

Remedial Action Work Plan
Former Capital Records Management, Inc.
RIDEM Site No. SR-28-0670A and
SR-28-0670B
475, 485, and 495 Valley Street
Providence, Rhode Island

Rhode Island Department of Environmental
Management
Providence, RI

September 2014



317 Iron Horse Way
Suite 204
Providence, RI 02908



FUSS & O'NEILL
CELEBRATING 90 YEARS

September 26, 2014

Ms. Cynthia Gianfrancesco
Principal Environmental Scientist
Rhode Island Department of Environmental Management
Office of Waste Management
235 Promenade Street
Providence, RI 02908-5767

RE: Remedial Action Work Plan
Former Capital Records Management, Inc.
475, 485, and 495 Valley Street
Providence, Rhode Island
RIDEM Site No. SR-28-0670A and SR-28-0670B

Dear Ms. Gianfrancesco:

The purpose of this letter is to present the enclosed Remedial Action Work Plan (*RAWP*) for the above-referenced site. Fuss & O'Neill, Inc. (Fuss & O'Neill) prepared this *RAWP* on behalf of the Rhode Island Department of Environmental Management. A check for the Remedial Action Approval Application Fee of \$1,000 is enclosed.

Please feel free to contact us if you require any additional information or if you have any questions regarding this *RAWP*.

Sincerely,

David M. Hollibaugh Baker, PhD
Hydrogeologist

Brian E. Kortz, CPG, CNU-A
Project Manager

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Attachments: Remedial Action Approval Application Fee
Remedial Action Work Plan

C: Mr. Peter Mello, WaterFire Providence
Mr. Barnaby Evans, WaterFire Providence
Ms. Jessica Dominguez, USEPA

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1 Introduction

The purpose of this document is to provide a *Remedial Action Work Plan (RAWP)* in accordance with *Section 9.0* of the Rhode Island Department of Environmental Management (RIDEM) *Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (Remediation Regulations)*. This *RAWP*, prepared by Fuss & O'Neill, Inc. (Fuss & O'Neill) on behalf of RIDEM and WaterFire Providence (WaterFire), details remedial actions that will be conducted at the former Capital Records Management Inc. property in Providence, Rhode Island (hereafter, the "site").

The site is currently owned and operated by WaterFire. This *RAWP* describes remedial actions that will be performed as part of site improvements to mitigate risks posed to site property users and environmental receptors by soil containing metals and polynuclear aromatic hydrocarbons (PAH).

2 Background

2.1 Site Property Description

The subject site, former Capital Records Management, Inc., is a 1.3-acre collection of three parcels (Plat 27, Lots 289, 290, and 291) located on the south side of Valley Street in an M-1 Manufacturing zone of Providence, Rhode Island (Providence County). Structures located on the subject site included a 27,333-square foot one-story warehouse building on Lot 290. A portion of a United States Geological Survey (USGS) topographic map showing the subject site location is provided as *Figure 1* and a site plan is provided as *Figure 2*.

The subject site was part of the American Locomotive Works (ALCO) complex from the late 1800s to 1918. According to a *Site Characterization Report* prepared by Garofalo and Associates, Inc. (Garofalo) in May 1994, the site was owned by the U.S. Rubber Company from approximately 1918 until about 1967. No structures were located on-site until approximately 1930 when the current site building was constructed. The building was reportedly used as a maintenance shop for the testing and repairing of equipment. The site was owned by Uniroyal Inc. from 1967 through 1976, Jopelo Realty, Inc. from 1976 to 1985, and by Zavota Brothers Rigging from 1985 to 1999. From approximately 1973 to 1999, the site building was rented by C.O. Hoffacker, who used the site for re-building heavy machinery and machine tools. From 1999 through 2012, the site was owned by Capital Records Management, Inc., who used the site building primarily for storage purposes.

WaterFire acquired the site from Lincoln Valley, LLC in November 2012 and plans to redevelop the property as its headquarters and community arts center.

2.2 Remediation Site History and Previous Investigation Activities

As summarized in a *Site Investigation Report/Targeted Brownfields Assessment (SIR/TBA)* completed by Fuss & O'Neill in November 2012, previous investigations have been conducted at the site, including the following:

- May 1994 *Site Characterization Report* by Garofalo
- September 2011 *Phase I Environmental Site Assessment* by Fuss & O'Neill
- November 2012 *Phase I Environmental Site Assessment* by Fuss & O'Neill
- November 2012 *SIR/TBA* by Fuss & O'Neill

Several environmental investigations and remedial activities were also completed for the ALCO property located to the east, south, and west of the subject site from approximately 2005 through the present.

The November 2012 *SIR/TBA* prepared by Fuss & O'Neill documented the following conceptual site model of the contaminants in environmental media at the site:

- **Site-Wide Fill:** Site-wide fill up to eight feet in thickness contained visible evidence of anthropogenic materials, including coal and ash, and samples of the fill material contained arsenic, lead, and PAH at levels exceeding the RIDEM Method 1 Industrial/Commercial Direct Exposure Criteria (I/C-DEC). This condition was attributed to historical industrial activities at the site.
- **USTs:** Two former underground storage tanks (USTs), one current 10,000-gallon No. 2 heating oil UST, and several aboveground storage tanks (ASTs) were used for storing fuel oil for heating the site building. Another former UST reportedly held gasoline. Field screening and laboratory analysis of soil samples did not indicate a release of petroleum in soil borings advanced at the site proximal to the USTs and ASTs.
- **VOC in Soil:** Volatile organic compounds (VOC) were detected in soil samples collected at the site at concentrations below the applicable regulatory criteria. Soil vapor samples collected from beneath the site building's floor slab contained VOC at concentrations greater than the laboratory reporting limits but were much lower than the Connecticut Department of Energy and Environmental Protection (CTDEEP) Residential and Industrial/Commercial Soil Vapor Volatilization Criteria). The existence of a vapor intrusion pathway was, therefore, not supported by the existing dataset.
- **PCBs:** Polychlorinated biphenyls (PCBs) were reported at a concentration exceeding the RIDEM Method 1 I/C-DEC and GB Leachability Criteria (GB-LC) in a composite sample of surface soil collected from an area surrounding a former electrical transformer concrete pad. The dataset supported a release of PCB-containing dielectric fluid from transformer(s) formerly located on the pad. Three transformers formerly located at this portion of the site were owned by National Grid and removed on or before 2006. Response actions related to this release are the responsibility of National Grid as the former owner and operator of the

transformers. Remedial actions associated with the release of PCBs at the former transformer pad at the site are, therefore, not included as part of the remedial actions discussed herein.

- VOC in Groundwater: Several chlorinated VOC were detected in groundwater samples collected from monitoring wells MW-2 and MW-4, and samples collected from monitoring well MW-4 contained vinyl chloride at concentrations exceeding the RIDEM Method 1 GB Groundwater Objectives (GB-GO). Reported concentrations of VOC in soil samples were at least three orders of magnitude below the RIDEM R-DEC. Therefore, the dataset generated during the November 2012 *SIR/TBA* did not identify a potential source of VOC to groundwater at the site. However, as stated above, the results of the soil-vapor sampling program conducted as part of the November *SIR/TBA* did not support the existence of a potential source for vapor intrusion into the site building. Furthermore, no occupied structures were located to the south of the site between the subject site and Woonasquatucket River in a position that would be inferred to be hydraulically downgradient of the site. Additionally, samples collected from monitoring wells MW-3, MW-4, and MW-9 from the ALCO property in 2006 did not contain VOC at levels above the laboratory reporting limits. For these reasons, no further action was recommended to address groundwater quality at the site.
- Hazardous Building Materials: Lead-based paint and asbestos-containing materials (ACM) were identified in various materials in the building. These materials will be abated as part of future building rehabilitation activities.

The November 2012 *SIR/TBA* prepared by Fuss & O'Neill further documented the preferred remedial alternative selected to address the site-wide release of metals and PAH, as summarized below.

2.3 Conceptual Site Remedy

The preferred conceptual remedial approach for the remediation site documented in the November 2012 *SIR/TBA* included the construction of a remediation soil cap over the entire site where historical urban filling and industrial practices have resulted in the presence of metals and PAH in soil at concentrations exceeding the RIDEM I/C-DEC. The cap will mitigate the potential for direct exposure to this soil under normal daily site operations. The approximate horizontal extent of the proposed cap is depicted on the *Cap Layout Plan* included in *Appendix A* for the entire site.

To achieve the redevelopment objective for the site identified by WaterFire, the cap will be constructed with a combination of landscaped and hardscaped surfaces. Additionally, portions of the site containing existing asphalt and concrete surfaces, including building foundations, in good condition will be retained and included as part of the cap. The conceptual aerial layout of the cap is depicted on the *Cap Layout Plan* in *Appendix A*.

As part of redevelopment and capping activities, two suspected drywells and a trenched floor drain will be closed, sealed, and covered by the appropriate cap type.

At the conclusion of the site redevelopment and remediation activities, an *Environmental Land Usage Restriction (ELUR)* will be implemented as part of the overall remedial approach for the entirety of the

site. The *ELUR*, along with a *Post-Construction Soil Management Plan (Post-Construction SMP)*, will be recorded in the City's land evidence records with the property deeds for the site properties. The objective of these documents will be to restrict future activities at the site, ensure the long-term maintenance of the remediation cap, and restrict the use of groundwater (including for irrigation purposes).

This remedial strategy is compatible with the redevelopment of the site for commercial use as the headquarters and community arts center for WaterFire Providence. A concept plan was developed by Fuss & O'Neill in September 2014 on behalf of RIDEM and WaterFire Providence, and a copy of the cap layout plan is attached as *Appendix A*. As the design of the site progresses from the concept plan to Construction Documents, changes may be incorporated that may alter the configuration of the soil cap. However, the overall objective of a remediation site-wide soil cap as discussed herein will remain. A copy of the final Construction Documents will be provided to RIDEM under separate cover. The final capping configuration will be provided to RIDEM in the *Remedial Action Closure Report (RACR)* at the completion of the project.

Additional activities will be conducted at the site as part of overall redevelopment. These activities are not included in the remedial plan described herein because release of oil and/or hazardous materials (OHM) jurisdictional under the *Remediation Regulations* were not identified, but the following will be completed in conjunction with redevelopment activities.

- Abatement of building materials lead and ACM in accordance with state and federal regulations and consistent with the building rehabilitation plan for the site.
- If redevelopment activities call for the conversion of the heating source of the building to natural gas, then the active 10,000-gallon fuel oil UST will be closed in accordance with the *RIDEM Rules and Regulations For Underground Storage Facilities Used For Petroleum Products and Hazardous Materials (UST Regulations)*.

2.3.1 Approval of Conceptual Remedial Approach

Following submission of the November 2012 *SIR/TBA* and review of the preferred remedial alternative, RIDEM issued a *Program Letter* on February 13, 2013 acknowledging that the site activities are complete.

3 Remedial Action Work Plan

Fuss & O'Neill prepared this *RAWP* to address the requirements of *Section 9.0* of the *RIDEM Remediation Regulations*. To facilitate RIDEM review of the *RAWP*, each of the following sections addresses a specific section of the *RIDEM Remediation Regulations*, noting the relevant section in parentheses, where applicable.

3.1 Site-Wide Soil Management and Construction Oversight Practices

Construction, remediation, and associated site-preparation activities to be implemented at the site that require disturbance or handling of existing soil will be conducted in accordance with the soil management protocols documented herein, as well as those requirements of the site development plans and other applicable federal, state, and local regulations. These activities will generally be performed using typical earth-moving and construction equipment, including backhoes, excavators, and dump trucks. Construction equipment will be decontaminated as necessary prior to removal from the site.

Throughout the course of site construction and remediation activities, best management practices will be implemented to control and minimize the potential for the migration of existing soil through surface run-off or airborne dust. These steps will include wetting existing soil as warranted during soil disturbance activities and construction of erosion and sedimentation control barriers. These controls will be removed from the site upon completion of the proposed remediation project and/or permanent stabilization of disturbed areas.

The environmental professional will be notified prior to the commencement of soil disturbance activities at the site. If soil that is visibly impacted or suspected to be impacted by releases of OHM is discovered during construction activities, the environmental professional will be notified prior to disturbance of such soil.

The environmental professional will conduct routine inspections during the course of site remediation activities to ensure that the remedies are being implemented in accordance with the *RAWP*. Monthly status reports will be submitted to RIDEM via e-mail before remediation commences to keep RIDEM apprised of the schedule. Once remediation commences and throughout the duration of remediation activities, bi-weekly status reports will be submitted to RIDEM via e-mail summarizing the progress of remediation.

3.2 Proposed Remedy (Section 9.03)

The proposed remedy for the site includes construction of a site-wide remediation soil cap consisting of a combination of landscaped and hardscaped areas. Portions of the site that are effectively capped with building foundations and existing pavement and concrete in good condition will be retained and utilized as a portion of the cap. The cap will be constructed in accordance with typical RIDEM requirements. The horizontal extent of the cap and various landscaped and hardscaped surfaces are depicted on the *Cap Layout Plan* in *Appendix A*.

Landscaped areas will be constructed using geotextile fabric overlain by a minimum one foot thickness of imported clean fill material. Hardscaped cap surfaces will be constructed using a minimum six inch thickness of imported structural fill material overlain by a minimum four inch thickness of bituminous asphalt or concrete.

As part of redevelopment and capping activities, two suspected drywells and a trenched floor drain will be closed, sealed, and covered by the appropriate cap type. Details regarding the closure of the drywells and floor drain are included in *Section 3.7.2*.

An integral part of the remedial action will be the implementation of an *ELUR* with an associated *Post-Construction SMP* for the entire site, which is proposed to restrict future property use to industrial/commercial activities. The implementation of an *ELUR* will restrict access to soil containing the contaminants of concern (COC), will prohibit the use of groundwater, including for irrigation purposes, and will require regular inspection and maintenance of the integrity of the remediation cap. Procedures to be followed subsequent to the completion of construction activities at the site will be documented in the *Post-Construction SMP*. A draft *ELUR* and *Post-Construction SMP* are included in *Appendix B* and *Appendix C*, respectively.

Please note that response actions related to the release of PCBs at the former transformer pad are the responsibility of National Grid as the former owner and operator of the transformers. Remedial actions associated with the release of PCBs at the former transformer pad are not included as part of the remedial actions discussed herein. However, the response actions to be conducted at the site by both WaterFire and National Grid should be coordinated accordingly so that National Grid completes the response actions associated with release of PCBs prior to installation of the soil cap over this area by WaterFire.

3.3 Remedial Objectives (Section 9.02)

The overall remedial objective for the remediation cap will be to mitigate the potential for direct exposure to underlying soil containing metals and PAH at concentrations exceeding the RIDEM I/C-DEC. The implementation of an *ELUR* and associated *Post-Construction SMP* will restrict access to soil containing COC, will prohibit the use of groundwater (including for irrigation purposes), and will require regular inspection and maintenance of the integrity of the remediation cap.

3.4 Remediation of Impacted Groundwater (Section 9.04)

Active remediation of groundwater beneath the site was not included as part of the remedial approach, as exceedances of applicable RIDEM GB-GO for dissolved-phase compounds at the site were not documented during previous investigations, with the exception of vinyl chloride. As documented in the November 2012 *SIR/TBA*, the presence of vinyl chloride in groundwater appeared to be an isolated occurrence. In addition, no evidence of releases of VOC to soil were documented at the site, and a risk from soil vapor intrusion to the site building and occupied buildings at adjacent parcels was not supported by the results from the November 2012 *SIR/TBA*. The remedial approach for the site will result in encapsulation of both surficial and subsurface soil containing the COC and reduction in the mobility and migration of dissolved-phase concentrations of COC. Furthermore, the implementation of an *ELUR* will prohibit the use of groundwater, including for irrigation purposes.

3.5 Limited Design Investigation (Section 9.05)

No additional design investigations were conducted beyond those documented in the *SIR/TBA*.

3.6 Points of Compliance and Compliance Determination (Sections 9.06 and 9.18)

3.6.1 Capping Extents

As introduced previously, soil capping activities will occur site-wide. The layout of the site-wide remediation cap is depicted on the *Cap Layout Plan* in *Appendix A*. As noted above, existing buildings and pavement and concrete in good condition will be retained and included as part of the remediation cap.

During construction of the cap, the environmental professional will perform routine inspections of capping activities to confirm and document that the cap is installed in accordance with the specifications described herein. These inspections will include confirmation of the appropriate extents and thicknesses of the overall cap. The results of these inspections will be provided to RIDEM in the status reports submitted via e-mail.

3.6.2 Clean Fill

As mentioned above, one of the remedial objectives of the remediation cap is to mitigate the potential for direct exposure to soil containing compounds at concentrations exceeding the RIDEM I/C-DEC. To ensure that this remedial objective is met, Clean Fill materials which are used at the remediation site must not contain compounds at concentrations exceeding the RIDEM Method 1 Residential Direct Exposure Criteria (R-DEC) or be considered to be categorically Clean Fill in accordance with applicable regulations, as discussed below. For the purposes of this project, Clean Fill is defined as follows:

- Imported soil that meets the RIDEM R-DEC, as further discussed in *Section 3.6.2.1* below.
- Compost that meets the requirements for Class "A" compost in accordance with RIDEM *Solid Waste Regulation No. 8*, October 2005. Rule 8.8.03 of this regulation allows for unrestricted use of compost classified as Class "A."
- Street sweepings managed and placed in accordance with Section b of Appendix A (Management of Street Sweepings) of the RIDEM *Solid Waste Regulation No. 1*, October 2005.
- Dredged material managed in accordance with the RIDEM *Rules and Regulations for Dredging and the Management of Dredged Material*, September 2010.

- New or recycled asphalt, new concrete, waste concrete (un-painted with no steel reinforcing), or stone.
- Any other material not defined as solid waste in RIDEM *Solid Waste Regulation No. 1* that does not contain concentrations of hazardous materials in excess of the RIDEM R-DEC.
- Any combination of two or more of the materials listed above that, prior to being combined, meet the requirements for clean fill, as defined above.

3.6.2.1 Imported Fill Material

To evaluate compliance with the R-DEC, prior to importation, samples of soil to be used to construct the cap (including structural fill, sub-base fill, and loam; excluding gravel, crushed stone, and recycled existing pavement) will be collected at a minimum frequency of one sample per 500 cubic yards to be imported. Each sample will be submitted for laboratory analysis of arsenic by United States Environmental Protection Agency (USEPA) Method 6010. Additionally, one-quarter of the total number of samples (and at least one sample per source) will be analyzed for:

- VOC by USEPA Method 8260/5035.
- Semi-volatile organic compounds (SVOC) by USEPA Method 8270.
- Total Petroleum Hydrocarbons (TPH) by USEPA Method 8100.
- Priority Pollutant 13 Metals (PP13 Metals – antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, zinc) by USEPA Method 6010/7471.

The analytical results for the imported soil samples will be reviewed by the environmental professional to confirm compliance with the RIDEM R-DEC prior to importation. Soil represented by samples that do not comply with RIDEM R-DEC based on laboratory analytical results will be rejected for importation to the remediation site.

3.6.3 Geotextile Fabric

Geotextile fabric to be placed within the cap thickness, beneath imported Clean Fill material at landscaped areas, will be certified by the manufacturer to meet the puncture strength (i.e. 120 pounds) requirements documented in *Section 12.04(B)(iv)* of the RIDEM *Remediation Regulations*. As mentioned previously, an environmental professional will perform routine inspections of capping activities to confirm and document that the cap is installed in accordance with the specifications described herein. These inspections will include confirmation that geotextile fabric is placed throughout the landscaped capped areas.

3.7 Design Standards and Technical Specifications (Section 9.10)

3.7.1 Remediation Cap Specifications

The remediation cap at the site will be constructed in accordance with federal, state, and local regulations and the specifications detailed herein as well as the final Construction Documents to be prepared for the site remediation and redevelopment and provided to RIDEM under separate cover. In particular, the specific design standards and technical specifications are discussed below. Compliance with this *RAWP* will be documented in the *RACR* prepared after site remediation activities are complete.

3.7.1.1 Remediation Cap Layout

The material to be used to construct the soil cap will vary depending on the area of the site that the material is being used to cap, as described below. Based on the site design (attached in *Appendices A*), the remediation cap layout was developed. This plan depicts the locations and horizontal extents of the various cap types to be constructed at the site and is included in *Appendix A*.

3.7.1.2 Remediation Cap Types

As discussed further below in *Section 3.8*, the existing pavement at the site which will not be included as part of the remediation cap will be demolished and may be pulverized, screened, and re-used on-site as structural sub-base material beneath paved surfaces. Following demolition of existing pavement, the resulting exposed existing soil will be re-graded and capped via a combination of the cap types described below to mitigate the potential for direct exposure to the soil. Cross-sectional depictions and details of the various cap types are also depicted on the *Cap Layout Plan* in *Appendix A*.

- Type 1 – Landscaped Cap: The cap type that will be used at landscaped areas will consist of a minimum of 12 inches of imported Clean Fill, overlying geotextile fabric, overlying either existing soil or pulverized existing pavement.
- Type 2 – Concrete Pavement Cap: The cap type that will be constructed at concrete walkways will consist of four inches of concrete, overlying a minimum of six inches of imported structural fill or pulverized existing pavement, overlying existing soil.
- Type 3 – Asphalt Pavement Cap: The cap type that will be constructed at the parking lots and driveways at the site will consist of four inches of bituminous asphalt installed in two perpendicular two-inch lifts, overlying a minimum of six inches of imported structural sub-base fill or pulverized existing pavement, overlying existing soil.
- Type 4 – Existing Hardscape Cap: Existing buildings and pavement and concrete in good condition may be retained and included as part of the remediation cap. At areas of the site where the existing hardscaped surface is designated to remain as hardscaping but needs maintenance and repair, the asphalt and/or concrete may be removed and replaced while utilizing the existing gravel base.

Clean Fill imported to the site will be subject to applicable civil and structural requirements as well as the sampling and approval requirements discussed in *Section 3.6.2*.

3.7.1.3 Remediation Cap Construction

Following site preparation activities discussed below in *Section 3.8*, the ground surface will be flagged to demarcate the locations of the various cap types that will be constructed throughout the remediation site. Additionally, existing monitoring wells will be abandoned during construction of the cap in accordance with *Appendix 1* of the RIDEM *Rules and Regulations for Groundwater Quality*.

At areas of the remediation site to be landscaped, geotextile fabric will be applied to the existing ground surface. Imported Clean Fill material or pulverized existing pavement will then be applied across the capping area and compacted until the appropriate thickness is achieved. The thickness requirements referenced in the above cap type descriptions will apply to the final compacted cap layers. Asphalt, concrete, or screened loam to support vegetation in landscaped areas will then be added and compacted to complete the cap thickness.

The areas of the site where landscape plantings have been proposed will be capped utilizing the one-foot thick landscaped cap described above as Cap Type 1. Grass, trees, and other plantings will be planted concurrent with or just after construction of the landscaped cap. Coordination with the project landscape architect will be conducted to select plant types and sizes to facilitate plantings in a manner which minimizes disturbance of existing soil beneath the cap. Plantings may warrant the removal of portions of the underlying geotextile fabric to accommodate root balls and future root growth.

Further, during construction of the cap, the existing grade at areas of the site located within the 100-year floodplain will not be significantly increased so as to maintain the existing flood storage capacity.

Once the final remediation cap is constructed, existing soil within the site boundary will be situated beneath the remediation cap. Existing soil determined or inferred to not comply with the RIDEM I/C-DEC that is not situated beneath the cap at the completion of construction will be managed in accordance with the protocols discussed in *Section 3.9*.

3.7.2 Closure of Drywells and Floor Drains

Two suspected drywell structures (one interior and one exterior) and an interior trenched floor drain structure were identified at the site (see *Figure 2*) and will be closed and sealed. The drywell and floor drain structures will be removed and decommissioned and then sealed and covered with the appropriate remediation cap type, as depicted on the *Cap Layout Plan* in *Appendix A*. A summary of the closure activities will be documented in the *RACR* at the completion of the project.

3.8 Set-Up Plan (Section 9.11)

To prepare the site for remediation, existing pavement not intended to remain and act as the soil cap will be demolished, pulverized, and screened on-site. Depending on structural requirements, the pulverized existing pavement may be re-used on-site as structural fill beneath paved surfaces or as general fill beneath the cap for grading purposes as needed.

Existing vegetation within the capping area, with the exception of selected mature trees, will also be cleared and disposed off-site. Soil intermingled among the root ball of existing vegetation will be removed to the extent feasible and returned to the ground surface prior to re-grading.

Following demolition of existing pavement, the resulting exposed existing soil within the site will be re-graded to achieve the necessary pre-capping intermediate grade. The re-grading activities may include re-location of existing soil and/or the application of pulverized existing pavement as general fill on the ground surface throughout the proposed cap area. Once the appropriate intermediate grade is established, the remediation cap will be constructed in accordance with the specifications described in *Section 3.7*.

3.9 Effluent Disposal (Section 9.12)

Existing soil excavated from within the site that is not secured beneath the cap following construction of the full site redevelopment will be disposed off-site at an appropriately licensed receiving facility. Solid waste, vegetation debris, pavement demolition debris which is not re-used, and other such materials generated during cap construction will be disposed off-site at an appropriately licensed facility in accordance with applicable local, state, and federal laws.

If necessary, existing soil, pavement debris, or solid waste slated for off-site disposal will be stockpiled at a designated staging area. The staging area will be selected and secured to limit unauthorized access to the materials. Soil will be placed on and covered with a minimum of six-mil polyethylene/plastic sheeting during the entire duration of its staging and secured with appropriate controls to limit the loss of the cover and protect against storm water and/or wind erosion (hay bales, silt fencing, rocks, etc.).

Soil excavated from the site and designated for off-site disposal must be done so at an appropriately licensed disposal facility. The transport and disposal of existing soil from the site is subject to the review and approval of the environmental professional to certify compliance with this document and to assure compliance with RIDEM's anti-degradation guidance. Upon receipt of the laboratory analytical results and approval from the environmental professional and the disposal facility, soil will be transported off-site under appropriate waste shipping documentation (i.e. manifest, bill of lading) and disposed in accordance with local, state and federal regulations as well as the receiving facility's acceptance criteria.

3.10 Remediation Schedule (Section 9.07)

Installation of engineered controls on the site will be performed concurrently with other redevelopment activities. Consequently, the schedule of remediation implementation will be contingent upon the overall construction schedule. A specific construction schedule has not been established to date. Although the remediation and construction schedule has not yet been finalized, remediation activities are anticipated to begin at the remediation site in Spring 2015, upon RIDEM approval of the RAWP documented herein and the completion and permitting of engineering and construction plans for the park. These activities are expected to be completed by Fall 2015.

The following is a tentative sequence for remedial and construction activities.

- PCB remediation at the former transformer area to be conducted by National Grid.
- Demolition and site grading activities.
- Drywell and floor drain closures.
- Cap construction.
- Landscaping and plantings.

The construction schedule will be submitted to RIDEM under separate cover once a schedule has been established for the remediation site.

3.11 Contractors and Consultants (Section 9.08)

WaterFire has retained Fuss & O'Neill as the environmental professional to conduct oversight and documentation of the remediation activities discussed herein. The contractor(s) that will be retained by WaterFire Providence to perform the remediation activities has not been selected to date and will be selected through a public bidding process. RIDEM will be notified of the selected remediation contractor(s) for each phase of the redevelopment project upon selection.

3.12 Remediation Operating Log (Section 9.14)

Records of site preparation and cap construction will be maintained in an Operating Log during the course of remedial activities. The Operating Log will clearly and completely document the implementation of the remedial actions and remedial oversight. Additionally, any instances of the implementation of the Contingency Plan or Health and Safety Plan, as discussed below, will also be recorded in the Operating Log. The Operating Log will be readily available on-site during the implementation of the remedial actions discussed herein. Furthermore, status reports will be submitted by the environmental professional to RIDEM via e-mail. Status reports will be submitted on a monthly basis prior to remediation and then on a bi-weekly schedule once remediation activities commence.

3.13 Contingency Plan and Site Security (Sections 9.13 and 9.15)

3.13.1 Health and Safety

All contractors and workers performing soil management activities at the remediation site will be required to comply with Hazardous Waste Operations and Emergency Response (HAZWOPER) training and certification requirements in accordance with Occupational Safety and Health Administration (OSHA) 29 CFR 1910.120 and 1926.65. Procedures for management of contact with soil at the remediation site will be detailed in site-specific Health and Safety Plans (HASPs), prepared in accordance with OSHA 29 CFR 1910.120 and 1926.65. All contractors and workers performing soil management activities or having the potential to come into contact with regulated soil are required to produce, provide, and adhere to site-specific HASPs and comply with HAZWOPER training and certification requirements in accordance with OSHA 29 CFR 1910.120 and 1926.65.

Applicable site-specific information, including the November 2012 SIR/TBA and the RAWP documented herein, will be made available to all contractors performing remedial activities at the site. These documents will allow the contractors to develop their site-specific HASPs.

3.13.2 Emergency Response

The remedial actions proposed for the site are not expected to result in the collection and storage of any volumes of liquid hazardous materials which could result in a sudden release incident at the site property. However, in order to address potential unforeseen environmental incidents during construction, emergency response planning was conducted.

The primary contingency plan manager at the site property will be Mr. Peter Mello, Managing Director for WaterFire. Mr. Mello will act as the primary contact for any emergencies or unexpected incidents encountered during remediation implementation. Any unexpected incidents will be managed both to protect the health and safety of on-site workers as well as the general public. Furthermore, any unexpected incidents will be managed in accordance with applicable local, state, and federal regulations. Fuss & O'Neill will assist Mr. Mello as necessary in the evaluation of unexpected incidents and associated response actions relative to potentially applicable regulations. The contact information for Mr. Mello and the local emergency services includes the following:

Mr. Peter Mello: 401-273-1155
Providence Police Department: 401-272-3121 or 911
Providence Fire Department: 401-274-3348 or 911

3.13.3 Security Measures and Equipment Management

During remediation activities, the site will be left in a secure and stable condition following each work day. Temporary or permanent fencing and signage will be utilized to restrict unauthorized access to the construction zone during remedial activities.

Heavy equipment utilized as part of remediation will remain on-site during the course of remediation activities. However, heavy equipment that has become contaminated due to remedial activities will be decontaminated prior to removal from the site. Equipment decontamination procedures will be specified in the HASP developed by the remedial contractors and will generally consist of pressure-washing contaminated equipment. If decontamination of equipment must be conducted outside of the specific area of on-going remediation, the decontamination will be conducted on an impermeable liner and the rinse water will be collected. The rinse water will be containerized, characterized, and disposed off-site at an appropriately licensed receiving facility within 90 days of the decontamination activities.

3.14 Closure and Post-Closure Requirements (Section 9.16)

Upon completion of all of the remediation activities described above and establishment of vegetation at landscaped areas, heavy machinery and other equipment utilized during the remediation, including erosion control barriers, will be removed from the site.

The environmental professional will then submit a *RACR* to RIDEM certifying that the remediation was completed in accordance with the specifications and requirements detailed herein. The *RACR* will include descriptions of cap construction, including analytical data for imported fill samples and documentation of soil disposal, if necessary. If necessary, substantial variances from this *RAWP* that occurred during remedial implementation will be documented in the *RACR*.

3.15 Institutional Controls (Section 9.17)

Upon completion of remedial activities and submission of the *RACR* to RIDEM, a RIDEM-approved *ELUR* will be recorded with the deed of the site property. An objective of the *ELUR* will be to ensure that the integrity of the remediation cap and physical barrier is maintained. A draft version of the proposed *ELUR* is included herein as *Appendix B*. The *ELUR* will specify that soil documented or inferred to contain contaminants at concentrations exceeding the RIDEM I/C-DEC will remain covered beneath the cap and, therefore, will be inaccessible under normal site conditions.

Requirements for annual inspections and reporting will also be specified in the *ELUR*. These measures will record the condition of the cap and outline necessary repairs. These measures will also ensure that other terms of the *ELUR*, such as prohibition of residential activities at the site and use of groundwater beneath the remediation site as potable water, are adhered to. Documentation of the inspections will be submitted to RIDEM on an annual basis, in accordance with the requirements of the *ELUR*.

Disturbances of the remediation cap and underlying soil conducted after cap construction must be conducted in accordance with the *Post-Construction SMP*, which will be attached to the *ELUR*. The *Post-Construction SMP*, a draft version of which is included in *Appendix C*, defines the procedures necessary for management of the remediation cap and identifies the steps required if disturbance of the cap or existing soil beneath the cap is necessary in the future. The requirements of the *Post-Construction SMP* will also

limit the potential for direct exposure to soil containing contaminants at concentrations exceeding the I/C-DEC by regulating future excavation and soil disturbance activities.

4 Certifications (Section 9.19)

I hereby certify the accuracy of the information contained in the above referenced report to the best of my knowledge

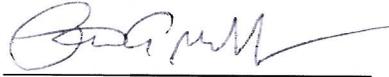


Signature of Consultant
Brian E. Kortz, CPG, CNU-A
Fuss & O'Neill, Inc.

Project Manager
Title

9/26/2014
Date

I hereby certify that the report is complete and accurate representation of the contaminated site and the release, and contains all available facts surrounding the release to the best of my knowledge.



Signature of Performing Party
Peter Mello
WaterFire Providence

Managing Director
Title

9/24/14
Date

5 Limitations of Work Product

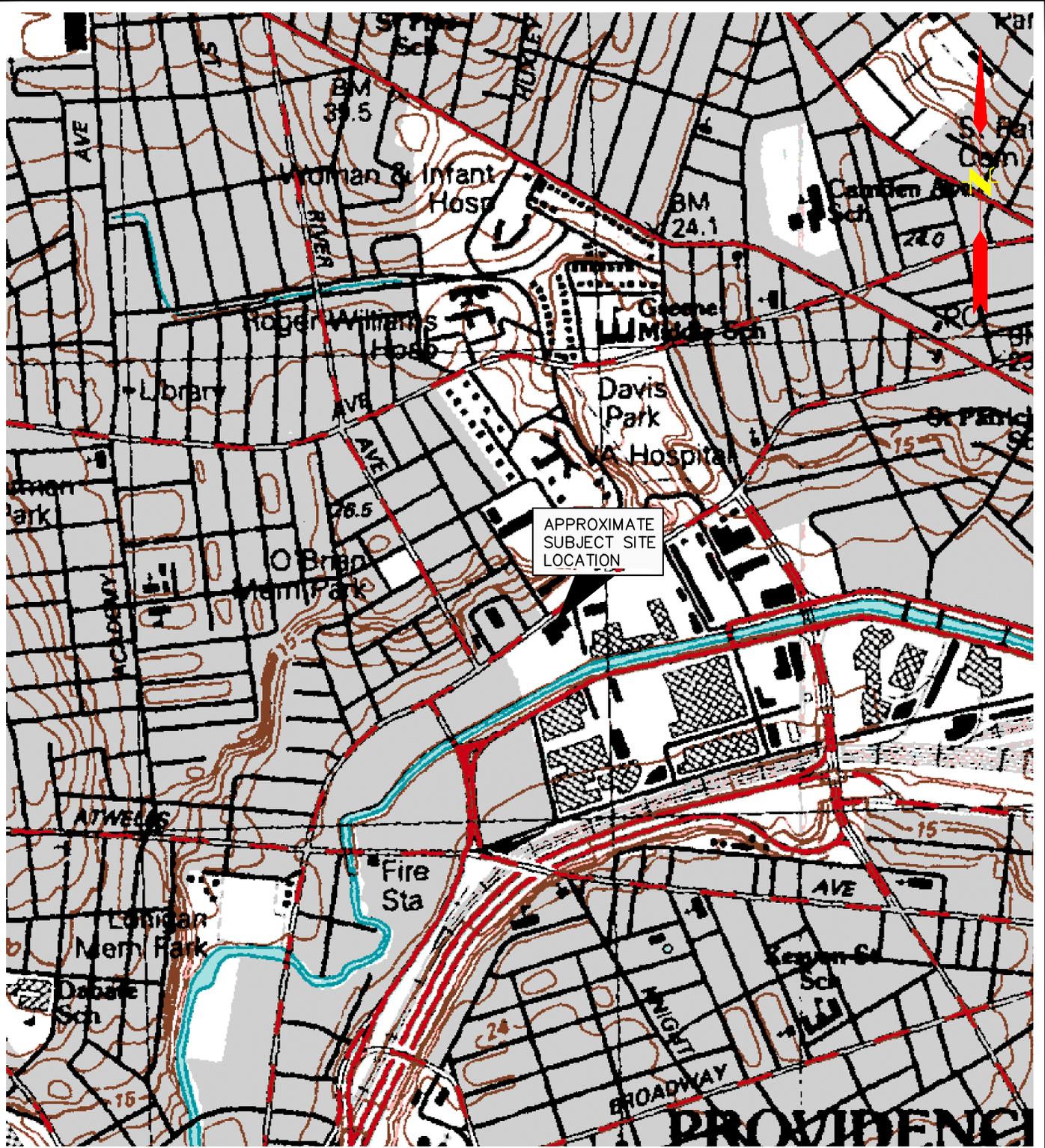
This document was prepared for the sole use of the Rhode Island Department of Environmental Management, the only intended beneficiaries of our work. Those who may use or rely upon the report and the services (hereafter "work product") performed by Fuss & O'Neill, Inc. and/or its subsidiaries or independent professional associates, subconsultants and subcontractors (collectively the "Consultant") expressly accept the work product upon the following specific conditions.

1. Consultant represents that it prepared the work product in accordance with the professional and industry standards prevailing at the time such services were rendered.
2. The work product may contain information that is time sensitive. The work product was prepared by Consultant subject to the particular scope limitations, budgetary and time constraints and business objectives of the Client which are detailed therein or in the contract between Consultant and Client. Changes in use, tenants, work practices, storage, Federal, state or local laws, rules or regulations may affect the work product.
3. The observations described and upon which the work product was based were made under the conditions stated therein. Any conclusions presented in the work product were based solely upon the services described therein, and not on scientific or engineering tasks or procedures beyond the scope of described services.
4. In preparing its work product, Consultant may have relied on certain information provided by state and local officials and information and representations made by other parties referenced therein, and on information contained in the files of state and/or local agencies made available at the time of the project. To the extent that such files which may affect the conclusions of the work product are missing, incomplete, inaccurate or not provided, Consultant is not responsible. Although there may have been some degree of overlap in the information provided by these various sources, Consultant did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this project. Consultant assumes no responsibility or liability to discover or determine any defects in such information which could result in failure to identify contamination or other defect in, at or near the site. Unless specifically stated in the work product, Consultant assumes no responsibility or liability for the accuracy of drawings and reports obtained, received or reviewed.
5. If the purpose of this project was to assess the physical characteristics of the subject site with respect to the presence in the environment of hazardous substances, waste or petroleum and chemical products and wastes as defined in the work product, unless otherwise noted, no specific attempt was made to check the compliance of present or past owners or operators of the subject site with Federal, state, or local laws and regulations, environmental or otherwise.
6. If water level readings have been made, these observations were made at the times and under the conditions stated in the report. However, it must be noted that fluctuations in water levels may occur due to variations in rainfall, passage of time and other factors and such fluctuations may effect the conclusions and recommendations presented herein.

7. Except as noted in the work product, no quantitative laboratory testing was performed as part of the project. Where such analyses have been conducted by an outside laboratory, Consultant has relied upon the data provided and, unless otherwise described in the work product, has not conducted an independent evaluation of the reliability of these tests.
8. If the conclusions and recommendations contained in the work product are based, in part, upon various types of chemical data, then the conclusions and recommendations are contingent upon the validity of such data. These data (if obtained) have been reviewed and interpretations made by Consultant. If indicated in the work product, some of these data may be preliminary or screening-level data and should be confirmed with quantitative analyses if more specific information is necessary. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time and other factors.
9. Chemical analyses may have been performed for specific parameters during the course of this project, as described in the work product. However, it should be noted that additional chemical constituents not included in the analyses conducted for the project may be present in soil, groundwater, surface water, sediments or building materials at the subject site.
10. Ownership and property interests of all documents, including reports, electronic media, drawings and specifications, prepared or furnished by Consultant pursuant to this project are subject to the terms and conditions specified in the contract between the Consultant and Client, whether or not the project is completed.
11. Unless otherwise specifically noted in the work product or a requirement of the contract between the Consultant and Client, any reuse, modification or disbursement of documents to third parties will be at the sole risk of the third party and without liability or legal exposure to Consultant.
12. In the event that any questions arise with respect to the scope or meaning of Consultant's work product, immediately contact Consultant for clarification, explanation or to update the work product. In addition, Consultant has the right to verify, at the party's expense, the accuracy of the information contained in the work product, as deemed necessary by Consultant, based upon the passage of time or other material change in conditions since conducting the work.
13. Any use of or reliance on the work product shall constitute acceptance of the terms hereof.

Figures

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 Plotter: DWG TO PDF.PC3 CTB File: FO 2008 COLOR (HALF)CTB
 LAYER STATE:



MAP REFERENCE:

THIS MAP WAS PREPARED FROM THE FOLLOWING 7.5 MINUTE
 USGS TOPOGRAPHIC QUADRANGLE:
 PROVIDENCE, RI. 1987

SOURCE: RHODE ISLAND GEOGRAPHIC INFORMATION SYSTEM (RIGIS)

SCALE:	
HORZ.:	1" = 1000'
VERT.:	
DATUM:	
HORZ.:	
VERT.:	
GRAPHIC SCALE	

FUSS & O'NEILL
 317 IRON HORSE WAY, SUITE 204
 PROVIDENCE, RI 02908
 401.861.3070
 www.fando.com

RIDEM
 SITE LOCATION MAP
 FORMER CAPITAL RECORDS MANAGEMENT, INC.
 PROVIDENCE RHODE ISLAND

PROJ. No.: 20110455.A30
 DATE: SEPTEMBER 2014
FIGURE 1



MAP REFERENCES AND NOTES:
 2008 AERIAL ORTHOPHOTOGRAPHY © RHODE ISLAND GEOGRAPHIC INFORMATION SYSTEM

ORTHOPHOTOGRAPHY IS PROVIDED FOR VISUAL REFERENCE ONLY.

FEATURES BASED ON SITE OBSERVATIONS BY FUSS & O'NEILL AND A PLAN BY WATERMAN ENGINEERING ENTITLED "MINOR SUBDIVISION PLAN, A.P. 27 LOT 263, 475 VALLEY STREET, PROVIDENCE RI." DATED OCTOBER 2, 2012.

SOIL BORING AND MONITORING WELL LOCATIONS ARE APPROXIMATE.

LEGEND:
 2012 SITE INVESTIGATION

- SB-10 SOIL BORING
- ⊕ MW-3 MONITORING WELL
- ▽ SG-5 SOIL GAS SAMPLE
- SS-1 SURFACE SOIL SAMPLE (COMPOSITE)
- EXISTING UST (APPROXIMATE LOCATION)

File Path: C:\Temp\AcPublish_5208\20110455\A30-STP01.dwg, Layout: FIGURE-2, Plotted: Wed, Sep 17, 2014, 9:59 PM, User: dholibaughbaker, Plotter: DWG TO PDF.PC3, CTB File: FO 2008 COLOR (HALF).CTB, LAYER STATE:

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1.				

SCALE:
 HORZ.: 1" = 50'
 VERT.:
 DATUM:
 HORZ.:
 VERT.:
 0 25 50
 GRAPHIC SCALE

FUSS & O'NEILL
 317 IRON HORSE WAY, SUITE 204
 PROVIDENCE, RI 02908
 401.861.3070
 www.fando.com

RIDEM
 SITE PLAN
 FORMER CAPITAL RECORDS MANAGEMENT, INC.
 PROVIDENCE
 RHODE ISLAND

PROJ. No.: 20110455.A30
 DATE: SEPTEMBER 2014
FIGURE 2

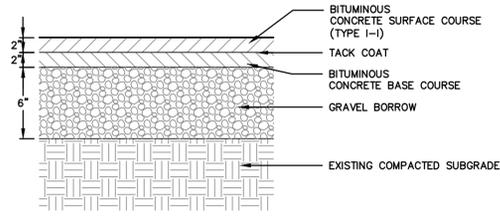
Appendix A

Cap Layout Plan, September 2014

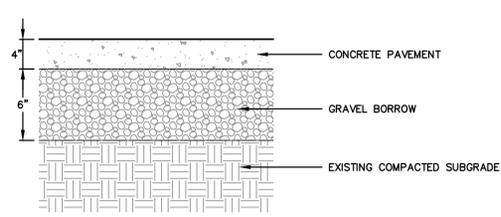


LEGEND

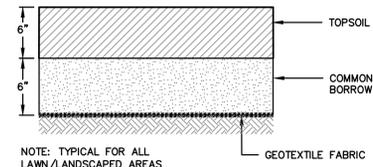
- LOT BOUNDARY
- - - - - LIMIT OF DISTURBANCE
- BUILDING
- BITUMINOUS CONCRETE PAVEMENT CAP
- LANDSCAPE CAP



BITUMINOUS CONCRETE PAVEMENT CAP
SCALE: N.T.S.



CONCRETE PAVEMENT CAP
SCALE: N.T.S.

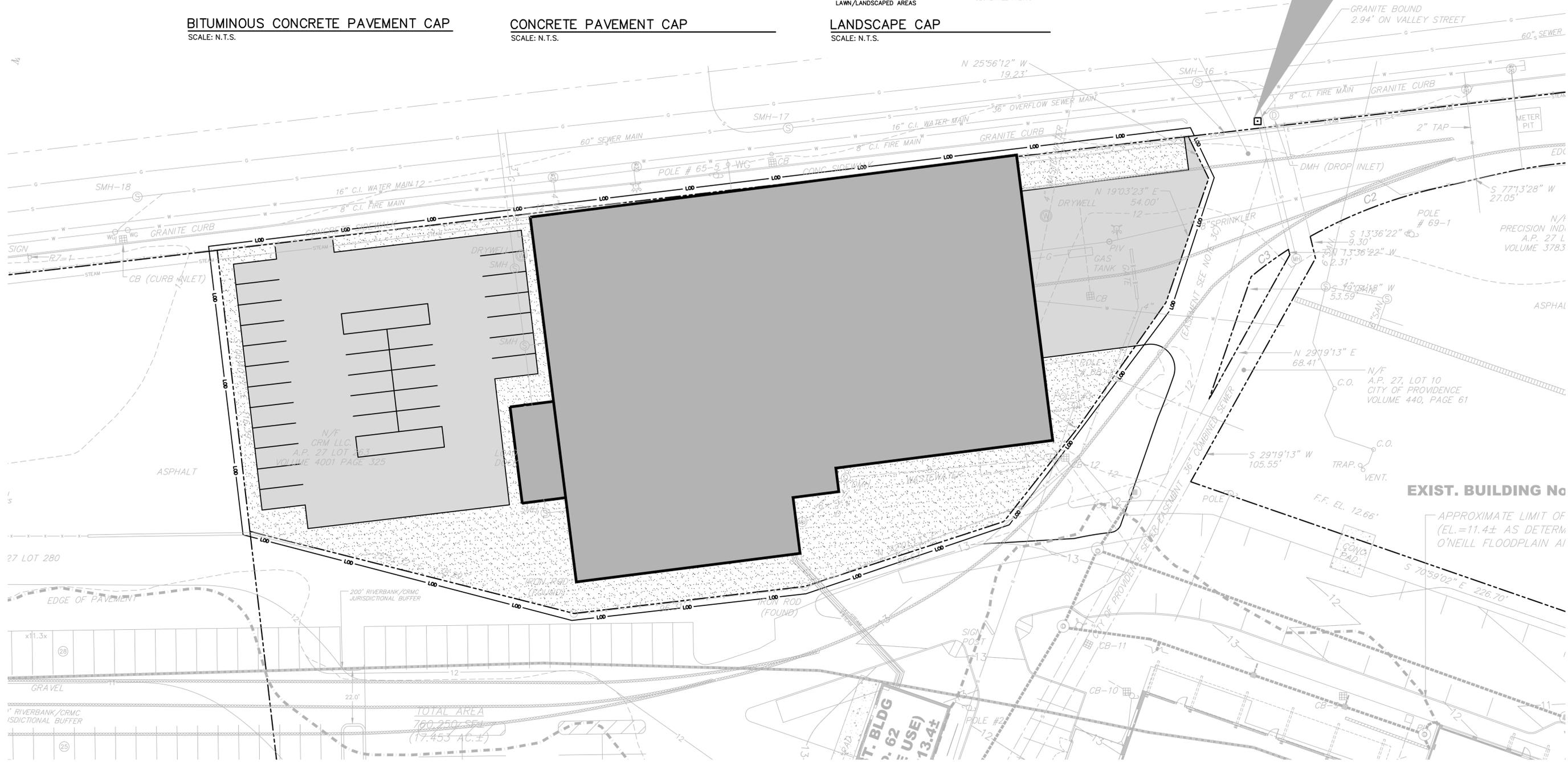


LANDSCAPE CAP
SCALE: N.T.S.

NOTE: TYPICAL FOR ALL LAWN/LANDSCAPED AREAS



BENCHMARK
TOP OF GRAN. BOUND
ELEV. = 10.33'
DATUM NGVD 29



File Path: J:\DWG\20110455A30\Civil\Plan\20110455A30_CON01.dwg Plotted: Fri, September 26, 2014 - 12:19 PM User: aglines Plotter: DWG TO PDF.PC3 CTB File: FOSTB LAYER STATE:

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

SEAL

SEAL

SCALE:
HORIZ.: 1" = 30'
VERT.:
DATUM:
HORIZ.:
VERT.:
30 15 0 30
GRAPHIC SCALE

FUSS & O'NEILL
317 IRON HORSE WAY, SUITE 204
PROVIDENCE, RI 02908
401.861.3070
www.fando.com

PROVIDENCE RHODE ISLAND

FORMER CAPITAL RECORDS MANAGEMENT, INC.

RIDEM
CAP LAYOUT PLAN

PROJ. No.: 20110455.A30
DATE: SEPTEMBER 2014

FIG. 1

Appendix B

Draft Environmental Land Usage Restriction



ENVIRONMENTAL LAND USAGE RESTRICTION

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This Declaration of Environmental Land Usage Restriction (“Restriction”) is made on this ____ day of _____, 20__ by WaterFire Providence, and its successors and/or assigns (hereinafter, the “Grantor”).

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WITNESSETH:

WHEREAS, the Grantor, WaterFire Providence, is the Owner in fee simple of certain real property identified as Plat 27, Lots 289, 290, and 291, at 475, 485, and 495 Valley Street, Providence, Rhode Island (the “Property”), more particularly described in Exhibit A (Legal Description) which is attached hereto and made a part hereof;

Deleted: _____ (name)

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WHEREAS, the Property (site map or portion thereof identified in the Class I survey which is attached hereto as Exhibit B and is made a part hereof) has been determined to contain soil and/or groundwater which is contaminated with certain Hazardous Materials and/or petroleum in excess of applicable Industrial/Commercial Direct Exposure Criteria pursuant to the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (“Remediation Regulations”);

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WHEREAS, the Grantor and the Department have determined that the environmental land use restrictions set forth below are consistent with the regulations adopted by the Rhode Island Department of Environmental Management (“Department”) pursuant to R.I.G.L. § 23-19.14-1 and that this restriction shall be a Conservation Restriction pursuant to R.I.G.L. § 34-39-1 et. seq. and shall not be subject to the 30 year limitation provided in R.I.G.L. § 34-4-21;

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WHEREAS, the Department's written approval of this Restriction is contained in the document entitled: Remedial Decision Letter issued pursuant to the Remediation Regulations;

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WHEREAS, to prevent exposure to or migration of Hazardous Substances and to abate hazards to human health and/or the environment, and in accordance with the Remedial Decision Letter, the Grantor desires to impose certain restrictions upon the use, occupancy, and activities of and at the Property;

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WHEREAS, the Grantor believes that this Restriction will effectively protect public health and the environment from such contamination; and

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WHEREAS, the Grantor intends that such restrictions shall run with the land and be binding upon and enforceable against the Grantor and the Grantor’s successors and assigns. NOW, THEREFORE, Grantor agrees as follows:

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A. Restrictions Applicable to the Property: In accordance with the Remedial Decision Letter, the use, occupancy and activity of and at the Property/ Contaminated-Site is restricted as follows:

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- i. No residential use of the Property shall be permitted that is contrary to Department approvals and restrictions contained herein;
- ii. No groundwater at the Property shall be used as potable water;
- iii. No soil at the Property shall be disturbed in any manner without written permission of the Department's Office of Waste Management, except as permitted in the Remedial Action Work Plan (RAWP) or Soil Management Plan (SMP) approved by the Department in a written approval letter dated [REDACTED] (date) Exhibit C and attached hereto;
- [iv. Humans engaged in activities at the Property shall not be exposed to soils containing Hazardous Materials and/or petroleum in concentrations exceeding the applicable Department approved Direct Exposure Criteria set forth in the Remediation Regulations;
- [v. The engineered controls at the Property described in the SMP contained in Exhibit C attached hereto shall not be disturbed and shall be properly maintained to prevent humans engaged in industrial/commercial activity from being exposed to soils containing Hazardous Materials and/or petroleum in concentrations exceeding the applicable Department-approved Industrial/Commercial Direct Exposure Criteria in accordance with the Remediation Regulations; and

B. No action shall be taken, allowed, suffered, or omitted at the Property, if such action or omission is reasonably likely to:

- i. Create a risk of migration of Hazardous Materials and/or petroleum;
- ii. Create a potential hazard to human health or the environment; or
- iii. Result in the disturbance of any engineering controls utilized at the Property, except as permitted in the Department-approved SMP contained in Exhibit C.

C. Emergencies: In the event of any emergency which presents a significant risk to human health or to the environment, including but not limited to, maintenance and repair of utility lines or a response to emergencies such as fire or flood, the application of Paragraphs A (iii.-v.) and B above may be suspended, provided such risk cannot be abated without suspending such Paragraphs and the Grantor complies with the following:

- i. Grantor shall notify the Department's Office of Waste Management in writing of the emergency as soon as possible but no more than three (3) business days after Grantor's having learned of the emergency. (This does not remove Grantor's obligation to notify any other necessary state, local or federal agencies.);
- ii. Grantor shall limit both the extent and duration of the suspension to the minimum period reasonable and necessary to adequately respond to the emergency;
- iii. Grantor shall implement reasonable measures necessary to prevent actual, potential,

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Deleted: <#>Water at the [Property/Contaminated-Site] shall be prohibited from infiltrating soils containing Hazardous Materials and/or petroleum in concentrations exceeding the applicable Department approved leachability criteria set forth in the Remediation Regulations: ¶
 ¶
 <#>No subsurface structures shall be constructed on the [Property/Contaminated-Site] over groundwater containing Hazardous Materials and/or petroleum in concentrations exceeding the applicable Department approved GB Groundwater Objectives set forth in the Remediation Regulations: ¶
 ¶
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 <#>The engineered controls at the [Property/ Contaminated-Site] described in the [RAWP or Soil Management Plan SMP] contained in Exhibit C attached hereto shall not be disturbed and shall be properly maintained so that water does not infiltrate soils containing Hazardous Materials and/or petroleum in concentrations exceeding the applica...
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present and future risk to human health and the environment resulting from such suspension;

iv. Grantor shall communicate at the time of written notification to the Department its intention to conduct the Emergency Response Actions and provide a schedule to complete the Emergency Response Actions;

v. Grantor shall continue to implement the Emergency Response Actions, on the schedule submitted to the Department, to ensure that the Property is remediated in accordance with the Remediation Regulations (or applicable variance) or restored to its condition prior to such emergency. Based upon information submitted to the Department at the time the ELUR was recorded pertaining to known environmental conditions at the Property, emergency maintenance and repair of utility lines shall only require restoration of the Property to its condition prior to the maintenance and repair of the utility lines; and

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vi. Grantor shall submit to the Department, within ten (10) days after the completion of the Emergency Response Action, a status report describing the emergency activities that have been completed.

D. Release of Restriction; Alterations of Subject Area: The Grantor shall not make, or allow or suffer to be made, any alteration of any kind in, to, or about any portion of the Property, inconsistent with this Restriction unless the Grantor has received the Department's prior written approval for such alteration. If the Department determines that the proposed alteration is significant, the Department may require the amendment of this Restriction. Alterations deemed insignificant by the Department will be approved via a letter from the Department. The Department shall not approve any such alteration and shall not release the Property from the provisions of this Restriction unless the Grantor demonstrates to the Department's satisfaction that Grantor has managed the Property in accordance with applicable regulations.

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E. Notice of Lessees and Other Holders of Interests in the Property: The Grantor, or any future holder of any interest in the Property, shall cause any lease, grant, or other transfer of any interest in the Property to include a provision expressly requiring the lessee, grantee, or transferee to comply with this Restriction. The failure to include such provision shall not affect the validity or applicability of this Restriction to the Property.

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F. Enforceability: If any court of competent jurisdiction determines that any provision of this Restriction is invalid or unenforceable, the Grantor shall notify the Department in writing within fourteen (14) days of such determination.

G. Binding Effect: All of the terms, covenants, and conditions of this Restriction shall run with the land and shall be binding on the Grantor, its successors and assigns, and each Owner and any other party entitled to control, possession or use of the Property during such period of Ownership or possession.

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H. Inspection & Non-Compliance: It shall be the obligation of the Grantor, or any future

holder of any interest in the Property, to provide for annual inspections of the Property for compliance with the ELUR in accordance with Department requirements.

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An officer or Director of the company with direct knowledge of past and present conditions of the Property (the "Company Representative"), or a qualified environmental professional will, on behalf of the Grantor or future holder of any interest in the Property, evaluate the compliance status of the Property on an annual basis. Upon completion of the evaluation, the Company Representative or environmental professional will prepare and simultaneously submit to the Department and to the Grantor or future holder of any interest in the Property an evaluation report detailing the findings of the inspection, and noting any compliance violations at the Property. If the Property is determined to be out of compliance with the terms of the ELUR, the Grantor or future holder of any interest in the Property shall submit a corrective action plan in writing to the Department within ten (10) days of receipt of the evaluation report, indicating the plans to bring the Property into compliance with the ELUR, including, at a minimum, a schedule for implementation of the plan.

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In the event of any violation of the terms of this Restriction, which remains uncured more than ninety (90) days after written notice of violation, all Department approvals and agreements relating to the Property may be voided at the sole discretion of the Department.

I. Terms Used Herein: The definitions of terms used herein shall be the same as the definitions contained in Section 3 (DEFINITIONS) of the Remediation Regulations.

IN WITNESS WHEREOF, the Grantor has hereunto set (his/her) hand and seal on the day and year set forth above.

WaterFire Providence

Deleted: [Name of Person(s), company, LLC or LLP]

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By: _____
Grantor (signature) _____ Grantor (typed name)

STATE OF RHODE ISLAND
COUNTY OF PROVIDENCE

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In City of Providence, in said County and State, on the ____ day of _____, 20__, before me Personally appeared _____, to me known and known by me to be the party executing the foregoing instrument and (he/she) acknowledged said instrument by (him/her) executed to be (his/her) free act and deed.

Deleted: (CITY/TOWN)

Notary Public: _____

My Comm. Expires: _____

Appendix C

Draft Post-Construction Soil Management Plan



Exhibit C
Soil Management Plan
475, 485, and 495 Valley Street
Plat 27, Lots 289, 290, and 291
Providence, Rhode Island

This Soil Management Plan (SMP) has been prepared to establish procedures that will be followed should future construction/maintenance activities at the former Capital Records Management property (the Property) require the need to manage soils excavated from the subsurface or when existing Property surfaces / Rhode Island Department of Environmental Management (Department)-approved engineered controls (asphalt, concrete, landscaping and/or foundations) are disturbed. The plan serves to supplement, and will be initiated by, the Department notification requirement established by the Environmental Land Use Restriction (ELUR) for the Property.

Background

The Property, located at 475, 485, and 495 Valley Street in the City of Providence, Rhode Island, has been operated as an industrial and storage facility since the late 19th century. The Property was found to contain metals and polynuclear aromatic hydrocarbons (PAH) in soil during a Site Investigation performed at the Property. More recently, the Property has been remediated and redeveloped for commercial purposes. The Department-approved remedy included construction of a Property-wide soil cap. The regulated Property soils are covered with Department approved engineered controls, consisting of building foundations, asphalt pavement, concrete, and landscaping in order to prevent direct exposure to regulated soils.

Applicable Area

This SMP and affiliated ELUR, which restricts the Property to Industrial/Commercial use, pertains to the entire Property. See attached site figure.

Soil Management

The direct exposure pathway is the primary concern at the Property. Individuals engaged in activities at the Property may be exposed through incidental ingestion, dermal contact, or inhalation of vapors or entrained soil particles if proper precautions are not taken. Therefore, the following procedures will be followed to minimize the potential of exposure.

During site work, the appropriate precautions will be taken to restrict unauthorized access to the Property.

During all site/earth work, dust suppression (e.g. watering, etc) techniques must be employed at all times. If it is anticipated due to the nature of the contaminants of concern that odors may be generated during site activities, air monitoring and means to control odors will be utilized, as

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appropriate (e.g. odor-suppressing foam, etc). Best management practices also include the managing and minimizing of the migration and/or surface run-off of hazardous materials at the Property during the remedial and/or future Property surface disturbances. This should be achieved via the installation of hay bales, silt fencing and any other appropriate measures during the entire duration of site/earth work.

In the event that an unexpected observation or situation arises during site work, such activities will immediately stop. Workers will not attempt to handle the situation themselves but will contact the appropriate authority for further direction.

In the event that certain soils on the Property were not previously characterized, these soils are presumed to be regulated until such time that it is demonstrated to the Department, through sampling and laboratory analysis that they are not regulated. (For example, presumptive remedies or locations of previously inaccessible soil.)

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If excess soil is generated / excavated from the Property, the soil is to remain on the Property for analytical testing, to be performed by an environmental professional, in order to determine the appropriate disposal and/or management options. The soil must be placed on and covered with polyethylene/plastic sheeting during the entire duration of its staging and secured with appropriate controls to limit the loss of the cover and protect against storm-water and / or wind erosion (e.g. hay bales, silt fencing, rocks, etc).

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Excavated soils will be staged and temporarily stored in a designated area of the Property. Within reason, the storage location will be selected to limit the unauthorized access to the materials (e.g., away from public roadways/walkways). No regulated soil will be stockpiled on the Property for greater than 60 days without prior Department approval.

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In the event that stockpiled soils pose a risk or threat of leaching hazardous materials, a proper leak-proof container (e.g. drum or lined roll-off) or secondary containment will be utilized.

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Soils excavated from the Property may not be re-used as fill on residential property. Excavated fill material shall not be re-used as fill on commercial or industrial properties unless it meets the Department's Method 1 Residential Direct Exposure Criteria for all constituents listed in Table 1 of the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (Remediation Regulations). Soil must be sampled and analyzed by a qualified environmental professional at a frequency of one sample per 500 cubic yards for all constituents. Copies of the laboratory analysis results shall be maintained by the Property owner and included in the annual inspection report for the Property, or the Closure Report if applicable. In the event that the soil does not meet any of these criteria, the material must be properly managed and disposed of off Property at a licensed facility.

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Property soils which are to be disposed of off-Property, must be done so at a licensed facility in accordance with all local, state, and federal laws. Copies of the material shipping records associated with the disposal of the material shall be maintained by the Property owner and included in the annual inspection report for the Property.

Best soil management practices should be employed at all times and regulated soils should be segregated into separate piles (or cells or containers) as appropriate based upon the results of analytical testing, when multiple reuse options are planned (e.g. reuse on the Property, reuse on the Department-approved Industrial/Commercial property, or disposal at a Department-approved licensed facility).

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All non-disposable equipment used during the soil disturbance activities will be properly decontaminated as appropriate prior to removal from the Property. All disposable equipment used during the soil disturbance activities will be properly containerized and disposed of following completion of the work. All vehicles utilized during the work shall be properly decontaminated as appropriate prior to leaving the Property.

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At the completion of site work, all exposed soils are required to be recapped with Department-approved engineered controls (2 ft of clean fill or equivalent: building foundations, 4 inches of pavement/concrete underlain with 6 inches of clean fill, and/or 1 foot of clean fill underlain with a geotextile liner) consistent or better than the Property surface conditions prior to the work that took place. These measures must also be consistent with the Department-approved ELUR recorded on the property.

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Any clean fill material brought on the Property is required to meet the Department's Method 1 Residential Direct Exposure Criteria or be designated by an environmental professional as Non-Jurisdictional under the Remediation Regulations. All clean fill, including sub-grade material and loam, imported to the Property must be sampled prior to delivery and placement. Verbal approval to use the fill must be received from, provided by, or acquired from the environmental professional prior to use. Clean fill and loam must be sampled for arsenic at a frequency of one sample per 500 cubic yards. One-quarter of the total number of compliance samples of clean fill and loam will be sampled for volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), total metals (Priority Pollutant 13), and total petroleum hydrocarbons (TPH). The Annual Inspection Report for the Property, or Closure Report if applicable, should include either analytical sampling results from the fill demonstrating compliance or alternatively include written certification by an environmental professional that the fill is not jurisdictional.

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Worker Health and Safety

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To ensure the health and safety of on-Property workers, persons involved in the excavation and handling of the material on the Property are required to wear a minimum of Level D personal protection equipment, including gloves, work boots and eye protection. Workers are also required to wash their hands with soap and water prior to eating, drinking, smoking, or leaving the Property.

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Department Approval

In accordance with Section A iii of the ELUR, no soil at the property is to be disturbed in any manner without prior written permission of the Department's Office of Waste Management, except for minor inspections, maintenance, and landscaping activities that do not disturb the contaminated soil at the Property. As part of the notification process, the Property owner shall

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provide a brief written description of the anticipated Property activity involving soil excavation. The notification should be submitted to the Department no later than 60 days prior to the proposed initiation of the start of Property activities. The description shall include an estimate of the volume of soil to be excavated, a list of the known and anticipated contaminants of concern, a site figure clearly identifying the proposed areas to be excavated/disturbed, the duration of the project and the proposed disposal location of the soil.

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Following written Notification, the Department will determine the post closure reporting requirements. Significant disturbances of regulated soil will require submission of a Closure Report for Department review and approval documenting that the activities were performed in accordance with this SMP and the Department-approved ELUR. Minor disturbances of regulated soil may be documented through the annual certification submitted in accordance with Section H (Inspection & Non-Compliance) of the Department-approved ELUR. The Department will also make a determination regarding the necessity of performing Public Notice to abutting property owners/tenants concerning the proposed activities. Work associated with the Notification will not commence until written Department approval has been issued. Once Department approval has been issued, the Department will be notified a minimum of two (2) days prior to the start of activities at the Property. Shall any significant alterations to the Department-approved plan be necessary, a written description of the proposed deviation, will be submitted to the Department for review and approval prior to initiating such changes.

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