

Appendix B

Notification of Release of Hazardous Materials

July 11, 2022

Jeffrey Crawford
Principal Environmental Scientist
Office of Waste Management
Rhode Island Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908

**Notification of Release of Hazardous Materials
Interstate 295 / Route 37 Interchange Project**

Dear Mr. Crawford,

In accordance with the Rhode Island Department of Environmental Management (RIDEM) Remediation Regulations DEM-DSR-01-93, AECOM is herein providing notification, on behalf of the Rhode Island Department of Transportation (RIDOT), of an apparent release of hazardous materials at the site of the Interstate 295 / Route 37 interchange project. The release was inferred from analytical results for two soil samples collected as part of characterization of two potential stormwater infiltration basins. The samples were collected between April 25 and April 27, 2022.

These samples were collected from the Interstate 295 (I-295) right-of-way in Cranston and Johnston. One sample was collected from a depth of 6 to 7 feet below ground surface (bgs) within the median of I-295 north of Route 37 in Cranston. In this sample, lead was detected at a concentration of 151 milligrams per kilogram (mg/kg), slightly exceeding the Residential Direct Exposure Criterion (R DEC) of 150 mg/kg. It is believed that the source of this release is historical release of leaded gasoline. The absence of other chemical impacts in this sample or in the shallower sample collected from the same location suggests that the release is limited in extent and magnitude and likely represents incidental effects to soil typical of historical highway runoff.

The second sample was collected from a depth of 9.5 feet bgs within the median of I-295 north of Route 14 in Johnston, and it contained beryllium at a concentration of 2.1 mg/kg, slightly exceeding the R DEC of 1.5 mg/kg. The source of these concentrations is not known, but it is suspected to represent natural soil variability. As this is a single exceedance among 14 samples collected from the highway corridor, and it is not expected to significantly affect soil management activities for the project, no background study pursuant to Section 8.06 of the Remediation Regulations is planned.

Because the impacts were only marginally above R DEC, were detected at depth below ground surface with no such impacts evident in shallower soil samples collected at these locations, no impact to wetlands or surface water is expected. While the area is classified as a GA drinking water area, there were no leachable concentrations of hazardous materials detected in the samples, and therefore no impact to groundwater is expected. In addition to the depth of the samples, both inferred release areas are separated from residential activities by active highways and fencing, so no exposure to the materials is anticipated.

Additional soil characterization sampling to assist with planning of soil management activities associated with bridge construction and highway widening is currently being performed, and a Phase I Environmental Site Assessment is also underway. At the conclusion of the investigation and review of analytical data and environmental information, the results of the soil characterization sampling will be provided to RIDEM in a Site Investigation Report prepared in accordance with Section 7.08 of the Remediation Regulations.

Contact information for the Responsible Party is provided on the attached Hazardous Material Notification Form.

If you should have any questions, please contact Patrick Haskell at (401) 854-2808.

Yours sincerely,



Patrick Haskell, CHMM
Program Manager
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Richard Prior, P.E.
Vice President
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Attachments:

- Attachment A – Hazardous Material Release Notification Form
- Attachment B - Figure 1: Site Investigation Locations
- Attachment C - Table 1: Soil Pre-Characterization Data
- Attachment D – Laboratory Analytical Data

Attachment A – Hazardous Material Release Notification Form

Appendix C
OFFICE OF WASTE MANAGEMENT –
SITE REMEDIATION SECTION
HAZARDOUS MATERIAL RELEASE NOTIFICATION FORM

THIS FORM IS NOT TO BE USED TO REPORT AN IMMINENT HAZARD

1. Notifier Information

Name: Paul Schofield, RI Dept. of Transportation

Address: Two Capitol Hill, Providence, RI 02904

Phone: 401.563.4224

Status: Owner ___ Operator ___ Secured Creditor ___ Voluntary

2. Property Information

Name of Site: Interstate 295 / Route 37 Interchange Reconstruction

Site Address: Route 295 Northbound and Median between Route 37 Interchange
and Central Avenue bridge

Plat/Lot Numbers: Cranston 17-3, Johnston N/A

Approximate Site Acreage: 125 acre project area on larger RIDOT right-of-way with isolated
detections of chemicals at concentrations above R DEC

Latitude/Longitude:

Site Contact Person: Paul Schofield

Site Contact Phone: 401.563.4224

Site Land Usage Type: ___ Residential Industrial/Commercial

Location of Release: Two samples with concentrations in excess of R DEC:
Median of I-295, approximately 500 feet north of Route 37 overpass (TP-3 on attached figure) and
(attach site sketch as necessary) Median of I-295, approximately 1/2 mile north of Route 14 overpass (TP-6 on attached figure)

3. Release Information

Date of Discovery: 5/17/2022

Source : Historical highway runoff

Release Media: Soil

Hazardous Materials and Concentrations:

(attach certificates of analysis as necessary)

Extent of Contamination: Two soil samples collected between 6 and 10
feet below ground surface

Approximate acreage of Contaminated Site: <1 acre of area represented by two
samples with exceedances of R DEC

4. Resource Information

Site Land Usage: Industrial/Commercial Residential

Adjacent Land Usage: Industrial/Commercial Residential

Site Groundwater Class: GA/GAA GB

Adjacent Groundwater Class: GA/GAA GB
(if different than site groundwater classification within 500 feet)

Nearest Surface Water or Wetland:

Less Than 500 Feet Greater Than 500 Feet

Potential for adverse impact Yes/No

5. Potentially Responsible Parties

Name: RI Dept. of Transportation
Address: Two Capitol Hill, Providence, RI 02904

Status: Owner Operator Other:

Name: _____

Address:

Status: Owner Operator Other:

6. Measures Taken or Proposed to be Taken in Response to Release

The samples represent undisturbed soil at the base of the test pits. This material was left in place and the overlying non-jurisdictional soil returned to the test pit. No response actions were deemed necessary at this time. Investigation of highway corridor is underway and appropriate management of impacted soils encountered during construction will be performed.

7. Other Significant Remarks About Release (Will a background determination be made?)

Signature: **Paul A. Schofield**
Digitally signed by Paul A. Schofield
Date: 2022.07.12 14:49:14 -04'00'

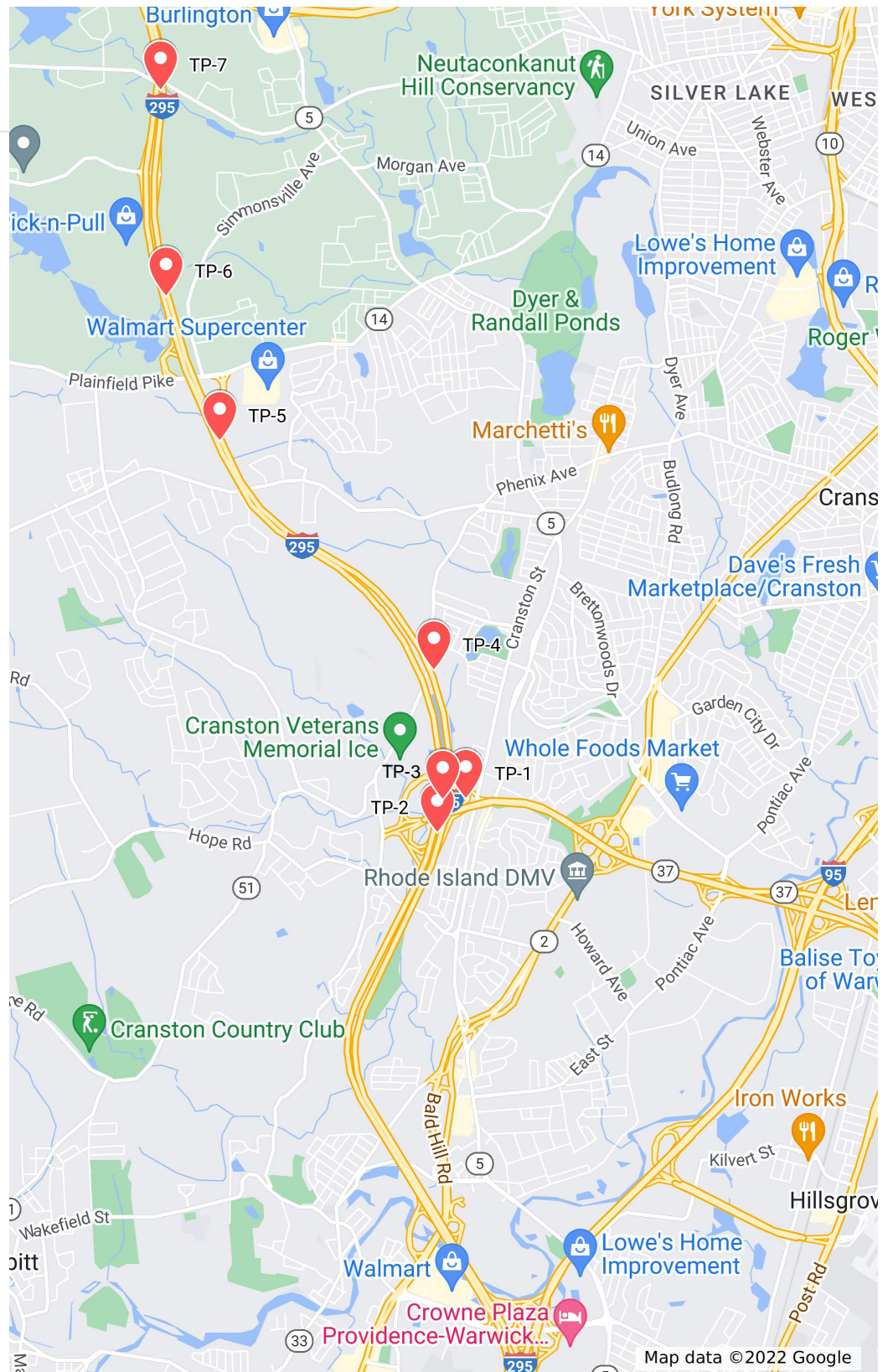
Date ____ / ____ / ____

Title:

Attachment B - Figure

Figure 1: I-295 / Rt. 37 Test Pit Locations

Test Pits



Attachment C – Data Table

Table 1
Soil Pre-Characterization Data
I-295/ Rt. 37 Interchange Project
Cranston, Rhode Island

Location Sample ID Sampling Date Lab Report Number	GA Leachability Criteria (GA LC)	Residential Direct Exposure Criteria (DEC)	Industrial Commercial DEC (IC DEC)	Sample ID, Date, and Lab Deliverable ID													
				TP-1 (0-6)	TP-1 (6-7)	TP-2 (0-6)	TP-2 (6-7)	TP-3 (0-6)	TP-3 (6-7)	TP-4 (0-6)	TP-4 (6-7)	TP-5 (0-6)	TP-5 (6-7)	TP6 5ft	TP6 9.5ft	TP7 (0-6)	TP7 (6-7)
				4/25/2022	4/25/2022	4/25/2022	4/25/2022	4/25/2022	4/25/2022	4/26/2022	4/26/2022	4/26/2022	4/26/2022	4/27/2022	4/27/2022	4/27/2022	4/27/2022
J4157-1		J4157-1		J4157-1		J4157-1		J4157-1		J4157-1		J4157-1		J4157-1			
TPH (mg/kg)																	
TPH	500 / 1,000*	500 / 1,000*	2,500	139	375	435	487	185	165	62.3	44.1	48.5	49.9	78.2	36.3	31.7	15.1
VOCs (mg/kg)																	
Acetone	NE	7,800	10,000	ND	ND	ND	ND	ND	ND	ND	ND	157	47.2	ND	ND	55.5	ND
Methylene Chloride	NE	45	760	ND	ND	22.1	23.7	ND	ND	9.51	11.9	19	15.2	12.4	7.2	14.5	10.2
Total VOCs	NE	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PAHs (mg/kg)																	
Acenaphthene	NE	43	10,000	ND	ND	ND	ND	0.0977	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	NE	35	10,000	ND	ND	ND	ND	0.128	ND	ND	ND	ND	ND	0.17	ND	ND	ND
Benzo(a)anthracene	NE	0.9	7.8	ND	ND	ND	ND	0.275	0.324	ND	ND	ND	ND	0.4366	ND	ND	ND
Benzo(a)pyrene	240	0.4	0.8	ND	ND	ND	ND	0.211	ND	ND	ND	ND	ND	0.394	ND	ND	ND
Benzo(b)fluoranthene	NE	0.9	7.8	ND	ND	ND	ND	0.218	ND	ND	ND	ND	ND	0.289	ND	ND	ND
Benzo(g,h,i)perylene	NE	0.8	10,000	ND	ND	ND	ND	0.124	ND	ND	ND	ND	ND	0.231	ND	ND	ND
Benzo(k)fluoranthene	NE	0.9	78	ND	ND	ND	ND	0.212	ND	ND	ND	ND	ND	0.379	ND	ND	ND
Chrysene	NE	0.4	780	ND	ND	ND	ND	0.26	ND	ND	ND	ND	ND	0.379	ND	ND	ND
Dibenzo(a,h)anthracene	NE	0.4	0.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0801	ND	ND	ND
Fluoranthene	NE	20	10,000	ND	ND	ND	ND	0.555	0.686	ND	0.0694	ND	ND	0.778	0.993	ND	ND
Indeno(1,2,3-cd)pyrene	NE	0.9	7.8	ND	ND	ND	ND	0.116	ND	ND	ND	ND	ND	0.22	ND	ND	ND
Phenanthrene	NE	40	10,000	ND	ND	ND	ND	0.433	0.437	ND	ND	ND	ND	0.382	ND	ND	ND
Pyrene	NE	13	10,000	ND	ND	ND	ND	0.418	0.534	ND	ND	ND	ND	0.634	0.874	ND	ND
bis(2-Ethylhexyl)phthalate	NE	46	410	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.39	ND
Total PAHs	NE	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (mg/kg)																	
Arsenic	NE	7	7	2.25	2.33	<2.33	<2.79	1.99	2	1.76	<1.62	<3.15	<8.10	2.04	2.21	2.3	<5.42
Barium	NE	5,500	10,000	23.3	30.1	27.7	32.6	43.7	38.7	26.2	22.2	17.1	16.1	13	16.3	15	18
Beryllium	NE	1.5	1.5	< 0.618	1.4	1.42	1.4	0.772	0.641	0.696	0.644	<2.63	<2.70	1.03	2.1	0.777	0.693
Cadmium	NE	39	1,000	< 0.618	< 0.618	<0.776	<0.930	0.647	1.44	<0.524	<0.541	<1.05	<2.70	<0.513	<0.58	<0.542	<0.542
Chromium	NE	1,400	10,000	9.02	11.3	13.2	10.8	11.8	11.3	9.86	6.96	<5.26	<5.40	4.34	4.74	3.86	7.92
Copper	NE	3,100	10,000	8.13	10.9	60.9	9.29	508	1100	9.88	8.41	<5.26	<5.40	3.86	2.31	4.56	4.53
Lead	NE	150	500	6.85	7.5	14.6	8.94	68	151	9.84	8.05	19.4	25.2	10.7	17.9	13.6	9.62
Manganese	NE	390	10,000	130	90.4	93	82.3	141	86.4	141	122	216	310	109	110	126	124
Mercury	NE	23	610	<0.0585	<0.0656	<0.0745	<0.0892	0.116	0.17	<0.0524	<0.0483	<0.0478	<0.0555	<0.0486	<0.0576	<0.0542	<0.0472
Nickel	NE	1,000	10,000	6.72	8.41	8.37	6.03	12	16.3	7.09	5.3	2.22	<5.4	2.7	2.2	2.64	5.04
Zinc	NE	6,000	10,000	24.2	38.4	60.7	29.6	261	540	31	29.6	61	103	39.6	57	51	41.4
PCBs (mg/kg)																	
Aroclor-1254	NE	NE	NE	ND	ND	ND	ND	0.135	0.0931	ND	ND	ND	ND	ND	ND	ND	ND
Total PCBs	10	10	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pesticides (mg/kg)																	
Total DDT Isomers	NE	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
This is a summary table. Only those analytes that are detected are shown.
Exceedances of Direct Exposure Criteria indicated by shading.
< = Analyte not detected at concentration above given reporting limit.
NA = Sample not analyzed for given parameter.
ND = No analytes detected for this analysis.
* The default GA LC and R DEC for TPH is 500 mg/kg. It may be adjusted to 1,000 mg/kg with RIDEM approval of adequate risk management.
mg/kg = Milligrams per kilogram
mg/L = Milligrams per liter