



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>1 India Street, Providence</u> <small style="display: flex; justify-content: space-between; width: 100%;"> No. Street City/Town </small>	File No. (CRMC USE ONLY) 2022-08-043
Owner's Name <u>McAllister Towing of Narragansett Bay, LLC/1 India Street, LLC</u>	Plat: AP 18 Lot(s): 48 & 332
Mailing Address <u>1 India Street, Providence, RI 02903</u> <small style="display: flex; justify-content: space-between; width: 100%;"> Address City/Town, State Zip Code </small>	Owner's Contact: Number: Gary Oliveira Email Address: goliveir@mcallistertowing.com
Contractor RI Reg. # <u>TBD</u> Address <u>TBD</u>	Email address: Tel. No. <u>TBD</u>
Designer <u>Fairbanks Engineering</u> Address <u>42 Cobblestone Hill Rd, Exeter, RI 02822</u>	Tel. No. <u>401-474-2361</u>
Name of Waterway <u>Providence River</u>	Estimated Project Cost (EPC): \$50,000 Application Fee: \$500

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

Stabilize the failing concrete pens that are causing safety hazards on land and in water along the property. A portion of the north pen has failed and the south pen has large cracks in the walls and settlement. The project will construct a stone rip rap/revetment within a portion of the north pen to match conditions immediately to the north and place granular back fill in the south pen to match existing grade. The project also includes extending the existing stormwater outfall pipe at the south pen, and at the north pen realigning a portion of the bulkhead and adding new sheetpile bulkhead to address slope stability.

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): See separate list attached to application

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/ mailing 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.

Lot 343 - 1 India Street, LLC, 1 India Street, Providence, RI 02903; Lot 352, Narragansett Bay Commission (pump sta)

1 Service Rd, Providence, RI 02905; Lot 331 (32 India St) - State of RI, One Capitol Hill, Providence, RI 02908

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

Gary Oliveira

GARY D. OLIVEIRA

Owner Name (PRINT)

Gary Oliveira


Owner's Signature (SIGN)

PLEASE REVIEW REVERSE SIDE OF APPLICATION FORM

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

08-03-20
Date

Gary Oliveira, McAllister Towing of Narragansett Bay, LLC, 1 India St., Providence, RI02903
Print Name and Mailing Address

PROJECT ASSENT APPLICATION SUMMARY SHEET

CRMC CATEGORY B ASSENT APPLICATION
CONCRETE PEN STABILIZATION PROJECT
MCALLISTER TOWING FACILITY
1 INDIA STREET, PROVIDENCE, RI

PROJECT ASSENT APPLICATION SUMMARY SHEET

McAllister Towing of Narragansett Bay, LLC is requesting an Assent to allow the stabilization of the two (2) failing concrete pen structures located along the bulkhead on the Providence River. This site is visible just south of the interstate I-195 bridge over the Providence River (Tugboats are usually berthed at the facility). This work is allowed per Table 1 of the CRMC Redbook. The project is in Type 6 water summarized below with are the project specifics and reasons we believe the project qualifies for Assent:

- These structures are left over from a building that used to be onsite (refer to the photographs accompanying the application for a photo of the building). The pens reportedly were used to facilitate loading/unloading of cargo onto/off ships. The building was razed long ago, and the pens serve no purpose. The pens now create 9 to 11 ft deep holes directly behind the bulkhead.
- Two (2) concrete pen structures are in poor/failing condition (a portion of the north pen has failed). This condition results in safety issues on land & to the ship berth.
- The north pen is about 29.32 ft long by 14.5 ft wide with a concrete floor slab at El -0.29 ft (the floor is about 2 ft above Mean Low Water (MLW)); this structure is in poor/failing condition with a portion of the north wall failed/missing, large cracks in walls, and excessive settlement.
- The south pen is about 28.92 ft long by 15.17 ft wide with a concrete floor slab at El -1.22 ft (the floor is about 1 ft above MLW); this structure is in poor/failing condition with large cracks through the walls and excessive settlement.
- The failing condition of the pen structures is a safety hazard, including the potential for concrete falling into the adjacent ship berth (which has occurred already at the north pen).
- The pens are comprised of concrete walls and a concrete floor; there are no visible significant environmental resources within the pen box structures.
- The pens are dry at MLW and only inundate during a portion of the tide cycle.
- North pen work would include a steel sheetpile system installed along the western edge of the pen structure to stabilize the below water slope. A stone revetment system would also be constructed within the east end of the pen structure footprint to stabilize the above water slope. This would match the stone revetment system that exists immediately north. The repair would stop the loss of upland soil into the Providence River and stabilize the above and below water slopes. Total fill placed below Mean High Tide (MHT) for this work is about 18.3 cyds.
- South pen work would include filling the structure with granular borrow material to match existing upland grade to stabilize the concrete walls and stop the migration of soil into the Providence River. The existing concrete walls would be demolished to about 1 ft below existing grade and the 8" diameter, PVC, stormwater outfall pipe would be extended to discharge through the steel sheetpile bulkhead. Total fill placed below MHT for this work is about 55.2 cyds.
- The site is completely bulkheaded, in Type 6 water, and has been used as an active port reportedly since 1680 when it was constructed by John Brown to support his tea and spice trade with the Indies. The proposed work will allow safer use of the site as a marine port.

CRMC REDBOOK QUESTIONS



Fairbanks Engineering Corporation
Geotechnical & Marine Engineers

August 1, 2022

CATEGORY “B” APPLICATION FOR CRMC ASSENT FOR THE STABILIZATION OF THE CONCRETE PEN STRUCTURES ALONG THE PROVIDENCE RIVER

OWNER: *McAllister Towing of Narragansett Bay, LLC*

LOCATION: 1 India Street, Providence, RI 02903

CRMC APPLICATION – PROJECT NARRATIVE

Description of Work:

The project will stabilize two (2) existing concrete pen structures (North and South pens) located along the existing bulkhead system at the tugboat slips on the Providence River. The active failure of these structures create ongoing safety hazards both on land and water adjacent to each pen area. The failure of a portion of the north pen has resulted in a large piece of concrete wall falling into, and blocking, a portion of the adjacent ships berth and required removal. Both pen structures have large open cracks through the concrete walls and have experienced excessive settlement indicating active failure.

The North pen structure is about 29.32 ft x 14.5 ft and about 9 feet deep with a top of floor slab at El -0.29 ft (NAVD88 datum); the South pen structure is about 28.92 ft x 15.17 ft and about 9 feet deep with a top of floor slab El -1.22 ft (NAVD88 datum). These concrete pen structures are remnants of the building that previously existed along the waterfront at this location. The pens are comprised of concrete walls on three sides (they are open on water side) and a concrete floor. These structures were believed to have been used to facilitate the transfer of cargo between rail cars/building and boats. The pens currently serve no purpose. No vegetation or marine life is present within the concrete pen structures. Refer to the attached photos and plans for additional information about the pen structures location and condition.

This site was reportedly a part of Providence’s first port and has been used as a port facility since 1680 when John Brown established it to support his tea and spice trade with the East Indies. It is currently used as an active port to support berthing of tugboats and other vessels. The tugboats from this site are responsible for moving most large commercial and cargo ships within Narragansett Bay and adjacent port areas.

The property is recorded on plat card no. 18, lots 48 and 332 in the land evidence records, Providence Rhode Island at the City Hall. The property is served by City water, sewer, electric, and gas.



The existing concrete pen structures are located on the upland portion of the property immediately behind the bulkhead system along the Providence River. The area adjacent to the pens is mostly granular soil with grass surface. A stone revetment/rip rap structure exists immediately north of the north pen. This area originally was grass but erosion of soil due to the failing north pen and the adjacent bulkhead system resulted in the current slope. The bulkhead system at the site (structural shoreline protection) is allowed per CRMC M2020-05-077 and is comprised of anchored steel sheetpile currently under construction to repair the timber bulkhead system that has existed onsite for many decades. Except for the pen areas, the bulkhead system functions well and is in good condition resulting in a stable slope area between the upland and the ship berth. The site is located on the Providence River (Atlantic Ocean) in Providence, Rhode Island.

The proposed work includes work to stabilize and remove the potential safety liability at each pen structure. This includes filling the south pen with granular borrow backfill to match existing upland grade; about 55 cubic yards (cy) of granular fill is required below mean high tide (MHT). The existing stormwater outfall (8" dia. PVC pipe with duckbill tide valve) at the south pen will be extended through the steel sheetpile bulkhead. The outfall was recently installed as part of the site remediation work completed by McAllister as allowed by CRMC 2017-02-049. At the north pen the remaining portion of the failed north wall will be removed, and a stone revetment/rip rap system installed within the pen's floor area to match the profile of the adjacent revetment system; about 18 cy of stone rip rap will be placed below MHT as part of this work. A steel sheetpile bulkhead will also be installed along the west face of the pen to stabilize slope stability between the upland and berth areas. This bulkhead will extend between the existing steel sheetpile bulkheads to the south and north. This is believed to be similar to the alignment of the timber bulkhead that previously existed in this area.

The proposed project is designed to meet current recommended stability factors of safety and the RI Building Code.

The proposed project, which eliminates the current safety hazard caused by the failing pen structures onsite, is allowed per Table 1 of the CRMC Redbook as a Category B Application.

Project Specifics:

Water Use Category:	Type 6
Shoreline Feature:	Steel Sheetpile Bulkhead
Water Use Map:	Metro Bay North (Providence, Pawtucket & East Providence)
Lot Size:	3.88 ± Acres
Alteration or Activity:	Backfill existing concrete pen structures and install sheetpiles
Project Footprint:	863 ± SF
Flood Zone:	VE14 (FIRM Map No. 44007CV001C, 10/2/2016)
Base Flood Elevation	EL 15.2 FT NAVD88 (Stillwater EL 12.3 ft NAVD88)
Fill to be Deposited:	73.5 cy will be deposited below MHT as part of this project.



Section 1.1.7 – Variances Requested:

The project is an allowed use in Type 6 waters as a Category B application and no variances are requested.

Section 1.3.1 – Category B Requirements (UpLand):

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

Response: The existing concrete pen structures are in poor condition and serve no current purpose onsite. The project will remove the safety hazard currently created by the failing structures.

- 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

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

Response: The work will be conducted within the footprint of the existing pen structures which are comprised of concrete walls and a concrete floor slab. The area is adjacent to CRMC Type 6 waters directly behind the structural shoreline protection (timber and steel sheetpile bulkhead) that exists along the shoreline. The structural shoreline protection is under construction per assent M2020-09-003.

- 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 proposed work is confined to the footprint of the existing concrete pen structures. Once the stabilization is complete it will actually eliminate erosion of soil materials into tidal waters. As such the proposed work will have minimal impacts on normal deposition processes in 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: As mentioned above the work is confined to within the existing concrete structures that have concrete floor slabs which are man-altered areas. No plant or animal life will be impacted by the proposed project.

- 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 proposed project is located on private property at an active port facility with no public access. There is access to the shore from several properties and CRMC right of ways nearby, including India Point Park. Therefore the project does not interfere with access to, and use of, the shoreline or waterway by the public.

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

Response: The existing pen structures are not connected to any through conveyance structures and are “dead end” areas that only partially inundate during a portion of normal tide fluctuations. The project is anticipated to improve potential turbidity and sedimentation impacts by eliminating erosion through large cracks in the concrete walls caused by seepage flow caused by rainfall and tidal fluctuations. As such the project will not result in impacts to water circulation, flushing, turbidity, and sedimentation.

- 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 deterioration of water quality is expected as a result of the project. There is an existing stormwater treatment system onsite installed as part of the recent remediation system project (CRMC 2017-02-049).

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

Response: The project will leave the working port area in a similar condition to existing. As such no adverse impacts to archaeological or historic aspects are anticipated.

- 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: The project is in an upland area and no impact/conflicts with water dependent use and activities will result.

- 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 the shore and from land will continue to look very similar to existing.

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

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 fill slope at the north pen area will be 1.5H:1V but this fill material will be stone rip rap/revetment designed per the US Army Corps of Engineers recommendations for use at this slope. Given the fill at the north pen is stone, erosion of soil materials is not a concern. There is no slope required at the south pen because soil is behind a bulkhead.

- (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: All excess materials, fill & debris will be removed from the site & disposed of off-site.

- (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.

- (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 in association with 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: Not applicable.

(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: Toxic substances & materials, (none are anticipated), in association with the project construction will be properly stored away from stormwater inlets & top of the coastal slope and away from the surface waters & 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:***

Response: Work is generally undertaken in the upland area behind the existing bulkhead or within/adjacent to the existing concrete pen structures.

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: Work is generally undertaken in the upland area behind the existing bulkhead or within/adjacent to the existing concrete pen structures. Erosion controls are not required or beneficial to control sedimentation. However, if during construction this condition changes erosion controls (e.g., hay bales, floating turbidity curtains, etc.) would be added as required.

(2) *All slopes shall be returned to the original grade unless otherwise specified;*

Response: So noted.

(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: So noted

(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: No change to existing upland grades or stormwater flows will result from the project.

(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; and*

Response: No dewatering will be required for the project.

(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: Refer to responses a (7), d (1,4,5)

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

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



- (AA) *No fill shall be allowed on the slope;*
- (BB) *Excavation shall be kept to an absolute minimum; and*
- (CC) *Vegetative cover on the slope shall be permanently maintained to the maximum extent physically possible.*

Response: Stone revetment/rip rap designed in accordance with the US Army Corps of Engineers requirements is used for the stone revetment/rip rap proposed within the north pen structure. All of the non-erodible stone material placed will be within the concrete pen structure and not on earth slopes.

- (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: Not applicable.

- (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: Refer to responses a(7), d(1,4,5)

- (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: Not Applicable.

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

4. Standards

a. For Onsite Wastewater Treatment Systems (OWTS)



Response: Property is served by municipal sewers. There is no OWTS.

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

Response: No change to existing grades or stormwater are proposed or anticipated from the proposed project.

- 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: No change to existing grades or stormwater are proposed or anticipated from the proposed project..

- 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 the project is well below 10,000 sf of disturbance.

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 to coastal wetlands such as changes in species composition due to the introduction of freshwater to high marsh areas;*
- (2) Changes in the salinity of tidal receiving waters;*
- (3) Thermal impacts to receiving waters;*
- (4) Effects of introducing stormwater runoff to receiving waters that have low dissolved oxygen concentrations; and*



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

Response: (1) Not Applicable (2) Not Applicable (3) Not Applicable (4) Not anticipated (5) 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: Not Applicable

- 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: No change to existing grades or stormwater are proposed or anticipated from the proposed project...

- 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: No change to existing grades or stormwater are proposed or anticipated from the proposed project.

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.*
- (2) *Where possible, outfall pipe slopes shall be designed for an exit velocity of less than five (5) feet per second.*
- (3) *Screens or grates shall be placed over the end of large outfalls to trap debris.*
- (4) *Beaches or other coastal features in front of outfalls shall be returned to original grade.*
- (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.*
- (6) *Riprap shall 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: (1) The existing 8" dia PVC outfall pipe that discharges in the south pen will be extended through the pen and bulkhead to maintain current discharge conditions into the Providence River. This stormwater outfall was installed as part of the environmental cleanup work allowed by CRMC 2017-02-049. (2) No change to existing outlet velocities will result from this work. (3) The existing duckbill type tide valve will be reinstalled on the end of the extended outfall pipe. (4) Not Applicable (5) Not Applicable (6) Not Applicable (7) Not Applicable

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;*
- (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: Generally Not Applicable but information about the stormwater system installed as part of the environmental cleanup work (CRMC 2017-02-049) can be provided as requested.

Section 1.3.1(G) – Shoreline Protection (applicable sections):

Preparer's note: The proposed structural shoreline protection systems are meant to eliminate the safety issues that exist onsite as a result of the failing north pen and the previously failed timber bulkhead system across this area. The intent is to stabilize the above and below water slope areas to eliminate the ongoing hazard and the potential erosion of unprotected soil into the Providence River. This is an industrial site used currently to support tugboat berthing and associated operations. The waterfront in this area has been used as port facility dating back to the 1600's. It has been bulkheaded with various structures located along the waterfront throughout much of this time period. The proposed work is required to make the area safer and to support ongoing operations onsite. All work is believed to conform with existing and past site use and it will not have adverse impacts to the Providence River or the associated environment in the area of the work.

4. *Additional Category B Requirements*

a. *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: Generally **Not Applicable**. The stone revetment/rip rap and steel sheetpile bulkhead sections are being installed to remove the safety hazard caused by the failing concrete pen structures. The revetment/rip rap and bulkhead are only proposed at the north pen where slope instability threatens the ship berth. The systems proposed will eliminate this potential failure concern and it will also secondarily eliminate erosion of exposed soil into the Providence River.

(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: This is a dynamic area not suitable for nonstructural or hybrid shoreline protection. The FEMA 100 yr (1%) significant wave height is about 4.5 ft. Also the area is located along the berth for the tugboats. Tugboats cause large displacement of water when at berth with the engines running. To protect the underwater slope area from scour caused by tugboat props adjacent to the berth the steel sheetpile bulkhead is required.

(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: This is an active working port area and has been since the 1600's. all of the upland area is used to support work onsite. It is not practicable to relocate the existing structures.

(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 stone revetment/rip rap and bulkhead will not increase erosion or disrupt shoreline sediment dynamics. It will also stabilize the existing slope (above and below water) thus improving shoreline stability and eliminating safety concerns along the upland and ship berth areas.

- (6) *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: The Owners have been in the tugboat business since 1864 and have the resources to rebuild the structures onsite if they were to be damaged. They are currently undertaking maintenance to the steel sheetpile bulkhead across the site and recently completed a large, expensive, environmental remediation of the soil across upland areas of the site. Maintenance of structures as required in the future will not be a concern.

- (7) *New structural shoreline protection shall be designed and certified by a registered professional engineer;*

Response: The structural shoreline protection system has been designed, and the plans sealed, by a Professional Engineer licensed in the state of Rhode Island.

- (8) *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: Not Applicable because the entire site is bulkheaded with deep water berths so there are no beaches.



- b. *Applicants for breakwaters and jetties in addition to § 1.3.1(G)(a) and (b) of this Part above shall demonstrate that the proposed structure is necessary to provide protection to a marina, port facility, public mooring area, or public beach area.*

Response: Not Applicable.

- c. *Applicants for breakwaters and jetties shall also provide an evaluation of the structure's potential for interrupting the longshore movements of sediment. If such an interruption is likely to be significant, the applicant shall design a sand bypass system or another measure that will assure that the effects on sediment transport shall not cause significant erosion or interrupt sediment supply to adjacent natural shoreline features. Where it is determined a sand bypass system is necessary, but will not be practicable or functional considering the site conditions, the Council may deny an application for a breakwater or jetty.*

Response: Not Applicable.

- d. Repair or reconstruction of all structures on the subject parcel that are physically destroyed fifty percent (50%) or more by wind, storm surge, waves or other coastal processes shall require a new Council Assent.

Response: A new Category B Assent application has been prepared.

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: This standard has been met. The stone revetment/rip rap is located within the concrete pen on the concrete floor of the structure. It has been designed with a 1.5 horizontal: 1 vertical (1.5:1) slope which is the steepest recommended by the US Army Corps of Engineers for



design of these structures. The steel sheetpile bulkhead has been located immediately adjacent to the seaward edge of the concrete pen to meet this standard.

- 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: This standard has been met. The proposed stone revetment/rip rap ties into the existing concrete wall of the pen structure at the south end and the existing stone revetment to the north. The proposed steel sheetpile bulkhead ties into existing steel sheetpile bulkheads at both the south and north ends of the structure.

- 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.

- 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: So noted; All anchoring and connecting components are shown on the plans.

- 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: This standard is met with the stone revetment/rip rap being supported on the concrete floor slab of the concrete pen and the slope adjacent to the pen structure stabilized by a steel sheetpile bulkhead system.

- 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: This standard is met. The only fill being placed is that related to the stone revetment/rip rap structure. The stone materials contain no soil component. No backfill is proposed behind the bulkhead and the top of bulkhead is proposed at the existing floor elevation of the concrete pen to allow overtopping during a portion of the tide cycle.

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

Response: Upland grades onsite a relatively level/flat for a distance in excess of the required distance.

- 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 proposed stone revetment/rip rap is designed with a slope of 1.5:1 as required by the US Army Corps of Engineers design requirements.

- 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: This standard is met.

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

Response: The structural shoreline protection systems have been designed, and the plans sealed, by a Professional Engineer licensed 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: This standard is met. The stone revetment/rip rap work will be undertaken within a concrete pen structure with no erodible soil and the steel sheetpile bulkhead will be driven using a pile driving hammer resulting in minimal disturbance to the soil along the existing slope.

- 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: Not Applicable.

- 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 toe of the proposed shoreline protection will tie into the toe of the existing adjacent structural shoreline protection systems.

- 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: Not Applicable.

- 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: The area upland of the work is relatively flat and grassed. No change in condition is proposed and no change in stormwater flow or erosion will result.

- 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.



Section 1.3.1(J) – Filling in Tidal Waters:

Preparer's note: The fill proposed will eliminate the safety issues that exist onsite as a result of the failing pen structures. The intent is to stabilize the areas and eliminate the ongoing hazard and the subsequent potential erosion of unprotected soil into the Providence River. This is an industrial site used currently to support tugboat berthing and associated operations. The waterfront in this area has been used as port facility dating back to the 1600's. It has been bulkheaded with various structures located along the waterfront throughout much of this time period. The proposed work is required to make the area safer and to support ongoing operations onsite. All work is believed to conform with existing and past site use, and it will not have adverse impacts to the Providence River or the associated environment in the area of the work.

There doesn't appear to be questions to be answered within this section of the Redbook but we offer the following:

- *Filling will take place in Type 6 waters which is allowed,*
- *Filling will accommodate a designated priority use for Type 6 waters,*
- *There are no reasonable alternates to proposed filling,*
- *The filling has been minimized to the extent possible (the revetment proposed at the north pen is much less impactive than filling the entire pen structure)*



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:

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Application Prepared By: 
Fairbanks Engineering Corp., Mr. Robert Fairbanks, P.E., President

Applicant: 
McAllister Towing of Narragansett Bay, LLC, Mr. Gary Oliveira, Captain