION

BOROUGH OF OCEAN GATE OCEAN COUNTY NEW JERSEY

DRAWN BY:	CHECKED:	DESIGNED:	SCALE:
JK / PS	PH	PH	AS SHOWN
DATE: 6-30-21		SHEET No.: 2 of 9	
JOB No.: 1522-U-029			

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STANDARD LEGEND

NOTE: ALL SYMBOLS MAY NOT BE USED

UTILITIES

DESCRIPTION	EXISTING	PROPOSED
OVERHEAD WIRE	OHW	
SANITARY FORCE MAIN PIPE	FM	FM
STORM SEWER PIPE	(SIZE & TYPE)	(SIZE & TYPE)
GAS SERVICE	G	G
SANITARY SEWER PIPE	S	S
ELECTRIC SERVICE	E	E
FIBER OPTIC SERVICE	FO	FO
TELEPHONE SERVICE	T	T
COMMUNICATIONS SERVICE	C	C
IRRIGATION PIPE	IRR	IRR
WATER SERVICE	W	W
WATER SHUT-OFF		
WATER METER		
WATER VALVE		NEW / RESET
WATER HYDRANT		NEW / RESET
WELL		
YARD HYDRANT		
METER PIT		
GAS SHUT-OFF		
GAS METER		
GAS VALVE		NEW / RESET
GAS LINE MARKER		
CLEANOUT		
SEWER VENT		
INLET TYPE A		NEW / RESET/SET / RECONSTRUCT
INLET TYPE B		NEW / RESET/SET / RECONSTRUCT
INLET TYPE E		NEW / RESET/SET / RECONSTRUCT
INLET TYPE E		
INLET GRATE CUSTOM		
AREA DRAIN		
MANHOLES	SANITARY, DRAINAGE, TELEPHONE, WATER, CATV, UNDERGRAND, ELECTRIC, GAS, UNKNOWN	NEW / RESET / RECONSTRUCT
IRRIGATION CONTROL VALVE		NEW / RESET
IRRIGATION BOX		
IRRIGATION CONTROL BOX		
SPRINKLER HEAD		
UNKNOWN VALVE		
COMMUNICATIONS PEDESTAL		
COMMUNICATIONS LINE MARKER		
TELEPHONE PEDESTAL		
TELEPHONE LINE MARKER		
ELEC. BOX		
ELEC. METER		
ELEC. TRANSFORMER PAD		
ELEC. VAULT		
ELEC. LINE MARKER		
UTILITY POLE	STANDARD, W/ LIGHT, W/ SOLAR	
GUY ANCHOR		
ELEC. OUTLET		
LIGHTS	POLE, ARCH	
VENT		
VENT PIPE		

SURVEY

DESCRIPTION	EXISTING	PROPOSED
CROWS FOOT		
AERIAL TARGET		
CONCRETE MONUMENT		(SET)
PK / MAG NAIL DRILL HOLE SPIKE		(SET)
DRILL HOLE W/WINGS		
STAKE		(SET)
HUB		(SET)
PIN W/ CAP IRON PIPE IRON PIN		(SET)
CROSS CUT		(SET)
DISK		
STONE		
REBAR		
BASELINE		
CENTERLINE		
EASEMENT		
RIGHT-OF-WAY		
PROPERTY BOUNDARY		
ADJACENT PROPERTY BOUNDARY		
RAILROAD TRACKS		
STATE BOUNDARY		
MUNICIPAL / COUNTY BOUNDARY		

ENVIRONMENTAL

DESCRIPTION	EXISTING	PROPOSED
BORING LOCATION		B-#
MONITORING WELL LOCATION		MW-#
TEST PIT LOCATION		TP-#
FRESHWATER WETLAND FLAG		
FRESHWATER WETLAND LINE		
FRESHWATER WETLAND BUFFER		
EDGE OF WATER		
STREAM CENTERLINE		

LANDSCAPING

DESCRIPTION	EXISTING	PROPOSED
GRASS/SOD		
DECIDUOUS TREE		SHADE, ORNAMENTAL
SHRUBS / BUSH		
EVERGREENS		
STUMP		
WOODS / TREE LINE		
WIRE FENCE		
SPLIT RAIL FENCE		
WOOD / VINYL FENCE		
CHAIN-LINK FENCE		

GRADING

DESCRIPTION	EXISTING	PROPOSED
TOP OF BANK / DITCH		
BOTTOM OF BANK / DITCH		
CONTOUR (MAJOR)		5
CONTOUR (MINOR)		3
FLOW LINE / SWALE		
TIME OF CONCENTRATION		
SPOT GRADE	3.25	3.75
ROADWAY GRADE	TC 71.25 GL 70.75	TC 71.75 GL 70.75
DRAINAGE FLOW		

SITE & ROADWORK

DESCRIPTION	EXISTING	PROPOSED
EDGE OF PAVEMENT		
CURB		
PAVEMENT / CONC. / SIDEWALK	BITUMINOUS/ASPHALT, CONCRETE, BRICK/PAVERS, STONE	CONCRETE SIDEWALK, CONCRETE DRIVEWAY APRON, PAVEMENT, FULL RESTORATION, PAVEMENT MILLING, DRIVEWAY RESTORATION, ASPHALT, DRIVEWAY RESTORATION, BRICK, DRIVEWAY RESTORATION, CONCRETE, DRIVEWAY RESTORATION, STONE
LIMIT OF EXCAVATION		
GUIDE RAIL		
BOLLARD		
MAILBOX		
SIGNS		
FLAG POLE		
BENCH		
PILE		
DETECTABLE WARNING SURFACE		
TYPICAL STRIPING		
ADA STRIPING		
TRAFFIC CONTROL BOX		
TRAFFIC LIGHT		(ARM TO SCALE)
DEPT. OF TRANSPORTATION MANHOLE		
STATE HIGHWAY DEPARTMENT	MANHOLE, BOX	
RAILROAD CROSSING BEACON		
CALL BOX		
OIL FILL		
UNDERGROUND STORAGE TANK LID		
RISER PIPE		
RAISED PAVEMENT MARKER		

MISC.

DESCRIPTION	EXISTING	PROPOSED
BBQ GRILL		
WATER FOUNTAIN		
KIOSK		
AIR CONDITIONER		
PARKING METER		
FIRE CONTROL VALVE		
BARRICADE		

GENERAL

DESCRIPTION	EXISTING	PROPOSED
PHOTO LOCATION		
BENCHMARK LOCATION	RV X	
TYPICAL SECTION ARROW		A
MATCH LINE		
TYPICAL NORTH ARROW		

NORTH POINT TO BE USED ON STANDARD CONSTRUCTION SHEETS WHERE BEARINGS REFER TO STATE PLANE COORDINATE SYSTEM.

ABBREVIATIONS

APR.	APRON	EX.	EXISTING	PCMP.	PERFORATED	SWK.	SIDEWALK
BL.	BASELINE	E.B., W.B., N.B., S.B.	EMPHASIZES WESTBOUND, NORTHBOUND, SOUTHBOUND	PC	POINT OF CURVATURE	S.H.D.	STATE HIGHWAY DEPARTMENT
BM	BENCH MARK	GL	GUTTER LINE	PI	POINT OF INFLECTION	SHLD.	SHOULDER
BT.	BITUMINOUS	GR	GRATE	PT	POINT OF TANGENCY	STP.	STOP
BLDG.	BUILDING	HP	HEADWALL	PVC	POLYVINYL CHLORIDE PIPE	S.W.L.	SINGLE WHITE LINE
CL.	CENTERLINE	H.D.P.E.	HIGH DENSITY POLYETHYLENE PIPE	PROP.	PROPOSED	T.B.A.	TO BE ABANDONED
C.I.P.	CAST IRON PIPE	PH	HYDRANT	P.V.C.	POLYVINYL CHLORIDE PIPE	T.B.R.	TO BE REMOVED
CONC.	CONCRETE	IP	IRON PIN	PVC	POINT OF VERTICAL CURVATURE	TC	TOP OF CURB
C.M.P.	CORRUGATED METAL PIPE	J.B.	JUNCTION BOX	PVI	POINT OF VERTICAL INTERSECTION	TEL.	TELEPHONE
C.I.A.V.	CULVERT	L.B.T.	LANDSCAPE TYE	PVT	POINT OF VERTICAL TANGENCY	TEMP.	TEMPORARY
D.C.	DEPRESSED CURB	L.O.M.	LIMIT OF MILLING	R	RADIUS	TYP.	TYPICAL
DH	DRILL HOLE	L.O.P.	LIMIT OF PAVING	R.C.P.	REINFORCED CONCRETE PIPE	U.G.	UNDERGRAND
DIA.	DIAMETER	MB	MAILBOX	RMC	RIGID METALLIC CONDUIT	U.P.	UTILITY POLE
D.I.P.	DUCTILE IRON PIPE	MAX.	MAXIMUM	R.O.W.	RIGHT OF WAY	VAR.	VARIES
DWY	DRIVEWAY	MIN.	MINIMUM	R.R.	RAILROAD	WM	WATER METER
D.Y.L.	DOUBLE YELLOW LINE	NO.	NUMBER	RTE.	ROUTE		
EL.	ELEVATION	N.T.S.	NOT TO SCALE	SAN.	SANITARY		

RVE 1901
REMINGTON & VERNICK ENGINEERS
9 ALLEN STREET
TOMS RIVER, NJ 08753
(732) 286-9220, FAX (732) 505-8416
WEB SITE ADDRESS : WWW.RVE.COM
Certification of Authorization: 24 GA 28003300
~ENGINEERING EXCELLENCE~

ALAN B. DITTENHOFER
NJ PROFESSIONAL ENGINEER LIC. No. 37672

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#	REVISION	DATE	BY

STANDARD LEGEND

BOROUGH OF OCEAN GATE

H.M.G.P. WAVE ENERGY DISSIPATION AND FLOOD MITIGATION

BOROUGH OF OCEAN GATE — OCEAN COUNTY — NEW JERSEY

DRAWN BY:	DESIGNED BY:	REVIEWED BY:	SCALE:
JK / PS	PH	PH	AS SHOWN
DATE: 6-30-21		SHEET No. 3 of 9	
JOB No. 1522-U-029			

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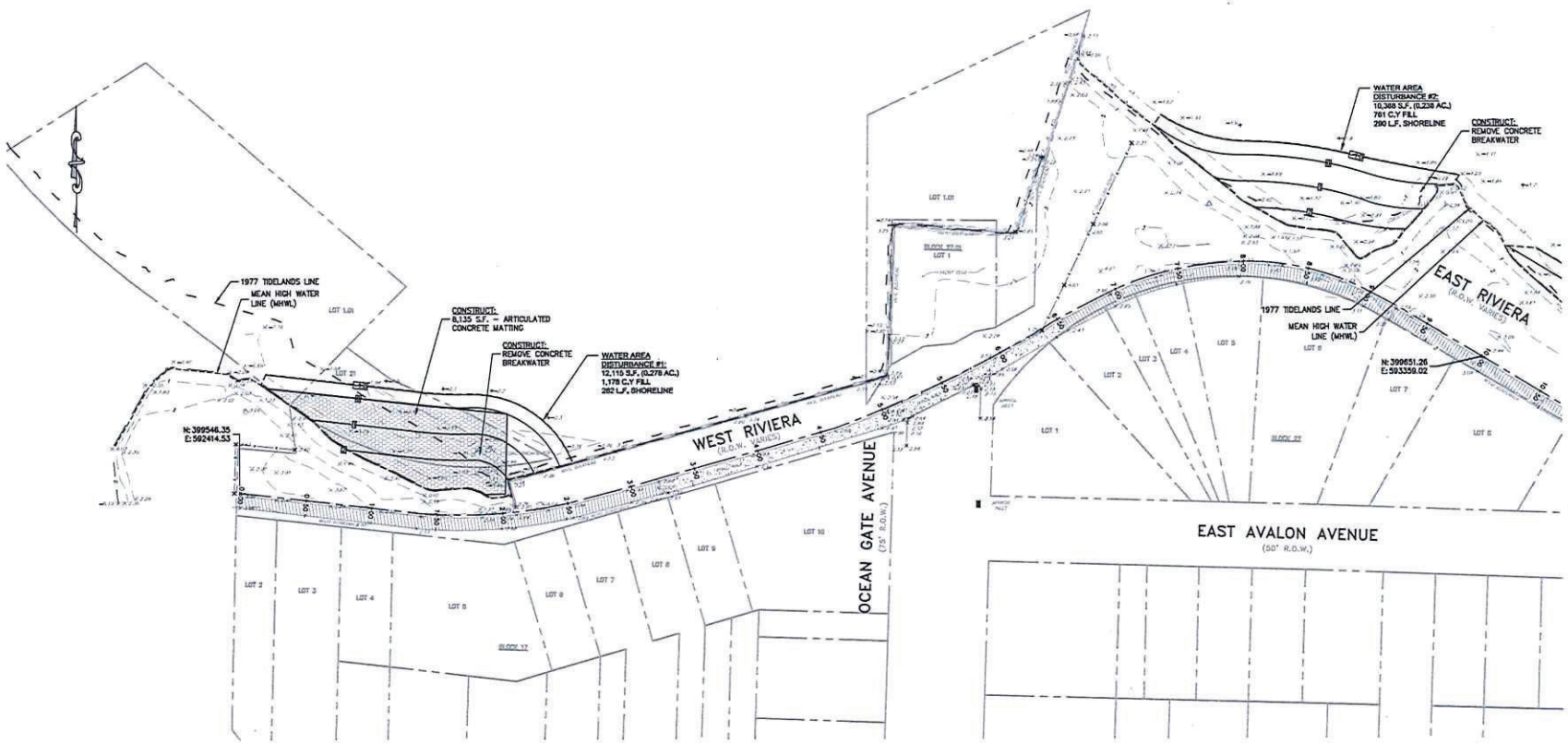

LEGEND

- WETLANDS LINE
- MEAN HIGH WATER LINE (MHWL)
- 1977 TIDELANDS CLAIM LINE
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR

HIGH TIDE LINE (HTL)	ELEV. +0.21
MEAN HIGH WATER LINE (MHWL)	ELEV. +0.10
MEAN TIDE LEVEL	ELEV. -0.08
MEAN LOW WATER LINE (MLWL)	ELEV. -0.25
MEAN LOWER LOW WATER (MLLW)	ELEV. -0.30

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

SURVEY NOTES:

1. THE HORIZONTAL DATUM IS BASED ON NAD-1983 (GRID COORDINATES) AND THE VERTICAL DATUM IS BASED ON NAVD-1988 (ADD 1.17 FEET TO THESE ELEVATIONS TO CONVERT TO NGVD-1929 DATUM).
2. PROPERTY AND RIGHT-OF-WAY LINES SHOWN ON THESE PLANS ARE APPROXIMATE LOCATIONS BASED ON THE CURRENT TAX MAPS OF THE BOROUGH OF OCEAN GATE, OCEAN COUNTY, NEW JERSEY. PROPERTY AND RIGHT-OF-WAY LINES ARE SHOWN FOR GRAPHICAL INFORMATION ONLY AND HAVE NOT BEEN FIELD VERIFIED.
3. EXISTING TOPOGRAPHIC CONDITIONS WERE SURVEYED BY REMINGTON & VERNICK ENGINEERS UNDER THE SUPERVISION OF CHARLES E. ADAMSON, N.J.P.L.S. LICENSE NO. 42627. THE SURVEY WORK WAS COMPLETED ON DECEMBER 6, 2016.

RVE 1901
REMINGTON & VERNICK ENGINEERS
9 ALLEN STREET
TOMS RIVER, NJ 08753
(732) 286-9220, FAX (732) 505-8416
WEB SITE ADDRESS : WWW.RVE.COM
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~ENGINEERING EXCELLENCE~

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REVISION	DATE	BY	CK

PLAN SHEET (1)

BOROUGH OF OCEAN GATE

H.M.G.P. WAVE ENERGY DISSIPATION AND FLOOD MITIGATION

BOROUGH OF OCEAN GATE OCEAN COUNTY NEW JERSEY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	SCALE:
JK / PB	PH	PH	AS SHOWN
DATE: 6-30-21		SHEET No. 4 of 9	
JOB No. 1522-U-019			

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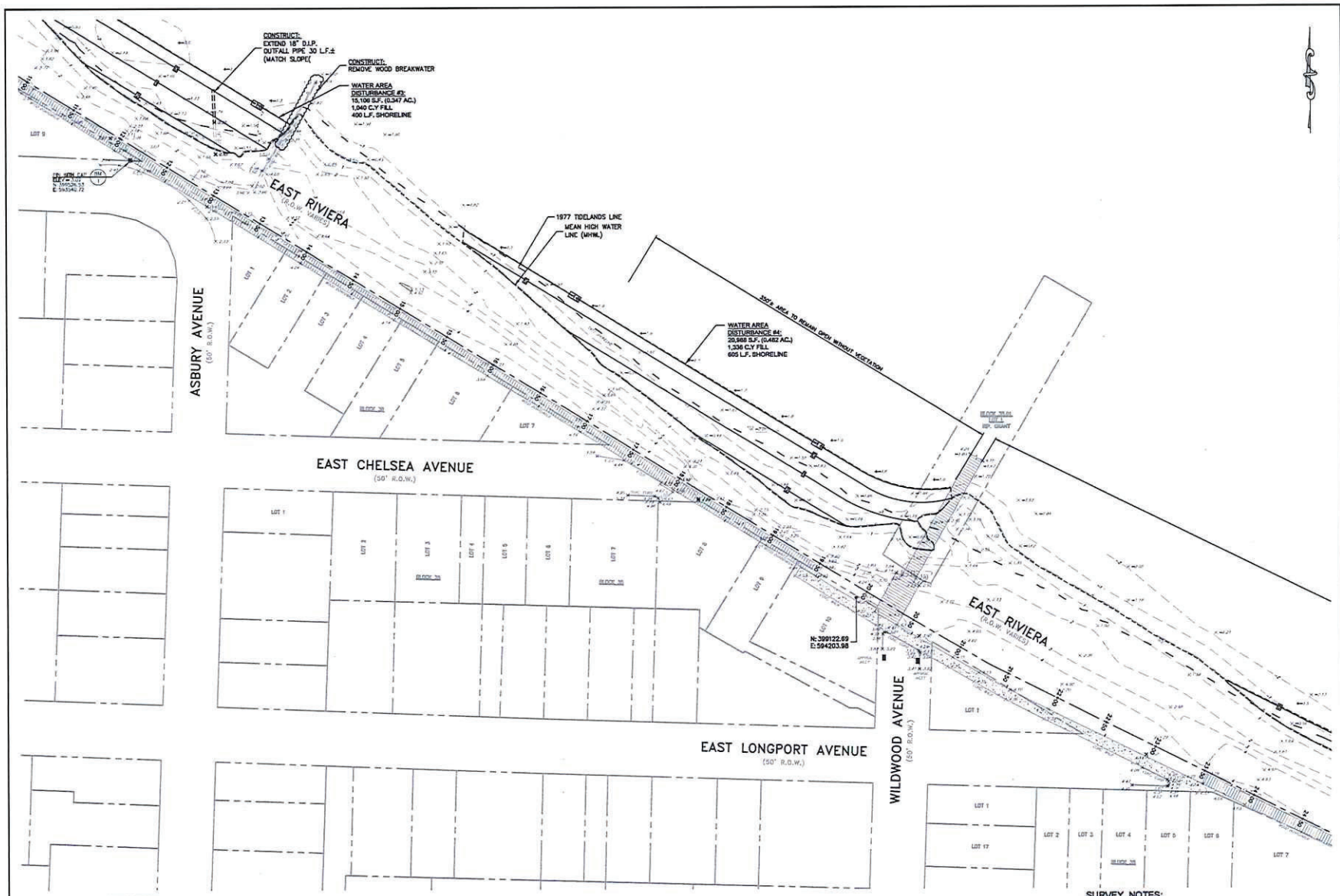

LEGEND

- WETLANDS LINE
- MEAN HIGH WATER LINE (MHWL)
- 1977 TIDELANDS CLAIM LINE
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR

HIGH TIDE LINE (HTL)	(ELEV. +0.2)
MEAN HIGH WATER LINE (MHWL)	(ELEV. +0.10)
MEAN TIDE LEVEL	(ELEV. -0.08)
MEAN LOW WATER LINE (MLWL)	(ELEV. -0.25)
MEAN LOWER LOW WATER (MLLW)	(ELEV. -0.30)

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

SURVEY NOTES:

1. THE HORIZONTAL DATUM IS BASED ON NAD-1983 (GRID COORDINATES) AND THE VERTICAL DATUM IS BASED ON NAVD-1988 (ADD 1.17 FEET TO THESE ELEVATIONS TO CONVERT TO NGVD-1929 DATUM).
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1901
REMINGTON & VERNICK ENGINEERS
9 ALLEN STREET
TOMS RIVER, NJ 08753
(732) 286-9220, FAX (732) 505-8416
WEB SITE ADDRESS : WWW.RVE.COM
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REVISION	DATE	BY

PLAN SHEET (2)

BOROUGH OF OCEAN GATE

H.M.G.P. WAVE ENERGY DISSIPATION AND FLOOD MITIGATION

BOROUGH OF OCEAN GATE OCEAN COUNTY NEW JERSEY

DRAWN BY:	CHECKED BY:	CHECKED BY:	SCALE:
JK / PS	PH		AS SHOWN
DATE: 6-30-21		SHEET No. 5 of 9	
JOB No. 1572-U-029			

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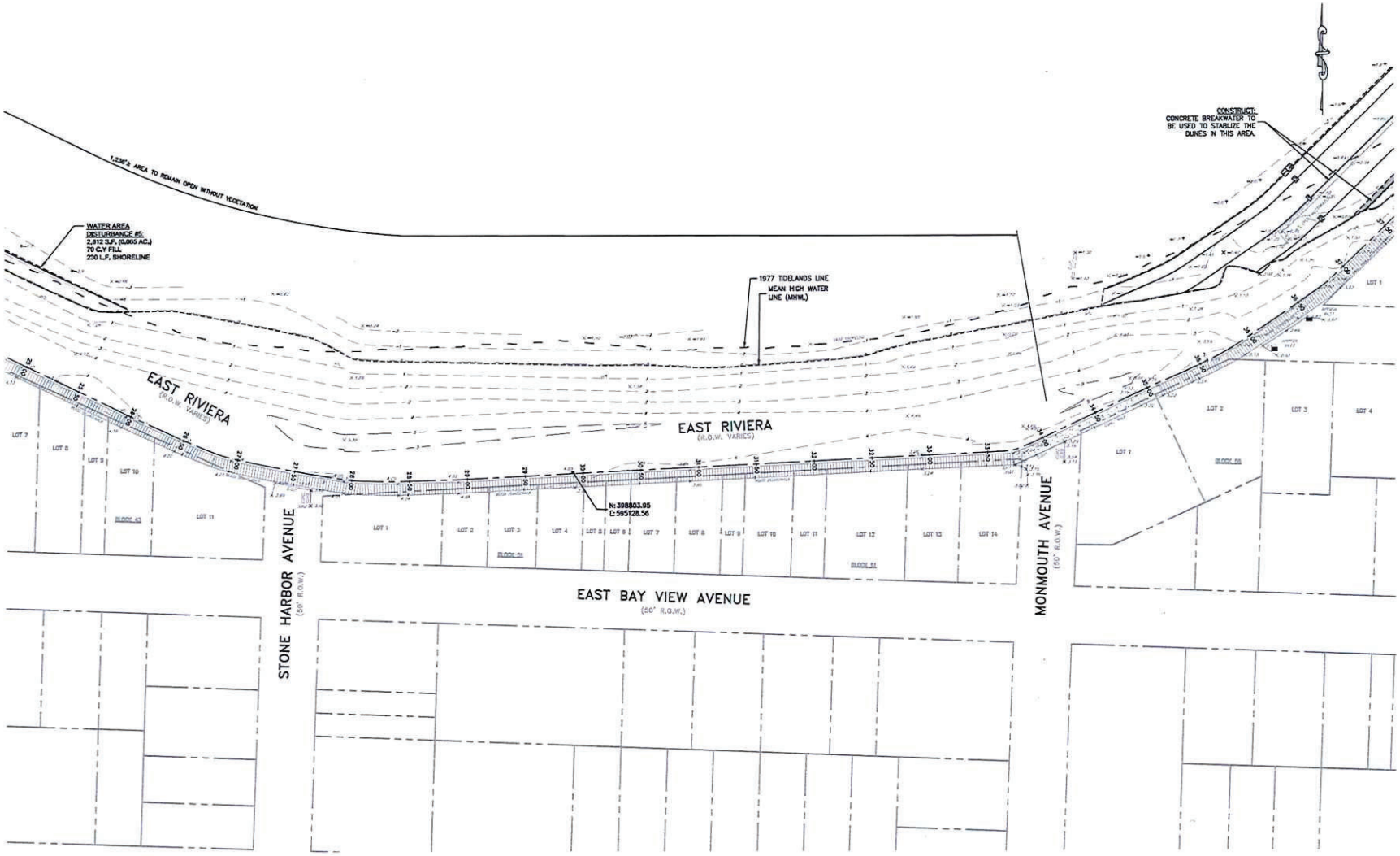

LEGEND

- WETLANDS LINE
- MEAN HIGH WATER LINE (MHWL)
- 1977 TIDELANDS CLAIM LINE
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GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

SURVEY NOTES:

1. THE HORIZONTAL DATUM IS BASED ON NAD-1983 (GRID COORDINATES) AND THE VERTICAL DATUM IS BASED ON NAVD-1988 (ADD 1.17 FEET TO THESE ELEVATIONS TO CONVERT TO NGVD-1929 DATUM).
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#	REVISION	DATE	BY	CK'D

PLAN SHEET (3)

BOROUGH OF OCEAN GATE

H.M.G.P. WAVE ENERGY DISSIPATION AND FLOOD MITIGATION

BOROUGH OF OCEAN GATE OCEAN COUNTY NEW JERSEY

DRAWN BY:	CHECKED BY:	DESIGNED BY:	SCALE:
JK / PB	PH	PH	AS SHOWN
DATE: 6-30-21		SHEET No. 6 of 9	
JOB No.: 1522-U-029			

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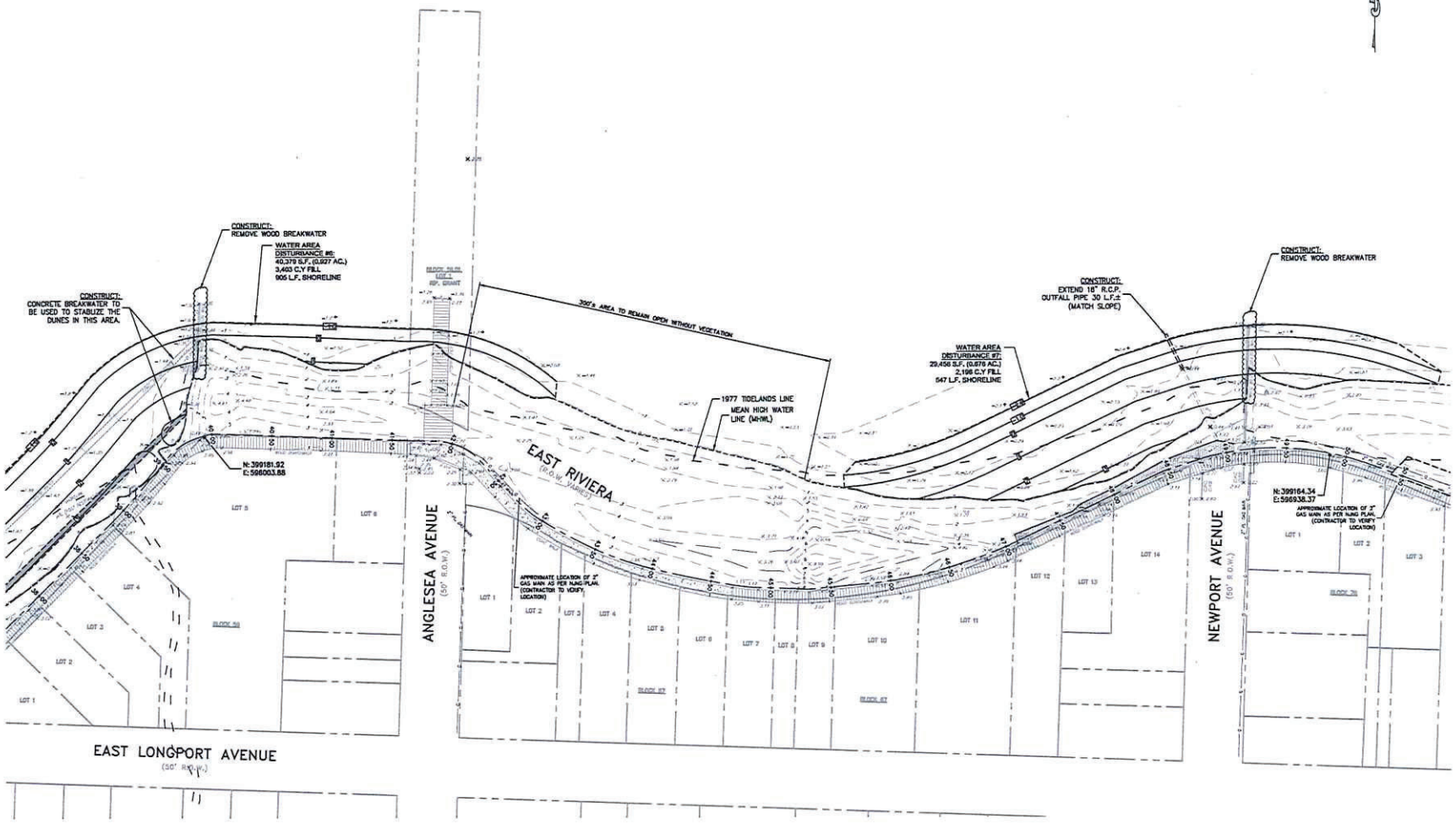

LEGEND

- WETLANDS LINE
- MEAN HIGH WATER LINE (MHWL)
- 1977 TIDELANDS CLAIM LINE
- PROPOSED MINOR CONTOUR
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MEAN LOW WATER LINE (MLWL)	ELEV. -0.25
MEAN LOWER LOW WATER (MLLW)	ELEV. -0.30

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

SURVEY NOTES:

1. THE HORIZONTAL DATUM IS BASED ON NAD-1983 (GRID COORDINATES) AND THE VERTICAL DATUM IS BASED ON NAVD-1988 (ADD 1.17 FEET TO THESE ELEVATIONS TO CONVERT TO NGVD-1929 DATUM).
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RVE 1901
REMINGTON & VERNICK ENGINEERS
9 ALLEN STREET
TOMS RIVER, NJ 08753
(732) 286-9220, FAX (732) 505-8416
WEB SITE ADDRESS : WWW.RVE.COM
Certification of Authorization: 24 GA 28003300
~ENGINEERING EXCELLENCE~

ALAN B. DITTENHOFER
NJ PROFESSIONAL ENGINEER LIC. No. 27872

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#	REVISION	DATE	BY	CK

PLAN SHEET (4)

BOROUGH OF OCEAN GATE

H.M.G.P. WAVE ENERGY DISSIPATION AND FLOOD MITIGATION

BOROUGH OF OCEAN GATE — OCEAN COUNTY — NEW JERSEY

DRAWN BY:	REVIEWED:	CHECKED:	SCALE:
JK / PB	PH	PH	AS SHOWN
DATE: 6-30-21		SHEET No. 7 of 9	

JOB No. 1522-U-029

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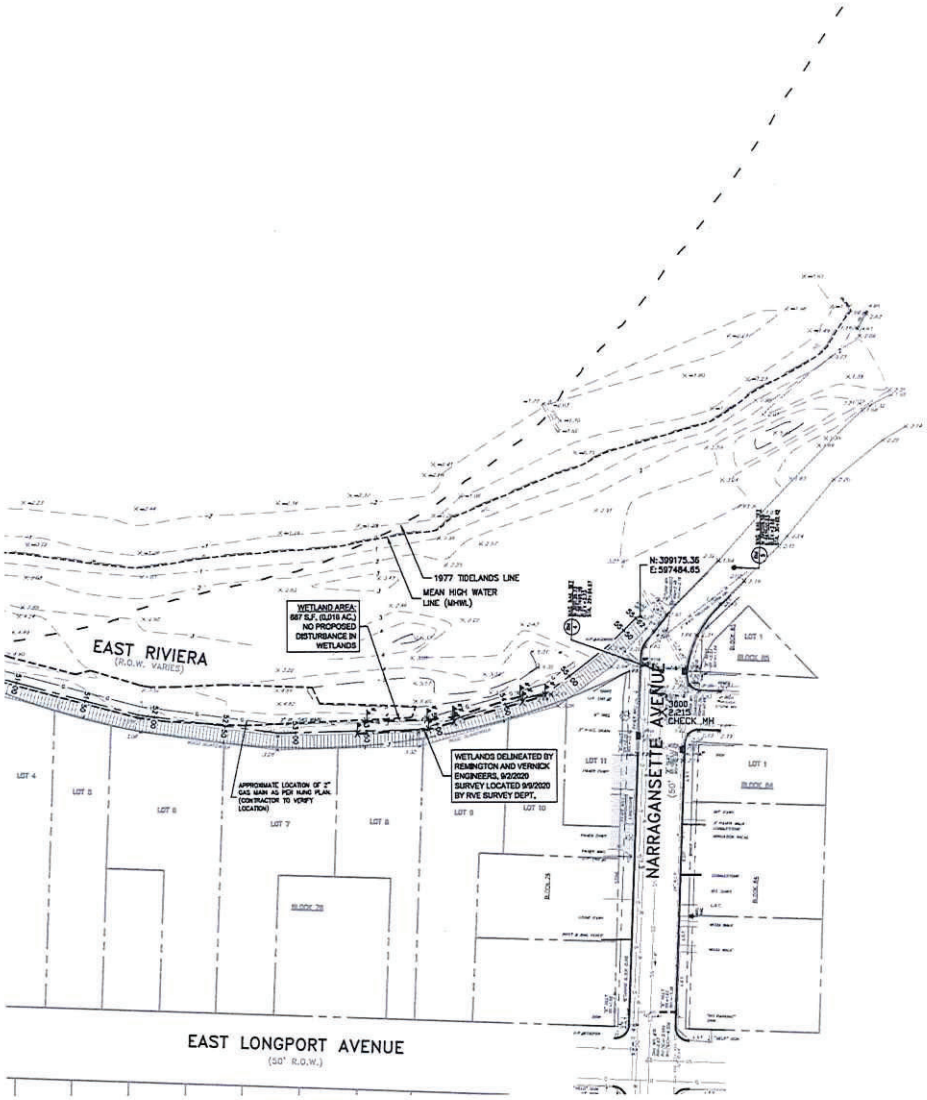

LEGEND

- WETLANDS LINE
- MEAN HIGH WATER LINE (MHWL)
- 1977 TIDELANDS CLAIM LINE
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR

HIGH TIDE LINE (HTL)	ELEV. +0.21
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MEAN LOW WATER LINE (MLWL)	ELEV. -0.25
MEAN LOWER LOW WATER (MLLW)	ELEV. -0.30

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

SURVEY NOTES:

1. THE HORIZONTAL DATUM IS BASED ON NAD-1983 (GRID COORDINATES) AND THE VERTICAL DATUM IS BASED ON NAVD-1988 (ADD 1.17 FEET TO THESE ELEVATIONS TO CONVERT TO NGVD-1929 DATUM).
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WEB SITE ADDRESS : WWW.RVE.COM
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No.	REVISION	DATE	BY

PLAN SHEET (5)

BOROUGH OF OCEAN GATE

H.M.G.P. WAVE ENERGY DISSIPATION AND FLOOD MITIGATION

BOROUGH OF OCEAN GATE — OCEAN COUNTY — NEW JERSEY

DRAWN BY: JK / PB	CHECKED BY: PH	DESIGNED BY: PH	SCALE: AS SHOWN
DATE: 6-30-21		SHEET No. 8 of 9	
JOB No.: 1522-U-019			

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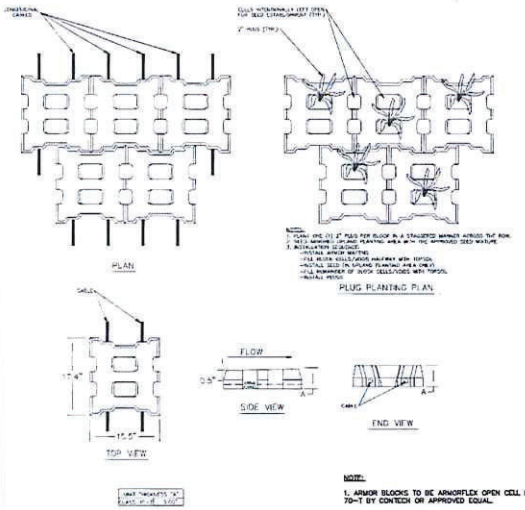
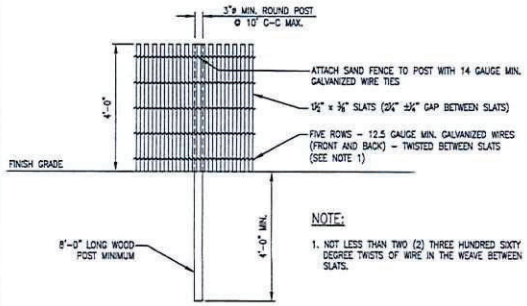


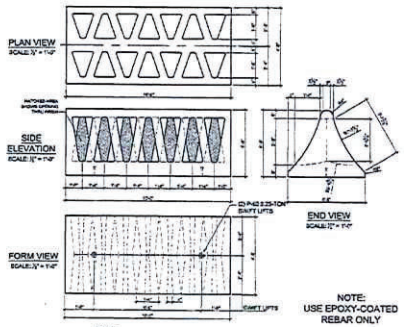
NOTE:
1. ARMOR BLOCKS TO BE ARMORFLEX OPEN CELL BLOCK 70-T BY CONTECH OR APPROVED EQUAL.

ARTICULATED MATTING DETAIL
N.T.S.



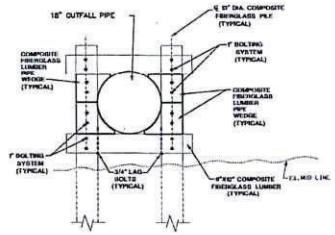
NOTE:
1. NOT LESS THAN TWO (2) THREE HUNDRED SIXTY DEGREE TWISTS OF WIRE IN THE WEAVE BETWEEN SLATS.

DUNE FENCE DETAIL
N.T.S.

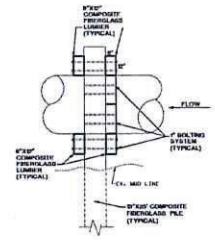


NOTE:
1. EXISTING BEACH PRISMS TO BE RELOCATED AS SHOWN ON PAGE 6 & 7 OF THE PLANS.

CONCRETE BEACH PRISM DETAIL
N.T.S.

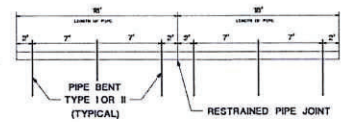


PIPE SUPPORT ASSEMBLY
(20' LONG PILE)



SIDE VIEW

NOTE: BOLT SYSTEM SHALL BE 1" GALVANIZED STEEL THREADED ROD, WITH GALVANIZED STEEL OGEE WASHER, LOCK WASHER AND NUT AT EACH END.



TYPICAL SPACING OF PIPE SUPPORT ASSEMBLY
NOT TO SCALE

NOTE:
1. AS SHOWN OR APPROVED EQUAL.

OUTFALL PIPE EXTENSION DETAIL
N.T.S.

Product Trade-mark	Material	Grade	Color	Part Number	Roll Dimensions* Width	Roll Dimensions* Lenght	Roll weight
Mobi-mat® Wings	100% Recycled Polyester	AFX 0.27	Blue Jay	206-483	5' 1.53m	16.5' - 5m	22lbs - 10kg
				206-484		33' - 10m	45lbs - 20.5kg
				206-485		50' - 15.2m	68lbs - 31kg
				206-486		82' - 25m	111lbs - 50kg
				206-488		100' - 30.4m	135lbs - 61kg
				206-494	6.5' 1.98m	16.5' - 5m	29lbs - 13kg
				206-495		33' - 10m	58lbs - 26kg
				206-496		50' - 15.2m	88lbs - 40kg
				206-497		82' - 25m	144lbs - 65kg
				206-498		100' - 30.4m	176lbs - 80kg

Anchorage included in the kit:
• X connection
• Staples

* For any customized length, please contact us.
The installation sheet can be downloaded on www.mobi-mat-chair-beach-access-dms.com

Each kit is equipped with and connectors and eyelets to insert the staples provided in the kit.

• The Installation sheet can be downloaded on www.mobi-mat-chair-beach-access-dms.com

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