

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT

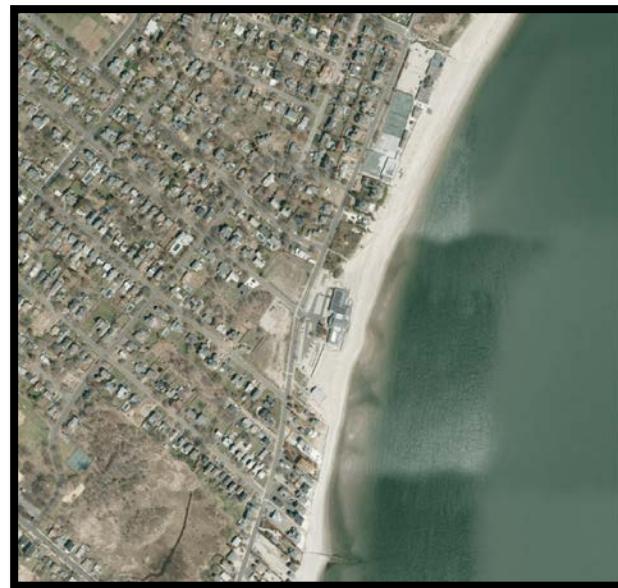
APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT

Applicant:

Town of Fairfield
725 Old Post Road
Fairfield, CT 06824

Project Location:

Penfield Beach
323 Fairfield Beach Road
Fairfield, CT 06824



Proposed Beach Grading

April 2017

Prepared By:



611 Access Road
Stratford, CT 06615
Tel: (203)-377-0663
Fax: (203)-375-6561
Project # 201644

Table of Contents

<u>Section</u>	<u>Description</u>
1.	Application to the Department of the Army Permit
2.	Drawings
3.	Project Narrative
4.	Abutters
5.	Site Photographs



SECTION 1

Application to the Department of the Army Permit



U.S. ARMY CORPS OF ENGINEERS
APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT
33 CFR 325. The proponent agency is CECW-CO-R.

*Form Approved -
OMB No. 0710-0003
Expires: 30-SEPTEMBER-2015*

Public reporting for this collection of information is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters, Executive Services and Communications Directorate, Information Management Division and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE
--------------------	----------------------	------------------	------------------------------

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME First - Middle - Last - Company - Town of Fairfield E-mail Address - BCarey@fairfieldct.org			8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required) First - Azure Middle - Dee Last - Sleicher Company - RACE Coastal Engineering E-mail Address - AzureDee@racecoastal.com		
6. APPLICANT'S ADDRESS: Address- 725 Old Post Road City - Fairfield State - CT Zip - 06824 Country - USA			9. AGENT'S ADDRESS: Address- 611 Access Road City - Stratford State - CT Zip - 06615 Country - USA		
7. APPLICANT'S PHONE NOs. w/AREA CODE a. Residence b. Business c. Fax 203-256-3071			10. AGENTS PHONE NOs. w/AREA CODE a. Residence b. Business c. Fax 203-377-0663 203-375-6561		

STATEMENT OF AUTHORIZATION

11. I hereby authorize, Azure Dee Sleicher to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

SIGNATURE OF APPLICANT

DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions)

Penfield Beach Regrading

13. NAME OF WATERBODY, IF KNOWN (if applicable)

Long Island Sound

14. PROJECT STREET ADDRESS (if applicable)

Address 323 Fairfield Beach Road

15. LOCATION OF PROJECT

Latitude: °N 41.134599 Longitude: °W 73.241087

City - Fairfield State- CT Zip- 06824

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)

State Tax Parcel ID 1380230000

Municipality Town of Fairfield

Section -

Township -

Range -

17. DIRECTIONS TO THE SITE

From I-95 Exit 22

Head South on CT-135/N Benson Road

Turn right onto Old Post Road

Turn left on to Penfield Road

Turn right on to Fairfield Beach Road

Site will be on the left

The work will take place on the beach

18. Nature of Activity (Description of project, include all features)

See attached

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

The purpose of this project is to design the beach such that it may be eligible for FEMA funding following a severe coastal storm. The proposed work will stabilize the existing beach making it less susceptible to erosion.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

N/A

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type	Type	Type
Amount in Cubic Yards	Amount in Cubic Yards	Amount in Cubic Yards
N/A	N/A	N/A

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres N/A

or

Linear Feet N/A

23. Description of Avoidance, Minimization, and Compensation (see instructions)

N/A

24. Is Any Portion of the Work Already Complete? Yes No IF YES, DESCRIBE THE COMPLETED WORK

N/A

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

a. Address- See Attached

City - State - Zip -

b. Address-

City - State - Zip -

c. Address-

City - State - Zip -

d. Address-

City - State - Zip -

e. Address-

City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
Town of Fairfield	Coastal Site Plan	N/A	To be filed	TBD	TBD
CT DEEP	General Permit	GP-2015-02	N/A	N/A	N/A

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT

DATE

SIGNATURE OF AGENT

DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguise a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

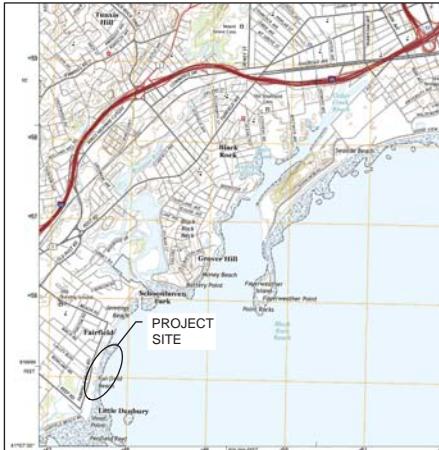
SECTION 2

Drawings



PENFIELD BEACH
ENGINEERED BEACH DESIGN
FAIRFIELD BEACH ROAD
FAIRFIELD, CT

04/12/2017



VICINITY MAP



LIST OF DRAWINGS

DRAWING NO.	DRAWING NAME
1	TITLE SHEET, DRAWING LIST & VICINITY MAP
2	PROJECT NOTES
3	SITE PLAN
4	GRADING PLAN
5	SECTIONS

RACE
COASTAL ENGINEERING

611 Access Road Stratford, CT 06615
Tel: 203-377-0663 www.racecoastal.com

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PREPARED FOR:

CONSERVATION DEPT
TOWN OF FAIRFIELD
725 OLD POST RD
FAIRFIELD, CT 06824

PROJECT:

PENFIELD BEACH
ENGINEERED BEACH DESIGN
FAIRFIELD BEACH ROAD
FAIRFIELD, CT

DRAWING:

**TITLE SHEET, DRAWING LIST &
VICINITY MAP**

Designed By:	JAP	Date:	04/12/2017
Drawn By:	JAP	Scale:	As Noted
Checked By:	ADS	Project Number:	201644
CAD File:	REFFIELD20160417.DWG		
	Drawing No. 1		

1 of 05

PROJECT NOTES

DESCRIPTION OF WORK

THE WORK COVERED UNDER THESE CONTRACT DOCUMENTS INCLUDING THE DRAWINGS, GENERAL NOTES, AND SPECIFICATIONS AND ALL OTHER CONTRACT DOCUMENTS, SHALL BE PERFORMED IN ACCORDANCE WITH THE CONTRACTOR'S EQUIPMENT, EQUIPMENT, SUPPLIES AND MATERIALS AND IN PERFORMING ALL OPERATIONS IN CONNECTION WITH AT LEAST, BUT NOT NECESSARILY, BUT NOT LIMITED TO, THE FOLLOWING ITEMS:

- REGRADE BEACH TO ENGINEERED SLOPES AND SPECIFICATIONS.

THE CONTRACTOR SHALL PROVIDE ALL ITEMS AND ACCESSORIES REQUIRED TO COMPLETE ALL ASPECTS OF THE WORK NEEDED FOR THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE PROJECT CONTRACT DOCUMENTS.

GENERAL NOTES

1. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL Datum of 1989 (NAVD 88).
2. TOPOGRAPHY TAKEN IN PART FROM DRAWING TITLED "TOPOGRAPHIC SURVEY" DATED JUNE 14, 2016 PREPARED BY BESICK & ASSOCIATES, P.C.
3. SUPPLEMENTAL SITE INFORMATION OBTAINED BY RACE COASTAL ENGINEERING LLC ON MAY 29, 2016.
4. HYDROGRAPHIC SURVEY DATA OBTAINED BY RACE COASTAL ENGINEERING, LLC ON JUNE 17, 2016 AND ONLY REPRESENTS THE SITE CONDITIONS AT THAT TIME.
5. WORK SHALL COMPLY WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATORY PERMIT REQUIREMENTS AND CONDITIONS OF ALL REGULATORY PERMITS ISSUED FOR THE WORK.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MEET LINES AND GRADES DEPICTED WITHIN THESE CONTRACT DRAWINGS.
7. THESE DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE PROVISIONS OF THE CONTRACT DOCUMENTS AND NOT SEPARATE FROM THOSE PERMITS. THE CONTRACTOR IS ADVISED THAT THE REGULATORY PERMITS MAY CONTAIN REQUIREMENTS WHICH ADDITIONAL REQUIREMENTS THAT, AFTER ANY ADDENDUM, SUPERSEDE THE DRAWING NOTES. THE CONTRACTOR IS FURTHER ADVISED THAT THE CONTRACTOR AND THE CONTRACTOR'S COMPANIES WITHIN THE CONTRACT DOCUMENTS FOUND BEFORE COMMENCING WORK. THE CONTRACTOR'S CONTRACT INFORMATION TAKES PRECEDENCE WILL BE MADE BY THE ENGINEER OF RECORD ON THE BASIS OF THAT INTENT.
8. EXISTING CONDITIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT AND FABRICATION OR ORDERING OF ANY CONSTRUCTION MATERIALS.
9. SECTIONS AND DETAILS APPLY TO SAME AND SIMILAR CONDITIONS UNLESS SPECIFICALLY NOTED OTHERWISE HEREIN.
10. 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.
11. THE CONTRACTOR SHALL SAFEGUARD AND PROTECT ALL EXCAVATIONS.
12. THE CONTRACTOR SHALL USE ADEQUATE NUMBERS OF SKILLED WORKERS WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE WORK TO BE PERFORMED. THE CONTRACTOR SHALL BE FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK.
13. THE CONTRACTOR SHALL USE EQUIPMENT ADEQUATE IN SIZE, CAPACITY, AND PERFORMANCE TO MEET THE SPECIFIED REQUIREMENTS OF ALL FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS TO ACCOMPLISH THE WORK.
14. THE CONTRACTOR SHALL PROTECT BEACHES AND COASTAL RESOURCES FROM INTRUSION BY TURBO WAVES, CONSTRUCTION DEBRIS, CONSTRUCTION EQUIPMENT, OR PERSONNEL.
15. THE CONTRACTOR SHALL INCLUDE IN HIS CONTRACT SUM THE COST FOR ALL NECESSARY PERMITS, LICENSES, CERTIFICATES OF CONSTRUCTION AND SPECIAL APPROVALS NECESSARY FOR THE WORK OF THE CONTRACT. THE OWNER IS TO OBTAIN NECESSARY REGULATORY PERMITS REQUIRED FOR THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL PROVIDE COPIES OF THOSE REGULATORY PERMITS AND MAKE PROVISIONS FOR THE CONTRACTOR TO OBTAIN APPROVAL FOR APPLICABLE CONDITIONS OF THOSE PERMITS. FAILURE TO COMPLY WITH THE CONTRACT DOCUMENTS AND THE CONTRACT AS PART OF THE BID SHALL NOT RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITY TO APPLY THESE CONDITIONS TO HIS WORK AT HIS OWN EXPENSE TO THE OWNER.

SELECTIVE DEMOLITION

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, TO LOCATE AND PROTECT FROM DAMAGE UTILITIES, UTILITY POLES, AND OTHER CONSTRUCTION AND INDUSTRIAL UTILITIES OR STRUCTURES PRIOR TO ANY WORK.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO KEEP A CLEAN & TIDY WORK SITE. THE SITE SHALL BE LEFT NEAT AND CLEAN AT THE END OF EACH DAY.
3. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING THE BID TO BECOME FAMILIAR WITH EXISTING CONDITIONS FOUND ON SITE.

EROSION & SEDIMENTATION CONTROLS

1. LAND DISTURBANCE WILL BE KEPT TO A MINIMUM.
2. PRIOR TO MOBILIZATION, EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED.
3. whenever possible EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION.
4. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN EFFECTIVE CONDITION IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE "2002 CONNECTICUT DESIGN MANUAL FOR SOIL EROSION AND SEDIMENT CONTROL", MAY 2002.
5. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
6. ADDITIONAL CONTROL MEASURES SHALL BE INSTALLED DURING THE CONSTRUCTION PERIOD AS NECESSARY AND REQUIRED.
7. THE GENERAL CONTRACTOR SHALL UTILIZE APPROVED METHODS AND MATERIALS FOR PREVENTING THE SLIDES AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES INTO ADJACENT PROPERTY AND SITE AREAS.
8. THE CONTRACTOR SHALL MAINTAIN A SUPPLY OF SILT FENCE 100' MIN ON SITE FOR EMERGENCY PURPOSES.
9. ALL DISTURBED LAND AREAS OUT OF THE MAJOR CONSTRUCTION AREA THAT ARE TO BE LEFT EXPOSED FOR PROLONGED PERIODS OF TIME SHALL BE PROTECTED WITH TEMPORARY VEGETATIVE COVER, SEEDING, OR AREAS WITH PERENNIAL OR GRASS AT THE RATE OF 40 LBS. PER ACRE (1 LB PER 100 SQ FT).
10. THE GENERAL CONTRACTOR IS ASIGNED THE RESPONSIBILITY FOR IMPLEMENTING THIS EROSION AND SEDIMENTATION CONTROL PLAN. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR SUPERVISING THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE PROJECT OF THE EROSION AND SEDIMENTATION AND OBJECTIVES OF THE PLAN, NOTIFYING THE CONSERVATION STAFF OF THE STATE OF CONNECTICUT OF THE EROSION AND SEDIMENTATION CONTROL PLAN, AND CONVEYING A COPY OF THE CONTROL PLAN IF THE TITLE TO THE LAND IS TRANSFERRED.

BEACH Nourishment

U.S. STANDARD (SIEVE SIZE)	SPECIFICATIONS FOR DRY BEACH SAND NOURISHMENT (PERCENT PASSING BY (HEIGHT)
#8	100
#16	100-45
#32	45-40
#60	40-30
#120	30-25
#200	25-0
#400	0

5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE A SAND SOURCE.

6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE A SAND SOURCE TO ENSURE THAT MATERIAL SOURCE MATCHES THE COLOR, GRAIN SIZE, AND DISTRIBUTION OF THE SAND ON THE COASTAL BEACH.
7. THE SOIL PARTICLES SHALL BE ANGULAR TO SUB-ROUNDED
8. THE MINIMUM SPECIFIC GRAVITY OF SOIL PARTICLES SHALL BE 2.65.
9. THE CONTRACTOR SHALL SUBMIT LABORATORY CERTIFICATION FOR EACH 1000 CY. DELIVERED OR FOR EACH 100 CY. OF SAND SOURCE. THE CONTRACTOR CERTIFIES THE SOIL PROPOSED FOR BEACH FILL SATISFIES THE MINIMUM REQUIREMENTS FOR THE DESIGN AND COMPUTATION SHEETS.
10. SAND SHALL BE FREE OF CONTAMINANTS: PCB'S, Dioxin, Hg, PCB's, and other toxic chemicals. A copy of the certification shall be provided to the owner.
- II. CONTRACTOR SHALL PROVIDE SAMPLE AND TEST RESULTS TO THE ENGINEER FOR APPROVAL. ANY VARIATION IN THE SPECIFIED GRADATION MAY REQUIRE PLACEMENT OF ADDITIONAL FILL VOLUME BASED ON ENGINEERING ANALYSIS.

EXCAVATION AND BACKFILLING

1. THE CONTRACTOR SHALL EXCAVATE BACKFILL AND GRADE THE AREAS TO THE ELEVATIONS AND LINES SHOWN AND NEEDED TO MEET THE REQUIREMENTS OF THE CONSTRUCTION.
2. GRADE THE AREAS ADJACENT TO BUILDINGS TO ACHIEVE PROTECTION AWAY FROM THE STRUCTURES AND PREVENT PONDING.

CONSTRUCTION

1. THE CONTRACTOR SHALL USE EQUIPMENT ADEQUATE IN SIZE, CAPACITY, AND PERFORMANCE TO MEET THE SPECIFIED REQUIREMENTS OF ALL FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS TO ACCOMPLISH THE WORK.
2. THE CONTRACTOR SHALL PROTECT BEACHES AND COASTAL RESOURCES FROM INTRUSION BY TURBO WAVES, CONSTRUCTION DEBRIS, CONSTRUCTION EQUIPMENT, OR PERSONNEL.

GENERAL

1. THE CONTRACTOR SHALL INCLUDE IN HIS CONTRACT SUM THE COST FOR ALL NECESSARY PERMITS, LICENSES, CERTIFICATES OF CONSTRUCTION AND SPECIAL APPROVALS NECESSARY FOR THE WORK OF THE CONTRACT. THE OWNER IS TO OBTAIN NECESSARY REGULATORY PERMITS REQUIRED FOR THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL PROVIDE COPIES OF THOSE REGULATORY PERMITS AND MAKE PROVISIONS FOR THE CONTRACTOR TO OBTAIN APPROVAL FOR APPLICABLE CONDITIONS OF THOSE PERMITS. FAILURE TO COMPLY WITH THE CONTRACT DOCUMENTS AND THE CONTRACT AS PART OF THE BID SHALL NOT RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITY TO APPLY THESE CONDITIONS TO HIS WORK AT HIS OWN EXPENSE TO THE OWNER.



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REVISIONS
NO. DESCRIPTION BY DATE

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PREPARED FOR:

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TOWN OF FAIRFIELD
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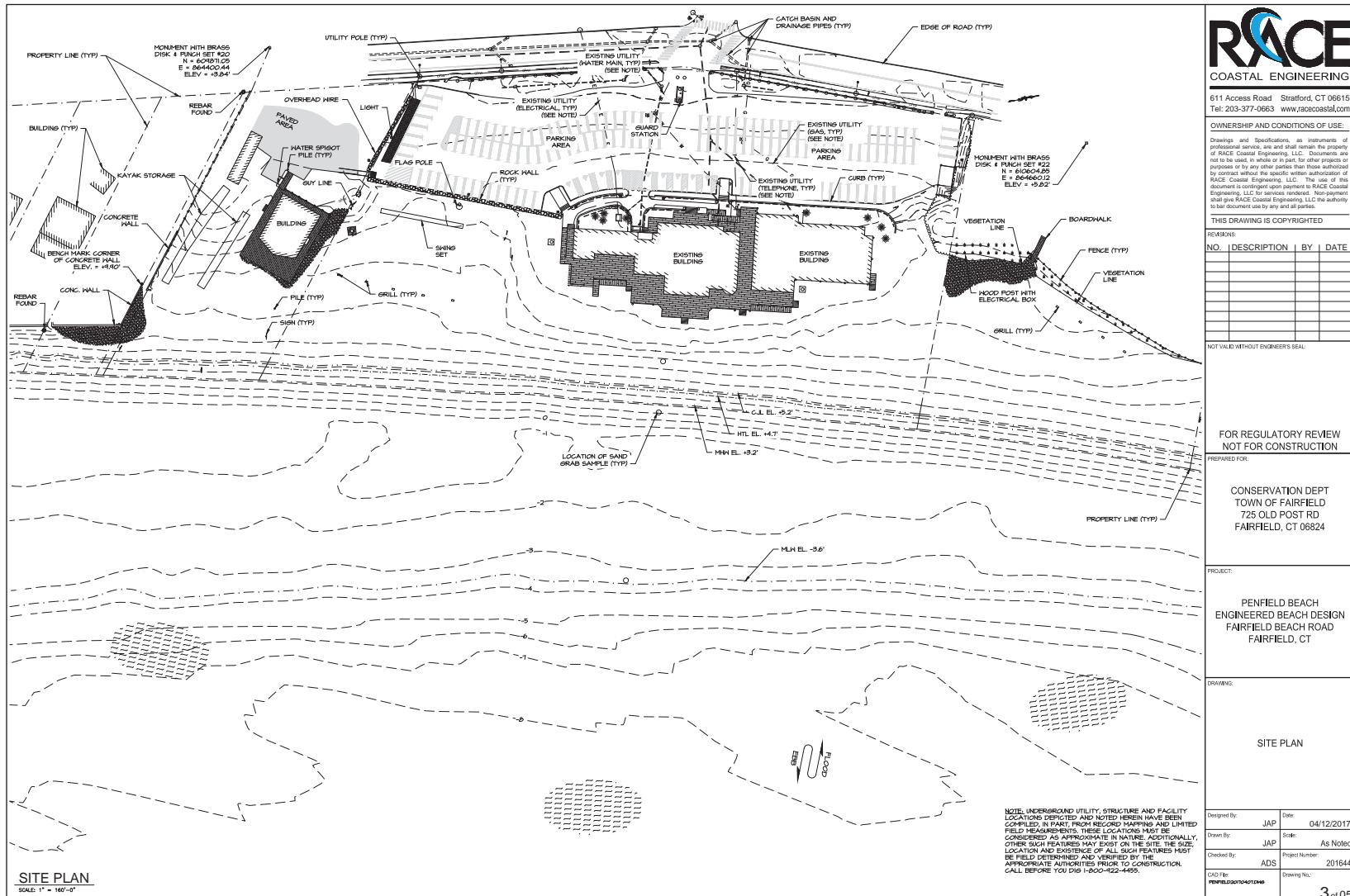
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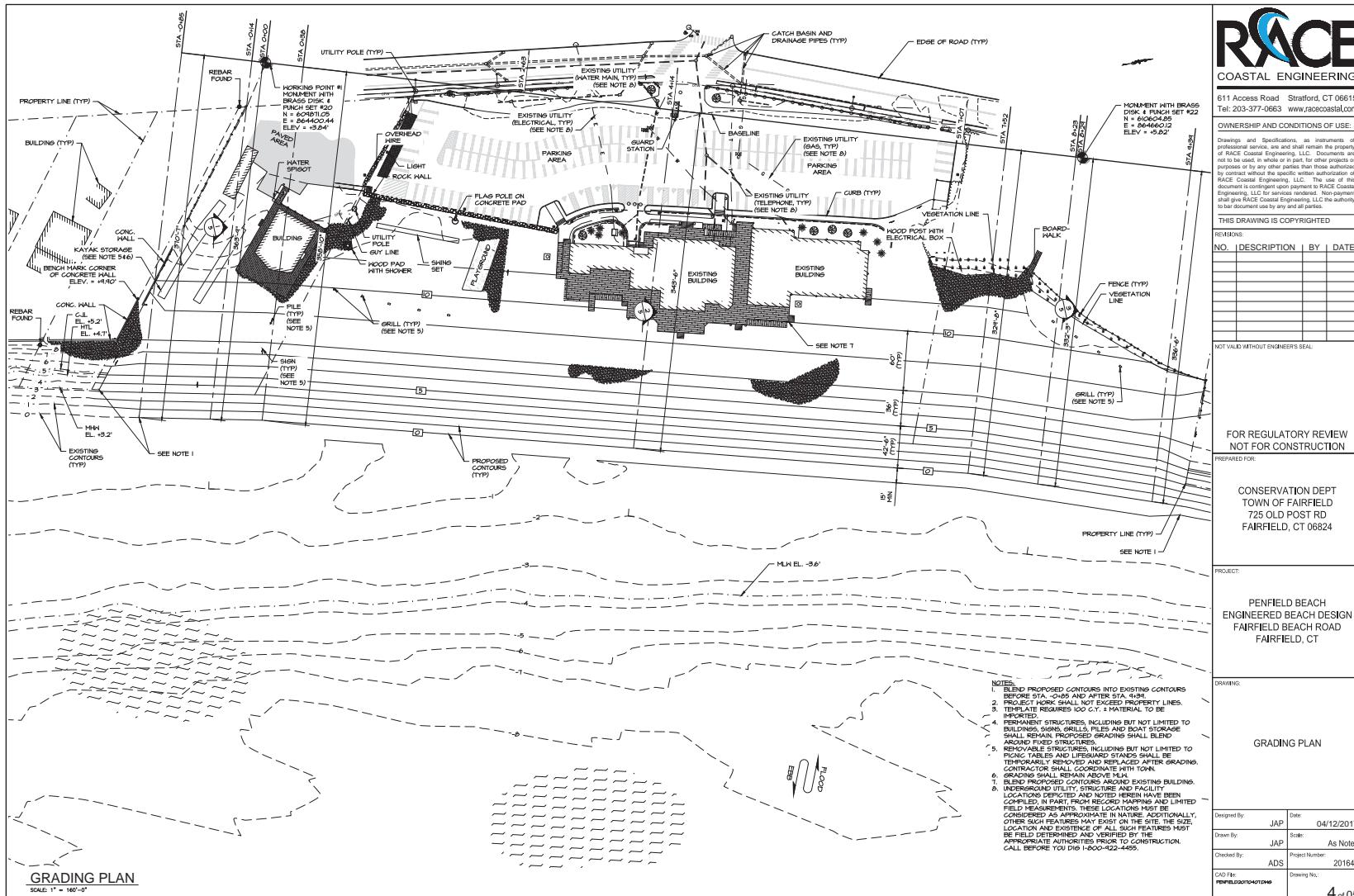
PENFIELD BEACH
ENGINEERED BEACH DESIGN
FAIRFIELD BEACH ROAD
FAIRFIELD, CT

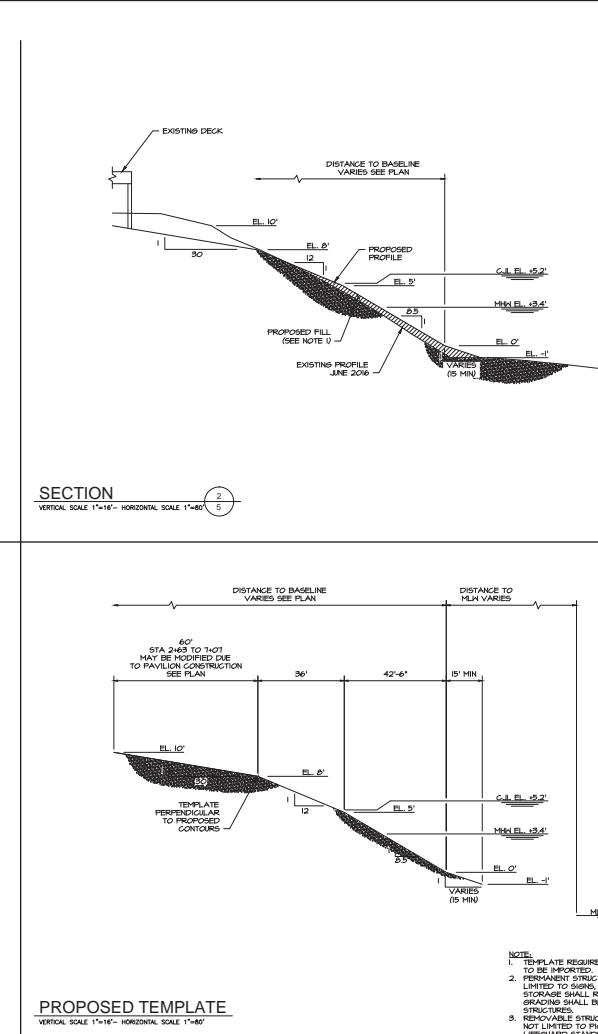
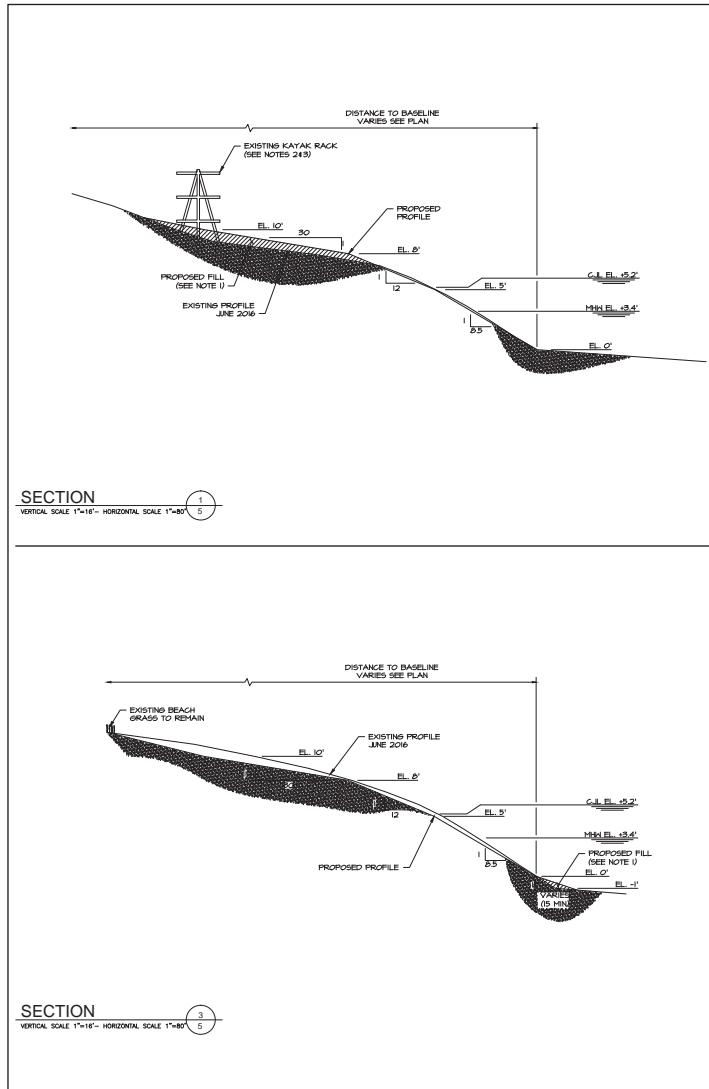
DRAWING

PROJECT NOTES

Designed By: JAP Date: 04/12/2017
Drawn By: JAP Sub: As Noted
Checked By: ADS Project Number: 201644
CAD / IFC: PENFELD.B3D104072016
Drawing No: 2 of 05







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CONSERVATION DEPT
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FAIRFIELD, CT 06824

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PENFIELD BEACH
ENGINEERED BEACH DESIGN
FAIRFIELD BEACH ROAD
FAIRFIELD, CT

1

SECTION

NOTE.

1. TEMPLATE REQUIRE 100 C.Y. ± MATERIAL TO BE IMPORTED.
2. PERMANENT STRUCTURES, INCLUDING BUT NOT LIMITED TO SIGNS, GRILLS, PILES AND BOAT STORING, SHALL REMAIN. PROPOSED GRADING SHALL BLEND AROUND FIXED STRUCTURES.
3. REMOVABLE STRUCTURES, INCLUDING BUT NOT LIMITED TO PICNIC TABLES AND LIFEBOAT STANDBYS, SHALL BE TEMPORARILY REMOVED AND REPLACED AFTER GRADING. CONTRACTOR SHALL COORDINATE WITH TOWN.

5 of 0

SECTION 3

Project Narrative



A. DESCRIPTION OF PROPOSED PROJECT

- 1. Description of Existing Sites** – The sites include the five Town beaches in Fairfield, CT. Each site is described below:

Penfield Beach – 323 Fairfield Beach Road, Fairfield, CT 06824

The property has an area of approximately 332,540.32 square feet ($7.63\pm$ acres). It is a linear beach utilized by the public for recreational beach opportunities. The Fairfield Beach Club is located to the northeast and privately owned residential lots are located to the southwest. Geomorphologically, the site can be described as a sand beach. It is a dynamic coastal landform whose shape and form will be most strongly influenced by wave action. It remains in a natural state in spite of relatively high utilization and modest anthropogenic impacts.

There is a vegetated dune on the northern portion of the site landward of the planar backshore. The dune is interrupted by the pavilion structure which sits atop the flat planar backshore at approximately the center of the site. To the southwest of the pavilion is a playground, another building, kayak storage, and other ancillary structures. A paved parking lot is located immediately adjacent to the beach.

The site is exposed to Long Island Sound and is subject to coastal flooding associated with storm conditions. The subject property is located in a Special Flood Hazard Area (SFHA) designated by FEMA as Zone VE (El 13)/Zone AE (El 11) according to FEMA Flood Insurance Rate Map (FIRM) Panel 09001C0438G with an effective date of July 8, 2013.

2. Proposed Activities

The Applicant proposes to perform the following activities:

- Regrade the beach to engineered slopes and specifications.

The regrading will require 100 cubic yards of beach sand to be added to the Penfield Beach site. Regrading is limited to above mean low water (MLW). The purpose of this project is to design the beach such that it may be eligible for FEMA funding following a severe coastal storm. Regular maintenance of the beach is important to maintain the beach profile and prevent erosion and damage. The level of protection in the aftermath of a major storm will be decreased if proper maintenance is not performed. Beaches that have eroded to a critical condition are not eligible for FEMA funding. As such, the Applicant is also proposing to maintain the beach through periodic nourishment, advance nourishment, and emergency maintenance. Periodic nourishment of the beach will be necessitated by the cumulative erosion of the beach caused by storm events.

B. DESCRIPTION OF COASTAL RESOURCES

The Coastal Land and Water Resources as identified by Town of Fairfield Plan and Zoning Department, site inspection and review of the Coastal Resources Map, the Sherwood Point Quadrangle (dated 1979), and defined in the Connecticut General Statutes (CGS) Sec. 22a-93 include the following:

General Resources:

The site is located within the *Coastal Area Management Zone*.



Coastal Hazard Areas:

“Coastal Hazard Areas” means those land areas inundated during coastal storm events or subject to erosion induced by such events including flood hazard areas as defined by the National Flood Insurance Act.

The subject property is located in a Special Flood Hazard Area (SFHA) designated by FEMA as Zone VE (E1 13)/Zone AE (E1 11) according to FEMA Flood Insurance Rate Map (FIRM) Panel 09001C0438G with an effective date of July 8, 2013.

Nearshore Coastal Water:

The nearshore coastal waters of Long Island Sound and its various substrates lie immediately seaward of this site’s mean high water boundary out to a depth approximated by the 10-meter contour.

Each site contains nearshore coastal waters.

Beaches and Dunes:

*“Beaches and Dunes” are ‘moderately sloping shores composed of water worked sand, gravel or cobble deposits (beach) and when present, wind deposited sands (dunes and sand flats). The beach (proper) is positioned between mean low water and coastal bluffs/escarpments or dunes or vegetation. The map designations include all areas of sandy beach fill. Dunes and sand flats positioned landward and elevated above the beach, support coastal grasslands dominated by beach grass (*Ammophila breviligulata*)’.*

The site contains beaches and dunes. The proposed regrading will reshape the beach to achieve idealized slopes and grades and make it more resistant to coastal storms. The proposed work will enhance this resource. It is not anticipated that the beach regrading will impact the dune or beach grass it supports.

Intertidal Flats

“Intertidal Flats” are level to gently sloping areas subjected to alternating periods of tidal inundation and exposure. Sediment is variable ranging from mud to sand.

Sandy intertidal flats are found on the Penfield Beach site. It is not anticipated that the proposed work will alter this resource or have a negative impact. The proposed work will take place on the sloping portion of the beach landward of the intertidal flats.

C. ASSESSMENT OF SUITABILITY OF COASTAL RESOURCES TO ACCOMMODATE THE PROPOSED PROJECT

1. Identify all coastal resource policies (in Section 22a-92(b)(2) of the CCMA) applicable to the proposed project.

Section 22a-92(b)(2)(C):

To preserve the dynamic form and integrity of natural beach systems in order to provide critical wildlife habitats, a reservoir for sand supply, a buffer for coastal



flooding and erosion, and valuable recreational opportunities; to ensure that coastal uses are compatible with the capabilities of the system and do not unreasonably interfere with natural processes of erosion and sedimentation, and to encourage the restoration and enhancement of disturbed or modified beach systems.

Section 22a-92(b)(2)(F):

To manage coastal hazard areas so as to ensure that development proceeds in such a manner that hazards to life and property are minimized.

2. Identify all coastal use policies (in Section 22a-92(b)(1) of the CCMA) applicable to the proposed project.

Section 22a-92(a)(1):

To ensure that the development, preservation or use of the land and water resources of the coastal area proceeds in a manner consistent with the capability of the land and water resources to support development, preservation or use without significantly disrupting either the natural environment or sound economic growth.

Section 22a-92(a)(2):

To preserve and enhance coastal resources in accordance with the policies established by chapters 439, 440, 446i, 446k, 447, 474 and 477.

Section 22a-92(a)(3):

To give high priority and preference to uses and facilities which are dependent upon proximity to the water or the shorelands immediately adjacent to marine and tidal waters.

Section 22a-92(a)(5):

To consider in the planning process the potential impact of a rise in sea level, coastal flooding and erosion patterns on coastal development so as to minimize damage to and destruction of life and property and minimize the necessity of public expenditure and shoreline armoring to protect future new development from such hazards.

Section 22a-92(a)(6):

To encourage public access to the waters of Long Island Sound by expansion, development and effective utilization of state-owned recreational facilities within the coastal area that are consistent with sound resource conservation procedures and constitutionally protected rights of private property owners.

3. Describe how the proposed project is consistent with the coastal resource and use policies identified in items 1 and 2 above. Assess the extent to which the project conforms or conflicts with each policy.

In addition to resiliency, the project will also serve as a baseline such that the Town beach may be eligible for FEMA funding following a severe coastal storm event allowing it to be continually retained as valuable public recreational opportunities and resources. Therefore, this project is consistent with Section 22a-92(b)(2)(C).



The proposed regrading will be minimal in nature to preserve the natural beach system. The work will enhance the shoreline making it more resilient to storm damage. Therefore, this project is consistent with Section 22a-92(b)(2)(F).

Overall, the proposed project will be consistent with the general development use policy (Section 22a-92(a)(1)) for land and water resources of the coastal area. The proposed work is designed to enhance the coastal resources (Section 22a-92(a)(2)) found on these public beaches which will encourage public access to the waters of Long Island Sound (Section 22a-92(a)(3) and Section 22a-92(a)(6)). The work is being proposed to increase resiliency to coastal storms and to minimize damage to and destruction of life and property, and is therefore consistent with Section 22a-92-(a)(5).

D. EVALUATION OF POTENTIAL BENEFICIAL AND ADVERSE IMPACTS OF THE PROJECT

1. Identify and describe the potential benefits and adverse impacts of the project on coastal resources.

The potential adverse impacts (as defined in Section 22a-93(15)) of the Connecticut Coastal Management Act (CCMA) and potential beneficial impacts of the project on coastal resources are described below.

"Adverse impacts on coastal resources" include but are not limited to: (A) Degrading water quality through the significant introduction into either coastal waters or groundwater supplies of suspended solids, nutrients, toxics, heavy metals or pathogens, or through the significant alteration of temperature, pH, dissolved oxygen or salinity; (B) degrading existing circulation patterns of coastal waters through the significant alteration of patterns of tidal exchange or flushing rates, freshwater input, or existing basin characteristics and channel contours; (C) degrading natural erosion patterns through the significant alteration of littoral transport of sediments in terms of deposition or source reduction; (D) degrading natural or existing drainage patterns through the significant alteration of groundwater flow and recharge and volume of runoff; (E) increasing the hazard of coastal flooding through significant alteration of shoreline configurations or bathymetry, particularly within high velocity flood zones; (F) degrading visual quality through significant alteration of the natural features of vistas and view points; (G) degrading or destroying essential wildlife, finfish or shellfish habitat through significant alteration of the composition, migration patterns, distribution, breeding or other population characteristics of the natural species or significant alteration of the natural components of the habitat and (H) degrading tidal wetlands, beaches and dunes, rocky shorefronts, and bluffs and escarpments through significant alteration of their natural characteristics or function.

The project has been designed to not only minimize the adverse impacts listed above, but to improve the stability and make the Town beach more resilient to storm damage. The development and associated construction activity will take place within proper erosion controls and is limited to landward of MLW. There is no potential to degrade surrounding water resources through introduction of substances, alteration of flow patterns or littoral transport. Numerical modeling has been performed to demonstrate that the project will not



affect local flooding along the Applicant's (or adjacent) property and that the proposed work will lead to a more stable, resilient beach.

2. For waterfront property:

a. Is the project a water dependent use as defined by Section 22-93(16) of the CCMA?

The project is for a water dependent use. The proposed work will enhance the Town beach and therefore encourage public access to the waters of Long Island Sound.

b. Describe the impacts or effects that the project will have on future water dependent uses or development on and adjacent to the site.

The proposed work is designed to enhance the resiliency of the public beach which will encourage public access to the waters of Long Island Sound. In addition, the project will serve as a baseline such that the Town beach may be eligible for FEMA funding following a severe coastal storm event allowing it to be continually retained as valuable public recreational opportunity and resource.

c. Describe the proposed measures to mitigate any adverse impacts on coastal resources described in D1 and, if applicable, on future water dependent development opportunities.

No mitigation to coastal resources is necessary and therefore not proposed in this application.

E. ACCEPTABILITY OF REMAINING ADVERSE IMPACTS ON COASTAL RESOURCES AND FUTURE WATER DEPENDENT USES AND DEVELOPMENT

1. Describe what adverse impacts remain after employing all reasonable mitigation measures.

No adverse impacts remain.

2. Explain why these adverse impacts were not mitigated.

Not applicable

3. Explain why the Commission reviewing this application should find these remaining adverse impacts acceptable.

Not applicable

RACE COASTAL ENGINEERING

Azure Dee Sleicher

Azure Dee Sleicher, PE
Manager of Coastal Engineering



SECTION 4

Abutters



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725 OLD POST ROAD
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MCMAHAN CHRISTIAN A & ARIANE (SV)
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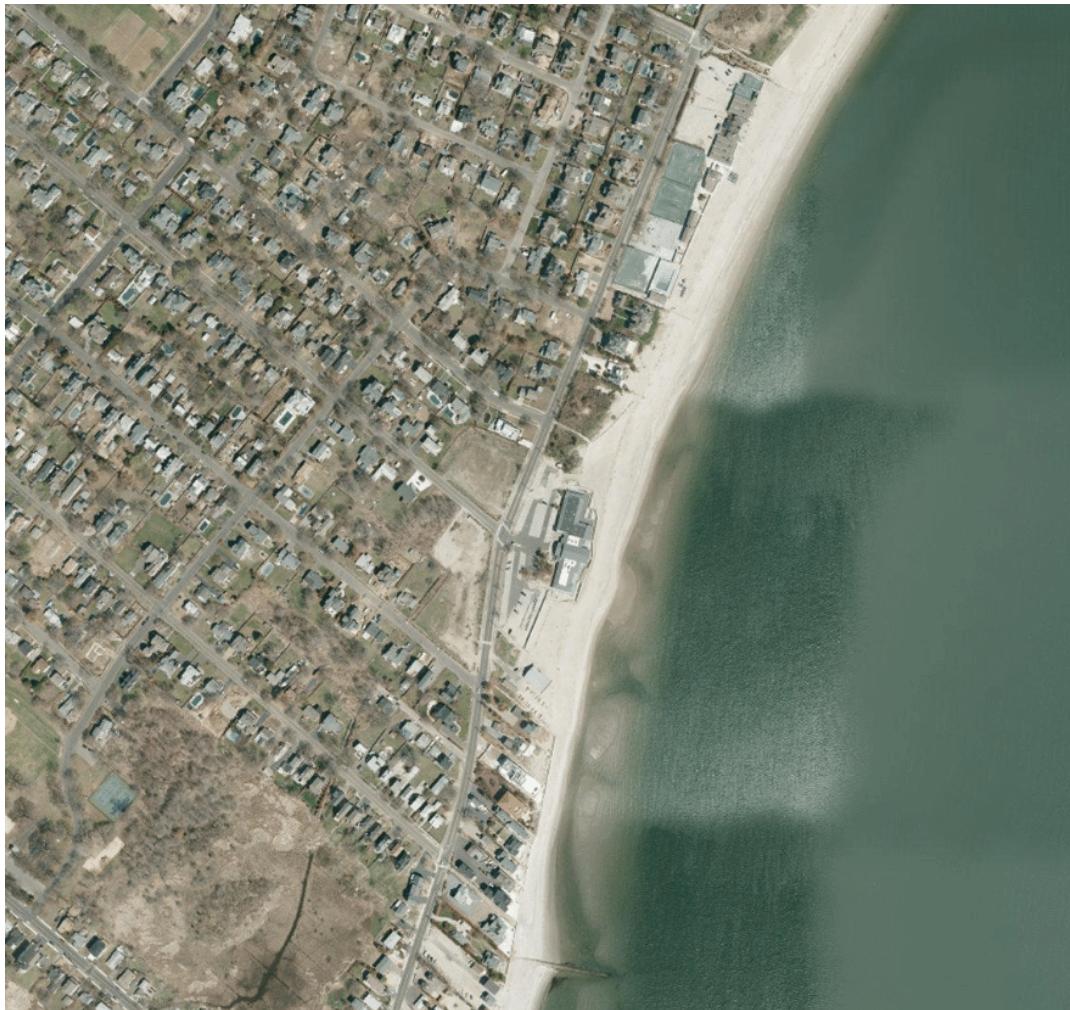
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SECTION 5

Site Photographs





Source: ESRI World Imagery, 2011

Photo 1: Aerial Photograph – Penfield Beach





Photo 2: Site Looking North



Photo 3: Site Looking South

