



State of Rhode Island and Providence Plantations
Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 3
Wakefield, RI 02879-1900

(401) 783-3370
Fax (401) 783-2069

APPLICATION FOR STATE ASSENT

To perform work regulated by the provisions of Chapter 279 of the Public Laws of 1971 Amended.

Project Location <u>Rose Larisa Park, 701 Bullocks Point Ave., East Providence</u>			File No. (CRMC USE ONLY)
No.	Street	City/Town	2023-10-015
Owner's Name <u>City of East Providence</u>			Plat: <u>Plat 414, Block 13, Lots 7, 8 & 8.1</u> Lot(s):
Mailing Address <u>145 Taunton Ave., East Providence, RI 02914</u>			Owner's Contact: <u>Erik Skadberg</u> Number: <u>435-7703 ext. 1</u> (EP DPW) Email Address: <u>eskadberg@cityofeastprov.com</u>
Address			City/Town, State
Zip Code			
Contractor RI Reg. # <u>TBD</u> Address			Email address: <u>rfairbanks@fairbankseng.com</u> Tel. No. <u>TBD</u>
Designer Address			Robert Fairbanks Tel. No. (FEC) <u>474-2361</u>
Name of Waterway <u>Providence River/Narragansett Bay</u>			Estimated Project Cost (EPC): <u>\$2,500,000+/-</u> Application Fee: <u>n/a</u>

Provide Below a Description of Work As Proposed (required).

Repair to approximately 570 ft+- of an existing vegetated soil slope on the Providence River that experienced significant stability failures and erosion during the December 23, 2022 storm. Large trees are downed on the beach with many others overhanging, likely to fail in the near future, creating a hazard to the public. The proposed repair includes regrading the earth slope to an approximate 1.5H:1V slope, constructing a stone revetment up to EL. +20 with a 3H:1V vegetated slope above consisting of coir logs and erosion control blankets. The stone revetment and coir log system will be tied into the revetment to the north, permitted under CRMC A2023-04-007, and the adjacent property's stone revetment and timber seawall to the south. The work will be performed from both the landward and beach side using cranes, excavators, earth moving equipment, and trucks; supplemented by labor and hand tools as required. Access will be through the park and from Beach Ave. onto the beach. The stone rip rap will be staged on the beach as required to allow placement.

Have you or any previous owner filed an application for and/or received an assent for any activity on this property?

(If so please provide the file and/or assent numbers): 2023-04-007, 2022-02-036, 2021-06-014, 2019-09-031, 2002-07-068

Is this site within a designated historic district?

☐ YES

☒ NO

Is this application being submitted in response to a coastal violation?

☐ YES

☒ NO

If YES, you must indicate NOV or C&D Number: _____

Name/mailling addresses of adjacent property owners whose property adjoins the project site. Accurate mailing addresses will

insure proper notification. _____ Applicant **must** initial to certify accuracy of adjacent property owners and accuracy of mailing addresses.

See Attached

STORMTOOLS (<http://www.beachsamp.org/resources/stormtools/>) is a planning tool to help applicants evaluate the impacts of sea level rise and storm surge on their projects. The Council encourages applicants to use STORMTOOLS to help them understand the risk that may be present at their site and make appropriate adjustments to the project design.

NOTE: The applicant acknowledges by evidence of their signature that they have reviewed the Rhode Island Coastal Resources Management Program, and have, where possible, adhered to the policies and standards of the program. Where variances or special exceptions are requested by the applicant, the applicant will be prepared to meet and present testimony on the criteria and burdens of proof for each of these relief provisions. The applicant also acknowledges by evidence of their signature that to the best of their knowledge the information contained in the application is true and valid. If the information provided to the CRMC for this review is inaccurate or did not reveal all necessary information or data, then the permit granted under this application may be found to be null and void. Applicant requires that as a condition to the granting of this assent, members of the CRMC or its staff shall have access to the applicant's property to make on-site inspections to insure compliance with the assent. This application is made under oath and subject to the penalties of perjury.

08/04

Roberto L. Dasilva

Owner Name (PRINT) (MAYOR)

Robert Fairbanks

Owner's Signature (SIGN)

PLEASE REVIEW REVERSE SIDE OF APPLICATION FORM





Fairbanks Engineering Corporation
Geotechnical & Marine Engineers

September 8, 2023

**CATEGORY "B" APPLICATION FOR CRMC ASSENT
STRUCTURAL SHORELINE PROTECTION & RESILIENCY AGAINST SEA LEVEL RISE**

OWNER: *City of East Providence*

LOCATION: 701 Bullocks Point Ave., Rose Larisa Park, East Providence, RI

CRMC APPLICATION – PROJECT NARRATIVE

Description of Work:

The City of East Providence proposes to repair significant storm damage and construct a new revetment along an approximate 570 ft section of shoreline. The slope supports land at Rose Larisa Park which has many pedestrian recreational uses on any given day. The shoreline includes a set of wooden stairs with a stone revetment to protect the foundation at the south end. The slope was considered heavily vegetated and ranged in steepness from approximately 1.5H:1V to 1.7H:1V, but the recent December 23, 2022 storm caused significant damage to the existing slope. Significant portions of the existing slope were scoured during the recent storm (up to 10 feet horizontally and 15 feet vertically) resulting in the loss of substantial vegetation ranging from small plantings to large/mature trees. Many of the remaining trees are situated such that they are likely to fall onto the beach in the near future. The beach area below the slope is used by pedestrians daily. As a result, the current slope condition is considered a hazard. The property is located along CRMC Type 2 waters on the east shore of the Providence River/Narragansett Bay.

To protect the shoreline, park land, and persons using the park, the Applicant seeks to construct a shoreline protection system along the parks south end which includes: regrading the existing slope, removal of existing slope vegetation as needed for safety during and after construction, and the construction of a stone revetment system along the shoreline with a vegetated slope incorporating an erosion control mat above the revetment. The work includes repairing or reconstructing the wooden stairs to maintain access to the beach. The revetment is designed for the FEMA 100-year (1%) storm wave and storm surge. The repaired shoreline would provide better resiliency against sea level rise. The property is recorded as Assessor's Plat Map 414, Block 13, Lots 007, 008, and 008.1 in the Land Evidence records of East Providence, Rhode Island at the City Hall. Photos of past and present condition and use of the facility are included with the application.

The proposed slope repair is similar to the slope repair work recently approved to the north under CRMC A2023-04-007.

The proposed activity is allowed per Table 1 of the CRMC Redbook as a Category B Application.

42 Cobblestone Hill Road
Exeter, RI 02822

rfairbanks@fairbankseng.com
Licensed: RI, MA, CT, NH, ME, PA

Tel. 401-294-3484
Cell 401-474-2361





Project Specifics:

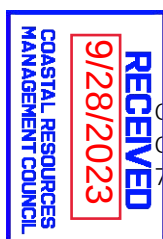
Water Use Category:	Type 2
Shoreline Feature:	Headland Bluff
Water Use Map:	Cranston, Providence and East Providence (Metro Bay – south)
Lot Size:	4.54 +- Acres
Setback (Section 1.1.9):	None
Alteration or Activity:	Construct a shoreline protection system to repair recent storm damage and prevent further slope destabilization
Project Footprint:	30,000 +- SF
Flood Zone:	VE (EL. +20) (along slope area), X upland of slope (FIS no. 44007CV001D, dated July 19, 2023)
Base Flood Elevation:	EL. +20 ft NAVD88 (Stillwater EL. +11.6 ft NAVD88)
Fill to be Deposited:	No fill will be deposited in waterway

Section 1.3.1 A – Category B Requirements (UpLand):

a. *Demonstrate the need for the proposed activity or alteration;*

Response: The proposed activity is required to stabilize and provide protection for the existing slope. The slope is located along the Providence River and is exposed to coastal storms, waves and surges. The 100-year (1%) coastal storm has the potential to generate 7.6-foot (ft) waves with significant storm surges that have caused erosion of the existing earthen slope previously. The most recent storm on December 23, 2022 caused significant erosion (up to 30 ft) of the existing slope, resulting in downed trees on the beach with many of the remaining trees on the slope undermined and likely to fall in the near future. The slope supports Rose Larisa Memorial Park which is heavily used by the public and provides access to the park's shoreline. As a result, the current state of the slope and its vegetation is considered a hazard to the public. There is an existing experimental erosion control area (CRMC 2019-09-031) at the site consisting of a coir log and vegetation system with rip rap which has unfortunately not been fully successful. After the December storm and other more recent storms, portions of the coir log and mat system have either failed or begun to fail. The vegetation has not fully taken to the coir logs, and the rip rap—consisting of small stones—has been skewed across the area. Typically, a non-structural “soft” shoreline protection system (coir logs & vegetation) can only withstand up to a 2 ft wave, and a nonstructural shoreline protection system would be damaged by even smaller waves, which is why a hybrid shoreline protection system is not deemed applicable to this site. We propose to construct a stone revetment system designed per CRMC requirements (Redbook) to resist the 100-year (1%) significant storm wave height with a vegetated slope above the revetment using a coir log and erosion control blanket system to provide erosion protection and resiliency against sea level rise. This is the appropriate shoreline protection system (of the 3 options allowed per the Redbook) for this site given its location in a high wave energy area. It should be noted that a similar system was approved immediately to the north of our project area under CRMC A2023-04-007.

Two different experimental shoreline protection systems were constructed between April 27 and May 15, 2020. The first system consists of a coir log, vegetation and small rip rap system located along the coastal bluff. The second system consists of rip rap sills and vegetation located at the southernmost portion of





the sites shoreline and acts as an erosion control area on the beach. Per the original permit (CRMC 2019-09-031) the systems were to be monitored for three (3) years post construction. It is our understanding that construction of the experimental shoreline protection system was completed on May 15, 2020; therefore, the minimum monitoring period for this system has been achieved. The coir log system is currently in a poor to failed state after the recent 2022 and 2023 storms and is located within the footprint of our proposed revetment and vegetated slope. As a result, the coir log system will require demolition and removal. The rip rap sill and vegetation system located at the southern end of the shoreline appears to be functioning as intended and does not coincide with the location of the currently proposed slope protection system; therefore, all efforts will be made to preserve this portion of CRMC 2019-09-031 during construction.

- b. Demonstrate that all applicable local zoning ordinances, building codes, flood hazard standards, and all safety codes, fire codes, and environmental requirements have or will be met; local approvals are required for activities as specifically prescribed for nontidal portions of a project in §§ 1.3.1(B), (C), (F), (H), (I), (K), (M), (O) and (Q) of this Part; for projects on state land, the state building official, for the purposes of this section, is the building official;*

Response: All work will comply with local, state, and federal requirements. The project is for the City of East Providence. A building permit will also be required from East Providence.

- c. Describe the boundaries of the coastal waters and land area that is anticipated to be affected;*

Response: The work will be conducted adjacent to CRMC Type 2 waters along the Providence River/Narragansett Bay. The coastal feature consists of an irregular surface of headland bluff comprised of sand and vegetation ranging from small shrubs to large/mature trees. The proposed shoreline protection system is allowed per Table 1 of the CRMC Redbook as a Category B project. The intent is to regrade the lower portion of the existing slope to a 1.5H:1V and construct a stone revetment system from the toe of the slope up to the top of the base flood elevation (EL. +20 ft). Above the stone revetment, the slope will be re-graded to flatten the slope to a 3H:1V slope with coir logs, an erosion control blanket and vegetation securing this remaining upper portion of the slope. The vegetation planted will be as approved by CRMC. All construction work will take place above MHW.

- d. Demonstrate that the alteration or activity will not result in significant impacts on erosion and/or deposition processes along the shore and in tidal waters;*

Response: The shoreline protection system is proposed to both protect the existing eroding slope and the park located upland of said slope as well as to reduce the potential for further erosion of the coastal feature. The proposed construction is landward of the MHW mark and will have no affect on normal deposition processes along the shore and tidal waters.

- e. Demonstrate that the alteration or activity will not result in significant impacts on the abundance and diversity of plant and animal life;*





Response: The proposed activity is above MHW in an area that is currently disturbed and without submerged aquatic vegetation. As a result of the December 23, 2022 storm, the existing slope vegetation has either failed or is close to failure. The proposed construction plans to replace the existing shrubs and trees on the upper portion of the slope with suitable vegetation as approved by CRMC. The more robust slope is also anticipated to serve as a protective barrier to erosion that could otherwise impact plant or animal life as a result of coastal wave action.

- f. *Demonstrate that the alteration will not unreasonably interfere with, impair, or significantly impact existing public access to, or use of, tidal waters and/or the shore;*

Response: The use of tidal waters and adjacent shores will not be impacted by the project. The shoreline protection system area will not extend past CRMC's approved toe of slope, and all work will be completed landward of the MHW mark. Beach access will remain open to the public during construction, and the proposed improvement will actually enhance public access by eliminating the safety hazard that currently exists.

- g. *Demonstrate that the alteration will not result in significant impacts to water circulation, flushing, turbidity, and sedimentation;*

Response: As previously stated the proposed shoreline protection system is located above the MHW mark; therefore, circulation, flushing and/or turbidity will not be affected. The completed protection system will not affect the sedimentation of the area.

- h. *Demonstrate that there will be no significant deterioration in the quality of the water in the immediate vicinity as defined by DEM;*

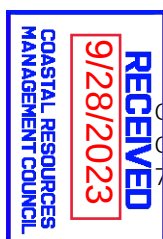
Response: No change in water quality is expected as a result of the shoreline protection system.

- i. *Demonstrate that the alteration or activity will not result in significant impacts to areas of historic and archaeological significance;*

Response: There are several ruins of abandoned timber piles and timber sheeting that were once part of various structures located on the beach. These date from when the park was known as Crescent Park. All of the abandoned structures are located below MHW. All work associated with construction of the shoreline protection system will be above MHW. The contractor will also be required to protect all abandoned structures on the beach during the work.

- j. *Demonstrate that the alteration or activity will not result in significant conflicts with water dependent uses and activities such as recreational boating, fishing, swimming, navigation, and commerce, and;*

Response: No change in use of the site is requested or proposed. The proposed protective structure is above the MHW elevation, and there shall be uninterrupted access to the shore from several locations in





the park and adjacent shoreline. The project will not interfere with access to the shoreline for swimming and does not project into the water, therefore posing no conflict with boating, fishing or navigation. There is no Federal or State channel in close proximity to the structure that would be inhibited due to the construction of the shoreline protection system.

- k. *Demonstrate that measures have been taken to minimize any adverse scenic impact (see §1.3.5 of this Part).*

Response: The site as seen from land will remain essentially unchanged with the exception that the eroded areas will be repaired and revegetated. The site as seen from the shore/water will be in keeping with the existing shoreline to the north and the south, as there is an existing stone revetment located immediately to the north and an existing stone revetment on the abutting property located immediately to the south. As a result, there will be no adverse scenic impact.

1.3.1 B – Filling, Removing, or Grading of Shoreline Features:

Section 3. Standards:

- a. *The following standards apply in all cases where filling, removal, or grading is undertaken:*

1. *Fill slopes shall have a maximum grade of thirty percent (30%);*

Response: The applicant seeks to re-establish the existing vegetated slope on the headland bluff to generally pre-storm conditions with a 1.5:1 rip rap slope and a 3:1 vegetated soil slope above. The slope consists of sand materials with an angle of repose of approximately 1 vertical to 1.5 horizontal. The toe of the slope is approximately 20 ft inland of the MHW mark.

2. *All excess excavated materials, excess fill, excess construction materials, and debris shall be removed from the site and shall not be disposed in tidal waters or on a coastal feature;*

Response: The project seeks to replace the pre-storm earthen slope in kind, as needed to re-establish the pre-storm slope toe location. All excess excavated material and excess fill from the construction activities will be temporarily stockpiled on the Applicant's property. Re-construction of the earthen slope will utilize a significant portion of said excess soils created during construction activities. All excess construction materials, fill, & debris will be removed from the site & disposed of off-site at the end of construction. No materials shall be disposed of in tidal waters.

3. *Disturbed uplands adjacent to a construction site shall be graded and re-vegetated or otherwise stabilized to prevent erosion during or immediately after construction. Nutrients shall be applied at rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface waters;*





Response: Disturbed areas due to the construction will be graded & stabilized to prevent erosion & be vegetated to avoid nutrient runoff, as the intent of the project is to lessen the steepness of the upper portion of the slope to help mitigate current and future erosion.

4. *Removal or placement of sediments along jetties or groins may be permitted only as part of an approved dredging or beach nourishment project (see § 1.3.1(l) of this Part);*

Response: Not applicable

5. *All fill shall be clean and free of materials which may cause pollution of tidal waters;*

Response: All fill proposed for use in site construction shall be clean & free of contaminants.

6. *Cutting into rather than filling out over a coastal bank is the preferred method of changing upland slopes; and*

Response: The proposed project will restore pre-storm grades on the lower portion of the slope and will lessen the grades of (i.e. cutting into) the upper portion of the slope to achieve an approximate 3H:1V grade. No excess material (i.e. filling out) is required or proposed to be placed on the rebuilt slope.

7. *Limit the application, generation, and migration of toxic substances and ensure that toxic substances are properly stored and disposed of onsite in accordance with all applicable federal, state, and local requirements.*

Response: Though none are anticipated, any toxic substances & materials used in association with the project's construction will be properly stored away from stormwater inlets, the top of the coastal slope, and surface waters and will be disposed of as required.

- b. *The following upland and shoreline earthwork standards shall be required in those cases where the Council determines that additional measures are warranted in order to protect the environment of the coastal region. Such requirements shall be listed on Assents as stipulations.*

- c. *For earthwork on shoreline features:*

1. *Prior to initiation of construction, the contractor may be required to meet on site with CRMC staff to discuss and clarify the conditions of the permit;*

Response: The Contractor and Owner shall meet on site with CRMC staff to discuss and clarify the conditions of the permit as required.





2. *A re-vegetation plan shall be submitted for review and approval when construction is undertaken on a barrier beach. This plan shall describe plant material, methods of planting, time of planting, soil amendments, and maintenance;*

Response: This is not a barrier beach. However, a re-vegetation plan is being submitted with the assent application for review and approval by the Agency.

3. *Construction materials and excavated soils shall not be placed or stored on any shoreline feature excepting developed barrier beaches and manmade shorelines;*

Response: Not applicable.

4. *All disturbed soils shall be graded smooth to a maximum 3:1 slope and re-vegetated immediately after construction, or temporarily stabilized with mulch, jute matting, or similar means until seasonal conditions permit such re-vegetation;*

Response: 3:1 slopes are not possible for the entire height of the proposed slope and are inconsistent with existing conditions. The lower portion of the slope will match the grade of the existing slope (1.5:1) and will be stabilized with a stone revetment. The upper portion of the slope will be graded to an approximate 3:1 and will be stabilized with coir log(s)/erosion control blanket(s) and re-vegetated.

5. *In sensitive areas, work shall be carried out from areas above slope from coastal features. Machinery and construction equipment shall normally not be allowed to operate on a coastal wetland. For unavoidable work on a coastal wetland, a protective cover shall be deployed to minimize disturbance;*

Response: There is no coastal wetland associated with this project. Work will be performed from both the top and bottom of the slope as needed for safety during construction. All construction equipment will be working above the MHW mark, and no work is planned in tidal waters.

6. *In instances where the CRMC permits temporary disturbances of a coastal feature, shoreline slope, buffer zone, or areas of beach grass, the disturbed area shall be completely restored by the owner under the guidance of CRMC staff;*

Response: All disturbed areas will be completely restored by the Owner under the guidance and to the satisfaction of CRMC staff.

7. *Concrete structures which will come in contact with salt water shall be constructed with concrete which utilizes a Type II or Type V air entraining Portland cement or an equivalent that is resistant to sulfate attacks of seawater.*





Response: Accepted. Minimal concrete is planned as part of this work and will be limited to foundation elements for replacement of the existing wooden staircase, which are anticipated to be located outside of the tidal zone.

d. For upland earthwork measures shall be taken to minimize erosion:

- 1. A line of staked hay bales or other erosion preventing devices (including diversion ditches, check dams, holding ponds, filter barrier fabric, jute or straw mulch) shall be placed at the downslope perimeter of the proposed area of construction prior to any grading, filling, construction, or other earthwork. Hay bales shall be toed-in to a depth of 3 to 4 inches, and maintained by replacing bales where necessary until permanent re-vegetation of the site is completed. No soils or other materials are authorized to pass beyond the bale line;*

Response: Soil erosion & sediment control measures will be applied to the project perimeter, as necessary. This generally includes a line of staked erosion control along the top of the existing slope.

- 2. All slopes shall be returned to the original grade unless otherwise specified;*

Response: All slopes will be returned to the original grade unless otherwise specified.

- 3. Where natural or manmade slopes are or have become susceptible to erosion, the slopes shall be graded to a suitable slope and re-vegetated with thick rooting brush vegetation. Mulch shall be applied as necessary to provide protection against erosion until the vegetation is established;*

Response: New slopes above the stone revetment are proposed to be vegetated with either Beach Plum, Bayberry or Rosa Rugosa on 5 ft staggered centers. All slopes disturbed during construction will be likewise planted or planted using species native to the adjacent slopes. Several rows of coir logs and an erosion control blanket are proposed over top of the final grade earth slopes to provide erosion protection until the shrubs are established.

- 4. Construction shall be timed to accommodate stream and/or runoff flow and not allow flows over exposed, un-stabilized soils, or into or through the excavation. Flows shall not be restricted in such a manner that flooding or inhibition or normal flushing occurs;*

Response: There are no streams in the work area. Permanent & temporary stormwater and erosion control measures shall be employed to control construction runoff and sediment. Exposed earth slopes will be protected during storm or rainfall events as part of the construction procedures. BMPs shall be completed and/or restored to pre-design conditions following construction.

- 5. Any pumping of groundwater which may be necessary for de-watering shall be discharged into sediment traps consisting of a minimum of staked hay bale rings enclosing crushed stone or trap rock of a size sufficient to disperse inflow velocity. Hay bales shall be recessed 4 to 6 inches into the soil and maintained;*





Response: Pumping of groundwater is not anticipated for this project. Should pumping be required, the Owner will require the Contractor to adhere to all regulations requiring containment of sediments and restrictions regarding turbid water discharges.

6. *There shall be no discharge of sediment laden waters into storm drains. Storm drains shall be surrounded by staked hay bales to intercept sediment.*

Response: No sediment laden water will be discharged into catch basins or storm drains.

- e. *For any disturbance of steep slopes (over 15 percent):*

1. *Where such construction is allowed, the following shall be observed:*

- A. *No fill shall be allowed on the slope;*

Response: No additional fill beyond what is needed to re-establish the previously eroded slope is proposed. It is the Applicants intent to utilize onsite soils from regrading of the existing slope as fill to avoid importing soils, to the maximum extent possible.

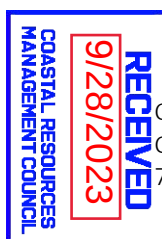
- B. *Excavation shall be kept to an absolute minimum; and*

Response: This is the intent of the proposed construction. Excavations will be limited to cutting to lessen the steepness of the upper portion of the slope, regrading the slope as needed to re-establish pre-storm conditions and to allow for construction of the stone revetment.

- C. *Vegetative cover on the slope shall be permanently maintained to the maximum extent physically possible.*

Response: The existing tree cover on the slope is in a failed and/or failing condition. For safety of the public and during construction, the existing vegetation will be removed. New slopes above the stone revetment are proposed to be vegetated with either Beach Plum, Bayberry or Rosa Rugosa on 5 ft staggered centers. All slopes disturbed during construction will be likewise planted or planted using species native to the adjacent slopes. An erosion control blanket is proposed over top of the final grade slopes to provide erosion protection until the shrubs take root.

2. *Where the potential for damage to a slope exists from runoff, staked hay bales, berms, or similar diversions shall be placed at the top and toe of the slope. Collected water shall be suitably discharged through properly constructed drains or swales. Wherever possible, drainage swales shall be constructed along and adjacent to property lines so as to avoid drainage onto adjacent properties. Swales shall be capable of handling runoff from a ten (10) year rainfall occurrence.*





Response: Stormwater practices are proposed to collect water at the site as necessary, including erosion controls along the top of slope. Any collected stormwater at the property would be discharged into existing stormwater systems onsite.

3. *For excavations on slopes or directly adjacent to coastal features, the excavated materials shall be cast upslope of the trench or excavation so as to minimize downslope runoff of sediment.*

Response: Revetment construction will occur from the toe of the slope for safety reasons. As a result, excavated materials cannot be cast upslope. However, the intent of the project is to utilize excavated soils to re-build the existing slope to pre-storm conditions to minimize any stockpiling of soils on the Applicants property.

4. *Pedestrian access over steep shoreline slopes and banks shall be in the form of field stone or similar stabilized paths or elevated stairs. Access over bluffs shall be with elevated stairs only.*

Response: Access to the shoreline from the Park is currently provided at several locations including via Beach Road, via a handicap access ramp adjacent to Beach Road, via elevated stairs approximately 250 feet to the north of this proposed shoreline improvement work, and via elevated stairs near the southern end of this proposed work. The current elevated stairs near the southern end of this work are in poor/failed condition and are planned to be replaced as part of the proposed construction.

Section 1.3.1(F) – Treatment of Sewage and Stormwater (applicable sections):

Section 4. Standards:

- a. *For Onsite Wastewater Treatment Systems (OWTS)*

Response: Not applicable. There is no OWTS at the property.

- b. *The requirements of the RIDEM Stormwater Management, Design and Installation Rules ([250-RICR-150-10-8](#)) shall apply to all CRMC applications.*

Response: Not applicable. No new stormwater management systems are proposed.

- c. *For stormwater management the Council requires, in accordance with the “Smart Development for a Cleaner Bay Act of 2007” (see R.I. Gen. Laws Chapter 45-61.2), that all applicable projects meet the following requirements:*

1. *Maintain pre-development groundwater recharge and infiltration on site to the maximum extent practicable;*
2. *Demonstrate that post-construction stormwater runoff is controlled, and that post-development peak discharge rates do not exceed pre-development peak discharge rates; and*





3. *Use low impact-design techniques as the primary method of stormwater control to the maximum extent practicable.*

Response: The proposed project is to stabilize a failing earthen slope. The final-condition impervious area will be the same as the existing-condition impervious area, as any impervious areas that require demolition will be replaced in-kind. As a result, stormwater runoff from the site and the overall stormwater recharge will remain the same as the current site conditions.

- d. *Residential, commercial, industrial or public recreational structures as defined in § 1.3.1(C) of this Part shall provide treatment and management of stormwater runoff for all new structural footprint expansions, including building rooftops, greater than six (600) hundred square feet in size and any new impervious pavement, driveways, sidewalks, or parking areas, regardless of size. Applicable projects shall submit a stormwater management plan that demonstrates compliance with the eleven (11) minimum stormwater management standards and performance criteria as detailed in the most recent version of the RIDEM Rhode Island Stormwater Design and Installation Standards Manual. Single family dwelling projects, however, may meet these provisions as detailed below in §§ 1.3.1(F)(3)(h) and (i) of this Part, below.*

Response: Please refer to the previous response. This project will have no negative impacts.

- e. *Roadways, highways, bridges, and other projects subject to § 1.3.1(M) of this Part shall provide treatment and management of stormwater runoff for all new impervious surfaces. These projects shall submit a stormwater management plan that demonstrates compliance with the eleven (11) minimum stormwater management standards and performance criteria as detailed in the most recent version of the RIDEM Rhode Island Stormwater Design and Installation Standards Manual. Any improvement projects to existing roads, highways and bridges and other projects subject to § 1.3.1(M) of this Part that result in the creation of new impervious surfaces shall provide treatment and management of stormwater as above for all new impervious surfaces. Maintenance activities such as pavement resurfacing projects, replacement of existing drainage systems, minor roadway repairs, or emergency roadway and drainage repairs are excluded from these requirements provided the project does not result in an expansion of the existing impervious surface area, new or enlarged stormwater discharges, or the removal of roadway materials down to the erodible soil surface of ten thousand (10,000) square feet or more of existing impervious area.*

Response: Not Applicable.

- f. *Unless exempted as a maintenance activity herein, any redevelopment that disturbs ten thousand (10,000) square feet or more of existing impervious surface coverage shall comply with Minimum Stormwater Standard 6: Redevelopment and Infill Projects of the RIDEM Stormwater Management, Design and Installation Rules ([250-RICR-150-10-8](#)). Maintenance activities subject to § 1.3.1(N) of this Part are excluded from these requirements provided there is no expansion of the existing impervious surface area and no new or enlarged stormwater discharges resulting from the maintenance activity.*

Response: Not Applicable, as this project will not disturb 10,000 square feet or more of impervious surface coverage. Any impervious area that are disturbed during construction will be replaced in-kind.





- g. All stormwater management plans shall take into consideration potential impacts associated with the discharge of stormwater runoff into the coastal environment. Applicants shall address these potential impacts to include, but not limited to, the following:*

- 1. Impacts of coastal wetlands such as changes in species composition due to the introduction of freshwater to high marsh areas;*

Response: Not Applicable

- 2. Changes in salinity of tidal receiving waters;*

Response: Not Applicable

- 3. Thermal impacts to receiving waters;*

Response: Not Applicable

- 4. Effects of introducing stormwater runoff to receiving waters that have low dissolved oxygen concentrations; and*

Response: Not anticipated

- 5. Other potential water quality impacts as may be identified by CRMC staff.*

Response: Not anticipated

- h. Applicants for single-family residential dwellings and accessory structures shall treat the stormwater runoff water quality volume (WQV) from all new building rooftops greater than six (600) hundred square feet in size and any new impervious driveways and parking areas, regardless of size. All dwelling and accessory structure rooftop expansions constructed within a twelve (12) month period shall be counted towards the six hundred (600) square foot threshold. Once the six hundred (600) square foot threshold is exceeded, stormwater management must be provided for all rooftop expansions constructed within that 12-month period. Applicants for single-family dwelling projects may use the design guidance and performance criteria in the most recent version of the RIDEM Stormwater Management, Design and Installation Rules ([250-RICR-150-10-8](#)) or the most recent version of the RI Stormwater Management Guidance for Individual Single-Family Residential Lot Development. Applicants for single-family dwellings and accessory structures on CRMC-designated barriers shall manage stormwater runoff as provided in § 1.3.1(F)(4)(i) of this Part below. Pretreatment of stormwater runoff is not required for single family residential applications.*

Response: Not Applicable

- i. Applicants for single-family dwellings and accessory structures located on CRMC-designated barriers shall manage stormwater runoff as follows:*





1. *Runoff from rooftops shall be directed by non-erosive sheet flow onto vegetated areas surrounding the dwelling or accessory structure; and;*
2. *Construction of driveway and parking surfaces shall be limited to crushed stone, crushed shell, open plastic grid systems filled with sand, gravel or vegetation, or any combination of the preceding, to prevent damage to other properties during major storm events. Stormwater runoff shall be directed by non-erosive sheet flow onto vegetated areas alongside the driveway or parking area.*

Response: Not Applicable

- j. *New or enlarged stormwater discharges to salt marshes and well flushed tidal channels within high marshes shall only be permitted when the applicant can clearly demonstrate that no reasonable alternatives exist (e.g., no other discharge locations having a gravity flow outlet are available and impervious surfaces have been kept to an absolute minimum) and when no adverse impacts to the salt marsh will result. In these instances, the applicant shall meet all applicable standards contained in the RIDEM Stormwater Management, Design and Installation Rules ([250-RICR-150-10-8](#)). This standard does not apply to low salt marsh environments with an average width along the property of less than thirty-five (35) feet.*

Response: No new or enlarged stormwater discharges are planned.

- k. *Stormwater open drainage and pipe conveyance systems must be designed to provide adequate passage for flows leading to, from, and through stormwater management facilities for at least the ten (10) year, twenty-four (24) hour Type III storm event. Applicants may not be required to control post-development peak discharge rates at pre-development peak discharge rates provided the project design provides for non- erosive stormwater discharges to tidal waters.*

Response: Not applicable. No new stormwater systems are proposed at the site.

- l. *Applicants may be required to submit a pollutant loading analysis to demonstrate that a proposed project will not unduly contribute to, or cause, water resource degradation when such projects are located in sensitive coastal resource areas. When a pollutant loading analysis is required, the applicant shall use the method detailed in the RIDEM Stormwater Management, Design and Installation Rules ([250-RICR-150-10-8](#)). If the Council determines that any proposed stormwater discharge will result in an unacceptable discharge of pollutants to the tidal waters of Rhode Island, the Council shall require the applicant to mitigate the pollutant loads to acceptable levels using the practices detailed in the stormwater rules. Frequently, this can be accomplished using these practices in series to achieve higher pollutant removal efficiencies.*

Response: Not anticipated

- m. *The use of proprietary hydrodynamic (swirl) separator or filter devices shall be limited to pre- treatment applications only, unless the device has met the requirements of the Technology Assessment Protocol (TAP) as detailed in the RIDEM Stormwater Management, Design and Installation Rules ([250-RICR-150-10-](#)*





8). The CRMC may, however, approve such devices in situations where end-of-pipe retrofit solutions are the only alternative available when site constraints limit the use of standard low impact development methods for the treatment and management of stormwater runoff. In such circumstances, however, the use of such proprietary devices shall conform to the standards and performance criteria set forth in the most recent version of the RIDEM Stormwater Management, Design and Installation Rules ([250RICR-150-10-8](#)) to the maximum extent practicable.

Response: Not applicable. No new stormwater systems are proposed at the site.

n. For outfalls:

1. *Work on outfalls, drainage channels, etc., shall proceed from the shoreline toward the upland in order that no unfinished or un-stabilized lower channel portions be subjected to erosion producing velocities from upstream. If this cannot be accomplished, all flow shall be diverted from the unfinished areas until stabilization is completed.*

Response: Work on outfalls, drainage channels, etc. will proceed from the shoreline toward the upland, or flow shall be diverted from the unfinished areas until stabilization is completed.

2. *Where possible, outfall pipe slopes shall be designed for an exit velocity of less than five (5) feet per second.*

Response: Not applicable. No new outfalls are planned.

3. *Screens or grates shall be placed over the end of large outfalls to trap debris.*

Response: Not applicable. No new outfalls are planned.

4. *Beaches or other coastal features in front of outfalls shall be returned to original grade.*

Response: Not applicable. No new outfalls are planned.

5. *Riprap placed on beaches shall not increase the grade of the beach higher than one foot in order to maintain lateral access below mean high water.*

Response: Riprap placement will be limited to the existing slope. There is no plan to place riprap on the beach.

6. *Riprap shall be compact, hard, durable, angular stone, with an approximate unit weight of one hundred sixty-five (165) lbs./cubic foot.*

Response: Riprap will be compact, hard, durable, angular stone, with an approximate unit weight of one hundred sixty-five (165) lbs./cubic foot.

7. *Riprap shall be placed with an adequate bedding of crushed rock or other suitable filtering material.*





Response: Riprap will be placed on three (3) layers of geotextile fabric, including two (2) layers of Mirafi 140N placed on the soil subgrade and one (1) layer of Mirafi 600X placed above as protection. A bedding layer of crushed stone is also proposed to be placed on the filter fabric prior to riprap installation.

o. Applicants with new or modified single-family dwelling projects subject to the stormwater management provisions herein shall submit the following information:

1. 8.5 x 11-inch site plan depicting the location of all structural stormwater (LID or otherwise) components; and
2. Operation & Maintenance Plan consistent with CRMC guidance to ensure long-term maintenance and operation of the stormwater structural practice(s) on the site.

Response: Not applicable

p. Applicants for all other projects subject to the stormwater management provisions herein shall submit the following information:

1. 8.5 x 11-inch site plan depicting the location of all structural stormwater (LID or otherwise) components; and
2. Operation & Maintenance Plan that meets the specifications detailed in the most recent version of the RIDEM Rhode Island Stormwater Design and Installation Standards Manual; and
3. Following completion of the approved project, a postconstruction certification by a Rhode Island registered P.E. and Rhode Island registered Landscape Architect, where required, demonstrating that all stormwater structures, LID components, and requisite planting materials necessary for the function of the stormwater management system were installed in accordance with the approved permit, specifications and approved site plans

Response: Items (1,2,3) provided or will be provided as required.

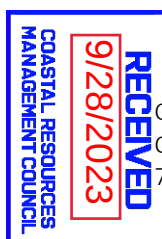
Section 1.3.1(G) – Shoreline Protection:

Section 4. Additional Category B Requirements

b. Applicants for structural shoreline protection measures to control erosion shall, on the basis of sound professional information, demonstrate in writing all of the following:

1. An erosion hazard exists due to natural erosion processes and the proposed structural shoreline protection has a reasonable probability of controlling this erosion problem;

Response: As previously mentioned, significant erosion of the existing slope occurred after the December 23, 2022 storm. Up to 30 ft (horizontally) of the bluff was lost during the storm. The December 23, 2022 storm was not considered a 100-year storm. The 100-year stillwater level for this





site is +11.6 ft, the 100-year wave crest elevation is +16.9 ft, corresponding to a significant wave height of 7.6 ft, and the BFE is +20 ft. Observed water level data from the Providence tidal station (Station No. 8454000) were recorded at a maximum elevation of +6.72 ft for the storm. Based on water level marks from the storm, the maximum wave height seen that day was much less than the predicted 100-year significant wave. The level of damage caused by the recent storm indicates that a 100-year storm could cause catastrophic damage to the slope and the park supported by the slope. A very similar stone revetment system to what is proposed was recently installed along 480 ft of shoreline to the north, and this length of shoreline saw no damage from the recent storm, as the revetment was designed per the US Army Corps of Engineers, Shoreline Protection Manual requirements to resist the 100-year significant wave.

2. *Nonstructural and hybrid shoreline protection has not worked in the past or will not work in the future because these methods are not suitable for the present site conditions;*

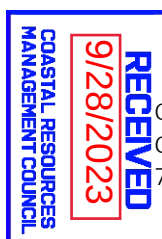
Response: Given the dynamic nature of the waves along this shoreline during 100-year (1%) storm events only the rip rap revetment is adequate to protect the shoreline. The 100-year (1%) significant wave height is 7.6 ft at this site, and the existing slope is approximately 1.5H:1V to 1.7H:1V. The proposed revetment is designed per the US Army Corps of Engineers, Shoreline Protection Manual requirements to resist the 100-year (1%) significant wave. There is an existing experimental erosion control area (CRMC 2019-09-031) at the site consisting of a coir log and vegetation system with rip rap which has not been fully successful. After the recent storm, portions of the coir log and mat system have either failed or begun to fail. The vegetation has not fully taken to the coir log, and the rip rap consisting of small stones has been skewed across the area. Typically, a hybrid shoreline protection system (coir logs & vegetation) can only withstand about a 2 ft wave and a nonstructural shoreline protection system would be damaged by even smaller waves, which is why a hybrid shoreline protection system is not applicable to this site.

3. *There are no practical or reasonable alternatives to the proposed activity such as the relocation of existing structures that mitigate the need for structural shoreline protection;*

Response: There are no existing structures associated with this work. The park is heavily used by the public and not protecting the slope and/or relocating the park will severely limit or eliminate the current public shoreline access. Protecting the existing slope will help to preserve, protect and restore the scenic value of the coastal site, in alignment with one of CRMC's primary goals.

4. *The proposed structure is not likely to increase erosion or disrupt shoreline sediment dynamics that sustain adjacent natural shoreline features, or adversely affect the stability of the shoreline on either side of the project;*

Response: The proposed structure will reduce the potential for erosion at the site. The stone revetment will tie into the existing stone revetments to the north and south.





5. *Describe the long-term maintenance program for the structure including storm damage, the ability to rebuild the structure following storm damage and financial commitments to pay for said maintenance;*

Response: Financial commitments for long term maintenance shall be borne solely by the Owner of the property (the City of East Providence) at the time the maintenance is required. The stone revetment shouldn't require maintenance during or after severe storm conditions. In the event of a large coastal storm which produces waves that reach above the stone revetment, or very large rainfall events, there is expected to be erosion that may require maintenance. The City of East Providence spends significant time and money upkeeping their public parks. They are financially capable and committed to repairing the slope as required to maintain the stone revetment and vegetated conditions desired.

6. *New structural shoreline protection shall be designed and certified by a registered professional engineer; and*

Response: The structural shoreline protection system is designed by a Professional Engineer registered in the State of Rhode Island.

7. *Describe all likely impacts that the structural shoreline protection may have on the continued public lateral beach access. If lateral public access will be impacted at any time, a lateral public access plan shall be provided, except where preempted by federal law (e.g., U.S. Coast Guard Maritime Security (MARSEC)).*

Response: The structural shoreline protection system will be constructed above the MHW mark and will hold the toe of slope from before the December 23, 2022 storm. Public lateral access to the beach will not be impacted by the shoreline protection system as it will remain in the same footprint as the preexisting slope. If required during construction, the toe of the revetment at the southern end may be pushed further seaward to avoid undermining the adjacent property's existing retaining wall.

Section 5. Standards

- a. *All applicable standards for earthwork in 1.3.1(B) of this part shall be met. The base of the seawall, bulkhead, revetment, or toe-of-slope protection for hybrid shoreline protection must be located as close as practicable to the shoreline feature it is designed to protect. Nonstructural, hybrid and structural shoreline protection shall be placed landward of coastal wetlands unless the project is a marsh sill designed for wave attenuation as part of a marsh creation, enhancement, or restoration project.*

Response: The base of the shoreline protection system is located completely within the Applicant's property line and above the MHW elevation. All permanent repairs will not extend past the previous toe of the slope, approved by CRMC, as reflected on the plans.





- b. *The ends of nonstructural, hybrid and shoreline protection structures shall be tied into adjacent structures. Where there are no adjacent structures, the new structure shall gradually return to the slope of the feature and be so designed to minimize erosion around the back of the structure.*

Response: The ends of the shoreline protection system will be tied into stone revetments to the north and south.

- c. *For a practice to be considered hybrid shoreline protection, stone may only be used for toe-of-slope protection or intertidal sill creation. For the purposes of this section, toe-of-slope protection shall not extend more than two (2) feet vertically from the bottom of the bank or scarp along low energy shorelines (i.e. fetch less than 1.5 miles) and four (4) feet vertically from the bottom of the bank or scarp along high energy shorelines (i.e. fetch greater than 1.5 miles). Stone may be gathered from the coastal beach directly in front of and no more than twenty-five (25) feet seaward of the proposed hybrid shoreline protection to be used for toe-of-slope protection or intertidal sill construction. However, no materials may be gathered seaward of the mean high water elevation.*

Response: Not applicable. The system will incorporate both vegetation and stone but does not meet the toe-of-slope protection height requirements.

- d. *All anchoring and connecting components of non-structural, hybrid and structural shoreline protection shall be clearly shown on site plans. All anchoring and connecting components shall be removed upon exposure unless being repaired or replaced as part of CRMC approved maintenance.*

Response: All anchoring and connecting components for the erosion mats are shown clearly on the plans. All anchoring and connecting components will be removed upon exposure.

- e. *The base of all shoreline protection built on unconsolidated sediments shall extend to a depth equivalent to mean low water or to an appropriate depth as determined by the methods detailed in the most recent version of the U.S. Army Corps of Engineers Coastal Engineering Manual. Where practicable, the base shall extend to a depth of three (3) feet below the area of disturbance.*

Response: The toe of the revetment will extend to a depth lower than mean low water and has been designed to resist potential scour/undermining.

- f. *To promote good drainage behind seawalls and bulkheads, and to minimize the flow of sediment into waterways and avoid the loss of backfill, all backfill must contain less than 10% silt. If sediment in the area is fine grained, a filtering layer shall be placed behind and/or beneath the structure, consisting of suitably graded stone or rock chips or geotextile filter fabric. Weep holes shall be provided for drainage in sea walls and bulkheads. The use of grout or concrete within, behind, or over revetments is not permitted.*





Response: Riprap will be placed on three (3) layers of geotextile fabric, including two (2) layers of Mirafi 140N placed on the soil subgrade and one (1) layer of Mirafi 600X placed above as protection, as well as a bedding layer of crushed stone. Concrete is not planned to be used within, behind or over the revetment.

- g. Where feasible, the areas in back of the structural shoreline protection shall be level for a distance equivalent to its height.*

Response: Level backfill directly behind the shoreline protection is not feasible due to the height of the existing slope. The intent is to lessen the existing slope above the shoreline protection to an approximate 3H:1V slope and install a coir mat and/or erosion control blanket and re-vegetate the slope. At the top of the 3H:1V slope, the grade will transition to a relatively level grassed area in the park.

- h. The slope of revetments shall not exceed 1:1 and the slope of non-structural and non-structural components of hybrid shoreline protection and associated soil shall not exceed 2:1.*

Response: The revetment is designed for a slope of 1.5:1; therefore, it will not exceed 1:1. The slope of the vegetated slope above the revetment is designed for a slope of 3:1; therefore, it will not exceed 2:1.

- i. Riprap revetments shall be constructed of angular stone with a minimum unit weight of 165 lbs./cubic foot (such as granite). The size of stone shall be dependent upon the site's exposure to wave energy in accordance with the US Army Corps of Engineers Coastal Engineering Manual.*

Response: The revetment will be constructed of angular stone with a minimum unit weight of 165 lbs./cubic foot (such as granite). The size of stone is designed for the site's 100-year (1%) storm wave and storm surge in accordance with the US Army Corps of Engineers Coastal Engineering Manual and FEMA.

- j. Applications for structural shoreline protection shall be designed and stamped by a registered professional engineer.*

Response: The structural shoreline protection system is designed by a Professional Engineer registered in the State of Rhode Island.

- k. Applicants for hybrid shoreline protection, as provided for in § 1.3.1(G)(4)(a) of this Part, and include small-scale toe-of-slope protection as part of a hybrid protection project shall be designed by an appropriate design professional (e.g., registered professional engineer, landscape architect or land surveyor).*

Response: Not applicable.

- l. Concrete used for sea wall construction along the shore and in tidal waters shall be resistant to the sulfate attack of seawater; Type 2 or Type 5 air entraining Portland cement or an equivalent shall be used.*





Response: Not applicable.

- m. All shoreline protection construction activities shall minimize any adverse impact to water quality such as disturbance of sediment.*

Response: The construction activities proposed are outside of tidal waters and measures will be taken to minimize any potential impact to water quality such as erosion and sediment transport to the Providence River.

- n. Applicants shall provide appropriate on-site lateral shoreline access of a similar type and level to that which will be impacted by the proposed project. Applicants shall submit a plan detailing the lateral public access over or around the landward side of the proposed structure.*

Response: The beach access will remain open during construction. Construction activities will not impact public lateral shoreline access.

- o. The seaward extent of the toe of shoreline protection shall be tied into an existing shoreline feature (e.g., bluff, revetment, seawall, etc.) within the applicant's property boundary and depicted on the site plan.*

Response: The base of the shoreline protection system is located completely within the Applicant's property line and will be based on the toe of the existing slope from before the December 23, 2022 storm. All permanent repairs will not extend past the approved toe of the slope, approved by CRMC, as reflected on the plans.

- p. All previously required coastal buffer zones or existing areas of natural vegetation landward of the shoreline protection structure must be preserved, or replaced where disturbed, and retained in an undisturbed condition.*

Response: The existing tree cover on the slope is in a failed and/or failing condition. For safety, the existing vegetation will be removed. New slopes above the stone revetment are proposed to be vegetated with either Beach Plum, Bayberry or Rosa Rugosa on 5 ft staggered centers. All slopes disturbed during construction will be similarly planted or planted using species native to the adjacent slopes. An erosion control blanket is proposed over top of the final grade slopes to provide erosion protection until the shrubs are established.

- q. Where no buffer zone or natural vegetation exists, an area no less than fifteen (15) feet wide immediately landward of the shoreline protection structure shall be restored to native, deep-rooted (i.e., tree or shrub) vegetation to minimize erosion from upland stormwater flows and overtopping storm surge.*

Response: As stated above, the existing tree cover on the slope is in a failed and/or failing condition. For safety the existing vegetation will be removed. New slopes above the stone revetment are proposed to





be vegetated with either Beach Plum, Bayberry or Rosa Rugosa on 5 ft staggered centers. All slopes disturbed during construction will be likewise planted or planted using species native to the adjacent slopes. An erosion control blanket is proposed over top of the final grade slopes to provide erosion protection until the shrubs are established.

- r. A twenty-five (25) foot setback shall be maintained between the buffer zone or natural vegetation and nearby structures, excluding any associated residential structures as defined in § 1.1.2 of this Part.

Response: Not applicable. No structures are proposed as part of this work.

Project Contact Personnel:

The responsible contact persons for the Project who will be able to answer questions pertaining to this application and permit compliance during construction will be the following:

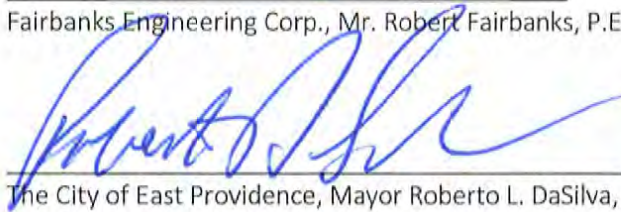
Owner: The City of East Providence
Attn: Mr. Erik Skadberg Phone: (401) 435-7703 ext. 1
Address: 145 Taunton Avenue
East Providence, Rhode Island 02914

Engineer: Robert W. Fairbanks, P.E. Phone: (401) 294-3484
Fairbanks Engineering Corporation
Address: 42 Cobblestone Hill Road
Exeter, Rhode Island 02822

Application Prepared By:


Fairbanks Engineering Corp., Mr. Robert Fairbanks, P.E., President

Applicant:


The City of East Providence, Mayor Roberto L. DaSilva, Mayor

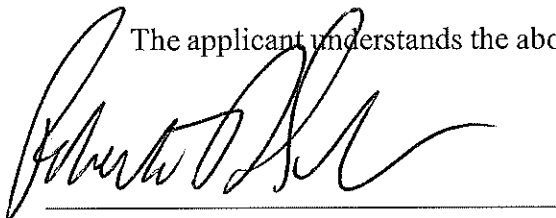
9/11/2023



STATEMENT OF DISCLOSURE AND APPLICANT AGREEMENT AS TO FEES

The fees which must be submitted to the Coastal Resources Management Council are based upon representations made to the Coastal Resources Management Council by the applicant. If after submission of this fee the Coastal Resources Management Council determines that an error has been made either in the applicant's submission or in determining the fee to be paid, the applicant understands that additional fees may be assessed by the Coastal Resources Management Council. These fees must be paid prior to the issuance of any assent by the Coastal Resources Management Council.

The applicant understands the above conditions and agrees to comply with them.


Owner Signature

9/28/2023
Date

Roberto L. Dosilun 145 TANNON AVE
Print Name and Mailing Address
EAST PROVIDENCE, RI 02914



FEC

Fairbanks Engineering Corporation
Geotechnical and Marine Engineers

42 Cobblestone Hill Road
Exeter, RI 02822

Tel: 401-294-3484

Cell: 401-474-2361

rfairbanks@fairbankseng.com

LETTER OF TRANSMITTAL

DATE:	9/27/2023	JOB NO:	21005.00
ATTENTION:			
RE: Emergency Slope Repairs Rose Larisa Memorial Park 701 Bullocks Point Avenue East Providence, RI			

TO: Mr. Rich Lucia, PE - CRMC
Oliver Stedman Government Center
Wakefield, Rhode Island

WE ARE SENDING YOU

☒ Attached ☐ Under separate cover via _____ the following items

- ☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change order ☒ Assent Application Hand Delivered

COPIES	DATE	NO.	DESCRIPTION
1			Transmittal
1			Application Instruction Checklist
4			Application Package (signed)

THESE ARE TRANSMITTED as checked below:

- ☒ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval
☒ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution
☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints
☐ For review and comment ☐ _____
☐ FOR BIDS DUE _____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS:

Rich,
Attached, as discussed, is the CRMC Assent application for additional emergency slope repairs at Rose Larisa Memorial Park. The existing slope was damaged during the December 23, 2022 storm. The proposed repair is a stone revetment along 570' of the existing slope. The revetment is designed for the 100 yr (1%) storm wave. This work eliminates the hazard resulting from the unstable slope and vegetation along the repaired length. The Owner is the City of East Providence and no application fee is required. Please call me to discuss if you have any questions. As

always thank you for the help. Bob

TO: Stephanie Robat, PE (FREG, via email) SIGNED:
Erik Skadberg, PE (East Prov, via email)

Robert W. Fairbanks, P.E.
President

Revised 5/00



East Providence

(Summary Data - may not be Complete Representation of Property)

Parcel: 414-13-007-00

Location: 0 ZZ CAROUSEL WATERFRONT

Owner: CITY OF EAST PROVIDENCE &

Account: 11826

User Acct: 32-0380-01

LUC: 78 - Municipal

Zoning: C1

Parcel Values

Total: \$413,000

Land: \$413,000

Land Area: 99,752.4 SF

Building: \$0

Assessed: \$413,000

Sales Information

Book and Page

Instrument Type

Date

Price

Grantor

1790-0099

07/23/2002

\$0

KELLY & PICERNE, INC.

000-00

01/01/1900

\$0

Building Type:

Year Built:

Grade:

Condition: AV

Heat Fuel:

Heat Type:

% Air Conditioned: 0.00

Fireplaces: 0

Exterior Wall:

Bsmnt Garage: 0

Roof Cover:

of Units: 0

of Rooms: 0

of Bedrooms: 0

Full Bath: 0

1/2 Baths: 0

Yard Item(s)

Description

Quantity

Size

Year

Condition

Quality

Value

Building Areas

Area

Net Area

Finished Area

Disclaimer: This information is for tax
assessing purposes
and is not warranted



East Providence

(Summary Data - may not be Complete Representation of Property)

Parcel: 414-13-008-00

Location: 0 BULLOCKS PT AVE

Owner: CITY OF EAST PROVIDENCE &

Account: 11827

User Acct: 32-0380-02

LUC: 78 - Municipal

Zoning: C1

Parcel Values

Total: \$608,700

Land: \$608,700

Land Area: 98,010 SF

Building: \$0

Assessed: \$608,700

Sales Information

Book and Page

Instrument Type

Date

Price

Grantor

1790-0099

07/23/2002

\$0

REFERENCE - PARCEL DECREASE

1526-0076

06/29/2000

\$0

KELLY & PICERNE, INC.

Building Type:

Year Built:

Grade:

Condition: AV

Heat Fuel:

Heat Type:

% Air Conditioned: 0.00

Fireplaces: 0

Exterior Wall:

Bsmnt Garage: 0

Roof Cover:

of Units: 0

of Rooms: 0

of Bedrooms: 0

Full Bath: 0

1/2 Baths: 0

Yard Item(s)

Description

Quantity

Size

Year

Condition

Quality

Value

Building Areas

Area

Net Area

Finished Area

Disclaimer: This information is for tax
assessing purposes
and is not warranted



East Providence

(Summary Data - may not be Complete Representation of Property)

Parcel: 414-13-008-10

Location: 0 BULLOCKS PT AVE

Owner: CITY OF EAST PROVIDENCE

Account: 11828

User Acct: 32-9800-00

LUC: 78 - Municipal

Zoning: C1

Parcel Values

Total: \$456,000

Land: \$456,000

Land Area: 69,260.4 SF

Building: \$0

Assessed: \$456,000

Sales Information

Book and Page

Instrument Type

Date

Price

Grantor

1526-0076

06/29/2000

\$600,000

Building Type:

Year Built:

Grade:

Condition: AV

Heat Fuel:

Heat Type:

% Air Conditioned: 0.00

Fireplaces: 0

Exterior Wall:

Bsmnt Garage: 0

Roof Cover:

of Units: 0

of Rooms: 0

of Bedrooms: 0

Full Bath: 0

1/2 Baths: 0

Yard Item(s)

Description

Quantity

Size

Year

Condition

Quality

Value

LIGHTS-IN W/PL

1

1

2015

AV

\$900.00

W/DOUBLE LIGHT

1

2

2015

AV

\$2,200.00

PAVING-ASPHALT

1

15904

2015

AV

\$31,500.00

Building Areas

Area

Net Area

Finished Area

Disclaimer: This information is for tax
assessing purposes
and is not warranted



TO: **Coastal Resources Management Council**
4808 Tower Hill Road Suite 3
Wakefield, RI 02879
Phone: (401) 783-3370



FROM: Building Official DATE: September 8, 2023

SUBJ: Application of: City of East Providence

Location: Rose Larisa Park Shoreline Repairs

Address: 701 Bullocks Point Ave. Plat No. 414 Block 13 Lot No. 7, 8 & 8.1

To Construct: To complete an emergency repair of 570' of shoreline along the Providence River side of Rose Larisa Park.

I hereby certify that I have reviewed _____ foundation plan(s).

☒ plan(s) for entire structure
_____ site plans

Titled: Permit Plan Set, Slope Repairs & Shoreline Protection, Southern Shoreline - Phase 2, Rose Larisa Memorial Park, 701 Bullocks Point Avenue, East Providence, Rhode Island (15 sheets, 11x17).

Date of Plan (last revision): September 8, 2023

_____ and find that the issuance of a local building permit is not required as in accordance with Section _____ of the Rhode Island State Building Code.

☒ and find that the issuance of a local building permit is required. I hereby certify that this permit shall be issued once the applicant demonstrates that the proposed construction/activity fully conforms to the applicable requirements of the RISBC.

_____ and find that a Septic System Suitability Determination (SSD) must be obtained from the RI Dept. of Environmental Management.

☒ and find that a Septic System Suitability Determination (SSD) need not be obtained from the RI Dept. of Environmental Management.

_____ and find that said plans conform with all elements of the zoning ordinance, and that if said plans require zoning board approval, that the applicant has secured such approval and that the requisite appeal period has passed with no appeal filed or appeal is final. The Zoning Board approval shall expire on _____.

[Signature] 9/25/2023
Building Official's Signature Date

☒ and find that said plans conform with all elements of the zoning ordinance, and that if said plans require zoning board approval, that the applicant has secured such approval and that the requisite appeal period has passed with no appeal filed or appeal is final.

[Signature] 25 SEPT 2023
Zoning Officer's Signature Date



Name/ mailing addresses of adjacent property owners whose property adjoins the project site:

Abutter Address: 37-39 Terrace Avenue (Duplex Home)

Plat/Lot: Plat 414, Block 13, Lot 1

Owners: Robert J. & Rebekah A. Rodericks

Mailing Address: 37 Terrace Avenue, Riverside, RI 02915



RICRMCCOASTAL HAZARD APPLICATION WORKSHEET

APPLICANT NAME:

PROJECT SITE ADDRESS:

STEP 1. PROJECT DESIGN LIFE

- ☐ A. For properties in a FEMA-designated **A**, or **X** Zone, provide the first floor elevation (FFE) of the proposed structure referenced to NAVD88, **OR** For properties in a FEMA-designated **V** or **Coastal A** Zone, please provide the elevation of the lowest horizontal structural member (LHSM) referenced to NAVD88. FFE OR ft
LHSM elevation ft
- ☐ B. How long do you want your project to last? Identify the expected design life for the project (CRMC recommends a **minimum of 30 years**) Design Life: yrs
- ☐ C. Add the number of years you identified in 1B to the current year. Design Life Year:

☐ D. **CHECK** beneath the sea level rise (SLR) projection that matches or comes closest to project design life year.

Year	2030	2040	2050	2060	2070	2080	2090	2100
SLR	1.47	2.13	3.05	4.00	5.15	6.49	7.94	9.41
	☐	☐	☐	☐	☐	☐	☐	☐

Source: Sea Level Rise (SLR) Projections (Feb. 2017). NOAA High Curve, 83% Confidence Interval. Newport, RI Tide Gauge. All values are expressed in feet relative to NAVD88. <http://www.corpsclimate.us/ccaceslcurves.cfm>

NOTE: The STORMTOOLS sea level rise scenarios depict how high the water will be above the average height of the daily high tide over the 19-year period between 1983 and 2001. There have been between 4 and 5 inches of sea level rise in Rhode Island since then. The higher modeled water level accounts for the uncertainties in ice sheet and ocean dynamics.

STEP 2. SITE ASSESSMENT

- ☐ A. Open **RICRMC Coastal Hazard Mapping Tool**. Following the tutorial along the left side of the screen, enter the project site address and turn on the sea level layer closest to the number you circled in 1D.
- ☐ B. **ENTER** the STORMTOOLS SLR map layer closest to the SLR value you checked in Step 1D above. If the value falls between the available STORMTOOLS SLR map layers, round to the closest of these sea level rise (SLR) numbers: 1ft, 2ft, 3ft, 5ft, 7ft, 10ft, or 12ft ft
- ☐ C. Does the STORMTOOLS SLR map layer you circled above expose your project site to future tidal inundation? **CHECK YES or NO** ☐ YES
☐ NO
- ☐ D. List any **roads or access routes** that are potentially inundated from SLR. To do this, ZOOM OUT from your project location, change BASEMAP on the viewer to "street view" – see Step 2A.

****Please be advised that CRMC staff may also review the implications of sea level rise in combination with nuisance storm flooding and discuss these potential project concerns with the applicant. Nuisance flooding impacts may be viewed in STORMTOOLS [here](#).**

STEP 3. STORMTOOLS DESIGN ELEVATION (SDE)

- ☐ A. Select your SLR Scenario using the tabs along the top of the online map (**NOTE: RECOMMENDED scenario is 100-year storm plus 3-feet of sea level rise**). Follow the tutorial included along the left panels of the viewer to enter the address of your project site. Select the tab across the top that corresponds to the sea level rise projection you identified in STEP 1. Enter your address on the map, and then click on the project site to identify **STORMTOOLS Design Elevation (SDE)** from the pop-up box. **Enter the SDE value:**

ft



RICRMC COASTAL HAZARD APPLICATION WORKSHEET

STEP 4. SHORELINE CHANGE

☐ A. Using the CRMC Shoreline Change maps, indicate the transect number closest to your site, and erosion rate listed for that transect. **NOTE:** Transects are not available for every site. If this is the case, please enter N/A.

Transect Number: 12509

Erosion Rate: .52 ft/year

B. CHECK below the Projected Erosion Rate that corresponds to the design life you identified above.

Year	2050	2060	2070	2080	2090	2100
Projected Future Erosion Multiplier	1.34	1.45	1.57	1.70	1.84	2.00
	☒	☐	☐	☐	☐	☐

Source: Projected Shoreline Change Rate multipliers. (Oakley et al., 2016)

C. COMPLETE EROSION SETBACK CALCULATION:

Historic shoreline change rate, STEP 4A	Design Life, STEP 1B	Projected Future Erosion Multiplier, STEP 4B	Erosion Setback (ft) 4A x 1B x 4B
.52	X 30	X 1.34	= 20.904

NOTE: Setbacks are required per the CRMC Red Book Section 1.1.9. A minimum setback of 50-feet is required, but a greater setback may be necessary and/or desirable based on this analysis.

STEP 5. CERl & OTHER SITE CONSIDERATIONS

☐ A. If you live in a community where a Coastal Environmental Risk Index (CERl) has been completed (Barrington, Bristol, Charlestown, Narragansett, South Kingstown, Warren, Warwick, Westerly), CHECK the level of projected damage to your location, as indicated on the map that corresponds to the design life identified in STEP 1.

CERl Level: Moderate ☐ High ☐ Severe ☐ Extreme ☐ Inundated by 2100 ☐ Not applicable ☒

☐ B. Consider and discuss with your design consultant other forces or factors that might impact the development, such as coastal habitats, shoreline features, public access, wastewater, storm water, depth to water table/groundwater dynamics, saltwater intrusion, or other issues not listed above. In addition, pressure from rising sea levels will result in rising subsurface groundwater levels ultimately effecting wells and septic systems.

STEP 6. LARGE PROJECTS

This step is for Large Projects and Subdivisions only, six (6) or more units, as defined by the CRMC Red Book Section 1.1.6.(1)(f). This step may be skipped for other projects.

☐ A. Use the Sea Level Affecting Marshes Model (SLAMM) Maps to assess potential impacts to large projects and subdivisions from salt marsh migration resulting from projected sea level rise. CRMC SLAMM maps can be accessed [here](#). The CRMC recommends using the 5-foot SLR projection within SLAMM to assess future potential project impacts on migrating marshes. Does the SLAMM map that corresponds to the design life you identified in STEP 1 expose your project site to future salt marsh migration? CHECK YES or NO

☐ YES ☒ NO

STEP 7: DESIGN EVALUATION

☐ A. Using Chapter 7 of the RI Shoreline Change SAMP as a guide, investigate mitigation options for the exposure identified above and include that in the final application.

This fully completed Coastal Hazard Application Guidance worksheet must accompany the application. If you are a design or engineering professional, please print and sign here that you have discussed the findings of this worksheet with the Owner.

DESIGN/ENGINEER SIGNATURE: _____

DATE: 9/8/23

OWNER'S SIGNATURE: _____

DATE: 9/25/23