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## **APPLICATION NARRATIVE**

#### PROJECT INFORMATION

#### **Proposed Filing Category**

The activity along the waterfront consists of the installation of a commercial/industrial shoreline protection structure and improvement dredging to create a deep water berthing area. As a result, this proposed project should qualify for the RI Coastal Resource Management Program Category B Assent Application Section 300.1

### **Proposed Project Description & Scope of Authorization**

The applicant proposes to install a new steel bulkhead along the property's waterfront and to conduct improvement dredging waterward of the new bulkhead. The complete proposed Scope of Authorization is outlined below and is shown on application Figures 1-14.

- 1. Install a new *steel bulkhead* landward of the MHW line that measures 355 linear feet and is comprised of steel sheeting. The steel sheeting will have two (2) 12" x 12" whalers installed on the landward side.
- 2. Install a *deadman and tie-back system*, consisting of 355 linear feet of 4' x 4' concrete anchor with steel rod tie-backs installed approximately every 9 feet.
- 3. Install an *infiltration trench* along the landward face of the proposed bulkhead measuring 10 feet deep, 5 feet wide and 355 feet in linear length, resulting in 17,750 cubic feet of trenching.
- 4. Remove the *derelict timber structures* located along the waterside area.
- 5. Remove an area of *riprap* measuring 244' long, 31' at its widest point, covering 4,602 square feet, and consists of approximately 512 cubic yards of material.
- 6. Consolidate an area of *riprap* measuring 115' long, 21' wide, covering 1,780 square feet, and consists of approximately 198 cubic yards of material. Remove any foreign objects which have become lodged within the riprap.
- 7. **Excavate** 500 cubic yards of sediment from an area that is irregular in shape and measures approximately 33' at its widest point, 244' in length, and covers 3,813 square feet. This material will be excavated down to the MHW elevation of +4.4' MLW.
- 8. Install an upland *concrete work/storage pad* measuring 80' wide, 120' long, and 10" deep.
- 9. Conduct *improvement dredging* of 48,000 cubic yards of sediment from an area that is roughly rectangular in shape and measures approximately 350' at its widest point, 670' in length, and covers 212,775 square feet. Dredging within this footprint is proposed to a control depth of –14.0' MLW (+ 1.0' overdredge), dredged in a box-cut fashion with an inadvertent 3:1 side slope.
- 10. Install three new *timber dolphin pile clusters* consisting of seven (7) piles each.

#### Construction Methodology & Project Sequencing

The proposed project will be conducted in multiple stages as outlined below.

- 1. The first phase of the project will consist of installing the steel sheeting. The bulkhead location will be properly staked with survey equipment prior to the initiation of construction activities. The installation of the sheeting will be conducted from a land-based crane or waterside barge using a vibratory hammer. If conducted from a barge, all work will take place during periods of high water. At no time will the barge rest on the harbor substrate. No excavation is planned with this phase, as the contractor will install the sheeting by ground penetration. The contractor will start at the northerly end of the property and work in a southerly direction, installing all sheeting in its entirety prior to installation of the deadman system.
- 2. Next, the contractor will begin installation of the tie-back system with associated infiltration trench by excavating the soil on the landward side of the new steel sheeting. The work will be conducted from the upland, landward of the mean high water line, and will not impact coastal resources. This work will be accomplished by use of a backhoe stationed on the upland. The contractor will temporarily stockpile the backfill material on an upland portion of the site. Erosion and sedimentation controls will be installed around the perimeter of all stockpiled material.
- 3. Next, the contractor will begin installing the upland concrete deadman anchor. Temporary timber framing will be constructed to form the concrete deadman. The deadman will be then poured by machinery stationed from the upland. Once the concrete has cured, the timber forms will be removed.
- 4. Next, the contractor will begin installing the walers and tie-rods. Twelve-inch walers will be installed on the landward face of the new steel sheeting. Tie-rods will then be connected from the deadman system to the whalers on the backside of the sheeting.
- 5. Once the steel tie-rods are connected, the infiltration trench will be lined with geotextile fabric and backfilled with clean crushed stone obtained from an approved offsite location. The trench will be covered with a layer of geotextile fabric and topped with clean soil. A backhoe and skid steer will return the ground to existing grade.
- 6. Once the bulkhead is in place the contractor will begin removing the derelict timber structures located along the waterside area. Working from a either a land-based or waterside mounted crane, the contractor will lift the structures from the substrate and place them into trucks waiting just landward of the newly constructed bulkhead. The material will be properly disposed of at an appropriate upland facility. At no time will the barge rest on the harbor substrate.
- 7. Next, the contractor will work on removal of the riprap. Working from a either a land-based or waterside mounted crane, the contractor will extract the riprap stones and lift them into trucks waiting along the waterside. The material will be properly disposed of at an appropriate upland facility.

- 8. Next, the contractor will work on consolidating the area of riprap which is to remain. First, the contractor will remove any foreign material which has become lodged in the riprap. The material will be removed by hand or using a land-base/barge mounted crane as appropriate. All material will be properly disposed of at an appropriate upland facility. The contractor will then proceed by strategically stacking and interlocking appropriately sized stones within the existing riprap until the dislodged stones have been completely relocated. All of these activities will be conducted during periods of low water from a land-base/barge mounted crane as appropriate. No new stone material is proposed for this activity.
- 9. The contractor will then excavate the area waterward of the new steel bulkhead down to the MHW elevation of +4.4' MLW. Excavation will be conducted using an upland based excavator. This material will be analyzed, and if below RIDEM direct exposure criteria, will be disposed of on the project site landward of the proposed bulkhead. If the material does not meet minimum requirements, it will be transported off site to an appropriate upland facility per RIDEM instruction and approval.
- 10. Next, the contractor will install the upland concrete work/storage pad. The area will be temporarily excavated with a small skid steer and hand tools as appropriate. Temporary timber forms will then be secured to form the shape of the pad. Reinforcing rebar will then be tied in place on the interior of the form. Concrete will then be fed into the form. Once the concrete has cured, the temporary timber forms will be removed and clean soil will be backfilled against the sides of the pad.
- 11. Next, the contractor will work on the dredging portion of the project. Dredging and disposal operations are proposed to be conducted using the mechanical clamshell and/or barge based excavator method. A dredge window of October 1 through January 1 is being proposed, as per Dan Goulet in a phone conversation on January 27, 2010. A thorough disposal alternatives analysis will be performed following the completion of the sediment sampling investigation to evaluate the potential uses and/or methods of disposal. However, it is anticipated that dredge spoils will be disposed of at the Confined Aquatic Disposal (CAD) cells located in the upper reaches of the Providence River. Dredging will be conducted in phases, based upon funding at the time. Given the lack of dredging in the immediate area, accretion rates cannot be determined, and therefore maintenance dredging will be performed as needed.
- 12. Lastly, the contractor will install the dolphin pile clusters. Pile driving will be conducted using a barge mounted crane and pneumatic/vibratory hammer. For each dolphin cluster, the king pile will be driven first, and the battered piles will then be installed around it. Once the final battered pile is installed, the battered piles will be affixed to the king pile using steel cable.

## **SECTION 300.1 – CATEGORY B REQUIREMENTS**

## **Need For Proposed Activity**

The applicant wishes to develop this vacant lot into a scrap metal transfer facility. This operation will require the installation of a new steel bulkhead along the property shoreline, removal of various shoreline structures, improvement dredging to create deepwater access and berthing, and installation of dolphin pile clusters. The property is located at 434 & 444 Allens Avenue, Providence, Rhode Island on the shore of Providence Harbor near the mouth of the Thurbers Avenue Creek. The property has historically been used for industrial purposes, but has remained largely undeveloped for many years. The inactivity of the property is evident as the site is comprised of derelict bulkheads, a derelict timber pier, and riprap stabilization along the shoreline.

The proposed project involves the installation of a steel sheetpile bulkhead with a concrete deadman anchor and steel tie-rod system, removal of various shoreline structures, improvement dredging to create deep-water access and berthing, and installation of dolphin pile clusters. All components of the bulkhead will be located landward of the mean high water line. The proposed bulkhead, in conjunction with the structure removal and dredging, will allow commercial vessels to temporarily berth in a perpendicular fashion directly along the property's new deepwater shoreline. The dolphin pile clusters will allow the applicant to temporarily tie up derelict vessels which will be salvaged for scrap metal. The redeveloped waterfront will serve to facilitate acceptance of scrap metal from the dismantling of derelict vessels marked for salvage. The scrap metal produced from this operation will be transported off-site to an appropriate upland recycling facility. As such, the application intends to return the property to its historical use as an operational industrial facility.

#### Local Ordinances, Codes, Standards, and Requirements

The proposed activities will conform to all applicable local ordinances. The following is a summary of local regulatory consultations and associated site/operation details.

The City of Providence Tax Assessor has provided us with the "Summary Record Cards" as proof that ACR Realty, LLC is the owner of the property (see Project Correspondences).

A formal correspondence (see Project Correspondences) has been obtained from Mr. Kerry Anderson, Building Official, City of Providence, Department of Inspections and Standards, outlining his comments on the project. In addition, the City of Providence, Department of Inspections and Standards, completed and returned the CRMC Building Code & Zoning Ordinance review form (see Project Correspondences). This completed form confirms that the project conforms with all elements of the zoning ordinance.

The proposed activities will not involve any new parking areas - facility employees will utilize existing parking areas. The proposed activities will not involve any new sanitary systems – facility employees will use temporary portable toilets until the restrooms in the "Existing Wood Frame Building" can be repaired.

#### **Boundaries of Coastal Waters and Land Area**

The proposed project site is a vacant lot located at 434 & 444 Allens Avenue, Providence. The northerly abutting property consists of a property owned by the City of East Providence which serves as an upland lot for the waterline crossing Providence Harbor. The direct southerly abutting property is a small paper lot known as Thurbers Avenue which is owned by the City of Providence. The next southerly developed property consists of an oil terminal owned by Motiva Enterprises, LLC. A recent site review by Coastline Consulting & Development, LLC shows that the project site consists of a large undeveloped parcel of land with derelict buildings and railroad tracks. Along the water there is a derelict bulkhead, a derelict timber pier, and riprap stabilization. The derelict structures have not been maintained for many years, are no longer serviceable, and will be removed as a component of this project. The riprap stabilization is described in greater detail below:

**Riprap Stabilization** - Riprap stabilization contours the complete length of the property shoreline from the northerly abutting property to Thurbers Avenue Creek. The riprap measures 380' in linear length, is approximately 10' - 20' wide, 1' - 3' deep, and contains approximately 400 cubic yards of stone and broken concrete slabs.

#### **Erosion and Deposition Analysis**

The purpose of the proposed project is to provide a necessary berthing face with adjacent deep-water access and berthing directly along the property's shoreline. Shoreline erosion and deposition is not anticipated as no solid fill structures are proposed. Minimal natural siltation is anticipated once dredging is complete.

#### Plant & Animal life Analysis

Coastline Consulting & Development, LLC evaluated potential impacts to the abundance and diversity of plant and animal life. An assessment of each is provided below.

#### Plant life

The project has been specifically located in an area so as not to affect the tidal wetlands on the project site. The bulkhead is located over an area that has historically been used for shoreline stabilization as found evident by the derelict structures and riprap & stone rubble. Also, there is no SAV within the dredge footprint. Therefore, no impacts are anticipated to plant life.

#### Animal life

No impacts are anticipated to animal life as the proposed project has been properly designed according to specific site characteristics. The bulkhead has been located landward of the MHW line and outside of coastal resources. Furthermore, bulkheads are common structures along this stretch of Providence Harbor including a bulkhead immediately to the south. Dredging is being proposed within a window which has been determined to minimize impacts to animal life. Therefore, no impacts are anticipated to animal life.

#### **Public Access Evaluation**

With regard to public use of the public trust lands and waters waterward of the MHW line, little to no adverse impacts are anticipated as the proposed project is located in an area defined as Type VI waters. These waters are defined by the Rhode Island CRMC as Industrial Waterfront and the intended use of these waters are for servicing water dependent facilities. As previously discussed, this project intends to return this site to historical use as an operational industrial facility. As a result, there will be no new adverse impacts to the public trust.

#### Water Circulation Analysis

The project will not involve any activity within the waterway that would cause adverse impacts to circulation or flushing. Following completion of the dredging activities, the wave energy breaking along the bulkhead face will largely disperse before reaching the mud line, and therefore will not likely re-suspend small particulates. As such, turbidity will not be significantly impacted. The hydrography in the area does not indicate that significant sedimentation is occurring at the site, and as such no significant impacts are anticipated to sedimentation. Finally, the three proposed dolphin piles will be spaced 50 feet apart, thus eliminating any localized adverse impacts to water circulation.

#### Water Quality Analysis

The proposed project will include the installation of an infiltration trench to manage stormwater runoff from the site. The trench has been designed as per the Stormwater Design and Installation Standards Manual. As such, no adverse impacts are anticipated from the proposed project.

#### Historic and Archaeological Significance

Coastline Consulting & Development, LLC conducted a phone interview on November 5, 2009 with Jason Martin of the City of Providence, Historic District Commission. Mr. Martin stated that this project site is not located in an area of historic and archaeological significance.

#### Water Dependent Uses

During the initial planning stages, Coastline Consulting & Development, LLC carefully evaluated the potential impacts to water dependent uses. In order to avoid potential impacts, it was important to evaluate specific site characteristics so that appropriate design measures could be implemented. Based upon our review, it is our opinion that there will be no adverse impacts to local navigation due to the following factors:

- 1. The applicant's property is located along a stretch of Providence Harbor where large vessels and barges transit regularly. The infrequent vessel traffic that will result from the dismantling of derelict vessels will create no new navigation impacts.
- 2. The bulkhead has been designed to allow large vessels to berth directly up to and alongside the property's shoreline. The bulkhead is located away from the federal navigation channel and is centrally located along the property. Therefore, when the vessels are berthed up to the bulkhead, there will be no obstructions to navigation within the channel.

3. The proposed dredging will allow vessels to access the bulkhead directly through their riparian areas and will therefore not impact neighboring facilities.

## **Scenic Impact Evaluation**

During the preliminary planning stages of this project, Coastline Consulting & Development, LLC carefully evaluated the potential scenic impacts to the surrounding area. Based upon our review, the project site is located in an industrialized portion of Providence Harbor. The water dependent facilities serve to support the large vessels that transit this area, and this project is consistent with all neighboring activities. It is therefore evident that this project will not impose any new adverse scenic impacts.

## ADDITIONAL CATEGORY B REQUIREMENTS

#### Section 300.2 Filling, Removing, or Grading of Shoreline Features

Coastline Consulting & Development, LLC reviewed and evaluated Section 300.2 to determine the applicable requirements as it pertains to the proposed project. In addition, it was also necessary to determine the appropriate steps to meet the requirements of the property's Environmental Land Use Restriction (ELUR). In accordance with the ELUR, a formal request for soil disturbance has been made to the RI DEM (see attached). This request to the DEM includes a project specific Soil Management Plan. In an e-mail correspondence from Mr. Dan Goulet on November 24, 2009, Mr. Goulet stated that CRMC would accept the DEM Plan in place of a separate Erosion & Sedimentation Control Plan.

## Section 300.3 Residential, Commercial, Industrial, and Recreational Structures

Coastline Consulting & Development, LLC reviewed and evaluated Section 300.3 to determine the applicable requirements as it pertains to the proposed project. The results of our evaluation are outlined in the following sections.

<u>Public Access Plan</u> – The applicant is requesting a variance to remove the requirement of a Public Access Plan for the site. An analysis of the six criteria outlined under Section 120 - Variances follows below.

Conformance to Applicable Goals and Policies
 The two applicable Standards for Part Two are 200.6 - Type 6 Industrial Waterfronts and Commercial Navigation Channels and 210.6 - Manmade Shorelines.

Standard 200.6 states the following: "Highest priority uses of Type 6 waters and adjacent lands under Council jurisdiction are: (a) berthing, loading and unloading, and servicing of commercial vessels; (b) construction and maintenance of port facilities, navigation channels, and berths; and (c) construction and maintenance of facilities required for the support of commercial shipping and fishing activities."

Since the purpose of the project is to create a berthing area for a commercial operation, this project conforms to the goals and policies of Standard 200.6.

Standard 210.6 states the following: "The Council's goals are: (a) to encourage the maintenance of structures that effectively mitigate erosion and/or sustain landforms adjacent to the water; and (b) prevent the accumulation of debris along the shore where such structures are ineffective or no longer in active use."

The proposed bulkhead will mitigate erosion along the waterfront. The bulkhead will also mitigate the current problem of debris accumulating along the dilapidated shore structures. As such, this project conforms to the goals of Section 210.6.

The project will also conform to the applicable Standards listed under *Part Three*, as outlined in the following sections (300.4 - 300.18).

## 2. Environmental Impacts & Use Conflicts

The proposed project will conform to all applicable environmental guidelines, and therefore is not anticipated to cause any significant adverse environmental impacts. The project location is currently an undeveloped lot with a dilapidated riprap shoreline. The current conditions of the waterfront area are such that passage below the mean high water line is unsafe. As such, the project is not anticipated to have any significant adverse impacts to use.

#### 3. Site Conditions

The purpose of the project is to facilitate the berthing of derelict vessels for decommissioning and dismantling. The dismantling and scrap material transfer process would pose potential hazards to pedestrians attempting to traverse the bulkhead. As such, conditions at the site would prevent the applicable Standard from being met.

#### 4. Minimum Variance

The only portion of the Standard for which a variance is being sought is the need for public access. All other aspects of the Standard are being adhered to and will be met.

5. Prior Action of the Applicant or Predecessors in Title

The requested variance is not due to any prior action of the applicant or the applicant's predecessors in title.

#### 6. Undue Hardship

The purpose of the project is to facilitate the dismantling of derelict vessels. The scrap material transfer process would pose potential hazards to pedestrians attempting to traverse the bulkhead. As such, conditions at the site would prevent the applicable Standard from being met.

<u>Conformance with Local Zoning Ordinance</u> - The City of Providence, Department of Inspections and Standards, completed and returned the CRMC Building Code & Zoning Ordinance review form (see attached) confirming that the plans conform with all elements of the zoning ordinance.

Conformance with the Rhode Island State Building Code - A formal correspondence (see attached) has been obtained from Mr. Kerry Anderson, Building Official, City of Providence, Department of Inspections and Standards, stating his review comments on the bulkhead portion of the project. In addition, the City of Providence, Department of Inspections and Standards, completed and returned the CRMC Building Code & Zoning Ordinance review form (see attached).

Conformance with State Safety/Fire Codes and Environmental Requirements — The activity along the waterfront consists of the installation of a commercial/industrial shoreline protection structure and improvement dredging to create deep-water access and berthing. All structural components will be located landward of the mean high water line. In conjunction with the dredging, the proposed structure will serve to facilitate the dismantling of derelict vessels. The results of an evaluation of applicable codes is outlined in the following sections.

#### Safety Codes

There are no habitable or other traditional enclosed structures proposed as part of this application. The applicant will install all safety items (i.e.: fence along bulkhead, gates, warning signs, etc.) as required by applicable codes.

#### Fire Codes

There are no habitable structures, enclosed structures, electrical components, or flammable materials included as part of this application. As such, the project should be in conformance with applicable fire codes.

#### Environmental Requirements

With regard to the site's Brownfield history, the property has a Certificate of Completion from the US EPA, a Letter of Compliance from the RI DEM, and an Environmental Land Use Restriction document on file with the City land records. A formal correspondence and Soil Management Plan (see attached) has been submitted to Ms. Margaret Bradley, Project Manager, Rhode Island Department of Environmental Management, requesting disturbance of site soils.

In addition, the aforementioned formal correspondence received from Mr. Kerry Anderson, Building Official, City of Providence Department of Inspections and Standards, includes a checklist of "Minimum Requirements to Apply for Commercial and Mixed Use" which lists the project specific submittal requirements.

#### Section 300.4 Recreational Boating Facilities

The activity along the waterfront consists of the installation of a commercial/industrial shoreline protection structure and improvement dredging to create deep-water access and berthing. All structural components, save the three tie-off piles, will be located landward of the mean high water line. The proposed bulkhead and tie-off piles, in conjunction with the dredging, will allow derelict vessels to temporarily berth in a perpendicular fashion directly along the property's shoreline. The redeveloped waterfront will serve to facilitate the dismantling of derelict vessels. The scrap metal produced from dismantling will then be transferred to the upland and transported off-site to an appropriate upland recycling facility. As such, the proposed project does not involve structures or activities that are part of a recreational boating facility.

#### Section 300.5 Mooring and Anchoring of Houseboats & Floating Businesses

The activity along the waterfront consists of the installation of a commercial/industrial shoreline protection structure and improvement dredging to create deep-water access and berthing. All structural components, save the three tie-off piles, will be located landward of the mean high water line. The proposed bulkhead and tie-off piles, in conjunction with the dredging, will allow derelict vessels to temporarily berth in a perpendicular fashion directly along the property's shoreline. The redeveloped waterfront will serve to facilitate the dismantling of derelict vessels. The scrap metal produced from dismantling will then be transferred to the upland and transported off-site to an appropriate upland recycling facility. As such, the proposed project does not involve structures or activities that are part of the mooring/anchoring of houseboats and floating businesses.

## Section 300.6 Treatment of Sewage and Stormwater

The proposed activities do not meet the definition of Large Projects as outlined in Section 300.6.A.7. The proposed activities have therefore been designed in accordance with stormwater management requirements for Small Projects as defined in Section 300.6.A.8. The project's Stormwater Management Plan is attached in the back section of this application report.

## Section 300.7 Construction of Shoreline Protection Facilities

The activity along the waterfront consists of the installation of a commercial/industrial shoreline protection structure and improvement dredging to create deep-water access and berthing. All structural components are proposed to be located landward of the mean high water line. As the existing shoreline is currently well stabilized with a proper slope and riprap, the purpose of the proposed bulkhead is not to control erosion. As stated earlier, the purpose of the project is to retain upland material in order to create a deepwater berthing location directly along the property's shoreline.

An analysis of the applicable Standards as outlined under Section 300.7.F follows below.

- 1. All applicable standards for earthwork have been outlined in the attached Soil Management Plan. The base of the proposed bulkhead has been located immediately landward of mean high water line and away from coastal wetlands.
- 2. As there are no adjacent structures, the ends of the proposed bulkhead have been shown to gradually return to the slope of the upland. These proposed bulkhead returns will minimize opportunities for erosion around the back of the primary bulkhead face.
- 3. The proposed sheetpiles will be vibrated into place, through consolidated sediments, to an approximate base depth of -50.5' MLW.
- 4. To promote good drainage behind seawalls and bulkheads, to minimize the flow of sediment into the adjacent waterway, and to avoid loss of backfill, all proposed backfill material will contain less than 10% silt. In addition, a filtering layer of 1 ¼" crushed stone and geotextile fabric will be installed directly landward of the bulkhead. Finally, to maximize post

construction drainage, weep holes will be installed along the waterward face of the bulkhead.

- 5. The area landward of the bulkhead will be level for a distance equivalent to the height of the structure (approximately 15').
- 6. No revetments are proposed as part of this application.
- 7. No revetments are proposed as part of this application.
- 8. The proposed bulkhead has been designed and stamped by a registered professional engineer (see Application Drawings).
- 9. No concrete is proposed as part of the primary bulkhead construction.
- 10. The proposed bulkhead has been intentionally located landward of the mean high water line. The method of the installation is by vibratory hammer. All associated excavation activities will be temporary, minimized to the greatest extent possible, and conducted in stages. As a result, it is evident that the construction activities will minimize disturbance of shoreline sediments thereby avoiding adverse impact to water quality.

In addition to the bulkhead portion of the project, a small area of riprap will be consolidated. An analysis of the Maintenance and Repair as outlined under Section 300.7.G follows below.

- 1. The riprap consolidation will not result in the seaward expansion of structural shoreline protection facilities.
- 2. The riprap consolidation has been minimized to the greatest extent possible. No new stone material is proposed for this activity.
- 3. The riprap consolidation has been minimized to the greatest extent possible so as to minimize adverse impacts to water quality.
- 4. All applicable standards for Section 300.2 shall be met, as noted above.
- 5. The proposed project has been designed and stamped by a registered professional engineer (see Application Drawings).

#### **Section 300.8 Energy-Related Activities and Structures**

The activity along the waterfront consists of the installation of a commercial/industrial shoreline protection structure and improvement dredging to create deep-water access and berthing. All structural components, save the three tie-off piles, will be located landward of the mean high water line. The proposed bulkhead and tie-off piles, in conjunction with the dredging, will allow derelict vessels to temporarily berth in a perpendicular fashion directly along the property's shoreline. The redeveloped waterfront will serve to

facilitate the dismantling of derelict vessels. The scrap metal produced from dismantling will then be transferred to the upland and transported off-site to an appropriate upland recycling facility. As such, the proposed project does not involve an energy-related activity and/or structure.

## Section 300.9 Dredging and Dredged Materials Disposal

The activity along the waterfront consists of the installation of a commercial/industrial shoreline protection structure and improvement dredging to create deep-water access and berthing. The dredging portion of the project has been specifically designed to conform to the Standards as outlined in Section 300.9, as outlined below:

#### 1. For Dredging:

- a. The proposed dredging plan has been designed with inadvertent side slopes to maximize tidal flushing.
- b. Bottom slopes at the edges of dredged areas will have a slope of 33 percent.
- c. The project has been designed to avoid impacts to the proposed bulkhead. There are no other adjacent shoreline protection structures in the vicinity of the proposed dredge footprint.
- d. No shellfish dredged from the project will be used for human consumption or bait.
- e. The proposed project will not occur at a marina facility and therefore this section does not apply.

## 2. For Dredged Materials Disposal in Open Water

- a. It is anticipated that the dredge spoils will be disposed of at the Confined Aquatic Disposal (CAD) cells located in the upper reaches of the Providence River. Therefore, the material will not be disposed of in an area determined by the CRMC to be prime fishing grounds.
- b. The dredge will come to a stop at the specific CAD cell disposal coordinates identified by the regulatory agencies. Material will be point dumped at this location.
- c. It is anticipated that the dredge spoils will be disposed of at the Confined Aquatic Disposal (CAD) cells located in the upper reaches of the Providence River. As such, the hydrographic conditions at the site will be such that the disposed dredged materials will remain within the disposal area and re-suspension of bottom sediments will be minimal.
- d. If a regulatory review of lab data determines that the material is contaminated, a Cap Plan will be prepared at that time.

- e. It is anticipated that the dredge spoils will be disposed of at the Confined Aquatic Disposal (CAD) cells located in the upper reaches of the Providence River. As such, monitoring of the disposal site is not required.
- 3. It is anticipated that the dredge spoils will be disposed of at the Confined Aquatic Disposal (CAD) cells located in the upper reaches of the Providence River, and will not involve the creation of wetlands, aquatic habitat, or islands. As such, this section does not apply to this project.
- 4. It is anticipated that the dredge spoils will be disposed of at the Confined Aquatic Disposal (CAD) cells located in the upper reaches of the Providence River, and will not include any upland disposal. As such, this section does not apply to this project.
- 5. It is anticipated that the dredge spoils will be disposed of at the Confined Aquatic Disposal (CAD) cells located in the upper reaches of the Providence River and will not involve beach nourishment. As such, this section does not apply to this project.

#### Section 300.10 Filling in Tidal Waters

The activity along the waterfront consists of the installation of a commercial/industrial shoreline protection structure and improvement dredging to create deep-water access and berthing. All structural components will be located landward of the mean high water line. Therefore, the proposed project does not involve the filling in of tidal waters.

#### Section 300.11 Aquaculture

The activity along the waterfront consists of the installation of a commercial/industrial shoreline protection structure and improvement dredging to create deep-water access and berthing. All structural components, save the three tie-off piles, will be located landward of the mean high water line. The proposed bulkhead and tie-off piles, in conjunction with the dredging, will allow derelict vessels to temporarily berth in a perpendicular fashion directly along the property's shoreline. The redeveloped waterfront will serve to facilitate the dismantling of derelict vessels. The scrap metal produced from dismantling will then be transferred to the upland and transported off-site to an appropriate upland recycling facility. As such, the proposed project does not involve structures or activities that are part of a marine aquaculture operation.

#### **Section 300.12 Coastal Wetland Mitigation**

The activity along the waterfront consists of the installation of a commercial/industrial shoreline protection structure and improvement dredging to create deep-water access and berthing. All structural components, save the tie-off piles, will be located landward of the mean high water line. Coastline Consulting & Development, LLC conducted a site evaluation in order to determine the presence of tidal wetland vegetation in the proximity of the proposed project. According to this review, the shoreline at the project site is stabilized with riprap stabilization and therefore has no tidal vegetation in the immediate project footprint.

However, tidal vegetation is located in close proximity to the project area. The banks of Thurbers Avenue Creek are lined with the vegetative species *Spartina alterniflora* and there are isolated patches of these wetlands along the southerly portion of the property. During the initial planning stages, Coastline Consulting & Development, LLC carefully evaluated the potential impacts to these tidal wetlands. Based upon our review, it is our opinion that there will be no adverse impact on coastal wetlands due to the following site characteristics and design measures:

- 1. The tidal wetlands in the area were located and are identified on the attached Existing Conditions Drawing.
- 2. The bulkhead and dredging has been specifically designed in an area absent of coastal wetlands.
- 3. The construction activities will not adversely impact the coastal wetlands as all staging and construction areas are located landward of the mean high water line and therefore outside the growing range of coastal plant species.

#### Section 300.13 Public Roadways, Bridges, Parking Lots, Railroad Lines & Airports

The activity along the waterfront consists of the installation of a commercial/industrial shoreline protection structure and improvement dredging to create deep-water access and berthing. All structural components, save the three tie-off piles, will be located landward of the mean high water line. The proposed bulkhead and tie-off piles, in conjunction with the dredging, will allow derelict vessels to temporarily berth in a perpendicular fashion directly along the property's shoreline. The redeveloped waterfront will serve to facilitate the dismantling of derelict vessels. The scrap metal produced from dismantling will then be transferred to the upland and transported off-site to an appropriate upland recycling facility. As such, the proposed project does not involve the construction of any new roadways, highways, bridges, parking lots, railroads lines, and airports.

## **Section 300.14 Maintenance of Structures**

The activity along the waterfront consists of the installation of a commercial/industrial shoreline protection structure and improvement dredging to create deep-water access and berthing. The majority of existing waterside structures are derelict and are proposed for removal. As noted above in Section 300.7, a small area of riprap is being retained and reconsolidated – no new stone material is proposed.

## Section 300.15 Municipal Harbor Regulations

The applicant of the proposed project is a private organization. As such, the proposed project does not involve the exercising of rules, regulations, programs or management functions by a municipality.

## Section 300.16 Boat Lift and Float Lift Systems

The activity along the waterfront consists of the installation of a commercial/industrial shoreline protection structure and improvement dredging to create deep-water access and berthing. As such, the proposed project does not involve the installation of a boat/float lift system.

## Section 300.17 Wetland Walkover Structures

The activity along the waterfront consists of the installation of a commercial/industrial shoreline protection structure and improvement dredging to create deep-water access and berthing. All structural components, save the tie-off piles, will be located landward of the mean high water line. An assessment of the project site revealed that there are no coastal wetlands along the immediate area of the proposed activities. As such, the proposed project does not involve the installation of a wetland walkover structure

## Section 300.18 SAV & Aquatic Habitats of Particular Concern

The activity along the waterfront consists of the installation of a commercial/industrial shoreline protection structure and improvement dredging to create deep-water access and berthing in Type 6 waters. All structural components, save the tie-off piles, will be located landward of the mean high water line. An August 2009 site assessment and waterside survey of the project site revealed that there are apparently no communities of SAV in the surrounding waters. As such, the proposed project will completely avoid adverse impacts to SAV.

# CORRESPONDENCE FROM OFFICE OF WASTE MANAGEMENT

October 27, 2010

Mr. Edward Sciaba Rhode Island Recycled Metals 434 Allens Avenue Providence, RI 02905

RE: Boliden Metech 434 Allens Avenue Plat 47 Lot 601 Providence, Rhode Island RIDEM CASE # 99-060

Dear Mr. Sciaba:

The Rhode Island Department of Environmental Management's (the Department) Office of Waste Management (OWM) has received the correspondence entitled Request for Soil Disturbance Approval (Notice), dated February 10, 2010, and Request for Soil Disturbance Approval-Revised, dated October 20, 2010, prepared and submitted by Coastline Consulting & Development, LLC. The Notice describes future soil disturbances at the above-referenced property related to the construction of a waterfront bulkhead and stormwater infiltration trench. The Notice indicates that all site work will be completed and managed in accordance with the attached project specific Soil Management Plan (SMP) and recorded Environmental Land Usage Restriction (ELUR) for the property.

In accordance with the SMP, the Department has determined that this soil excavation constitutes a significant disturbance of regulated soil. As such, Rhode Island Recycled Metals, LLC. is required to submit a Closure Report at the conclusion of the described activities. This Closure Report must detail the work performed and provide photographs of the approved work. If these described remedial actions generate any excess soil, the soil must be disposed of at a licensed facility and copies of the disposal records shall be included in the Closure Report. Please submit either electronic or hard copy correspondence providing monthly status reports to the Department until all Site work is completed.

If you have any questions regarding this letter, please contact me by telephone at (401) 222-2797 extension 7233 or by e-mail at ross.singer@dem.ri.gov.

Sincerely,

Ross A. Singer Engineer

Office of Waste Management

ce: Kelly J. Owens, RIDEM / OWM
Timothy Fleury, RIDEM / OWM
Ron Gagnon, RIDEM / OCTA
David Provenshor, Coastline Consulting

David Provencher, Coastline Consulting & Development

Site Activity Notification Boliden Metech

Page 1 of 1 October 27, 2010





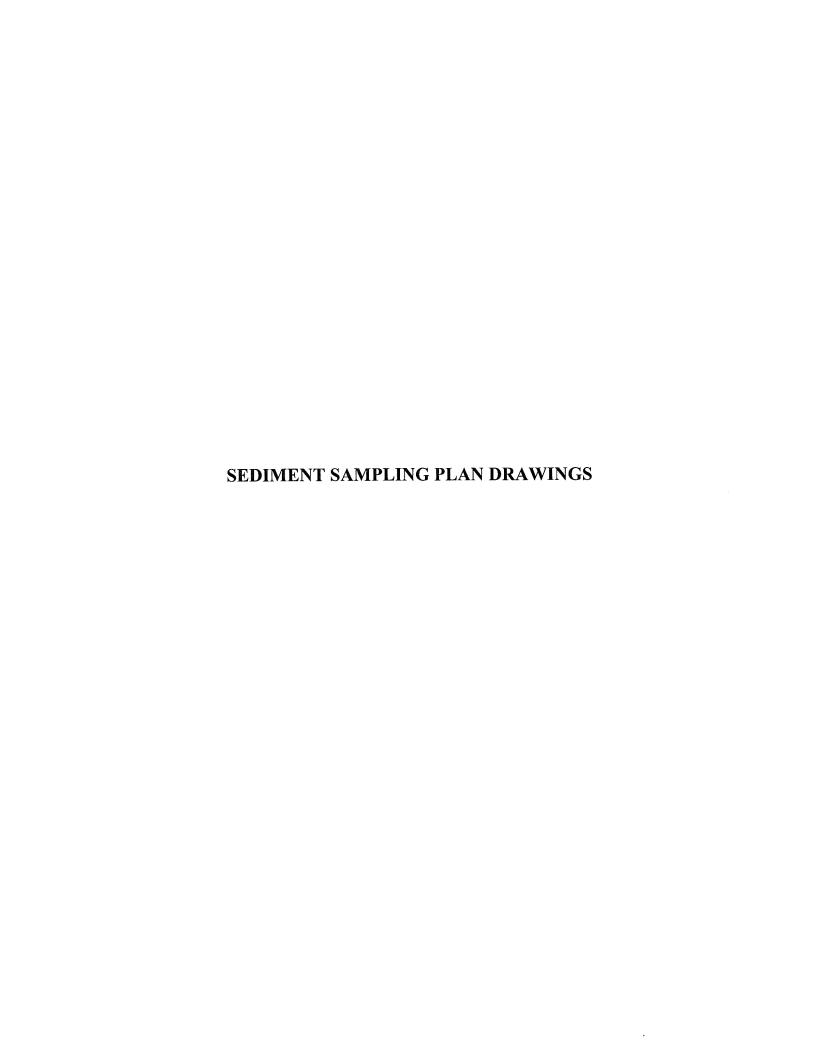


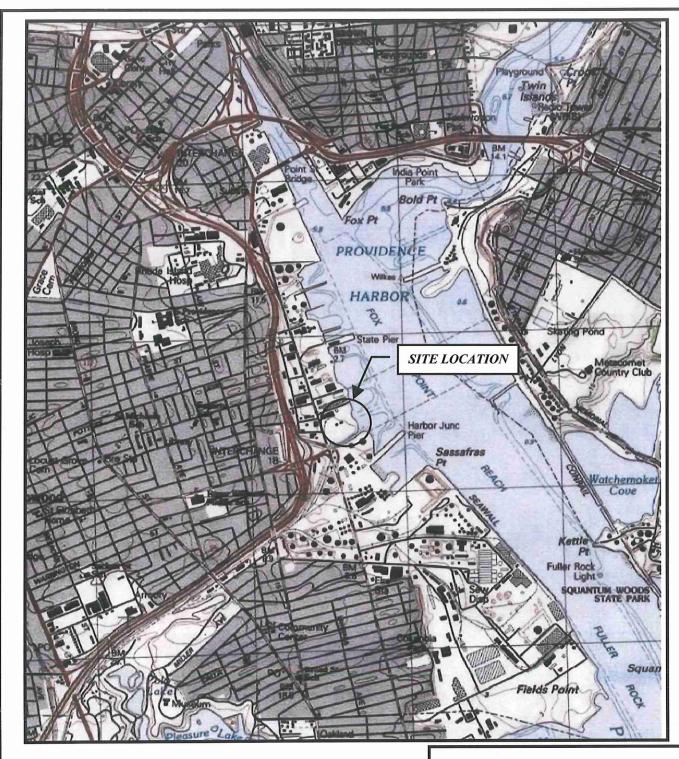


SOP Number: WR-GNUWW-1 Effective Date: 3/11/09 Revision No. 5 Last Revision Date: 3/11/09 Page No. 1

APPENDIX 1

Date: 10/22/10 Applicant(s): Rhode Island Recycled Metals									
Project Name: Dredging Project Address: PO Box 73265, Providence, RI									
Estimated Volume of Dredge (cy): 48,000 New (cy): 48,000 Maintenance (cy): _0									
Area of Dredge (sf): 212,775 Depth of Dredge: -14' MLW + 1.0' Overdredge									
Proposed Disposal Location (include Plat/Lot if on land): Providence Harbor CAD Cell									
WQ Class of Dredge Area (if known): SB1 {a} GW Class of Disposal Area (if, known): CAD Cell									
Sediment Sampling Plan for Dredging Projects									
Submit Site plan 8½" x 11" (Google Earth printout and Navigation Chart or Proposed Depth of Samples 1 5 ' MI_W									
engineered plans) Mark all within 200' of proposed dredge limits:  Proposed Coring Method Gravity Corer									
Outfalls and Gas docks or any other potential areas of contamination  # of Sampling Locations4									
eelgrass, sait marsh, llounder or shellilish habitat							inpling Locations <u>4</u>		
☐ Proposed dredge footprint and average depth of dredge									
Submit Proposed Analysis and detection limits depending on disposal location: The detection limits for an analyte should be									
no greater than one-third (one-half log unit) of the appropriate value for the analyte and matrix of concern. Whenever possible, an MDL of three to five									
times below the criteria is expected: If the criteria are Non-Detect then the procedures and MRL's set forth in the OTM (USEPA and USACE 1991) below are appropriate to follow. In-water disposal must meet all Army Corps Requirements.									
Place a □ CHECK in each box you are proposing to sample and CIRCLE intended laboratory method.									
Sample	Beach	CAD Cap	GA Leachability Criteria	Residential	Comm		TCLP	Acceptable	MRL**
	Criteria	Criteria		Disposal	Indust	rial	for Haz.	EPA Method(s)	
				Criteria <sup>1</sup>	Expos	ure <sup>2</sup>			
			TCLP/SPLP				Waste <sup>3</sup>		
	□<10%	B-71							
Grain Size	silt/clay □<25%	XI			<del>   </del>				
% Moisture TPH	□ND	N N	□500 mg/kg	□500 mg/kg	□2500 mg/kg			SW 8015C	100 mg/Kg
SVOC		X	☐Table 2³	□Table1¹	□Table1 <sup>2</sup>			8270 SIM	10 ug/Kg
PCB	□*ND	<b>⊠</b> 0.4 mg/kg	□10 mg/kg	□10 mg/kg	□10 mg/kg				* .02 mg/Kg
PAH		፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟					<	8270 – Six (6) Tier 1 compounds	
Arsenic (As)	□1.7 mg/kg	⊠10 mg/kg		□7.0 mg/kg	□7.0 mg/kg □1000 mg/kg		□5.0 mg/L	6010,6020,7061,7062,7000, 7010 6010,6020,7000,7010	0.4 mg/Kg
Cadmium (Cd)	□1 mg/kg		□0.03 mg/L □1.1 mg/L	□39 mg/kg □390 mg/kg	□1000 mg/kg		□1.0 mg/L □5.0 mg/L	6010,6020,7000,7010	0.07 mg/Kg 0.5 mg/Kg
Chromium (Cr) Copper (Cu)	□10 mg/kg □10 mg/kg	☑ 100 mg/kg ☑ 200 mg/kg	Li i i i i i i i i i i i i i i i i i i	□3100 mg/kg	□10000 mg/kg		LIJ.O HIG/L	6010,6020,7000,7010	0.5 mg/Kg
Lead (Pb)	□25 mg/kg	☑100 mg/kg	□0.04 mg/L	□150 mg/kg	□500 mg/kg		□5.0 mg/L	6010,6020,7000, 7010	0.5 mg/Kg
Mercury (Hg)	□0.5 mg/kg	☑0.5 mg/kg	□0.02 mg/L	□23 mg/kg	□610 mg/kg		□0.2 mg/L	7470,7471,7472	0.07 mg/Kg
Nickel (Ni)	□5 mg/kg	<b>⊠</b> 50 mg/kg	□1 mg/L	□1000 mg/kg				6010,6020,7000, 7010	0.5 mg/Kg
Zinc (Zn)	□25 mg/kg			□6000 mg/kg				6010,6020,7000,7010	1.0 mg/Kg
TCLP or SPLP							□100 mg/L	1311 or 1312 6010 6020	
Barium (Ba) Selenium (Se)							□1.0 mg/L	6010,6020, 7741, 7742	<del> </del>
Silver (Ag)							□5.0 mg/L	6010 6020	
* For each arochlo	or **For Beac	h Critera – any oth	er MRL should be	at least three to f	five times	below the	criteria		
1 Residential Direct Exposure Criteria are defined in Table 1 in Section 8 of the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases.									
<sup>2</sup> Commercial/Industrial Direct Exposure Criteria are defined in Table 1 in Section 8 of the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases.									
<sup>3</sup> GA Leachability Criteria are defined in Table 2 in Section 8 of the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases.									
Approvals									
Duades Coordinator (CPMC)									
Dredge Coordinator (CRMC): Date:									
WQC Program (DEM): Date:									
GW Program (DEM), if upland Date:									
Dredge Coordinator (DEM): Date:									





Coastline Consulting & Development 5-B Old Post Road, Madison CT 06443 (203) 245-8138

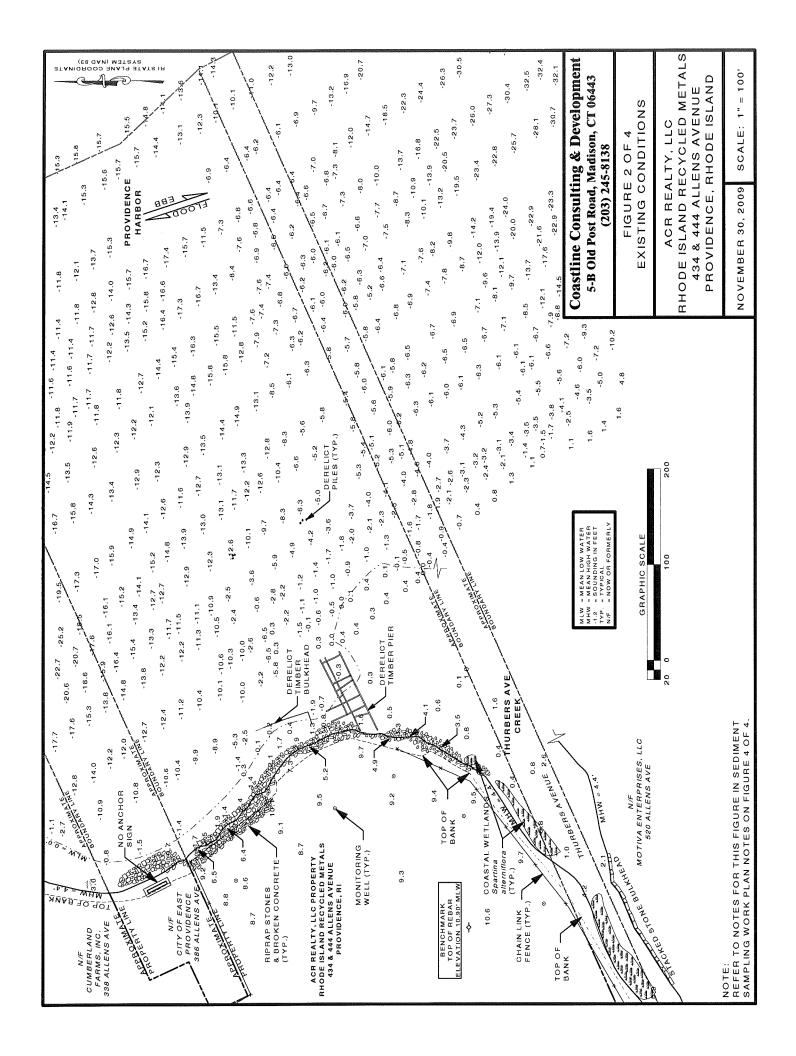
> FIGURE 1 OF 4 SITE LOCATION MAP

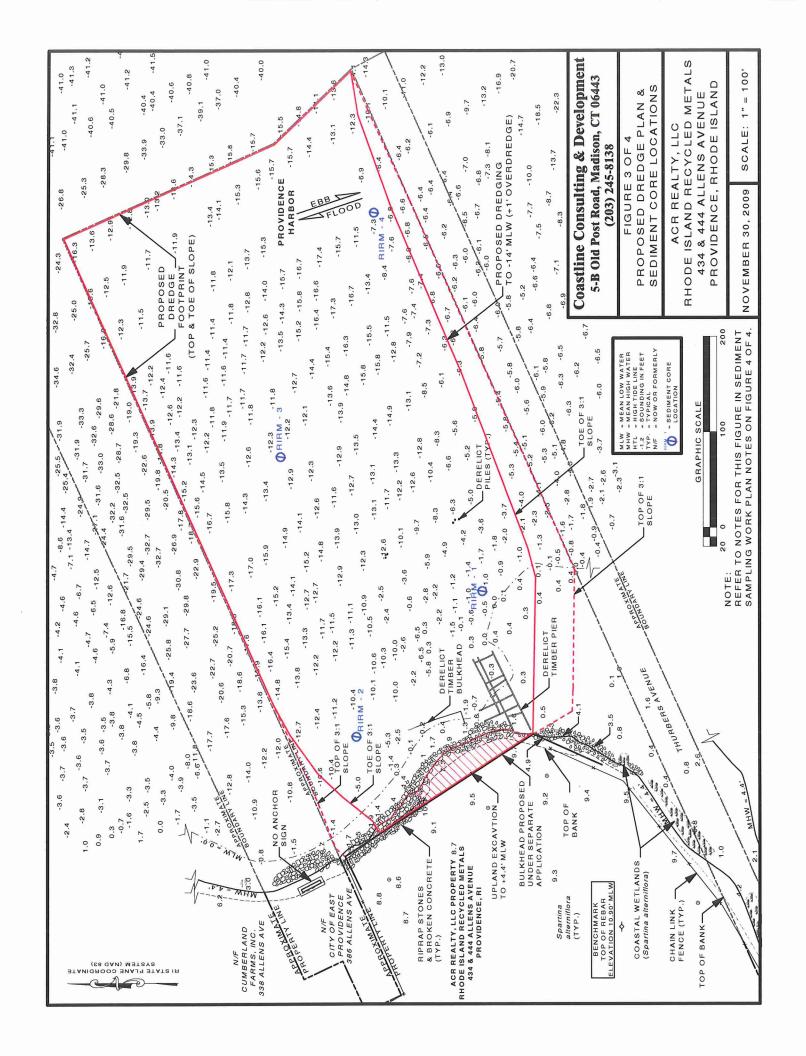
ACR REALTY, LLC RHODE ISLAND RECYCLED METALS 434 & 444 ALLENS AVE PROVIDENCE, RHODE ISLAND

**NOVEMBER 30, 2009** 

SCALE: 1 = 12,000

NOTE: REFER TO NOTES FOR THIS FIGURE IN SEDIMENT SAMPLING WORK PLAN NOTES ON FIGURE 4 OF 4.





## SEDIMENT SAMPLING WORK PLAN NOTES

## FIGURE 1 OF 4 SITE LOCATION MAP

1. MAP TAKEN FROM TOPO, INC., 7.5 MINUTE USGS TOPOGRAPHIC MAPS OF THE PROVIDENCE, RHODE ISLAND, QUADRANGLE, 1960 (PHOTO INSPECTED 1976, PHOTO REVISED 1984).

## FIGURE 2 OF 4 EXISTING CONDITIONS

- 1. THIS MAP IS FOR PLANNING AND PERMITTING PURPOSES ONLY AND IS NOT INTENDED FOR BID DOCUMENTS OR CONSTRUCTION.
- 2. REFERENCE IS MADE TO THE FOLLOWING MAPS:
  - A. "A PROPERTY SURVEY FOR ASSESSOR PLAT 47, LOT 601, SITUATED ON ALLENS AVENUE, PROVIDENCE, RHODE ISLAND" PREPARED FOR ACR REALTY, LLC, SCALE 1" = 50', DATED SEPTEMBER 9, 2009, AND PREPARED BY GAROFALO & ASSOCIATES, INC.
  - B. "A HYDROGRAPHIC SURVEY FOR 434 AND 444 ALLENS AVE, PROVIDENCE, RI" DATED OCTOBER 3, 2008 AND PREPARED BY STEELE ASSOCIATES MARINE CONSULTANTS, LLC.
  - C. CITY OF PROVIDENCE ASSESSOR FLATS #47 & #55.
- 3. ALL ELEVATIONS ARE REFERENCED TO THE MEAN LOW WATER (MLW) TIDAL DATUM BASED ON NAVD88 VERTICAL DATUM USING NOAA TIDE STATION #8454000 (1983-2001 EPOCH), PROVIDENCE RIVER.

## FIGURES 3 OF 4 PROPOSED DREDGE FOOTPRINT & CORE SAMPLE LOCATIONS

- 1. THESE APPLICATION DRAWINGS WERE PREPARED FROM RECORDED RESEARCH, OTHER MAPS, LIMITED FIELD MEASUREMENTS COLLECTED ON AUGUST 26, 2009, AND OTHER SOURCES. THEY ARE NOT TO BE CONSTRUED AS PROPERTY/BOUNDARY OR LIMITED PROPERTY/BOUNDARY SURVEYS.
- 2. REFERENCE IS MADE TO: "FIGURE 3 OF 4, EXISTING CONDITIONS, ACR REALTY, LLC, RHODE ISLAND RECYCLED METALS, 434 & 444 ALLENS AVENUE, PROVIDENCE, RHODE ISLAND" PREPARED BY COASTLINE CONSULTING & DEVELOPMENT, LLC.
- 3. SOUNDINGS AND UPLAND ELEVATIONS ARE IN FEET AND REFERENCED TO THE MEAN LOW WATER (MLW) TIDAL DATUM BASED ON NAVD88.
- 4. THESE APPLICATION DRAWINGS ARE FOR SEDIMENT SAMPLING WORK PLAN PURPOSES ONLY AND ARE NOT INTENDED FOR BID DOCUMENTS, STRUCTURAL DESIGN, OR CONSTRUCTION. NOT ALL IMPROVEMENTS AND FEATURES HAVE BEEN DEPICTED.

Coastline Consulting & Development 5-B Old Post Road, Madison CT 06443 (203) 245-8138

FIGURE 4 OF 4 SEDIMENT SAMPLING WORK PLAN NOTES

ACR REALTY, LLC RHODE ISLAND RECYCLED METALS 434 & 444 ALLENS AVENUE PROVIDENCE, RHODE ISLAND

NOVEMBER 30, 2009

FILE NO.: 09-059

