STATE OF RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

RHODE ISLAND CONTRACT NO. 2025-CB-057
FEDERAL-AID PROJECT NO. BHO-026C(001)

BRIDGE GROUP 26C
WOONSOCKET BLACKSTONE RIVER WEST

Rehabilitation of Singleton Street Bridge No. 095501
Rehabilitation of River Street Bridge No. 095601

City of Woonsocket
County of Providence
Rhode Island

GENERAL PROVISIONS - CONTRACT SPECIFIC

GM2 Associates, Inc.
Pawtucket, Rhode Island

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GENERAL PROVISIONS - CONTRACT SPECIFIC

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1. BRIEF SCOPE OF WORK

Rhode Island Contract No. 2025-CB-057, Federal Aid Project No. BHO-026C (001) is for the Bridge Group 26C – Woonsocket Blackstone River West Project which includes the rehabilitation of the Singleton Road Bridge No. 095501 and the River Road Bridge No. 095601 in Woonsocket, Rhode Island.

The work to be performed under this Contract shall consist of, but not be limited to: complete removal and reconstruction of the concrete bridge decks including deck-over-backwall extension details; steel repair and strengthening details; cleaning, metalizing, and painting all steel members; expansion joint replacement; channel band restoration at the abutments; installation of new MASH compliant barriers; reconstructing approach roadway at each end of the bridges including full depth pavement structure and new steel beam guardrail with end treatments; maintenance and protection of traffic; pavement markings; erosion controls; and other incidentals, complete and accepted.

2. LIST OF CONTRACT DOCUMENTS

Contract Documents

Contract Specifications

RI Department of Administration Division of Purchases Procurement Regulations
February 2025 Edition of the RI Standard Specifications for Road & Bridge Construction
Required Contract Provisions/Federal-Aid Construction Contracts
Rhode Island Standard Details
Bridge Standard Details
General Provisions
General Provisions – Contract Specific
Specifications – Job Specific
Distribution of Quantities
Federal Wage Rates

Plans – There are three (3) volumes of Plans that comprises the Contract Drawings for this Contract. The volumes of plans are as follows:

VOLUME 1 - HIGHWAY PLANS
VOLUME 2 - SINGLETON STREET BRIDGE NO. 095501
VOLUME 3 - RIVER STREET BRIDGE NO. 095601

Additional Information Documents

The following documents are included but shall not be considered part of the Contract Documents. These documents are included for informational purposes only. The Contractor

shall be responsible for verifying the information shown in these documents.

- Original Construction Plans
- Latest RIDOT Bridge Inspection Reports

3. UTILITY AND MUNICIPAL NOTIFICATION AND COORDINATION

Existing utilities have been shown on the Plans using the best available information. The Contractor shall check and verify the location of all existing utilities both underground and overhead in accordance with the "Dig Safe Program Law" enacted by the Rhode Island Legislation Bill No. 79S-291, which became effective July 1, 1979. The Contractor should be aware that not all utility companies subscribe to the Dig Safe Program. It is the Contractor's responsibility to ensure that all utility companies have been notified, and all utilities have been marked prior to commencing their work. Any damage to existing utilities shall be replaced or repaired to the satisfaction of the Engineer at no additional cost to the State.

The Contractor shall schedule his construction so as to allow for a coordinated highway and utility effort. Upon award, the Contractor shall notify the lead utility relative to his anticipated highway construction start date. Immediately following the Pre-construction Conference, the Contractor shall initiate survey layout required for utilities.

It is required that the Contractor notify each utility company no less than two (2) weeks in advance of any work near an existing utility facility that is to remain.

The applicable utility/municipality representatives are as follows:

Utility/Municipality	Contact	Phone Number
Rhode Island Energy Electric	Patrick Ventre	732-672-3359
Rhode Island Energy Gas	James Paulette	401-465-8580
Verizon	Peter DeCosta	508-944-6701
Cox Communications	Shawn Murphy	401-430-5599
Woonsocket Water Department	Marc Viggiani	401-767-2619

During the progress of the work, the Contractor shall cooperate with the Owners of the utilities and permit their representative's access to the work to determine if their utilities are being endangered in any way.

The following utility involvement is anticipated:

Rhode Island Energy Electric	
Relocate utility poles and lines at both bridges	Completed by March 2026
Rhode Island Energy Gas	
Replace gas mains at both bridges	Duration: 8 weeks each bridge

Verizon & Cox Communications
Relocate lines at both bridges Completed by March 2026

4. SPECIALTY ITEMS

The following items are hereby designated “Specialty Items":

a. Seeding
b. Guardrail
c. Pavement Markings
d. Signage

5. SEQUENCE OF CONSTRUCTION

a. General

All work shall be completed in accordance with the Traffic-Related Work Restrictions indicated in the Transportation Management Plan.

The Contractor shall immediately establish all temporary erosion and sedimentation controls including temporary sedimentation basins and construction accesses.

b. Special Requirements

Traffic shall not be routed onto the new road until completion is achieved in accordance with Special Provision 108.1000, and the Engineer has given approval.

The Contractor shall develop an orderly sequence of construction and time schedule for all work to be performed under this contract in accordance with Section 108.03 of the RI Standard Specifications for Road and Bridge Construction.

The schedule level requirements for this project shall be Level B.

If the contract is extended beyond the specified completion date, a similar work schedule will be established by the Engineer.

Local access to businesses shall be maintained at all times during construction. The contractor shall contact the local business prior to performing any work in or near the business driveway/entrance. The Contractor shall contact Gerry Beyer at 401.255.3295 when working near or in the driveway/access road at Sta 203+85± Rt on Singleton Street.

All erosion controls shall be in-place and accepted by the Engineer prior to commencing work. Locations of surface features and utilities shown on the plans are approximate. The Contractor shall check and verify the exact location of all existing utilities, both underground and overhead, with Dig Safe. Any damage to existing utilities shall be the Contractor's

responsibility in addition to providing vehicle and pedestrian access to abutting residential, commercial, and/or recreational establishments.

The Contractor shall be responsible for maintaining all roadways free from debris resulting from vehicles entering and exiting the construction site. The Contractor shall clean and sweep the roadways, at intervals as required, and/or as determined by the Engineer to maintain the roadway in an acceptable condition. The cost associated with complying with this provision shall be considered incidental to the contract.

The cost of the work zone lighting required for nighttime operations shall be incidental to the contract in accordance with Section 944 Lighting for Night Work Operations of the Standard Specifications. No separate payment will be made for lighting of the work zone during any nighttime operation.

The Contractor shall be responsible for providing GPS locations of all installed directional, regulatory, warning, parking, and street signs. The submission shall be made electronically in Microsoft Excel format to the RIDOT-GIS Section (contact person TBD by Engineer) in the following format:

Sign #	MUTCD Code	Easting	Northing
1	R1-1	277311	323478

The cost for completing the GPS work shall be incidental to the cost of the signing items.

6. SPECIAL REQUIREMENTS FOR TRAFFIC PROTECTION

In addition to the requirements of the RI Standard Specifications and the special requirements of other sections of these Contract Documents, the following requirements shall be undertaken by the Contractor:

a. The Contractor is advised that the signs and other traffic control devices shown on the Maintenance and Protection of Traffic Plans are minimum requirements, and it is the Contractor's responsibility to supplement these as directed by the Engineer if necessary to ensure public safety. All maintenance and protection of traffic devices must be in place and approved by the Engineer before any construction may commence. All maintenance and protection of traffic shall conform to the latest edition and revisions of the Manual on Uniform Traffic Control Devices (MUTCD).

b. The Contractor shall be responsible for maintaining appropriate construction related signing at all times. All temporary construction signs not appropriate for the construction activity taking place shall be removed, covered, or otherwise concealed to the satisfaction of the Engineer. This includes the period between erecting the signs and the start of construction, as well as when a construction phase is completed or suspended.

c. R.I. Std. 26.1.0 cones shall be used when traffic control set-up is utilized only during working hours and is subsequently removed at the end of the workday. R.I. Std. 26.2.0

shall be used when a traffic control set-up will remain beyond working hours when no workers are present.

d. Construction operations of this project must be coordinated with the local community public safety officials. In case of any emergency, the Contractor will be required to move equipment and allow the passage of emergency vehicles. Public safety must be considered at all times.

e. The Contractor is hereby notified that work zone time and lane restrictions are listed in the Transportation Management Plans. Failure to comply with these requirements will result in the fines listed under Section 11 of the Standard Specifications.

7. SPECIAL REQUIREMENTS FOR PAVEMENT MARKINGS

All pavement markings are to be in accordance with the requirements of the "Manual of Uniform Traffic Control Devices," 2023 Edition including all revisions. All existing striping must be replaced where required.

All temporary pavement markings shall be removed in accordance with the "Manual on Uniform Traffic Control Devices," 2023 Edition, including all revisions.

All conflicting pavement markings shall be removed in accordance with the "Manual on Uniform Traffic Control Devices, 2023 Edition," including all revisions.

The Contractor is responsible for providing temporary waterborne pavement markings (white and yellow) on the final bituminous surface course at the end of each day's work at each location that will be opened to traffic. The Contractor shall place temporary waterborne markings at all lane, shoulder, and yield lines as shown on the plans. The traveled way shall be clearly marked at all times.

On the final riding surface course of new pavement, the Contractor shall place waterborne pavement marking paint at all locations as shown on the plans, but shall not be required to place temporary cross-hatch markings. Waterborne pavement marking paint shall be placed in accordance with Section T20.03.4 of the Standard Specifications.

Final epoxy resin pavement markings shall be placed no sooner than two weeks after final paving but no later than four weeks. Epoxy resin pavement markings shall be placed in accordance with Section T20.03.6 of the Standard Specifications.

It is the Contractor's responsibility to reflect the exact location, unless otherwise proposed on the plans, of all existing pavement markings onto the newly finished surfaces. The Contractor shall make the necessary arrangements to enable him to reestablish these locations before any micro-milling or resurfacing commences.

8. POLICE COMPENSATION

It will be the responsibility of the Resident Engineer to retain the service of the State and local police with cruiser for traffic control and protection for this project. The Contractor will not be required to bid on, or compensate for, the service of the State and local police.

9. SHOP DRAWINGS AND SUBMITTALS

The following list of work for which shop drawings and/or other submittals are required is provided for the convenience of the contractor. This list includes only major items of work; it does not itemize all submittals required by the contract documents. All submittals shall be in accordance with Section 105.02 of the Specifications. The contractor is responsible for timely submission of all shop drawings and other documents required by the contract. No extra payment will be made, nor will any extension be made to the contract completion date for making required submittals.

a. Demolition; Shielding, Equipment and Detailed Sequence of Work
b. Temporary Shielding
c. Concrete; Mix Designs, Placing & Pouring Sequence, Methods and Equipment, Curing Plan including Methods, Personnel Resources
d. Cementitous Materials
e. Reinforcing Steel, Splicer, and Inserts
f. Deck Placement and Curing Plan
g. Expansion Joint
h. Means, Methods, and Equipment for Structural Concrete Repairs
i. Structural Steel Repairs
j. Structural Steel Paint Systems
k. Surface Preparation of Structural Steel for Painting – Means & Methods
l. Containment, Collection, Storage, and Disposal of Debris and Spent Material
m. Personnel and Environmental Protection During Cleaning, Surface Preparation and Painting Operations
n. Welding Procedures
o. Bridge Railing
p. Bridge Identification Tablets
q. Guardrail
r. Fence

10. CONTRACT SUBMITTALS LIST (CSL)

Critical to the commencement of construction is the requirement to make all of the necessary submittals as required by the contract documents.

The following Illustrative CSL is provided as a basis of format for the Contractor's CSL. The Illustrative CSL shall not be interpreted by the Contractor as an all-inclusive list of required Submittals. The Contractor's CSL shall provide the required information on all Submittals.

The Contractor should also note The Master Schedule for testing to ensure all necessary items are included.

The Contractor shall prepare the CSL, utilizing the column headings and submittal numbering convention provided in the Illustrative CSL, identifying all Submittals (shop drawings, certifications, catalog cuts, material certifications, material samples, etc.) required under the Contract Documents, Plans, and Specifications. The Department's Project Schedule for Sampling, Testing, and Certification of Materials shall also be referred to as a guide in obtaining all typical material submittal requirements.

Each submittal shall be uniquely identified on the Contractor's Preliminary Project Schedule and Project Schedule Baseline as set forth in Section 108.03, Prosecution and Progress. At a minimum, each submittal fragmentary network shall include activities for submittal preparation, submittal review period, fabrication/manufacturing, and delivery.

ILLUSTRATIVE CONTRACT SUMITTALS LIST (CSL)

SUBMITTAL #	SPECIFICATION/ REFERENCE	DESCRIPTION	SUBMITTAL DATE	COMMENTS	DISPOSITION/ REVIEW PERIOD
RCPFA-?	SP, RCPFA, CDSRM, Note 4	Certification regarding debarment, suspension and other responsibility matter for primary covered transactions must be submitted	Annually every Jan. 1	Certification form provided in Contract Document	E / 30c
601-?	SS, 601.03.1b	Concrete Mix Design and Trial Batch Reports	60c prior to concrete production	Provided on Department form. Notify Engineer 48 hours in advance of trial runs for witness of test procedures. Time also allowed for 28 day compressive strength testing.	E / 28c
937-?	SS, 937.03.2	Home and Cell telephone numbers of at least three (3) personnel who will be available on a 24-hour basis for the duration of the Contract.	At the Preconstruction Conference		E

List of Abbreviations

c	Calendar Days
CDSRM	Certification Regarding Debarment, Suspension & Other Responsibility Matters – Primary Covered Transactions
E	Engineer
GPC	General Provisions / Construction
RCPFA	Required Contract Provisions Federal-Aid Construction Contracts
SP	Special Provisions
SPC	Special Provisions / Construction
SS	RIDOT Standard Specifications for Road and Bridge Construction, 2004 Edition

11. INCIDENT MANAGEMENT

In the event of an accident, or other unforeseen incident, the Contractor shall positively cooperate with local authorities by providing traffic control devices, personnel, equipment, and materials as required, both on and off site. The Contractor shall assist in whatever way possible to clear debris from the roadway and maintain traffic flow. Payment for this work shall be on a force account basis. If the personnel are not available on site, they shall be "on call" and able to respond to the site within one hour of notification to the Contractor's appointed representative by phone or in person to the Department of Transportation.

12. CONTRACTOR'S RESPONSIBILITY FOR MAINTAINING ROADWAYS

The Contractor shall be responsible for maintaining all roadways free from debris resulting from vehicles entering and exiting the construction site. The Contractor shall clean and sweep the roadways, at intervals as required, and/or as determined by the Engineer to maintain the roadway in an acceptable condition. The cost associated with complying with this provision shall be considered incidental to the Contract.

13. INSPECTION ACCESS

The Contractor shall provide the Engineer and/or his representative(s) full access to all the work sites, as may be required, for the purpose of inspection and/or construction monitoring. This shall include the means to access the sites, as well as all necessary safety equipment such as safety harnesses and life vests. No separate payment shall be made for these services. The cost of these items of work shall be included under the item of work for which they are required.

14. COORDINATION WITH OTHER PROJECTS

The Contractor shall be aware of other construction projects ongoing or commencing during the construction period of this contract. It shall be the Contractor's responsibility to coordinate his contractual work with other contracts that may be adjacent to this project. The Engineer, at all times, shall be made aware of any delays due to such work conflict. The Contractor may be required to attend periodic coordination meetings with representatives of the Towns and State to discuss and resolve potential conflicts.

15. UNIT BID ITEM AND LUMP SUM BID ITEM PAYMENTS

For requirements and work described in the Contract Documents but not expressly identified to be measured separately for payment, the costs thereof shall be included in the contract bid prices of the items of work to which they pertain as listed in the Proposal.

16. LANE CLOSURES

All full closures, splits, or shifts unless approved by the Administrator of Project Management or his designee shall be scheduled to begin on Friday or Saturday night as determined by the TMP to allow motoring public time to adjust to new travel patterns while allowing RIDOT the opportunity to evaluate its success. Construction work can commence on the Monday following the evaluation period. TMP modifications or revisions may be required in advance to allow for weekend work.

All full closures, splits, or lane shifts unless approved by the Administrator of Project Management or his designee shall not be installed or remain in place during the winter shutdown period.

The Contractor shall notify the Department in writing at least twenty-one (21) days in advance of the road/lane closure so that adequate public notice can be given. Upon the Engineer's approval, the Contractor shall coordinate the required traffic control.

17. COORDINATION MEETINGS

The Contractor shall utilize a virtual meeting for all project coordination meetings when possible.

18. TRANSPORTATION MANAGEMENT PLAN

The Transportation Management Plan (TMP) for this project is included as an appendix to these Contract Specific General Provisions. The TMP lays out the set of coordinated transportation management strategies that will be used to manage the work zone safety and mobility impacts of this project. In the event of a discrepancy between information in the TMP and information elsewhere in the Contract Documents, the former shall govern.

The Contractor's attention is called to the Standard Specifications for Road & Bridge Construction, **SECTION 104.08 – MAINTNANCE OF TRAFFIC**, which describes the requirements for the Contractor's designation of a TMP Implementation Manager for the Contract.

The Department's latest *Training Guidelines for Personnel Responsible for Work Zone Safety & Mobility* is available under the "Work Zone Safety & Mobility" section at:

http://www.dot.ri.gov/business/contractorsandconsultants.php

19. MASSACHUSETTS PERMITS

The Contractor shall note that there is a Massachusetts Department of Transportation (MassDOT) permit required for this project. RIDOT will secure the permit upon award of the contract.

20. RIDEM OFFICE OF LAND REVITALIZATION AND SUSTAINABLE MATERIALS MANAGEMENT (OLRSMM) COMPLIANCE

The following documents have been completed for the Singleton Street Bridge 096501. The RIDEM issued File No. SR-39-2193A for this site.

- Notification of Release received by RIDEM – OLRSMM on May 3, 2024
- Response to Letter of Responsibility (LOR) received by RIDEM – OLRSMM on September 5, 2024
- Site Investigation Report received by RIDEM – OLRSMM on November 4, 2024

The following documents have been completed for the River Street Bridge 956. The RIDEM issued File No. SR-39-2193B for this site.

- Notification of Release received by RIDEM – OLRSMM on May 3, 2024
- Response to Letter of Responsibility (LOR) received by RIDEM – OLRSMM on September 5, 2024
- Site Investigation Report received by RIDEM – OLRSMM on November 4, 2024

The RIDEM issued individual Remedial Decision Letters each dated August 26, 2025 for the Singleton Street Bridge and the River Street Bridge.

The Contractor shall review any RIDEM files.

The Contractor is responsible for completing the RIDEM OLRSMM Remediation regulations requirements including, but not limited to, preparing the Remedial Action Work Plan (RAWP) submittals, confirming the RIDEM OLRSMM approved RAWPs are implemented and work completed according to the approved plans, preparing a Remedial Closure Report, and preparing an Environmental Land Usage Restriction (ELUR) with attached Soil Management Plan for each bridge.

The Contractor shall coordinate with RIDOT NRU and the City of Woonsocket for review and concurrence with any potential deliverables. Should environmental conditions not identified in the Site Investigation Reports be encountered, no environmental activities will commence until direction is given by the RIDOT PM with NRU concurrence.

21. HAZARDOUS MATERIALS MANAGEMENT

A Hazardous Materials Management Assessment – Bridge Group 26C, Singleton Street and River Street, Woonsocket, RI has been completed (see Appendix I). Asbestos Containing

Materials (ACMs) lead-based paint (LBP), and/or PCB Bulk Waste were identified. Based on the current RIDOT "Technical Guidance – PCB Site Investigation" document, the Contractor is responsible for collection and analysis of additional bulk samples of each of the Bridge 095501 suspect PCB source materials to meet the required three bulk samples per source material. Based on the current RIDOT "Technical Guidance – PCB Site Investigation" document, the Contractor is responsible for collection and analysis of additional bulk samples of each of the Bridge 095601 suspect PCB source materials to meet the required three bulk samples per source material for suspect materials not already characterized as PCB Bulk Product Waste. Sampling of the Bridge 095601 substrate adjacent to PCB Bulk Product Waste (e.g,. concrete sidewalk adjacent to caulk) is likewise required in accordance with current RIDOT guidance.

The Contractor is responsible to manage the identified ACMs, LBP, and PCB Bulk Waste Product in accordance with the applicable local, state, and federal regulations requirements.

22. USFWS NORTHERN LONG-EARED BAT AND TRICOLORED BAT PROTECTION

(To be used with FHWA Programmatic Consultation)

The U.S. Fish and Wildlife Service has listed the Northern long-eared bat (NLEB) under the Endangered Species Act (ESA) and the following requirements exist to protect the bat and its habitat. The U.S. Fish and Wildlife Service has proposed to list the tricolored bat (TCB) as Federally Endangered under the Endangered Species Act (ESA) and the following requirements exist to protect the bat and its habitat.

The Contractor shall ensure all personnel working on the project site are made aware of the potential presence and protected status of the NLEB and TCB. The Contractor shall ensure all personnel working on the project site are aware of all environmental commitments related to the NLEB and TCB. The NLEB and TCB flyer shall be made available to all personnel and posted on project bulletin boards. Contact the RIDOT Natural Resources Unit (dot.nru@dot.ri.gov) for questions about project limits, restrictions, or conservation measures.

Compliance with the requirements below are necessary to ensure compliance with the ESA:

Bridge:

A bridge visual assessment was completed on 4/15/2024 and evidence of bats was not found. If bridge work is not completed before **4/15/2026** the Contractor shall hire a qualified consultant* for the inspection of the bridge for the presence of, or evidence of use by, bats. The Contractor shall notify the RIDOT Natural Resources Unit (NRU) no later than ninety (90) days prior to **4/15/2026** to provide adequate time for coordination with and approval by the NRU before surveys are performed. If bats are found to be present, or, if there is evidence of bat usage, work at the bridge shall not commence until after the NRU has completed coordination with the US Fish and Wildlife Service to determine the appropriate follow up or mitigation actions.

***Qualified consultant** is defined as individuals who have viewed the Virtual bat and transportation structures assessment training [youtube.com] and either:

a. Completed an intensive in-person course; OR
b. Has experience in performing surveys with another qualified individual for at least one bat active season.

Tree Cutting and Clearing Restriction:

All phases/aspects of the project (e.g., temporary work areas, alignments) will be modified, to the extent practicable, to avoid tree removal* in excess of what is required to implement the project safely.

All tree removal* shall be completed between *November 1st and April 14th*. The Contractor shall ensure tree removal is limited to that specified in project plans. Prior to tree removal the Contractor shall layout the clearing limits in the field (e.g. with bright orange flagging/fencing or another marking method, subsidiary to the Work) to ensure all tree clearing work is within the tree clearing limits.

***"Tree removal"** is defined by the USFWS as cutting down, harvesting, destroying, trimming, or manipulating in any other way the trees, saplings, snags, or any other form of woody vegetation likely to be used by bats.

Lighting:

Direct temporary lighting away from suitable habitat* during the active season (April 15th to October 31st). Use downward-facing, full cut-off lens lights, and direct lighting away from suitable habitat* when installing new or replacing existing permanent lights.

***away from suitable habitat** means only toward non-forested work site.

23. PROTECTION UNDER THE MIGRATORY BIRD TREATY ACT

A variety of bird species nest on or under bridges, and in trees, shrubs, and grass areas within the highway ROW. Under the Migratory Bird Treaty Act (MBTA), it is unlawful to intentionally or unintentionally take, capture or kill any migratory bird unless a Migratory Bird Permit is first obtained from the U.S. Fish and Wildlife Service. The USFWS's rules define "take" for MBTA purposes to mean to "pursue, hunt, shoot, wound, kill, trap, capture, or collect." Each violation of the MBTA can result in a fine of $15,000, imprisonment for six months, or both.

There are few bird species that are not protected under the MBTA; they are Rock Doves (domestic pigeons), House Sparrows, European Starlings and Monk Parakeets. Although these species are not protected, they must be treated in a humane manner. The Contractor is encouraged to relocate active nests of unprotected species into nearby trees after approval from the RIDOT Natural Resources Unit (401-479-1327).

Bird species that are protected under the MBTA include all waterfowl, herons, eagles, hawks, falcons, owls and songbirds (including swallows, eastern phoebes and American robins). Nests typically may be found empty, with eggs, or chicks from March 1st to August 31st in trees, brush and open fields. Raptors (hawks, falcon, owls, and eagles) nest as early as January 22nd through August 31st in or on trees, on telephone poles and in open fields.

Before commencing any bridge-related construction activities during the breeding season (February 1st-August 31st), the Contractor shall inspect the bridge(s) for bird nests. If any active nest is discovered, work shall stop and the RIDOT Natural Resources Unit shall be contacted. The project will avoid the removal and destruction of active bird nests except through federal or state approved options.

If clearing and grubbing, tree removal, staging areas or other land disturbing activities will occur during the migratory bird breeding season (March 1st- August 31st), the Contractor shall avoid any active bird nests. During the breeding season, the Contractor should inspect the affected right-of-way for bird nests before commencing work. The Contractor shall not disturb any active nests (completed or partially completed nests that contain eggs or nestlings). If any active nest is discovered and the nest cannot be avoided, work shall stop and the RIDOT Natural Resources Unit shall be contacted to evaluate the potential for disturbance of nests. The project will avoid the removal and destruction of active bird nests except through federal and state approved options.

At no time should large nests of ospreys, hawks, falcons or eagles be destroyed, as these species return to the same nest site year after year and reuse the same nest. If a raptor nest must be removed for work to take place, it can be moved in cooperation with the USFWS.

The taking of a migratory bird shall be reported to the RIDOT Natural Resources Unit (401-479-1327). The Contractor shall be responsible for all penalties levied by the USFWS for the taking of a migratory bird. The USFWS's rules define “take” for MBTA purposes to mean to “pursue, hunt, shoot, wound, kill, trap, capture, or collect.”

All questions relating to migratory birds and nesting should be directed to the RIDOT Natural Resources Unit (401-479-1327).

24. ENVIRONMENTAL PERMITS

Environmental permits/assents issued for this project are included in the appendices to these General Provisions – Contract Specific. It will be the Contractor’s responsibility to post the environmental permits in a noticeable location within the project area. Permits shall be visible at eye level with waterproof protection attached to a 4’x4’ minimum exterior grade plywood panel w/4x4 posts. One sign shall be installed at each end of project and removed upon completion of work. It shall be the Contractor’s responsibility to adhere to all restrictions and to furnish all information required to be submitted to the permitting agencies as stated or implied by the permits and orders attached hereto and included as part of the contract documents. There will be no special payment for work done to comply with these permits and orders.

25. US ARMY CORP OF ENGINEERS NOTIFICATION

The Contractor shall be responsible for completing and returning the Work Start Notification Form included within the US Army Corp of Engineers Authorization. The US Army Corp of Engineers Authorization is included within the Appendices.

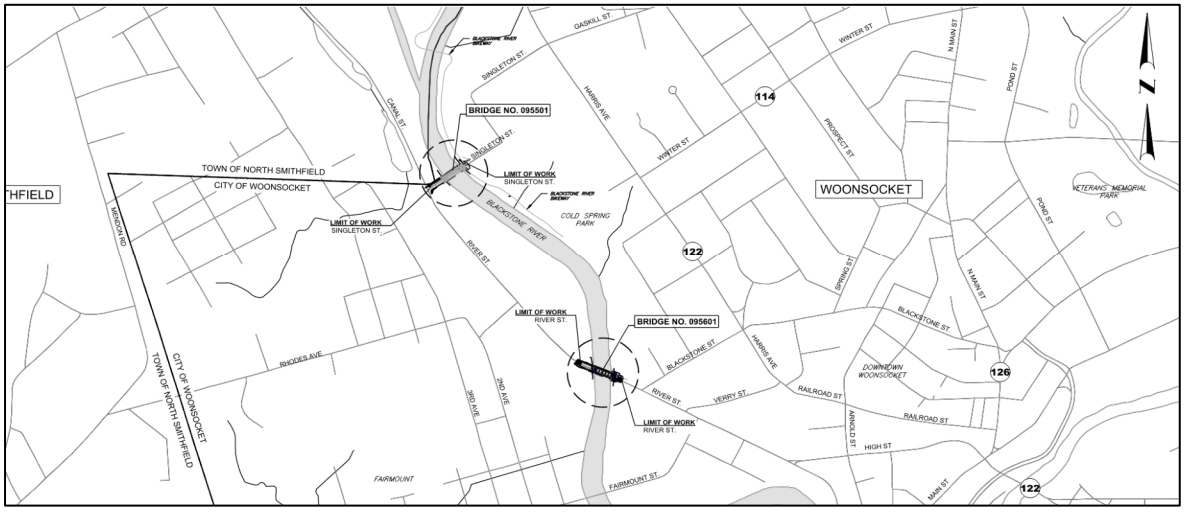
APPENDIX A

Transportation Management Plan

LEVEL 2 TRANSPORTATION MANAGEMENT PLAN

SIGNIFICANT PROJECT

Project Name:	**Bridge Group 26C - Woonsocket**
RI Design Contract No(s):	**2023-EH-003B**
RI Construction Contract No(s):	**2025-CB-057**
PTSID #	**2607E**
Municipalities:	**Woonsocket, RI & North Smithfield, RI Blackstone, MA & Millville, MA**
Submission:	**ADV**
Date:	**20-Aug-2025**



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TMP ROLES AND RESPONSIBILITIES

TMP Development Managers

RIDOT Project Manager for the project and Design Consultant who is responsible for development of this TMP

RIDOT PROJECT MANAGER	
Name:	**Melissa Macdonald**
Title:	**Project Manager II**
Unit:	**Division of Project Management**
Office Phone:	
Mobile Phone:	
E-Mail:	Melissa.Macdonald@dot.ri.gov

CONSULTANT	
Name:	**Jon Skaarup, P.Eng., PTOE**
Title:	**Senior Transportation Engineer**
Company/Unit:	**GM2 Associates, Inc.**
Office Phone:	**401-726-4084**
Mobile Phone:	
E-Mail:	jskaarup@gm2inc.com

TMP Implementation Managers

RIDOT Construction Manager and Contractor with the primary responsibility for implementation of this TMP

RIDOT CONSTRUCTION MANAGER	
Name:	
Title:	
Unit:	
Office Phone:	
Mobile Phone:	
E-Mail:	

CONTRACTOR	
Name:	
Title:	
Company/Unit:	
Office Phone:	
Mobile Phone:	
E-Mail:	

TMP Implementation Task Leaders

Other parties responsible for completing specific transportation management tasks required by this TMP

NAME / TITLE (if individual is named)		COMPANY / UNIT	PHONE	E-MAIL
		RIDOT / TMC	**401-222-5826**	tmc_operations@dot.ri.gov
Task Description / Responsibilities:	To be contacted via RIDOT notification form (FAX to 222-4225 / 222-5640) min. 48 hours prior to the implementation of lane closures and detours. Will update RIDOT 511 system as necessary.			
		RIDOT / Communications	**401-222-1362**	webmaster@dot.ri.gov
Task Description / Responsibilities:	To be contacted via RIDOT notification form (FAX to 222-3905) min. 48 hours prior to the implementation of lane closures and detours. Will update/issue RIDOT travel advisories web site / news releases as necessary.			
		RIDOT / Customer Service	**401-222-2450**	CustomerService@dot.ri.gov
Task Description / Responsibilities:	To be contacted via RIDOT notification form (FAX to 222-5648) min. 48 hours prior to the implementation of lane closures and detours. If necessary, will assist in coordinating the strategies included in the Public Information Plan.			
Task Description / Responsibilities:				

TMP Implementation Task Leaders (continued)

NAME / TITLE (if individual is named)		COMPANY / UNIT	PHONE	E-MAIL
Task Description / Responsibilities:				
Task Description / Responsibilities:				
Task Description / Responsibilities:				
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Task Description / Responsibilities:				
Task Description / Responsibilities:				
Task Description / Responsibilities:				

TMP Stakeholder Contacts

TMP Stakeholders to be consulted or coordinated with during the work

NAME / TITLE (if individual is named)	COMPANY / UNIT	PHONE	E-MAIL

Woonsocket Primary Stakeholder Contact Information

Position	Title/Name	Phone	E-mail
Woonsocket	Mayor Chris Beauchamp	401-767-9205	mayorchristopherbeauchamp@woonsocketri.org mayor@woonsocketri.org
	Planning Director Michael Debroisse	(401)767-9237	mdebroisse@woonsocketri.org
	City Engineer - VACANT		
D.P.W.	Director Steven D'Agostino	(401)767-9213	sdagostino@woonsocketri.org
Fire Dep.	Chief Robert Cahill	(401)765-2500	rcahill@woonsocketri.org
Police Dep.	Chief Thomas F. Oates III	(401)767-8828	toates@woonsocketri.org
School Admin.	Superintendent Patrick McGee	(401)767-4600	pmcgee@woonsocketschools.com
Hospital/ Ambulance	EMA Director Deputy Chief Timothy Walsh	(401)692-0800	twalsh@woonsocketri.org

North Smithfield Primary Stakeholder Contact Information

Position	Title/Name	Phone	E-mail
North Smithfield	Town Administrator Scott Gibbs	(401)767-2200 x303	Sgibbs@nsmithfieldri.gov
	Town Planner Mark Carruolo	(401)767-2200 x312	mcarruolo@nsmithfieldri.gov
D.P.W.	Director Raymond J. Pendergast, Jr.	(401)767-2200 x341	rpendergast@nsmithfieldri.gov
Fire Dep.	Chief David Chartier	(401)762-1135	chartier@northsmithfieldfire.com
Police Dep.	Chief Tim Lafferty	(401)762-1212	tlafferty@nspolice.org
School Admin.	Superintendent Michael St. Jean	(401)769-5492 x2205	mstjean@nsps.us
Hospital/ Ambulance			

Blackstone Primary Stakeholder Contact Information

Position	Title/Name	Phone	E-mail
Blackstone	DPW - Jim Sullivan	(508)962-1871	jsullivan@townofblackstone.org
	DPW - Kelly Paterson	(508)883-9331	kshea@townofblackstone.org

Millville Primary Stakeholder Contact Information

Position	Title/Name	Phone	E-mail
Millville	Highway Department - Peter Ryan	(508)981-6181	treewarden@millvillema.org
Police Dep.	Chief William J. Coupe	(508)883-3117 Option2	bill.coupe@millvillepolice.org

Massachusetts DOT	**Joseph Frawley**		joseph.frawley@state.ma.us
Massachusetts DOT	**Christopher Silva**		christopher.p.silva@dot.state.ma.us

See Attachment C for additional project stakeholder information

Emergency Service Contacts

Emergency service agencies/providers expected to be impacted by the project work zones

NAME / TITLE (if individual is named)		AGENCY / UNIT	PHONE	E-MAIL
Robert Cahill	**Fire Chief**	**Woonsocket Fire Department**	**401-765-2500**	rcahill@woonsocketri.org
Special Details / Requirements:				
Thomas Oates III	**Police Chief**	**Woonsocket Police Department**	**401-767-8828**	toates@woonsocketri.org
Special Details / Requirements:				
Colonel Darnell S. Weaver	**Superintendent**	**Rhode Island State Police**	**401-444-1000**	
Special Details / Requirements:				
David Chartier	**Fire Chief**	**North Smithfield Fire Department**	**401-762-1135**	
Special Details / Requirements:				
Tim Lafferty	**Police Chief**	**North Smithfield Police Dept.**	**401-762-1212**	
Special Details / Requirements:				
Roy Liard Jr.	**Fire Chief**	**Millville Fire Department**	**508-883-4740**	
Special Details / Requirements:				
William Coupe	**Police Chief**	**Millville Police Department**	**508-883-3117**	
Special Details / Requirements:				
Kevin Roy	**Fire Chief**	**Blackstone Fire Department**	**508-883-1030**	
Special Details / Requirements:				
Gregory Gilmore	**Police Chief**	**Blackstone Police Department**	**508-883-1212**	
Special Details / Requirements:				
Colonel Geoffery Noble	**Superintendent**	**Massachusetts State Police**	**508-820-2300**	
Special Details / Requirements:				
Special Details / Requirements:				
Special Details / Requirements:				
Special Details / Requirements:				
Special Details / Requirements:				
Special Details / Requirements:				

PROJECT INFORMATION

Brief Project Description

The work on this project will include major rehabilitation of the River Street and Singleton Street Bridges in Woonsocket, Rhode Island. Work will require bridge closures and all transportation modes to be detoured until the work is completed. Due to other bridge weight limits in the vicinity, a seperate truck detour will be required. The bridges are scheduled to be constructed consecutively with no allowances for concurrent closures.

General Work Limits

Bridge No. 095601 carrying River Street over Blackstone River and Bridge No. 095501 carrying Singleton Street over Blackstone River.

WORK ZONE LOCATIONS

ROADWAY NAME or INTERSECTION	FROM	TO	APPROX. LENGTH
River Street Bridge 095601	over Blackstone River		275 ft
Singleton Street Bridge 095501	over Blackstone River		260 ft

General Project Schedule & Construction Sequence*

The project will be completed over the course of three construction seasons.

Bridge work, requiring lane closures and/or detours will occur on both bridges in the first season, but will not be allowed to be done concurrently.

Both bridges shall remain fully open to traffic during winter shutdown.

During the second season work will be completed at one bridge only while the other remains open to traffic.

Both bridges shall again remain fully open to traffic during winter shutdown.

During the third season work will be completed at the remaining bridge only while the other remains open to traffic.

The detours will follow the local roadway network in coordination with MassDOT based on type of detour provided.

The truck/heavy vehicle detour will be the same for both bridges and will follow a route that goes through the City of Woonsocket and the Town of North Smithfield, Rhode Island and the Towns of Blackstone and Millville, Massachusetts.

***The information in this section is not intended to and shall not supersede the approved schedule and milestone/completion dates for the project.**

OTHER ACTIVITIES IN PROJECT VICINITY WITH POTENTIAL FOR CAUSING SIGNIFICANT CUMULATIVE IMPACTS	
ACTIVITY	DETAILS / DATES / LOCATIONS
Pavement Improvements & Bridge Work	Social Street, Diamond Hill Road, Blackstone Street, Privilege Street, Mill Street, Wood Street

TRAFFIC CONDITIONS PRIOR TO START OF WORK

Traffic Data

See attached traffic memorandum (Attachment B). Note the existing truck restriction conditions along Canal Street that could potentially be relaxed during the bridge closure periods.

Note that no existing operational conditions were presented in the Traffic Memorandum concerning.

The work area will affect the nearby bike path.

Table 1 – Monthly 2021 ADT Volume

Location	Vehicle Type	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
River Street at the River Street Bridge	All vehicles	3187	3204	3848	4169	4190	4363	3964	3701	3786	3879	3621	3561
	Trucks	166	167	213	210	160	194	186	183	186	168	157	194
	TOTAL	***3353***	***3371***	***4061***	***4379***	***4350***	***4557***	***4150***	***3884***	***3972***	***4047***	***3778***	***3755***
Singleton Street (between Canal Street and Harris Avenue	All vehicles	1210	1335	1540	1540	1584	1749	1843	1524	1461	1565	1846	1719
	Trucks	122	97	121	107	81	97	107	145	116	89	75	76
	TOTAL	***1332***	***1432***	***1661***	***1647***	***1665***	***1846***	***1950***	***1669***	***1577***	***1654***	***1921***	***1795***

Lowest Vehicular Volume

Highest Vehicular Volume

Intersection Control

See attached traffic memorandum (Attachment B). Notable intersections inlcude Main Street (Rte 122) at Saint Paul Street (signalized), Harris Avenue (Rte 122) at Singleton Street/Gaskill Street (unsignalized), and Harris Avenue (Rte 122) at Verry Street/Kindergarten Street (unsignalized). Other intersecitons were also observed in the memorandum.

Crash Data

See attached traffic memorandum (Attachment B).

Crash data in the vicinity of the project site was requested from RIDOT for the most recent three-year period (2020-2022) available and included the following locations:
•Canal Street/River Street at the Singleton Street Bridge;
•Blackstone Street at River Street;
•River Street at 2nd Avenue.

No fatal crashes or crashes involving pedestrians or bicyclists were reported at the study area intersections within the most recent three-year period analyzed. Based on a review of the available RIDOT crash data, there does not appear to be any existing safety deficiencies in the vicinity of the project site.

Local Community Issues and Concerns

All work including, but not limited to, detours, lane closures, parking restrictions, traffic signal timing adjustments, and flaggers/police details shall be coordinated with the stakeholders. Stakeholders shall include the City of Woonsocket, City Engineer, Traffic Engineer, Police Chief, Fire Chief/Marshal, Parking Administrator, Emergency Responders, RIPTA, etc., and all other impacted business owners/property owners.

EXPECTED TRAFFIC CONDITIONS DURING THE WORK

Traffic Data

See attached traffic memorandum for detour route identification and descriptions. Public awareness campaigns should be implemented prior to and during each roadway closure to reduce peak hour traffic volumes by encouraging the use of alternate routes and adjusting commuting times.

Closure of the River Street Bridge will require detouring all traffic (vehicular and pedestrian/cyclist).

Closure of the Singleton Street Bridge will require detouring all traffic (vehicular and pedestrian/cyclist).

Detours may vary for trucks.

The peak hourly volumes to be detoured are shown in the following tables. The detoured traffic will affect the nearby intersections and the routes are 3 miles or less for both bridge closures. However, truck detours are significantly longer.

Table 2 – River Street Bridge 2023 Existing Weekday Peak Hour Traffic Volume

	EB	WB	Total
Weekday AM[1]	124	111	235
Weekday PM[2]	189	159	348

[1] Weekday morning peak hour occurs from 7:00-8:00 AM
[2] Weekday afternoon peak hour occurs from 4:00-5:00 PM

Table 3 – Singleton Street Bridge 2023 Existing Weekday Peak Hour Traffic Volume

	EB	WB	Total
Weekday AM[1]	77	32	109
Weekday PM[2]	62	90	152

[1] Weekday morning peak hour occurs from 7:00-8:00 AM
[2] Weekday afternoon peak hour occurs from 4:00-5:00 PM

Table 7

Closure of the Singleton Street Bridge Typical Weekday Afternoon Peak Hour Traffic Volumes

2023 Existing Weekday PM Peak Hour

Harris Avenue		St Paul Street		Verry Street	
NB	SB	EB	WB	EB	WB
441	350	300	422	226	136

2023 Detoured Weekday PM Peak Hour

	Harris Avenue		St Paul Street		Verry Street	
	NB*	SB*	EB*	WB*	EB*	WB*
	641	550	500	622	426	336
Combined	1191		1122		762	

**Add 200 vehicles along Harris Avenue (Route 122), Saint Paul Street and Verry Street during the weekday PM peak hour to provide a conservative analysis.*

Table 8

Closure of the River Street Bridge Typical Weekday Afternoon Peak Hour Traffic Volumes

2023 Existing Weekday PM Peak Hour

Harris Avenue		St Paul Street		Singleton Stret		Verry Street	
NB	SB	EB	WB	EB	WB	EB	WB
441	350	300	422	62	90	226	136

2023 Detoured Weekday PM Peak Hour

	Harris Avenue		St Paul Street		Singleton Stret		Verry Street	
	NB*	SB*	NB*	SB*	EB*	WB*	EB*	WB*
	841	750	700	822	462	490	626	536
Combined	1591		1522		952		1162	

**Add 400 vehicles along Harris Avenue (Route 122), Saint Paul Street, Singleton Street and Verry Street during the weekday PM peak hour to provide a conservative analysis.*

Anticipated Demands from Other Activities in Vicinity of Project

Stakeholders include, but are not limited to the following:

- Shopping Centers (coordinate closures and detours)
- Other Events (see City of Woonsocket Event Schedules and coordinate with DPW, City Engineer, Traffic Engineer, Police Chief, Fire Chief/Marshal, Parking Administrator, Emergency Responders, etc. of surrounding communities)

TRAFFIC-RELATED WORK RESTRICTIONS

General Restrictions

See Attachment A - General Restrictions Chart. Road closures, partial road closures, sidewalk closings, or any kind of road obstruction on City streets (Local Roads) shall be coordinated with the City DPW and Traffic Engineer

In accordance with TAC - 0350, "All full closures, splits, or shifts shall be scheduled to begin on Friday or Saturday night as determined by the TMP to allow motoring public time to adjust to new travel patterns while allowing RIDOT the opportunity to evaluate its success. Construction work can commence on the Monday following the evaluation period."

Any unauthorized (i.e. without written approval from the RIDOT) restrictions of a travel lane or shoulder (even for short-term deliveries or access) or unauthorized durations in excess of the requirements listed in the General Restrictions Charts included as an attachment to the TMP shall be subject to penalties as specified in the Contract Documents.

Any exceptions to this Lane Closure/Lane Split Coordination Policy must be approved by the Senior Management of Department.

Holiday Restrictions

New Year's Day (if on weekend, the Holiday is recognized the Monday after) -- No lane closures on 13:00 New Year's Eve Day through 0:00 day after New Year's (or the Monday if on a weekend)

Martin Luther King Day - No lane closures on the Holiday.

Memorial Day - No lane closures from 13:00 Friday Before to 00:00 Tuesday after the Holiday.

Juneteenth National Freedom Day - No lane closures on the Holiday (if the Holiday falls on the weekend the holiday is recognized on the Monday following the Holiday.)

Independence Day - No lane closures from 13:00 day before until 00:00 the day after the holiday.

Victory Day - No lane closures on the Holiday.

Labor Day - No lane closures from 13:00 day before until 00:00 the day after the holiday.

Columbus Day - No lane closures on the holiday.

Veteran's Day - No lane closures on the holiday.

Election Day (If its an Observed RI State Holiday) - No lane closures on the holiday.

Thanksgiving Day - No lane closures shall be performed by the contractor on Wednesday through Sunday of Thanksgiving Week. Work can resume at 00:00 on Monday after the Holiday weekend.

Christmas Day (if on weekend, the Holiday is recognized the Monday after) - No lane closures from 13:00 on Christmas Eve through 0:00 day after Christmas.

TEMPORARY TRAFFIC CONTROL PLANS

These RIDOT- and/or Designer-Developed TTC Plans will be used during the work on this project

RIDOT-DEVELOPED TYPICAL TTC PLANS	Included in: TMP	Included in: Plan Set
☐ Mobile Operation		
☐ Work Beyond the Shoulder		
☐ Shoulder Closure - Two Lane Road		
☐ Shoulder Closure - Limited Access		
☐ 1-Side Lane Shift - Two Lane Road		
☐ 2-Side Lane Shift - Two Lane Road		
☐ Lane Shift - Limited Access		
☐ Lane Closure - Two Lane Road		
☐ Lane Closure - Four Lane Road		
☐ Lane Closure - Limited Access		
☐ Double Lane Closure - Limited Access		
☐ Others (list) -		

DESIGNER-DEVELOPED TTC PLANS	Included in: TMP	Included in: Plan Set
Maintanence of Traffic Protection Plans		X
Detour Plans		X

PUBLIC INFORMATION PLAN

These strategies will be used to provide information concerning the project to road users and the community

Public Awareness Strategies

SELECTED STRATEGIES	RESPONSIBILITIES / REQUIREMENTS / SPECIAL CONSIDERATIONS
RIDOT travel advisories news releases	RIDOT TMP Imp. Mngr. to send RIDOT notification form to Communications min. 48 hrs. in advance of restrictions. Communications to include appropriate information in weekly news releases.
RIDOT travel advisories web site	RIDOT TMP Imp. Mngr. to send RIDOT notification form to Communications min. 48 hrs. in advance of restrictions. Communications to post appropriate information on RIDOT travel advisories web page.
Other press releases/media alerts	RIDOT TMP Imp. Mngr. to send RIDOT notification form to Communications min. 5 working days in advance of restrictions. Communications to post appropriate information to the local media.
Dedicated project web site	RIDOT to set-up and maintain dedicated web site to be set up and updated on a regular basis. The web site will include traffic and travel information, lane restrictions and corresponding times/dates, and any other pertinent information. It may include long term static information and/or real-time interactive information.
Public meetings/hearings	Project information to be formally presented to the public, communities, and/or businesses by public relations staff, and solicitation of input concerning potential concerns, impacts, and management strategies. This may be done at key milestones of the project.
Consultation/coordination w/ stakeholders	RIDOT TMP Imp. Mngr., on a weekly basis (or as needed), to coordinate/consult with the appropriate stakeholders during the work in order to keep them informed and to seek their input on knowledge of local/regional issues and/or improve inter-agency coordination and response to Work Zone issues.
Coordination with MassDOT	RIDOT TMP Imp. Mngr. to coordinate with MassDOT min. 5 working days in advance of restrictions. Communications to post appropriate information to the local media.

Road User Information Strategies

SELECTED STRATEGIES	RESPONSIBILITIES / REQUIREMENTS / SPECIAL CONSIDERATIONS
RIDOT 511 traveler information system	RIDOT TMP Imp. Mngr. to send RIDOT notification form to RIDOT TMC min. 48 hrs. in advance of restrictions. RIDOT TMC to include appropriate restriction information in 511 phone and web services.

TRANSPORTATION OPERATIONS PLAN

These strategies will be used to provide improved transportation operations/safety within project work zones

Corridor/Network Management Strategies

SELECTED STRATEGIES	RESPONSIBILITIES / REQUIREMENTS / SPECIAL CONSIDERATIONS

Work Zone Safety Management Strategies

SELECTED STRATEGIES	RESPONSIBILITIES / REQUIREMENTS / SPECIAL CONSIDERATIONS

Traffic/Incident Management & Enforcement Strategies

SELECTED STRATEGIES	RESPONSIBILITIES / REQUIREMENTS / SPECIAL CONSIDERATIONS

Demand Management Strategies

SELECTED STRATEGIES	RESPONSIBILITIES / REQUIREMENTS / SPECIAL CONSIDERATIONS

PERFORMANCE MONITORING PLAN

General Monitoring Requirements

The **Contractor's TMP Implementation Manager** is responsible for keeping the portion of the project being used by public traffic in a condition that (1) safely and adequately accommodates such traffic and (2) is in accordance with the Traffic-Related Work Restrictions, the Temporary Traffic Control Plans, and where appropriate, the other transportation management strategies identified above.

The **RIDOT TMP Implementation Manager** or his/her responsible designee should (1) inspect the project work zones for conformance with the Temporary Traffic Control Plans, the *ATSSA Quality Guidelines for Temporary Traffic Control Devices and Features*, and where applicable, the other transportation management strategies identified above and (2) document all work zone-related feedback and complaints that are received from the public.

Project-Specific Performance Monitoring Strategies

SELECTED STRATEGIES	RESPONSIBILITIES / REQUIREMENTS / SPECIAL CONSIDERATIONS

CHANGES TO TMP & CONTINGENCY PLANS

If at any time (1) a deviation from any of the strategies included in the TMP (e.g., the use of an alternate construction sequence) is desired by one or more members of the project implementation team, (2) field observations and/or data suggest that impacts to road users are or will be unacceptable, or (3) one or more performance requirements established in the TMP are not being met in the field, the RIDOT TMP Implementation Manager and/or Project Manager shall report the situation to his/her supervisor. The Project Manager will coordinate with the Design Consultant of record and present the changes to the State Traffic Safety Engineer, Administrator of Project Management, the Chief Engineer of Infrastructure, and/or other interested parties as appropriate and/or necessary to consider and determine whether revised alternate strategies should be implemented in an effort to lessen the adverse safety and mobility impacts of the project. If any changes should be implemented, the changes shall be documented in a revised version of the TMP. Any changes implemented can be removed at any time, at RIDOTs discretion, if unexpected adverse impacts to traffic occur.

If a deviation from any of the strategies included in the TMP is requested by the Contractor, the Contractor is responsible for preparing and submitting to the RIDOT TMP Implementation Manager at least 21 days in advance of the proposed change, the appropriate documentation (e.g., design calculations, analysis reports, Temporary Traffic Control Plans, etc.) showing that the requested change(s) are (1) feasible and (2) expected to result in safety and mobility impacts that are no more adverse than the impacts resulting from the strategies already included in the latest approved TMP. RIDOT will review and consider the submittal(s) as described in the preceding paragraph and will determine whether the changes should be implemented. The Contractor shall prepare and submit to the RIDOT TMP Implementation Manager a revised version of the latest approved TMP in both printed and electronic (Microsoft® Excel) format that documents all of the proposed changes. Work to implement the changes shall not begin until the revised TMP is approved.

When unexpected events (e.g., crashes, inclement weather, unforeseen traffic demands, etc.) occur in a project work zone where one or more lanes are closed, the RIDOT TMP Implementation Manager or his/her responsible designee should (1) determine whether or not the lane closure(s) can/should be removed in order to improve traffic operations and/or minimize delays and (2) if deemed appropriate, take action to remove the lane closure(s).

Project Specific Contingencies

TMP APPROVALS

All approvals must be obtained prior to start of work.

DIRECTOR OF PROJECT MANAGEMENT	STATE TRAFFIC SAFETY ENGINEER	CHIEF ENGINEER OF INFRASTRUCTURE
Signature:	Signature:	Signature:
Lori Fisette	Steven W. Pristawa, P.E.	Robert Rocchio, PE
Date: 8/18/25	Date 8/20/25	Date: 8/20/25

Revision #	Initials	Date

Revision #	Initials	Date

Revision #	Initials	Date

LIST OF ATTACHMENTS

Attachment A - General Restrictions
Attachment B - Bridge Group 26C_Traffic Memo_ 2024-02-2020
Attachment C - Additional Project Area Stakeholders

TMP Attachment A:
TRAFFIC RELATED WORK RESTRICTIONS/General Restrictions:

River Street Bridge No. 095601

		MINIMUM NUMBER OF LANES & SHOULDERS TO REMAIN OPEN TO TRAFFIC[1,2,3,4,5]								
		Time of Day		Day of Week						
	Bridge No. 095601	From	To	SUN	MON	TUES	WED	THURS	FRI	SAT
DETOUR ALLOWANCE PERIOD	River Street Bridge[7] (between 2nd Avenue and Blackstone Street)	0:00	5:00	DETOUR (BRIDGE SHALL BE OPEN TO TRAFFIC DURING WINTER SHUTDOWN PERIOD)						
		5:00	9:00							
		9:00	15:00							
		15:00	21:00							
		21:00	24:00							
	Bridge No. 095601	From	To	SUN	MON	TUES	WED	THURS	FRI	SAT
ALL OTHER PERIODS	River Street Bridge (between 2nd Avenue and Blackstone Street)	0:00	5:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL
		5:00	9:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL
		9:00	15:00	ALL	1L - ALT	1L - ALT	1L - ALT	1L - ALT	1L - ALT	ALL
		15:00	21:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL
		21:00	24:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL

Singleton Street Bridge No. 095601

		MINIMUM NUMBER OF LANES & SHOULDERS TO REMAIN OPEN TO TRAFFIC[1,2,3,4,5]								
		Time of Day		Day of Week						
	Bridge No. 095501	From	To	SUN	MON	TUES	WED	THURS	FRI	SAT
DETOUR ALLOWANCE PERIOD	Singleton Street Bridge[7] (between Canal Street and Harris Avenue)	0:00	5:00	DETOUR (BRIDGE SHALL BE OPEN TO TRAFFIC DURING WINTER SHUTDOWN PERIOD)						
		5:00	9:00							
		9:00	15:00							
		15:00	21:00							
		21:00	24:00							
	Bridge No. 095501	From	To	SUN	MON	TUES	WED	THURS	FRI	SAT
ALL OTHER PERIODS	Singleton Street Bridge (between Canal Street and Harris Avenue)	0:00	5:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL
		5:00	9:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL
		9:00	15:00	ALL	1L - ALT	1L - ALT	1L - ALT	1L - ALT	1L - ALT	ALL
		15:00	21:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL
		21:00	24:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL

Canal Street

		MINIMUM NUMBER OF LANES & SHOULDERS TO REMAIN OPEN TO TRAFFIC[1,2,3,4,5]								
		Time of Day		Day of Week						
		From	To	SUN	MON	TUES	WED	THURS	FRI	SAT
ALL TIMES	Canal Street	0:00	5:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL
		5:00	9:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL
		9:00	15:00	ALL	1L - ALT	1L - ALT	1L - ALT	1L - ALT	1L - ALT	ALL
		15:00	21:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL
		21:00	24:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL

BIKE PATH RESTRICTIONS

		MINIMUM NUMBER OF LANES & SHOULDERS TO REMAIN OPEN TO TRAFFIC[1,2,3,4,5]								
		Time of Day		Day of Week						
	Bridge No. 095501	From	To	SUN	MON	TUES	WED	THURS	FRI	SAT
ALL TIMES	During Singleton Street Bridge work only (4 months/8 months)[6]	0:00	5:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL
		5:00	9:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL
		9:00	15:00	ALL	1LB - ALT	1LB - ALT	1LB - ALT	1LB - ALT	1LB - ALT	ALL
		15:00	21:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL
		21:00	24:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL

LEGEND

ALL	All travel lanes and shoulders shall remain open to traffic.
1L - ALT	A minimum of one 11-foot wide travel lane shall remain open to alternating traffic.
1LB - ALT	A minimum of one 5-foot wide travel lane shall remain open to alternating traffic on the bike path.
1L	A minimum of one 11-foot wide travel lane shall remain open to traffic.
DETOUR	All traffic to be detoured.

NOTES

1. The set-up and break-down of temporary traffic control devices within a traveled way shall be construed as a closure of that traveled way.
2. The provisions noted herein shall not free the Contractor from his responsibility to conduct all work in such a manner that assures the least possible obstruction to traffic.
3. At locations with a sidewalk(s), a minimum of one sidewalk on one side of the roadway shall remain open to pedestrians at all times.
4. Access to and egress from all side streets, driveways, buildings, and other pedestrian pathways intersecting the Project work zones shall be maintained at all times unless otherwise noted or shown on Plans.
5. Access to and egress from all businesses within the Project work zones shall be maintained at all times unless otherwise noted or shown on the plans.
6. The bike path lane reduction shall only be used when work is directly on the bike path and/or sidewalk in front of the bike path, or otherwise directed by the Engineer.
7. The bridges are scheduled to be constructed consecutively with no allowances for concurrent closures/detours.

ATTACHMENT B

Bowman

memo

To: David Fish, P.E., Senior Transportation Manager (AECOM)

From: Maureen Chlebek, P.E., PTOE (Bowman)

Date: February 20, 2024

Re: Bridge Group 26C (Woonsocket and Blackstone River West)
Woonsocket, RI

Bowman has completed a traffic operations evaluation as part of the rehabilitation of the River Street Bridge and Singleton Street Bridge project in the City of Woonsocket, Rhode Island. Rehabilitation of these bridges will occur consecutively (not concurrently) and will necessitate a full motor vehicle closure on River Street between the intersections with 2nd Avenue and Blackstone Street, and on Singleton Street from the intersection with Canal Street to just northeast of the bridge. The full closure would be maintained for at least one construction season but may last up to fifteen (15) months per bridge. During the closures, local access to residences and businesses would be maintained. Traffic Detours via the local roadway network would be implemented as part of this project and are proposed to remain in place for the duration of the construction phase.

The purpose of this memorandum is to summarize the historical traffic volumes reviewed from Streetlight Data and to determine the times of year where the traffic volumes along Singleton Street and River Street are the lowest to reduce the impacts of detoured traffic on the surrounding roadways. A high-level traffic analysis was also performed to determine if the proposed detours are feasible based on the Highway Capacity Manual (HCM) methodologies. The following roadways/intersections were evaluated:

- River Street at Bridge #095601
- Singleton Street at Bridge #095501
- Canal Street
- Main Street/Harris Avenue (Route 122)
- Verry Street
- Saint Paul Street
- Harris Avenue (Route 122) at Singleton Street/Gaskill Street
- Harris Avenue (Route 122) at Verry Street Street/Kindergarten Street
- Main Street/Harris Avenue (Route 122) at Saint Paul Street (signalized) - Massachusetts

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bowman.com

A map depicting the location of the River Street Bridge and Singleton Street Bridge and the surrounding roadways and intersections is provided in Figure 1.

2023 Existing Conditions

A field visit was performed on Tuesday, July 11, 2023 to review the physical and operational characteristics of the study area roadways. A description of the key roadways and intersections serving the study area are provided below.

Roadways

River Street at Bridge #095601

The River Street Bridge provides one travel lane in each direction, with a roadway width of 40 feet from curb to curb. Cement concrete sidewalks measuring 5-feet in width are provided on each side of the bridge. There are no dedicated bicycle facilities provided on the bridge. The Bridge abuts commercial/ industrial land uses which quickly transition to residential properties.

Singleton Street at Bridge #095501

The Singleton Street Bridge provides one travel lane in each direction, with a roadway width of 33 feet from curb to curb. Cement concrete sidewalks measuring 5-feet in width are provided on each side of the bridge. While no dedicated bicycle facilities are provided, there are "Bicycle" warning (MUTCD W11-1) signs provided on the southeast corner of River Street/Canal Street and Singleton Street. A pair of "Bicycle" warning (MUTCD W11-1) signs with downward arrows are present at the crosswalk on the northeast side of the Singleton Street Bridge. The crosswalk connects the Blackstone Valley Bikeway/parking lot access road to the Blackstone Valley Bikeway to the north. The Blackstone Valley Bikeway runs perpendicular to the Singleton Street Bridge at its eastern approach. Singleton Street abuts commercial/industrial land uses.

Canal Street

Canal Street is a two-lane roadway that extends in the north-south direction between Saint Paul Street in Blackstone, MA and the intersection with River Street/Singleton Street in North Smithfield/Woonsocket, RI. The roadway width is 26 feet from curb to curb, with no longitudinal pavement markings provided. Canal Street is under STOP control at the intersection with Saint Paul Street. Pedestrian accommodations are not provided along Canal Street in the vicinity of the study area. While no dedicated bicycle facilities are provided, there are "Bike Route" (MUTCD D11-1) signs along both sides of the roadway to guide bicyclists to the Blackstone Valley Bikeway. Land use is residential to the north and industrial to the south. Canal Street is the primary access to the Link Environmental Transfer Station and Northeast Auto Recycling. There are posted "No Trucks" (MUTCD R5-2) signs at both ends of Canal Street at the intersections with St. Paul Street and River Street/singleton Street. Discussions with the City of Woonsocket and Town of North Smithfield indicate neither is aware of when the "No Trucks" (MUTC R5-2) were installed or why the sign restrictions are in place. On-street parking is restricted along the western side of Canal Street with posted "No Parking' (MUTCD R7-1) signs. No speed limit signs are present along Canal Street; however, given the characteristics of the residential land use, the speed limit is considered to be 25 miles per hour (mph).

River Street

River Street is a two-lane roadway that extends in the north-south direction between the intersection of Canal Street/Singleton Street and the intersection of South Main Street/Market Square. The roadway width is 26 feet from curb to curb, with no longitudinal pavement markings provided. Land use is a mix of residential and commercial/industrial within the study area. While no dedicated bicycle facilities are provided, there are bike route signs along the eastern side of the roadway to guide bicyclists to the Blackstone Valley Bikeway. Sidewalks are generally provided along each side of River Street. The posted speed limit along River Street is 25 mph.

Rhode Island Public Transit Authority (RIPTA) Bus Route 87 runs along River Street, with a stop on River Street west of the River Street Bridge (east of 2nd Avenue), and a stop just east of the River Street Bridge at the intersection with Blackstone Street. A signalized railroad crossing is present on River Street between Verry Street and Fairmount Street. This rail crossing is used by the Blackstone Valley Tourism Council, which provides recreational train excursions through Blackstone Valley offered sporadically throughout the year, most notably the Polar Express.

Main Street/Harris Avenue (Route 122)

Main Street/Harris Avenue (Route 122) is a two-lane roadway that extends in the north-south direction between the intersection of Huntington Avenue in Blackstone, MA and Railroad Street in Woonsocket, RI. There is one marked 12.5-foot travel lane in each direction, with 8-foot parking lanes provided on both sides of the roadway. There is an exclusive southbound left-turn lane provided at the intersection with Blackstone Street. Pedestrians are accommodated via 6.5-foot-wide cement concrete sidewalks on the east and western sides of Main Street/Harris Avenue (Route 122). The posted speed limit along Main Street/Harris Avenue is 25 mph.

Verry Street

Verry Street is a two-lane roadway that extends in the east-west direction between River Street and Harris Avenue (Route 122), with Verry Street under STOP control. The roadway width is 36 feet from curb to curb, with no longitudinal pavement markings provided. Verry Street provides access to the Young Women's Christian Association (YWCA). A RIPTA bus stop is located on the eastern side of Verry Street, prior to the intersection with Harris Avenue (Route 122). As noted above, Verry Street intersects River Street just north of the signalized railroad crossing.

Saint Paul Street

Saint Paul Street is a two-lane roadway that generally extends in the east-west direction between Great Road/Victory Highway (Route 146A) in North Smithfield, RI and Main Street (Route 122) in Blackstone, MA. There is one marked 11-foot-wide travel lane in each direction. Pedestrians are accommodated via 5-foot-wide cement concrete sidewalks on the east and western sides of Saint Paul Street. The posted speed limit along Harris Avenue is 25 mph. There are posted weight limit restrictions for St. Paul Street for the bridge over the Blackstone River (at the intersection with Main Street/Harris Avenue (Route 122) in Massachusetts. In addition, there are "Low Bridge/Low Clearance (11'-5")" signs for a bridge overpass on St. Paul Street between Canal Street and Elizabeth Street.

Signalized Intersection

Main Street (Route 122) at Saint Paul Street

The intersection of Main Street (Route 122) at Saint Paul Street consists of three legs, and is located in Blackstone, Massachusetts. Based on the most recent record signal plan, the signal operates with three vehicular phases: a lead phase for the Main Street (Route 122) westbound approach, a phase for Main Street (Route 122) eastbound and westbound approaches, and a phase for the Saint Paul Street northbound approach. Pedestrians are accommodated by an exclusive pedestrian phase, with signalized crosswalks across the southern leg of Main Street (Route 122) and across Saint Paul Street.

Unsignalized Intersections

Harris Avenue (Route 122) at Singleton Street/Gaskill Street

The intersection of Harris Avenue (Route 122) at Singleton Street/Gaskill Street consists of four approaches, with the Singleton Street and Gaskill Street eastbound/westbound approaches under STOP control. Each approach to the intersection consists of one general purpose lane.

Harris Avenue (Route 122) at Verry Street/Kindergarten Street

The intersection of Harris Avenue (Route 122) at Verry Street/Kindergarten Street consists of three approaches, with the Verry Street northbound approach under STOP control. Kindergarten Street is signed as a one-way northbound roadway at the intersection with Harris Avenue (Route 122). Each approach to the intersection consists of one general purpose lane.

Traffic Volume Data

To assess peak hour traffic conditions, turning movement counts (TMCs) were conducted at the following study area intersections during the weekday morning and weekday afternoon peak periods:

- Saint Paul Street at Canal Street;
- Harris Avenue (Route 122) at Blackstone Street;
- Harris Avenue (Route 122) at Singleton Street/Gaskill Street;
- Main Street/Harris Avenue (Route 122) at Saint Paul Street (signalized).

TMCs were conducted on Tuesday, June 20, 2023, from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM while schools were not in session. The results of the turning movement counts are tabulated by 15-minute periods and are provided as an attachment to this memorandum. Based on the TMC's, the weekday peak hours occur between 7:00 – 8:00 AM and between 4:00 – 5:00 PM. The 2023 Existing weekday morning and weekday afternoon peak hour traffic volumes are presented in the attached traffic projection model.

TMC data was also supplemented by StreetLight Data. Streetlight is a digital platform that enables users to collect and analyze traffic volume data throughout the continental United States. Using anonymous location data from smartphones and navigational devices and validated with actual count data at strategic locations, Streetlight's algorithm is capable of estimating traffic volumes and origin-destination data on virtually every roadway in the country.

For this study, bi-directional Streetlight data per month in the year 2021 (latest available for cars and heavy vehicles) were collected along the River Street Bridge and Singleton Street Bridge.

Streetlight Data automatically averages 12 months of volume data to obtain a Monthly Average Daily Traffic (ADT) volume. Therefore, seasonal adjustment of the data is not required. The Streetlight data obtained as part of this study is summarized in Table 1 below and have also been provided in the attachments.

Table 1 – Monthly 2021 ADT Volume

Location	Vehicle Type	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
River Street at the River Street Bridge	All vehicles	3187	3204	3848	4169	4190	4363	3964	3701	3786	3879	3621	3561
	Trucks	166	167	213	210	160	194	186	183	186	168	157	194
	TOTAL	***3353***	***3371***	***4061***	***4379***	***4350***	***4557***	***4150***	***3884***	***3972***	***4047***	***3778***	***3755***
Singleton Street (between Canal Street and Harris Avenue	All vehicles	1210	1335	1540	1540	1584	1749	1843	1524	1461	1565	1846	1719
	Trucks	122	97	121	107	81	97	107	145	116	89	75	76
	TOTAL	***1332***	***1432***	***1661***	***1647***	***1665***	***1846***	***1950***	***1669***	***1577***	***1654***	***1921***	***1795***

Lowest Vehicular Volume

Highest Vehicular Volume

As shown in Table 1, the lowest traffic volume crossing the River Street Bridge and Singleton Street Bridge during the construction season (considered April 15th through December 15th) occurs in August and September, respectively. The highest traffic volume crossing the River Street Bridge occurs in June and the highest volume crossing the Singleton Street Bridge occurs in July. In order to provide a conservative analysis of the proposed detour during construction, the June and July traffic volumes were used in the high-level traffic analysis. The 2021 Streetlight traffic volumes were grown to 2023 traffic volumes using a background traffic growth rate of one percent per year, compounded annually. The one percent per year is considered to account for general traffic growth in and development projects that have been constructed.

Table 2 – River Street Bridge 2023 Existing Weekday Peak Hour Traffic Volume

	EB	WB	Total
Weekday AM[1]	124	111	235
Weekday PM[2]	189	159	348

[1] Weekday morning peak hour occurs from 7:00-8:00 AM

[2] Weekday afternoon peak hour occurs from 4:00-5:00 PM

As shown in Table 2 above, during the month of June the River Street Bridge is estimated to carry approximately 235 vehicles during the weekday morning peak hour and 348 vehicles during the weekday afternoon peak hour.

Turning movement counts for the intersection of Singleton Street at River Street/Canal Street were obtained from Streetlight Data for July 2021 during the weekday morning and weekday afternoon peak hours. Using the general growth rate of one percent per year, compounded annually, the resulting 2023 traffic volumes are shown in Table 3 below.

Table 3 – Singleton Street Bridge 2023 Existing Weekday Peak Hour Traffic Volume

	EB	WB	Total
Weekday AM[1]	77	32	109
Weekday PM[2]	62	90	152

[1] Weekday morning peak hour occurs from 7:00-8:00 AM

[2] Weekday afternoon peak hour occurs from 4:00-5:00 PM

As shown in Table 3 above, the Singleton Street Bridge is estimated to carry approximately 108 vehicles during the weekday morning peak hour and 152 vehicles during the weekday afternoon peak hour.

Based on the June and July timeframes identified above for the highest traffic on the River Street Bridge and Singleton Street Bridge, traffic volumes were obtained along Harris Avenue (Route 122) and Verry Street during the months of June and July 2021 using StreetLight Data. A monthly average was taken to determine traffic volumes on a typical weekday during the morning and afternoon peak hours, and then grown to 2023 using the general growth rate of one percent per year, compounded annually. The resulting 2023 peak hour volumes are summarized in Table 4 and Table 5 below.

Table 4 – Harris Avenue (Route 122) Existing 2023 Average Weekday Peak Hour Traffic Volume

	JUNE AVERAGE				JULY AVERAGE			
	AM[1]		PM[2]		AM[1]		PM[2]	
	NB	SB	NB	SB	NB	SB	NB	SB
Vehicles	213	296	427	335	158	198	441	350
Heavy	0	2	8	0	3	0	8	6
Total	213	296	427	335	158	198	441	350
Total - Combined	**509**		**762**		**356**		**791**	

[1] Weekday morning peak hour from 7:00-8:00 AM

[2] Weekday afternoon peak hour from 4:00-5:00 PM

As shown in Table 4 above, Harris Avenue (Route 122) is estimated to carry a total of approximately 509 and 762 vehicles during the weekday morning and weekday afternoon peak hours in June, and approximately 356 and 791 vehicles during the weekday morning and weekday afternoon peak hours in July. Based on the traffic volumes, the weekday afternoon peak hour is the more critical peak.

Table 5 – Verry Street Existing 2023 Average Weekday Peak Hour Traffic Volume

	JUNE AVERAGE				JULY AVERAGE			
	AM[1]		PM[2]		AM[1]		PM[2]	
	EB	WB	EB	WB	EB	WB	EB	WB
Vehicles	226	47	140	136	115	44	105	88
Heavy	0	0	0	0	0	0	1	0
Total	226	47	140	136	115	44	105	88
Total - Combined	**273**		**276**		**159**		**193**	

[1] Weekday morning peak hour from 7:00-8:00 AM

[2] Weekday afternoon peak hour from 4:00-5:00 PM

As shown in Table 5 above, Verry Street is estimated to carry a total of approximately 273 and 276 vehicles during the weekday morning and weekday afternoon peak hours in June, and approximately 159 and 193 vehicles during the weekday morning and weekday afternoon peak hours in July.

TMC's were obtained at the intersection of Main Street/Harris Avenue (Route 122) and St. Paul Street in June 2023. These TMC's were used to determine the peak hour volume along St. Paul Street, summarized in Table 6 below.

Table 6 – St. Paul Street Existing 2023 Weekday Peak Hour Traffic Volume

	JUNE			
	AM[1]		PM[2]	
	EB	WB	EB	WB
All Vehicles	318	278	300	422
Total - Combined	596		722	

[1] Weekday morning peak hour from 7:00-8:00 AM

[2] Weekday afternoon peak hour from 4:00-5:00 PM

As shown in Table 6 above, St. Paul St was determined to carry approximately 596 vehicles during the weekday morning peak hour and approximately 722 vehicles during the weekday afternoon peak hour. Based on the data collected, the weekday afternoon peak hour is the more critical peak.

Crash Analysis

Crash data in the vicinity of the project site was requested from RIDOT for the most recent three-year period (2020-2022) available and included the following locations:

- Canal Street/River Street at the Singleton Street Bridge;
- Blackstone Street at River Street;
- River Street at 2nd Avenue.

Based on standard engineering practice, crashes reported to occur within parking lots are not considered to be related to the intersection operations. The Crash Data Summary is included in the attachments.

The severity of a crash is assessed based on the KABCO scale, which assigns a letter rating to a crash based on the most severe injury sustained. A "K" rating is assigned to crashes that result in a fatality, while an "A" rating is assigned to crashes that result in an incapacitating injury. A rating of "B" is assigned to crashes that result in a non-incapacitating injury. When a crash results in one or more involved parties complaining of pain but injury is not immediately evident, a rating of "C" is assigned. Crashes that result in property damage only are assigned an "O" rating.

Of the nine reported crashes at the unsignalized intersection of Canal Street at River Street/Singleton Street, two of the reported crashes were angle collisions, two of the reported crashes were rear end collisions, two were head-on collisions and three were single vehicle crashes. Two of the crashes resulted in a potential injury type "C" crash, while seven crashes resulted in property damage only type "O" crashes.

Of the three reported crashes at the unsignalized intersection of Blackstone Street and River Street, one of the reported crashes was an angle collision, one of the reported crashes was a rear end collision and one was a single vehicle crash. One of the crashes resulted in a potential injury type "C" crash, while two crashes resulted in property damage only type "O" crashes.

Of the five reported crashes at the unsignalized intersection of River Street and 2nd Avenue, three of the reported crashes were angle collisions and two were single vehicle crashes. One of the crashes resulted in a potential injury type "C" crash, while four crashes resulted in property damage only type "O" crashes.

No fatal crashes or crashes involving pedestrians or bicyclists were reported at the study area intersections within the most recent three-year period analyzed. Based on a review of the available RIDOT crash data, there does not appear to be any existing safety deficiencies in the vicinity of the project site.

Traffic Management and Sensitivity Analysis

Full bridge closures are anticipated, requiring reasonable detour routes, that can be signed to direct oncoming traffic to safe and efficient travel routes that do not adversely impact the surrounding roadway network. The proposed bridge closures and detours would occur consecutively (not concurrently), to reduce impacts on the surrounding area.

A field visit performed on Tuesday, July 11, 2023, indicated that trucks are restricted from using Blackstone Street, Mendon Road and Rhodes Avenue. As such, these roadways were not considered as viable detour routes. There are posted "No Trucks" (MUTCD R5-2) signs on both approaches of Canal Street, however as noted above, discussions with the City of Woonsocket and Town of North Smithfield revealed neither is aware of when the restrictions were put in place or why, as two industrial businesses with truck traffic use Canal Street as their primary site access. As there are no other reasonable routes, it is expected that some traffic, including trucks, would use Canal Street under the detour conditions even though there is currently a truck restriction posted. There are posted weight limit restrictions for St. Paul Street for the bridge over the Blackstone River (at the intersection with Main Street/Harris Avenue (Route 122) in Massachusetts.

Pedestrians and bicyclists would be expected to use the same detour routes as vehicles to access the Blackstone River Bikeway. Access to the Blackstone River Bikeway at Singleton Street at the northeast side of the Singleton Street bridge will need to be maintained throughout construction.

A high-level traffic sensitivity analysis was completed based on the logical and available detour routes. This sensitivity analysis assumes that most existing traffic volumes associated with River Street at the bridge would utilize Main Street/Harris Avenue (Route 122), St. Paul Street, Singleton Street and Verry Street. For the Singleton Street Bridge closure, this analysis assumes that vehicles would utilize Main Street/Harris Avenue (Route 122), St. Paul Street, Canal Street and Verry Street. These proposed detour routes are shown in Figures 2 and 3.

As there are posted weight limit restrictions for St. Paul Street for the bridge over the Blackstone River (at the intersection with Main Street/Harris Avenue (Route 122) in Massachusetts, a separate detour route has been identified for heavy vehicles that exceed the posted weight limits. This proposed detour route is shown in Figure 4.

The existing 2023 weekday afternoon traffic volumes were rerouted based on each of the bridge closures. The resulting rerouted traffic volumes due to the bridge closures are shown in Tables 7 and 8 below. To be conservative, the volumes during the more critical weekday afternoon peak hour were selected to provide a conservative estimate of the proposed detour conditions during construction.

Table 7

Closure of the Singleton Street Bridge Typical Weekday Afternoon Peak Hour Traffic Volumes

2023 Existing Weekday PM Peak Hour

Harris Avenue		St Paul Street		Verry Street	
NB	**SB**	**EB**	**WB**	**EB**	**WB**
441	350	300	422	226	136

2023 Detoured Weekday PM Peak Hour

	Harris Avenue		St Paul Street		Verry Street	
	NB*	**SB***	**EB***	**WB***	**EB***	**WB***
	641	550	500	622	426	336
Combined	1191		1122		762	

**Add 200 vehicles along Harris Avenue (Route 122), Saint Paul Street and Verry Street during the weekday PM peak hour to provide a conservative analysis.*

Table 8

Closure of the River Street Bridge Typical Weekday Afternoon Peak Hour Traffic Volumes

2023 Existing Weekday PM Peak Hour

Harris Avenue		St Paul Street		Singleton Stret		Verry Street	
NB	**SB**	**EB**	**WB**	**EB**	**WB**	**EB**	**WB**
441	350	300	422	62	90	226	136

2023 Detoured Weekday PM Peak Hour

	Harris Avenue		St Paul Street		Singleton Stret		Verry Street	
	NB*	**SB***	**NB***	**SB***	**EB***	**WB***	**EB***	**WB***
	841	750	700	822	462	490	626	536
Combined	1591		1522		952		1162	

**Add 400 vehicles along Harris Avenue (Route 122), Saint Paul Street, Singleton Street and Verry Street during the weekday PM peak hour to provide a conservative analysis.*

Based on the Highway Capacity Manual (HCM) 2000, the estimated capacity of two-lane urban roads in ideal condition in two directions is 3,200 passenger cars per hour (pcph) and in one direction 1,700 pcph. Based on the data shown above in Tables 7 and 8, the detoured traffic volumes are shown to be below the 1-lane capacity threshold of 1,700 passenger cars per hour per lane (pcphpl) and 2-lane capacity threshold of 3,200 pcph.

Conclusions

Traffic would be rerouted via Main Street/Harris Avenue (Route 122), St. Paul Street, Canal Street and Verry Street. The 2023 volumes were developed using a background traffic growth rate of 1 percent per year, compounded annually based on a combination of TMCs and available 2021 Streetlight data. The one percent per year accounts for general traffic growth and development projects that have been constructed. To provide a conservative analysis and support the final design, the design build team will be responsible for collecting new traffic data while schools are in session.

Trucks are restricted from using Blackstone Street, Mendon Road and Rhodes Avenue. As such, these roadways were not considered as viable detour routes. There are posted "No Trucks" (MUTCD R5-2) signs at both ends of Canal Street, however industrial land uses utilize Canal Street as a primary site access and discussions with the City of Woonsocket and Town of North Smithfield indicate neither is aware of when or why the truck restrictions are in place. In addition, there are weight limit restrictions for St. Paul Street for the bridge over the Blackstone River (at the intersection with Main Street/Harris Avenue (Route 122) in Massachusetts. As shown in Figures 2 and 3, this portion of St. Paul Street would be utilized as the detour route for the River Street and Singleton Street bridge closures, with Figure 4 showing the heavy vehicle detour route for larger truck traffic over the posted weight limit. These detour routes should be reviewed further by the design build team as part of the final design, including additional coordination with the Town of North Smithfield and the City of Woonsocket to determine if the "No Trucks" (MUTCD R5-2) sign on

Canal Street could be temporarily removed during the Singleton Street and River Street bridge detours given the industrial land use that currently accesses the roadway regardless of the posted signage. While not along the preferred detour route, it should be noted there are "Low Bridge/Low Clearance (11'-5")" signs for a bridge overpass on St. Paul Street between Canal Street and Elizabeth Street.

Based on a review of logical and reasonable detour routes, it is expected that Canal Street be utilized as part of the detour. It is recommended that the selected design-build team provide additional public outreach and coordination with the affected municipalities and RIPTA in advance of the bridge closures. It is expected that RIPTA bus stops for Bus Route 87 along River Street will need to be relocated/rerouted during the detour for the River Street Bridge. Written approval from the affected municipalities, RIPTA and MassDOT must be obtained prior to finalization of detour routes. In addition, a MassDOT access permit will be required for installation of detour signage along Main Street (Route 122) as well as for any signal timing adjustments at the intersection of Main Street/Harris Avenue (Route 122) at Saint Paul Street. The design build team would be responsible for obtaining any necessary MassDOT access permits as part of the project.

This sensitivity analysis completed as part of this traffic operations evaluation assumes that all existing traffic volumes associated with River Street at the bridge would utilize Main Street/Harris Avenue (Route 122), St. Paul Street, Singleton Street and Verry Street. For the Singleton Street Bridge closure, this analysis assumes that vehicles would utilize Main Street/Harris Avenue (Route 122), St. Paul Street, Canal Street and Verry Street.

Based on the HCM 2000, the estimated capacity of two-lane urban roads in ideal condition in two directions is 3,200 pcph and in one direction is 1,700 pcph. Based on the rerouted traffic volumes presented in Tables 6 and 7, the estimated detoured traffic volumes are shown to be below the 1-lane capacity threshold of 1,700 pcphpl and 2-lane threshold of 3,200 pcph.

A Draft Transportation Management Plan (TMP) in accordance with RIDOT policies was developed for the closure of the River Street and Singleton Street Bridges and is included as an attachment. The TMPs are multimodal in nature, to address the pathways of the buses, pedestrians and bicyclists that typically travel on or in the immediate vicinity of these bridges. Traffic detours shall be considered in the development of construction staging, ensuring that the Bridge closures do not occur simultaneously.

Attachments:

- Figures
- Crash Summary
- Traffic Data

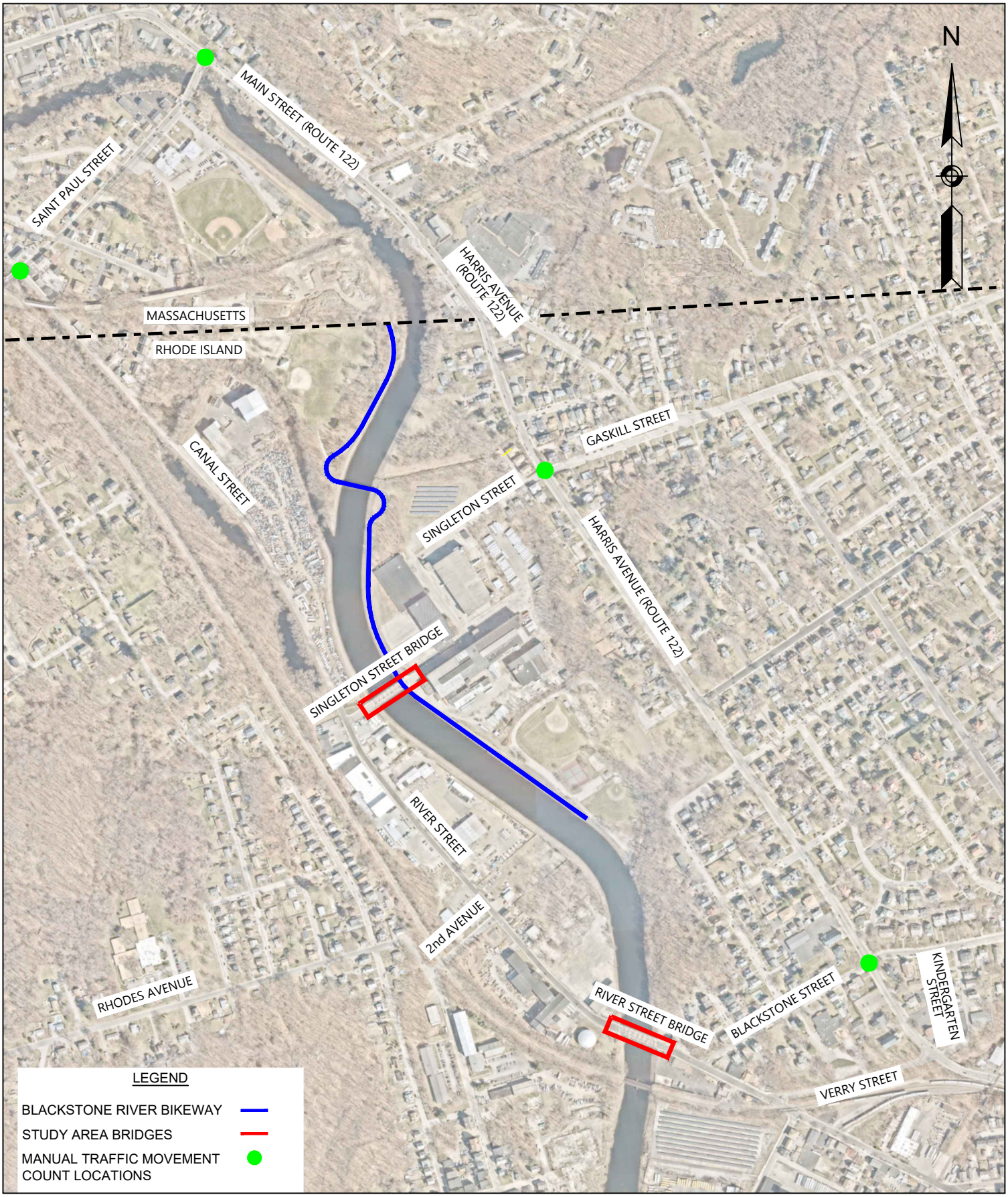

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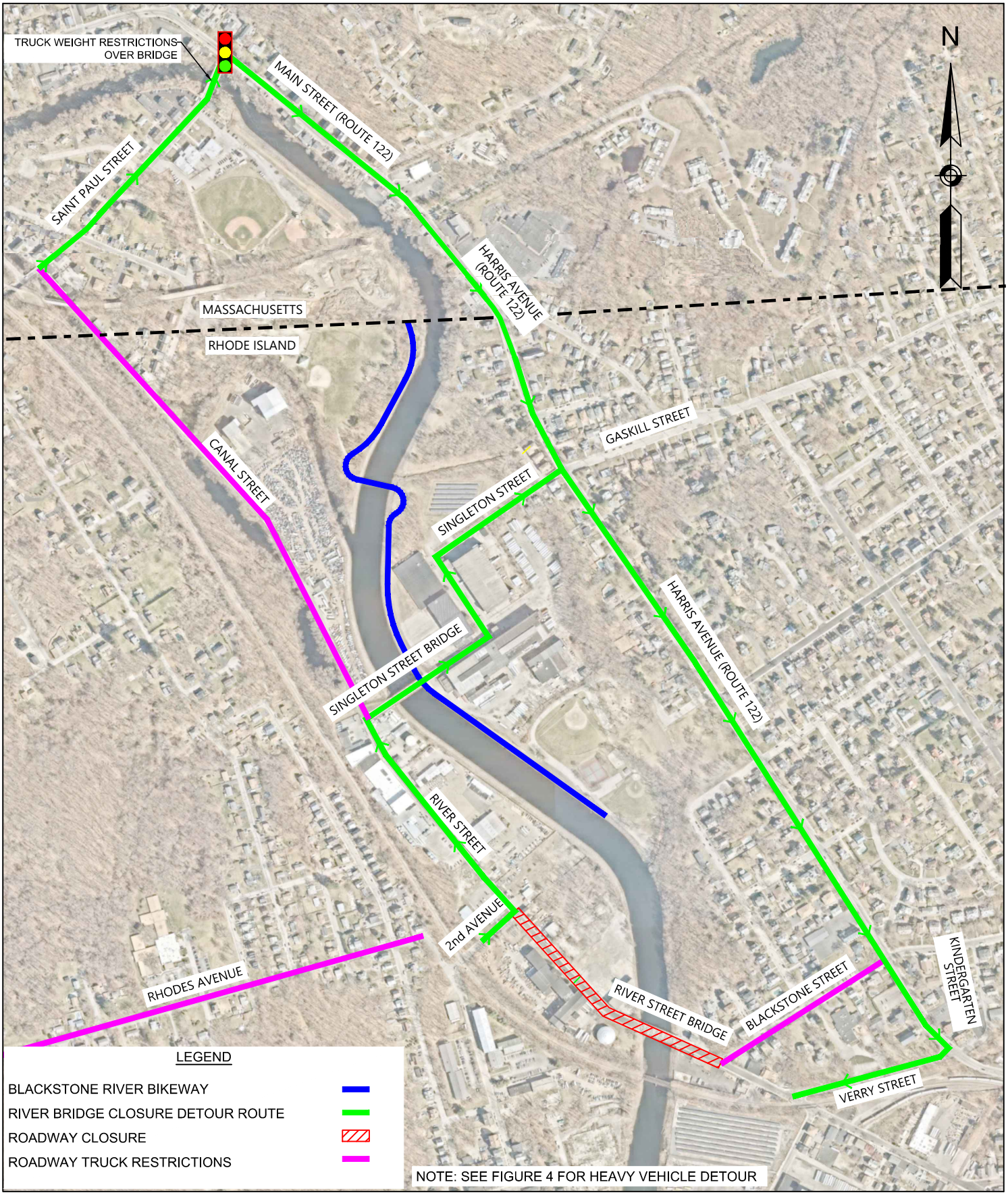
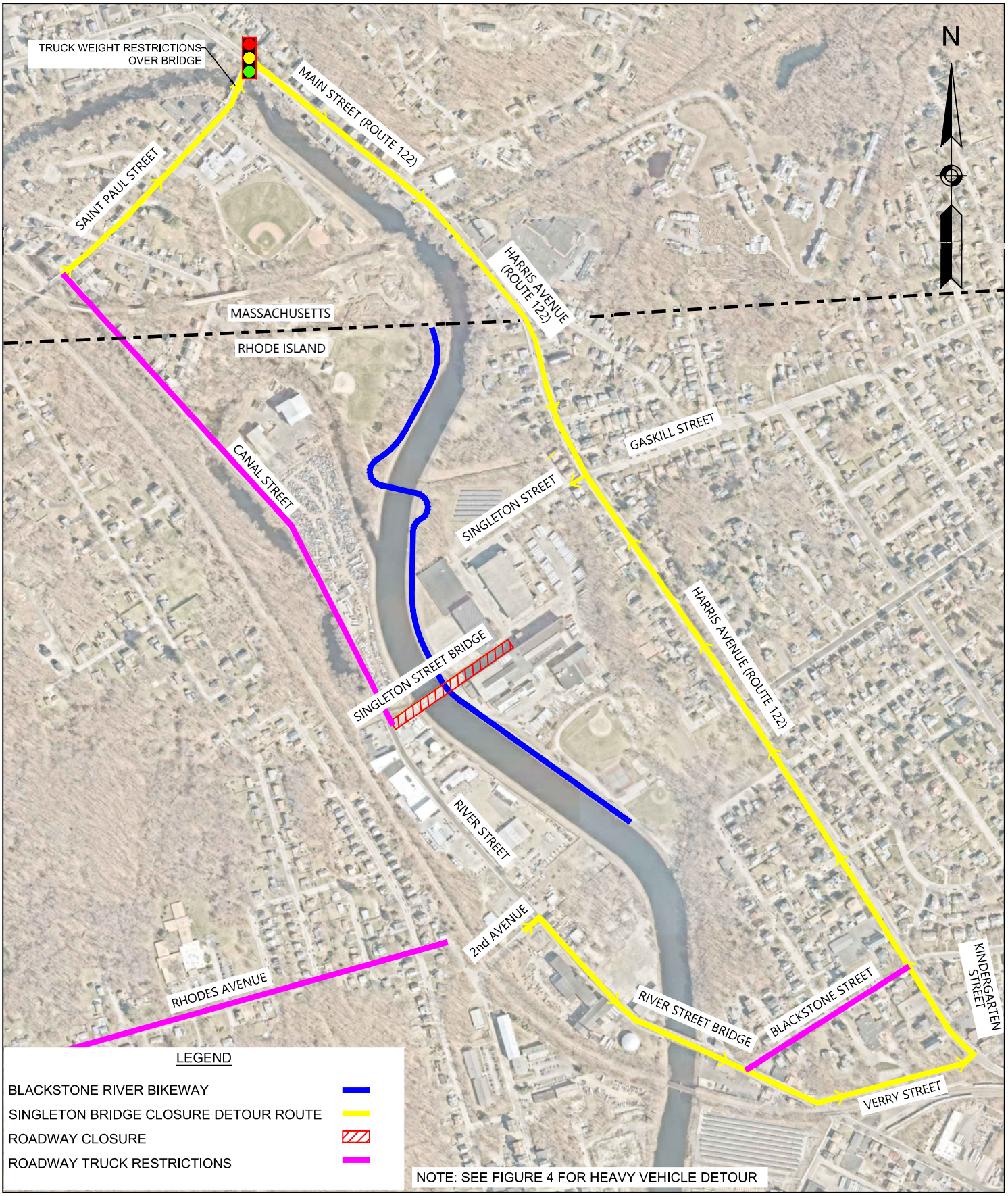
Figure 1
Study Area
Bridge Group 26C
Woonsocket, Rhode Island



Bowman

Figure 2
River Street Bridge Closure - Potential Detour Route
Bridge Group 26C
Woonsocket, Rhode Island



Bowman

Figure 3
Singleton Street Bridge Closure - Potential Detour Route
Bridge Group 26C
Woonsocket, Rhode Island

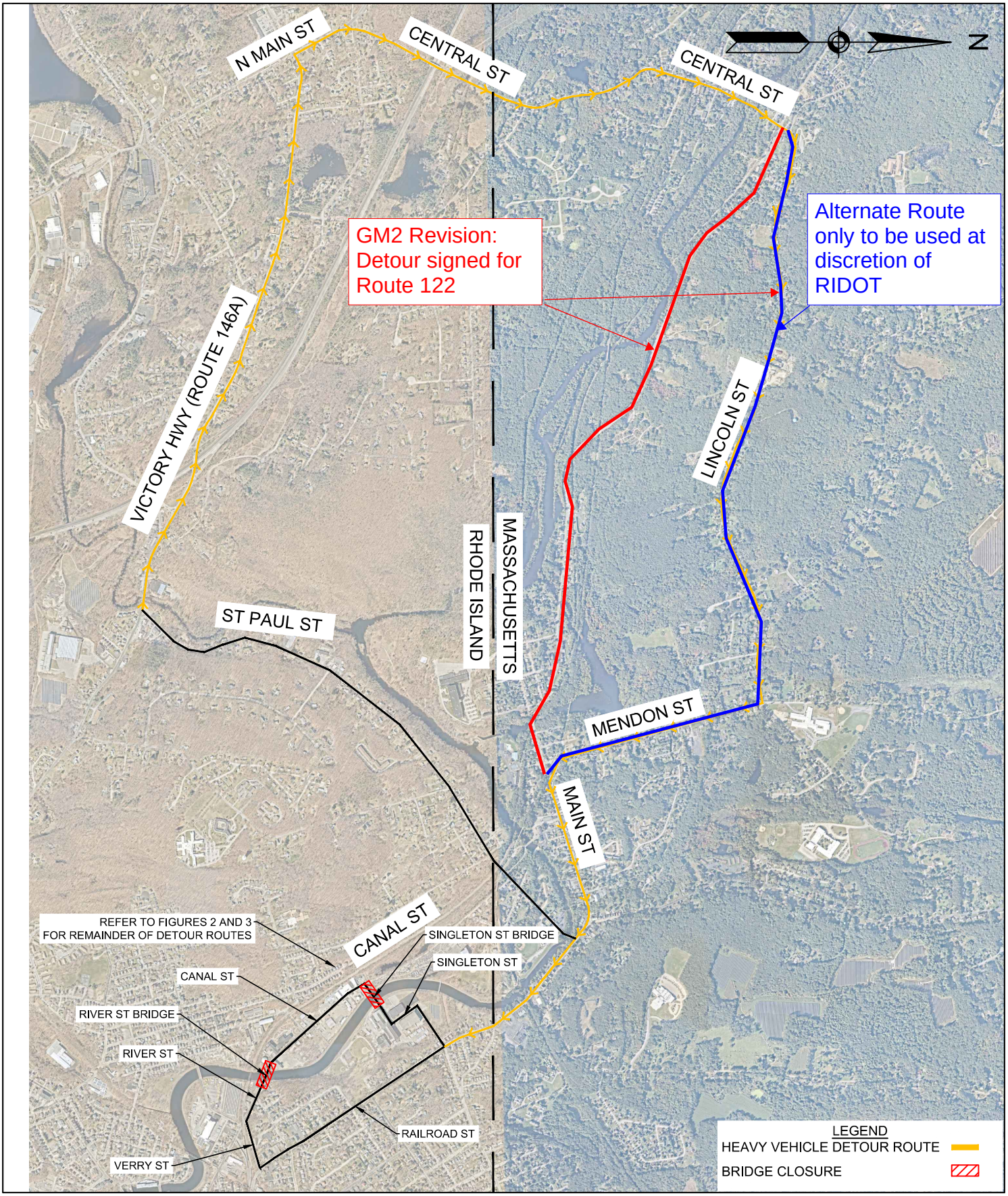


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Figure 4
Bridge Closures - Potential Heavy Vehicle Detour Route
Bridge Group 26C
Woonsocket, Rhode Island

CRASH SUMMARY
River Street Bridge and Singleton Street Bridge
Woonsocket, RI

	Canal Street/ River Street at Singleton Street	Blackstone Street at River Street	River Street at 2nd Avenue
Year			
2020	4	0	2
2021	2	2	3
2022	3	1	0
Total	9	3	5
Type			
Angle	2	1	3
Rear-end	2	1	0
Head-on	2	0	0
Single Vehicle Crash	3	1	2
Total	9	3	5
Severity			
K (Fatal)	0	0	0
A (Incapacitating Injury)	0	0	0
B (Non-incapacitating Injury)	0	0	0
C (Potential Injury)	2	1	1
O (Property Damage Only)	7	2	4
Unknown	0	0	0
Total	9	3	5
Weather			
Clear	8	3	4
Cloudy	1	0	1
Total	9	3	5
Time			
7:00 AM to 9:00 AM	1	1	1
9:00 AM to 4:00 PM	4	1	3
4:00 PM to 6:00 PM	0	0	1
6:00 PM to 7:00 AM	4	1	0
Total	9	3	5

Source: RIDOT

Data Period: 2020 to 2022

TRAFFIC PROJECTION MODEL

Weekday Morning Peak Hour
River Street Bridge and Singleton Street Bridge
Woonsocket, RI

Intersection	Dir.	Turn	2021 Streetlight Volumes	2023 Streetlight Volumes (1% growth)	2023 Counted Volumes	2023 Build Volumes
Main Street/Harris Avenue (Route 122) at	EB	L	-	-	109	109
St. Paul Street		R	-	-	209	209
	NB	L	-	-	216	216
		T	-	-	195	195
	SB	T	-	-	257	257
		R	-	-	62	62
			-	-		
Canal Street at	EB	T	-	-	266	266
St. Paul Street		R	-	-	31	31
	WB	L	-	-	45	45
		T	-	-	274	274
	NB	L	-	-	15	15
		R	-	-	83	83
			-	-		
Harris Avenue (Route 122) at	EB	L	-	-	15	15
Gaskill Street/Singleton Street		T	-	-	11	11
		R	-	-	12	12
	WB	L	-	-	8	8
		T	-	-	4	4
		R	-	-	12	12
	NB	L	-	-	15	15
		T	-	-	248	248
		R	-	-	6	6
	SB	L	-	-	37	37
		T	-	-	332	332
		R	-	-	15	15
			-	-		
Harris Avenue (Route 122) at	EB	L	-	-	25	25
Blackstone Street		T	-	-	39	39
		R	-	-	7	7
	WB	L	-	-	18	18
		T	-	-	53	53
		R	-	-	29	29
	NB	L	-	-	7	7
		T	-	-	81	81
		R	-	-	9	9
	SB	L	-	-	25	25
		T	-	-	149	149
		R	-	-	12	12
Verry Street	EB	T	222	226	-	226
	WB	T	46	47	-	47
Singleton Street at	WB	L	22	22	-	22
Canal Street/River Street		R	9	9	-	9
Singleton Street/Gaskill Street at	EB	L	25	26	-	26
Harris Avenue (Route 122)		T	43	44	-	44
		R	7	7	-	7
Harris Avenue	NB	T	209	213	-	213
	SB	T	290	296	-	296
River Street Bridge	EB	T	122	124	-	124
	WB	T	109	111	-	111

Peak Hour: 7:00 AM-8:00 AM

TRAFFIC PROJECTION MODEL

Weekday Afternoon Peak Hour
River Street Bridge and Singleton Street Bridge
Woonsocket, RI

Intersection	Dir.	Turn	2021 Streetlight Volumes	2023 Streetlight Volumes (1% growth)	2023 Counted Volumes	2023 Build Volumes
Main Street (Route 122) at	EB	L	-	-	96	96
St. Paul Street		R	-	-	204	204
	NB	L	-	-	261	261
		T	-	-	323	323
	SB	T	-	-	363	363
		R	-	-	161	161
			-	-		
Canal Street at	EB	T	-	-	380	380
St. Paul Street		R	-	-	49	49
	WB	L	-	-	83	83
		T	-	-	286	286
	NB	L	-	-	46	46
		R	-	-	76	76
			-	-		
Harris Harris Avenue (Route 122) at	EB	L	-	-	14	14
Gaskill Street/Singleton Street		T	-	-	18	18
		R	-	-	15	15
	WB	L	-	-	7	7
		T	-	-	12	12
		R	-	-	18	18
	NB	L	-	-	19	19
		T	-	-	386	386
		R	-	-	20	20
	SB	L	-	-	79	79
		T	-	-	419	419
		R	-	-	9	9
			-	-		
Harris Avenue (Route 122) at	EB	L	-	-	29	29
Blackstone Street		T	-	-	25	25
		R	-	-	5	5
	WB	L	-	-	36	36
		T	-	-	109	109
		R	-	-	74	74
	NB	L	-	-	9	9
		T	-	-	126	126
		R	-	-	8	8
	SB	L	-	-	30	30
		T	-	-	191	191
		R	-	-	28	28
Verry Street	EB	T	137	140	-	140
	WB	T	113	115	-	115
Singleton Street at	WB	L	69	70	-	70
Canal Street/River Street		R	19	19	-	19
Singleton Street/Gaskill Street at	EB	L	33	34	-	34
Harris Avenue (Route 122)		T	13	13	-	13
		R	15	15	-	15
Harris Avenue	NB	T	432	441	-	441
	SB	T	343	350	-	350
River Street Bridge	EB	T	185	189	-	189
	WB	T	156	159	-	159

Peak Hour: 4:00 PM-5:00 PM

Transportation Data Corporation

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N/S: Main Street (Route 122)
W: St. Paul Street
City, State: Blackstone, MA
Client: McM/Shana Gare

File Name : 05732A
Site Code : 31356501
Start Date : 6/20/2023

Groups Printed- Cars & Peds

	Main Street (Route 122) From North			Main Street (Route 122) From South			St. Paul Street From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
07:00 AM	14	50	0	45	47	0	40	26	0	222
07:15 AM	16	57	0	53	41	0	50	39	0	256
07:30 AM	10	67	0	56	56	0	62	21	0	272
07:45 AM	19	75	0	36	70	0	57	21	3	281
Total	59	249	0	190	214	0	209	107	3	1031
08:00 AM	12	46	0	52	35	0	48	23	1	217
08:15 AM	13	61	0	41	50	0	42	20	0	227
08:30 AM	17	68	0	55	39	0	46	32	0	257
08:45 AM	14	55	0	60	47	0	40	22	0	238
Total	56	230	0	208	171	0	176	97	1	939
Grand Total	115	479	0	398	385	0	385	204	4	1970
Apprch %	19.4	80.6	0	50.8	49.2	0	64.9	34.4	0.7	
Total %	5.8	24.3	0	20.2	19.5	0	19.5	10.4	0.2	

	Main Street (Route 122) From North				Main Street (Route 122) From South				St. Paul Street From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	14	50	0	64	45	47	0	92	40	26	0	66	222
07:15 AM	16	57	0	73	53	41	0	94	50	**39**	0	**89**	256
07:30 AM	10	67	0	77	**56**	56	0	**112**	**62**	21	0	83	272
07:45 AM	**19**	**75**	0	**94**	36	**70**	0	106	57	21	**3**	81	**281**
Total Volume	59	249	0	308	190	214	0	404	209	107	3	319	1031
% App. Total	19.2	80.8	0		47	53	0		65.5	33.5	0.9		
PHF	.776	.830	.000	.819	.848	.764	.000	.902	.843	.686	.250	.896	.917

Transportation Data Corporation

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N/S: Main Street (Route 122)
W: St. Paul Street
City, State: Blackstone, MA
Client: McM/Shana Gare

File Name : 05732A
Site Code : 31356501
Start Date : 6/20/2023
Page No : 1

Groups Printed- Trucks & Buses

	Main Street (Route 122) From North			Main Street (Route 122) From South			St. Paul Street From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
07:00 AM	0	5	0	1	0	0	0	0	0	6
07:15 AM	1	1	0	1	1	0	0	0	0	4
07:30 AM	0	1	0	0	1	0	0	1	0	3
07:45 AM	2	1	0	3	0	0	0	1	0	7
Total	3	8	0	5	2	0	0	2	0	20
08:00 AM	0	8	0	2	0	0	0	0	0	10
08:15 AM	0	5	0	3	1	0	2	0	0	11
08:30 AM	1	2	0	5	2	0	0	1	0	11
08:45 AM	1	4	0	0	0	0	0	2	0	7
Total	2	19	0	10	3	0	2	3	0	39
Grand Total	5	27	0	15	5	0	2	5	0	59
Apprch %	15.6	84.4	0	75	25	0	28.6	71.4	0	
Total %	8.5	45.8	0	25.4	8.5	0	3.4	8.5	0	

	Main Street (Route 122) From North				Main Street (Route 122) From South				St. Paul Street From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	**2**	1	0	3	3	0	0	3	0	**1**	0	1	7
08:00 AM	0	**8**	0	**8**	2	0	0	2	0	0	0	0	10
08:15 AM	0	5	0	5	3	1	0	4	**2**	0	0	**2**	**11**
08:30 AM	1	2	0	3	**5**	**2**	0	**7**	0	1	0	1	11
Total Volume	3	16	0	19	13	3	0	16	2	2	0	4	39
% App. Total	15.8	84.2	0		81.2	18.8	0		50	50	0		
PHF	.375	.500	.000	.594	.650	.375	.000	.571	.250	.500	.000	.500	.886

Transportation Data Corporation

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Client: McM/Shana Gare

File Name : 05732A
Site Code : 31356501
Start Date : 6/20/2023

Groups Printed- Bikes by Direction

	Main Street (Route 122) From North			Main Street (Route 122) From South			St. Paul Street From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	1	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	0	0	0	0	1
Grand Total	0	0	0	1	0	0	0	0	0	1
Apprch %	0	0	0	100	0	0	0	0	0	
Total %	0	0	0	100	0	0	0	0	0	

	Main Street (Route 122) From North				Main Street (Route 122) From South				St. Paul Street From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	**1**	0	0	**1**	0	0	0	0	**1**
Total Volume	0	0	0	0	1	0	0	1	0	0	0	0	1
% App. Total	0	0	0		100	0	0		0	0	0		
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.250

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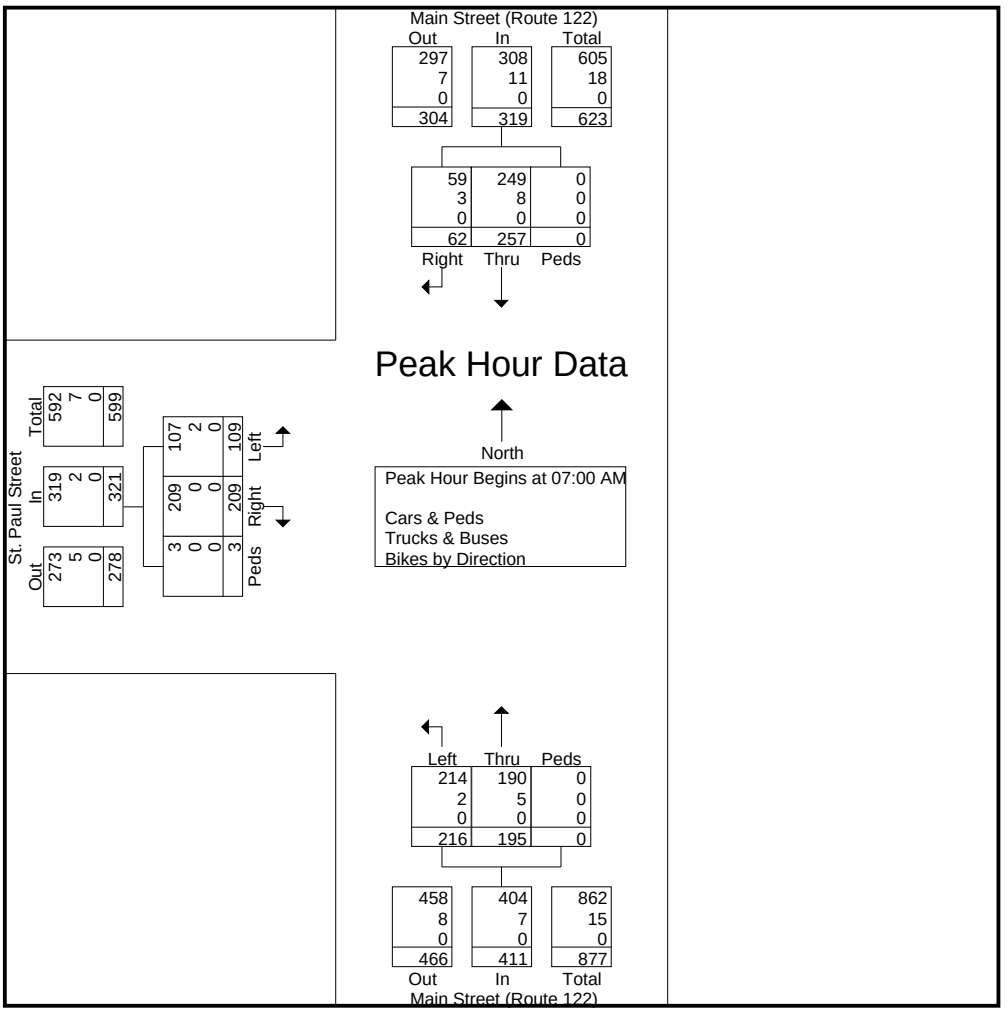
File Name : 05732A
Site Code : 31356501
Start Date : 6/20/2023
Page No : 1

	Main Street (Route 122) From North				Main Street (Route 122) From South				St. Paul Street From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	14	55	0	69	46	47	0	93	40	26	0	66	228
07:15 AM	17	58	0	75	54	42	0	96	50	**39**	0	**89**	260
07:30 AM	10	68	0	78	**56**	57	0	**113**	**62**	22	0	84	275
07:45 AM	**21**	**76**	0	**97**	39	**70**	0	109	57	22	**3**	82	**288**
Total Volume	62	257	0	319	195	216	0	411	209	109	3	321	1051
% App. Total	19.4	80.6	0		47.4	52.6	0		65.1	34	0.9		
PHF	.738	.845	.000	.822	.871	.771	.000	.909	.843	.699	.250	.902	.912
Cars & Peds	59	249	0	308	190	214	0	404	209	107	3	319	1031
% Cars & Peds	95.2	96.9	0	96.6	97.4	99.1	0	98.3	100	98.2	100	99.4	98.1
Trucks & Buses	3	8	0	11	5	2	0	7	0	2	0	2	20
% Trucks & Buses	4.8	3.1	0	3.4	2.6	0.9	0	1.7	0	1.8	0	0.6	1.9
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0



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N/S: Main Street (Route 122)
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City, State: Blackstone, MA
Client: McM/Shana Gare

File Name : 05732A
Site Code : 31356501
Start Date : 6/20/2023

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

	Main Street (Route 122) From North			Main Street (Route 122) From South			St. Paul Street From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
07:00 AM	14	55	0	46	47	0	40	26	0	228
07:15 AM	17	58	0	54	42	0	50	39	0	260
07:30 AM	10	68	0	56	57	0	62	22	0	275
07:45 AM	21	76	0	39	70	0	57	22	3	288
Total	62	257	0	195	216	0	209	109	3	1051
08:00 AM	12	54	0	55	35	0	48	23	1	228
08:15 AM	13	66	0	44	51	0	44	20	0	238
08:30 AM	18	70	0	60	41	0	46	33	0	268
08:45 AM	15	59	0	60	47	0	40	24	0	245
Total	58	249	0	219	174	0	178	100	1	979
Grand Total	120	506	0	414	390	0	387	209	4	2030
Apprch %	19.2	80.8	0	51.5	48.5	0	64.5	34.8	0.7	
Total %	5.9	24.9	0	20.4	19.2	0	19.1	10.3	0.2	
Cars & Peds	115	479	0	398	385	0	385	204	4	1970
% Cars & Peds	95.8	94.7	0	96.1	98.7	0	99.5	97.6	100	97
Trucks & Buses	5	27	0	15	5	0	2	5	0	59
% Trucks & Buses	4.2	5.3	0	3.6	1.3	0	0.5	2.4	0	2.9
Bikes by Direction	0	0	0	1	0	0	0	0	0	1
% Bikes by Direction	0	0	0	0.2	0	0	0	0	0	0

	Main Street (Route 122) From North				Main Street (Route 122) From South				St. Paul Street From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	14	55	0	69	46	47	0	93	40	26	0	66	228
07:15 AM	17	58	0	75	54	42	0	96	50	**39**	0	**89**	260
07:30 AM	10	68	0	78	**56**	57	0	**113**	**62**	22	0	84	275
07:45 AM	**21**	**76**	0	**97**	39	**70**	0	109	57	22	**3**	82	**288**
Total Volume	62	257	0	319	195	216	0	411	209	109	3	321	1051
% App. Total	19.4	80.6	0		47.4	52.6	0		65.1	34	0.9		
PHF	.738	.845	.000	.822	.871	.771	.000	.909	.843	.699	.250	.902	.912
Cars & Peds	59	249	0	308	190	214	0	404	209	107	3	319	1031
% Cars & Peds	95.2	96.9	0	96.6	97.4	99.1	0	98.3	100	98.2	100	99.4	98.1
Trucks & Buses	3	8	0	11	5	2	0	7	0	2	0	2	20
% Trucks & Buses	4.8	3.1	0	3.4	2.6	0.9	0	1.7	0	1.8	0	0.6	1.9
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0

Transportation Data Corporation

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N/S: Main Street (Route 122)
W: St. Paul Street
City, State: Blackstone, MA
Client: McM/Shana Gare

File Name : 05732AA
Site Code : 31356501
Start Date : 6/20/2023

Groups Printed- Cars & Peds

	Main Street (Route 122) From North			Main Street (Route 122) From South			St. Paul Street From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
04:00 PM	34	82	0	80	47	0	52	24	0	319
04:15 PM	32	79	0	82	59	2	38	17	1	310
04:30 PM	30	71	0	74	70	0	48	19	1	313
04:45 PM	39	86	0	76	63	0	60	20	0	344
Total	135	318	0	312	239	2	198	80	2	1286
05:00 PM	49	90	0	105	72	0	43	24	0	383
05:15 PM	38	90	0	68	60	0	60	23	0	339
05:30 PM	35	95	0	73	66	0	41	29	0	339
05:45 PM	37	74	0	60	43	0	42	26	0	282
Total	159	349	0	306	241	0	186	102	0	1343
Grand Total	294	667	0	618	480	2	384	182	2	2629
Apprch %	30.6	69.4	0	56.2	43.6	0.2	67.6	32	0.4	
Total %	11.2	25.4	0	23.5	18.3	0.1	14.6	6.9	0.1	

	Main Street (Route 122) From North				Main Street (Route 122) From South				St. Paul Street From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	39	86	0	125	76	63	0	139	**60**	20	0	80	344
05:00 PM	**49**	90	0	**139**	**105**	**72**	0	**177**	43	24	0	67	**383**
05:15 PM	38	90	0	128	68	60	0	128	60	23	0	**83**	339
05:30 PM	35	**95**	0	130	73	66	0	139	41	**29**	0	70	339
Total Volume	161	361	0	522	322	261	0	583	204	96	0	300	1405
% App. Total	30.8	69.2	0		55.2	44.8	0		68	32	0		
PHF	.821	.950	.000	.939	.767	.906	.000	.823	.850	.828	.000	.904	.917

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City, State: Blackstone, MA
Client: McM/Shana Gare

File Name : 05732AA
Site Code : 31356501
Start Date : 6/20/2023
Page No : 1

Groups Printed- Trucks & Buses

	Main Street (Route 122) From North			Main Street (Route 122) From South			St. Paul Street From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
04:00 PM	0	0	0	1	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	2
05:00 PM	0	0	0	1	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	1	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	2
Grand Total	0	2	0	2	0	0	0	0	0	4
Apprch %	0	100	0	100	0	0	0	0	0	
Total %	0	50	0	50	0	0	0	0	0	

	Main Street (Route 122) From North				Main Street (Route 122) From South				St. Paul Street From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	0	0	0	**1**	0	0	**1**	0	0	0	0	**1**
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	1	0	0	1	0	0	0	0	2
% App. Total	0	100	0		100	0	0		0	0	0		
PHF	.000	.250	.000	.250	.250	.000	.000	.250	.000	.000	.000	.000	.500

Transportation Data Corporation

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N/S: Main Street (Route 122)
W: St. Paul Street
City, State: Blackstone, MA
Client: McM/Shana Gare

File Name : 05732AA
Site Code : 31356501
Start Date : 6/20/2023

Groups Printed- Bikes by Direction

	Main Street (Route 122) From North			Main Street (Route 122) From South			St. Paul Street From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	2	0	0	0	0	0	0	0	1	3
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	1	0	0	0	0	0	0	0	1
Total	2	1	0	0	0	0	0	0	1	4
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	2	1	0	0	0	0	0	0	1	4
Apprch %	66.7	33.3	0	0	0	0	0	0	100	
Total %	50	25	0	0	0	0	0	0	25	

	Main Street (Route 122) From North				Main Street (Route 122) From South				St. Paul Street From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	**2**	0	0	**2**	0	0	0	0	0	0	**1**	**1**	**3**
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	**1**	0	1	0	0	0	0	0	0	0	0	1
Total Volume	2	1	0	3	0	0	0	0	0	0	1	1	4
% App. Total	66.7	33.3	0		0	0	0		0	0	100		
PHF	.250	.250	.000	.375	.000	.000	.000	.000	.000	.000	.250	.250	.333

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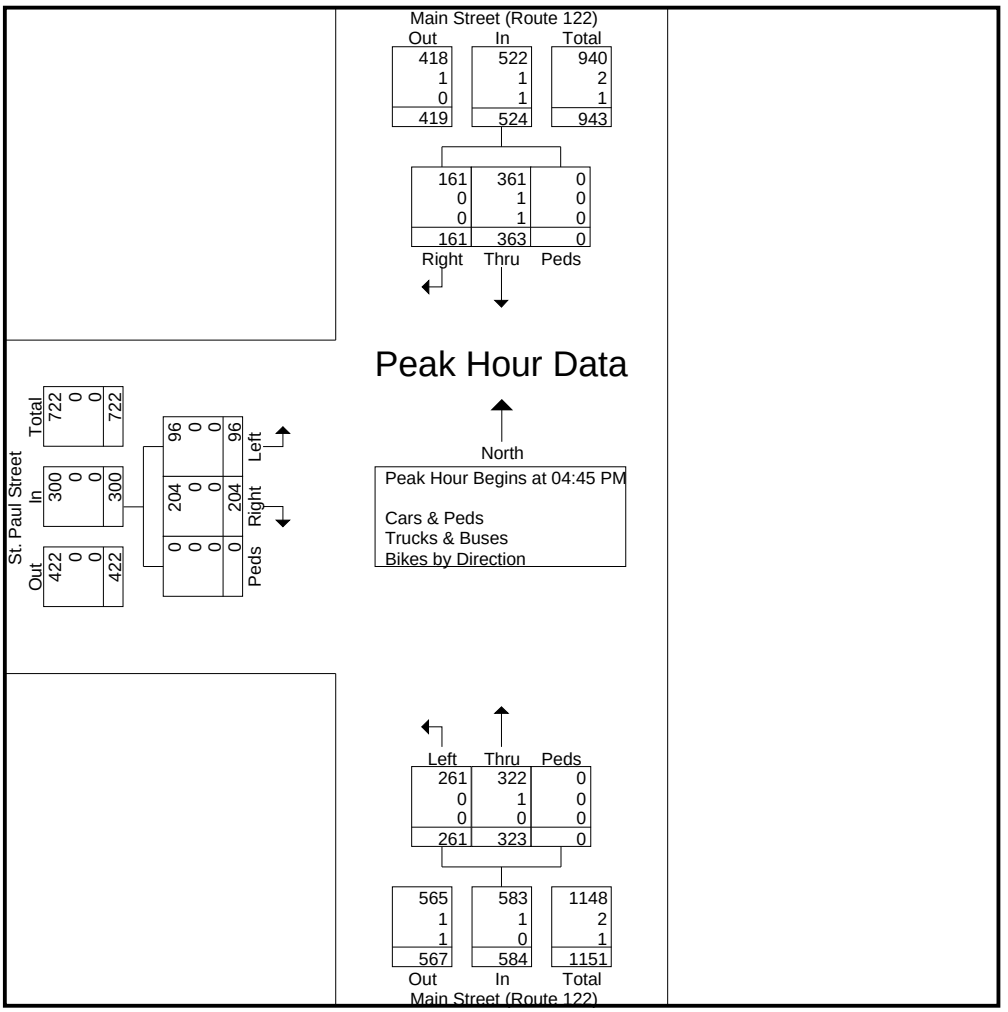
N/S: Main Street (Route 122)
W: St. Paul Street
City, State: Blackstone, MA
Client: McM/Shana Gare

File Name : 05732AA
Site Code : 31356501
Start Date : 6/20/2023
Page No : 1

	Main Street (Route 122) From North				Main Street (Route 122) From South				St. Paul Street From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	39	87	0	126	76	63	0	139	**60**	20	0	80	345
05:00 PM	**49**	90	0	**139**	**106**	**72**	0	**178**	43	24	0	67	**384**
05:15 PM	38	90	0	128	68	60	0	128	60	23	0	**83**	339
05:30 PM	35	**96**	0	131	73	66	0	139	41	**29**	0	70	340
Total Volume	161	363	0	524	323	261	0	584	204	96	0	300	1408
% App. Total	30.7	69.3	0		55.3	44.7	0		68	32	0		
PHF	.821	.945	.000	.942	.762	.906	.000	.820	.850	.828	.000	.904	.917
Cars & Peds	161	361	0	522	322	261	0	583	204	96	0	300	1405
% Cars & Peds	100	99.4	0	99.6	99.7	100	0	99.8	100	100	0	100	99.8
Trucks & Buses	0	1	0	1	1	0	0	1	0	0	0	0	2
% Trucks & Buses	0	0.3	0	0.2	0.3	0	0	0.2	0	0	0	0	0.1
Bikes by Direction	0	1	0	1	0	0	0	0	0	0	0	0	1
% Bikes by Direction	0	0.3	0	0.2	0	0	0	0	0	0	0	0	0.1



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N/S: Main Street (Route 122)
W: St. Paul Street
City, State: Blackstone, MA
Client: McM/Shana Gare

File Name : 05732AA
Site Code : 31356501
Start Date : 6/20/2023

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

	Main Street (Route 122) From North			Main Street (Route 122) From South			St. Paul Street From West			
Start Time	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	Int. Total
04:00 PM	34	82	0	81	47	0	52	24	0	320
04:15 PM	34	79	0	82	59	2	38	17	2	313
04:30 PM	30	72	0	74	70	0	48	19	1	314
04:45 PM	39	87	0	76	63	0	60	20	0	345
Total	137	320	0	313	239	2	198	80	3	1292
05:00 PM	49	90	0	106	72	0	43	24	0	384
05:15 PM	38	90	0	68	60	0	60	23	0	339
05:30 PM	35	96	0	73	66	0	41	29	0	340
05:45 PM	37	74	0	60	43	0	42	26	0	282
Total	159	350	0	307	241	0	186	102	0	1345
Grand Total	296	670	0	620	480	2	384	182	3	2637
Apprch %	30.6	69.4	0	56.3	43.6	0.2	67.5	32	0.5	
Total %	11.2	25.4	0	23.5	18.2	0.1	14.6	6.9	0.1	
Cars & Peds	294	667	0	618	480	2	384	182	2	2629
% Cars & Peds	99.3	99.6	0	99.7	100	100	100	100	66.7	99.7
Trucks & Buses	0	2	0	2	0	0	0	0	0	4
% Trucks & Buses	0	0.3	0	0.3	0	0	0	0	0	0.2
Bikes by Direction	2	1	0	0	0	0	0	0	1	4
% Bikes by Direction	0.7	0.1	0	0	0	0	0	0	33.3	0.2

	Main Street (Route 122) From North				Main Street (Route 122) From South				St. Paul Street From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	39	87	0	126	76	63	0	139	**60**	20	0	80	345
05:00 PM	**49**	90	0	**139**	**106**	**72**	0	**178**	43	24	0	67	**384**
05:15 PM	38	90	0	128	68	60	0	128	60	23	0	**83**	339
05:30 PM	35	**96**	0	131	73	66	0	139	41	**29**	0	70	340
Total Volume	161	363	0	524	323	261	0	584	204	96	0	300	1408
% App. Total	30.7	69.3	0		55.3	44.7	0		68	32	0		
PHF	.821	.945	.000	.942	.762	.906	.000	.820	.850	.828	.000	.904	.917
Cars & Peds	161	361	0	522	322	261	0	583	204	96	0	300	1405
% Cars & Peds	100	99.4	0	99.6	99.7	100	0	99.8	100	100	0	100	99.8
Trucks & Buses	0	1	0	1	1	0	0	1	0	0	0	0	2
% Trucks & Buses	0	0.3	0	0.2	0.3	0	0	0.2	0	0	0	0	0.1
Bikes by Direction	0	1	0	1	0	0	0	0	0	0	0	0	1
% Bikes by Direction	0	0.3	0	0.2	0	0	0	0	0	0	0	0	0.1

Transportation Data Corporation

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S: Canal Street
E/W: St. Paul Street
City, State: Blackstone, MA
Client: McM/Shana Gare

File Name : 05732B
Site Code : 31356501
Start Date : 6/20/2023

Groups Printed- Cars & Peds

	St. Paul Street From East			Canal Street From South			St. Paul Street From West			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
07:00 AM	60	7	0	17	2	0	6	57	0	149
07:15 AM	60	7	0	17	3	0	9	50	0	146
07:30 AM	79	18	0	21	2	0	8	68	0	196
07:45 AM	75	12	0	28	8	0	5	91	0	219
Total	274	44	0	83	15	0	28	266	0	710
08:00 AM	53	4	0	15	5	0	9	44	0	130
08:15 AM	58	17	0	14	0	0	7	46	0	142
08:30 AM	64	10	0	16	5	0	6	48	0	149
08:45 AM	60	8	0	19	8	0	8	49	0	152
Total	235	39	0	64	18	0	30	187	0	573
Grand Total	509	83	0	147	33	0	58	453	0	1283
Apprch %	86	14	0	81.7	18.3	0	11.4	88.6	0	
Total %	39.7	6.5	0	11.5	2.6	0	4.5	35.3	0	

	St. Paul Street From East				Canal Street From South				St. Paul Street From West				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	60	7	0	67	17	2	0	19	6	57	0	63	149
07:15 AM	60	7	0	67	17	3	0	20	**9**	50	0	59	146
07:30 AM	**79**	**18**	0	**97**	21	2	0	23	8	68	0	76	196
07:45 AM	75	12	0	87	**28**	**8**	0	**36**	5	**91**	0	**96**	**219**
Total Volume	274	44	0	318	83	15	0	98	28	266	0	294	710
% App. Total	86.2	13.8	0		84.7	15.3	0		9.5	90.5	0		
PHF	.867	.611	.000	.820	.741	.469	.000	.681	.778	.731	.000	.766	.811

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E/W: St. Paul Street
City, State: Blackstone, MA
Client: McM/Shana Gare

File Name : 05732B
Site Code : 31356501
Start Date : 6/20/2023

Groups Printed- Trucks & Buses

	St. Paul Street From East			Canal Street From South			St. Paul Street From West			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	1	0	0	1
07:45 AM	0	1	0	0	0	0	0	0	0	1
Total	0	1	0	0	0	0	1	0	0	2
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	2	0	0	0	0	0	0	0	0	2
08:30 AM	0	0	0	0	0	0	0	3	0	3
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	0	0	0	0	3	0	5
Grand Total	2	1	0	0	0	0	1	3	0	7
Apprch %	66.7	33.3	0	0	0	0	25	75	0	
Total %	28.6	14.3	0	0	0	0	14.3	42.9	0	

	St. Paul Street From East				Canal Street From South				St. Paul Street From West				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	0	**1**	0	1	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	**2**	0	0	**2**	0	0	0	0	0	0	0	0	2
08:30 AM	0	0	0	0	0	0	0	0	0	**3**	0	**3**	**3**
Total Volume	2	1	0	3	0	0	0	0	0	3	0	3	6
% App. Total	66.7	33.3	0		0	0	0		0	100	0		
PHF	.250	.250	.000	.375	.000	.000	.000	.000	.000	.250	.000	.250	.500

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Client: McM/Shana Gare

File Name : 05732B
Site Code : 31356501
Start Date : 6/20/2023
Page No : 1

Groups Printed- Bikes by Direction

	St. Paul Street From East			Canal Street From South			St. Paul Street From West			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	1	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	1	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	2	0	0	2
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	2	0	0	2
Apprch %	0	0	0	0	0	0	100	0	0	
Total %	0	0	0	0	0	0	100	0	0	

	St. Paul Street From East				Canal Street From South				St. Paul Street From West				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	0	0	0	0	0	0	0	**1**	0	0	**1**	**1**
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	2	0	0	2	2
% App. Total	0	0	0		0	0	0		100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.000	.500	.500

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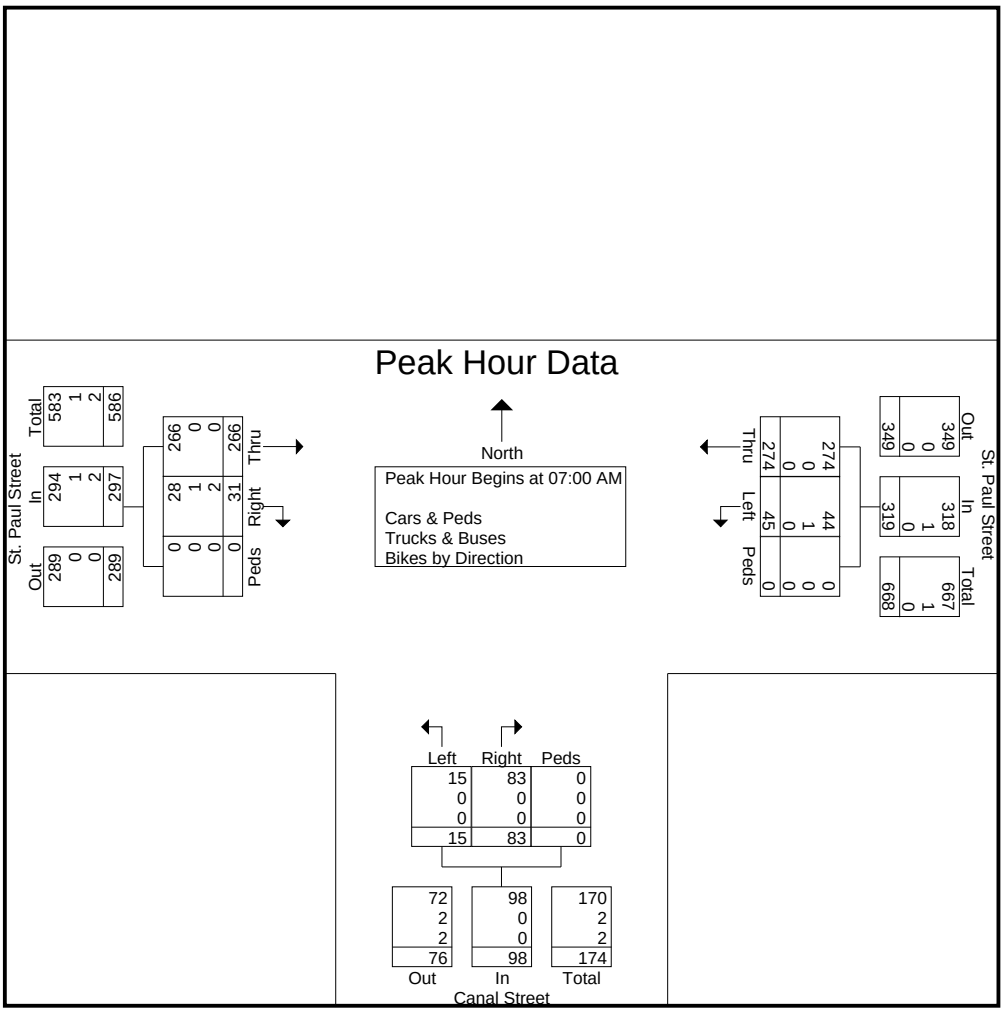
Client: McM/Shana Gare

File Name : 05732B
Site Code : 31356501
Start Date : 6/20/2023
Page No : 1

	St. Paul Street From East				Canal Street From South				St. Paul Street From West				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	60	7	0	67	17	2	0	19	7	57	0	64	150
07:15 AM	60	7	0	67	17	3	0	20	9	50	0	59	146
07:30 AM	**79**	**18**	0	**97**	21	2	0	23	**10**	68	0	78	198
07:45 AM	75	13	0	88	**28**	**8**	0	**36**	5	**91**	0	**96**	**220**
Total Volume	274	45	0	319	83	15	0	98	31	266	0	297	714
% App. Total	85.9	14.1	0		84.7	15.3	0		10.4	89.6	0		
PHF	.867	.625	.000	.822	.741	.469	.000	.681	.775	.731	.000	.773	.811
Cars & Peds	274	44	0	318	83	15	0	98	28	266	0	294	710
% Cars & Peds	100	97.8	0	99.7	100	100	0	100	90.3	100	0	99.0	99.4
Trucks & Buses	0	1	0	1	0	0	0	0	1	0	0	1	2
% Trucks & Buses	0	2.2	0	0.3	0	0	0	0	3.2	0	0	0.3	0.3
Bikes by Direction	0	0	0	0	0	0	0	0	2	0	0	2	2
% Bikes by Direction	0	0	0	0	0	0	0	0	6.5	0	0	0.7	0.3



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S: Canal Street
E/W: St. Paul Street
City, State: Blackstone, MA
Client: McM/Shana Gare

File Name : 05732B
Site Code : 31356501
Start Date : 6/20/2023

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

	St. Paul Street From East			Canal Street From South			St. Paul Street From West			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
07:00 AM	60	7	0	17	2	0	7	57	0	150
07:15 AM	60	7	0	17	3	0	9	50	0	146
07:30 AM	79	18	0	21	2	0	10	68	0	198
07:45 AM	75	13	0	28	8	0	5	91	0	220
Total	274	45	0	83	15	0	31	266	0	714
08:00 AM	53	4	0	15	5	0	9	44	0	130
08:15 AM	60	17	0	14	0	0	7	46	0	144
08:30 AM	64	10	0	16	5	0	6	51	0	152
08:45 AM	60	8	0	19	8	0	8	49	0	152
Total	237	39	0	64	18	0	30	190	0	578
Grand Total	511	84	0	147	33	0	61	456	0	1292
Apprch %	85.9	14.1	0	81.7	18.3	0	11.8	88.2	0	
Total %	39.6	6.5	0	11.4	2.6	0	4.7	35.3	0	
Cars & Peds	509	83	0	147	33	0	58	453	0	1283
% Cars & Peds	99.6	98.8	0	100	100	0	95.1	99.3	0	99.3
Trucks & Buses	2	1	0	0	0	0	1	3	0	7
% Trucks & Buses	0.4	1.2	0	0	0	0	1.6	0.7	0	0.5
Bikes by Direction	0	0	0	0	0	0	2	0	0	2
% Bikes by Direction	0	0	0	0	0	0	3.3	0	0	0.2

	St. Paul Street From East				Canal Street From South				St. Paul Street From West				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	60	7	0	67	17	2	0	19	7	57	0	64	150
07:15 AM	60	7	0	67	17	3	0	20	9	50	0	59	146
07:30 AM	**79**	**18**	0	**97**	21	2	0	23	**10**	68	0	78	198
07:45 AM	75	13	0	88	**28**	**8**	0	**36**	5	**91**	0	**96**	**220**
Total Volume	274	45	0	319	83	15	0	98	31	266	0	297	714
% App. Total	85.9	14.1	0		84.7	15.3	0		10.4	89.6	0		
PHF	.867	.625	.000	.822	.741	.469	.000	.681	.775	.731	.000	.773	.811
Cars & Peds	274	44	0	318	83	15	0	98	28	266	0	294	710
% Cars & Peds	100	97.8	0	99.7	100	100	0	100	90.3	100	0	99.0	99.4
Trucks & Buses	0	1	0	1	0	0	0	0	1	0	0	1	2
% Trucks & Buses	0	2.2	0	0.3	0	0	0	0	3.2	0	0	0.3	0.3
Bikes by Direction	0	0	0	0	0	0	0	0	2	0	0	2	2
% Bikes by Direction	0	0	0	0	0	0	0	0	6.5	0	0	0.7	0.3

Transportation Data Corporation

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S: Canal Street
E/W: St. Paul Street
City, State: Blackstone, MA
Client: McM/Shana Gare

File Name : 05732BB
Site Code : 31356501
Start Date : 6/20/2023
Page No : 1

Groups Printed- Cars & Peds

	St. Paul Street From East			Canal Street From South			St. Paul Street From West			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
04:00 PM	51	22	0	11	6	1	9	66	0	166
04:15 PM	60	25	0	16	10	0	14	82	0	207
04:30 PM	69	26	0	22	6	0	12	99	0	234
04:45 PM	77	21	0	20	14	1	15	91	0	239
Total	257	94	0	69	36	2	50	338	0	846
05:00 PM	67	23	0	22	10	0	9	112	0	243
05:15 PM	75	24	0	18	12	0	14	88	0	231
05:30 PM	67	15	0	16	8	0	11	89	0	206
05:45 PM	68	19	0	16	7	0	10	62	0	182
Total	277	81	0	72	37	0	44	351	0	862
Grand Total	534	175	0	141	73	2	94	689	0	1708
Apprch %	75.3	24.7	0	65.3	33.8	0.9	12	88	0	
Total %	31.3	10.2	0	8.3	4.3	0.1	5.5	40.3	0	

	St. Paul Street From East				Canal Street From South				St. Paul Street From West				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	69	**26**	0	95	**22**	6	0	28	12	99	0	111	234
04:45 PM	**77**	21	0	98	20	**14**	**1**	**35**	**15**	91	0	106	239
05:00 PM	67	23	0	90	22	10	0	32	9	**112**	0	**121**	**243**
05:15 PM	75	24	0	**99**	18	12	0	30	14	88	0	102	231
Total Volume	288	94	0	382	82	42	1	125	50	390	0	440	947
% App. Total	75.4	24.6	0		65.6	33.6	0.8		11.4	88.6	0		
PHF	.935	.904	.000	.965	.932	.750	.250	.893	.833	.871	.000	.909	.974

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Client: McM/Shana Gare

File Name : 05732BB
Site Code : 31356501
Start Date : 6/20/2023
Page No : 1

Groups Printed- Trucks & Buses

	St. Paul Street From East			Canal Street From South			St. Paul Street From West			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	
Total %										

	St. Paul Street From East				Canal Street From South				St. Paul Street From West				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City, State: Blackstone, MA
Client: McM/Shana Gare

File Name : 05732BB
Site Code : 31356501
Start Date : 6/20/2023

Groups Printed- Bikes by Direction

	St. Paul Street From East			Canal Street From South			St. Paul Street From West			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	1	0	1	0	0	2
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	1	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	2	0	0	0	0	2
05:45 PM	0	1	0	0	0	0	1	0	0	2
Total	0	1	0	0	2	0	1	0	0	4
Grand Total	0	1	0	0	3	0	2	0	0	6
Apprch %	0	100	0	0	100	0	100	0	0	
Total %	0	16.7	0	0	50	0	33.3	0	0	

	St. Paul Street From East				Canal Street From South				St. Paul Street From West				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	**2**	0	**2**	0	0	0	0	**2**
05:45 PM	0	**1**	0	**1**	0	0	0	0	**1**	0	0	**1**	2
Total Volume	0	1	0	1	0	2	0	2	1	0	0	1	4
% App. Total	0	100	0		0	100	0		100	0	0		
PHF	.000	.250	.000	.250	.000	.250	.000	.250	.250	.000	.000	.250	.500

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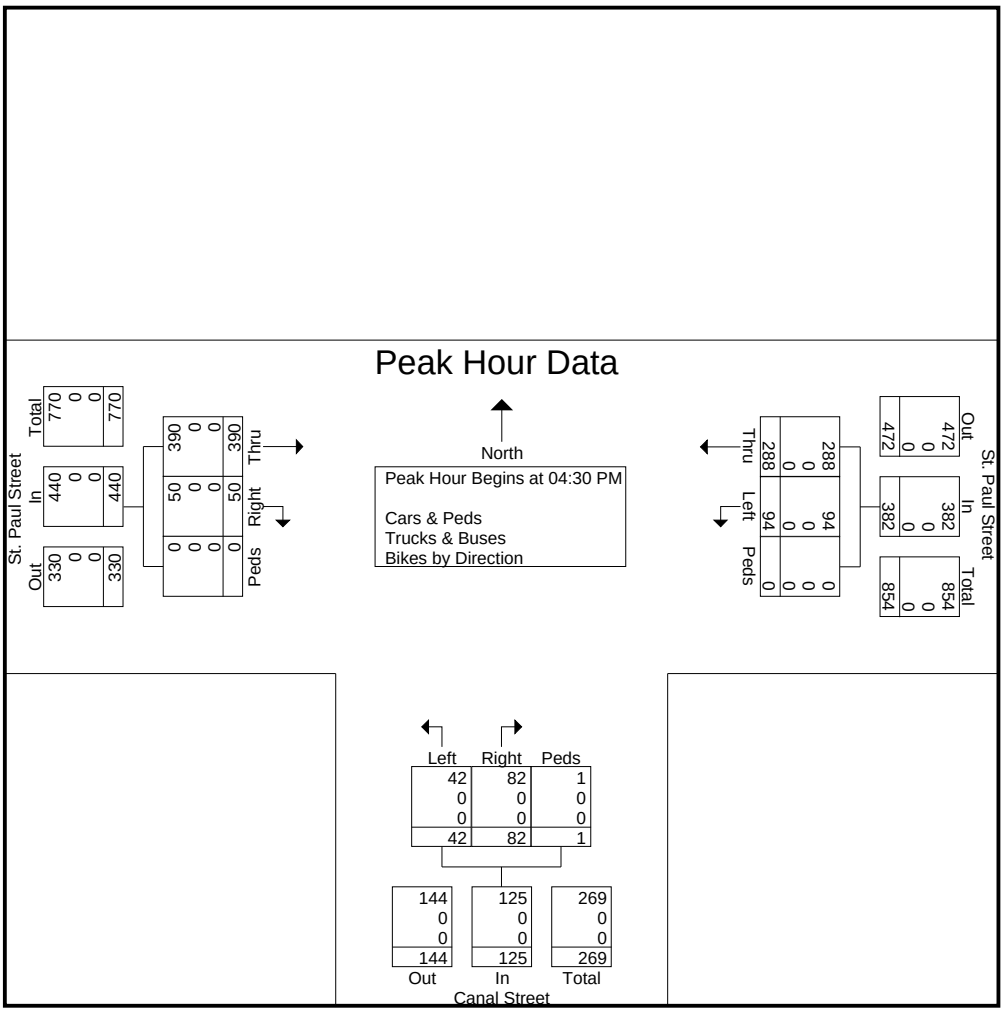
Client: McM/Shana Gare

File Name : 05732BB
Site Code : 31356501
Start Date : 6/20/2023
Page No : 1

	St. Paul Street From East				Canal Street From South				St. Paul Street From West				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	69	**26**	0	95	**22**	6	0	28	12	99	0	111	234
04:45 PM	**77**	21	0	98	20	**14**	**1**	**35**	**15**	91	0	106	239
05:00 PM	67	23	0	90	22	10	0	32	9	**112**	0	**121**	**243**
05:15 PM	75	24	0	**99**	18	12	0	30	14	88	0	102	231
Total Volume	288	94	0	382	82	42	1	125	50	390	0	440	947
% App. Total	75.4	24.6	0		65.6	33.6	0.8		11.4	88.6	0		
PHF	.935	.904	.000	.965	.932	.750	.250	.893	.833	.871	.000	.909	.974
Cars & Peds	288	94	0	382	82	42	1	125	50	390	0	440	947
% Cars & Peds	100	100	0	100	100	100	100	100	100	100	0	100	100
Trucks & Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks & Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0



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S: Canal Street
E/W: St. Paul Street
City, State: Blackstone, MA
Client: McM/Shana Gare

File Name : 05732BB
Site Code : 31356501
Start Date : 6/20/2023

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

	St. Paul Street From East			Canal Street From South			St. Paul Street From West			
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	Int. Total
04:00 PM	51	22	0	11	6	1	9	66	0	166
04:15 PM	60	25	0	16	11	0	15	82	0	209
04:30 PM	69	26	0	22	6	0	12	99	0	234
04:45 PM	77	21	0	20	14	1	15	91	0	239
Total	257	94	0	69	37	2	51	338	0	848
05:00 PM	67	23	0	22	10	0	9	112	0	243
05:15 PM	75	24	0	18	12	0	14	88	0	231
05:30 PM	67	15	0	16	10	0	11	89	0	208
05:45 PM	68	20	0	16	7	0	11	62	0	184
Total	277	82	0	72	39	0	45	351	0	866
Grand Total	534	176	0	141	76	2	96	689	0	1714
Apprch %	75.2	24.8	0	64.4	34.7	0.9	12.2	87.8	0	
Total %	31.2	10.3	0	8.2	4.4	0.1	5.6	40.2	0	
Cars & Peds	534	175	0	141	73	2	94	689	0	1708
% Cars & Peds	100	99.4	0	100	96.1	100	97.9	100	0	99.6
Trucks & Buses	0	0	0	0	0	0	0	0	0	0
% Trucks & Buses	0	0	0	0	0	0	0	0	0	0
Bikes by Direction	0	1	0	0	3	0	2	0	0	6
% Bikes by Direction	0	0.6	0	0	3.9	0	2.1	0	0	0.4

	St. Paul Street From East				Canal Street From South				St. Paul Street From West				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	69	**26**	0	95	**22**	6	0	28	12	99	0	111	234
04:45 PM	**77**	21	0	98	20	**14**	**1**	**35**	**15**	91	0	106	239
05:00 PM	67	23	0	90	22	10	0	32	9	**112**	0	**121**	**243**
05:15 PM	75	24	0	**99**	18	12	0	30	14	88	0	102	231
Total Volume	288	94	0	382	82	42	1	125	50	390	0	440	947
% App. Total	75.4	24.6	0		65.6	33.6	0.8		11.4	88.6	0		
PHF	.935	.904	.000	.965	.932	.750	.250	.893	.833	.871	.000	.909	.974
Cars & Peds	288	94	0	382	82	42	1	125	50	390	0	440	947
% Cars & Peds	100	100	0	100	100	100	100	100	100	100	0	100	100
Trucks & Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks & Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0

Transportation Data Corporation

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N/S: Harris Avenue (Route 122)
E/W: Gaskill Street/Singleton Street
City, State: Woonsocket, RI
Client: McM/Shana Gare

File Name : 05732C
Site Code : 31356501
Start Date : 6/20/2023
Page No : 1

Groups Printed- Cars & Peds

	Harris Avenue (Route 122) From North				Gaskill Street From East				Harris Avenue (Route 122) From South				Singleton Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	2	71	12	0	4	1	2	0	0	45	2	0	1	3	4	0	147
07:15 AM	1	72	8	0	2	2	2	1	1	62	3	0	1	3	6	0	164
07:30 AM	6	90	8	0	2	0	1	0	1	67	3	0	3	2	3	1	187
07:45 AM	4	91	8	0	4	1	2	0	3	68	3	0	1	3	1	0	189
Total	13	324	36	0	12	4	7	1	5	242	11	0	6	11	14	1	687
08:00 AM	2	71	9	0	1	1	0	0	2	52	3	0	0	1	4	0	146
08:15 AM	6	70	9	0	3	3	3	1	1	61	7	0	2	2	7	1	176
08:30 AM	1	77	11	0	6	0	0	0	2	49	1	0	2	1	4	0	154
08:45 AM	3	71	11	0	6	0	2	1	2	58	3	0	5	3	6	0	171
Total	12	289	40	0	16	4	5	2	7	220	14	0	9	7	21	1	647
Grand Total	25	613	76	0	28	8	12	3	12	462	25	0	15	18	35	2	1334
Apprch %	3.5	85.9	10.6	0	54.9	15.7	23.5	5.9	2.4	92.6	5	0	21.4	25.7	50	2.9	
Total %	1.9	46	5.7	0	2.1	0.6	0.9	0.2	0.9	34.6	1.9	0	1.1	1.3	2.6	0.1	

	Harris Avenue (Route 122) From North					Gaskill Street From East					Harris Avenue (Route 122) From South					Singleton Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	**6**	90	8	0	**104**	2	0	1	0	3	1	67	3	0	71	**3**	2	3	**1**	9	187
07:45 AM	4	**91**	8	0	103	**4**	1	2	0	7	**3**	**68**	3	0	**74**	1	**3**	1	0	5	**189**
08:00 AM	2	71	**9**	0	82	1	1	0	0	2	2	52	3	0	57	0	1	4	0	5	146
08:15 AM	6	70	9	0	85	3	**3**	**3**	**1**	**10**	1	61	**7**	0	69	2	2	**7**	1	**12**	176
Total Volume	18	322	34	0	374	10	5	6	1	22	7	248	16	0	271	6	8	15	2	31	698
% App. Total	4.8	86.1	9.1	0		45.5	22.7	27.3	4.5		2.6	91.5	5.9	0		19.4	25.8	48.4	6.5		
PHF	.750	.885	.944	.000	.899	.625	.417	.500	.250	.550	.583	.912	.571	.000	.916	.500	.667	.536	.500	.646	.923

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N/S: Harris Avenue (Route 122)
E/W: Gaskill Street/Singleton Street
City, State: Woonsocket, RI
Client: McM/Shana Gare

File Name : 05732C
Site Code : 31356501
Start Date : 6/20/2023
Page No : 1

Groups Printed- Trucks & Buses

	Harris Avenue (Route 122) From North				Gaskill Street From East				Harris Avenue (Route 122) From South				Singleton Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	3	0	0	0	0	1	0	0	0	1	0	3	0	0	0	8
07:15 AM	1	3	1	0	0	0	0	0	1	2	0	0	1	0	0	0	9
07:30 AM	0	1	0	0	0	0	0	0	0	1	3	0	1	0	0	0	6
07:45 AM	0	1	0	0	0	0	0	0	0	3	0	0	1	0	1	0	6
Total	1	8	1	0	0	0	1	0	1	6	4	0	6	0	1	0	29
08:00 AM	0	8	0	0	0	0	0	0	1	1	0	0	0	0	0	0	10
08:15 AM	1	6	1	0	0	0	0	0	0	3	0	0	1	0	1	0	13
08:30 AM	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3
08:45 AM	1	2	0	0	0	0	0	0	0	0	0	0	2	1	0	0	6
Total	3	17	1	0	0	0	0	0	1	5	0	0	3	1	1	0	32
Grand Total	4	25	2	0	0	0	1	0	2	11	4	0	9	1	2	0	61
Apprch %	12.9	80.6	6.5	0	0	0	100	0	11.8	64.7	23.5	0	75	8.3	16.7	0	
Total %	6.6	41	3.3	0	0	0	1.6	0	3.3	18	6.6	0	14.8	1.6	3.3	0	

	Harris Avenue (Route 122) From North					Gaskill Street From East					Harris Avenue (Route 122) From South					Singleton Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	1	0	0	1	0	0	0	0	0	0	1	**3**	0	**4**	**1**	0	0	0	1	6
07:45 AM	0	1	0	0	1	0	0	0	0	0	0	**3**	0	0	3	1	0	**1**	0	**2**	6
08:00 AM	0	**8**	0	0	**8**	0	0	0	0	0	**1**	1	0	0	2	0	0	0	0	0	10
08:15 AM	**1**	6	**1**	0	8	0	0	0	0	0	0	3	0	0	3	1	0	1	0	2	**13**
Total Volume	1	16	1	0	18	0	0	0	0	0	1	8	3	0	12	3	0	2	0	5	35
% App. Total	5.6	88.9	5.6	0		0	0	0	0		8.3	66.7	25	0		60	0	40	0		
PHF	.250	.500	.250	.000	.563	.000	.000	.000	.000	.000	.250	.667	.250	.000	.750	.750	.000	.500	.000	.625	.673

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N/S: Harris Avenue (Route 122)
E/W: Gaskill Street/Singleton Street
City, State: Woonsocket, RI
Client: McM/Shana Gare

File Name : 05732C
Site Code : 31356501
Start Date : 6/20/2023

Groups Printed- Bikes by Direction

	Harris Avenue (Route 122) From North				Gaskill Street From East				Harris Avenue (Route 122) From South				Singleton Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Apprch %	50	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %	50	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	

	Harris Avenue (Route 122) From North					Gaskill Street From East					Harris Avenue (Route 122) From South					Singleton Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	**1**	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	**1**	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
% App. Total	50	0	50	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.250	.000	.250	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500

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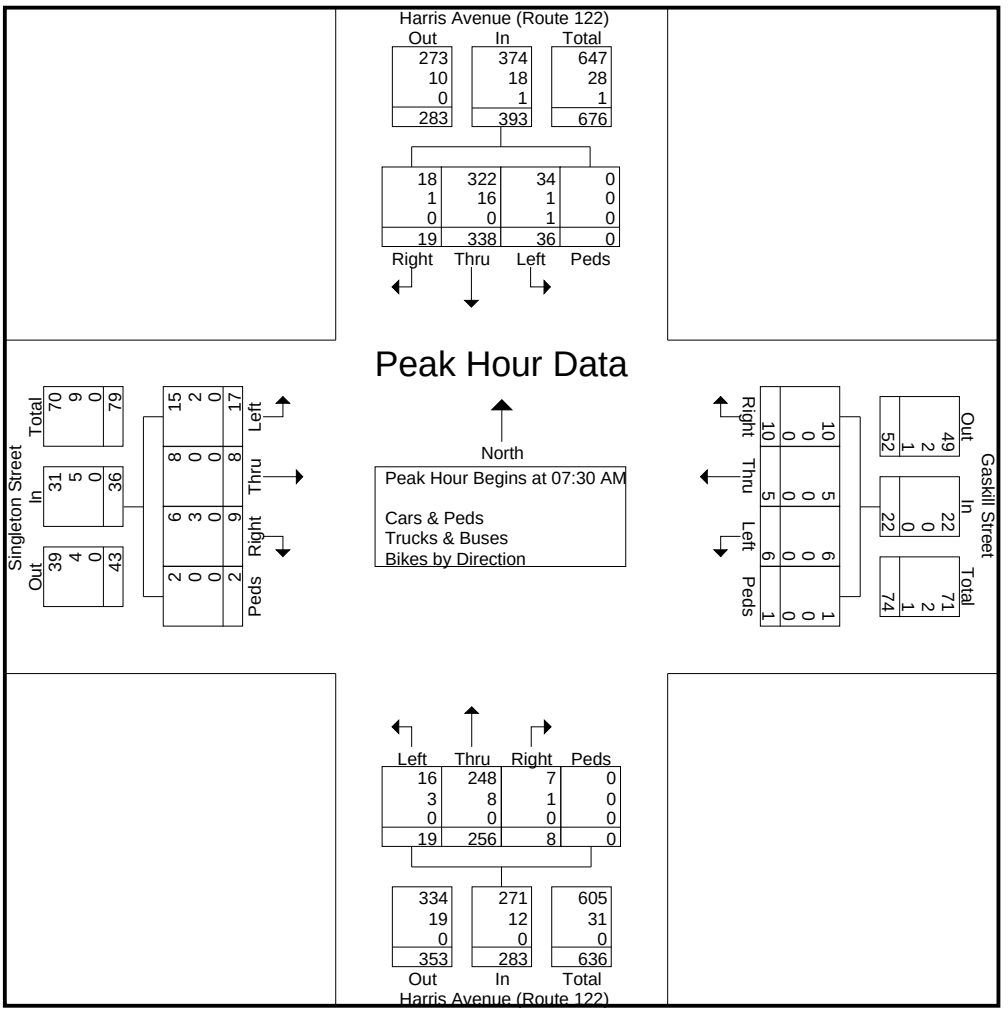
N/S: Harris Avenue (Route 122)
E/W: Gaskill Street/Singleton Street
City, State: Woonsocket, RI
Client: McM/Shana Gare

File Name : 05732C
Site Code : 31356501
Start Date : 6/20/2023
Page No : 1

	Harris Avenue (Route 122) From North					Gaskill Street From East					Harris Avenue (Route 122) From South					Singleton Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	6	91	8	0	**105**	2	0	1	0	3	1	68	6	0	75	**4**	2	3	**1**	10	193
07:45 AM	4	**92**	8	0	104	**4**	1	2	0	7	**3**	**71**	3	0	**77**	2	**3**	2	0	7	**195**
08:00 AM	2	79	**10**	0	91	1	1	0	0	2	3	53	3	0	59	0	1	4	0	5	157
08:15 AM	**7**	76	10	0	93	3	**3**	**3**	**1**	**10**	1	64	**7**	0	72	3	2	**8**	1	**14**	189
Total Volume	19	338	36	0	393	10	5	6	1	22	8	256	19	0	283	9	8	17	2	36	734
% App. Total	4.8	86	9.2	0		45.5	22.7	27.3	4.5		2.8	90.5	6.7	0		25	22.2	47.2	5.6		
PHF	.679	.918	.900	.000	.936	.625	.417	.500	.250	.550	.667	.901	.679	.000	.919	.563	.667	.531	.500	.643	.941
Cars & Peds	18	322	34	0	374	10	5	6	1	22	7	248	16	0	271	6	8	15	2	31	698
% Cars & Peds	94.7	95.3	94.4	0	95.2	100	100	100	100	100	87.5	96.9	84.2	0	95.8	66.7	100	88.2	100	86.1	95.1
Trucks & Buses	1	16	1	0	18	0	0	0	0	0	1	8	3	0	12	3	0	2	0	5	35
% Trucks & Buses	5.3	4.7	2.8	0	4.6	0	0	0	0	0	12.5	3.1	15.8	0	4.2	33.3	0	11.8	0	13.9	4.8
Bikes by Direction	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Bikes by Direction	0	0	2.8	0	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1



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N/S: Harris Avenue (Route 122)
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City, State: Woonsocket, RI
Client: McM/Shana Gare

File Name : 05732C
Site Code : 31356501
Start Date : 6/20/2023
Page No : 1

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

	Harris Avenue (Route 122) From North				Gaskill Street From East				Harris Avenue (Route 122) From South				Singleton Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	2	74	12	0	4	1	3	0	0	45	3	0	4	3	4	0	155
07:15 AM	3	75	9	0	2	2	2	1	2	64	3	0	2	3	6	0	174
07:30 AM	6	91	8	0	2	0	1	0	1	68	6	0	4	2	3	1	193
07:45 AM	4	92	8	0	4	1	2	0	3	71	3	0	2	3	2	0	195
Total	15	332	37	0	12	4	8	1	6	248	15	0	12	11	15	1	717
08:00 AM	2	79	10	0	1	1	0	0	3	53	3	0	0	1	4	0	157
08:15 AM	7	76	10	0	3	3	3	1	1	64	7	0	3	2	8	1	189
08:30 AM	2	78	11	0	6	0	0	0	2	50	1	0	2	1	4	0	157
08:45 AM	4	73	11	0	6	0	2	1	2	58	3	0	7	4	6	0	177
Total	15	306	42	0	16	4	5	2	8	225	14	0	12	8	22	1	680
Grand Total	30	638	79	0	28	8	13	3	14	473	29	0	24	19	37	2	1397
Apprch %	4	85.4	10.6	0	53.8	15.4	25	5.8	2.7	91.7	5.6	0	29.3	23.2	45.1	2.4	
Total %	2.1	45.7	5.7	0	2	0.6	0.9	0.2	1	33.9	2.1	0	1.7	1.4	2.6	0.1	
Cars & Peds	25	613	76	0	28	8	12	3	12	462	25	0	15	18	35	2	1334
% Cars & Peds	83.3	96.1	96.2	0	100	100	92.3	100	85.7	97.7	86.2	0	62.5	94.7	94.6	100	95.5
Trucks & Buses	4	25	2	0	0	0	1	0	2	11	4	0	9	1	2	0	61
% Trucks & Buses	13.3	3.9	2.5	0	0	0	7.7	0	14.3	2.3	13.8	0	37.5	5.3	5.4	0	4.4
Bikes by Direction	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
% Bikes by Direction	3.3	0	1.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1

	Harris Avenue (Route 122) From North					Gaskill Street From East					Harris Avenue (Route 122) From South					Singleton Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	6	91	8	0	**105**	2	0	1	0	3	1	68	6	0	75	**4**	2	3	**1**	10	193
07:45 AM	4	**92**	8	0	104	**4**	1	2	0	7	**3**	**71**	3	0	**77**	2	**3**	2	0	7	**195**
08:00 AM	2	79	**10**	0	91	1	1	0	0	2	3	53	3	0	59	0	1	4	0	5	157
08:15 AM	**7**	76	10	0	93	3	**3**	**3**	**1**	**10**	1	64	**7**	0	72	3	2	**8**	1	**14**	189
Total Volume	19	338	36	0	393	10	5	6	1	22	8	256	19	0	283	9	8	17	2	36	734
% App. Total	4.8	86	9.2	0		45.5	22.7	27.3	4.5		2.8	90.5	6.7	0		25	22.2	47.2	5.6		
PHF	.679	.918	.900	.000	.936	.625	.417	.500	.250	.550	.667	.901	.679	.000	.919	.563	.667	.531	.500	.643	.941
Cars & Peds	18	322	34	0	374	10	5	6	1	22	7	248	16	0	271	6	8	15	2	31	698
% Cars & Peds	94.7	95.3	94.4	0	95.2	100	100	100	100	100	87.5	96.9	84.2	0	95.8	66.7	100	88.2	100	86.1	95.1
Trucks & Buses	1	16	1	0	18	0	0	0	0	0	1	8	3	0	12	3	0	2	0	5	35
% Trucks & Buses	5.3	4.7	2.8	0	4.6	0	0	0	0	0	12.5	3.1	15.8	0	4.2	33.3	0	11.8	0	13.9	4.8
Bikes by Direction	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Bikes by Direction	0	0	2.8	0	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1

Transportation Data Corporation

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N/S: Harris Avenue (Route 122)
E/W: Gaskill Street/Singleton Street
City, State: Woonsocket, RI
Client: McM/Shana Gare

File Name : 05732CC
Site Code : 31356501
Start Date : 6/20/2023

Groups Printed- Cars & Peds

	Harris Avenue (Route 122) From North				Gaskill Street From East				Harris Avenue (Route 122) From South				Singleton Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	3	91	21	0	6	4	1	4	5	89	4	0	3	5	3	0	239
04:15 PM	4	75	15	0	13	4	0	0	1	94	0	0	2	3	1	2	214
04:30 PM	7	76	20	0	5	3	1	0	7	89	4	0	5	6	5	0	228
04:45 PM	1	101	10	0	7	2	1	2	5	91	2	0	3	5	4	0	234
Total	15	343	66	0	31	13	3	6	18	363	10	0	13	19	13	2	915
05:00 PM	2	111	26	0	5	4	3	0	5	111	7	0	4	3	4	1	286
05:15 PM	4	108	25	0	4	3	2	0	4	104	3	0	7	5	3	2	274
05:30 PM	2	98	16	0	2	3	1	0	6	78	7	0	1	4	3	0	221
05:45 PM	1	84	6	0	5	3	4	0	3	65	4	0	3	0	1	1	180
Total	9	401	73	0	16	13	10	0	18	358	21	0	15	12	11	4	961
Grand Total	24	744	139	0	47	26	13	6	36	721	31	0	28	31	24	6	1876
Apprch %	2.6	82	15.3	0	51.1	28.3	14.1	6.5	4.6	91.5	3.9	0	31.5	34.8	27	6.7	
Total %	1.3	39.7	7.4	0	2.5	1.4	0.7	0.3	1.9	38.4	1.7	0	1.5	1.7	1.3	0.3	

	Harris Avenue (Route 122) From North					Gaskill Street From East					Harris Avenue (Route 122) From South					Singleton Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	**7**	76	20	0	103	5	3	1	0	9	**7**	89	4	0	100	5	**6**	**5**	0	16	228
04:45 PM	1	101	10	0	112	**7**	2	1	**2**	**12**	5	91	2	0	98	3	5	4	0	12	234
05:00 PM	2	**111**	**26**	0	**139**	5	**4**	**3**	0	12	5	**111**	**7**	0	**123**	4	3	4	1	12	**286**
05:15 PM	4	108	25	0	137	4	3	2	0	9	4	104	3	0	111	**7**	5	3	**2**	**17**	274
Total Volume	14	396	81	0	491	21	12	7	2	42	21	395	16	0	432	19	19	16	3	57	1022
% App. Total	2.9	80.7	16.5	0		50	28.6	16.7	4.8		4.9	91.4	3.7	0		33.3	33.3	28.1	5.3		
PHF	.500	.892	.779	.000	.883	.750	.750	.583	.250	.875	.750	.890	.571	.000	.878	.679	.792	.800	.375	.838	.893

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City, State: Woonsocket, RI
Client: McM/Shana Gare

File Name : 05732CC
Site Code : 31356501
Start Date : 6/20/2023

Groups Printed- Trucks & Buses

	Harris Avenue (Route 122) From North				Gaskill Street From East				Harris Avenue (Route 122) From South				Singleton Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	1	0	0	0	0	0	0	0	2	0	0	1	0	0	0	4
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
Total	0	1	0	0	0	0	0	0	0	5	0	0	1	0	0	0	7
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	1	1	0	0	0	0	0	0	0	5	0	0	1	0	0	0	8
Apprch %	50	50	0	0	0	0	0	0	0	100	0	0	100	0	0	0	
Total %	12.5	12.5	0	0	0	0	0	0	0	62.5	0	0	12.5	0	0	0	

	Harris Avenue (Route 122) From North					Gaskill Street From East					Harris Avenue (Route 122) From South					Singleton Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	**1**	0	0	**1**	0	0	0	0	0	0	**2**	0	0	**2**	**1**	0	0	0	**1**	**4**
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
Total Volume	0	1	0	0	1	0	0	0	0	0	0	5	0	0	5	1	0	0	0	1	7
% App. Total	0	100	0	0		0	0	0	0		0	100	0	0		100	0	0	0		
PHF	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.625	.000	.000	.625	.250	.000	.000	.000	.250	.438

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City, State: Woonsocket, RI
Client: McM/Shana Gare

File Name : 05732CC
Site Code : 31356501
Start Date : 6/20/2023

Groups Printed- Bikes by Direction

	Harris Avenue (Route 122) From North				Gaskill Street From East				Harris Avenue (Route 122) From South				Singleton Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
04:45 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	3
Total	0	0	3	0	0	0	2	0	0	0	0	0	1	1	0	0	7
05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	1	3	0	0	0	2	0	0	0	0	0	1	1	0	0	8
Apprch %	0	25	75	0	0	0	100	0	0	0	0	0	50	50	0	0	
Total %	0	12.5	37.5	0	0	0	25	0	0	0	0	0	12.5	12.5	0	0	

	Harris Avenue (Route 122) From North					Gaskill Street From East					Harris Avenue (Route 122) From South					Singleton Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	0	1	0	1	0	0	**2**	0	**2**	0	0	0	0	0	0	0	0	0	0	**3**
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	**1**	1
04:45 PM	0	0	**2**	0	**2**	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	1	3
05:00 PM	0	**1**	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	1	3	0	4	0	0	2	0	2	0	0	0	0	0	1	1	0	0	2	8
% App. Total	0	25	75	0		0	0	100	0		0	0	0	0		50	50	0	0		
PHF	.000	.250	.375	.000	.500	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.250	.000	.000	.500	.667

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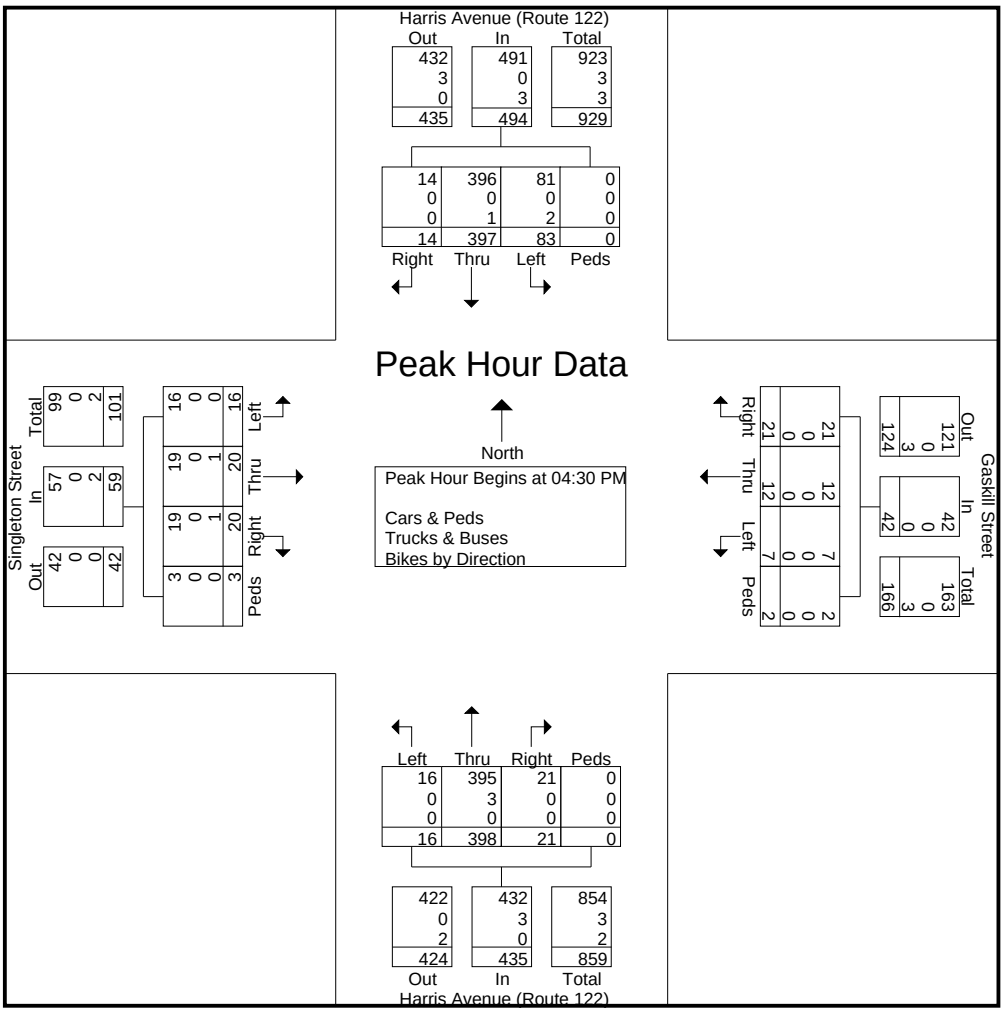
Client: McM/Shana Gare

File Name : 05732CC
Site Code : 31356501
Start Date : 6/20/2023
Page No : 1

	Harris Avenue (Route 122) From North					Gaskill Street From East					Harris Avenue (Route 122) From South					Singleton Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	**7**	76	20	0	103	5	3	1	0	9	**7**	90	4	0	101	6	**6**	**5**	0	**17**	230
04:45 PM	1	101	12	0	114	**7**	2	1	**2**	**12**	5	93	2	0	100	3	6	4	0	13	239
05:00 PM	2	**112**	**26**	0	**140**	5	**4**	**3**	0	12	5	**111**	**7**	0	**123**	4	3	4	1	12	**287**
05:15 PM	4	108	25	0	137	4	3	2	0	9	4	104	3	0	111	**7**	5	3	**2**	17	274
Total Volume	14	397	83	0	494	21	12	7	2	42	21	398	16	0	435	20	20	16	3	59	1030
% App. Total	2.8	80.4	16.8	0		50	28.6	16.7	4.8		4.8	91.5	3.7	0		33.9	33.9	27.1	5.1		
PHF	.500	.886	.798	.000	.882	.750	.750	.583	.250	.875	.750	.896	.571	.000	.884	.714	.833	.800	.375	.868	.897
Cars & Peds	14	396	81	0	491	21	12	7	2	42	21	395	16	0	432	19	19	16	3	57	1022
% Cars & Peds	100	99.7	97.6	0	99.4	100	100	100	100	100	100	99.2	100	0	99.3	95.0	95.0	100	100	96.6	99.2
Trucks & Buses	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	3
% Trucks & Buses	0	0	0	0	0	0	0	0	0	0	0	0.8	0	0	0.7	0	0	0	0	0	0.3
Bikes by Direction	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	5
% Bikes by Direction	0	0.3	2.4	0	0.6	0	0	0	0	0	0	0	0	0	0	5.0	5.0	0	0	3.4	0.5



Transportation Data Corporation

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N/S: Harris Avenue (Route 122)
E/W: Gaskill Street/Singleton Street
City, State: Woonsocket, RI
Client: McM/Shana Gare

File Name : 05732CC
Site Code : 31356501
Start Date : 6/20/2023
Page No : 1

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

	Harris Avenue (Route 122) From North				Gaskill Street From East				Harris Avenue (Route 122) From South				Singleton Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	3	92	21	0	6	4	1	4	5	91	4	0	4	5	3	0	243
04:15 PM	4	75	16	0	13	4	2	0	1	94	0	0	2	3	1	2	217
04:30 PM	7	76	20	0	5	3	1	0	7	90	4	0	6	6	5	0	230
04:45 PM	1	101	12	0	7	2	1	2	5	93	2	0	3	6	4	0	239
Total	15	344	69	0	31	13	5	6	18	368	10	0	15	20	13	2	929
05:00 PM	2	112	26	0	5	4	3	0	5	111	7	0	4	3	4	1	287
05:15 PM	4	108	25	0	4	3	2	0	4	104	3	0	7	5	3	2	274
05:30 PM	2	98	16	0	2	3	1	0	6	78	7	0	1	4	3	0	221
05:45 PM	2	84	6	0	5	3	4	0	3	65	4	0	3	0	1	1	181
Total	10	402	73	0	16	13	10	0	18	358	21	0	15	12	11	4	963
Grand Total	25	746	142	0	47	26	15	6	36	726	31	0	30	32	24	6	1892
Apprch %	2.7	81.7	15.6	0	50	27.7	16	6.4	4.5	91.6	3.9	0	32.6	34.8	26.1	6.5	
Total %	1.3	39.4	7.5	0	2.5	1.4	0.8	0.3	1.9	38.4	1.6	0	1.6	1.7	1.3	0.3	
Cars & Peds	24	744	139	0	47	26	13	6	36	721	31	0	28	31	24	6	1876
% Cars & Peds	96	99.7	97.9	0	100	100	86.7	100	100	99.3	100	0	93.3	96.9	100	100	99.2
Trucks & Buses	1	1	0	0	0	0	0	0	0	5	0	0	1	0	0	0	8
% Trucks & Buses	4	0.1	0	0	0	0	0	0	0	0.7	0	0	3.3	0	0	0	0.4
Bikes by Direction	0	1	3	0	0	0	2	0	0	0	0	0	1	1	0	0	8
% Bikes by Direction	0	0.1	2.1	0	0	0	13.3	0	0	0	0	0	3.3	3.1	0	0	0.4

	Harris Avenue (Route 122) From North					Gaskill Street From East					Harris Avenue (Route 122) From South					Singleton Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	**7**	76	20	0	103	5	3	1	0	9	**7**	90	4	0	101	6	**6**	**5**	0	**17**	230
04:45 PM	1	101	12	0	114	**7**	2	1	**2**	**12**	5	93	2	0	100	3	6	4	0	13	239
05:00 PM	2	**112**	**26**	0	**140**	5	**4**	**3**	0	12	5	**111**	**7**	0	**123**	4	3	4	1	12	**287**
05:15 PM	4	108	25	0	137	4	3	2	0	9	4	104	3	0	111	**7**	5	3	**2**	17	274
Total Volume	14	397	83	0	494	21	12	7	2	42	21	398	16	0	435	20	20	16	3	59	1030
% App. Total	2.8	80.4	16.8	0		50	28.6	16.7	4.8		4.8	91.5	3.7	0		33.9	33.9	27.1	5.1		
PHF	.500	.886	.798	.000	.882	.750	.750	.583	.250	.875	.750	.896	.571	.000	.884	.714	.833	.800	.375	.868	.897
Cars & Peds	14	396	81	0	491	21	12	7	2	42	21	395	16	0	432	19	19	16	3	57	1022
% Cars & Peds	100	99.7	97.6	0	99.4	100	100	100	100	100	100	99.2	100	0	99.3	95.0	95.0	100	100	96.6	99.2
Trucks & Buses	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	3
% Trucks & Buses	0	0	0	0	0	0	0	0	0	0	0	0.8	0	0	0.7	0	0	0	0	0	0.3
Bikes by Direction	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	5
% Bikes by Direction	0	0.3	2.4	0	0.6	0	0	0	0	0	0	0	0	0	0	5.0	5.0	0	0	3.4	0.5

Transportation Data Corporation

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N/S: Harris Avenue (Route 122)
E/W: Blackstone Street
City, State: Woonsocket, RI
Client: McM/Shana Gare

File Name : 05732D
Site Code : 31356501
Start Date : 6/20/2023
Page No : 1

Groups Printed- Cars & Peds

	Harris Avenue (Route 122) From North				Blackstone Street From East				Harris Avenue (Route 122) From South				Blackstone Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	4	31	4	0	6	7	4	1	2	12	1	1	1	12	7	0	93
07:15 AM	2	35	8	1	8	13	3	0	4	19	1	0	3	4	4	1	106
07:30 AM	3	43	4	0	11	16	10	1	0	22	3	1	1	8	7	0	130
07:45 AM	3	38	9	2	4	16	1	1	2	23	2	0	2	14	6	0	123
Total	12	147	25	3	29	52	18	3	8	76	7	2	7	38	24	1	452
08:00 AM	2	23	3	0	4	14	1	0	1	19	0	0	3	6	6	0	82
08:15 AM	6	33	4	0	6	12	4	0	2	21	3	5	2	6	4	0	108
08:30 AM	1	30	2	0	9	16	5	0	4	22	3	1	2	11	2	0	108
08:45 AM	9	30	3	0	14	22	5	0	0	24	3	0	3	10	4	1	128
Total	18	116	12	0	33	64	15	0	7	86	9	6	10	33	16	1	426
Grand Total	30	263	37	3	62	116	33	3	15	162	16	8	17	71	40	2	878
Apprch %	9	79	11.1	0.9	29	54.2	15.4	1.4	7.5	80.6	8	4	13.1	54.6	30.8	1.5	
Total %	3.4	30	4.2	0.3	7.1	13.2	3.8	0.3	1.7	18.5	1.8	0.9	1.9	8.1	4.6	0.2	

	Harris Avenue (Route 122) From North					Blackstone Street From East					Harris Avenue (Route 122) From South					Blackstone Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	**4**	31	4	0	39	6	7	4	**1**	18	2	12	1	**1**	16	1	12	**7**	0	20	93
07:15 AM	2	35	8	1	46	8	13	3	0	24	**4**	19	1	0	24	**3**	4	4	**1**	12	106
07:30 AM	3	**43**	4	0	50	**11**	**16**	**10**	1	**38**	0	22	**3**	1	26	1	8	7	0	16	**130**
07:45 AM	3	38	**9**	**2**	**52**	4	16	1	1	22	2	**23**	2	0	**27**	2	**14**	6	0	**22**	123
Total Volume	12	147	25	3	187	29	52	18	3	102	8	76	7	2	93	7	38	24	1	70	452
% App. Total	6.4	78.6	13.4	1.6		28.4	51	17.6	2.9		8.6	81.7	7.5	2.2		10	54.3	34.3	1.4		
PHF	.750	.855	.694	.375	.899	.659	.813	.450	.750	.671	.500	.826	.583	.500	.861	.583	.679	.857	.250	.795	.869

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City, State: Woonsocket, RI
Client: McM/Shana Gare

File Name : 05732D
Site Code : 31356501
Start Date : 6/20/2023
Page No : 1

Groups Printed- Trucks & Buses

	Harris Avenue (Route 122) From North				Blackstone Street From East				Harris Avenue (Route 122) From South				Blackstone Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	2
07:15 AM	0	1	0	0	0	1	0	0	0	2	0	0	0	0	0	0	4
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
07:45 AM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0	4
Total	0	2	0	0	0	1	0	0	1	5	0	0	0	1	1	0	11
08:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
08:15 AM	0	4	1	0	0	2	0	0	0	1	0	0	0	0	0	0	8
08:30 AM	0	0	0	0	0	1	0	0	0	3	0	0	0	0	0	0	4
08:45 AM	0	0	0	0	0	4	1	0	0	0	0	0	0	0	0	0	5
Total	0	5	1	0	0	7	1	0	0	5	0	0	0	0	0	0	19
Grand Total	0	7	1	0	0	8	1	0	1	10	0	0	0	1	1	0	30
Apprch %	0	87.5	12.5	0	0	88.9	11.1	0	9.1	90.9	0	0	0	50	50	0	
Total %	0	23.3	3.3	0	0	26.7	3.3	0	3.3	33.3	0	0	0	3.3	3.3	0	

	Harris Avenue (Route 122) From North					Blackstone Street From East					Harris Avenue (Route 122) From South					Blackstone Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
08:15 AM	0	**4**	**1**	0	**5**	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	**8**
08:30 AM	0	0	0	0	0	0	1	0	0	1	0	**3**	0	0	**3**	0	0	0	0	0	4
08:45 AM	0	0	0	0	0	0	**4**	**1**	0	**5**	0	0	0	0	0	0	0	0	0	0	5
Total Volume	0	5	1	0	6	0	7	1	0	8	0	5	0	0	5	0	0	0	0	0	19
% App. Total	0	83.3	16.7	0		0	87.5	12.5	0		0	100	0	0		0	0	0	0		
PHF	.000	.313	.250	.000	.300	.000	.438	.250	.000	.400	.000	.417	.000	.000	.417	.000	.000	.000	.000	.000	.594

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Client: McM/Shana Gare

File Name : 05732D
Site Code : 31356501
Start Date : 6/20/2023

Groups Printed- Bikes by Direction

	Harris Avenue (Route 122) From North				Blackstone Street From East				Harris Avenue (Route 122) From South				Blackstone Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %																	

	Harris Avenue (Route 122) From North					Blackstone Street From East					Harris Avenue (Route 122) From South					Blackstone Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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File Name : 05732D
Site Code : 31356501
Start Date : 6/20/2023
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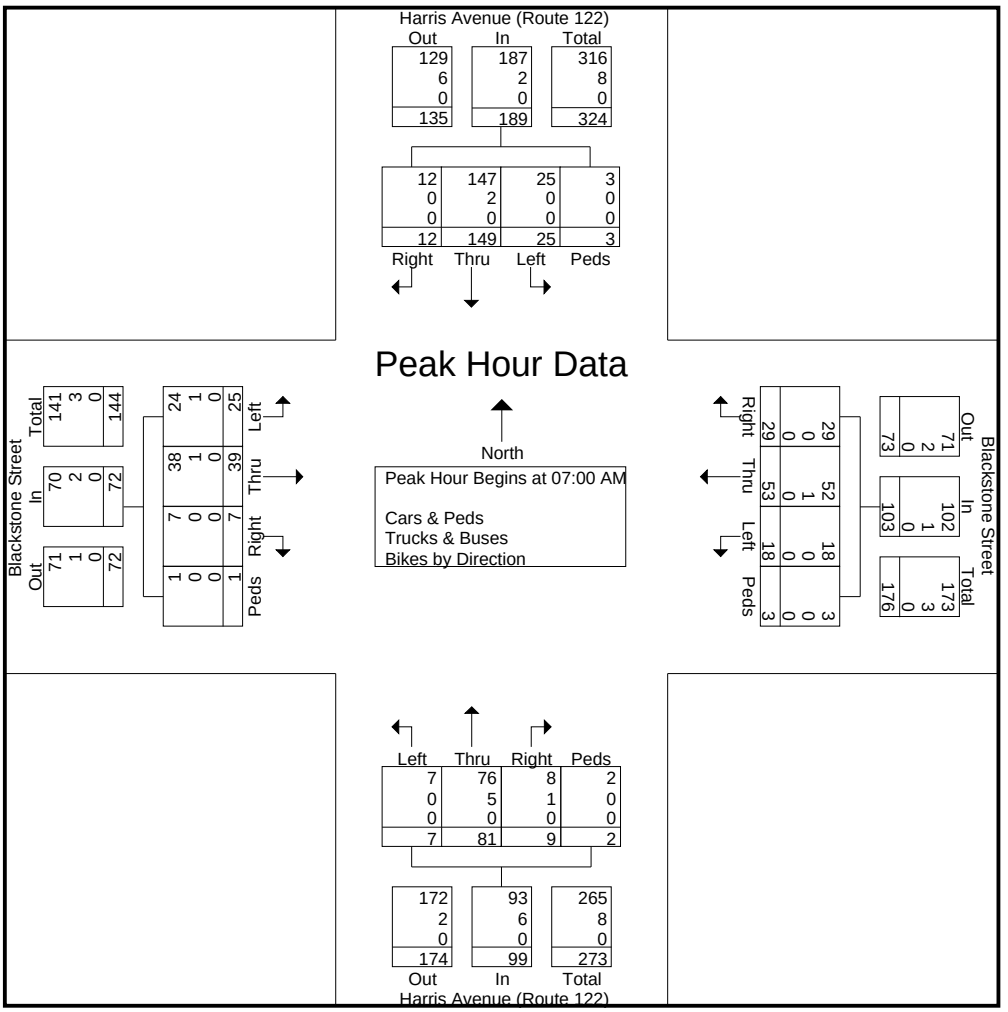
	Harris Avenue (Route 122) From North					Blackstone Street From East					Harris Avenue (Route 122) From South					Blackstone Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	**4**	31	4	0	39	6	7	4	**1**	18	3	12	1	**1**	17	1	12	**8**	0	21	95
07:15 AM	2	36	8	1	47	8	14	3	0	25	**4**	21	1	0	26	**3**	4	4	**1**	12	110
07:30 AM	3	**43**	4	0	50	**11**	**16**	**10**	1	**38**	0	22	**3**	1	26	1	9	7	0	17	**131**
07:45 AM	3	39	**9**	**2**	**53**	4	16	1	1	22	2	**26**	2	0	**30**	2	**14**	6	0	**22**	127
Total Volume	12	149	25	3	189	29	53	18	3	103	9	81	7	2	99	7	39	25	1	72	463
% App. Total	6.3	78.8	13.2	1.6		28.2	51.5	17.5	2.9		9.1	81.8	7.1	2		9.7	54.2	34.7	1.4		
PHF	.750	.866	.694	.375	.892	.659	.828	.450	.750	.678	.563	.779	.583	.500	.825	.583	.696	.781	.250	.818	.884
Cars & Peds	12	147	25	3	187	29	52	18	3	102	8	76	7	2	93	7	38	24	1	70	452
% Cars & Peds	100	98.7	100	100	98.9	100	98.1	100	100	99.0	88.9	93.8	100	100	93.9	100	97.4	96.0	100	97.2	97.6
Trucks & Buses	0	2	0	0	2	0	1	0	0	1	1	5	0	0	6	0	1	1	0	2	11
% Trucks & Buses	0	1.3	0	0	1.1	0	1.9	0	0	1.0	11.1	6.2	0	0	6.1	0	2.6	4.0	0	2.8	2.4
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

	Harris Avenue (Route 122) From North				Blackstone Street From East				Harris Avenue (Route 122) From South				Blackstone Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	4	31	4	0	6	7	4	1	3	12	1	1	1	12	8	0	95
07:15 AM	2	36	8	1	8	14	3	0	4	21	1	0	3	4	4	1	110
07:30 AM	3	43	4	0	11	16	10	1	0	22	3	1	1	9	7	0	131
07:45 AM	3	39	9	2	4	16	1	1	2	26	2	0	2	14	6	0	127
Total	12	149	25	3	29	53	18	3	9	81	7	2	7	39	25	1	463
08:00 AM	2	24	3	0	4	14	1	0	1	20	0	0	3	6	6	0	84
08:15 AM	6	37	5	0	6	14	4	0	2	22	3	5	2	6	4	0	116
08:30 AM	1	30	2	0	9	17	5	0	4	25	3	1	2	11	2	0	112
08:45 AM	9	30	3	0	14	26	6	0	0	24	3	0	3	10	4	1	133
Total	18	121	13	0	33	71	16	0	7	91	9	6	10	33	16	1	445
Grand Total	30	270	38	3	62	124	34	3	16	172	16	8	17	72	41	2	908
Apprch %	8.8	79.2	11.1	0.9	27.8	55.6	15.2	1.3	7.5	81.1	7.5	3.8	12.9	54.5	31.1	1.5	
Total %	3.3	29.7	4.2	0.3	6.8	13.7	3.7	0.3	1.8	18.9	1.8	0.9	1.9	7.9	4.5	0.2	
Cars & Peds	30	263	37	3	62	116	33	3	15	162	16	8	17	71	40	2	878
% Cars & Peds	100	97.4	97.4	100	100	93.5	97.1	100	93.8	94.2	100	100	100	98.6	97.6	100	96.7
Trucks & Buses	0	7	1	0	0	8	1	0	1	10	0	0	0	1	1	0	30
% Trucks & Buses	0	2.6	2.6	0	0	6.5	2.9	0	6.2	5.8	0	0	0	1.4	2.4	0	3.3
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Harris Avenue (Route 122) From North					Blackstone Street From East					Harris Avenue (Route 122) From South					Blackstone Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	**4**	31	4	0	39	6	7	4	**1**	18	3	12	1	**1**	17	1	12	**8**	0	21	95
07:15 AM	2	36	8	1	47	8	14	3	0	25	**4**	21	1	0	26	**3**	4	4	**1**	12	110
07:30 AM	3	**43**	4	0	50	**11**	**16**	**10**	1	**38**	0	22	**3**	1	26	1	9	7	0	17	**131**
07:45 AM	3	39	**9**	**2**	**53**	4	16	1	1	22	2	**26**	2	0	**30**	2	**14**	6	0	**22**	127
Total Volume	12	149	25	3	189	29	53	18	3	103	9	81	7	2	99	7	39	25	1	72	463
% App. Total	6.3	78.8	13.2	1.6		28.2	51.5	17.5	2.9		9.1	81.8	7.1	2		9.7	54.2	34.7	1.4		
PHF	.750	.866	.694	.375	.892	.659	.828	.450	.750	.678	.563	.779	.583	.500	.825	.583	.696	.781	.250	.818	.884
Cars & Peds	12	147	25	3	187	29	52	18	3	102	8	76	7	2	93	7	38	24	1	70	452
% Cars & Peds	100	98.7	100	100	98.9	100	98.1	100	100	99.0	88.9	93.8	100	100	93.9	100	97.4	96.0	100	97.2	97.6
Trucks & Buses	0	2	0	0	2	0	1	0	0	1	1	5	0	0	6	0	1	1	0	2	11
% Trucks & Buses	0	1.3	0	0	1.1	0	1.9	0	0	1.0	11.1	6.2	0	0	6.1	0	2.6	4.0	0	2.8	2.4
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Transportation Data Corporation

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N/S: Harris Avenue (Route 122)
E/W: Blackstone Street
City, State: Woonsocket, RI
Client: McM/Shana Gare

File Name : 05732DD
Site Code : 31356501
Start Date : 6/20/2023
Page No : 1

Groups Printed- Cars & Peds

	Harris Avenue (Route 122) From North				Blackstone Street From East				Harris Avenue (Route 122) From South				Blackstone Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	7	35	7	3	17	38	11	0	3	22	0	1	3	6	7	0	160
04:15 PM	9	33	2	1	15	34	10	1	0	28	2	1	1	17	1	0	155
04:30 PM	11	33	6	0	18	30	10	0	1	20	2	3	0	8	8	2	152
04:45 PM	7	41	8	0	16	32	11	1	4	26	1	0	1	8	6	0	162
Total	34	142	23	4	66	134	42	2	8	96	5	5	5	39	22	2	629
05:00 PM	6	50	8	1	25	35	10	0	2	31	4	0	0	5	6	1	184
05:15 PM	11	46	9	1	16	19	4	0	2	33	2	0	2	9	8	0	162
05:30 PM	4	52	5	0	17	23	11	0	0	32	1	0	0	3	9	1	158
05:45 PM	8	50	4	0	10	17	5	0	0	28	0	0	1	7	6	0	136
Total	29	198	26	2	68	94	30	0	4	124	7	0	3	24	29	2	640
Grand Total	63	340	49	6	134	228	72	2	12	220	12	5	8	63	51	4	1269
Apprch %	13.8	74.2	10.7	1.3	30.7	52.3	16.5	0.5	4.8	88.4	4.8	2	6.3	50	40.5	3.2	
Total %	5	26.8	3.9	0.5	10.6	18	5.7	0.2	0.9	17.3	0.9	0.4	0.6	5	4	0.3	

	Harris Avenue (Route 122) From North					Blackstone Street From East					Harris Avenue (Route 122) From South					Blackstone Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	7	41	8	0	56	16	32	**11**	**1**	60	**4**	26	1	0	31	1	8	6	0	15	162
05:00 PM	6	50	8	**1**	65	**25**	**35**	10	0	**70**	2	31	**4**	0	**37**	0	5	6	**1**	12	**184**
05:15 PM	**11**	46	**9**	1	**67**	16	19	4	0	39	2	**33**	2	0	37	**2**	**9**	8	0	**19**	162
05:30 PM	4	**52**	5	0	61	17	23	11	0	51	0	32	1	0	33	0	3	**9**	1	13	158
Total Volume	28	189	30	2	249	74	109	36	1	220	8	122	8	0	138	3	25	29	2	59	666
% App. Total	11.2	75.9	12	0.8		33.6	49.5	16.4	0.5		5.8	88.4	5.8	0		5.1	42.4	49.2	3.4		
PHF	.636	.909	.833	.500	.929	.740	.779	.818	.250	.786	.500	.924	.500	.000	.932	.375	.694	.806	.500	.776	.905

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E/W: Blackstone Street
City, State: Woonsocket, RI
Client: McM/Shana Gare

File Name : 05732DD
Site Code : 31356501
Start Date : 6/20/2023
Page No : 1

Groups Printed- Trucks & Buses

	Harris Avenue (Route 122) From North				Blackstone Street From East				Harris Avenue (Route 122) From South				Blackstone Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	1	0	0	0	1	1	0	0	1	0	0	0	0	0	0	4
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
Total	0	1	0	0	0	1	1	0	0	3	0	0	0	0	0	0	6
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	2	0	0	0	1	1	0	0	3	0	0	0	0	0	0	7
Apprch %	0	100	0	0	0	50	50	0	0	100	0	0	0	0	0	0	
Total %	0	28.6	0	0	0	14.3	14.3	0	0	42.9	0	0	0	0	0	0	

	Harris Avenue (Route 122) From North					Blackstone Street From East					Harris Avenue (Route 122) From South					Blackstone Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	**1**	0	0	**1**	0	**1**	**1**	0	**2**	0	1	0	0	1	0	0	0	0	0	**4**
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	**2**	0	0	0	0	0	2
Total Volume	0	1	0	0	1	0	1	1	0	2	0	3	0	0	3	0	0	0	0	0	6
% App. Total	0	100	0	0		0	50	50	0		0	100	0	0		0	0	0	0		
PHF	.000	.250	.000	.000	.250	.000	.250	.250	.000	.250	.000	.375	.000	.000	.375	.000	.000	.000	.000	.000	.375

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Client: McM/Shana Gare

File Name : 05732DD
Site Code : 31356501
Start Date : 6/20/2023

Groups Printed- Bikes by Direction

	Harris Avenue (Route 122) From North				Blackstone Street From East				Harris Avenue (Route 122) From South				Blackstone Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Total	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	3
05:00 PM	0	1	0	0	0	0	0	0	0	2	0	0	1	0	0	0	4
05:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	0	0	2	1	0	1	0	0	0	5
Grand Total	0	2	0	0	0	0	0	0	0	2	2	0	2	0	0	0	8
Apprch %	0	100	0	0	0	0	0	0	0	50	50	0	100	0	0	0	
Total %	0	25	0	0	0	0	0	0	0	25	25	0	25	0	0	0	

	Harris Avenue (Route 122) From North					Blackstone Street From East					Harris Avenue (Route 122) From South					Blackstone Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	**1**	1
05:00 PM	0	1	0	0	1	0	0	0	0	0	0	**2**	0	0	**2**	1	0	0	0	1	**4**
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	1	0	0	0	0	0	1
Total Volume	0	2	0	0	2	0	0	0	0	0	0	2	1	0	3	2	0	0	0	2	7
% App. Total	0	100	0	0		0	0	0	0		0	66.7	33.3	0		100	0	0	0		
PHF	.000	.500	.000	.000	.500	.000	.000	.000	.000	.000	.000	.250	.250	.000	.375	.500	.000	.000	.000	.500	.438

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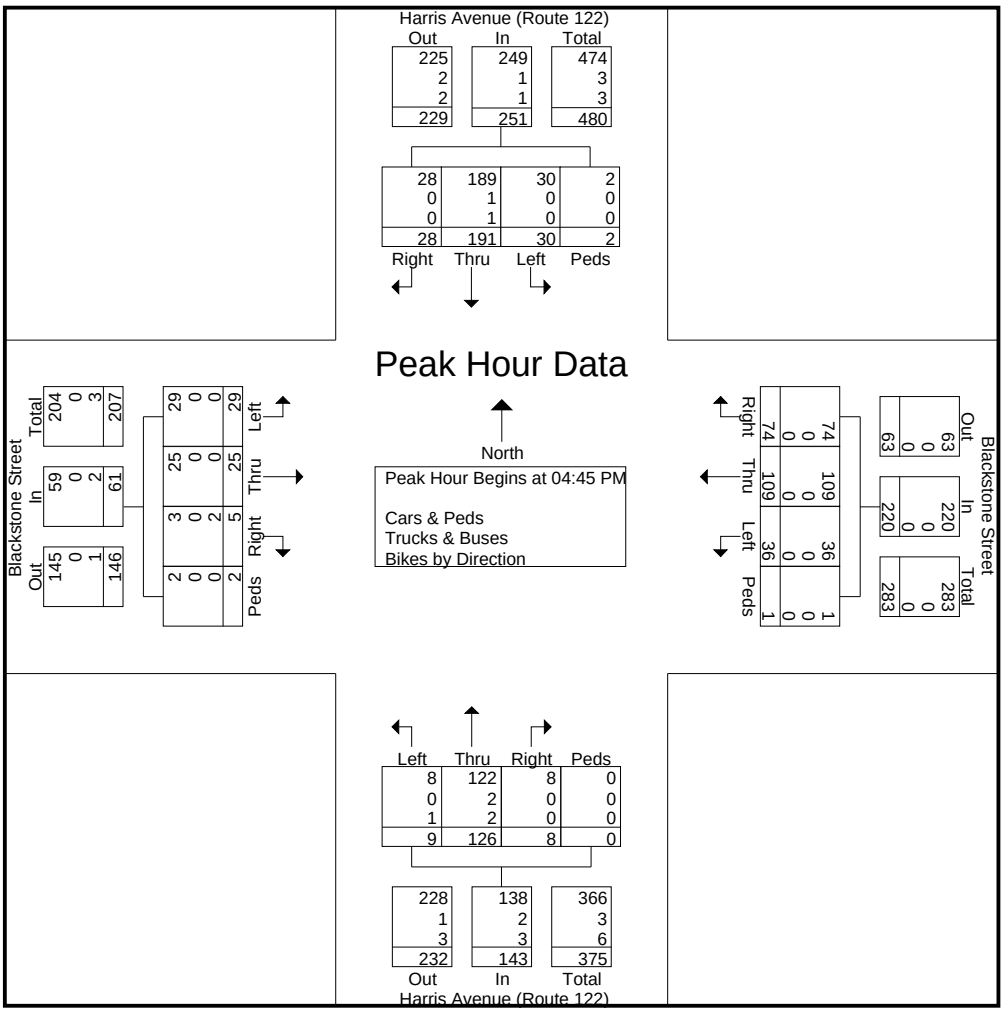
File Name : 05732DD
Site Code : 31356501
Start Date : 6/20/2023
Page No : 1

	Harris Avenue (Route 122) From North					Blackstone Street From East					Harris Avenue (Route 122) From South					Blackstone Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	7	41	8	0	56	16	32	**11**	**1**	60	**4**	28	1	0	33	**2**	8	6	0	16	165
05:00 PM	6	51	8	**1**	66	**25**	**35**	10	0	**70**	2	**33**	**4**	0	**39**	1	5	6	**1**	13	**188**
05:15 PM	**11**	47	**9**	1	**68**	16	19	4	0	39	2	33	3	0	38	2	**9**	8	0	**19**	164
05:30 PM	4	**52**	5	0	61	17	23	11	0	51	0	32	1	0	33	0	3	**9**	1	13	158
Total Volume	28	191	30	2	251	74	109	36	1	220	8	126	9	0	143	5	25	29	2	61	675
% App. Total	11.2	76.1	12	0.8		33.6	49.5	16.4	0.5		5.6	88.1	6.3	0		8.2	41	47.5	3.3		
PHF	.636	.918	.833	.500	.923	.740	.779	.818	.250	.786	.500	.955	.563	.000	.917	.625	.694	.806	.500	.803	.898
Cars & Peds	28	189	30	2	249	74	109	36	1	220	8	122	8	0	138	3	25	29	2	59	666
% Cars & Peds	100	99.0	100	100	99.2	100	100	100	100	100	100	96.8	88.9	0	96.5	60.0	100	100	100	96.7	98.7
Trucks & Buses	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
% Trucks & Buses	0	0.5	0	0	0.4	0	0	0	0	0	0	1.6	0	0	1.4	0	0	0	0	0	0.4
Bikes by Direction	0	1	0	0	1	0	0	0	0	0	0	2	1	0	3	2	0	0	0	2	6
% Bikes by Direction	0	0.5	0	0	0.4	0	0	0	0	0	0	1.6	11.1	0	2.1	40.0	0	0	0	3.3	0.9



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Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

	Harris Avenue (Route 122) From North				Blackstone Street From East				Harris Avenue (Route 122) From South				Blackstone Street From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	7	36	7	3	17	39	12	0	3	23	1	1	3	6	7	0	165
04:15 PM	9	33	2	1	15	34	10	1	0	28	2	1	1	17	1	0	155
04:30 PM	11	34	6	0	18	30	10	0	1	20	2	3	0	8	8	2	153
04:45 PM	7	41	8	0	16	32	11	1	4	28	1	0	2	8	6	0	165
Total	34	144	23	4	66	135	43	2	8	99	6	5	6	39	22	2	638
05:00 PM	6	51	8	1	25	35	10	0	2	33	4	0	1	5	6	1	188
05:15 PM	11	47	9	1	16	19	4	0	2	33	3	0	2	9	8	0	164
05:30 PM	4	52	5	0	17	23	11	0	0	32	1	0	0	3	9	1	158
05:45 PM	8	50	4	0	10	17	5	0	0	28	0	0	1	7	6	0	136
Total	29	200	26	2	68	94	30	0	4	126	8	0	4	24	29	2	646
Grand Total	63	344	49	6	134	229	73	2	12	225	14	5	10	63	51	4	1284
Apprch %	13.6	74.5	10.6	1.3	30.6	52.3	16.7	0.5	4.7	87.9	5.5	2	7.8	49.2	39.8	3.1	
Total %	4.9	26.8	3.8	0.5	10.4	17.8	5.7	0.2	0.9	17.5	1.1	0.4	0.8	4.9	4	0.3	
Cars & Peds	63	340	49	6	134	228	72	2	12	220	12	5	8	63	51	4	1269
% Cars & Peds	100	98.8	100	100	100	99.6	98.6	100	100	97.8	85.7	100	80	100	100	100	98.8
Trucks & Buses	0	2	0	0	0	1	1	0	0	3	0	0	0	0	0	0	7
% Trucks & Buses	0	0.6	0	0	0	0.4	1.4	0	0	1.3	0	0	0	0	0	0	0.5
Bikes by Direction	0	2	0	0	0	0	0	0	0	2	2	0	2	0	0	0	8
% Bikes by Direction	0	0.6	0	0	0	0	0	0	0	0.9	14.3	0	20	0	0	0	0.6

	Harris Avenue (Route 122) From North					Blackstone Street From East					Harris Avenue (Route 122) From South					Blackstone Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	7	41	8	0	56	16	32	**11**	**1**	60	**4**	28	1	0	33	**2**	8	6	0	16	165
05:00 PM	6	51	8	**1**	66	**25**	**35**	10	0	**70**	2	**33**	**4**	0	**39**	1	5	6	**1**	13	**188**
05:15 PM	**11**	47	**9**	1	**68**	16	19	4	0	39	2	33	3	0	38	2	**9**	8	0	**19**	164
05:30 PM	4	**52**	5	0	61	17	23	11	0	51	0	32	1	0	33	0	3	**9**	1	13	158
Total Volume	28	191	30	2	251	74	109	36	1	220	8	126	9	0	143	5	25	29	2	61	675
% App. Total	11.2	76.1	12	0.8		33.6	49.5	16.4	0.5		5.6	88.1	6.3	0		8.2	41	47.5	3.3		
PHF	.636	.918	.833	.500	.923	.740	.779	.818	.250	.786	.500	.955	.563	.000	.917	.625	.694	.806	.500	.803	.898
Cars & Peds	28	189	30	2	249	74	109	36	1	220	8	122	8	0	138	3	25	29	2	59	666
% Cars & Peds	100	99.0	100	100	99.2	100	100	100	100	100	100	96.8	88.9	0	96.5	60.0	100	100	100	96.7	98.7
Trucks & Buses	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
% Trucks & Buses	0	0.5	0	0	0.4	0	0	0	0	0	0	1.6	0	0	1.4	0	0	0	0	0	0.4
Bikes by Direction	0	1	0	0	1	0	0	0	0	0	0	2	1	0	3	2	0	0	0	2	6
% Bikes by Direction	0	0.5	0	0	0.4	0	0	0	0	0	0	1.6	11.1	0	2.1	40.0	0	0	0	3.3	0.9

Additional Project Area Stakeholders

NAME / TITLE (if individual is named)	COMPANY / UNIT	PHONE	E-MAIL
Greg Harris	RIPTA	401-784-9500	
	Global Truck & Auto Repair	401-257-5539	
	C+C Plastics	401-762-0553	
	Baby Delight	401-333-6800	
	The Brickle Group	401-769-0189	

Name	Contact/Title	Email/Phone.	Assessment
Morrison Thread Company	IAN R MORRISON, President	401-725-8930	On Singleton Street, affected by detours
Northwest Woolen Mills / The Brickle Group / Bouckaert Industrial Textiles	Max Brickle	customerservice@hbrickle.com / 401-769-0189 / 401-641-8027	On Singleton Street, affected by detours
Diversified Distribution	JANICE K. AJOOTIAN	Dissolved in 2021; current status unknown	On Singleton Street, affected by detours
High Street Knitting		(401) 762-3400	On Singleton Street, affected by detours
R&T Transportation		jeff@randttransinc.com / 508-328-6344	On Singleton Street, affected by detours
Consumers Propane		Contact@consumerspropane.com / 401-762-5461	Directly affected by Detours
Petro Home Services	Matthew Newell	800.645.4328 (general service number)	Directly affected by Detours
The Plastics Group of America	Bob Lebeaux	bobl@tpgoa.com / (401) 767-2700	Directly affected by Detours
Woonsocket Parks and Recreation / Highway Department / Materials Recycling Facility	Liz Kerrigan	(401) 767-9287	Directly affected by Detours
American Legion Fairmount Post 85	Robert Lefort	401-766-7585	Directly affected by Detours
United Truck & Auto Repair		(401) 767-8610	Directly affected by Detours
Interstate Towing Corporation	David Turcotte	(401) 765-1858	Adjacent to River Street Bridge; will be directly impacted by detour and bridge construction
631/621 River Street			Adjacent to River Street Bridge; will be directly impacted by detour and bridge construction

APPENDIX B

Small-Site
Stormwater Pollution Prevention Plan (SWPPP)

SMALL-SITE
Stormwater Pollution Prevention Plan

For:

Bridge Group 26C – Woonsocket Blackstone River West
PTSID: 2607E

Singleton Street (Bridge No. 095501) and River Street (Bridge No. 095601)

Woonsocket, Rhode Island

Owner:	**RI DEPARTMENT OF TRANSPORTATION** Alisa Diaz Richardson 2 Capitol Hill Providence, RI 02903 401-222-2468

Operator:

TO BE DETERMINED UPON CONTRACT AWARD

Estimated Project Dates:	Start Date: To be determined
	Completion Date: To be determined
SWPPP Prepared By:	**GM2 Associates, Inc.** Brett Neilan, P.E. 200 Main Street, Suite 300 Pawtucket, RI 02860 (401) 726-4084
SWPPP Preparation Date:	4/23/2025

OWNER CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under the direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

7/15/25

Owner Signature: Date

Owner Name: Alisa Diaz Richardson, PE

Owner Title: Administrator, Environmental Division

Company Name: Rhode Island Department of Transportation

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INTRODUCTION

This Small-Site Storm Water Pollution Prevention Plan (SWPPP) has been prepared for the State of Rhode Island Department of Transportation (RIDOT) for a construction project that has less than one (1) acre of soil disturbance. This document provides general guidance for the installation and maintenance of erosion and sediment controls on small projects.

The purpose of erosion and sedimentation best management practices (BMPs) is to prevent pollutants from leaving the construction site and entering waterways or environmentally sensitive areas during and after construction. This SWPPP has been prepared prior to the initiation of construction activities to address anticipated worksite conditions. The best management practices (BMPs) depicted on the site plan and described in this narrative should be considered the minimum measures required to control erosion, sedimentation, and stormwater runoff at the site. Since construction is a dynamic process with changing site conditions, it is the operator's responsibility to manage the site during the construction phases to prevent pollutants from leaving the site. This may require the operator to revise and amend the SWPPP during construction to address varying site and/or weather conditions, such as by adding or realigning erosion or sediment controls.

It is the responsibility of the RIDOT Construction Manager to maintain the SWPPP, including all attachments, amendments, and inspection records, at the project field office and to make all records available for inspection by RIDEM during construction.

The RIDOT Construction Manager and designated Certified SWPPP Inspector are required to review the SWPPP and sign the Party Certification pages (Section 8). The prime contractor and all subcontractors involved in earthwork or exterior construction activities are also required to review the SWPPP and sign the certification pages before construction begins.

Any questions regarding the SWPPP, BMPs, inspection requirements, or any other facet of this document may be addressed to the RIDOT Environmental Division at 401-734-4892.

Please note: Even if practices are correctly installed on a site according to the approved plan, the site is only in compliance when erosion and sedimentation are effectively controlled throughout the entire site.

SECTION 1: SITE DESCRIPTION

1.1 Project/Site Information

The project involves the rehabilitation of two bridges over the Blackstone River in the City of Woonsocket (refer to Location Map in Attachment B). The purpose of the project is to address the poor condition of the bridges and prevent further deterioration, which will extend their useful life and improve safety. Additional information on each bridge is provided below.

Bridge No. 095501

Bridge No. 095501 carries Singleton Street over the Blackstone River. It consists of a single span steel warren truss bridge with a cast in place concrete deck and was built in 1957. The bridge has concrete abutments with riprap along the sides of the Blackstone River channel. Within the project area, the Blackstone River is part of the US Army Corps of Engineers' (USACE) Woonsocket Local Protection Civil Works Project. A flood protection dike is located southwest of the bridge.

Proposed work includes bridge rehabilitation, full depth pavement reconstruction at the bridge approaches, and bridge rail replacement. The project also proposes to restore the areas of riprap slope protection in front of the bridge abutments to match the upstream and downstream banks and the profile of the adjacent flood control berms.

Bridge No. 095601

Bridge No. 095601 carries River Street over the Blackstone River. It consists of a single span warren truss bridge. The bridge has concrete abutments with riprap along the sides of the Blackstone River channel. Within the project area, the Blackstone River is part of the US Army Corps of Engineers' (USACE) Woonsocket Local Protection Civil Works Project.

Proposed work includes bridge rehabilitation, full depth pavement reconstruction at the bridge approaches, and bridge rail replacement. The project also proposes to restore the areas of riprap slope protection in front of the bridge abutments to match the upstream and downstream banks and the profile of the adjacent flood control berms. Bridge No. 0095601 also includes a stormwater concrete flume/watercourse at the east abutment that will be repaired.

1.2 Nature and Sequence of Construction Activity

The work to be performed under this contract consists of repair/rehabilitation measures designed to extend the service life of the existing bridges. These measures include deck replacement, cleaning and painting of each bridge, bridge joint replacement, and replacement of the existing bridge rail to meet Manual for Assessing Safety Hardware (MASH) standards. Signage, pavement markings, and other necessary safety improvements are also included. The project also includes full depth pavement reconstruction at the bridge approaches.

The project will also restore the areas of riprap slope protection in front of the bridge abutments to match the upstream and downstream banks and the profile of the adjacent flood control berms.

Ground disturbance will be limited to the minor clearing and grading in the vicinity of each bridge to reconstruct the bridge approaches and restore the slopes at each abutment. Upon completion of work, all areas temporarily disturbed will be returned to pre-project conditions through grading and permanent stabilization measures. Construction activities beneath the bridge will be conducted during the low flow season (July 1 to October 31).

Estimated Project Start Date:	(to be determined upon contract award)
Estimated Project Completion Date:	(to be determined upon contract award)
Estimated Number of Months:	~42 months

1.3 Construction Site Estimates

The following are estimates of the construction site:

Total Project Area	0.85 acres
Construction Site Area to be disturbed	0.78 acres
Percentage impervious area before construction	95 %
Percentage impervious area after construction	95 %

1.4 Potential Discharges

Environmentally Sensitive Areas	Construction Site Discharges to: (Yes / No)	List discharge points & indicate how determination was made
Waters of the State	Yes	The subject bridges span the Blackstone River (RI0001003R-01A) *(RIGIS/RIDEM data)*
Wetlands (Coastal or Upland)	Yes	The Blackstone River is subject to protection under the state's Freshwater Wetlands Rules (250-RICR-150-15-3). There are no vegetated freshwater wetlands within the project area. *(RIGIS/RIDEM data, site visit)*
Separate Storm Sewer System	Yes	Closed drainage facilities are present along Singleton Street, east of Bridge No. 095501 and along River Street, east of Bridge No. 095601. *(Woonsocket GIS, project drainage plans)*
303(d) Impaired Waters	Yes	The Blackstone River is impaired for cadmium, iron, non-native aquatic plants, mercury in fish tissue, PCBs in fish tissue, enterococcus, fecal coliform, *(RIGIS/RIDEM data, 2024 IWQMA Report)*
TMDL Waters	Yes	The Blackstone River has the following TMDLs: cadmium (2013), enterococcus (2013), and fecal coliform (2013) *(RIGIS/RIDEM data, 2024 IWQMA Report)*
Special Resource Protection Waters (SRPWs)	No	*(RIGIS/RIDEM data)*
Cold Water Fisheries	No	*(RIGIS/RIDEM data)*

Natural Heritage Areas	Yes	Project is located in Natural Heritage Area #24, but there is no suitable habitat for the protected species. *(RIGIS/RIDEM data)*
Historic/Cultural Areas	Yes	There are 7 historic properties and 1 cultural property within the vicinity of the project. The project was reviewed under Section 106 of the National Historic Preservation Act and received a finding of "No Adverse Effect" in May 2024. The Rhode Island Historical Preservation & Heritage Commission (RIHPHC) concurred with the finding provided the following conditions be met: Both bridges are to be painted Federal Standard Bridge Green (Bridge Green SAE AMS-STD-595 24272), all sidewalks within the project area are to match the existing exposed aggregate sidewalks to the greatest extent possible, and all 4-bar railing is to be painted black. *(NEPA Categorical Exclusion Document, Section 106 Documentation Data Sheet for subject project)*
Permanent Stormwater Structures (swales, outfalls, treatment units, etc.)	No	None in vicinity of bridges. *(RIDOT record plans, Stormwater Database)*

1.5 Allowable Non-Storm Water Discharges

RIPDES Construction General Permit – IV.E.1.g

Are there allowable non-stormwater discharges on or near the project area?

☐ Yes ☒ No

List of allowable non-stormwater discharges:

- N/A

Are there any known or contaminated discharges, including dewatering operations, on or near the project area?

☐ Yes ☒ No

If yes, list the discharges and the RIPDES individual permit number(s) or RIPDES Remediation General Permit Authorization number(s) associated with these discharges.

- RIPDES individual permit number: N/A
- RIPDES Remediation General Permit Authorization number: N/A

1.6 Potential Sources of Pollution

Anticipated on this Project (Y/N)	Operation/ Location	Stormwater Pollutants
Y	Clearing, grading, excavating, and unstabilized areas	Sediment; Trash/Debris
N	Construction Entrance	Sediment
N	Soil Stockpiles	Sediment
Y	Paving operations	Sediment; Trash/Debris
Y	Concrete washout and waste	Heavy metals; pH; Trash/Debris
Y	Structure construction/ painting/ cleaning	Nutrients; pH; Trash/Debris; Toxic chemicals
Y	Demolition and debris disposal	Sediment; Trash/Debris
N	Dewatering operations	Sediment; Nutrients
N	Drilling and blasting operations	Sediment; pH; Trash/Debris
Y	Material delivery and storage	Sediment; Nutrients; Heavy metals; pH; Pesticides/Herbicides; Oil/Grease; Trash/Debris; Toxic chemicals
Y	Material use during building process	Nutrients; heavy metals; pH; pesticides/herbicides; oil/grease; trash/debris; toxic chemicals
Y	Solid waste/ trash/ debris	trash/debris; toxic chemicals
N	Hazardous waste	heavy metals; pH; pesticides/herbicides; oil/grease; toxic chemicals
N	Contaminated spills	Nutrients; heavy metals; pH; pesticides/herbicides; oil/grease; toxic chemicals
Y	Sanitary/septic waste (porta potty?)	Nutrients; pH; Bacteria/Viruses; toxic chemicals
Y	Vehicle/equipment fueling and maintenance	Oil/Grease; Toxic chemicals; fuel
Y	Vehicle/equipment use and storage	Oil/Grease; Toxic chemicals
N	Landscaping operations	Sediment; Nutrients; Trash/Debris
N	Off-site LUHPPL run-on	Industrial toxins; oil/grease; heavy metals; fuel; salt; hazardous materials
N	Other:	

1.7 Site Plans

TITLE & DATE OF PLAN SET(S):

State of Rhode Island, Department of Transportation
Singleton and River Street Reconstruction
Bridge Group 26C
Woonsocket Blackstone River West

(_____ Sheets, Date: _____)

** Date of approved Advertising Plan Set to be added above. See Section 6 (Amendments) and Section 7 (Recordkeeping).*

- ☐ Total area of development
- ☐ Total area of soil disturbance
- ☐ Areas that will not be disturbed
- ☐ The location of all erosion and sediment controls
- ☐ Locations of storm drain inlets and outfalls
- ☐The location and name of the receiving waters or separate storm sewer system and the ultimate receiving waters
- ☐Location and name of all waters of the State, including wetlands
- ☐Location of environmentally sensitive features/areas to be protected (Section 1.4)
- ☐ Constraint locations of material storage areas, equipment storage areas, concrete washouts, dumpsters, stockpiles, fueling locations etc.
  (i.e. locations where these activities will not occur)

SECTION 2: EROSION AND SEDIMENTATION CONTROLS

What is a BMP?

Erosion and Sedimentation controls are Best Management Practice (BMP) devices, practices, or methods for preventing storm water pollutants from leaving the construction site and reaching environmentally sensitive areas. The most common BMPs are compost filter socks, straw bales, and silt fence, but a BMP can also be a policy or procedure like construction sequencing and street sweeping. The objectives of erosion and sediment controls are to minimize the potential for erosion and sedimentation during construction activities.

If BMPs are not depicted on the approved plan set, but erosion or sedimentation is occurring, appropriate BMPs must be installed as directed by the RIDOT Construction Manager.

☒ *2.1 Minimize Disturbed Area and Protect Natural Features*

As far as is practicable, existing vegetation will be protected and left in place, in accordance with the clearing limits shown on the approved Plans. Prior to any land disturbance activities commencing on the site, the Contractor will physically mark limits of disturbance (LOD) on the site and any areas to be protected within the site, so that workers can see the areas to be protected. Topsoil will be preserved where possible, in accordance with stock pile management specifications

☒ 2.2 Phase Construction Activity

At a minimum, construction sequencing and timing of construction activities will include:

1. Before any earthwork begins, erosion and sediment controls will be installed as depicted on the Approved Plans, and in accordance with all applicable sections of the RIDOT Standard Specifications. Upon acceptable completion of site preparation and installation of erosion and sediment controls, site construction activities may commence.

2. While earthwork is being done, routine inspection and maintenance and/or modification of erosion and sediment controls will be performed.

3. Final stabilization of any disturbed areas after earthwork has been completed.

☒ 2.3 Control Stormwater Flowing Onto & Through Project

Structural BMPs will be used to divert flows from exposed soils, retain or detain flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site.

BMPs will be installed as depicted on the approved plan set and in accordance with applicable RIDOT Standard Specifications.

Control measures that may be used, upon approval, include straw bales/silt fencing, compost filter socks, fiber rolls, gravel bag berms, slope drains, check dams, and riprap.

☒ 2.4 Stabilizing Soils

Phased Clearing & Grubbing:

Only areas that can be reasonably expected to have active construction work being performed within 21-days of disturbance will be cleared/grubbed at any one time. It is NOT acceptable to clear and grub the entire construction site if disturbed portions will not be active within the 21-day time-frame.

Clearing/Grubbing will not take place during a rain event if erosion is likely to occur; nor will it occur if a rain event is forecasted and appropriate erosion controls cannot be installed prior to the storm and in accordance with section 201, 206 through 211 of the RIDOT standard specifications.

No undisturbed areas will be cleared of existing vegetation after October 15th of any calendar year or during any period of full or limited winter shutdown. All disturbed soils exposed prior to October 15 of any calendar year will be seeded or protected by that date. Any such areas that do not have adequate vegetative stabilization, as determined by the Construction Manager or environmental inspector, by November 15 of any calendar year, must be stabilized by erosion control matting or mulch, in accordance with specifications contained within the RI Soil Erosion and Sediment Control Handbook (as amended). If work continues within any of these areas during the period from October 15 through April 15, care must be taken to ensure that only the area required for that Day's work is exposed, and all erodible soil must be restabilized within 5 working days.

As per RIDOT Standard Specification 201.03.1 – Clearing and Grubbing: After clearing, and by the end of each day's grubbing operation, the Contractor will install erosion control measures that are indicated on the Plans or as directed by the Construction Manager. Such erosion control measures will be installed in strict accordance with the requirements of **SECTIONS 206, 207,** and **208** of these Specifications, **PERIMETER EROSION CONTROLS, CHECK DAMS**, and **TEMPORARY DEWATERING BASINS**, respectively.

Initiating Stabilization Practices

Upon completion and acceptance of site preparation and initial installation of erosion and sediment controls the operator will initiate appropriate stabilization practices during all phases of construction on all disturbed areas as soon as possible but not more than fourteen (14) days after the construction activity in that area has temporarily or permanently ceased, unless the activity is to resume within twenty-one (21) days.

Any disturbed areas that will not have active construction activity occurring within twenty-one (21) days must be stabilized using the BMPs depicted on the approved plan set and in accordance with RIDOT Standard Specifications Section L.02 – Seeding, Section L.05 - Seed Stabilizers and Section M.18 – Landscape Materials (M.18.08 – Mulch and M.18.09 – Seed Stabilizer Materials).

Maintaining Stabilization

Controls and methods that may be used to maintain soil stabilization include the placement of geotextiles, erosion control blankets/mats, and temporary seeding. If the stabilization BMPs fail and erosion occurs, then alternative control measures &/or methods may need to be substituted.

☒ 2.5 Protect Slopes

Structural BMPs will be used to temporarily conduct concentrated stormwater runoff safely down the face of a cut or fill slope without causing erosion on or below the slope.

BMPs will be installed as depicted on the approved plan set and in accordance with applicable RIDOT Standard Specifications.

Control measures that may be used, upon approval, include temporary slope drains, compost filter socks, fiber rolls, gravel bag berms, erosion control mats/blankets, and temporary vegetative cover.

☒ 2.6 Protect Storm Drain Inlets

Structural BMPs will be used to protect ALL stormwater inlets &/or catch basins that may receive sediment-laden stormwater flow.

BMPs will be installed as depicted on the approved plan set and in accordance with applicable RIDOT Standard Specifications.

Control measures that may be used, upon approval, include catch basin inserts, compost filter socks, fiber rolls, and gravel bag berms.

☒ 2.7 Protect Storm Drain Outfalls

Structural BMPs will be used to protect ALL stormwater outfalls that may discharge sediment-laden stormwater flow.

BMPs will be installed as depicted on the approved plan set and in accordance with applicable RIDOT Standard Specifications.

Control measures that may be used, upon approval, include compost filter socks, fiber rolls, gravel bag berms, and rip-rap.

☒ 2.8 Establish Perimeter Controls and Sediment Barriers

Structural BMPs will be used to establish perimeter barriers that will stop sediment-laden stormwater flow from leaving the construction site.

BMPs will be installed as depicted on the approved plan set and in accordance with applicable RIDOT Standard Specifications.

Control measures that may be used, upon approval, include baled straw &/or silt fence, compost filter socks, fiber rolls, and gravel bag berms.

☒ *2.9 Retain Sediment On-Site and Control Dewatering Practices*

Sediment traps, basins, and barriers are used to retain sediment on the site to protect streams, lakes, drainage systems, and adjacent property. These devices are used at the outlets of channels, diversions, and other runoff conveyance measures to allow sediment-filled water to pool and sediment to settle. These measures are often used as the last line of defense to stop sediment from leaving the site.

The dewatering of non-contaminated non-stormwater (i.e. groundwater) or accumulated precipitation discharge of sediment-laden water into storm drains, streams, lakes or wetlands prior to sediment removal is prohibited.

The dewatering of contaminated non-stormwater cannot be discharged without prior notice and approval from either the Rhode Island Department of Environmental Management (RIDEM) or the Coastal Resources Management Council (CRMC). Should dewatering of contaminated water be occurring on this construction project, appropriate permits will have been obtained, and will be included as part of the Contract Documents.

- Compost filter socks will be installed around the limits of work to retain sediment on site.
- Cofferdams or other water diversion methods are not anticipated to be required since in-water work is not proposed. Within the project area, water levels in the Blackstone River are controlled by the downstream Woonsocket Falls Dam, which is maintained and operated by the US Army Corps of Engineers (USACE). Project construction will be coordinated with the RIDOT Natural Resources Unit (NRU) and the USACE prior to the start of work to ensure that water levels in the Blackstone River are sufficiently drawn down to enable the channel slope restoration work to be completed in the dry. The channel restoration work will be performed during the seasonal low-flow period of July 1st to October 31st.
- If dewatering is required, RIDOT Standard 9.7.0 dewatering basins or approved equal will be employed, and all stilled water will be returned to the river non-erosively.

☒ *2.10 Monitoring Weather Conditions*

Care will be taken to avoid having unstabilized areas exposed during precipitation events. Weather forecasts will be routinely checked, and in the case of an expected precipitation event of over 0.25-inches over a 24-hour period, all BMPs will be inspected, and maintained as necessary, prior to the weather event.

In the case of an extreme weather forecast (greater than one-inch of rain over a 24-hour period), additional erosion/sediment controls will be installed where appropriate.

- Social Station (KRIWOONS18) - 42.01 °N, 71.52 °W
  https://www.wunderground.com/weather/us/ri/woonsocket/KRIWOONS18

SECTION 3: GOOD HOUSEKEEPING BMPS

The purpose of good housekeeping is to prevent daily construction operations and activities from causing pollution.

☒ 3.1 Off-site Tracking of Sediments

Any construction site access point must employ the BMPs depicted on the approved plan set and in accordance with RIDOT Standard Specifications Section 211 – Construction Accesses, or any method approved of by the RIDOT Construction Manager and the RIDOT Environmental Division. Construction accesses will be used in conjunction with the stabilization of construction roads to reduce the amount of mud picked up by construction vehicles. All RI STD 9.9.0 Construction Access roads will be constructed prior to any roadway accepting construction traffic

If a Construction Access BMP is not designated on the plans, it is still the responsibility of the Operator to ensure that no sediment is tracked off the construction site by any vehicles leaving the site. Additional control measures that may be used, upon approval, include a vehicle washing station and/or daily street sweeping.

The Operator will remain responsible for the clean-up of any mud or dirt that is tracked onto streets or paved areas, even with the installation of gravel construction entrances. Inspect access for excessive sediment build up. Remove sediment and rebuild the exit as necessary to retain effectiveness and prevent off-site tracking. Additional street cleaning may be required if unable to retain sediment on site.

☒ 3.2 Waste Disposal

Building materials and other construction site wastes will be properly managed and disposed of to prevent the discharge of solid materials from wind and precipitation. All types of waste generated at the site will be disposed of in a manner consistent with State Law and/or regulations.

- The waste collection area will not be within any of the constraint areas located on the "Constraint Map" (Section 1.7) and will be approved by the RIDOT Construction Manager.
- All waste containers will be covered to avoid contact with wind and precipitation.
- Waste collection will be scheduled frequently enough to prevent containers from overfilling.
- All construction site wastes will be collected, removed, and disposed of in accordance with applicable regulatory requirements and only at authorized disposal sites.
- Equipment and containers will be checked for leaks, corrosion, support or foundation failure, or other signs of deterioration. Those that are found to be defective will be immediately repaired or replaced.

☒ 3.3 Spill Prevention and Control Plan

Spills and leaks will be avoided through frequent inspection of equipment and material storage areas. Heavy equipment and other vehicles will be routinely inspected for leaks and repaired as necessary. Material storage areas will be routinely inspected for leaky containers, open containers, or improper storage techniques that may lead to spills or leaks. Appropriate cleanup procedures and supplies will be available on-site.

Spills will be cleaned up immediately and following proper response procedures and in accordance with any applicable regulatory requirements. At no time will spills be cleaned and flushed down storm drains or in to any environmentally sensitive area (i.e. stream, pond, wetland).

Equipment/vehicle fueling and repair/maintenance operations or hazardous material storage will not take place within any of the constraint areas located on the "Constraint Map" (Section 1.7) and will be approved by the RIDOT Construction Manager.

☒ 3.4 Control of Allowable Non-Storm Water Discharges

Non-storm water discharges will be controlled to reduce the likelihood of contamination. Allowable discharges will be kept separate from stormwater flow with BMPs.

For contaminated non-stormwater discharge(s), the requirements and regulations of the associated RIPDES individual permit or RIPDES Remediation General Permit will be adhered to at all times.

☒ 3.5 Establish Proper Building Material Staging Areas

Stock piles will not be located within any of the constraint areas located on the "Constraint Map" (Section 1.7) and will be approved by the RIDOT Construction Manager. They will have side slopes no greater than 30% and stockpiles of erodible material will be seeded and ringed with RI STD 9.1.0 to stabilize (or RIDOT approved equivalent: berms, dikes, fiber rolls, compost socks, sandbag, gravel bags).

If soil stockpiles are not stabilized with vegetation, then they will be securely covered at the end of each workday.

All chemicals and/or hazardous waste material must be stored properly and legally in covered areas, with containment systems constructed in or around the storage areas. Areas must be designated for materials delivery and storage. Designated areas will not be located within any of the constraint areas located on the "Constraint Map" (Section 1.12) and will be approved by the RIDOT Construction Manager.

☒ 3.6 Designate Washout Areas

Concrete mixer trucks and chutes will be washed in a designated area or concrete wastes will be properly disposed of off-site. Washout areas for concrete, paint or any other material will not be within any of the constraint areas located on the "Constraint Map" (Section 1.12) and will be approved by the RIDOT Construction Manager.

Temporary concrete washout areas must be constructed and maintained to contain all water and concrete waste generated by washout operations. A sign should be placed at the washout site to inform concrete equipment operators of the facility location. Facilities must be cleaned or replaced when they reach 75% capacity.

At no time will any material (concrete, paint, chemicals) be washed into storm drains, open ditches, streets, streams, wetlands, or any environmentally sensitive area. The site operator must ensure that construction waste is properly and legally disposed of, to avoid exposure to precipitation, at the end of each working day. Designated areas will not be located within any of the constraint areas located on the "Constraint Map" (Section 1.12) and will be approved by the RIDOT Construction Manager.

☒ 3.7 Establish proper equipment/vehicle fueling & maintenance practices

Vehicle fueling, maintenance and/or washing will occur off-site, or in designated areas. Designated areas will not be located within any of the constraint areas located on the "Constraint Map" (Section 1.7) and will be approved by the RIDOT Construction Manager.

Areas will be clearly designated, and berms, sandbags, or other barriers will be used around the perimeter of the maintenance area to prevent storm water contamination.

Construction vehicles will be inspected frequently for leaks. Repairs will take place immediately. Disposal of all used oil, antifreeze, solvents and other automotive-related chemicals will be according to applicable regulations; at no time will any material be washed down the storm drain or into any environmentally sensitive area.

☒ 3.8 Dust Control

Dust control procedures and practices will be used to suppress dust on a construction site during the construction process, as applicable. Precipitation, temperature, humidity, wind velocity and direction will determine amount and frequency of applications. However, the best method of controlling dust is to prevent dust production. This can best be accomplished by limiting the amount of bare soil exposed at one time. RIDOT Standard Specifications Section 907 – Dust Control – will be followed.

Dust Control methods may include watering, surface roughening, wind barriers, walls, and covers.

☒ 3.9 Sweeping

Sweeping of streets, roads, highways, and parking lots that have accumulated significant amounts of pollutants (construction site sediment, trash, debris) will be done as necessary, or as directed by the RIDOT Construction Manager. When construction exits are not keeping construction site sediment from the roadway, sweeping will be done daily. Disposal of collected sweeping material will follow RIDOT Standard Specifications Section 931 – Cleaning and Sweeping Pavement.

SECTION 4: POST-CONSTRUCTION BMPs

Post-Construction Best Management Practices are BMPs that are installed during the Construction Phase of a project to manage storm water flow after the construction is completed.

Measures must be used during the construction project to protect permanent or long term BMPs as they are installed so that they will function properly when they are brought online at the end of the construction phase.

Such long-term BMPs may include: infiltration basins, open vegetated swales and natural depressions, vegetated buffer strips, and detention/ retention structures. Controls may also be needed to prevent or minimize erosion at outfall locations or along the length of vegetated channels to reduce velocity flow from the structure to the receiving waters.

Control measures that may need to be implemented during the construction phase typically include measures to ensure proper installation and/or long term functioning of the long-term BMPs. Examples include: ensuring proper material staging areas and equipment routing to avoid compaction of soil in areas meant for permanent BMPs, and final cleaning of structural BMPs before construction finalization.

4.1 Post-Construction BMPs

Location	Post-Construction BMP	Protective Measures
None within scope of bridge rehabilitation project		

SECTION 5: MAINTENANCE and INSPECTIONS

RIPDES Construction General Permit – Section IV.E.2.d

5.1 Maintenance

Maintenance procedures for erosion and sedimentation controls and stormwater management structures/facilities are described on the approved plan set and in Section 212 of the RHODE ISLAND DEPARTMENT OF TRANSPORTATION Standard Specifications for Road and Bridge Construction August 2023 EDITION (and Amendments).

The Contractor will maintain erosion and pollution controls to the satisfaction of the Construction Manager. Erosion and pollution controls must be able to prevent, under normal weather conditions, both the movement of soil materials and the intrusion of sediment-laden discharges into environmentally sensitive areas.

Construction will not commence or continue until all specified erosion and pollution controls are in place, properly installed and accepted by the Construction Manager.

Erosion and pollution controls will be cleaned when sediment deposits reach the heights indicated in the table provided in Section 212.03.1 of the RIDOT Standard Specifications, after a rainstorm as necessary; and/or when directed by the RIDOT Construction Manager.

Erosion control structures will remain in place until all disturbed earth has been securely stabilized and accepted by RIDOT. Before final removal, all accumulated sediment on the upstream side will be removed and legally disposed of. After removal of structures, disturbed areas will be regraded and stabilized as necessary.

BMPs will be maintained in effective operating condition by appropriate means. Upon identification of BMPs that are not operating effectively, maintenance and/or appropriate means will be performed as soon as practicable.

Timely maintenance of the control measures identified in this SWPPP will be ensured by weekly and post-storm event site inspections. These site inspections are a condition and requirement of the RIDOT Stormwater Management Program Plan.

Please Note: The contractor is required to have a full-time, on-site designated contact person responsible for working with the RIDOT Construction Manager and the SWPPP Inspector to resolve SWPPP-related issues.

5.2 Inspections

Minimum Monitoring and Reporting Requirements

The construction site must be inspected at least once every seven (7) calendar days and within twenty-four (24) hours after any storm event which generates at least 0.25-inches of precipitation per twenty-four (24) hour period and/or after a significant amount of runoff or snowmelt. An appropriate rain gauge (as may be found on www.wunderground.com or www.nws.noaa.gov (or similar sites)) must be identified and utilized for the determination of the storm events.

General Notes

- The Certified SWPPP Inspector (Inspector) will prepare a separate inspection report for each inspection.
- The Inspection Reference Number will be a combination of the Construction Contract Number - consecutively numbered inspections.
  ex. Inspection reference number for the **4**th inspection of a project would be:
  2011-AA-BBB-**4**
- Each report will be signed and dated by the SWPPP Inspector and forwarded to the Construction Manager within 24 hours of the inspection.
- Each report will be signed and dated by the Construction Manager and forwarded to the Contractor's designated representative.
- Each report will be signed and dated by the Contractor upon receipt.
- If Corrective Actions are required, the Contractor will initiate appropriate measures within 24 hours of receiving of the inspection report.
- It is the responsibility of the RIDOT Construction Manager to maintain a copy of the SWPPP, copies of all completed inspection reports, and amendments as part of the SWPPP documentation at the project field office during construction.

ATTACHMENT A: Inspection Report Instructions and Template

5.3 Corrective Actions

If, in the opinion of the Inspector or Construction Manager, corrective action is required, the Inspector or Construction Manager will note it on the inspection report and will notify and direct the Contractor to take corrective action and make all necessary repairs whenever maintenance of the erosion and pollution controls is required.

In accordance with Section 212 of the RIDOT Standard Specifications, the Contractor will commence with the requisite cleaning and maintenance measures no later than the next consecutive calendar day after receiving such a directive from the Construction Manager, and will aggressively and expeditiously perform such cleaning and maintenance work until the original problem is remedied to the complete satisfaction of the Construction Manager.

If the Construction Manager decides on any given day that those erosion and pollution controls specified in the Contract are not in place or have not been adequately maintained as specified in this Section, the daily charge set forth in Special Provision Code 212.1000 will be deducted from monies due the Contractor as a charge for failure to comply with this Specification. Moreover, the stated daily charge will continue each consecutive calendar day thereafter until the deficiencies noted have been corrected to the complete satisfaction of the Construction Manager.

ATTACHMENT A: Inspection Report Instructions and Template including Corrective Action Log

SECTION 6: Amendments

This SWPPP is intended to be a working document.

It is expected that amendments will be required throughout the construction of the project.

Even if practices are installed on a site per the approved plan, the site is only in compliance when erosion and sedimentation are effectively controlled throughout the entire site.

The SWPPP will be amended whenever there is a change in design, construction, operation, maintenance, or other procedure which has a significant effect on the potential for the discharge of pollutants, or if the SWPPP proves to be ineffective in achieving its objectives (i.e. the selected BMPs are not effective in controlling erosion or sedimentation).

All revisions must be recorded in the Record of Amendments Log Sheet within the SWPPP, and dated red-line drawings and/or a detailed written description must be appended to the SWPPP. Inspection Forms must be revised to reflect all amendments. Update the Revision Date and the Version # in the footer of the Report to reflect amendments made.

All SWPPP Amendments, except minor non-technical revisions, must be approved by the Construction Manager.

SECTION 7: Recordkeeping

7.1 Requirements

It is the RIDOT Construction Manager's responsibility to have the following documents at the Field Office and immediately available for review upon request:

- A copy of the fully signed and dated SWPPP
- Copies of all signed and dated Inspection Reports
- Corrective Action Log
- Amendment Log
- Any Regulatory permits obtained as part of the Project

SECTION 8: Party Certifications

All parties working for the Rhode Island Department of Transportation are required to comply with the Stormwater Pollution Prevention Plan (SWPPP) for any work that is performed on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. Contractors and Sub-Contractors are encouraged to advise all employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the RIDOT Field Office, or may be obtained from the RIDOT Environmental Division by calling (401) 734-4892.

The prime contractor and each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement.

I acknowledge that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the BMPs and practices described in the SWPPP.

RIDOT Construction Manager:
Insert Company or Organization Name
Insert Name & Title
Insert Address
Insert City, State, Zip Code
Insert Telephone Number, Insert Fax/Email

_____
signature/date

Contractor's Certified SWPPP Inspector:
Insert Company or Organization Name
Insert Name & Title
Insert Address
Insert City, State, Zip Code
Insert Telephone Number, Insert Fax/Email

_____
signature/date & certification w/#

Contractor SWPPP Contact:
Insert Company or Organization Name
Insert Name & Title
Insert Address
Insert City, State, Zip Code
Insert Telephone Number, Insert Fax/Email

_____
signature/date

Subcontractor SWPPP Contact:
Insert Company or Organization Name
Insert Name & Title
Insert Address
Insert City, State, Zip Code
Insert Telephone Number, Insert Fax/Email

_____
signature/date

Insert more contact/signature lines as necessary

Amendment Log

ALL AMENDMENTS MUST BE APPROVED BY RIDOT CONSTRUCTION MANAGER

Describe amendment to be made to SWPPP, the date, and the person/title making the amendment. The RIDOT Construction Manager must approve ALL amendments.

	Date	Description of Amendment	R.E. initials
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Add more lines/pages as necessary

SWPPP APPENDICES

Attachment A

Small-Site SWPPP Inspection Report with Instructions

Small-Site SWPPP Corrective Action Log

Attachment B

Location Map

Department of Transportation
Two Capitol Hill
Providence, RI 02903

Office 401-222-2450
Fax 401-222-3905

Small-Site SWPPP Inspection Report with Instructions

For all projects with **less than one (1) acre of soil disturbance**, RIDOT is required to develop and enforce a site-specific **Storm Water Pollution Prevention Plan** (**SWPPP**) to remain in compliance with RIDOT's Stormwater Management Program Plan (SWMPP). As part of the SWPPP, a site-specific inspection report must be created and utilized.

Preparing the Inspection Report

This inspection report template has been provided by RIDOT for the development of the site-specific SWPPP Inspection Report. It must be customized for each individual Project to meet the requirements of the RIPDES Construction General Permit and our SWMPP.

It is expected that this Inspection Report will be prepared as part of the preparation of the site-specific SWPPP. This inspection report template is designed to be customized according to the SWPPP document (initially) and then customized based on conditions at the site.

Review the site-specific SWPPP and the Plans to develop the inspection report. ***On a copy of the site plan, number all stormwater BMPs and areas of the site that will be inspected.*** Include both structural (basins, outlet protection, swales, etc) and non-structural (construction entrances, perimeter barriers, trash areas, etc) BMPs and areas that will be inspected. Also, identify all point source outfalls, areas of highly erodible soils, and the priority natural resource areas (i.e. streams, wetlands, mature trees, etc). **List each BMP or area to be inspected separately in the site-specific BMP section of the inspection report**.

An appropriate rain gauge must be identified and utilized for the determination of the storm events. Rain gauges may be found on www.wunderground.com, www.nws.noaa.gov (or similar sites).

Small-Site SWPPP Inspection Report Instructions for:

RIDOT ENVIRONMENTAL DIVISION

- The RIDOT Administrator of the Environmental Division must review the SWPPP and sign the Certification Statement as the site OWNER on p. iii of the SWPPP.

RIDOT CONSTRUCTION MANAGER

- The RIDOT Construction Manager (CM) must review the SWPPP and sign the Certification Statement for RIDOT Construction Manager in Section 8. If the CM has any questions, contact the RIDOT Environmental Division (ED) at 401-734-4892.
- After an inspection has been performed, the CM must sign the 'acknowledgement' certification on Page 1 of the Inspection Report **at time of receipt from the Inspector.**
- The CM must review the Inspection Report within 24-hours of receipt.
    - If the CM agrees with the Inspection report, the CM must:
        - Fill out the "NOTICE TO CONTRACTOR" box on the last page of the Report
        - Have the Contractor sign the 'acknowledgement' certification on Page 1
        - Make a copy of the Inspection Report with all 3 signatures for the Contractor's use
    - If the CM disagrees with a corrective action item, the CM must:
        - Document objection with each item and provide justifiable reason in the inspection report. The contractor will not responsible for initiating corrective actions for such items. RIDOT's ED will review such items if warranted.
        - Fill out the "NOTICE TO CONTRACTOR" box on the last page of the Report
        - Have the Contractor sign the 'acknowledgement' certification on Page 1
        - Make a copy of the Inspection Report with all 3 signatures for the Contractor's use
- It is the responsibility of the RIDOT Construction Manager to maintain a copy of the SWPPP, copies of all completed inspection reports, and amendments as part of the SWPPP documentation at the project field office during construction.
- **The Inspection Report serves as the RIDOT directive to the Contractor to proceed with corrective actions.**
- **The CM is responsible for verifying Corrective Actions performed by the Contractor (sign/date on Corrective Action Log).**

- On a monthly basis, the Construction Manager must electronically submit a PDF of the Inspection Reports to the Project Manager (PM) and the Environmental Division (ED). Please submit ED reports to: dot.swppp@dot.ri.gov .

Monthly submission:

  - must include each completed, dated, and signed inspection report, including any associated photos.
  - must be submitted no later than the 10th of the month following the end of the reporting period.
  - must include a copy of the daily rainfall summary data for the month as reported by the selected rain gauge (ex/ the monthly calendar from www.wunderground.com).
  - may have the report content, frequency, &/or submission format changed with approval from the ED.

CONTRACTOR'S CERTIFIED SWPPP INSPECTOR

- The Contractor may be the Inspector if they are qualified, or the Contractor may designate another qualified person as the Inspector (see current Section 212 of RIDOT Specifications). The designated inspector must review the SWPP Plan and sign the Certification Statement for SWPPP Inspector in Section 8 of the SWPPP.
- **It is the responsibility of the Contractor's Inspector to start the SWPPP Inspections BEFORE EARTHWORK BEGINS.** Earthwork is NOT allowed to proceed until a SWPPP Inspection of the site has been completed.
- A separate inspection report will be prepared for each inspection.
- Complete any items that will remain constant, such as the project information and BMP locations and descriptions. Then print out multiple copies (double-sided!) of this customized inspection report to use during the inspections *or save the file for future use on a computer*. **The Inspector must also include their Certification/Qualification number on each inspection report.**
- The Inspection Reference Number shall be a combination of the Construction Contract Number - consecutively numbered inspections.
  ex. Inspection reference number for the **4**th inspection of a project would be:
  2006-AA-BBB-**4**
- Check the rain gauge for past & future weather data prior to inspection.
- Minimum Monitoring and Reporting Requirements

  "…the site must be inspected at least once every seven (7) calendar days and within twenty-four (24) hours after any storm event which generates at least 0.25-inches of precipitation per twenty-four (24) hour period and/or after a significant amount of runoff or snowmelt." (per RIPDES CGP)

- When conducting the inspection, walk the site by following the site map and numbered BMPs locations for inspection. Also, note whether the overall site issues have been addressed.
- Take photos to document issues, completed required maintenance/corrective actions – each photo should be dated and have a unique identification # and written description indicating where it is located within the project area. If a close-up photo is required, it should be preceded with a photo including both the detail area and some type of visible fixed reference point. Photos should be annotated with Station numbers and other identifying information where needed.
- For each inspection, the Inspector must determine if the Construction site is in compliance with the SWPPP, or not. The Inspector must check the appropriate check-box on Page 1 of the inspection report.
- Each report must be signed and dated by the Inspector and forwarded to the RIDOT Construction Manager within 24-hours of the inspection.

CONTRACTOR

- The Contractor must review the SWPPP and sign the Certification Statement for Contractor in Section 8 of the SWPPP.
- After an Inspection has been performed, the Contractor must sign the 'acknowledgement' certification on Page 1 of the inspection form at time of receipt from the Construction Manager.
- The CM will provide a copy of the signed Inspection Report to the Contractor.
- **The Inspection Report serves as your RIDOT directive to proceed with corrective actions.**
- In accordance with the SWPPP and Section 212 of the RIDOT Standard Specifications, the **Contractor will commence with the requisite cleaning and maintenance measures no later than the next consecutive calendar day after receiving such a directive from the Construction Manager, and will aggressively and expeditiously perform such cleaning and maintenance work until the original problem is remedied to the complete satisfaction of the Construction Manager**.
- The **CONTRACTOR** is responsible for maintaining the CORRECTIVE ACTION LOG for each inspection report. The log is a running total. Do not create a new one for each inspection.

Small-Site SWPPP Inspection Report Instructions for:

INSPECTOR, CONSTRUCTION MANAGER, & CONTRACTOR

Amendments

The SWPPP shall be amended whenever there is a change in design, construction, operation, maintenance, or other procedure which has a significant effect on the potential for the discharge of pollutants, or if the SWPPP proves to be ineffective in achieving its objectives.

SWPPP Amendments may be recommended by any party, but all amendments must be approved by the Construction Manager. The revision must be recorded in the Record of Amendments Log Sheet within the SWPPP and dated red-line drawings and/or a detailed written description must be appended to the SWPPP. Inspection Forms must be revised to reflect all amendments by the Inspector.

Questions

RIDOT Environmental Division
360 Lincoln Ave
Warwick, RI 02888
401-734-4892

dot.swppp@dot.ri.gov

RIC # INSPECTION #

RIDOT Small-Site SWPPP Inspection Report

Project Information			
Name/RIC/PTSID			
RIDOT Project Mgr		**RIDOT Construction Mgr**	
Contractor		**Contractor's Project Superintendent**	
E&S Sub-Contractor Contact		**Certified SWPPP Inspector's Cert. & Cert. #**	

Inspection Information			
Contractor's SWPPP Inspector Info	**Name**	**Phone**	**Email**
Inspection Date	Click or tap to enter a date.	**Start/End Time**	

Inspection Type
☐ **Weekly** ☐ **Pre-storm event** ☐ **During storm event** ☐ **Post-storm event** ☐ **Violation**

Weather Information

Rain Gauge:

Last Rain Event
Date Click or tap to enter a date.: Duration (hrs): Approximate Rainfall (in):

Current Weather at time of this inspection:

Weather Forecast at time of this inspection: (And: When is next precipitation or wind event anticipated?)

Certification Statements

Inspector: (check one)
☐ I, as the designated Inspector, certify that this site has been inspected and is in compliance with the site-specific SWPPP.

☐ I, as the designated Inspector, certify that this site has been inspected and I have made the determination that the site requires corrective actions before it will be compliant with the site-specific SWPPP. The required corrective actions are noted within this inspection report.

Print Name:	Signature:	Date: Click or tap to enter a date.

Construction Manager:
I, the RIDOT Construction Manager, acknowledge the receipt of this SWPPP inspection report, and understand the requirements set forth in the RIDOT Standard Specifications and the Contract Documents regarding the implementation and maintenance of erosion and sedimentation controls.

Print Name:	Signature:	Date: Click or tap to enter a date.

Contractor:
I, the designated Contractor representative, acknowledge the receipt of this SWPPP inspection report, and understand the requirements set forth in the RIDOT Standard Specifications and the Contract Documents regarding the implementation and maintenance of erosion and sedimentation controls.

Print Name:	Signature:	Date: Click or tap to enter a date.

RIC # INSPECTION #

EROSION AND SEDIMENTATION BMP INSPECTION		"No" means needs attention	Assoc. Photo #	If "No", what is the CORRECTIVE ACTION to bring into compliance?
2.1	Are **Limits of Disturbance** clearly marked at the site?	☐Yes ☐No		
2.1	Are **natural resource areas** (e.g., streams, wetlands, trees, etc.) protected with sediment barriers or similar BMPs?	☐Yes ☐No ☐None on/adjacent to site		
2.2	Is **construction sequencing** being followed?	☐Yes ☐No ☐N/A		
2.3	Are **structural BMPs** properly installed to divert stormwater flow from entering the construction site?	☐Yes ☐No ☐None needed		
2.4	Is **clearing/grubbing** only occurring in areas that will have active work within 21-days?	☐Yes ☐No		
2.4	Is **clearing/grubbing** taking place inside the Apr 15 - Oct 15 window?	☐Yes ☐No		
2.4	Do **disturbed/unstabilized areas** have appropriate erosion/ sedimentation controls in place?	☐Yes ☐No ☐All areas stabilized		
2.5	Are all **slopes** protected from concentrated stormwater flow?	☐Yes ☐No ☐No slopes		
2.6	Are **ALL** storm drain **inlets &/or catch basins** properly protected with silt sacks or other appropriate BMPs?	☐Yes ☐No		
2.7	Are **ALL** storm drain **outfalls** properly protected from scour/erosion?	☐Yes ☐No ☐No outfalls		
2.8	Are **perimeter and sediment controls** adequately installed & maintained to prevent sediment from leaving the site (including entering drainage system)?	☐Yes ☐No		
2.9	If dewatering, are discharge points protected & **receiving waters** free of sediment deposits?	☐Yes ☐No ☐No dewatering		
2.10	Is **weather** forecast being checked regularly?	☐Yes ☐No		
Notes on Erosion and Sediment Controls:				

RIC # INSPECTION #

GOOD HOUSEKEEPING BMP INSPECTION		"No" means needs attention	Assoc. Photo #	If "No", what is CORRECTIVE ACTION to bring into compliance?
3.1	Are BMPs effectively limiting **sediment** from being tracked into the street?	☐Yes ☐No		
3.2	Is **trash/litter** from work areas collected & placed in covered containers regularly?	☐Yes ☐No		
3.3	Are **equipment**, vehicles, containers, & storage areas free from leaks?	☐Yes ☐No		
3.3	Are **materials** that are potential stormwater contaminants covered or stored inside?	☐Yes ☐No		
3.4	Are **non-storm water discharges** (i.e. dust control H_2O) free from contamination?	☐Yes ☐No		
3.5	Are **stockpiles** covered (either with temporary vegetation or tarps), ringed with barrier BMPs, & located at least 50 feet away from natural resources & storm drains?	☐Yes ☐No ☐No stockpiles		
3.6	Are **washout facilities** (e.g. paint, grout, concrete) available, clearly marked, and **maintained** & located at least 50-feet away from natural resources and storm drains?	☐Yes ☐No ☐No concrete use at this time		
3.7	Are **vehicle** & **equipment** fueling, cleaning, & maintenance areas free from leaks & located at least 50-feet away from natural resources & storm drains?	☐Yes ☐No ☐No fueling areas		
3.8	Is **dust** being controlled on-site?	☐Yes ☐No		
3.9	Is **sweeping** being used to keep sediment off roads & parking lots?	☐Yes ☐No		

PROCEDURAL BMP INSPECTION		"No" means needs attention	Assoc. Photo #	If "No", what is CORRECTIVE ACTION to bring into compliance?
4.1	Are **permanent stormwater STUs** (i.e. infiltration basins, swales, permeable pavement areas) being protected from compaction? (*No stockpiling or vehicles in these areas*!)	☐Yes ☐No ☐No permanent STUs		
5.1	Are all **erosion & pollution controls** being maintained in accordance with RIDOT Standard Spec Section 212?	☐Yes ☐No		
5.2	Are **inspections** taking place at least every 7 days & after storm events?	☐Yes ☐No		
5.3	Has the Contractor initiated & completed previous **Corrective Actions** (CA)?	☐Yes ☐No ☐No previous CA		
6.0	Are SWPPP **Amendments** being logged?	☐Yes ☐No ☐None		
7.0	Are SWPPP & ALL **inspection reports** being kept at RIDOT Field Office?	☐Yes ☐No		

RIC # INSPECTION #

TO BE FILLED OUT BY RIDOT CONSTRUCTION MANAGER

OUTSTANDING CORRECTIVE ACTIONS

Were **CORRECTIVE ACTIONS** reported in the previous inspection report?

☐ **NO**	No Corrective Actions were issued in previous inspection report.
☐ **YES** and…	☐ All Corrective Actions have been addressed
	Date work began: Click or tap to enter a date. / Date work completed: Click or tap to enter a date.
	☐ Corrective Actions remain and are noted in this inspection report. **WHY did they not get addressed w/in 7-days?**

NOTICE TO CONTRACTOR

This SWPPP Inspection Report, completed by a qualified inspector, indicates that this construction site is:

☐ **COMPLIANT**	☐ No immediate actions are required. Keep up the good work! ☐ **Work is required to maintain site compliance. Contractor to complete the noted corrective actions within 24 hours to stay in compliance. Site moves into non-compliant category after 24 hours if not completed. Charges may be assessed.**
☐ **NON-COMPLIANT**	**This document serves as your RIDOT directive to proceed with the CORRECTIVE ACTIONS that have been outlined above.** The SWPPP, Construction Contract documents, and Section 212 of the RIDOT Standard Specifications state that the **Contractor** will commence with the requisite cleaning and maintenance measures **no later than the next consecutive calendar day** after receiving such a directive from the Construction Manager **and will aggressively and expeditiously perform such cleaning and maintenance work until the original problem is remedied to the complete satisfaction of the Construction Manager**.
	Date work to begin: Click or tap to enter a date.
	Date work to be completed: Click or tap to enter a date.

R.E. initials: _____ R.E. Comments:

Date: Click or tap to enter a date.

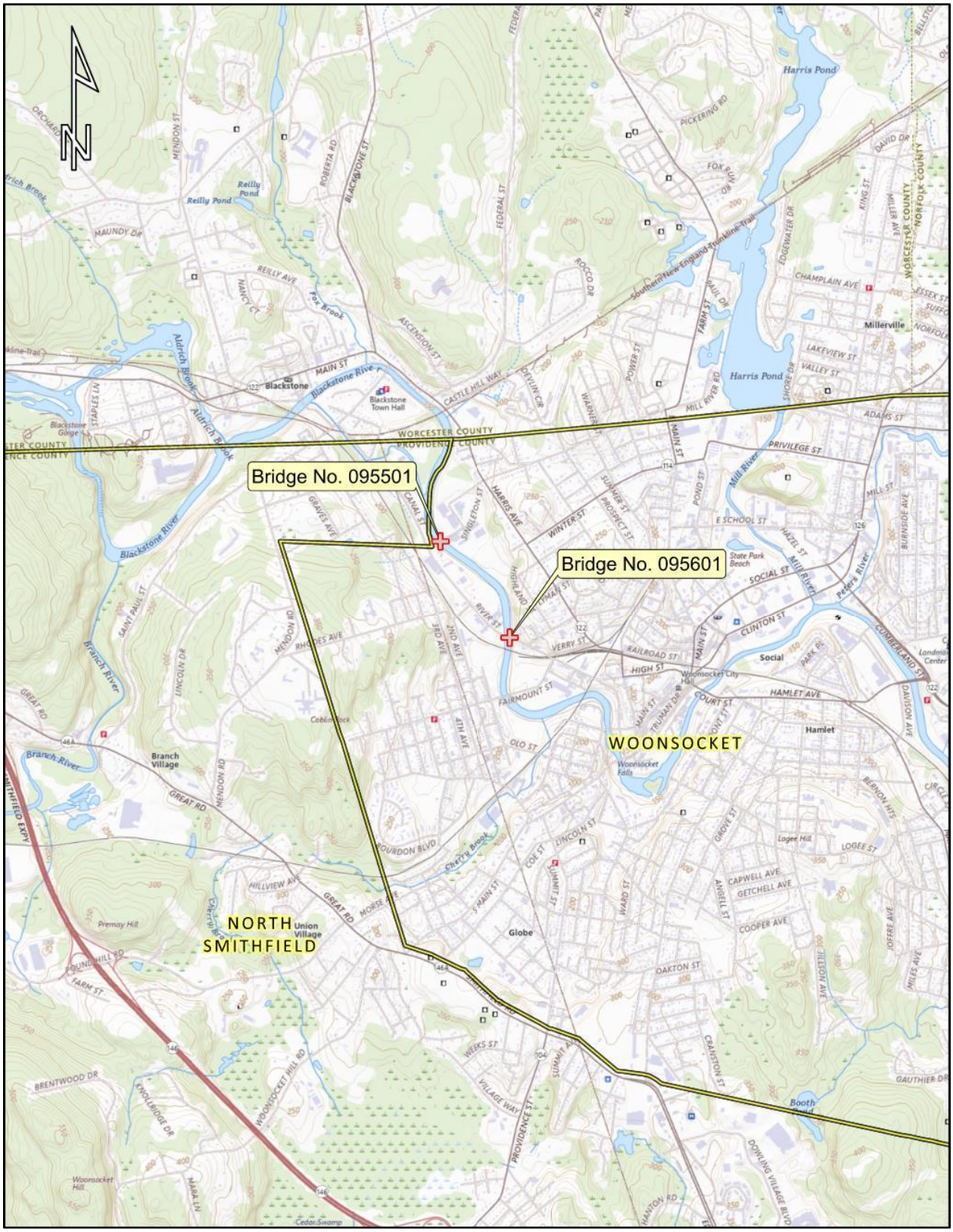
RIC # INSPECTION #

Corrective Action Log

THIS FORM TO BE FILLED OUT BY SITE CONTRACTOR FOR EVERY INSPECTION

Location/ Station	Corrective Action	Date Notified	Date Completed	RIDOT Initial
		Click or tap to	Click or tap to enter a	
		Click or tap to	Click or tap to enter a	
		Click or tap to	Click or tap to enter a	
		Click or tap to	Click or tap to enter a	
		Click or tap to	Click or tap to enter a	
		Click or tap to	Click or tap to enter a	
		Click or tap to	Click or tap to enter a	
		Click or tap to	Click or tap to enter a	
		Click or tap to	Click or tap to enter a	
		Click or tap to	Click or tap to enter a	
		Click or tap to	Click or tap to enter a	
		Click or tap to	Click or tap to enter a	
Operator Signature:		**Date:**	Click or tap to enter a date.	

Location Map



Bridge Group 26C – Woonsocket Blackstone River West - *Location Map*
Approx. Scale: 1" = 2,000' · Source: USGS National Map Service

APPENDIX C

Northern Long-Eared Bat

Northern Long-Eared Bat

(*Myotis septentrionalis*)

NLEB Description:

The Northern Long-Eared Bat (NLEB) is between 3" and 3.7" long with a wingspan of 9" to 10". NLEB are medium to dark brown on back and have tawny to pale brown undersides. NLEB have long ears. NLEB are nocturnal, they are active at night and sleep during the day.

Hibernating NLEB by Ann Froschauer USFWS

Protection:

NLEB populations have been decimated by White-Nose Syndrome, a fungal disease that affects bats during hibernation. When a species experiences a significant population decline and is determined to be at risk, it may be listed under the Endangered Species Act (ESA). The NLEB was listed as endangered under the ESA in March of 2023. Endangered species are in danger of becoming extinct. This listing provides special protections for NLEB, which are intended to help the population recover.

Habitat:

NLEB habitat is found throughout Rhode Island. NLEB hibernate in caves and mines called hibernacula during winter. NLEB swarm in wooded areas surrounding hibernacula in fall. During late spring and summer NLEB roost and forage in upland forests. During the day NLEB roost under bark and in tree crevices of both live trees and snags (dead trees). NLEB sometimes also roost in caves and structures, like buildings and bridges.

RI DOT Conservation Measures:

RIDOT incorporates conservation measures into projects to protect the NLEB. The specific conservation measures for each project are found in the contract documents. Dead and sick bats of any species must immediately be reported to the RIDOT Natural Resources Unit (NRU), call 401-479-1327. Contact the RIDOT NRU for an explanation of NLEB conservation measures.

More NLEB Information:

To learn more about the NLEB visit the USFWS website and search for the species by name.

FHWA Programmatic Consultation Avoidance and Mitigation Measure (AMM) 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all environmental commitments, including all applicable AMMs.

APPENDIX D

Tricolored Bat

RIDOT NRU

Tricolored Bat

(*Perimyotis subflavus*)

TCB Description:

The tricolored bat (TCB) is between 3" and 3.5" long with a wingspan of 8" to 10". TCB is distinguished by its unique tricolored fur that appears dark at the base, lighter in the middle and dark at the tip. The TCB often appears yellowish, varying from pale yellow to nearly orange, but may also appear silvery-gray, chocolate brown or black. TCB are nocturnal, they are active at night and sleep during the day.

TCB by Pete Pattavina USFWS

Protection:

TCB populations have been decimated by White-Nose Syndrome, a fungal disease that affects bats during hibernation. When a species experiences a significant population decline and is determined to be at risk, it may be listed under the Endangered Species Act (ESA). The TCB is proposed as endangered under the ESA. Endangered species are in danger of becoming extinct. This listing provides special protections for TCB, which are intended to help the population recover.

Habitat:

TCB habitat is found throughout Rhode Island. TCB hibernate in caves and mines called hibernacula during winter. TCB swarm in wooded areas surrounding hibernacula in fall. During late spring and summer TCB roost and forage in upland forests. During the day TCB roost under bark and in tree crevices of both live trees and snags (dead trees). TCB sometimes also roost in caves and structures, like buildings and bridges.

RI DOT Conservation Measures:

RIDOT incorporates conservation measures into projects to protect the TCB. The specific conservation measures for each project are found in the contract documents. Dead and sick bats of any species must immediately be reported to the RIDOT Natural Resources Unit (NRU), call 401-479-1327. Contact the RIDOT NRU for an explanation of TCB conservation measures.

More TCB Information:

To learn more about the TCB visit the USFWS website and search for the species by name.

FHWA Programmatic Consultation Avoidance and Mitigation Measure (AMM) 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all environmental commitments, including all applicable AMMs.

APPENDIX E

Migratory Birds

PROTECTION UNDER THE MIGRATORY BIRD TREATY ACT

Under the Migratory Bird Treaty Act (MBTA), it is unlawful to intentionally or unintentionally take, capture or kill any migratory bird unless a Migratory Bird Permit is first obtained from the U.S. Fish and Wildlife Service. The USFWS's rules define "take" for MBTA purposes to mean to "pursue, hunt, shoot, wound, kill, trap, capture, or collect." Each violation of the MBTA can result in a fine of $15,000, imprisonment for six months, or both.

There are few bird species that are not protected under the MBTA; they are Rock Doves (domestic pigeons), House Sparrows, European Starlings and Monk Parakeets. Although these species are not protected, they must be treated in a humane manner. The Contractor is encouraged to relocate active nests of unprotected species into nearby trees after approval from the RIDOT Natural Resources Unit (401-479-1327).

Bird species that are protected under the MBTA include all waterfowl, herons, eagles, hawks, falcons, owls and songbirds (including swallows, eastern phoebes and American robins). Nests typically may be found empty, with eggs, or chicks from March 1st to August 31st in trees, brush, open fields, and bridge structures. Raptors (hawks, falcon, owls, and eagles) nest as early as January 22nd through August 31st in or on trees, on telephone poles, open fields, or bridge structures.

Clearing and Grubbing, Tree Removal, and Land Disturbing Activities

A variety of bird species nest in trees, shrubs and grass areas within the highway ROW. If clearing and grubbing, tree removal, staging areas or other land disturbing activities will occur during the migratory bird breeding season (March 1st- August 31st), the Contractor shall avoid any active bird nests. During the breeding season (March 1st - August 31st), the Contractor should inspect the affected right-of-way for bird nests before commencing work. The Contractor shall not disturb any active nests (completed or partially completed nests that contain eggs or nestlings).

The Contractor shall not disturb any active nests (completed or partially completed nests that contain eggs or nestlings). If any active nest is discovered and the nest cannot be avoided, work shall stop and the RIDOT Natural Resources Unit shall be contacted to evaluate the potential for disturbance of nests. The project will avoid the removal and destruction of active bird nests except through federal and state approved options.

At no time should large nests of ospreys, hawks, falcons or eagles be destroyed, as these species return to the same nest site year after year and reuse the same nest. If a raptor nest must be removed for work to take place, it can be moved in cooperation with the USFWS.

All questions relating to migratory birds and nesting should be directed to the RIDOT Natural Resources Unit (401-479-1327).

Birds Nesting On or Under Bridges

A variety of bird species nest on or under bridges. Before commencing any bridge-related construction activities during the breeding season (March 1st-August 31st), the Contractor shall inspect the bridge(s) for bird nests. If any active nest is discovered, work shall stop and the RIDOT Natural Resources Unit shall be contacted.

The Contractor shall not disturb any active nests (completed or partially completed nests that contain eggs or nestlings). If any active nest is discovered and the nest cannot be avoided, work shall stop and the RIDOT Natural Resources Unit shall be contacted to evaluate the potential for disturbance of nests. The

project will avoid the removal and destruction of active bird nests except through federal and state approved options.

At no time should large nests of ospreys, hawks, falcons or eagles be destroyed, as these species return to the same nest site year after year and reuse the same nest. If a raptor nest must be removed for work to take place, it can be moved in cooperation with the USFWS.

All questions relating to migratory birds and nesting should be directed to the RIDOT Natural Resources Unit (401-479-1327).

Taking of a Migratory Bird

The taking of a migratory bird shall be reported to the RIDOT Natural Resources Unit (401-479-1327). The Contractor shall be responsible for all penalties levied by the USFWS for the taking of a migratory bird. The USFWS's rules define “take” for MBTA purposes to mean to “pursue, hunt, shoot, wound, kill, trap, capture, or collect.”

All questions relating to migratory birds and nesting should be directed to the RIDOT Natural Resources Unit (401-479-1327).

APPENDIX F

RI Energy Gas Requirements

Policy Requirements that Pertain to this Project

1. CONTRACTOR SHALL FOLLOW THE GUIDELINES LISTED IN RI ENERGY'S "GUIDELINES FOR WORKING AROUND GAS UTILITIES", DOCUMENT ATTACHED.

2. DEPTH OF GAS FACILITIES ARE UNKNOWN AND COULD BE SHALLOW, USE CAUTION WHEN WORKING IN THE VICINITY OF ANY GAS FACILITY, HAND DIGGING ONLY.

3. RI ENERGY REQUIRES A MINIMUM OF ONE FOOT OF SEPARATION BETWEEN CROSSING UTILITIES AND EXISTING GAS FACILITIES.

4. RI ENERGY REQUIRES A MINIMUM OF THREE FEET OF SEPARATION BETWEEN THE GAS MAIN AND THE PARALLEL FACILITY FOR STEEL AND PLASTIC GAS MAINS. **FOR CAST IRON GAS MAIN SEE LINE ITEM FOR ENCROACHMENT GUIDELINES.**

5. AT A PROPOSED UTILITY AND **CRITICAL** GAS MAIN CROSSING, A RI ENERGY GAS DAMAGE PREVENTION INSPECTOR MUST BE ON SITE WHEN CROSSING. CALL ED SOUZA AT 401-283-9159 OR JEFF CASSEL AT 508-468-7217.

6. IF A **GAS MAIN IS** EXPOSED OR **GOING TO BE EXPOSED** CALL RI ENERGY DISPATCH AT 877-304-1203 FOR AN INSPECTOR TO BE DISPATCHED TO THE SITE TO INSPECT THE LINE BEFORE BACKFILL.

7. IF A **GAS MAIN OR GAS MAIN COATING IS** DAMAGED CALL RI ENERGY DISPATCH OFFICE AT 877-304-1203 FOR AN INSPECTOR TO BE DISPATCHED TO THE SITE FOR REPAIR BEFORE BACKFILL.

8. FOR ANY EXPOSED GAS FACILITY, PROVIDE BACKFILL MATERIALS AND COMPACT THE BACKFILL MATERIALS IN ACCORDANCE WITH RI ENERGY'S "GUIDELINES FOR BACKFILL AND COMPACTION AROUND GAS PIPES", DOCUMENT ATTACHED.

9. WHEN CROSSING OR EXPOSING A STEEL OR PLASTIC GAS FACILITY SUPPORT MAY BE REQUIRED. FOLLOW THE GUIDELINES LISTED AND ILLUSTRATED IN RI ENERGY'S "SUPPORT REQUIREMENTS FOR EXPOSED & UNDERMINED STEEL OR PLASTIC GAS FACILITIES", DOCUMENT (DWG NO. CNST-6045) ATTACHED.

10. ALL GAS VALVE BOXES SHALL BE ADJUSTED TO THE NEW ROAD/SIDEWALK SURFACE. VALVE BOXES, IF REQUIRED FOR REPLACEMENT, CAN BE OBTAINED AT RI ENERGY'S PROVIDENCE LOCATION, 477 DEXTER STREET, PROVIDENCE, RI OR LINCOLN LOCATION, 642 GEORGE WASHINGTON HIGHWAY (QUANTITIES 5 OR LESS). GAS VALVE BOXES NEED TO BE ACCESSIBLE AT ALL TIMES TO BE OPERATED BY RI ENERGY IN THE EVENT OF AN EMERGENCY.

11. ALL CATHODIC PROTECTION BOXES (BOXES THAT CONTAIN WIRES THAT GO DOWN TO THE GAS MAIN) SHALL BE ADJUSTED TO THE NEW ROAD/SIDEWALK SURFACE. CARE SHALL BE EXERCISED WHEN ADJUSTING SO AS NOT TO DAMAGE THE WIRES. IF THE WIRES ARE DAMAGED OR IF ASSISTANCE IS NEEDED, CONTACT RI ENERGY CORROSION ENGINEER TO VISIT THE SITE. CONTACT RICK LEPAGE 508-948-8432 OR BUTCH VINCENT 508-838-4486. NEW BOXES, IF REQUIRED, CAN BE OBTAINED AT RI ENERGY'S PROVIDENCE FACILITY, 477 DEXTER ST, PROVIDENCE, RI OR RI ENERGY'S LINCOLN FACILITY, 642 GEORGE WASHINGTON HIGHWAY,

LINCOLN, RI (QUANTITIES 5 OR LESS). CONTRACTOR SHALL FOLLOW THE GUIDELINES LISTED IN RI ENERGY'S "GUIDELINES FOR WORKING AROUND CORROSION CONTROL SYSTEM COMPONENTS", DOCUMENT ATTACHED.

12. DUE TO SYSTEM RELIABILITY AND PUBLIC SAFETY CONCERNS, IT IS RI ENERGY'S PRACTICE TO RESTRICT ALL CONSTRUCTION WORK ON OR NEAR GAS FACILITIES BETWEEN NOVEMBER 15TH AND APRIL 15TH. ALL SCHEDULED WORK SHOULD BE COMPLETED BETWEEN APRIL 15TH AND NOVEMBER 15TH. AS GAS USAGE PEAK DURING THE MONTHS OF DECEMBER TO MARCH DRIVEN BY HEATING NEEDS, RI ENERGY'S PRIORITY IS TO PROVIDE OUR CUSTOMERS WITH SAFE AND RELIABLE GAS SERVICE. ANY WORK ON OR NEAR THE GAS FACILITY WILL EXPOSE OUR CUSTOMERS TO UNNECESSARY RISK. EXCEPTIONS WILL BE CONSIDERED ON A CASE BY CASE BASIS. APPROVALS FROM GAS CONTROL, OPERATIONAL ENGINEERING, AND PROJECT ENGINEERING WILL BE REQUIRED FOR THESE CASES.

13. FOR A GAS LEAK CALL 800-640-1595.

14. FOR A DAMAGED GAS FACILITY CALL 800-870-1664.

Policy Requirements that Pertain to this Project

1. CONTRACTOR SHALL FOLLOW THE GUIDELINES LISTED IN RI ENERGY'S "GUIDELINES FOR WORKING AROUND GAS UTILITIES", DOCUMENT ATTACHED.

2. DEPTH OF GAS FACILITIES ARE UNKNOWN AND COULD BE SHALLOW, USE CAUTION WHEN WORKING IN THE VICINITY OF ANY GAS FACILITY, HAND DIGGING ONLY.

3. RI ENERGY REQUIRES A MINIMUM OF ONE FOOT OF SEPARATION BETWEEN CROSSING UTILITIES AND EXISTING GAS FACILITIES.

4. RI ENERGY REQUIRES A MINIMUM OF THREE FEET OF SEPARATION BETWEEN THE GAS MAIN AND THE PARALLEL FACILITY FOR STEEL AND PLASTIC GAS MAINS. **FOR CAST IRON GAS MAIN SEE LINE ITEM FOR ENCROACHMENT GUIDELINES.**

5. AT A PROPOSED UTILITY AND **CRITICAL** GAS MAIN CROSSING, A RI ENERGY GAS DAMAGE PREVENTION INSPECTOR MUST BE ON SITE WHEN CROSSING. CALL ED SOUZA AT 401-283-9159 OR JEFF CASSEL AT 508-468-7217.

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7. IF A **GAS MAIN OR GAS MAIN COATING IS** DAMAGED CALL RI ENERGY DISPATCH OFFICE AT 877-304-1203 FOR AN INSPECTOR TO BE DISPATCHED TO THE SITE FOR REPAIR BEFORE BACKFILL.

8. FOR ANY EXPOSED GAS FACILITY, PROVIDE BACKFILL MATERIALS AND COMPACT THE BACKFILL MATERIALS IN ACCORDANCE WITH RI ENERGY'S "GUIDELINES FOR BACKFILL AND COMPACTION AROUND GAS PIPES", DOCUMENT ATTACHED.

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LINCOLN, RI (QUANTITIES 5 OR LESS). CONTRACTOR SHALL FOLLOW THE GUIDELINES LISTED IN RI ENERGY'S "GUIDELINES FOR WORKING AROUND CORROSION CONTROL SYSTEM COMPONENTS", DOCUMENT ATTACHED.

12. DUE TO SYSTEM RELIABILITY AND PUBLIC SAFETY CONCERNS, IT IS RI ENERGY'S PRACTICE TO RESTRICT ALL CONSTRUCTION WORK ON OR NEAR GAS FACILITIES BETWEEN NOVEMBER 15TH AND APRIL 15TH. ALL SCHEDULED WORK SHOULD BE COMPLETED BETWEEN APRIL 15TH AND NOVEMBER 15TH. AS GAS USAGE PEAK DURING THE MONTHS OF DECEMBER TO MARCH DRIVEN BY HEATING NEEDS, RI ENERGY'S PRIORITY IS TO PROVIDE OUR CUSTOMERS WITH SAFE AND RELIABLE GAS SERVICE. ANY WORK ON OR NEAR THE GAS FACILITY WILL EXPOSE OUR CUSTOMERS TO UNNECESSARY RISK. EXCEPTIONS WILL BE CONSIDERED ON A CASE BY CASE BASIS. APPROVALS FROM GAS CONTROL, OPERATIONAL ENGINEERING, AND PROJECT ENGINEERING WILL BE REQUIRED FOR THESE CASES.

13. FOR A GAS LEAK CALL 800-640-1595.

14. FOR A DAMAGED GAS FACILITY CALL 800-870-1664.

10/01/12
Revised 2/6/2023

Guidelines for Working Around Gas Utilities

Notification of Construction

RI Energy requests at least six week advanced notification prior to the start of construction to perform scheduled work in the proposed project area. Be aware that some gas work cannot be performed during the normal heating season.

Support and Protect

Contractor must call Dig Safe to have the gas mains and services marked out before construction. Care must be exercised when saw cutting over any gas infrastructure, especially services, which are more shallow than the main. Depth of gas mains vary. Contractor shall dig test pits in order to ascertain exact locations, cover and invert elevations, clearances, alignment and operating status of existing gas facilities. Contractor shall exercise extreme caution when excavating in the vicinity of any gas facility. Hand excavation shall be performed to locate all gas facilities and whenever digging within 24" of gas facilities. If cover over gas piping is removed the required cover must be replaced, or if not feasible, RI Energy must be notified for review of the issue. Undermined gas pipe must be adequately supported and protected from damage. Contact RI Energy engineer for guidelines regarding proper pipe support. Significant vibration from pile driving and such may negatively impact gas facilities, particularly cast iron mains and regulator station vaults. Contact RI Energy engineer prior to performing such activities as well as operations which may undermine gas facilities such as micro-tunneling, jacking, directional drilling, etc.

Gas Leaks

For any gas leak please call 800-640-1595 immediately.

Types of Gas Facilities

Gas mains and services are made of several different materials and contain a wide range of pressures. Typical materials used for buried gas pipe includes bare steel, coated steel, plastic, cast iron, wrought iron, ductile iron, and copper. Never assume that a pipe is not gas. At times gas lines are inserted into older lines to save excavation cost.

Exposure of Gas Facilities

If any gas mains or services become exposed, RI Energy must be notified to inspect the line before backfilling. Also any damage that may have been made to the pipe or pipe coating will need to be repaired by RI Energy before backfilling. Contact our Dispatch office at (877) 304-1203 for inspection. It is important that even minor damage or scrapes be reported to RI Energy. Backfill shall be 6" of sand around the gas line and clean compacted fill above.

Regulator Stations
Gas regulator stations are particularly critical facilities and RI Energy must be notified whenever work is to take place within 200 feet of a station. Regulator stations are typically in buried vaults accessed through either manhole covers or aluminum doors. ONLY AUTHORIZED RI ENERGY EMPLOYEES SHALL OPEN A REGULATOR STATION VAULT. Be aware that a complex nest of piping and valves often exists in the vicinity outside the vaults.

Blasting
RI Energy must be notified of any blasting that will take place within 200 feet of a gas utility. RI Energy must be supplied with a detailed blast plan for blasting in the vicinity of gas facilities. The evaluation of the blast plan by a RI Energy engineer may take some time, therefore, blast plan data should be submitted at least two weeks prior to the planned blasting. As a general rule blasting will not be permitted within 10 feet of a gas line and PPV at the nearest gas pipe shall not exceed 5 in/sec. PPV at the nearest gas main shall be monitored.

Valves
Access to gas valves must be maintained throughout construction and left at grade at the end of construction. Should valve boxes be damaged and need to be replaced RI Energy will supply replacements upon request. NEVER OPERATE A GAS VALVE. ONLY RI ENERGY SHALL OPERATE GAS VALVES.

Clearance
Adequate clearance must be provided when installing other utilities, foundations, structures, etc. Contact RI Energy engineer for guidance.

GUIDELINES FOR WORKING AROUND CORROSION CONTROL SYSTEM COMPONENTS

DESCRIPTION

This guideline shall control work around existing Corrosion Control components. Replacement of test stations, anodes and test wire leads shall comply with Standards and Specifications stipulated by RI Energy. If design plans call for work in the area of Corrosion Control components, care must be taken to prevent damage to such components.

GENERAL RI ENERGY CONSIDERATIONS

The contractor shall perform replacement of damaged corrosion control test boxes, resetting of disturbed test boxes, and ensure a minimum of 12” of excess wire above the rim of the test box after set to finished grade. Wires shall not be pulled taught to achieve the 12” above the box, as this will cause stress on the wire connection at the main. Wires needing to be lengthened, damaged corrosion control components i.e. wires, or wire coating, shall require notification to the Corrosion Control Department to initiate inspection/repair or replacement of the damaged components.

Backfilling exposed Corrosion Control wire components should begin immediately after the work in that location is complete. The region within 6" alongside and on top of the connector wires shall be backfilled with padding sand (free of cinders, ash, and rock). Test wire leads must be kept with enough slack to prevent stress on the points where the wires connect to the gas main. Trench spoil material shall be suitable for backfilling above the padding material as long as rocks with a diameter larger than 3" are removed. The 8” to 12” backfill layers shall be mechanically compacted to the industry standard of 95%.

APPENDIX G

Rules and Regulations
Woonsocket Water Works Division

RULES AND REGULATIONS

of the

WATER WORKS DIVISION

of the

PUBLIC WORKS DEPARTMENT,

CITY OF WOONSOCKET, RHODE ISLAND

EFFECTIVE AS OF JANUARY 29, 1960

(Except as Otherwise Noted)

FOREWORD

This booklet has been prepared to establish a better understanding between the department and the citizens in the various communities served by the City of Woonsocket system. The rules and regulations embody a uniform practice governing the department for the installation of services, meters, water mains and miscellaneous services rendered. They are intended to define the obligation of the department to the consumer and of the consumer to the department.

People, as never before, are beginning to realize how essential their water supply is to life and health and the protection of property against fire. In addition to its value to our civilian economy, manufacturers recognize it, as a basic material for which there is no substitute.

Like any other product, water must be distributed through miles of water mains in order to reach all consumers served by our system. Reservoirs of water are maintained in the distribution system to meet sudden peak demands placed on our water supply.

The rates charged for this important commodity are relatively low, and compare most favorably with those of other water utilities for similar service.

GENERAL INFORMATION

Main Offices

Offices of the department are located at Water Treatment Plant, 1500

Manville Road, Woonsocket, Rhode Island.

Office Hours

Office hours daily, except Saturdays, Sundays and legal holidays: from 8 A.M. to 4 P.M.

Information and Complaints

Any information about water services, rates, rules, etc. may be had by calling Water Works Division at 767-1410. The operator will connect you with the proper party. Complaints of a minor nature may be made by phone. Major complaints should be made in writing and addressed to the Water Works Division. All complaints will receive careful consideration.

Emergency Calls

The department maintains emergency crews who are on duty the entire 24 hours, including Saturdays, Sundays and holidays. Any emergency may be reported day or night by calling 767-1410.

Street Services

Services between the street main and the curb line are maintained by the department. Any and all work inside the curb line and in the building must be performed by the property owner through a master plumber licensed by the State of Rhode Island.

Inspectors and Meter Readers

Do not allow any person claiming to be an employee of this department to enter your premises unless he can show proper identification. Any imposter should be reported at once.

Rates for Water

The entire supply of the City of Woonsocket system to any and all premises shall be furnished by Meter only and at the following prescribed rates.

Rates Applicable to Woonsocket

Quarterly Minimum Charge
-Bills Are Rendered Quarterly-

This charge includes the charge for water used at the established rate up to the amount of the minimum charge. These charges are according to the size of meter as follows:

Meter Sizes and Cost Per Quarter

PLEASE CALL FOR CURRENT RATES

RULES AND REGULATIONS
ADOPTED BY THE CITY COUNCIL
EFFECTIVE AS OF *JANUARY 26, 1960*

The following rules and regulations and all subsequent changes, amendments and additions thereto, shall constitute a part of the contract with every person, corporation and property owner supplied with water from the City of Woonsocket system. Every person, corporation and property owner using such supply shall be considered as having expressed consent to

be bound thereby.

A copy is available to every consumer and can be obtained upon application, and all persons are requested to read same carefully, as failure to know the rules and regulations will not excuse anyone from the consequences of neglect of such rules and regulations.

SECTION 1

Water Bills

Information Regarding Bills:

Bills are prepared by the Water Works Division and filed with the City Treasurer for collection.

Requests for information regarding bills or notices should be made either personally or preferably by letter to the office of the Water Works Division.

Property Owners Responsible for Water Bills:

To ensure proper rendering of bills, property owners shall notify the office of the Water Works Division of any changes in mailing addresses. Failure to receive a bill does not relieve the property owner from the obligation of its payment or the payment of penalties subsequently incurred.

Responsibility for Water Charges:

Customers and property owners shall be responsible for all charges accruing for water service until written notice has been given to the Water Works Division by the owner of the property served to discontinue the service or (in case of a change in ownership of the premises) until notice has been give the Water Works Division of the change of ownership of the premises served and the new owner has filed with said Water Works Division (on the form provided for such purposes) a written application for water service. New owners using water at their premises without filing the proper application for water service shall be (1) liable and responsible for all water service provided and water used during their ownership of the

premises, (2) subject to the penalties provided by law for the unauthorized use of water. In such cases the Water Works Division reserves the right to discontinue water service to any property, the recorded owner of which has not filed an application for water service.

Applicants for water service at all premises shall become responsible for all outstanding charges for water theretofore furnished said premises. Section 39-15-12 of the General Laws of Rhode Island, 1956.

PAYMENT OF WATER BILLS

Payment:

All water bills are payable at the office of the City Treasurer, City Hall, Woonsocket, and must be paid within (30) days after they are rendered and become due.

Penalties:

If bills remain unpaid for thirty days after they are rendered, the water will be shut off. Whenever water is turned off under such conditions, it will not be turned on again without payment of all charges due, plus a fee of (please call) for turning on the water.

COURTESY NOTICES

It is the intention of the Water Works Division to send courtesy notices of increased consumption or delinquency in payment of bills, but failure to do this does not relieve the customer of his responsibility to repair leaky fixtures or pay water charges promptly.

SECTION 2

Meters

All Water Metered:

All water from the City of Woonsocket system will be supplied through one primary meter for each separate service. All water passing through such meters will be billed to the owner of the property supplied, as the same appears in the records of the Water Works Division, whether the water is used or wasted. Customers are advised to read their meters frequently in order that leaks or waste may be detected and large bills prevented.

Ownership of Meter: **(Effective April 1, 1960)**

Meters, up to and including 1" in diameter, except as otherwise provided in Section 6, are installed by and at the expense of the Water Works

Division. The Water Works Division reserves the right to designate the size of meter to be installed on any service. Meters over 1" in diameter are the properties of the property owner.

Annual Rental:

Meters up to and including 1" in diameter are subject to an annual rental charge of (call for current rates) per annum. This charge will be billed each of the water bills rendered quarterly beginning with the quarter ending September 30, 1960.

Location of Meters:

The property owner shall furnish a proper place for the meter, which is to be installed in a horizontal position just inside and as near as possible to the point of entry of the service pipe through the building wall. The meter shall be located in the building nearest to the street line, provided that this building is not more than 75 feet from the street line. In the event that the nearest building is located more than 75 ft. from the street line, the meter shall be installed just inside of the owner's property from the street line in a suitable housing or pit,

provided and maintained at the expense of the property owner.

Upon installation of such a pit, the property owner shall also install a conduit and pull string from the pit to the basement of the nearest building for wiring of an ARB reader by the Water Division.

Accessibility:

Meters must be easily accessible at all times so that they may be examined and read by employees of the department. They must not be exposed to danger from frost or contamination.

By Whom Set:

The installation, repair and disconnection of all meters are to be performed by employees of the Water Works Division only, except as hereinafter provided.

Damaged Meters:

If meters are damaged by frost, hot water, or external causes, either by carelessness or neglect of the owner or occupant of the premises or his

agents, the Water Works Division, except as hereinafter provided, will repair the meter; and the owner must reimburse the Water Works Division for all cost of repairs.

In case of breakage, stoppage or any other irregularity in the meter, the property owner is to notify the department immediately.

Meter Testing:

Every water meter is carefully tested before it is installed. Periodic tests for duty of each meter will also be necessary. Should a property owner at any time question the accuracy of the meter on his service, it may be tested after the department receives the request in writing, a fee is paid, and said request is proven valid.

Adjustments:

If the testing of a meter as hereinbefore provided shows that it fails to register correctly within two percent, the charge to the consumer shall be adjusted accordingly as the registration varies from 100 percent; and such adjustment shall apply to the current period only,

unless it is apparent to the Water Works Division that a previous

period's consumption has also been affected by the same error.

Repairs to Large Meters:

At the written request of the Water Works Division, property owners will return meters larger than 1 inch in diameter to the factory for necessary and complete repairs. The owner will remove the meter within 15 days after receiving this notice, and will advise the department the date the meter is to be removed so that a representative of the department may obtain a reading on the meter. The owner will notify the factory to forward direct to the Water Works Division a certified copy of the test on the meter before repairs are made, and another certified copy of the test after completing repairs. All expenses covering the repairs are to be borne by the property owner.

Billing Non-Registering Meters:

In case a meter fails to register or has been removed for repairs, testing or other purposes during the billing period, the bill will be issued, based on the average daily rate of consumption as shown by the meter after it has been returned to service and is in proper working order.

If the meter has not been returned to service, the bill will be issued

based on the average daily rate of consumption for the previous corresponding quarter over a 3-year period.

Unserviceable Meter Over 1" in Diameter:

The Water Works division reserves the right at all times to remove, test, repair and replace any meter; and if such meter is found to be economically unserviceable, require another meter be substituted in its place at the expense of the property owner.

Tampering or Defacing Meters:

The Water Works Division of the City of Woonsocket will prefer charges in accordance with Section 11-35-6 of the General Laws of Rhode Island, 1956, against every person who shall tamper or deface a meter to prevent the proper registration of the water consumed by altering the register index or otherwise, or for the breaking of any seal placed by the department for the protection of any meter, valve or fitting.

A. For the efficient and proper operation of the water system of the City of Woonsocket, all water meters up to one inch in size, currently in operation, shall be owned by the City of Woonsocket.

B. There shall be no privately owned water meters up to one inch in size served by said system.

C. The City of Woonsocket is authorized to purchase all water meters up to one inch in size that are owned by individual taxpayers and connected to the City of Woonsocket Water System; and the Finance Director is hereby authorized to purchase said meters at the current market price of new meters of the same similar types.

D. Payment for said meters up to one inch in size that are individually owned at the present time shall be made from the Water System Construction Fund.

E. On and after November 1, 1960, the Water Department of the City of Woonsocket shall not provide water to any homes or establishments whose water meters are up to one inch in size if said meter is privately owned by the taxpayer.

SECTION 3

SERVICE PIPES (GENERAL)

Application for Service Pipes:

Application for the installation of new services or the renewal of old services, when the request for new service is larger in size than that presently in service, shall be made by the owner of the property or his authorized agent on forms supplied at the offices of the Water Works Division, City Hall, Woonsocket.

Applications for water must state fully and truly the purpose for

which same is to be used, together with the proper legal description of the property; also, the official town or city street and the number of the premises to be supplied.

Connection Charges for Service-Pipes:

Service pipes are installed by the Water Works Division from the distribution main in the street to the curb stop just inside the curb line. The charge for this installation will be estimated by the Water Division Engineer and must be paid for in advance.

Ownership of Service Pipe:

The service pipe from the distribution main to the curb stop is owned and maintained by the city. The portion of the service pipe beyond the curb stop is the property of the customer, and is installed and maintained by the owner through a plumber licensed by the State of Rhode Island.

The service pipe from the curb to the building shall be laid by a licensed plumber, and the installation completed before the city installs its portion of the service from the street main to the curb line.

The licensed plumber must lay his portion of the service in a straight line from the curb to inside the building and at a right angle to the street line.

The service pipe shall be inspected and approved by a representative of the Water Works Division before being covered.

Service pipes must have 5 ft. of cover to avoid freezing.

Location:

The location where the service is to enter the property must be distinctly marked by a card furnished by the department and placed on the house, or a stake, by the property owner.

Material for Service Pipes:

All service pipes 3/4" in diameter to and including 2" in diameter shall be type "K" extra heavy, soft temper, cold drawn, seamless, deoxidized copper tubing, having a minimum ultimate tensile strength of not less than 30,000 lbs. per square inch.

Service pipes 4" in diameter and above shall be class 150 cement mortar lined cast iron pipe, manufactured in accordance with Federal Government Specifications WW-P-421 a Type, as amended to date.

Inspection:

Service pipes shall be tested for water tightness in the presence of a representative of the Water Works Division before being covered up.

No service pipe shall not be laid in the same trench with a building drain or sewer pipe, NOR SHALL THE WATER PIPE BE CLOSER TO A SEWER THAN TEN (updated 2003)FEET AT ANY HORIZONTAL POINT.

Main Shut-Off Valve:

On every new pipe, immediately after its entry into the building, shall be an approved type gate valve. Gate valves manufactured to conform in all respects with American Water Works Specification C-500 as amended to date or ball valves shall qualify as an approved type. Valves that fail to meet these specifications will be rejected for this class of service. Existing service pipes not equipped with the above type of valve, when renewed or replaced shall conform with the requirements for new service pipes.

Horizontal Meter Setting:

All small meters on new installations shall be set approximately twelve inches above the floor, in a horizontal position, immediately after the main shut-off, and as near to where the service pipe enters the building as is practicable. The plumber shall provide an approved support for the meter. Large meters may be set directly on the floor, and current type meters shall have a straight length of pipe at least eight times the pipe diameter before the meter.

Whenever it is necessary to renew or replace a service pipe, the meter shall be reset to conform with the requirements for new installations.

Back Water Valves:

All new services shall be equipped with an approved type of gate valve immediately following the meter setting on the house side, to act as a back valve and prevent the house piping from emptying while the meter is being changed or for other work on the service pipe. Valves manufactured to conform in all respects with Federal Specifications WW-V-54 Type 1 Class A as amended to date shall qualify as an approved type. Valves that fail to meet these specifications will be rejected for this class of service.

Existing service pipes not equipped with the above type of valve, when renewed or replaced shall conform with the requirements for new service

pipes.

Tapping Mains:

No person except an authorized representative of the Water Works Division will be allowed under any circumstances to tap the mains or distribution pipes, insert corporation stops therein, set or remove meters on service pipes, or interfere with water gates or curb stops.

Repairs to Property Owner's Service Pipe and Fixtures:

Property owners must keep their own pipes and all fixtures connected thereto in good repair and protected from frost at their own expense. In case of a break in that section of the service pipe between the curb stop and the meter, the property owner shall immediately obtain the services of a licensed plumber to make the necessary repairs. Failure to make repairs at once or to obtain the necessary permits covering these repairs shall be sufficient cause to shut off the supply.

Cleaning Service Pipes:

The Water Works Division does not recommend or approve the cleaning of service pipes to remove rust or other obstructions to increase the flow. Property owners desiring this service must submit their request in writing,

and agree to take all responsibility for the cost of replacing the service in case it is broken.

Sidewalk Permits:

No sidewalk or other public place shall be opened for the laying of service pipes until the property owner, through a licensed plumber, obtains a permit from the proper city, town or state agency. Cost of repairs to city sidewalks shall be borne by the property owner.

SECTION 4

Temporary Services

For Building and Other Construction Purposes:

Contractors, builders, etc., requiring water for construction purposes, shall make application for a temporary service, and will be subject to the same rules and regulations as apply to regular service installations. A meter will be installed on the temporary service by the Water Works Division, and the cost of temporary services are subject to same rentals as regular services with a minimum charge of (call). Temporary services will be subject to the connection charge described in Section 3, plus the cost of removing the service.

All charges, including the connection charge, cost of removing the service and setting the meter, shall be paid in advance; and the applicant will be required to deposit a sufficient sum of money with the City Treasurer to cover the cost of the estimated amount of water to be used in conjunction with the work.

If, at any time during the course of construction, the estimated

amount of water covered by the deposit is below the actual consumption shown on the meter, the applicant will be required to deposit additional sums with the City Treasurer. After completion of the work, if the actual consumption registered on the meter is below the estimated amount, the department will arrange to refund the difference.

SECTION 5

Main Pipe

Distribution Main:

Distribution mains are water pipes laid in the streets as feeders for consumers, services and hydrants. These pipes are laid on application of the property owner, subject to the following provisions.

SECTION 6

Fire Supplies

The Water Works Division may render a special service to private property for private fire protection purposes.

Application must be made by the owner of the property or his authorized agent and will be subject to all the provisions, including the

connection charge hereinbefore described entitled "Service Pipes (General)" as far as they apply to this type of service.

Drawings:

The applicant must furnish a complete and correct drawing or set of drawings showing the location of the premises to be supplied, together with location of all valves, pipes, hydrants, tanks, sprinkler heads and other appurtenances on the premises at time of making application. The plans will remain the property of the Water Works Division.

The applicant also agrees to furnish the Water Works Division with drawings showing revisions to piping or appurtenances whenever the same are made.

Charges:

The Quarterly charge for this service shall be made in accordance with the following schedule, based upon the size of the service connection. For each service connection from the main --

Size	*Per Quarter*
4"	call
6"	call
8"	call

Installation to be approved by Water Works Division:

The Water Works Division expressly reserves the right to determine the necessity for and the advisability of, granting any application for this special service, and the right to determine the size of service pipe which will be granted; depending upon the size of the saree main, the available pressure on the main, and the nature and capacity of the fire protection equipment within the building.

Connection to Domestic Service Prohibited:

No connection shall be made at any time between the fire supply system and the regular water supply to the premises. Valves placed on the system shall be of the style that can be sealed by the department.

Number of Services:

One service only will be allowed to any one building or premises; unless, in the opinion of the Water Works Division, more than one is absolutely necessary for the proper protection of the premises. All fire protection equipment connected to the city service shall be confined within

the building or on the premises named in the application; and where two or more connections are made for one building or premises, they shall be kept separated, unless special permission is obtained from the Water Works Division to connect the same in a manner to be approved by said authority.

Use of Service:

No water shall be drawn from the fire service pipes for any purpose whatever except for the extinguishment of fire. This paragraph is not to be construed as prohibiting a reasonable use of water for fire drills, draining of system to prevent freezing, or other reasonable use in connection with proper fire protection. Whenever water is used for this purpose, either by the owner or the insurance inspector making the test, the owner shall obtain a reading on the meter before and after the test and forward this information, together with a brief description of the operations resulting in the use of water, to the Water Works Division.

Cross Connections:

Any fire protection system supplied with water from the city service shall be supplied exclusively with such water, and no connection will be allowed with any other system drawing its supply from any other source

whereby the city water supply may be subjected to contamination.

Any fire protection system using water from any other source than the city service shall be kept entirely separate from any such system supplied from the city service.

Inspection:

All fire services shall be subject to periodic inspections by inspectors from this department. The owner shall give the inspectors all reasonable facilities for making the survey and any information concerning same that they may require. Care will be taken that inspections will be made with as little inconvenience to the owner as possible.

Illegal Use:

When the owners or occupants of any premises are found to be using water from a fire service for other purposes than fire protection, the water shall be shut off from same until the offenders shall give reasonable assurance before the Water Works Division that the offense will not be repeated. Water used for such other purposes shall be charged at the normally applicable rates.

Meters:

All fire supplies shall be metered and conform to the provisions of Section 2 entitled "Meters", with the following exceptions:

A. The owner may purchase and install a fire line compound meter as directed by the Water Works Division, provided it is a type approved by said Board and the National Board of Fire Underwriters.

B. The owner may purchase and install a detector check valve with meter in by-pass, provided it is a type approved by the Water Works Division and the National Board of Fire Underwriters; but the Water Works Division reserves the right at any time to require the owner to install a fire line compound meter as described in the preceding paragraph (a).

Valves:

On the inlet and discharge side of each fire line compound meter or detector check valve, the owner shall install a gate valve manufactured to conform in all respects with the American Water Works Specifications for

Gate Valves for Ordinary Water Works Service as amended to date.

The valves shall be of a type that meets the requirements of the National Board of Fire Underwriters.

On detector check valve installation with meter in by-pass, the owner shall install a gate valve on the inlet side of the by-pass meter that conforms in all respects with Federal Specifications WW-V-54 Type 1 Class A as amended to date. On the discharge side of the by-pass meter, the owner shall install a horizontal bronze swing check valve with metal disc, designed for a working pressure of 125 pounds per square inch for steam or 200 pound per square inch for water, oil or gas.

Violation of Rules:

For any violation of the rules governing fire supplies, the Water Works Division may discontinue the service immediately.

SECTION 7

Fire Hydrants

The Water Works Division shall install public fire hydrants wherever required for fire protection, subject, however, to all the provisions described in Section No. 5 entitled "Main Pipe".

Hydrants are Property of Water Works Division:

All public fire hydrants and their connections are installed and maintained by the department and remain a part of the water works system. No connection charge is placed against the installation of hydrants. The use of hydrants for public fire protection shall be paid for by the areas serviced outside the city limits at the rate of (call) per hydrant per year.

Obstructing Fire Hydrants:

No person shall obstruct the access to any fire hydrant by placing or permitting any snow, debris, building material or other obstruction to remain on or about the hydrant which will in any manner interfere with its immediate use.

Use of Hydrants:

Public fire hydrants are installed for the sole purpose of fire protection; and, with the exception of the members of the Fire Department operating the same for the legitimate purpose of extinguishing fires, no other use of such hydrants shall be made without the written consent of the Water Works Division.

SECTION 8

General

Cross Connections Prohibited:

No licensed plumber or others shall cause a physical connection to be

made between the City of Woonsocket water supply and any other water supply for commercial, domestic, sanitary, fire protection or boiler feed purposes, or for any other purpose whatsoever.

No watercloset, urinal bowl, or any other fixture shall be supplied directly from the City water system through a flushometer or other valve unless such valve is set above the water closet or urinal bowl or other fixture in such a manner as to prevent any possibility of back siphonage or pollution.

No plumbing fixture, device or construction shall be installed which will provide a cross-connection between the City supply and a drainage system, soil or waste pipe, so as to permit or make possible the back flow of sewage or waste into the supply system. Drawoff pipes for draining sprinkler systems shall not be connected into a drainage system shall not be connected into a drainage system or a submerged pit.

If the City water supply is delivered to a tank which is also supplied with water from any source other then the public water supply; such tanks shall be open to atmospheric pressure and the City water supplied above the maximum level in the tank. The tank shall be equipped with an overflow pipe of ample size to fix definitely the maximum level of water. There shall be at least 6 inches between the invert of the pipe supplied with

City water and the maximum level.

If the City water supply is delivered to a tank in which there are chemicals, dyestuffs, or other materials used in processing, the pipe supplied with City water shall not be submerged. There shall be ample clearance between the invert of the City supply and the top of the tank to prevent back siphonage into the public supply.

All structures supplied with water through meters sizes 2 inch and larger as well as all medical facilities, wastewater facilities, and other facilities deemed by the superintendent to represent a backflow contamination hazard shall be equipped with an approved reduced pressure zone high hazard backflow prevention device provided with sufficient, reliable drainage.

The device shall be inspected and serviced by a licensed tester annually and the findings of such annual inspections shall be forwarded to the Water Division

Pump Connection:

No pump shall be directly connected to any City main or service for the purpose of increasing the water pressure in the City's or owner's system unless prior written authorization and approval has been obtained

from the Water Works Division.

Lawn and/or Garden Watering Systems:

Underground or concealed lawn and/or garden watering systems of any type shall not be installed on any premises unless approved by the Water Works Division. Applications for water service which include the installation of such a system shall be accompanied by two (2) sets of plans showing complete and accurate details of the installation to be made.

The system shall be designed or laid out in zones in such a manner that not more than one (1) zone of sprinkler or spraying heads shall exceed a discharge rate of forty (40) gallons per minute. A control valve shall be installed which shall prevent the operation or use of more than (1) zone at at any one time. An approved type of vacuum breaker of the same size as the supply line or lines in a location not less than twelve (12) inches above the highest elevation of the sprinkling and/or spraying discharge point, and a check valve shall be installed in the supply line between the vacuum breaker and the water meter.

The plans submitted for approval shall designate the size, type and length of pipe in the system, the size, type, make and discharge rate of all sprinkler or spraying heads, the size, type, make and location of the

vacuum breaker and check valve, and the size, type and make of control valve.

Dishwashing and Laundry Machines:

Direct water supply to dishwashing and laundry machines shall be equipped with an approved vacuum breaker and a check valve located between the vacuum breaker and the fixture. The vacuum breaker shall be located at least four (4) inches above the highest elevation of the machine.

Water Works Division is not Liable for interruption in Service or Damage Resulting Therefrom:

The Water Works Division of the City of Woonsocket furnishes water and not pressure, and does not guarantee a continuous supply. No responsibility will be assumed for any damage to any apparatus in any house or building due to the shutting off of water without notice, either for repairs on account of a break in the pipe lines or other necessary operations.

No person shall be entitled to damages, nor to have any portion of a payment refunded, for any stoppage of supply occasioned by accident to any portion of the works; nor for stoppage for purposes of additions or

repairs; nor for non-use occasioned by absence or any other reason.

Notice of Interruption of Service Not Required:

While it is the intention to give notice, as far as possible, in advance of any work which must be done that will necessitate interruption of the supply, such notice is to be considered a courtesy only and not a requirement on the part of the Water Works Division. In case of a break in pipe lines, water will be shut off at any time without notice.

Failure of tenant or property owner to receive notice of interruption of service shall entail no responsibility on the part of the Water Works Division or its employees. Property owners must so install range boilers, hot water tanks and other installations connected with the water supply system, with adequate safeguards, so that damage will not occur if the water is shut off without notice.

Unauthorized Use of Water:

The Water Works Division of the City of Woonsocket will prefer charge in accordance with Section 11-35-7 of the General Laws of Rhode Island, 1956, against every person who shall, without proper authorization from the Water Works Division, tap or make any connection with street main or

service or other distributing pipe connected with the water system; or who shall, without such authorization, open any gate or valve connected with said system or for the purpose of obtaining such water; or who shall in any way or by any device obtain the use of such water without authorization.

Re-Sale of Water:

No consumer, except with the written consent of the Water Works Division previously obtained, will be allowed to furnish water to other persons or property or to suffer such persons to take it themselves. Violations of this regulation may cause the supply to be shut off and the water rate already paid forfeited.

Water Charges to One Person:

When water shall be supplied to more than one party, through a single service, the bill for the whole supply furnished through such service will be made either to the owner of the property or to some one tenant who shall agree to be responsible therefor. In case of non-payment, the water may be shut off, notwithstanding one or more parties may have paid the proportion due from hem or them.

Water Waste:

Water must not be allowed to waste through any faucet or fixture to prevent freezing, or kept running any longer than necessary in its proper use. The Water Works Division is required to restrain and prevent any and all wastage of water; and, to that end, may, when necessary, turn off the water or take such other action as in its judgment may be proper.

Right to Make Inspection:

Inspectors of this department, or any person authorized by the Water Works Division, must have free access at all reasonable hours to all parts of every building, for the purpose of inspecting, removing or replacing meters, examining water fixtures, and observing the manner in which the water is used.

Request for Turn On:

After service has been shut off for any reason except repairs, it shall not be reestablished unless a written order is given the department by the owner or his authorized agent.

Refusal to Give Service:

No water shall be furnished to any property which is indebted to the City of Woonsocket for water service.

Penalty for Violation of Rules:

If the owner, agent, lessee, tenant or person in charge of any premises, shall violate any rule or regulation of the Water Works Division affecting said premises, and shall fail to remove any violations or comply with any written order of said Water Works Division pertaining thereto within thirty days after such order shall have been sent by mail to the last known address of such person, said Water Works Division may discontinue service to such premises.

If water service shall be so discontinued, it shall not be resumed until the rule or regulation so violated shall have been complied with to the satisfaction of said Water Works Division, and a reasonable fee paid to the City Treasurer for the service in turning the water off and on.

SUGGESTIONS TO CONSUMERS

The Water Meter

Consumers are advised to learn to read the meter order that they may verify the meter reading appearing on the bill. The meter will not tell how the water was used; but it will honestly tell, if consulted at any time, how much is being used or wasted. Its function is to protect the City against the enormous loss from wast or extravagant use, and to fix the charge to consumers according to the services received.

All meters used throughout the City of Woonsocket system read in cubic feet only. One hundred cubic feet of water is equivalent to 748 gallons.

How to Read Water Meters

Meter dials are of the straight reading or circular reading type. A straight reading dial type of meter is read exactly as an automobile speedometer is read. A circular reading dial type of meter is read in the same manner as the register of a gas or electric meter.

In reading meters of the circular dial type, when a pointer is between two figures, the lesser of the two must always be taken. If there is any doubt as to the correct reading of any dial, refer to the dial of next lower denomination; for unless its pointer has passed "O", the pointer

which is being read has not completed the division upon which is may appear to rest, and the last figure which it has entirely passed should be taken as the reading.

Meter Accuracy

Water meters are made with great care and precision and should, with reasonable care, give years of satisfactory service. A defective meter will invariably under register, or work in favor of the consumer. All meters before being set have been carefully checked and tested for accuracy, and when placed in service are sealed. This Seal Must Not be Broken by the Consumer.

Waste and Leakage of Water

If a meter suddenly shows an increase in consumption, with no apparent cause, one of two things has happened; a leak has started, or water has been allowed to run to waste.

Waste and leakage of water is an economic waste, not only to the customer, who pays much larger bills than he should; but to the water

department as well, who must provide a plant of sufficient capacity to meet water demands resulting from leakage and waste in addition to the normal requirements of its consumers. Conservation of water results in indirect savings to the consumer. It eliminates large capital expenditures required in expanding the supply, either at its source or in the distribution system, to meet unusual demands from leakage and waste.

Detection of Leakage

The flow of water from all fixtures supplied by the meter should be shut off, and the pointer on the circle marked "one foot" observed for a period to ten or fifteen minutes. If the pointer moves, a leak is indicated, the size of which may be determined by timing the pointer.

If the pointer moves one-fourth of the way around in fifteen minutes, it represent a waste of 24 cubic feet per day, or 8,760 cubic feet per

year.

If the leak cannot be located, a licensed plumber should be called as the Water Works Division is not authorized to do work on private property.

APPENDIX H

RIDEM OLRSMM Remedial Decision Letters and Site Investigation Report

RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF LAND REVITALIZATION & SUSTAINABLE MATERIALS MANAGEMENT
235 Promenade Street, Providence, Rhode Island 02908

REMEDIAL DECISION LETTER August 26, 2025
File No. SR-39-2193A

Jon Pratt, City Engineer
City of Woonsocket
169 Main Street
Woonsocket, RI 02895

RE: Bridge Group 26C
Singleton Street Bridge – Over the Blackstone River
Woonsocket, RI

Dear Mr. Pratt:

On April 22, 2020, the Rhode Island Department of Environmental Management's (the Department) Office of Land Revitalization and Sustainable Materials Management (LRSMM) enacted the codified 250-RICR-140-30-1, Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (the Remediation Regulations). Following periodic refiling, the active Rule became effective on January 4, 2022. The purpose of these regulations is to create an integrated program requiring reporting, investigation, and remediation of contaminated sites in order to eliminate and/or control threats to human health and the environment. A Remedial Decision Letter (RDL) is a formal, written communication from the Department that approves a site investigation, identifies the preferred remedial alternative and authorizes the development of a Remedial Action Work Plan (RAWP) in order to achieve the objectives of the environmental clean-up.

In the matter of the above-referenced property (the Site), the Department's Office of LRSMM is in receipt of the following documentation submitted pursuant to the Remediation Regulations in response to the reported release at the Site:

1. Notification of Release, received by the Department on May 3, 2024, and prepared by AECOM.
2. Response to Letter of Responsibility (LOR), received by the Department on September 5, 2024, and prepared by AECOM;
3. Site Investigation Report (SIR), received by the Department on November 4, 2024, and prepared by AECOM; and
4. Post-Site Investigation Public Notice Documents, received by the Department on August 6, 2025, and prepared by GM2 Associates, Inc (GM2).

Collectively, these documents define "Existing contamination" at the Site and fulfill the requirements of a Site Investigation Report (SIR) as described in Section 1.8.8 of the Remediation Regulations. In addition, according to our records, public notice was conducted to all abutting property owners, tenants, easement holders, the municipality, and Environmental Justice Focus Area, regarding the substantive findings of the completed investigation in accordance with Sections 1.8.7(A)(2) and 1.8.9 of the Remediation Regulations. The Department has received documentation demonstrating that the requirements of Rhode Island General Laws (R.I.G.L.), Title 23, Health and Safety, Chapter 23-19.14, Industrial Property Remediation and Reuse Act, 23-19.14-5, Environmental Equity and Public Participation, have been fulfilled. The opportunity for public review and comment on the technical feasibility of the proposed remedial alternatives commenced on August 2, 2025, and the period closed on August 19, 2025. No comments were received.

The preferred remedial alternative, as stated in the SIR, consists of the following conceptual measures:

- Completion of soil screening and excavation to ensure polycyclic aromatic hydrocarbon (PAH)-impacted soils exceeding the RIDEM Residential and Industrial/Commercial Direct Exposure Criteria have been removed. Confirmatory sampling in the hotspot area shall be conducted to ensure the removal of all PAH-impacted soils. Excavated soils shall be disposed of at a licensed off-Site facility.

The Department hereby approves the SIR, with the above identified preferred remedial alternative, and requires a RAWP be submitted for review and approval, and implemented, to achieve the objectives of the environmental clean-up, in accordance with the following conditions:

1. In accordance with Sections 1.9 and 1.10 of the Remediation Regulations, a RAWP shall be submitted for Department review and approval within sixty (60) days from the date of this letter. The RAWP shall describe all of the technical details, engineer design elements, and schedules associated with the implementation of the proposed remedy. All of the subsections outlined in Section 1.10 of the Remediation Regulations must be included in order to facilitate the review and approval of the RAWP. If an item is not applicable to this Site, simply state that it is not applicable and provide an explanation in the RAWP.

2. Once the Department reviews the RAWP for consistency with Sections 1.9 and 1.10 of the Remediation Regulations, any written comments generated and forwarded as a result of the review(s) shall be incorporated forthwith into a RAWP Addendum, to be submitted for final approval.

3. Upon finalization of the RAWP, the Department will issue a Remedial Approval Letter (RAL), signifying Department approval. **Once approved, the Performing Party shall be prepared to submit progress reports detailing the status of remedial action activities on a biweekly basis (every two weeks).** All remedial measures required by the Department shall be implemented, in accordance with the approved schedule, to ensure all applicable exposure pathways at the site are appropriately addressed.

Please be advised that the Department reserves the right to require additional actions under the aforementioned Remediation Regulations at the Property should any of the following occur:

- Conditions at the Site previously unknown to the Department are discovered;
- Information previously unknown to the Department becomes available;
- Policy and/or regulatory requirements change; and/or
- Failure by the City of Woonsocket, the Rhode Island Department of Transportation, or any future holder of any interest in the Property to adhere to the terms and conditions of the Department approved RAWP, schedule, and RAL for the Property.

If you have any questions regarding this letter or would like the opportunity to meet with Department personnel, please contact me by telephone at (401) 537-4359, or by E-mail at Joanna.pawlina@dem.ri.gov.

Sincerely,

Joanna Pawlina

Joanna Pawlina
Environmental Scientist II
Office of Land Revitalization &
Sustainable Materials Management

Cc: Kelly Owens, RIDEM/OLRSMM
Alisa Richardson, RIDOT
Robert Soscia, RIDOT
Patrick Haskell, AECOM
Keith Sullivan, GM2 Associates, Inc.

RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF LAND REVITALIZATION & SUSTAINABLE MATERIALS MANAGEMENT
235 Promenade Street, Providence, Rhode Island 02908

REMEDIAL DECISION LETTER August 26, 2025
File No. SR-39-2193B

Jon Pratt, City Engineer
City of Woonsocket
169 Main Street
Woonsocket, RI 02895

RE: Bridge Group 26C
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Woonsocket, RI

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In the matter of the above-referenced property (the Site), the Department's Office of LRSMM is in receipt of the following documentation submitted pursuant to the Remediation Regulations in response to the reported release at the Site:

1. Notification of Release, received by the Department on May 3, 2024, and prepared by AECOM.
2. Response to Letter of Responsibility (LOR), received by the Department on September 5, 2024, and prepared by AECOM;
3. Site Investigation Report (SIR), received by the Department on November 4, 2024, and prepared by AECOM; and
4. Post-Site Investigation Public Notice Documents, received by the Department on August 6, 2025, and prepared by GM2 Associates, Inc (GM2).

Collectively, these documents define "Existing contamination" at the Site and fulfill the requirements of a Site Investigation Report (SIR) as described in Section 1.8.8 of the Remediation Regulations. In addition, according to our records, public notice was conducted to all abutting property owners, tenants, easement holders, the municipality, and Environmental Justice Focus Area, regarding the substantive findings of the completed investigation in accordance with Sections 1.8.7(A)(2) and 1.8.9 of the Remediation Regulations. The Department has received documentation demonstrating that the requirements of Rhode Island General Laws (R.I.G.L.), Title 23, Health and Safety, Chapter 23-19.14, Industrial Property Remediation and Reuse Act, 23-19.14-5, Environmental Equity and Public Participation, have been fulfilled. The opportunity for public review and comment on the technical feasibility of the proposed remedial alternatives commenced on August 2, 2025, and the period closed on August 19, 2025. No comments were received.

The preferred remedial alternative, as stated in the SIR, consists of the following conceptual measures:

- Completion of soil screening and excavation to ensure polycyclic aromatic hydrocarbon (PAH)-impacted soils exceeding the RIDEM Residential and Industrial/Commercial Direct Exposure Criteria have been removed. Confirmatory sampling in the hotspot area shall be conducted to ensure the removal of all PAH-impacted soils. Excavated soils shall be disposed of at a licensed off-Site facility.

The Department hereby approves the SIR, with the above identified preferred remedial alternative, and requires a RAWP be submitted for review and approval, and implemented, to achieve the objectives of the environmental clean-up, in accordance with the following conditions:

1. In accordance with Sections 1.9 and 1.10 of the Remediation Regulations, a RAWP shall be submitted for Department review and approval within sixty (60) days from the date of this letter. The RAWP shall describe all of the technical details, engineer design elements, and schedules associated with the implementation of the proposed remedy. All of the subsections outlined in Section 1.10 of the Remediation Regulations must be included in order to facilitate the review and approval of the RAWP. If an item is not applicable to this Site, simply state that it is not applicable and provide an explanation in the RAWP.

2. Once the Department reviews the RAWP for consistency with Sections 1.9 and 1.10 of the Remediation Regulations, any written comments generated and forwarded as a result of the review(s) shall be incorporated forthwith into a RAWP Addendum, to be submitted for final approval.

3. Upon finalization of the RAWP, the Department will issue a Remedial Approval Letter (RAL), signifying Department approval. **Once approved, the Performing Party shall be prepared to submit progress reports detailing the status of remedial action activities on a biweekly basis (every two weeks).** All remedial measures required by the Department shall be implemented, in accordance with the approved schedule, to ensure all applicable exposure pathways at the site are appropriately addressed.

Please be advised that the Department reserves the right to require additional actions under the aforementioned Remediation Regulations at the Property should any of the following occur:

- Conditions at the Site previously unknown to the Department are discovered;
- Information previously unknown to the Department becomes available;
- Policy and/or regulatory requirements change; and/or
- Failure by the City of Woonsocket, the Rhode Island Department of Transportation, or any future holder of any interest in the Property to adhere to the terms and conditions of the Department approved RAWP, schedule, and RAL for the Property.

If you have any questions regarding this letter or would like the opportunity to meet with Department personnel, please contact me by telephone at (401) 537-4359, or by E-mail at Joanna.pawlina@dem.ri.gov.

Sincerely,

Joanna Pawlina

Joanna Pawlina
Environmental Scientist II
Office of Land Revitalization &
Sustainable Materials Management

Cc: Kelly Owens, RIDEM/OLRSMM
Alisa Richardson, RIDOT
Robert Soscia, RIDOT
Patrick Haskell, AECOM
Keith Sullivan, GM2 Associates, Inc.

AECOM

Site Investigation Report

RIDOT Bridges Group 26C: Bridges 095501 and 095601
Singleton Street and River Street

October 17, 2024

Delivering a better world

Quality information

Prepared by	Checked by	Verified by	Approved by
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A	10/17/2024	RIDOT Draft

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Appendix A Phase I Environmental Site Assessments

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1. Introduction

AECOM prepared this Site Investigation Report (SIR) on behalf of the Rhode Island Department of Transportation (RIDOT) in support of the Bridge Group 26C River Street and Singleton Street Woonsocket Bridge project in Woonsocket, Rhode Island (the "Site"). This SIR was performed to guide management of environmental media during performance of proposed Site construction activities and to meet requirements for an environmental site investigation given in Section 1.8 of 250-RICR-140-30-1 *Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases* (the Remediation Regulations).

1.1 Site and Project Description

The Site consists of two bridges spanning the Blackstone River, carrying Singleton Street and River Street in Woonsocket, Rhode Island. The non-bridge (i.e., work affecting soils) scope of the project consists of the following:

- Bridge 095501 Singleton Street Bridge: Installation of wheelchair ramps, concrete sidewalks and guardrail, restoration of riprap revetment along the bank, removal and reset of existing granite curb, repaving of the existing road surface, relocation of existing stormwater catch basins and utility poles and overhead wires; and
- Bridge 095601 River Street: installation of wheelchair ramps, concrete sidewalks and guardrail, restoration of riprap revetment along the bank, removal and reset of existing granite curb, repaving of the existing road surface, and relocation of existing utility poles and overhead wires,

The Site bridge locations are depicted on Figures 1 and 2.

Construction activities will have the potential to disturb soil in the areas where bridges are being rehabilitated and roadways resurfaced or widened. Potential activities that could disturb soil include the following:

- Shallow excavation and regrading associated with installation of new wheelchair ramps, concrete sidewalks, and repaving of the existing roadway;
- Shallow excavation associated with abutment rehabilitation and restoration of riprap along bank;
- Drilling to install utility poles for relocation of poles and overhead lines;
- Drilling to install new guardrails, and
- Excavation to allow construction of stormwater infrastructure.

Current uses of the two Sites include public roadway with associated existing sidewalk and utility rights-of-way (ROW) associated with that roadway. No other active operations are performed on either Site. No processes are employed, wastes generated, or Hazardous Materials handled on either Site. No Residential Activity occurs on either Site. Properties abutting the sites are zoned industrial with one residential property present approximately 100 feet east of the River Street bridge.

1.1.1 Bridge 095501 - Singleton Street

The Singleton Street bridge (Bridge 095501) spans the Blackstone River near the border between North Smithfield and Woonsocket, Rhode Island situated in an urban neighborhood, surrounded by industrial properties. The bridge spans the Blackstone River in an east-west direction. The east and west riverbanks along the Blackstone River are comprised of riprap from the edge of the water partially up the abutment transitioning to grass to the top of the slope.

1.1.2 Bridge 095601 – River Street

The River Street bridge (Bridge 095601) spans the Blackstone River at the boundary between North Smithfield and Woonsocket, Rhode Island situated in an urban neighborhood, surrounded by commercial properties. The Bridge spans the Blackstone River in an east-west direction. The east and west riverbanks along the Blackstone River are comprised of riprap from the edge of the water partially up the abutment transitioning to grass to the top of the slope.

1.2 Information Reported in Notification of Release

The Site contains two approximately 200-ft bridges over the Blackstone River in Woonsocket. The notification of release (NOR) was submitted to the Rhode Island Department of Environmental Management (RIDEM) in April 2024, at which time the RIDEM assigned the Site remediation file numbers SR-39-2193A and SR-39-2139B. The owner of the Site was identified as the City of Woonsocket, and the performing party was identified as RIDOT. The initial release was discovered in March 2024 during environmental and geotechnical sampling conducted as part of a pre-design investigation for the Bridge Group 26C project. Benzo(a)pyrene and chrysene were found in isolated soil samples at surface grade (0-2 ft bgs) above the residential direct exposure criteria (RDEC) representing about 200 square feet of impacted area in the bridge ROWs (approximately 10 feet by 10 feet around each location with concentrations greater than the RDEC). No response actions were deemed necessary at the time of release discovery. The environmental investigation of the highway corridor was substantially complete at the time of notification. That investigation is documented in this SIR.

1.3 Site-specific Objectives

Site-specific objectives were identified and developed to comply with the Remediation Regulations and complete this SIR. The Site-specific objectives include the following:

1. Characterize the Site within the construction boundaries and the reported release (the Release) to comply with the Remediation Regulations;
2. Identify and understand the impacts of the Release; and
3. Select an appropriate remedy to reduce the impacts of the Release.

2. Site History

This section includes historical Site information obtained during the site investigation.

2.1 Historical Documentation

Historical information for the subject property and surrounding properties is based on AECOM's review and analysis of the following historical sources:

- Aerial photographs dated 1939, 1941, 1951*, 1952**, 1962, 1967, 1970, 1972*, 1975, 1981, 1985, 1988*, 1995, 1997*, 2002*, 2006, 2008*, 2010, 2011*, 2014, 2018, 2019*, 2020*, 2022*, and 2023*;
- Rhode Island Department of Environmental Management Maps and Aerial photographs dated 1939*, 1951/1952*, 1962*, 1972, 1981*, 1988, 1997, 2002**, 2008, 2011, 2014*, 2018*, 2019, 2020, 2022, and 2023 reviewed online at ridemgis.maps.arcgis.com;
- Topographic maps dated 1889, 1893, 1894*, 1900, 1908, 1915, 1918*, 1919, 1940**, 1943, 1944*, 1946*, 1947*, 1948*, 1953, 1954*, 1964, 1969, 1970**, 1975**, 1977, 1979, 1982, 1988**, 2012, 2015 and 2018;
- City directories for the years 1938, 1943, 1947, 1951, 1957, 1960, 1964, 1968, 1973, 1978, 1983, 1988, 1992, 1995, 2000, 2005, 2010, 2014, 2017, and 2020*; and
- Sanborn® Fire Insurance Maps dated 1892**, 1898**, 1903**, 1911, 1950, 1955, 1963, 1965, 1967, and 1970.

*Reference material date only applies to Singleton Street bridge

**Reference material date only applies to River Street bridge

It should be noted that the 1911 Sanborn map did not include the northerly abutting property for the Singleton Street bridge.

2.1.1 Singleton Street Bridge

Based on AECOM's historical research, a bridge was located in the same location as the current bridge since at least 1911. However, the bridge was oriented in a more northerly to southerly direction. Bridge 095501 was reconstructed in 1958. The 1963 Sanborn map depicts the subject bridge property in its current configuration. No historical on-site sources of concern were identified.

2.1.2 River Street Bridge

Based on AECOM's historical research, Bridge 095601 was constructed in 1959 replacing a previous bridge that had been present since at least 1911. The former bridge crossed the Blackstone River at a 90-degree angle rather than following the direction of the existing roadway. The 1962 aerial photograph depicts the subject bridge property in its current configuration.

2.2 Past Owners and Operators

As stated in Section 2.1, the Site has been a bridge and public roadway since the early 1900s. The bridges have been owned and operated by the City of Woonsocket as a public roadway since they were built.

3. Environmental Setting

This section characterizes the Site and the environmental conditions in and around the Site.

3.1 Current Uses and Zoning

The Site consists of approximately two 200 ft bridges over the Blackstone River as shown in **Figures 1 through 6**. A summary of the bridges is provided below:

- Bridge 095501: Singleton Street Bridge
- Bridge 095601: River Street Bridge

The Singleton Street bridge site is located within industrially zoned districts with limited portions of the site located in the PR-1 Public Recreation District, as depicted on the City of Woonsocket Zoning Map Sheets B2 and C2. The River Street bridge site is located within an industrially zoned district with a residential district located approximately 100 feet northeast, as depicted on the City of Woonsocket Zoning Map Sheet C2. The entirety of the Site is located within the River Corridor Overlay District depicted on the aforementioned zoning maps.

Current uses of the Site include public roadway and rights-of-way associated with that roadway. No other active operations are performed on Site. No processes are employed, wastes generated, or hazardous materials handled on Site. No residential activity occurs on Site.

During the visual assessments conducted during the Phase I Environmental Site Assessments and the field sampling events, no evidence of staining or other threats of release of oil and/or hazardous materials (OHM) was observed on Site, outside of typical pavement staining associated with automotive use.

3.2 Surrounding Property Use

The present-day land use of the parcels surrounding the Site generally consists of commercial/industrial properties. During the visual assessment conducted during the Phase I investigations, AECOM observed multiple properties adjacent to the Site that are known or expected to store oil and/or hazardous materials. These properties included a distribution center, warehouse, salvage yard and bulk propane storage/propane tank yard facility adjacent to the Singleton Street bridge site, and a commercial mover/household storage facility, metal recycling facilities, and a bulk material storage tank, and an abandoned/vacant mill properties adjacent to the River Street bridge site. A public paved bike path runs along the bank of the Blackstone River on the east side of the Singleton Street Bridge.

The following Recognized Environmental Conditions (RECs) were identified during the Phase I Environmental Site Assessment:

- C & C Plastics/First Republic Corp. abuts the Singleton Street Bridge to the north and is an active state hazardous waste site under project number SR-39-0580. Groundwater treatment of petroleum-based constituents is ongoing and light non-aqueous phase liquid (LNAPL) was recovered at the C & C property.
- Former Quincy Dye Works (Dorado) abuts the River Street Bridge to the east and is an active state hazardous waste site under project number SR-39-2059 as part of the River Street Corridor Brownfields site. Remediation of the property included removal of five underground storage tanks, petroleum-impacted soil, and urban fill.
- Both bridges are located within an urban area with historical industrial uses surrounding the Blackstone River and urban fill used in association with the realignment of the Blackstone River. There is a potential for soil beneath the bridges to be impacted from urban fill and historical industrial use by the community.

Further information can be found in the Phase I Reports provided in **Appendix A**.

3.3 Environmental Justice (EJ) Area

The entire Site is within the Environmental Justice (EJ) area, necessitating additional public notification requirements.

3.4 Characterization of Site

The Site consists of a public roadway and ROW for two bridges that cross the Blackstone River in Woonsocket. There are multiple land usage types abutting this Site including commercial and manufacturing; however, the Release is not expected to impact these surrounding lands as it is confined to surface soils on active public roadway ROW. The Release is expected to be limited to the Site within the ROW and would not impact off-Site residential, industrial, or commercial properties.

The following surface water bodies are located within 500 feet of the Site:

- Blackstone River a Class B1 Water Body

The following Environmentally Sensitive Areas are located within five hundred feet of the Site:

- Cold Spring Park along the Blackstone River between the bridges
- Wetlands surrounding Blackstone River
- Wetlands along Canal Street
- Wetlands around the Providence and Worcester Railroad ROW

Potable water is provided by the City of Woonsocket Water Division. No public water supplies are within one mile of the Site. Groundwater classification on Site and surrounding the Site is GB, which means it is not considered suitable for domestic use without treatment. The Lower Branch Blackstone groundwater reservoir abuts the Singleton Street bridge and runs below the River Street bridge. While the Lower Branch Blackstone groundwater reservoir is listed as GAA on the RIDEM Environmental Resources Map, both bridge locations have groundwater classified as GB. The closest GA area is located approximately 300 feet to the west of the Singleton Street Bridge and 1,000 feet to the west of River Street Bridge. The closest GAA area and sole source aquifer is located approximately 600 feet to the north of the Singleton Street Bridge.

3.5 Classification of Surface Water and Groundwater

Groundwater classification on Site and surrounding the Site is GB. The distance to the nearest GA area is approximately 300 feet. The nearest surface water bodies, the Blackstone River, flows beneath both the Singleton Street and River Street bridge. The Blackstone River is classified as a Class B1 surface water body according to the “State of Rhode Island 2021 Impaired Waters Report” dated December 2021.

3.6 Topography

Site topography is relatively flat due to the Site usage as a highway and highway ROW, although ground surface slopes steeply to the river from the Singleton Street and River Street bridge abutments. The roadway slopes slightly outward to allow surface water and run-off drainage to designed water flow pathways and water capture in drainage infrastructure. There is potential flooding at locations near the Blackstone River. Potential flooding issues will be evaluated in the design of the roadway and bridges.

4. Site Investigation Activities

AECOM completed site investigation assessment work. Subsurface investigations were conducted at the Site in March 2024 focusing on the bridge over and underpass areas. Groundwater was not investigated as part of this site investigation, as groundwater is not expected to be encountered during RIDOT work. Details of the completed field work are provided in the sections below. The results of the assessment work are provided in Section 5.0. Public notification, including EJ requirements, is documented in Section 4.5.

4.1 Methodology

On March 26, 2024, six soil samples were collected, three each at Singleton Street bridge and River Street bridge, to assess shallow soils adjacent to each bridge. These samples encompassed the proposed level of disturbance of soils for each bridge project. Soil characterization samples were collected using a stainless-steel hand auger to a depth two feet below the existing ground surface. Due to the limited space and the slope of the ROW, it would be extremely difficult to complete a subsurface drilling program for this portion of the Site. Therefore, only hand augers could be used to obtain soil data. AECOM documented soil observations such as color, moisture, odors, etc. Boring logs were not created for the hand auger samples. No odors or staining was observed.

Soil samples for VOC analysis were collected as grab samples in accordance with USEPA Method 5035. Other soil samples were homogenized prior to collection. Soil samples were containerized into laboratory provided glassware at each sample location. Samples were packaged, labeled, and prepared for shipping to the environmental analytical laboratory under the standard chain of custody protocol and transported to the AECOM office secure refrigerated sample storage in the local AECOM office. AECOM staff coordinated transport of the soil samples from the AECOM office to the Eurofins Laboratory by lab courier.

Hand auger soil boring soil samples were submitted to Eurofins Rhode Island for analysis of volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), total petroleum hydrocarbons (TPH), polychlorinated biphenyls (PCBs), and total RCRA8 metals.

On April 16, 2024, following receipt of results of the initial round of sampling, AECOM returned to collect a deeper soil sample from one of the previous soil boring locations at each bridge (two samples total) to assess the vertical extent of TPH and PAH impacts detected at concentrations above RDEC in one sample collected from each bridge during the initial round of soil sampling. The locations of the soil borings for the Singleton Street and River Street Bridges are depicted on **Figures 3 and 4**, respectively.

The following visual observations were made when performing the subsurface investigation:

- No free liquids were observed on the surface;
- No contamination was observed from man-made structures;
- No odors or stained soil were observed;
- No stressed vegetation was observed; and
- No previously excavated or stockpiled material was observed.

Section 4.2 further describes sample collection. **Section 4.3** further describes quality assurance and quality control measures employed during the investigation.

No background determination was conducted to determine background concentrations of hazardous substances identified at the Site. Soil management activities are not anticipated to require assessment of background.

4.1.1 Groundwater Monitoring Wells

No groundwater monitoring wells were installed as part of this site investigation. Construction activities are not anticipated to encounter groundwater or require groundwater management. Additionally, as described in the section above, it would be extremely difficult to assess groundwater in the area of observed impacts given the topography and space limitations to move equipment into position to install a well.

4.2 Sampling

A complete list of samples collected are provided in **Table 1**. The following analytical methods were utilized during investigation activities:

- VOCs by SW-846 Method 8260C with Method 5035 Purge and Trap preparation for high and low-level concentrations;
- PAHs by SW-846 Method 8270D;
- PCBs by SW-846 Method 8082 with Method 3546 Microwave Extraction;
- TPH by SW-846 Method 8100M;
- Total Metals by SW-846 Method 6010D Inductively Coupled Plasma (ICP); and
- Total Mercury by SW-846 Method 7471B Cold Vapor Atomic Absorption (CVAA).

Analytical data reports can be found in **Appendix C**.

4.3 Quality Assurance and Quality Control Evaluation

A Data Usability Assessment was conducted on the soil sampling data collected and reported for this SIR. This portion of the data evaluation considers field and laboratory components for soil conducted as part of the site investigation. The primary goal of this assessment is to show that the data relied upon are both scientifically valid and defensible. This evaluation included a review of available results for data appropriateness, analytical accuracy and precision, and data suitability. The following laboratory Quality Control parameters were evaluated:

- Chain of custody (COC)/sample integrity;
- Holding times;
- Laboratory method blanks;
- Initial calibration and continuing calibration verifications;
- Surrogate spike recoveries;
- Laboratory control sample/laboratory control sample duplicate results;
- Field duplicate results;
- Breakthrough results;
- Case narrative review; and
- Sample results/reporting issues.

Soil samples were collected using standard and appropriate field practices by a qualified environmental consultant. AECOM reviewed the laboratory reports to determine if samples were analyzed within holding times and to ensure that surrogate recoveries, laboratory control samples (blank spike), method blank, and duplicates met performance criteria. Based on the review, all the data are deemed usable for the SIR objectives to characterize the site and identify areas of contamination that may need to be addressed during Bridge Group 26C project construction.

4.4 Investigation Derived Waste

Soil investigation derived waste was not generated as part of the drilling process. Soil cuttings were backfilled into the hand auger locations and the ground cover was restored.

4.5 Public Involvement

Because this investigation was performed in support of a planned highway project, the bulk of the investigation was completed prior to discovery of a release, and therefore no standalone notification of the site investigation was performed. However, public notification documentation for site investigation and soil management activities will be provided prior to performance of Bridge Group 26C project construction work. Public notice will be disseminated by

posting in local newspapers and on a RIDOT website regarding the project and correspondence with the chief municipal officer of Woonsocket. Due to portions of this Site being in an Environmental Justice (EJ) Focus Area, the notification will include the EJ fact sheets and Department-approved documents in multiple languages.

Public notice will be disseminated after the approval of this SIR using the RIDOT project website and newspaper announcements.

4.6 Site-specific factors

No Site-specific factors were considered or deemed necessary for this Site Investigation.

5. Site Investigation Findings

This section reports the findings of the site investigation and the analysis of the results.

5.1 Site Investigation Results

The summary results table can be found in **Table 2**. Only detected constituents are displayed in the table. **Figures 5 and 6** display the results exceeding the RDEC or industrial/commercial direct exposure criteria (I/CDEC) across the Site.

Only two samples, one at each bridge, contained concentrations of constituents above the RDEC. No VOCs, TPH, or PCBs were detected at concentrations above the RDEC. Benzo(a)anthracene, benzo(k)fluoranthene, and chrysene were detected at concentrations above the RDEC but below the I/CDEC, and benzo(a)pyrene was detected above the I/CDEC at SB-02 from 0-2 ft bgs at the Singleton Street Bridge. Chrysene and lead were detected above the RDEC but below the I/CDEC at SB-03 from 0-2 ft bgs at the River Street Bridge. Deeper samples (up to 4 ft bgs) did not contain concentrations of tested constituents above the RDEC.

Lead was not sampled in the deeper sample at SB-03 at the River Street Bridge. Lead is most likely associated with surficial contamination from motor vehicle operation. Since PAH contamination present at the surface on site was not detected in the deeper sample above the RDEC, it is highly likely that lead similarly would not be present above the RDEC.

Exceedances of RDEC were found in surface soils (0-2 feet bgs). Deeper contamination was not found. Widespread contamination was not found across the Site, but pockets of contamination consistent with the usage of the Site as a highway was found.

5.2 Site-specific hydrogeologic properties

Groundwater is not expected to be encountered during performance of the Bridge Group 26C project work, and therefore direct assessment of groundwater was not performed as part of the pre-design investigation. Groundwater was not encountered during soil sampling activities. Given the absence of potentially mobile contaminants (e.g., VOCs) identified in soil, returning to install and sample groundwater monitoring wells in active road Right-of-Ways would have been disproportionately difficult given required traffic control measures, slopes in the embankment of the Right-of-Ways, and limited knowledge to be gained.

Groundwater flow direction is expected to be toward the nearest surface of the Blackstone River at each Site. The presence and effects of natural and man-made barriers were not evaluated for groundwater contaminant migration as groundwater contamination was not evaluated in this site investigation. Significant natural and man-made barriers to groundwater are not expected to be present at the Site. Moreover, groundwater contamination associated with the detected constituents at this Site is not expected given the relatively low concentrations, dispersed nature of soil contamination found throughout the Site, and the low solubility of the primary constituent, PAHs.

Bedrock was not encountered during site investigation activities and is not expected to be encountered during performance of the Bridge Group 26C project work.

5.3 Fate and Transport Models

No fate and transport models were used in this SIR.

5.4 Volatilization Potential

The contaminants of concern (COCs) on Site include lead and PAHs. Metals (lead) do not volatilize. PAHs have very low volatilization potential.

5.5 Potential for entrainment

There is potential for entrainment of hazardous substances from the Site by wind or erosion actions. The contamination is located in surficial soils within the ROW. These soils may be dispersed through wind or erosion

activities into the Blackstone River or other areas. However, it is unlikely that soils will be dispersed due to vegetative cover and rip-rap.

When construction occurs on Site during the remedial action phase of the Bridge Group 26C project, soils will be excavated with the potential to be entrained by wind or erosional actions. However, best management practices (e.g., dust suppression, sediment barriers, stockpile management) will be utilized to control and mitigate the disbursement of hazardous substances.

6. Remedial Alternatives

This section describes the proposed remedial alternatives to treat the Release described in this SIR. The description of the alternatives is supported by relevant data contained in this SIR and consistent with the current and reasonably foreseeable land usage, (i.e., continued use as a highway). The following were used to support the selection of the chosen remedy:

- Compliance with the RIDEM Remediation Regulations;
- Technical feasibility of the alternative;
- Cost effectiveness of the alternative;
- Permanence of the alternative;
- Compliance with other state and local laws and regulations, or other public concerns, if applicable; and
- The ability of the Performing Party to perform the preferred remedial alternative.

6.1 Excavate all soils with DEC exceedances and dispose off-Site

This alternative would remove all contamination over the RDEC so that capping and ELURs would not be required. Excavating all the contaminants would comply with the Remediation Regulations. Other state and local laws would govern disposal of soil. Given the scale of the Site, it is likely technically feasible to excavate all anticipated DEC exceedances in the Site. The alternative is anticipated to be cost-effective as only two surficial hot spots (totaling approximately 200 sq ft) require removal. The Performing Party is able to perform the excavation work; however, the work could extend beyond the project area depending on post-excavation confirmation sampling results. Removing all DEC exceedances could cause additional soils to be landfilled that could otherwise remain under a pavement cap or other RIDEM-approved cap. Excavating all soils with DEC exceedances on Site may also take longer and therefore cause increased traffic that may disrupt the community and would decrease the space available in disposal facilities.

6.2 Install engineered barrier over DEC exceedances and record ELUR

This alternative would cap the disturbed area with pavement or equivalent (2 feet of clean fill engineered cap) in the case of any grassed area and place an ELUR over the portion of the Site with DEC exceedances. Existing pavement in acceptable condition will be used as a cap in undisturbed areas of the Site. Capping and placing an ELUR on the Site would comply with the Remediation Regulations. It is technically feasible to cap and place an ELUR on the Site. The use of the Site would remain public highway for the foreseeable future and is amenable to capping. However, there may be difficulties placing caps in grassed ROW areas at the Blackstone Riverbank. It is assumed that one to two feet of soils would be excavated in the landscaped ROW areas to maintain grade, depending on the final design of the engineered barrier. It is cost-effective to complete this remedy as similar work is planned for the Bridge Group 26C project, and the administrative implementation of the ELUR. The ELUR would require a survey for recording and inspection and maintenance in perpetuity. Excavated soils to maintain Site grade would be disposed of off-Site at a licensed disposal facility. Other state and local laws would govern this disposal of soil.

6.3 Chosen Remedy

Excavate soil with DEC exceedances was chosen as the preferred remedy because it would be cost effective, technically feasible, and meet regulatory requirements. If excavation confirmation sampling continue to show DEC exceedances and go beyond the excavation area required for construction, then excavation will cease, and a RIDEM-approved engineered barrier will be installed and an ELUR placed over the portion of the Site with DEC exceedances. The RIDEM-approved barrier would be installed as described in Section 6.2.

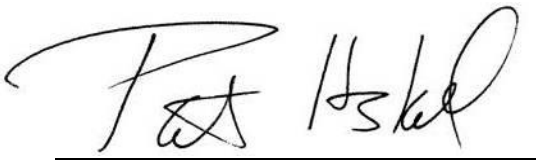
7. Conclusions

The following are conclusions of the SIR:

- The Site contains two approximate 200 ft bridges over the Blackstone River in Woonsocket: Bridge 095501 on Singleton Street and Bridge and 095601 on River Street. The scope of the Bridge Group 26C project consists of shallow excavation for accessways and site restoration and installation of new electric and safety equipment.
- Based on AECOM's historical research, the Singleton Street Bridge was reconstructed in its current orientation in 1958, replacing a previous bridge that had been present since at least 1911. Similarly, the River Street Bridge was constructed in 1959, replacing a previous bridge that had been present since at least 1911. No historical on-site sources of concern were identified at either bridge location. Though properties with sources of potential environmental releases border the Site, it is unlikely that the potential releases have impacted the materials sampled at the Site.
- Site groundwater is classified as GB. One surface water body, Blackstone River, and four distinct environmentally sensitive areas (one park and three wetlands) are within 500 feet of the Site.
- Soil samples were collected from 6 hand auger locations across the Site. Samples were collected in surface soils for VOCs, PAHs, PCBs, TPH, and metals analysis. Samples were collected in subsurface soils for PAHs and TPH at two locations at which RDEC exceedances were reported in surface soils. Groundwater was not investigated as part of this SIR.
- Certain PAHs and metals, specifically lead, were detected in surface samples at one of the three locations sampled at each bridge above the DEC. Certain PAHs and lead were detected above the RDEC, and only one PAH, benzo(a)pyrene, was detected slightly above the I/CDEC in these samples. The documented DEC exceedances are therefore not believed to be from a single release and are likely from fill or usage of the property as a road.
- Excavating impacted soil for disposition at a permitted facility is the preferred remedy for both bridges.

8. Certifications

The authorized representative of the Performing Party who prepared this SIR certifies the completeness and accuracy of the information contained in the report to the best of their knowledge.



Signature

Patrick Haskell, CHMM
AECOM

The Performing Party responsible for the submittal of the SIR certifies that the report is a complete and accurate representation of the Contaminated-Site and the Release and contains all known facts surrounding the Release to the best of their knowledge.

Signature

Alisa Richardson
Rhode Island Department of Transportation

0 1000 2000 3000 4000
FEET

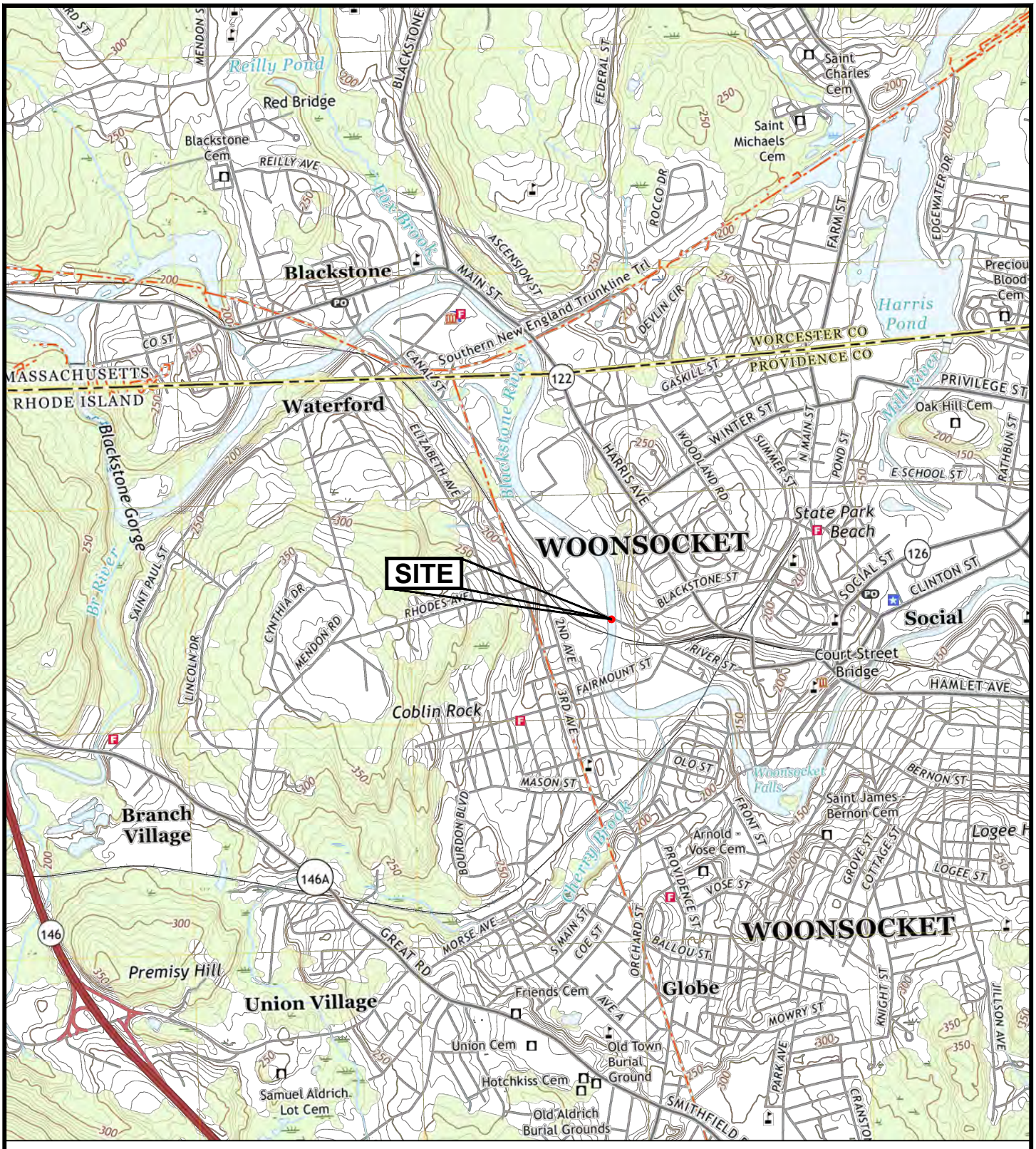
QUADRANGLE LOCATION

AECOM

N

RIDOT - Bridge 095501 Singleton Street, Woonsocket, RI 60708347			**Site Location Map**
DATE: 7/14/23	DRWN: KPB		**FIGURE 1**

File: C:\Users\barryk\OneDrive - AECOM Directory\Working Jobs\RIDOT\Bridge 955\RIDOT Bridge 955 – Fig 1.dwg Layout: Fig 1 User: BarryK Plotted: Jul 14, 2023 – 8:52am Xref's:

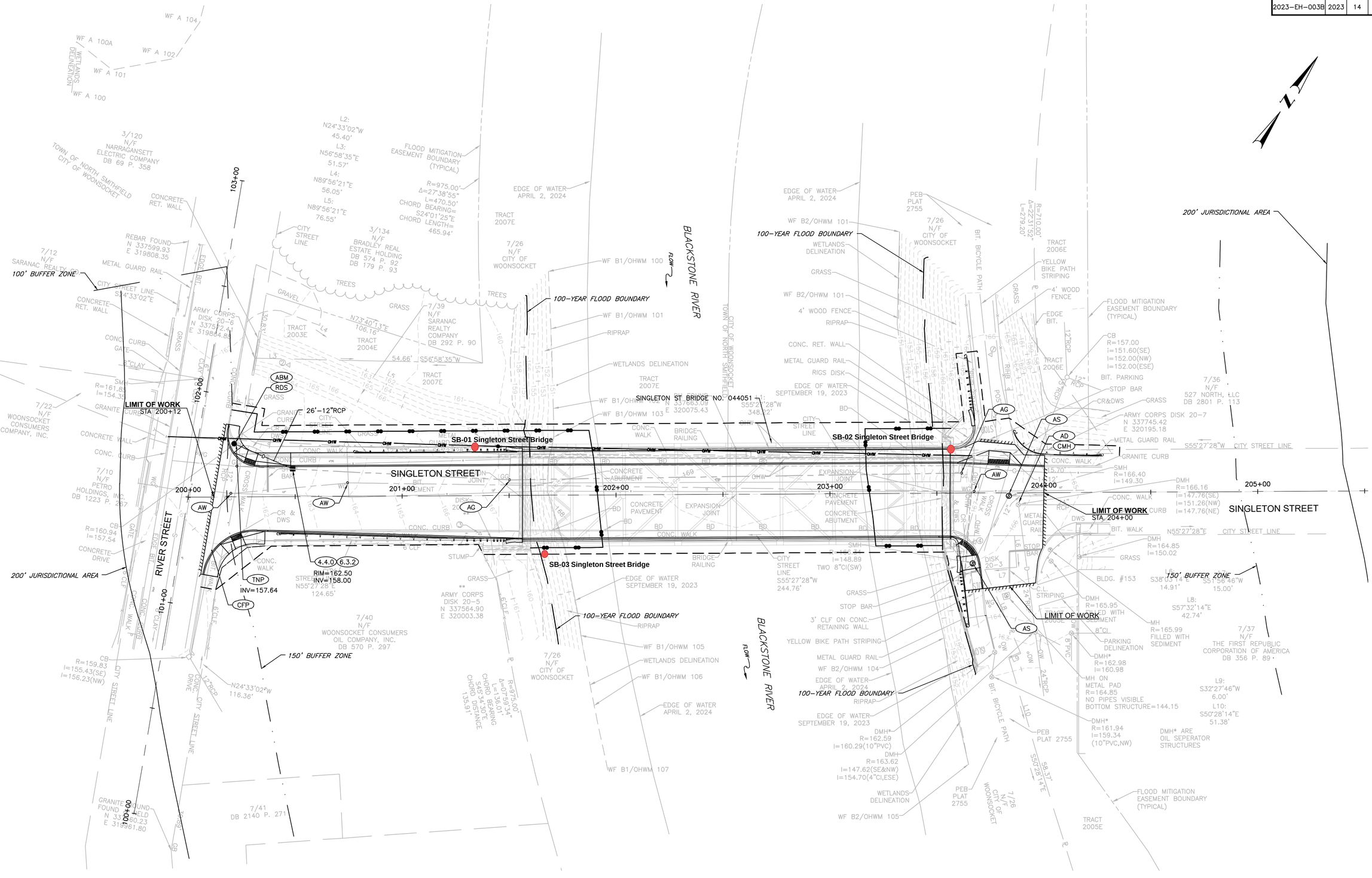


AECOM

RIDOT - Bridge 095601 River Street, Woonsocket, RI 60708347			**Site Location Map**
DATE: 7/18/23	DRWN: KPB		**FIGURE 2**

File: C:\Users\barryk\OneDrive – AECOM Directory\Working Jobs\RIDOT\Bridge 956\RIDOT Bridge 956 – Fig 1.dwg Layout: Fig 1 User: BarryK Plotted: Jul 18, 2023 – 9:25am Xref's:

RI CONTRACT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
2023-EH-003B	2023	14	24



CROSSMAN ENGINEERING
151 Centerville Road | Warwick, Rhode Island 02886

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

DESIGNED BY:	CEI
CHECKED BY:	–
DATE:	07/2024
SHEET:	14
OF:	24

SCALE: 1"=20'

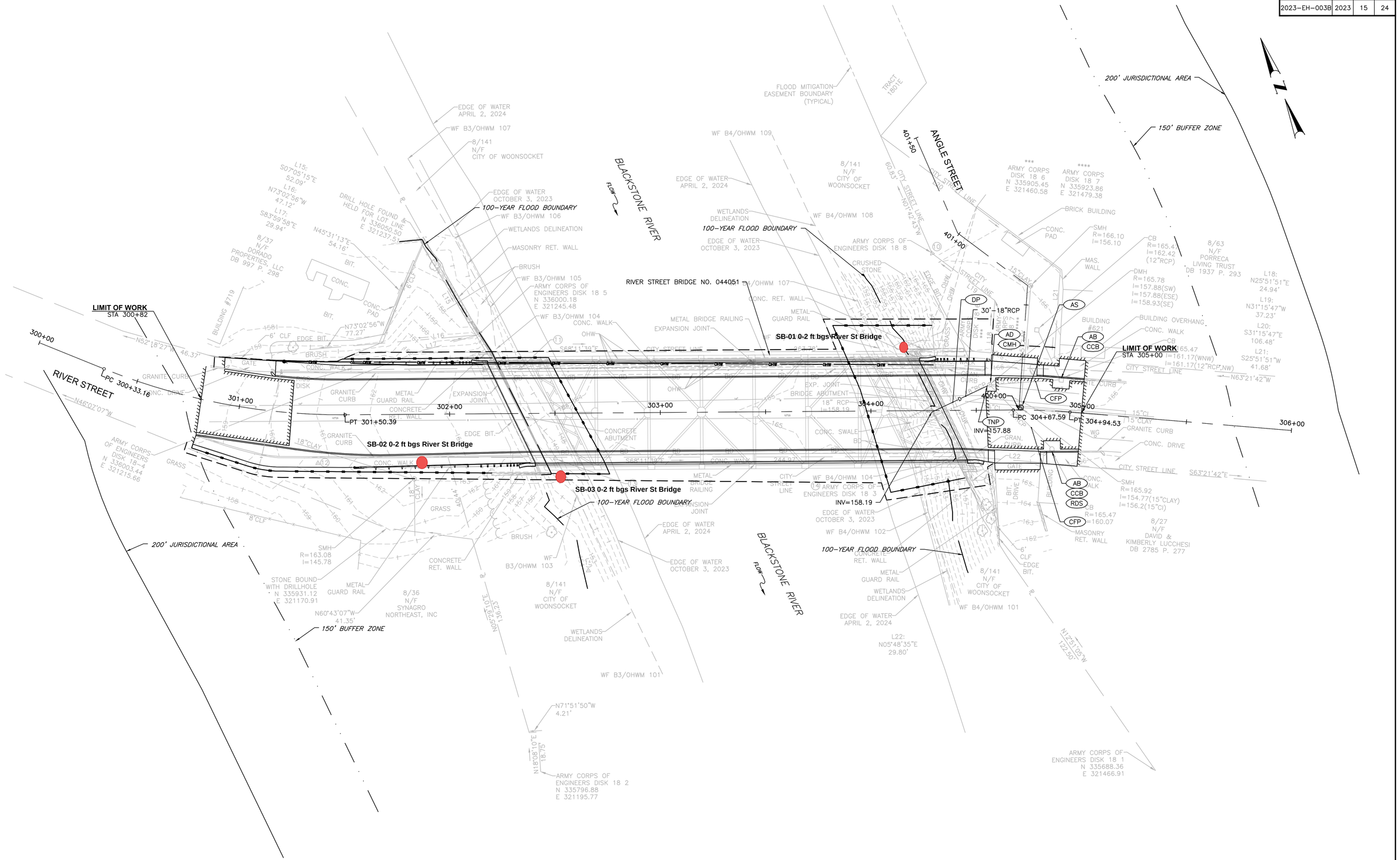
REVISIONS			REVISIONS		
NO.	DATE	BY	NO.	DATE	BY

HIGHWAY
BRIDGE GROUP 26C
VOLUME: 1
WOONSOCKET/NORTH SMITHFIELD — RHODE ISLAND

FIGURE 3 - Soil Boring Locations - Singleton Street

C:\PWWORKING\USRI\DMS03194\2607E_V1_DRAINUTIL.DWG PER DPM 450.06

RI CONTRACT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
2023-EH-003B	2023	15	24



	CROSSMAN ENGINEERING 151 Centerville Road | Warwick, Rhode Island 02886		RHODE ISLAND DEPARTMENT OF TRANSPORTATION			HIGHWAY BRIDGE GROUP 26C VOLUME: 1 WOONSOCKET/NORTH SMITHFIELD RHODE ISLAND

DESIGNED BY: CEI
CHECKED BY: –
DATE: 07/2024
SHEET: 15
OF: 24

SCALE: 1"=20'
10' 0 10' 20' 40'
SCALE: 1"=20'

REVISIONS			REVISIONS		
NO.	DATE	BY	NO.	DATE	BY

FIGURE 4 - Soil Boring Locations - River Street

C:\PWWORKING\USRI\DMS03194\2607E_V1_DRAINUTIL.DWG PER DPM 450.06

RI CONTRACT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
2023-EH-003B	2023	14	24

LEGEND

- Approximate Sample Location
- Exceed the Residential Direct Exposure Criteria
- Exceed the Industrial/Commercial Direct Exposure Criteria

SB-02 0-2ft bgs Singleton St	
Benzo(a)anthracene	1000
Benzo(a)pyrene	803
Benzo(k)fluoranthene	919
Chrysene	1010

NOTE
All concentrations reported in ug/kg

CROSSMAN ENGINEERING
151 Centerville Road | Warwick, Rhode Island 02886

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

DESIGNED BY:	CEI
CHECKED BY:	–
DATE:	07/2024
SHEET:	14
OF:	24

SCALE: 1"=20'

REVISIONS			REVISIONS		
NO.	DATE	BY	NO.	DATE	BY

HIGHWAY
BRIDGE GROUP 26C
VOLUME: 1
WOONSOCKET/NORTH SMITHFIELD — RHODE ISLAND

FIGURE 5 - Soil Boring Results - Singleton Street

C:\PWWORKING\USRI\DMS03194\2607E_V1_DRAINUTIL.DWG PER DPM 450.06

RI CONTRACT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
2023-EH-003B	2023	15	24

LEGEND

- Approximate Sample Location
- Exceed the Residential Direct Exposure Criteria
- Exceed the Industrial/Commercial Direct Exposure Criteria

SB-03 0-2ft bgs River St	
Chrysene	652
Lead	252

NOTE
Chrysene concentrations reported in ug/kg
Lead concentrations reported in mg/kg

CROSSMAN ENGINEERING
151 Centerville Road | Warwick, Rhode Island 02886

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

DESIGNED BY:	CEI
CHECKED BY:	–
DATE:	07/2024
SHEET:	15
OF:	24

SCALE: 1"=20'

REVISIONS			REVISIONS		
NO.	DATE	BY	NO.	DATE	BY

HIGHWAY
BRIDGE GROUP 26C
VOLUME: 1
WOONSOCKET/NORTH SMITHFIELD RHODE ISLAND

FIGURE 6 - Soil Boring Results - River Street

C:\PWWORKING\USRI\DMS03194\2607E_V1_DRAINUTIL.DWG PER DPM 450.06

Table 1
Sampling Summary Table
Site Investigation Report
Bridge Group 26C

Bridge Number	Hand Auger Location	Sample ID	Parameters Tested
095501 Singleton Street	SB-01	SB01 0-2ft bgs Singleton St Bridge	VOCs, PAHs, PCBs, TPH, RCRA metals
	SB-02	SB02 0-2ft bgs Singleton St Bridge	VOCs, PAHs, PCBs, TPH, RCRA metals
		SB-02 2'-4' Singleton	TPH, PAHs
	SB-03	SB03 0-2ft bgs Singleton St Bridge	VOCs, PAHs, PCBs, TPH, RCRA metals
095601 River Street	SB-01	SB01 0-2ft bgs River St Bridge	VOCs, PAHs, PCBs, TPH, RCRA metals
	SB-02	SB02 0-2ft bgs River St Bridge	VOCs, PAHs, PCBs, TPH, RCRA metals
	SB-03	SB03 0-2ft bgs River St Bridge	VOCs, PAHs, PCBs, TPH, RCRA metals
		SB-03 2'-3' River St	TPH, PAHs

Notes:

TPH: Total Petroleum Hydrocarbons

VOCs: Volatile Organic Compounds

PAHs: polycyclic aromatic hydrocarbons

RCRA Metals: Resource Conservation and Recovery Act Metals (8 Metals) + Cu, Ni, Zn: arsenic, barium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, and zinc.

PCBs: Polychlorinated Biphenyls

Table 2
Soil Results Summary Table - Detections Only
Site Investigation Report
Bridge Group 26C

Sample Date / Sample ID	RIDEM R DEC	RIDEM I/C DEC	3/26/2024 SB-01 0-2ft bgs Singleton St Bridge	3/26/2024 SB-02 0-2ft bgs Singleton St Bridge	3/26/2024 SB-03 0-2ft bgs Singleton St Bridge	3/26/2024 SB-01 0-2ft bgs River St Bridge	3/26/2024 SB-02 0-2ft bgs River St Bridge	3/26/2024 SB-03 0-2ft bgs River St Bridge	4/16/2024 SB-02 2'-4' Singleton	4/16/2024 SB-03 2'-3' River St
VOCs (µg/Kg)										
VOCs	NE	NE	ND	ND	ND	ND	ND	ND	NS	NS
SVOCs (µg/Kg)										
Acenaphthene	23000	10000000	ND	301	ND	ND	ND	ND	ND	ND
Anthracene	35000	10000000	ND	609	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	900	7800	179	1000	ND	81.2	ND	529	ND	ND
Benzo(a)pyrene	400	800	168	803	ND	82.1	ND	502	ND	ND
Benzo(b)fluoranthene	900	7800	183	789	ND	117	ND	829	ND	ND
Benzo(g,h,i)perylene	800	10000000	135	479	ND	96	ND	551	ND	ND
Benzo(k)fluoranthene	900	78000	166	919	ND	100	ND	591	ND	ND
Chrysene	400	780000	198	1010	ND	107	ND	652	ND	ND
Dibenzo(a,h)anthracene	400	800	ND	231	ND	ND	ND	ND	ND	ND
Fluoranthene	20000	10000000	346	2690	ND	177	ND	1320	ND	ND
Fluorene	28000	10000000	ND	295	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	900	7800	125	463	ND	88.1	ND	531	ND	ND
Phenanthrene	40000	10000000	240	2860	ND	91.8	ND	709	ND	ND
Pyrene	13000	10000000	440	2350	ND	205	370	1360	ND	ND
PCBs (mg/Kg)										
Total PCBs	10	10	ND	ND	ND	ND	ND	ND	NS	NS
TPH (mg/Kg)										
TEPH (C9-C36)	500	2500	132	67.6	173	105	188	387	54.3	54
Metals (mg/kg)										
Arsenic	7	7	ND	ND	4.12	ND	ND	ND	NS	NS
Barium	5500	10000	24.5	37.8	21.7	23.8	30.2	41.1	NS	NS
Chromium	1400	10000	37.4	20.2	14.9	12.3	20	21.2	NS	NS
Copper	3100	10000	40.1	24.3	10.6	15.7	15.2	22.6	NS	NS
Lead	150	500	121	72.3	72.4	27.7	106	252	NS	NS
Mercury	23	610	0.254	0.149	ND	ND	ND	ND	NS	NS
Nickel	1000	10000	7.65	6.15	9.25	6.64	9.57	14.4	NS	NS
Zinc	6000	10000	50.5	60.8	44.0	55.7	58.1	69.9	NS	NS

Notes:
This is a summary table. Only detected chemicals are presented
ND = Not detected above given laboratory reporting limit.
RIDEM = Rhode Island Department of Environmental Management
R DEC = Residential Direct Exposure Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Criteria has not been established.
NS = Not sampled for this constituent.
mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
VOCs = volatile organic compounds
SVOCs = semi-volatile organic compounds
PCBs = polychlorinated biphenyls
TPH = Total petroleum hydrocarbons
TEPH = total extractable petroleum hydrocarbons
Result exceeds RIDEM R DEC
Result exceeds RIDEM I/C DEC

Appendix A Phase I Environmental Site Assessments

Appendix B Analytical Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Patrick Haskell
AECOM
10 Orms Street
Suite 405
Providence, Rhode Island 02904

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JOB DESCRIPTION

RIDOT Bridge Group 97 - Warwick, RI

JOB NUMBER

620-18044-1

Eurofins Rhode Island
646 Camp Ave
North Kingstown RI 02852

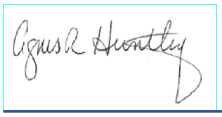
See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization



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Authorized for release by
Agnes Huntley, Project Manager
Agnes.Huntley@et.eurofinsus.com
(401)372-3482

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Definitions/Glossary

Client: AECOM
Job ID: 620-18044-1
Project/Site: RIDOT Bridge Group 97 - Warwick, RI

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 620-18044-1 — Eurofins Rhode Island

Job Narrative
620-18044-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/16/2024 3:30 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.2°C.

GC/MS Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8100: Two surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: (MB 620-33867/1-A). These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: AECOM
Job ID: 620-18044-1
Project/Site: RIDOT Bridge Group 97 - Warwick, RI

Client Sample ID: SB-02 2'-4' Singleton
Lab Sample ID: 620-18044-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
TEPH (C9-C36)	54.3		14.1		mg/Kg	1	☼	8100	Total/NA

Client Sample ID: SB-03 2'-3' River St
Lab Sample ID: 620-18044-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
TEPH (C9-C36)	54.0		13.8		mg/Kg	1	☼	8100	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SB-02 2'-4' Singleton
Lab Sample ID: 620-18044-1

Date Collected: 04/16/24 12:55
Matrix: Solid
Date Received: 04/16/24 15:30
Percent Solids: 90.3

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		73.6		ug/Kg	☼	04/19/24 07:49	04/22/24 18:25	1
2-Methylnaphthalene	ND		73.6		ug/Kg	☼	04/19/24 07:49	04/22/24 18:25	1
Acenaphthene	ND		73.6		ug/Kg	☼	04/19/24 07:49	04/22/24 18:25	1
Acenaphthylene	ND		73.6		ug/Kg	☼	04/19/24 07:49	04/22/24 18:25	1
Anthracene	ND		73.6		ug/Kg	☼	04/19/24 07:49	04/22/24 18:25	1
Benzo[a]anthracene	ND		73.6		ug/Kg	☼	04/19/24 07:49	04/22/24 18:25	1
Benzo[a]pyrene	ND		73.6		ug/Kg	☼	04/19/24 07:49	04/22/24 18:25	1
Benzo[b]fluoranthene	ND		73.6		ug/Kg	☼	04/19/24 07:49	04/22/24 18:25	1
Benzo[g,h,i]perylene	ND		73.6		ug/Kg	☼	04/19/24 07:49	04/22/24 18:25	1
Benzo[k]fluoranthene	ND		73.6		ug/Kg	☼	04/19/24 07:49	04/22/24 18:25	1
Chrysene	ND		73.6		ug/Kg	☼	04/19/24 07:49	04/22/24 18:25	1
Dibenz(a,h)anthracene	ND		73.6		ug/Kg	☼	04/19/24 07:49	04/22/24 18:25	1
Fluoranthene	ND		73.6		ug/Kg	☼	04/19/24 07:49	04/22/24 18:25	1
Fluorene	ND		73.6		ug/Kg	☼	04/19/24 07:49	04/22/24 18:25	1
Indeno[1,2,3-cd]pyrene	ND		73.6		ug/Kg	☼	04/19/24 07:49	04/22/24 18:25	1
Naphthalene	ND		73.6		ug/Kg	☼	04/19/24 07:49	04/22/24 18:25	1
Phenanthrene	ND		73.6		ug/Kg	☼	04/19/24 07:49	04/22/24 18:25	1
Pyrene	ND		73.6		ug/Kg	☼	04/19/24 07:49	04/22/24 18:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*52*		*30 - 130*	*04/19/24 07:49*	*04/22/24 18:25*	*1*
2-Fluorobiphenyl (Surr)	*55*		*30 - 130*	*04/19/24 07:49*	*04/22/24 18:25*	*1*
Terphenyl-d14 (Surr)	*58*		*30 - 130*	*04/19/24 07:49*	*04/22/24 18:25*	*1*

Method: SW846 8100 - Polynuclear Aromatic Hydrocarbons (PAHs) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
TEPH (C9-C36)	**54.3**		14.1		mg/Kg	☼	04/18/24 08:59	04/19/24 16:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane (Surr)	*66*		*40 - 140*	*04/18/24 08:59*	*04/19/24 16:01*	*1*
o-Terphenyl (Surr)	*52*		*40 - 140*	*04/18/24 08:59*	*04/19/24 16:01*	*1*

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids (EPA Moisture)	**90.3**		0.1		%			04/17/24 10:47	1

Client Sample ID: SB-03 2'-3' River St
Lab Sample ID: 620-18044-2

Date Collected: 04/16/24 13:55
Matrix: Solid

Date Received: 04/16/24 15:30
Percent Solids: 94.0

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		69.4		ug/Kg	☼	04/19/24 07:49	04/22/24 18:51	1
2-Methylnaphthalene	ND		69.4		ug/Kg	☼	04/19/24 07:49	04/22/24 18:51	1
Acenaphthene	ND		69.4		ug/Kg	☼	04/19/24 07:49	04/22/24 18:51	1
Acenaphthylene	ND		69.4		ug/Kg	☼	04/19/24 07:49	04/22/24 18:51	1
Anthracene	ND		69.4		ug/Kg	☼	04/19/24 07:49	04/22/24 18:51	1
Benzo[a]anthracene	ND		69.4		ug/Kg	☼	04/19/24 07:49	04/22/24 18:51	1
Benzo[a]pyrene	ND		69.4		ug/Kg	☼	04/19/24 07:49	04/22/24 18:51	1
Benzo[b]fluoranthene	ND		69.4		ug/Kg	☼	04/19/24 07:49	04/22/24 18:51	1
Benzo[g,h,i]perylene	ND		69.4		ug/Kg	☼	04/19/24 07:49	04/22/24 18:51	1
Benzo[k]fluoranthene	ND		69.4		ug/Kg	☼	04/19/24 07:49	04/22/24 18:51	1
Chrysene	ND		69.4		ug/Kg	☼	04/19/24 07:49	04/22/24 18:51	1
Dibenz(a,h)anthracene	ND		69.4		ug/Kg	☼	04/19/24 07:49	04/22/24 18:51	1
Fluoranthene	ND		69.4		ug/Kg	☼	04/19/24 07:49	04/22/24 18:51	1
Fluorene	ND		69.4		ug/Kg	☼	04/19/24 07:49	04/22/24 18:51	1
Indeno[1,2,3-cd]pyrene	ND		69.4		ug/Kg	☼	04/19/24 07:49	04/22/24 18:51	1
Naphthalene	ND		69.4		ug/Kg	☼	04/19/24 07:49	04/22/24 18:51	1
Phenanthrene	ND		69.4		ug/Kg	☼	04/19/24 07:49	04/22/24 18:51	1
Pyrene	ND		69.4		ug/Kg	☼	04/19/24 07:49	04/22/24 18:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*55*		*30 - 130*	*04/19/24 07:49*	*04/22/24 18:51*	*1*
2-Fluorobiphenyl (Surr)	*60*		*30 - 130*	*04/19/24 07:49*	*04/22/24 18:51*	*1*
Terphenyl-d14 (Surr)	*50*		*30 - 130*	*04/19/24 07:49*	*04/22/24 18:51*	*1*

Method: SW846 8100 - Polynuclear Aromatic Hydrocarbons (PAHs) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
TEPH (C9-C36)	**54.0**		13.8		mg/Kg	☼	04/18/24 08:59	04/19/24 16:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane (Surr)	*77*		*40 - 140*	*04/18/24 08:59*	*04/19/24 16:24*	*1*
o-Terphenyl (Surr)	*64*		*40 - 140*	*04/18/24 08:59*	*04/19/24 16:24*	*1*

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids (EPA Moisture)	**94.0**		0.1		%			04/17/24 10:47	1

Surrogate Summary

Client: AECOM
Job ID: 620-18044-1
Project/Site: RIDOT Bridge Group 97 - Warwick, RI

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		NBZ	FBP	TPHL
Lab Sample ID	Client Sample ID	(30-130)	(30-130)	(30-130)
620-18044-1	SB-02 2'-4' Singleton	52	55	58
620-18044-2	SB-03 2'-3' River St	55	60	50
LCS 620-33911/2-A	Lab Control Sample	56	55	42
LCSD 620-33911/3-A	Lab Control Sample Dup	54	53	34
MB 620-33911/1-A	Method Blank	52	54	48

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TPHL = Terphenyl-d14 (Surr)

Method: 8100 - Polynuclear Aromatic Hydrocarbons (PAHs) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1COD	OTPH
Lab Sample ID	Client Sample ID	(40-140)	(40-140)
620-18044-1	SB-02 2'-4' Singleton	66	52
620-18044-2	SB-03 2'-3' River St	77	64
LCS 620-33867/2-A	Lab Control Sample	66	80
LCSD 620-33867/3-A	Lab Control Sample Dup	69	67
MB 620-33867/1-A	Method Blank	44	32 S1-

Surrogate Legend

1COD = 1-Chlorooctadecane (Surr)
OTPH = o-Terphenyl (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 620-33911/1-A
Matrix: Solid
Analysis Batch: 33923

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33911

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		66.7		ug/Kg		04/19/24 07:49	04/19/24 17:51	1
2-Methylnaphthalene	ND		66.7		ug/Kg		04/19/24 07:49	04/19/24 17:51	1
Acenaphthene	ND		66.7		ug/Kg		04/19/24 07:49	04/19/24 17:51	1
Acenaphthylene	ND		66.7		ug/Kg		04/19/24 07:49	04/19/24 17:51	1
Anthracene	ND		66.7		ug/Kg		04/19/24 07:49	04/19/24 17:51	1
Benzo[a]anthracene	ND		66.7		ug/Kg		04/19/24 07:49	04/19/24 17:51	1
Benzo[a]pyrene	ND		66.7		ug/Kg		04/19/24 07:49	04/19/24 17:51	1
Benzo[b]fluoranthene	ND		66.7		ug/Kg		04/19/24 07:49	04/19/24 17:51	1
Benzo[g,h,i]perylene	ND		66.7		ug/Kg		04/19/24 07:49	04/19/24 17:51	1
Benzo[k]fluoranthene	ND		66.7		ug/Kg		04/19/24 07:49	04/19/24 17:51	1
Chrysene	ND		66.7		ug/Kg		04/19/24 07:49	04/19/24 17:51	1
Dibenz(a,h)anthracene	ND		66.7		ug/Kg		04/19/24 07:49	04/19/24 17:51	1
Fluoranthene	ND		66.7		ug/Kg		04/19/24 07:49	04/19/24 17:51	1
Fluorene	ND		66.7		ug/Kg		04/19/24 07:49	04/19/24 17:51	1
Indeno[1,2,3-cd]pyrene	ND		66.7		ug/Kg		04/19/24 07:49	04/19/24 17:51	1
Naphthalene	ND		66.7		ug/Kg		04/19/24 07:49	04/19/24 17:51	1
Phenanthrene	ND		66.7		ug/Kg		04/19/24 07:49	04/19/24 17:51	1
Pyrene	ND		66.7		ug/Kg		04/19/24 07:49	04/19/24 17:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*52*		*30 - 130*	*04/19/24 07:49*	*04/19/24 17:51*	*1*
2-Fluorobiphenyl (Surr)	*54*		*30 - 130*	*04/19/24 07:49*	*04/19/24 17:51*	*1*
Terphenyl-d14 (Surr)	*48*		*30 - 130*	*04/19/24 07:49*	*04/19/24 17:51*	*1*

Lab Sample ID: LCS 620-33911/2-A
Matrix: Solid
Analysis Batch: 33923

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33911

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1670	872.9		ug/Kg		52	30 - 109
2-Methylnaphthalene	1670	962.9		ug/Kg		58	10 - 153
Acenaphthene	1670	867.4		ug/Kg		52	35 - 93
Acenaphthylene	1670	887.3		ug/Kg		53	36 - 94
Anthracene	1670	1108		ug/Kg		66	34 - 120
Benzo[a]anthracene	1670	1039		ug/Kg		62	39 - 113
Benzo[a]pyrene	1670	1044		ug/Kg		63	38 - 109
Benzo[b]fluoranthene	1670	894.3		ug/Kg		54	29 - 113
Benzo[g,h,i]perylene	1670	937.8		ug/Kg		56	35 - 108
Benzo[k]fluoranthene	1670	1080		ug/Kg		65	28 - 112
Chrysene	1670	1029		ug/Kg		62	38 - 109
Dibenz(a,h)anthracene	1670	890.1		ug/Kg		53	34 - 103
Fluoranthene	1670	1085		ug/Kg		65	36 - 111
Fluorene	1670	986.5		ug/Kg		59	35 - 98
Indeno[1,2,3-cd]pyrene	1670	931.4		ug/Kg		56	32 - 103
Naphthalene	1670	875.1		ug/Kg		53	31 - 94
Phenanthrene	1670	1002		ug/Kg		60	35 - 101
Pyrene	1670	1044		ug/Kg		63	31 - 116

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 620-33911/2-A
Matrix: Solid
Analysis Batch: 33923

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33911

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	56		30 - 130
2-Fluorobiphenyl (Surr)	55		30 - 130
Terphenyl-d14 (Surr)	42		30 - 130

Lab Sample ID: LCSD 620-33911/3-A
Matrix: Solid
Analysis Batch: 33923

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33911

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene			1670	863.3		ug/Kg		52	30 - 109	1	30
2-Methylnaphthalene			1670	941.7		ug/Kg		57	10 - 153	2	30
Acenaphthene			1670	831.6		ug/Kg		50	35 - 93	4	30
Acenaphthylene			1670	836.2		ug/Kg		50	36 - 94	6	30
Anthracene			1670	937.3		ug/Kg		56	34 - 120	17	30
Benzo[a]anthracene			1670	896.8		ug/Kg		54	39 - 113	15	30
Benzo[a]pyrene			1670	873.7		ug/Kg		52	38 - 109	18	30
Benzo[b]fluoranthene			1670	735.4		ug/Kg		44	29 - 113	19	30
Benzo[g,h,i]perylene			1670	789.4		ug/Kg		47	35 - 108	17	30
Benzo[k]fluoranthene			1670	942.9		ug/Kg		57	28 - 112	14	30
Chrysene			1670	883.1		ug/Kg		53	38 - 109	15	30
Dibenz(a,h)anthracene			1670	733.8		ug/Kg		44	34 - 103	19	30
Fluoranthene			1670	914.5		ug/Kg		55	36 - 111	17	30
Fluorene			1670	892.8		ug/Kg		54	35 - 98	10	30
Indeno[1,2,3-cd]pyrene			1670	776.2		ug/Kg		47	32 - 103	18	30
Naphthalene			1670	848.5		ug/Kg		51	31 - 94	3	30
Phenanthrene			1670	847.1		ug/Kg		51	35 - 101	17	30
Pyrene			1670	906.3		ug/Kg		54	31 - 116	14	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	54		30 - 130
2-Fluorobiphenyl (Surr)	53		30 - 130
Terphenyl-d14 (Surr)	34		30 - 130

Method: 8100 - Polynuclear Aromatic Hydrocarbons (PAHs) (GC)

Lab Sample ID: MB 620-33867/1-A
Matrix: Solid
Analysis Batch: 33878

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33867

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
TEPH (C9-C36)	ND		13.3		mg/Kg		04/18/24 08:59	04/18/24 18:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane (Surr)	44		40 - 140	04/18/24 08:59	04/18/24 18:49	1
o-Terphenyl (Surr)	32	S1-	40 - 140	04/18/24 08:59	04/18/24 18:49	1

Method: 8100 - Polynuclear Aromatic Hydrocarbons (PAHs) (GC) (Continued)

Lab Sample ID: LCS 620-33867/2-A
Matrix: Solid
Analysis Batch: 33878

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33867

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
TEPH (C9-C36)			360	191.0		mg/Kg		53	30 - 100		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctadecane (Surr)	*66*		*40 - 140*
o-Terphenyl (Surr)	*80*		*40 - 140*

Lab Sample ID: LCSD 620-33867/3-A
Matrix: Solid
Analysis Batch: 33878

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33867

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
TEPH (C9-C36)			360	181.9		mg/Kg		51	30 - 100	5	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctadecane (Surr)	*69*		*40 - 140*
o-Terphenyl (Surr)	*67*		*40 - 140*

Method: Moisture - Percent Moisture

Lab Sample ID: 620-18044-1 DU
Matrix: Solid
Analysis Batch: 33832

Client Sample ID: SB-02 2'-4' Singleton
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	90.3			90.7		%				0.4	5

QC Association Summary

Client: AECOM
Job ID: 620-18044-1
Project/Site: RIDOT Bridge Group 97 - Warwick, RI

GC/MS Semi VOA

Prep Batch: 33911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-18044-1	SB-02 2'-4' Singleton	Total/NA	Solid	3546	
620-18044-2	SB-03 2'-3' River St	Total/NA	Solid	3546	
MB 620-33911/1-A	Method Blank	Total/NA	Solid	3546	
LCS 620-33911/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 620-33911/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Analysis Batch: 33923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 620-33911/1-A	Method Blank	Total/NA	Solid	8270D	33911
LCS 620-33911/2-A	Lab Control Sample	Total/NA	Solid	8270D	33911
LCSD 620-33911/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	33911

Analysis Batch: 33969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-18044-1	SB-02 2'-4' Singleton	Total/NA	Solid	8270D	33911
620-18044-2	SB-03 2'-3' River St	Total/NA	Solid	8270D	33911

GC Semi VOA

Prep Batch: 33867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-18044-1	SB-02 2'-4' Singleton	Total/NA	Solid	3546	
620-18044-2	SB-03 2'-3' River St	Total/NA	Solid	3546	
MB 620-33867/1-A	Method Blank	Total/NA	Solid	3546	
LCS 620-33867/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 620-33867/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Analysis Batch: 33878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 620-33867/1-A	Method Blank	Total/NA	Solid	8100	33867
LCS 620-33867/2-A	Lab Control Sample	Total/NA	Solid	8100	33867
LCSD 620-33867/3-A	Lab Control Sample Dup	Total/NA	Solid	8100	33867

Analysis Batch: 33918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-18044-1	SB-02 2'-4' Singleton	Total/NA	Solid	8100	33867
620-18044-2	SB-03 2'-3' River St	Total/NA	Solid	8100	33867

General Chemistry

Analysis Batch: 33832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-18044-1	SB-02 2'-4' Singleton	Total/NA	Solid	Moisture	
620-18044-2	SB-03 2'-3' River St	Total/NA	Solid	Moisture	
620-18044-1 DU	SB-02 2'-4' Singleton	Total/NA	Solid	Moisture	

Lab Chronicle

Client: AECOM
Job ID: 620-18044-1
Project/Site: RIDOT Bridge Group 97 - Warwick, RI

Client Sample ID: SB-02 2'-4' Singleton
Lab Sample ID: 620-18044-1
Date Collected: 04/16/24 12:55
Matrix: Solid
Date Received: 04/16/24 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	33832	MEM	EET RI	04/17/24 10:47

Client Sample ID: SB-02 2'-4' Singleton
Lab Sample ID: 620-18044-1
Date Collected: 04/16/24 12:55
Matrix: Solid
Date Received: 04/16/24 15:30
Percent Solids: 90.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			33911	JAC	EET RI	04/19/24 07:49
Total/NA	Analysis	8270D		1	33969	JS	EET RI	04/22/24 18:25
Total/NA	Prep	3546			33867	JAC	EET RI	04/18/24 08:59
Total/NA	Analysis	8100		1	33918	JS	EET RI	04/19/24 16:01

Client Sample ID: SB-03 2'-3' River St
Lab Sample ID: 620-18044-2
Date Collected: 04/16/24 13:55
Matrix: Solid
Date Received: 04/16/24 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	33832	MEM	EET RI	04/17/24 10:47

Client Sample ID: SB-03 2'-3' River St
Lab Sample ID: 620-18044-2
Date Collected: 04/16/24 13:55
Matrix: Solid
Date Received: 04/16/24 15:30
Percent Solids: 94.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3546			33911	JAC	EET RI	04/19/24 07:49
Total/NA	Analysis	8270D		1	33969	JS	EET RI	04/22/24 18:51
Total/NA	Prep	3546			33867	JAC	EET RI	04/18/24 08:59
Total/NA	Analysis	8100		1	33918	JS	EET RI	04/19/24 16:24

Laboratory References:
EET RI = Eurofins Rhode Island, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

Accreditation/Certification Summary

Client: AECOM
Job ID: 620-18044-1
Project/Site: RIDOT Bridge Group 97 - Warwick, RI

Laboratory: Eurofins Rhode Island

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Rhode Island	State	LAI00368	12-31-23 *

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8100	3546	Solid	TEPH (C9-C36)
8270D	3546	Solid	1-Methylnaphthalene
8270D	3546	Solid	2-Methylnaphthalene
8270D	3546	Solid	Acenaphthene
8270D	3546	Solid	Acenaphthylene
8270D	3546	Solid	Anthracene
8270D	3546	Solid	Benzo[a]anthracene
8270D	3546	Solid	Benzo[a]pyrene
8270D	3546	Solid	Benzo[b]fluoranthene
8270D	3546	Solid	Benzo[g,h,i]perylene
8270D	3546	Solid	Benzo[k]fluoranthene
8270D	3546	Solid	Chrysene
8270D	3546	Solid	Dibenz(a,h)anthracene
8270D	3546	Solid	Fluoranthene
8270D	3546	Solid	Fluorene
8270D	3546	Solid	Indeno[1,2,3-cd]pyrene
8270D	3546	Solid	Naphthalene
8270D	3546	Solid	Phenanthrene
8270D	3546	Solid	Pyrene
Moisture		Solid	Percent Solids

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: AECOM
Job ID: 620-18044-1
Project/Site: RIDOT Bridge Group 97 - Warwick, RI

Method	Method Description	Protocol	Laboratory
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET RI
8100	Polynuclear Aromatic Hydrocarbons (PAHs) (GC)	SW846	EET RI
Moisture	Percent Moisture	EPA	EET RI
3546	Microwave Extraction	SW846	EET RI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET RI = Eurofins Rhode Island, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

Sample Summary

Client: AECOM
Job ID: 620-18044-1
Project/Site: RIDOT Bridge Group 97 - Warwick, RI

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
620-18044-1	SB-02 2'-4' Singleton	Solid	04/16/24 12:55	04/16/24 15:30
620-18044-2	SB-03 2'-3' River St	Solid	04/16/24 13:55	04/16/24 15:30

620-18044 Chain of Custody

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ɡland

18044

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:

- [x] Standard TAT - 7 to 10 business days
- [ ] Rush TAT - Date Needed _____

All TATs subject to laboratory approval
Min 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed.

Report To: P. Haskell / K. Rimmer
AECOM
One Ms St Suite 405
Providence, RI
Telephone #
Project Mgr: P. Haskell.

Invoice To: P. Haskell
AECOM
One Ms St Suite #405
Providence, RI
PO No.: 60708347 Quote #

Project No
Site Name: RIDOT Singleton St / River St
Location: Woonsocket, RI Woonsocket State
Sampler(s): K. Rimmer

F=Field Filtered 1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid TASK 1.40
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11= 12=

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1= X2= X3=

G= Grab C=Compsite

List Preservative Code below: 4°C

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analysis: TPH (8100M)	PAHs	Check if chlorinated
-1	SB-02 2'-4' Singleton	4/16/24	1255	G	SO	Ø	Ø	2	Ø	✓	✓	
-2	SB-03 2'-3' River St.	4/16/24	1355	G	SO	Ø	Ø	2	Ø	✓	✓	

QA/QC Reporting Notes:
* additional charges may apply

MA DEP MCP CAM Report? Yes No
CT DPH RCP Report? Yes No
Standard No QC DQA*
ASP A* ASP B*
NJ Reduced* NJ Full*
Tier II* Tier IV*
Other:
State-specific reporting standards

RIDEM

Relinquished by:	Received by:	Date:	Time:	Temp °C
(413)362-9048 K. Rimmer (AECOM)	(on ice)	4/16/2024	1530	Observed 3.4
				Correction Factor -0.2
				Corrected 3.2
				IR ID # 6

EDD format
E-mail to

Condition upon receipt: Custody Seals: Present Intact Broken
Ambient Iced Refrigerated DI VOA Frozen Soil Jar Frozen

Page 18 of 19

4/23/2024

Login Sample Receipt Checklist

Client: AECOM

Job Number: 620-18044-1

Login Number: 18044
List Number: 1
Creator: Makhoul, Elie

List Source: Eurofins Rhode Island

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Patrick Haskell
AECOM
10 Orms Street
Suite 405
Providence, Rhode Island 02904

Generated 4/9/2024 11:03:44 AM

JOB DESCRIPTION

RIDOT River St Bridge & Singleton St Bridge

JOB NUMBER

620-17695-1

Eurofins Rhode Island
646 Camp Ave
North Kingstown RI 02852

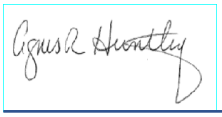
See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization



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Authorized for release by
Agnes Huntley, Project Manager
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Definitions/Glossary

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
H3	Sample was received and analyzed past holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
620-17695-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 3/29/2024 3:51 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C.

GC/MS VOA
Method 8260C: The large number of analytes included in the continuing calibration verification (CCV) gives a high probability that one or more analytes will be outside acceptance criteria. As indicated in the reference method, analysis may proceed as long as no more than 20% of the analytes of interest are outside the method-defined %D criteria. Affected analyte (biased high): Carbon disulfide.
(CCVIS 620-33388/3)

Method 8260C: The following samples were received with insufficient time remaining to freeze within 48 hours, as required for samples collected in water preserved vials: SB01 0-2ft bgs Singleton St bridge (620-17695-1), SB02 0-2ft bgs Singleton St bridge (620-17695-2), SB03 0-2ft bgs Singleton St bridge (620-17695-3), Trip Blank (620-17695-4), SB01 0-2ft bgs River St bridge (620-17695-5), SB02 0-2ft bgs River St bridge (620-17695-6) and SB03 0-2ft bgs River St bridge (620-17695-7). The samples were collected on 3/26/24 at 13:50 through 15:30. The samples were received on 3/29/24 at 15:51 .

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: Due to the dark and viscous nature of the matrix, the following samples could not be concentrated to the final method required volume: SB02 0-2ft bgs Singleton St bridge (620-17695-2), SB03 0-2ft bgs Singleton St bridge (620-17695-3), SB02 0-2ft bgs River St bridge (620-17695-6) and SB03 0-2ft bgs River St bridge (620-17695-7). The reporting limits (RLs) are elevated proportionately.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8100: Due to the dark and oily consistency of the extract, the following samples could not be concentrated to the final method required volume: SB03 0-2ft bgs Singleton St bridge (620-17695-3), SB02 0-2ft bgs River St bridge (620-17695-6) and SB03 0-2ft bgs River St bridge (620-17695-7). The reporting limits (RLs) are elevated proportionately.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

PCBs
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Client Sample ID: SB01 0-2ft bgs Singleton St bridge — Lab Sample ID: 620-17695-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	179		76.4		ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	168		76.4		ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	183		76.4		ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	135		76.4		ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	166		76.4		ug/Kg	1	☼	8270D	Total/NA
Chrysene	198		76.4		ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	346		76.4		ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	125		76.4		ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	240		76.4		ug/Kg	1	☼	8270D	Total/NA
Pyrene	440		76.4		ug/Kg	1	☼	8270D	Total/NA
TEPH (C9-C36)	132		14.9		mg/Kg	1	☼	8100	Total/NA
Barium	24.5		4.66		mg/Kg	4	☼	6010D	Total/NA
Chromium	37.4		4.66		mg/Kg	4	☼	6010D	Total/NA
Lead	121		6.99		mg/Kg	4	☼	6010D	Total/NA
Copper	40.1		4.66		mg/Kg	4	☼	6010D	Total/NA
Nickel	7.65		4.66		mg/Kg	4	☼	6010D	Total/NA
Zinc	50.5		14.0		mg/Kg	4	☼	6010D	Total/NA
Mercury	0.254		0.0491		mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB02 0-2ft bgs Singleton St bridge — Lab Sample ID: 620-17695-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	301		145		ug/Kg	1	☼	8270D	Total/NA
Anthracene	609		145		ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	1000		145		ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	803		145		ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	789		145		ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	479		145		ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	919		145		ug/Kg	1	☼	8270D	Total/NA
Chrysene	1010		145		ug/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	231		145		ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	2690		145		ug/Kg	1	☼	8270D	Total/NA
Fluorene	295		145		ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	463		145		ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	2860		145		ug/Kg	1	☼	8270D	Total/NA
Pyrene	2350		145		ug/Kg	1	☼	8270D	Total/NA
TEPH (C9-C36)	67.6		14.7		mg/Kg	1	☼	8100	Total/NA
Barium	37.8		2.25		mg/Kg	2	☼	6010D	Total/NA
Chromium	20.2		2.25		mg/Kg	2	☼	6010D	Total/NA
Lead	72.3		3.37		mg/Kg	2	☼	6010D	Total/NA
Copper	24.3		2.25		mg/Kg	2	☼	6010D	Total/NA
Nickel	6.15		2.25		mg/Kg	2	☼	6010D	Total/NA
Zinc	60.8		6.74		mg/Kg	2	☼	6010D	Total/NA
Mercury	0.149		0.0504		mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB03 0-2ft bgs Singleton St bridge — Lab Sample ID: 620-17695-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
TEPH (C9-C36)	173		25.9		mg/Kg	1	☼	8100	Total/NA
Arsenic	4.12		3.45		mg/Kg	2	☼	6010D	Total/NA
Barium	21.7		2.30		mg/Kg	2	☼	6010D	Total/NA
Chromium	14.9		2.30		mg/Kg	2	☼	6010D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Rhode Island

Detection Summary

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Client Sample ID: SB03 0-2ft bgs Singleton St bridge (Continued)
Lab Sample ID: 620-17695-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Lead	72.4		3.45		mg/Kg	2	☼	6010D	Total/NA
Copper	10.6		2.30		mg/Kg	2	☼	6010D	Total/NA
Nickel	9.25		2.30		mg/Kg	2	☼	6010D	Total/NA
Zinc	44.0		6.91		mg/Kg	2	☼	6010D	Total/NA

Client Sample ID: Trip Blank
Lab Sample ID: 620-17695-4

No Detections.

Client Sample ID: SB01 0-2ft bgs River St bridge
Lab Sample ID: 620-17695-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	81.2		69.1		ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	82.1		69.1		ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	117		69.1		ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	96.0		69.1		ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	100		69.1		ug/Kg	1	☼	8270D	Total/NA
Chrysene	107		69.1		ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	177		69.1		ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	88.1		69.1		ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	91.8		69.1		ug/Kg	1	☼	8270D	Total/NA
Pyrene	205		69.1		ug/Kg	1	☼	8270D	Total/NA
TEPH (C9-C36)	105		13.2		mg/Kg	1	☼	8100	Total/NA
Barium	23.8		2.24		mg/Kg	2	☼	6010D	Total/NA
Chromium	12.3		2.24		mg/Kg	2	☼	6010D	Total/NA
Lead	27.7		3.36		mg/Kg	2	☼	6010D	Total/NA
Copper	15.7		2.24		mg/Kg	2	☼	6010D	Total/NA
Nickel	6.64		2.24		mg/Kg	2	☼	6010D	Total/NA
Zinc	55.7		6.72		mg/Kg	2	☼	6010D	Total/NA

Client Sample ID: SB02 0-2ft bgs River St bridge
Lab Sample ID: 620-17695-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Pyrene	370		364		ug/Kg	1	☼	8270D	Total/NA
TEPH (C9-C36)	188		29.1		mg/Kg	1	☼	8100	Total/NA
Barium	30.2		2.28		mg/Kg	2	☼	6010D	Total/NA
Chromium	20.0		2.28		mg/Kg	2	☼	6010D	Total/NA
Lead	106		3.42		mg/Kg	2	☼	6010D	Total/NA
Copper	15.2		2.28		mg/Kg	2	☼	6010D	Total/NA
Nickel	9.57		2.28		mg/Kg	2	☼	6010D	Total/NA
Zinc	58.1		6.84		mg/Kg	2	☼	6010D	Total/NA

Client Sample ID: SB03 0-2ft bgs River St bridge
Lab Sample ID: 620-17695-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	529		370		ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	502		370		ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	829		370		ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	551		370		ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	591		370		ug/Kg	1	☼	8270D	Total/NA
Chrysene	652		370		ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	1320		370		ug/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SB03 0-2ft bgs River St bridge (Continued)
Lab Sample ID: 620-17695-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Indeno[1,2,3-cd]pyrene	531		370		ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	709		370		ug/Kg	1	☼	8270D	Total/NA
Pyrene	1360		370		ug/Kg	1	☼	8270D	Total/NA
TEPH (C9-C36)	387		28.3		mg/Kg	1	☼	8100	Total/NA
Barium	41.1		4.68		mg/Kg	4	☼	6010D	Total/NA
Chromium	21.2		4.68		mg/Kg	4	☼	6010D	Total/NA
Lead	252		7.02		mg/Kg	4	☼	6010D	Total/NA
Copper	22.6		4.68		mg/Kg	4	☼	6010D	Total/NA
Nickel	14.4		4.68		mg/Kg	4	☼	6010D	Total/NA
Zinc	69.9		14.0		mg/Kg	4	☼	6010D	Total/NA

This Detection Summary does not include radiochemical test results.

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Client Sample ID: SB01 0-2ft bgs Singleton St bridge
Lab Sample ID: 620-17695-1
Date Collected: 03/26/24 13:50
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 87.1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Acetone	ND	H H3	64.2		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Acrylonitrile	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Benzene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Bromobenzene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Bromochloromethane	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Bromodichloromethane	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Bromoform	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Bromomethane	ND	H H3	12.8		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
2-Butanone (MEK)	ND	H H3	12.8		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
n-Butylbenzene	ND	H H3	12.8		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
sec-Butylbenzene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
tert-Butylbenzene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Carbon disulfide	ND	H H3	12.8		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Carbon tetrachloride	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Chlorobenzene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Chloroethane	ND	H H3	12.8		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Chloroform	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Chloromethane	ND	H H3	12.8		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
2-Chlorotoluene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
4-Chlorotoluene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
1,2-Dibromo-3-Chloropropane	ND	H H3	12.8		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Dibromochloromethane	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
1,2-Dibromoethane (EDB)	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Dibromomethane	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
1,2-Dichlorobenzene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
1,3-Dichlorobenzene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
1,4-Dichlorobenzene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Dichlorodifluoromethane (Freon 12)	ND	H H3	12.8		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
1,1-Dichloroethane	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
1,2-Dichloroethane	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
1,1-Dichloroethene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
cis-1,2-Dichloroethene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
trans-1,2-Dichloroethene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
1,2-Dichloropropane	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
1,3-Dichloropropane	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
2,2-Dichloropropane	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
1,1-Dichloropropene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
cis-1,3-Dichloropropene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
trans-1,3-Dichloropropene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Ethylbenzene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Hexachlorobutadiene	ND	H H3	12.8		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
2-Hexanone (MBK)	ND	H H3	12.8		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Isopropylbenzene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
4-Isopropyltoluene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Methyl tert-butyl ether	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
4-Methyl-2-pentanone (MIBK)	ND	H H3	12.8		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Methylene Chloride	ND	H H3	12.8		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Naphthalene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1

Client Sample ID: SB01 0-2ft bgs Singleton St bridge
Lab Sample ID: 620-17695-1
Date Collected: 03/26/24 13:50
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 87.1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Styrene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
1,1,1,2-Tetrachloroethane	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
1,1,2,2-Tetrachloroethane	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Tetrachloroethene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Toluene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
1,2,3-Trichlorobenzene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
1,2,4-Trichlorobenzene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
1,3,5-Trichlorobenzene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
1,1,1-Trichloroethane	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
1,1,2-Trichloroethane	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Trichloroethene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Trichlorofluoromethane (Freon 11)	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
1,2,3-Trichloropropane	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
1,2,4-Trimethylbenzene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
1,3,5-Trimethylbenzene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Vinyl chloride	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
m,p-Xylene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
o-Xylene	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Tetrahydrofuran	ND	H H3	12.8		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Ethyl ether	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Tert-amyl methyl ether	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Ethyl tert-butyl ether	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
di-Isopropyl ether	ND	H H3	6.42		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
tert-Butanol	ND	H H3	128		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
1,4-Dioxane	ND	H H3	128		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
trans-1,4-Dichloro-2-butene	ND	H H3	32.1		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1
Ethanol	ND	H H3	1280		ug/Kg	☼	04/03/24 09:01	04/03/24 13:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*04/03/24 09:01*	*04/03/24 13:54*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*	*04/03/24 09:01*	*04/03/24 13:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*	*04/03/24 09:01*	*04/03/24 13:54*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 130*	*04/03/24 09:01*	*04/03/24 13:54*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		76.4		ug/Kg	☼	04/03/24 09:16	04/04/24 00:56	1
2-Methylnaphthalene	ND		76.4		ug/Kg	☼	04/03/24 09:16	04/04/24 00:56	1
Acenaphthene	ND		76.4		ug/Kg	☼	04/03/24 09:16	04/04/24 00:56	1
Acenaphthylene	ND		76.4		ug/Kg	☼	04/03/24 09:16	04/04/24 00:56	1
Anthracene	ND		76.4		ug/Kg	☼	04/03/24 09:16	04/04/24 00:56	1
Benzo[a]anthracene	**179**		76.4		ug/Kg	☼	04/03/24 09:16	04/04/24 00:56	1
Benzo[a]pyrene	**168**		76.4		ug/Kg	☼	04/03/24 09:16	04/04/24 00:56	1
Benzo[b]fluoranthene	**183**		76.4		ug/Kg	☼	04/03/24 09:16	04/04/24 00:56	1
Benzo[g,h,i]perylene	**135**		76.4		ug/Kg	☼	04/03/24 09:16	04/04/24 00:56	1
Benzo[k]fluoranthene	**166**		76.4		ug/Kg	☼	04/03/24 09:16	04/04/24 00:56	1
Chrysene	**198**		76.4		ug/Kg	☼	04/03/24 09:16	04/04/24 00:56	1
Dibenz(a,h)anthracene	ND		76.4		ug/Kg	☼	04/03/24 09:16	04/04/24 00:56	1
Fluoranthene	**346**		76.4		ug/Kg	☼	04/03/24 09:16	04/04/24 00:56	1

Client Sample ID: SB01 0-2ft bgs Singleton St bridge
Lab Sample ID: 620-17695-1

Date Collected: 03/26/24 13:50
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 87.1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	ND		76.4		ug/Kg	☼	04/03/24 09:16	04/04/24 00:56	1
Indeno[1,2,3-cd]pyrene	**125**		76.4		ug/Kg	☼	04/03/24 09:16	04/04/24 00:56	1
Naphthalene	ND		76.4		ug/Kg	☼	04/03/24 09:16	04/04/24 00:56	1
Phenanthrene	**240**		76.4		ug/Kg	☼	04/03/24 09:16	04/04/24 00:56	1
Pyrene	**440**		76.4		ug/Kg	☼	04/03/24 09:16	04/04/24 00:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*50*		*30 - 130*	*04/03/24 09:16*	*04/04/24 00:56*	*1*
2-Fluorobiphenyl (Surr)	*60*		*30 - 130*	*04/03/24 09:16*	*04/04/24 00:56*	*1*
Terphenyl-d14 (Surr)	*59*		*30 - 130*	*04/03/24 09:16*	*04/04/24 00:56*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		21.5		ug/Kg	☼	04/03/24 11:04	04/04/24 12:48	1
PCB-1221	ND		21.5		ug/Kg	☼	04/03/24 11:04	04/04/24 12:48	1
PCB-1232	ND		21.5		ug/Kg	☼	04/03/24 11:04	04/04/24 12:48	1
PCB-1242	ND		21.5		ug/Kg	☼	04/03/24 11:04	04/04/24 12:48	1
PCB-1248	ND		21.5		ug/Kg	☼	04/03/24 11:04	04/04/24 12:48	1
PCB-1254	ND		21.5		ug/Kg	☼	04/03/24 11:04	04/04/24 12:48	1
PCB-1260	ND		21.5		ug/Kg	☼	04/03/24 11:04	04/04/24 12:48	1
PCB-1262	ND		21.5		ug/Kg	☼	04/03/24 11:04	04/04/24 12:48	1
PCB-1268	ND		21.5		ug/Kg	☼	04/03/24 11:04	04/04/24 12:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*35*		*30 - 150*	*04/03/24 11:04*	*04/04/24 12:48*	*1*
Tetrachloro-m-xylene	*36*		*30 - 150*	*04/03/24 11:04*	*04/04/24 12:48*	*1*
DCB Decachlorobiphenyl (Surr)	*41*		*30 - 150*	*04/03/24 11:04*	*04/04/24 12:48*	*1*
DCB Decachlorobiphenyl (Surr)	*40*		*30 - 150*	*04/03/24 11:04*	*04/04/24 12:48*	*1*

Method: SW846 8100 - Polynuclear Aromatic Hydrocarbons (PAHs) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
TEPH (C9-C36)	**132**		14.9		mg/Kg	☼	04/01/24 09:04	04/02/24 13:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane (Surr)	*65*		*40 - 140*	*04/01/24 09:04*	*04/02/24 13:11*	*1*
o-Terphenyl (Surr)	*67*		*40 - 140*	*04/01/24 09:04*	*04/02/24 13:11*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		6.99		mg/Kg	☼	04/02/24 11:00	04/03/24 13:12	4
Barium	**24.5**		4.66		mg/Kg	☼	04/02/24 11:00	04/03/24 13:12	4
Cadmium	ND		2.33		mg/Kg	☼	04/02/24 11:00	04/03/24 13:12	4
Chromium	**37.4**		4.66		mg/Kg	☼	04/02/24 11:00	04/03/24 13:12	4
Lead	**121**		6.99		mg/Kg	☼	04/02/24 11:00	04/03/24 13:12	4
Selenium	ND		6.99		mg/Kg	☼	04/02/24 11:00	04/03/24 13:12	4
Silver	ND		6.99		mg/Kg	☼	04/02/24 11:00	04/03/24 13:12	4
Copper	**40.1**		4.66		mg/Kg	☼	04/02/24 11:00	04/03/24 13:12	4
Nickel	**7.65**		4.66		mg/Kg	☼	04/02/24 11:00	04/03/24 13:12	4
Zinc	**50.5**		14.0		mg/Kg	☼	04/02/24 11:00	04/03/24 13:12	4

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Client Sample ID: SB01 0-2ft bgs Singleton St bridge
Lab Sample ID: 620-17695-1
Date Collected: 03/26/24 13:50
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 87.1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.254		0.0491		mg/Kg	☼	04/01/24 08:08	04/01/24 16:00	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids (EPA Moisture)	87.1		0.1		%			04/01/24 11:41	1

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Client Sample ID: SB02 0-2ft bgs Singleton St bridge
Lab Sample ID: 620-17695-2
Date Collected: 03/26/24 14:00
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 89.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Acetone	ND	H H3	53.7		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Acrylonitrile	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Benzene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Bromobenzene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Bromochloromethane	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Bromodichloromethane	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Bromoform	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Bromomethane	ND	H H3	10.7		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
2-Butanone (MEK)	ND	H H3	10.7		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
n-Butylbenzene	ND	H H3	10.7		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
sec-Butylbenzene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
tert-Butylbenzene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Carbon disulfide	ND	H H3	10.7		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Carbon tetrachloride	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Chlorobenzene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Chloroethane	ND	H H3	10.7		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Chloroform	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Chloromethane	ND	H H3	10.7		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
2-Chlorotoluene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
4-Chlorotoluene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
1,2-Dibromo-3-Chloropropane	ND	H H3	10.7		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Dibromochloromethane	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
1,2-Dibromoethane (EDB)	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Dibromomethane	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
1,2-Dichlorobenzene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
1,3-Dichlorobenzene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
1,4-Dichlorobenzene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Dichlorodifluoromethane (Freon 12)	ND	H H3	10.7		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
1,1-Dichloroethane	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
1,2-Dichloroethane	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
1,1-Dichloroethene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
cis-1,2-Dichloroethene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
trans-1,2-Dichloroethene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
1,2-Dichloropropane	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
1,3-Dichloropropane	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
2,2-Dichloropropane	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
1,1-Dichloropropene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
cis-1,3-Dichloropropene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
trans-1,3-Dichloropropene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Ethylbenzene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Hexachlorobutadiene	ND	H H3	10.7		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
2-Hexanone (MBK)	ND	H H3	10.7		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Isopropylbenzene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
4-Isopropyltoluene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Methyl tert-butyl ether	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
4-Methyl-2-pentanone (MIBK)	ND	H H3	10.7		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Methylene Chloride	ND	H H3	10.7		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Naphthalene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1

Client Sample ID: SB02 0-2ft bgs Singleton St bridge
Lab Sample ID: 620-17695-2
Date Collected: 03/26/24 14:00
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 89.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Styrene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
1,1,1,2-Tetrachloroethane	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
1,1,2,2-Tetrachloroethane	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Tetrachloroethene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Toluene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
1,2,3-Trichlorobenzene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
1,2,4-Trichlorobenzene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
1,3,5-Trichlorobenzene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
1,1,1-Trichloroethane	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
1,1,2-Trichloroethane	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Trichloroethene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Trichlorofluoromethane (Freon 11)	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
1,2,3-Trichloropropane	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
1,2,4-Trimethylbenzene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
1,3,5-Trimethylbenzene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Vinyl chloride	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
m,p-Xylene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
o-Xylene	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Tetrahydrofuran	ND	H H3	10.7		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Ethyl ether	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Tert-amyl methyl ether	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Ethyl tert-butyl ether	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
di-Isopropyl ether	ND	H H3	5.37		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
tert-Butanol	ND	H H3	107		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
1,4-Dioxane	ND	H H3	107		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
trans-1,4-Dichloro-2-butene	ND	H H3	26.9		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1
Ethanol	ND	H H3	1070		ug/Kg	☼	04/03/24 09:01	04/03/24 15:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*04/03/24 09:01*	*04/03/24 15:11*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*	*04/03/24 09:01*	*04/03/24 15:11*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*	*04/03/24 09:01*	*04/03/24 15:11*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*	*04/03/24 09:01*	*04/03/24 15:11*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		145		ug/Kg	☼	04/03/24 09:16	04/04/24 14:32	1
2-Methylnaphthalene	ND		145		ug/Kg	☼	04/03/24 09:16	04/04/24 14:32	1
Acenaphthene	**301**		145		ug/Kg	☼	04/03/24 09:16	04/04/24 14:32	1
Acenaphthylene	ND		145		ug/Kg	☼	04/03/24 09:16	04/04/24 14:32	1
Anthracene	**609**		145		ug/Kg	☼	04/03/24 09:16	04/04/24 14:32	1
Benzo[a]anthracene	**1000**		145		ug/Kg	☼	04/03/24 09:16	04/04/24 14:32	1
Benzo[a]pyrene	**803**		145		ug/Kg	☼	04/03/24 09:16	04/04/24 14:32	1
Benzo[b]fluoranthene	**789**		145		ug/Kg	☼	04/03/24 09:16	04/04/24 14:32	1
Benzo[g,h,i]perylene	**479**		145		ug/Kg	☼	04/03/24 09:16	04/04/24 14:32	1
Benzo[k]fluoranthene	**919**		145		ug/Kg	☼	04/03/24 09:16	04/04/24 14:32	1
Chrysene	**1010**		145		ug/Kg	☼	04/03/24 09:16	04/04/24 14:32	1
Dibenz(a,h)anthracene	**231**		145		ug/Kg	☼	04/03/24 09:16	04/04/24 14:32	1
Fluoranthene	**2690**		145		ug/Kg	☼	04/03/24 09:16	04/04/24 14:32	1

Client Sample ID: SB02 0-2ft bgs Singleton St bridge
Lab Sample ID: 620-17695-2
Date Collected: 03/26/24 14:00
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 89.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	**295**		145		ug/Kg	☼	04/03/24 09:16	04/04/24 14:32	1
Indeno[1,2,3-cd]pyrene	**463**		145		ug/Kg	☼	04/03/24 09:16	04/04/24 14:32	1
Naphthalene	ND		145		ug/Kg	☼	04/03/24 09:16	04/04/24 14:32	1
Phenanthrene	**2860**		145		ug/Kg	☼	04/03/24 09:16	04/04/24 14:32	1
Pyrene	**2350**		145		ug/Kg	☼	04/03/24 09:16	04/04/24 14:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*65*		*30 - 130*	*04/03/24 09:16*	*04/04/24 14:32*	*1*
2-Fluorobiphenyl (Surr)	*75*		*30 - 130*	*04/03/24 09:16*	*04/04/24 14:32*	*1*
Terphenyl-d14 (Surr)	*60*		*30 - 130*	*04/03/24 09:16*	*04/04/24 14:32*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		21.8		ug/Kg	☼	04/03/24 11:04	04/04/24 13:06	1
PCB-1221	ND		21.8		ug/Kg	☼	04/03/24 11:04	04/04/24 13:06	1
PCB-1232	ND		21.8		ug/Kg	☼	04/03/24 11:04	04/04/24 13:06	1
PCB-1242	ND		21.8		ug/Kg	☼	04/03/24 11:04	04/04/24 13:06	1
PCB-1248	ND		21.8		ug/Kg	☼	04/03/24 11:04	04/04/24 13:06	1
PCB-1254	ND		21.8		ug/Kg	☼	04/03/24 11:04	04/04/24 13:06	1
PCB-1260	ND		21.8		ug/Kg	☼	04/03/24 11:04	04/04/24 13:06	1
PCB-1262	ND		21.8		ug/Kg	☼	04/03/24 11:04	04/04/24 13:06	1
PCB-1268	ND		21.8		ug/Kg	☼	04/03/24 11:04	04/04/24 13:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*61*		*30 - 150*	*04/03/24 11:04*	*04/04/24 13:06*	*1*
Tetrachloro-m-xylene	*61*		*30 - 150*	*04/03/24 11:04*	*04/04/24 13:06*	*1*
DCB Decachlorobiphenyl (Surr)	*101*		*30 - 150*	*04/03/24 11:04*	*04/04/24 13:06*	*1*
DCB Decachlorobiphenyl (Surr)	*96*		*30 - 150*	*04/03/24 11:04*	*04/04/24 13:06*	*1*

Method: SW846 8100 - Polynuclear Aromatic Hydrocarbons (PAHs) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
TEPH (C9-C36)	**67.6**		14.7		mg/Kg	☼	04/01/24 09:04	04/01/24 20:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane (Surr)	*76*		*40 - 140*	*04/01/24 09:04*	*04/01/24 20:38*	*1*
o-Terphenyl (Surr)	*75*		*40 - 140*	*04/01/24 09:04*	*04/01/24 20:38*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		3.37		mg/Kg	☼	04/02/24 11:00	04/03/24 13:18	2
Barium	**37.8**		2.25		mg/Kg	☼	04/02/24 11:00	04/03/24 13:18	2
Cadmium	ND		1.12		mg/Kg	☼	04/02/24 11:00	04/03/24 13:18	2
Chromium	**20.2**		2.25		mg/Kg	☼	04/02/24 11:00	04/03/24 13:18	2
Lead	**72.3**		3.37		mg/Kg	☼	04/02/24 11:00	04/03/24 13:18	2
Selenium	ND		3.37		mg/Kg	☼	04/02/24 11:00	04/03/24 13:18	2
Silver	ND		3.37		mg/Kg	☼	04/02/24 11:00	04/03/24 13:18	2
Copper	**24.3**		2.25		mg/Kg	☼	04/02/24 11:00	04/03/24 13:18	2
Nickel	**6.15**		2.25		mg/Kg	☼	04/02/24 11:00	04/03/24 13:18	2
Zinc	**60.8**		6.74		mg/Kg	☼	04/02/24 11:00	04/03/24 13:18	2

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Client Sample ID: SB02 0-2ft bgs Singleton St bridge
Lab Sample ID: 620-17695-2
Date Collected: 03/26/24 14:00
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 89.8

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.149		0.0504		mg/Kg	☼	04/01/24 08:08	04/01/24 16:06	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids (EPA Moisture)	89.8		0.1		%			04/01/24 11:41	1

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Client Sample ID: SB03 0-2ft bgs Singleton St bridge
Lab Sample ID: 620-17695-3
Date Collected: 03/26/24 14:10
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 94.5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Acetone	ND	H H3	95.1		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Acrylonitrile	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Benzene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Bromobenzene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Bromochloromethane	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Bromodichloromethane	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Bromoform	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Bromomethane	ND	H H3	19.0		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
2-Butanone (MEK)	ND	H H3	19.0		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
n-Butylbenzene	ND	H H3	19.0		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
sec-Butylbenzene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
tert-Butylbenzene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Carbon disulfide	ND	H H3	19.0		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Carbon tetrachloride	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Chlorobenzene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Chloroethane	ND	H H3	19.0		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Chloroform	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Chloromethane	ND	H H3	19.0		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
2-Chlorotoluene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
4-Chlorotoluene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
1,2-Dibromo-3-Chloropropane	ND	H H3	19.0		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Dibromochloromethane	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
1,2-Dibromoethane (EDB)	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Dibromomethane	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
1,2-Dichlorobenzene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
1,3-Dichlorobenzene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
1,4-Dichlorobenzene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Dichlorodifluoromethane (Freon 12)	ND	H H3	19.0		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
1,1-Dichloroethane	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
1,2-Dichloroethane	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
1,1-Dichloroethene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
cis-1,2-Dichloroethene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
trans-1,2-Dichloroethene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
1,2-Dichloropropane	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
1,3-Dichloropropane	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
2,2-Dichloropropane	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
1,1-Dichloropropene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
cis-1,3-Dichloropropene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
trans-1,3-Dichloropropene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Ethylbenzene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Hexachlorobutadiene	ND	H H3	19.0		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
2-Hexanone (MBK)	ND	H H3	19.0		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Isopropylbenzene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
4-Isopropyltoluene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Methyl tert-butyl ether	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
4-Methyl-2-pentanone (MIBK)	ND	H H3	19.0		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Methylene Chloride	ND	H H3	19.0		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Naphthalene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Client Sample ID: SB03 0-2ft bgs Singleton St bridge
Lab Sample ID: 620-17695-3
Date Collected: 03/26/24 14:10
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 94.5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Styrene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
1,1,1,2-Tetrachloroethane	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
1,1,2,2-Tetrachloroethane	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Tetrachloroethene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Toluene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
1,2,3-Trichlorobenzene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
1,2,4-Trichlorobenzene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
1,3,5-Trichlorobenzene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
1,1,1-Trichloroethane	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
1,1,2-Trichloroethane	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Trichloroethene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Trichlorofluoromethane (Freon 11)	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
1,2,3-Trichloropropane	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
1,2,4-Trimethylbenzene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
1,3,5-Trimethylbenzene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Vinyl chloride	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
m,p-Xylene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
o-Xylene	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Tetrahydrofuran	ND	H H3	19.0		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Ethyl ether	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Tert-amyl methyl ether	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Ethyl tert-butyl ether	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
di-Isopropyl ether	ND	H H3	9.51		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
tert-Butanol	ND	H H3	190		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
1,4-Dioxane	ND	H H3	190		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
trans-1,4-Dichloro-2-butene	ND	H H3	47.6		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1
Ethanol	ND	H H3	1900		ug/Kg	☼	04/03/24 09:01	04/03/24 15:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*04/03/24 09:01*	*04/03/24 15:47*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*	*04/03/24 09:01*	*04/03/24 15:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*	*04/03/24 09:01*	*04/03/24 15:47*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*	*04/03/24 09:01*	*04/03/24 15:47*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		345		ug/Kg	☼	04/03/24 09:16	04/04/24 14:56	1
2-Methylnaphthalene	ND		345		ug/Kg	☼	04/03/24 09:16	04/04/24 14:56	1
Acenaphthene	ND		345		ug/Kg	☼	04/03/24 09:16	04/04/24 14:56	1
Acenaphthylene	ND		345		ug/Kg	☼	04/03/24 09:16	04/04/24 14:56	1
Anthracene	ND		345		ug/Kg	☼	04/03/24 09:16	04/04/24 14:56	1
Benzo[a]anthracene	ND		345		ug/Kg	☼	04/03/24 09:16	04/04/24 14:56	1
Benzo[a]pyrene	ND		345		ug/Kg	☼	04/03/24 09:16	04/04/24 14:56	1
Benzo[b]fluoranthene	ND		345		ug/Kg	☼	04/03/24 09:16	04/04/24 14:56	1
Benzo[g,h,i]perylene	ND		345		ug/Kg	☼	04/03/24 09:16	04/04/24 14:56	1
Benzo[k]fluoranthene	ND		345		ug/Kg	☼	04/03/24 09:16	04/04/24 14:56	1
Chrysene	ND		345		ug/Kg	☼	04/03/24 09:16	04/04/24 14:56	1
Dibenz(a,h)anthracene	ND		345		ug/Kg	☼	04/03/24 09:16	04/04/24 14:56	1
Fluoranthene	ND		345		ug/Kg	☼	04/03/24 09:16	04/04/24 14:56	1

Client Sample ID: SB03 0-2ft bgs Singleton St bridge
Lab Sample ID: 620-17695-3

Date Collected: 03/26/24 14:10
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 94.5

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	ND		345		ug/Kg	☼	04/03/24 09:16	04/04/24 14:56	1
Indeno[1,2,3-cd]pyrene	ND		345		ug/Kg	☼	04/03/24 09:16	04/04/24 14:56	1
Naphthalene	ND		345		ug/Kg	☼	04/03/24 09:16	04/04/24 14:56	1
Phenanthrene	ND		345		ug/Kg	☼	04/03/24 09:16	04/04/24 14:56	1
Pyrene	ND		345		ug/Kg	☼	04/03/24 09:16	04/04/24 14:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*64*		*30 - 130*	*04/03/24 09:16*	*04/04/24 14:56*	*1*
2-Fluorobiphenyl (Surr)	*79*		*30 - 130*	*04/03/24 09:16*	*04/04/24 14:56*	*1*
Terphenyl-d14 (Surr)	*68*		*30 - 130*	*04/03/24 09:16*	*04/04/24 14:56*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		20.4		ug/Kg	☼	04/03/24 11:04	04/04/24 13:24	1
PCB-1221	ND		20.4		ug/Kg	☼	04/03/24 11:04	04/04/24 13:24	1
PCB-1232	ND		20.4		ug/Kg	☼	04/03/24 11:04	04/04/24 13:24	1
PCB-1242	ND		20.4		ug/Kg	☼	04/03/24 11:04	04/04/24 13:24	1
PCB-1248	ND		20.4		ug/Kg	☼	04/03/24 11:04	04/04/24 13:24	1
PCB-1254	ND		20.4		ug/Kg	☼	04/03/24 11:04	04/04/24 13:24	1
PCB-1260	ND		20.4		ug/Kg	☼	04/03/24 11:04	04/04/24 13:24	1
PCB-1262	ND		20.4		ug/Kg	☼	04/03/24 11:04	04/04/24 13:24	1
PCB-1268	ND		20.4		ug/Kg	☼	04/03/24 11:04	04/04/24 13:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*76*		*30 - 150*	*04/03/24 11:04*	*04/04/24 13:24*	*1*
Tetrachloro-m-xylene	*75*		*30 - 150*	*04/03/24 11:04*	*04/04/24 13:24*	*1*
DCB Decachlorobiphenyl (Surr)	*67*		*30 - 150*	*04/03/24 11:04*	*04/04/24 13:24*	*1*
DCB Decachlorobiphenyl (Surr)	*65*		*30 - 150*	*04/03/24 11:04*	*04/04/24 13:24*	*1*

Method: SW846 8100 - Polynuclear Aromatic Hydrocarbons (PAHs) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
TEPH (C9-C36)	**173**		25.9		mg/Kg	☼	04/01/24 09:04	04/01/24 21:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane (Surr)	*84*		*40 - 140*	*04/01/24 09:04*	*04/01/24 21:01*	*1*
o-Terphenyl (Surr)	*84*		*40 - 140*	*04/01/24 09:04*	*04/01/24 21:01*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.12**		3.45		mg/Kg	☼	04/02/24 11:00	04/03/24 13:23	2
Barium	**21.7**		2.30		mg/Kg	☼	04/02/24 11:00	04/03/24 13:23	2
Cadmium	ND		1.15		mg/Kg	☼	04/02/24 11:00	04/03/24 13:23	2
Chromium	**14.9**		2.30		mg/Kg	☼	04/02/24 11:00	04/03/24 13:23	2
Lead	**72.4**		3.45		mg/Kg	☼	04/02/24 11:00	04/03/24 13:23	2
Selenium	ND		3.45		mg/Kg	☼	04/02/24 11:00	04/03/24 13:23	2
Silver	ND		3.45		mg/Kg	☼	04/02/24 11:00	04/03/24 13:23	2
Copper	**10.6**		2.30		mg/Kg	☼	04/02/24 11:00	04/03/24 13:23	2
Nickel	**9.25**		2.30		mg/Kg	☼	04/02/24 11:00	04/03/24 13:23	2
Zinc	**44.0**		6.91		mg/Kg	☼	04/02/24 11:00	04/03/24 13:23	2

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Client Sample ID: SB03 0-2ft bgs Singleton St bridge
Lab Sample ID: 620-17695-3
Date Collected: 03/26/24 14:10
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 94.5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0488		mg/Kg	☼	04/01/24 08:08	04/01/24 16:08	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids (EPA Moisture)	94.5		0.1		%			04/01/24 11:41	1

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Client Sample ID: Trip Blank
Lab Sample ID: 620-17695-4
Date Collected: 03/26/24 00:00
Matrix: Solid
Date Received: 03/29/24 15:51

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Acetone	ND	H H3	50.0		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Acrylonitrile	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Benzene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Bromobenzene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Bromochloromethane	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Bromodichloromethane	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Bromoform	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Bromomethane	ND	H H3	10.0		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
2-Butanone (MEK)	ND	H H3	10.0		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
n-Butylbenzene	ND	H H3	10.0		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
sec-Butylbenzene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
tert-Butylbenzene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Carbon disulfide	ND	H H3	10.0		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Carbon tetrachloride	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Chlorobenzene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Chloroethane	ND	H H3	10.0		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Chloroform	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Chloromethane	ND	H H3	10.0		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
2-Chlorotoluene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
4-Chlorotoluene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
1,2-Dibromo-3-Chloropropane	ND	H H3	10.0		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Dibromochloromethane	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
1,2-Dibromoethane (EDB)	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Dibromomethane	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
1,2-Dichlorobenzene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
1,3-Dichlorobenzene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
1,4-Dichlorobenzene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Dichlorodifluoromethane (Freon 12)	ND	H H3	10.0		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
1,1-Dichloroethane	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
1,2-Dichloroethane	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
1,1-Dichloroethene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
cis-1,2-Dichloroethene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
trans-1,2-Dichloroethene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
1,2-Dichloropropane	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
1,3-Dichloropropane	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
2,2-Dichloropropane	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
1,1-Dichloropropene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
cis-1,3-Dichloropropene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
trans-1,3-Dichloropropene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Ethylbenzene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Hexachlorobutadiene	ND	H H3	10.0		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
2-Hexanone (MBK)	ND	H H3	10.0		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Isopropylbenzene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
4-Isopropyltoluene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Methyl tert-butyl ether	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
4-Methyl-2-pentanone (MIBK)	ND	H H3	10.0		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Methylene Chloride	ND	H H3	10.0		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Naphthalene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Client Sample ID: Trip Blank
Lab Sample ID: 620-17695-4
Date Collected: 03/26/24 00:00
Matrix: Solid
Date Received: 03/29/24 15:51

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Styrene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
1,1,1,2-Tetrachloroethane	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
1,1,2,2-Tetrachloroethane	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Tetrachloroethene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Toluene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
1,2,3-Trichlorobenzene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
1,2,4-Trichlorobenzene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
1,3,5-Trichlorobenzene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
1,1,1-Trichloroethane	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
1,1,2-Trichloroethane	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Trichloroethene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Trichlorofluoromethane (Freon 11)	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
1,2,3-Trichloropropane	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
1,2,4-Trimethylbenzene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
1,3,5-Trimethylbenzene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Vinyl chloride	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
m,p-Xylene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
o-Xylene	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Tetrahydrofuran	ND	H H3	10.0		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Ethyl ether	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Tert-amyl methyl ether	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Ethyl tert-butyl ether	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
di-Isopropyl ether	ND	H H3	5.00		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
tert-Butanol	ND	H H3	100		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
1,4-Dioxane	ND	H H3	100		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
trans-1,4-Dichloro-2-butene	ND	H H3	25.0		ug/Kg		04/03/24 09:01	04/03/24 13:29	1
Ethanol	ND	H H3	1000		ug/Kg		04/03/24 09:01	04/03/24 13:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*04/03/24 09:01*	*04/03/24 13:29*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*	*04/03/24 09:01*	*04/03/24 13:29*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*	*04/03/24 09:01*	*04/03/24 13:29*	*1*
Dibromofluoromethane (Surr)	*103*		*70 - 130*	*04/03/24 09:01*	*04/03/24 13:29*	*1*

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Client Sample ID: SB01 0-2ft bgs River St bridge
Lab Sample ID: 620-17695-5
Date Collected: 03/26/24 15:30
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 93.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Acetone	ND	H H3	59.4		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Acrylonitrile	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Benzene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Bromobenzene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Bromochloromethane	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Bromodichloromethane	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Bromoform	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Bromomethane	ND	H H3	11.9		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
2-Butanone (MEK)	ND	H H3	11.9		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
n-Butylbenzene	ND	H H3	11.9		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
sec-Butylbenzene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
tert-Butylbenzene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Carbon disulfide	ND	H H3	11.9		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Carbon tetrachloride	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Chlorobenzene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Chloroethane	ND	H H3	11.9		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Chloroform	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Chloromethane	ND	H H3	11.9		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
2-Chlorotoluene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
4-Chlorotoluene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
1,2-Dibromo-3-Chloropropane	ND	H H3	11.9		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Dibromochloromethane	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
1,2-Dibromoethane (EDB)	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Dibromomethane	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
1,2-Dichlorobenzene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
1,3-Dichlorobenzene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
1,4-Dichlorobenzene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Dichlorodifluoromethane (Freon 12)	ND	H H3	11.9		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
1,1-Dichloroethane	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
1,2-Dichloroethane	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
1,1-Dichloroethene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
cis-1,2-Dichloroethene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
trans-1,2-Dichloroethene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
1,2-Dichloropropane	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
1,3-Dichloropropane	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
2,2-Dichloropropane	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
1,1-Dichloropropene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
cis-1,3-Dichloropropene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
trans-1,3-Dichloropropene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Ethylbenzene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Hexachlorobutadiene	ND	H H3	11.9		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
2-Hexanone (MBK)	ND	H H3	11.9		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Isopropylbenzene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
4-Isopropyltoluene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Methyl tert-butyl ether	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
4-Methyl-2-pentanone (MIBK)	ND	H H3	11.9		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Methylene Chloride	ND	H H3	11.9		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Naphthalene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Client Sample ID: SB01 0-2ft bgs River St bridge
Lab Sample ID: 620-17695-5
Date Collected: 03/26/24 15:30
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 93.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Styrene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
1,1,1,2-Tetrachloroethane	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
1,1,2,2-Tetrachloroethane	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Tetrachloroethene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Toluene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
1,2,3-Trichlorobenzene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
1,2,4-Trichlorobenzene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
1,3,5-Trichlorobenzene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
1,1,1-Trichloroethane	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
1,1,2-Trichloroethane	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Trichloroethene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Trichlorofluoromethane (Freon 11)	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
1,2,3-Trichloropropane	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
1,2,4-Trimethylbenzene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
1,3,5-Trimethylbenzene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Vinyl chloride	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
m,p-Xylene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
o-Xylene	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Tetrahydrofuran	ND	H H3	11.9		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Ethyl ether	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Tert-amyl methyl ether	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Ethyl tert-butyl ether	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
di-Isopropyl ether	ND	H H3	5.94		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
tert-Butanol	ND	H H3	119		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
1,4-Dioxane	ND	H H3	119		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
trans-1,4-Dichloro-2-butene	ND	H H3	29.7		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1
Ethanol	ND	H H3	1190		ug/Kg	☼	04/03/24 09:01	04/03/24 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*04/03/24 09:01*	*04/03/24 16:12*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*	*04/03/24 09:01*	*04/03/24 16:12*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*	*04/03/24 09:01*	*04/03/24 16:12*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*	*04/03/24 09:01*	*04/03/24 16:12*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		69.1		ug/Kg	☼	04/03/24 09:16	04/04/24 15:21	1
2-Methylnaphthalene	ND		69.1		ug/Kg	☼	04/03/24 09:16	04/04/24 15:21	1
Acenaphthene	ND		69.1		ug/Kg	☼	04/03/24 09:16	04/04/24 15:21	1
Acenaphthylene	ND		69.1		ug/Kg	☼	04/03/24 09:16	04/04/24 15:21	1
Anthracene	ND		69.1		ug/Kg	☼	04/03/24 09:16	04/04/24 15:21	1
Benzo[a]anthracene	**81.2**		69.1		ug/Kg	☼	04/03/24 09:16	04/04/24 15:21	1
Benzo[a]pyrene	**82.1**		69.1		ug/Kg	☼	04/03/24 09:16	04/04/24 15:21	1
Benzo[b]fluoranthene	**117**		69.1		ug/Kg	☼	04/03/24 09:16	04/04/24 15:21	1
Benzo[g,h,i]perylene	**96.0**		69.1		ug/Kg	☼	04/03/24 09:16	04/04/24 15:21	1
Benzo[k]fluoranthene	**100**		69.1		ug/Kg	☼	04/03/24 09:16	04/04/24 15:21	1
Chrysene	**107**		69.1		ug/Kg	☼	04/03/24 09:16	04/04/24 15:21	1
Dibenz(a,h)anthracene	ND		69.1		ug/Kg	☼	04/03/24 09:16	04/04/24 15:21	1
Fluoranthene	**177**		69.1		ug/Kg	☼	04/03/24 09:16	04/04/24 15:21	1

Client Sample ID: SB01 0-2ft bgs River St bridge
Lab Sample ID: 620-17695-5

Date Collected: 03/26/24 15:30
Matrix: Solid

Date Received: 03/29/24 15:51
Percent Solids: 93.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	ND		69.1		ug/Kg	☼	04/03/24 09:16	04/04/24 15:21	1
Indeno[1,2,3-cd]pyrene	**88.1**		69.1		ug/Kg	☼	04/03/24 09:16	04/04/24 15:21	1
Naphthalene	ND		69.1		ug/Kg	☼	04/03/24 09:16	04/04/24 15:21	1
Phenanthrene	**91.8**		69.1		ug/Kg	☼	04/03/24 09:16	04/04/24 15:21	1
Pyrene	**205**		69.1		ug/Kg	☼	04/03/24 09:16	04/04/24 15:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*45*		*30 - 130*	*04/03/24 09:16*	*04/04/24 15:21*	*1*
2-Fluorobiphenyl (Surr)	*57*		*30 - 130*	*04/03/24 09:16*	*04/04/24 15:21*	*1*
Terphenyl-d14 (Surr)	*62*		*30 - 130*	*04/03/24 09:16*	*04/04/24 15:21*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		20.3		ug/Kg	☼	04/03/24 11:04	04/04/24 13:41	1
PCB-1221	ND		20.3		ug/Kg	☼	04/03/24 11:04	04/04/24 13:41	1
PCB-1232	ND		20.3		ug/Kg	☼	04/03/24 11:04	04/04/24 13:41	1
PCB-1242	ND		20.3		ug/Kg	☼	04/03/24 11:04	04/04/24 13:41	1
PCB-1248	ND		20.3		ug/Kg	☼	04/03/24 11:04	04/04/24 13:41	1
PCB-1254	ND		20.3		ug/Kg	☼	04/03/24 11:04	04/04/24 13:41	1
PCB-1260	ND		20.3		ug/Kg	☼	04/03/24 11:04	04/04/24 13:41	1
PCB-1262	ND		20.3		ug/Kg	☼	04/03/24 11:04	04/04/24 13:41	1
PCB-1268	ND		20.3		ug/Kg	☼	04/03/24 11:04	04/04/24 13:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*74*		*30 - 150*	*04/03/24 11:04*	*04/04/24 13:41*	*1*
Tetrachloro-m-xylene	*74*		*30 - 150*	*04/03/24 11:04*	*04/04/24 13:41*	*1*
DCB Decachlorobiphenyl (Surr)	*84*		*30 - 150*	*04/03/24 11:04*	*04/04/24 13:41*	*1*
DCB Decachlorobiphenyl (Surr)	*73*		*30 - 150*	*04/03/24 11:04*	*04/04/24 13:41*	*1*

Method: SW846 8100 - Polynuclear Aromatic Hydrocarbons (PAHs) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
TEPH (C9-C36)	**105**		13.2		mg/Kg	☼	04/01/24 09:04	04/01/24 21:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane (Surr)	*74*		*40 - 140*	*04/01/24 09:04*	*04/01/24 21:24*	*1*
o-Terphenyl (Surr)	*76*		*40 - 140*	*04/01/24 09:04*	*04/01/24 21:24*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		3.36		mg/Kg	☼	04/02/24 11:00	04/03/24 13:29	2
Barium	**23.8**		2.24		mg/Kg	☼	04/02/24 11:00	04/03/24 13:29	2
Cadmium	ND		1.12		mg/Kg	☼	04/02/24 11:00	04/03/24 13:29	2
Chromium	**12.3**		2.24		mg/Kg	☼	04/02/24 11:00	04/03/24 13:29	2
Lead	**27.7**		3.36		mg/Kg	☼	04/02/24 11:00	04/03/24 13:29	2
Selenium	ND		3.36		mg/Kg	☼	04/02/24 11:00	04/03/24 13:29	2
Silver	ND		3.36		mg/Kg	☼	04/02/24 11:00	04/03/24 13:29	2
Copper	**15.7**		2.24		mg/Kg	☼	04/02/24 11:00	04/03/24 13:29	2
Nickel	**6.64**		2.24		mg/Kg	☼	04/02/24 11:00	04/03/24 13:29	2
Zinc	**55.7**		6.72		mg/Kg	☼	04/02/24 11:00	04/03/24 13:29	2

Client Sample Results

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Client Sample ID: SB01 0-2ft bgs River St bridge
Lab Sample ID: 620-17695-5
Date Collected: 03/26/24 15:30
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 93.8

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0471		mg/Kg	☼	04/01/24 08:08	04/01/24 16:11	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids (EPA Moisture)	93.8		0.1		%			04/01/24 11:41	1

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Client Sample ID: SB02 0-2ft bgs River St bridge
Lab Sample ID: 620-17695-6
Date Collected: 03/26/24 15:10
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 90.9

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Acetone	ND	H H3	93.5		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Acrylonitrile	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Benzene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Bromobenzene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Bromochloromethane	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Bromodichloromethane	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Bromoform	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Bromomethane	ND	H H3	18.7		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
2-Butanone (MEK)	ND	H H3	18.7		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
n-Butylbenzene	ND	H H3	18.7		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
sec-Butylbenzene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
tert-Butylbenzene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Carbon disulfide	ND	H H3	18.7		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Carbon tetrachloride	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Chlorobenzene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Chloroethane	ND	H H3	18.7		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Chloroform	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Chloromethane	ND	H H3	18.7		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
2-Chlorotoluene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
4-Chlorotoluene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
1,2-Dibromo-3-Chloropropane	ND	H H3	18.7		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Dibromochloromethane	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
1,2-Dibromoethane (EDB)	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Dibromomethane	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
1,2-Dichlorobenzene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
1,3-Dichlorobenzene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
1,4-Dichlorobenzene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Dichlorodifluoromethane (Freon 12)	ND	H H3	18.7		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
1,1-Dichloroethane	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
1,2-Dichloroethane	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
1,1-Dichloroethene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
cis-1,2-Dichloroethene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
trans-1,2-Dichloroethene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
1,2-Dichloropropane	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
1,3-Dichloropropane	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
2,2-Dichloropropane	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
1,1-Dichloropropene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
cis-1,3-Dichloropropene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
trans-1,3-Dichloropropene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Ethylbenzene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Hexachlorobutadiene	ND	H H3	18.7		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
2-Hexanone (MBK)	ND	H H3	18.7		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Isopropylbenzene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
4-Isopropyltoluene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Methyl tert-butyl ether	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
4-Methyl-2-pentanone (MIBK)	ND	H H3	18.7		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Methylene Chloride	ND	H H3	18.7		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Naphthalene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1

Client Sample ID: SB02 0-2ft bgs River St bridge
Lab Sample ID: 620-17695-6
Date Collected: 03/26/24 15:10
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 90.9

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Styrene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
1,1,1,2-Tetrachloroethane	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
1,1,2,2-Tetrachloroethane	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Tetrachloroethene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Toluene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
1,2,3-Trichlorobenzene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
1,2,4-Trichlorobenzene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
1,3,5-Trichlorobenzene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
1,1,1-Trichloroethane	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
1,1,2-Trichloroethane	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Trichloroethene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Trichlorofluoromethane (Freon 11)	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
1,2,3-Trichloropropane	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
1,2,4-Trimethylbenzene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
1,3,5-Trimethylbenzene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Vinyl chloride	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
m,p-Xylene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
o-Xylene	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Tetrahydrofuran	ND	H H3	18.7		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Ethyl ether	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Tert-amyl methyl ether	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Ethyl tert-butyl ether	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
di-Isopropyl ether	ND	H H3	9.35		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
tert-Butanol	ND	H H3	187		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
1,4-Dioxane	ND	H H3	187		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
trans-1,4-Dichloro-2-butene	ND	H H3	46.8		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1
Ethanol	ND	H H3	1870		ug/Kg	☼	04/03/24 09:01	04/03/24 16:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*04/03/24 09:01*	*04/03/24 16:37*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*	*04/03/24 09:01*	*04/03/24 16:37*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*	*04/03/24 09:01*	*04/03/24 16:37*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*	*04/03/24 09:01*	*04/03/24 16:37*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		364		ug/Kg	☼	04/03/24 09:16	04/04/24 15:45	1
2-Methylnaphthalene	ND		364		ug/Kg	☼	04/03/24 09:16	04/04/24 15:45	1
Acenaphthene	ND		364		ug/Kg	☼	04/03/24 09:16	04/04/24 15:45	1
Acenaphthylene	ND		364		ug/Kg	☼	04/03/24 09:16	04/04/24 15:45	1
Anthracene	ND		364		ug/Kg	☼	04/03/24 09:16	04/04/24 15:45	1
Benzo[a]anthracene	ND		364		ug/Kg	☼	04/03/24 09:16	04/04/24 15:45	1
Benzo[a]pyrene	ND		364		ug/Kg	☼	04/03/24 09:16	04/04/24 15:45	1
Benzo[b]fluoranthene	ND		364		ug/Kg	☼	04/03/24 09:16	04/04/24 15:45	1
Benzo[g,h,i]perylene	ND		364		ug/Kg	☼	04/03/24 09:16	04/04/24 15:45	1
Benzo[k]fluoranthene	ND		364		ug/Kg	☼	04/03/24 09:16	04/04/24 15:45	1
Chrysene	ND		364		ug/Kg	☼	04/03/24 09:16	04/04/24 15:45	1
Dibenz(a,h)anthracene	ND		364		ug/Kg	☼	04/03/24 09:16	04/04/24 15:45	1
Fluoranthene	ND		364		ug/Kg	☼	04/03/24 09:16	04/04/24 15:45	1

Client Sample ID: SB02 0-2ft bgs River St bridge
Lab Sample ID: 620-17695-6

Date Collected: 03/26/24 15:10
Matrix: Solid

Date Received: 03/29/24 15:51
Percent Solids: 90.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	ND		364		ug/Kg	☼	04/03/24 09:16	04/04/24 15:45	1
Indeno[1,2,3-cd]pyrene	ND		364		ug/Kg	☼	04/03/24 09:16	04/04/24 15:45	1
Naphthalene	ND		364		ug/Kg	☼	04/03/24 09:16	04/04/24 15:45	1
Phenanthrene	ND		364		ug/Kg	☼	04/03/24 09:16	04/04/24 15:45	1
Pyrene	**370**		364		ug/Kg	☼	04/03/24 09:16	04/04/24 15:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*62*		*30 - 130*	*04/03/24 09:16*	*04/04/24 15:45*	*1*
2-Fluorobiphenyl (Surr)	*72*		*30 - 130*	*04/03/24 09:16*	*04/04/24 15:45*	*1*
Terphenyl-d14 (Surr)	*63*		*30 - 130*	*04/03/24 09:16*	*04/04/24 15:45*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		21.5		ug/Kg	☼	04/03/24 11:04	04/04/24 13:59	1
PCB-1221	ND		21.5		ug/Kg	☼	04/03/24 11:04	04/04/24 13:59	1
PCB-1232	ND		21.5		ug/Kg	☼	04/03/24 11:04	04/04/24 13:59	1
PCB-1242	ND		21.5		ug/Kg	☼	04/03/24 11:04	04/04/24 13:59	1
PCB-1248	ND		21.5		ug/Kg	☼	04/03/24 11:04	04/04/24 13:59	1
PCB-1254	ND		21.5		ug/Kg	☼	04/03/24 11:04	04/04/24 13:59	1
PCB-1260	ND		21.5		ug/Kg	☼	04/03/24 11:04	04/04/24 13:59	1
PCB-1262	ND		21.5		ug/Kg	☼	04/03/24 11:04	04/04/24 13:59	1
PCB-1268	ND		21.5		ug/Kg	☼	04/03/24 11:04	04/04/24 13:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*74*		*30 - 150*	*04/03/24 11:04*	*04/04/24 13:59*	*1*
Tetrachloro-m-xylene	*75*		*30 - 150*	*04/03/24 11:04*	*04/04/24 13:59*	*1*
DCB Decachlorobiphenyl (Surr)	*65*		*30 - 150*	*04/03/24 11:04*	*04/04/24 13:59*	*1*
DCB Decachlorobiphenyl (Surr)	*61*		*30 - 150*	*04/03/24 11:04*	*04/04/24 13:59*	*1*

Method: SW846 8100 - Polynuclear Aromatic Hydrocarbons (PAHs) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
TEPH (C9-C36)	**188**		29.1		mg/Kg	☼	04/01/24 09:04	04/01/24 21:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane (Surr)	*86*		*40 - 140*	*04/01/24 09:04*	*04/01/24 21:47*	*1*
o-Terphenyl (Surr)	*88*		*40 - 140*	*04/01/24 09:04*	*04/01/24 21:47*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		3.42		mg/Kg	☼	04/02/24 11:00	04/03/24 13:47	2
Barium	**30.2**		2.28		mg/Kg	☼	04/02/24 11:00	04/03/24 13:47	2
Cadmium	ND		1.14		mg/Kg	☼	04/02/24 11:00	04/03/24 13:47	2
Chromium	**20.0**		2.28		mg/Kg	☼	04/02/24 11:00	04/03/24 13:47	2
Lead	**106**		3.42		mg/Kg	☼	04/02/24 11:00	04/03/24 13:47	2
Selenium	ND		3.42		mg/Kg	☼	04/02/24 11:00	04/03/24 13:47	2
Silver	ND		3.42		mg/Kg	☼	04/02/24 11:00	04/03/24 13:47	2
Copper	**15.2**		2.28		mg/Kg	☼	04/02/24 11:00	04/03/24 13:47	2
Nickel	**9.57**		2.28		mg/Kg	☼	04/02/24 11:00	04/03/24 13:47	2
Zinc	**58.1**		6.84		mg/Kg	☼	04/02/24 11:00	04/03/24 13:47	2

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Client Sample ID: SB02 0-2ft bgs River St bridge
Lab Sample ID: 620-17695-6
Date Collected: 03/26/24 15:10
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 90.9

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0501		mg/Kg	☼	04/01/24 08:08	04/01/24 16:13	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids (EPA Moisture)	90.9		0.1		%			04/01/24 11:41	1

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Client Sample ID: SB03 0-2ft bgs River St bridge
Lab Sample ID: 620-17695-7
Date Collected: 03/26/24 15:20
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 89.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Acetone	ND	H H3	80.7		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Acrylonitrile	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Benzene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Bromobenzene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Bromochloromethane	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Bromodichloromethane	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Bromoform	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Bromomethane	ND	H H3	16.1		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
2-Butanone (MEK)	ND	H H3	16.1		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
n-Butylbenzene	ND	H H3	16.1		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
sec-Butylbenzene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
tert-Butylbenzene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Carbon disulfide	ND	H H3	16.1		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Carbon tetrachloride	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Chlorobenzene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Chloroethane	ND	H H3	16.1		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Chloroform	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Chloromethane	ND	H H3	16.1		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
2-Chlorotoluene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
4-Chlorotoluene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
1,2-Dibromo-3-Chloropropane	ND	H H3	16.1		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Dibromochloromethane	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
1,2-Dibromoethane (EDB)	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Dibromomethane	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
1,2-Dichlorobenzene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
1,3-Dichlorobenzene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
1,4-Dichlorobenzene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Dichlorodifluoromethane (Freon 12)	ND	H H3	16.1		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
1,1-Dichloroethane	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
1,2-Dichloroethane	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
1,1-Dichloroethene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
cis-1,2-Dichloroethene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
trans-1,2-Dichloroethene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
1,2-Dichloropropane	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
1,3-Dichloropropane	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
2,2-Dichloropropane	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
1,1-Dichloropropene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
cis-1,3-Dichloropropene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
trans-1,3-Dichloropropene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Ethylbenzene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Hexachlorobutadiene	ND	H H3	16.1		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
2-Hexanone (MBK)	ND	H H3	16.1		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Isopropylbenzene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
4-Isopropyltoluene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Methyl tert-butyl ether	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
4-Methyl-2-pentanone (MIBK)	ND	H H3	16.1		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Methylene Chloride	ND	H H3	16.1		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Naphthalene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1

Client Sample ID: SB03 0-2ft bgs River St bridge
Lab Sample ID: 620-17695-7
Date Collected: 03/26/24 15:20
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 89.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Styrene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
1,1,1,2-Tetrachloroethane	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
1,1,2,2-Tetrachloroethane	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Tetrachloroethene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Toluene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
1,2,3-Trichlorobenzene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
1,2,4-Trichlorobenzene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
1,3,5-Trichlorobenzene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
1,1,1-Trichloroethane	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
1,1,2-Trichloroethane	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Trichloroethene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Trichlorofluoromethane (Freon 11)	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
1,2,3-Trichloropropane	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
1,2,4-Trimethylbenzene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
1,3,5-Trimethylbenzene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Vinyl chloride	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
m,p-Xylene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
o-Xylene	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Tetrahydrofuran	ND	H H3	16.1		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Ethyl ether	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Tert-amyl methyl ether	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Ethyl tert-butyl ether	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
di-Isopropyl ether	ND	H H3	8.07		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
tert-Butanol	ND	H H3	161		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
1,4-Dioxane	ND	H H3	161		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
trans-1,4-Dichloro-2-butene	ND	H H3	40.4		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1
Ethanol	ND	H H3	1610		ug/Kg	☼	04/03/24 09:01	04/03/24 17:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*04/03/24 09:01*	*04/03/24 17:02*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*	*04/03/24 09:01*	*04/03/24 17:02*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*	*04/03/24 09:01*	*04/03/24 17:02*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 130*	*04/03/24 09:01*	*04/03/24 17:02*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		370		ug/Kg	☼	04/03/24 09:16	04/04/24 16:10	1
2-Methylnaphthalene	ND		370		ug/Kg	☼	04/03/24 09:16	04/04/24 16:10	1
Acenaphthene	ND		370		ug/Kg	☼	04/03/24 09:16	04/04/24 16:10	1
Acenaphthylene	ND		370		ug/Kg	☼	04/03/24 09:16	04/04/24 16:10	1
Anthracene	ND		370		ug/Kg	☼	04/03/24 09:16	04/04/24 16:10	1
Benzo[a]anthracene	**529**		370		ug/Kg	☼	04/03/24 09:16	04/04/24 16:10	1
Benzo[a]pyrene	**502**		370		ug/Kg	☼	04/03/24 09:16	04/04/24 16:10	1
Benzo[b]fluoranthene	**829**		370		ug/Kg	☼	04/03/24 09:16	04/04/24 16:10	1
Benzo[g,h,i]perylene	**551**		370		ug/Kg	☼	04/03/24 09:16	04/04/24 16:10	1
Benzo[k]fluoranthene	**591**		370		ug/Kg	☼	04/03/24 09:16	04/04/24 16:10	1
Chrysene	**652**		370		ug/Kg	☼	04/03/24 09:16	04/04/24 16:10	1
Dibenz(a,h)anthracene	ND		370		ug/Kg	☼	04/03/24 09:16	04/04/24 16:10	1
Fluoranthene	**1320**		370		ug/Kg	☼	04/03/24 09:16	04/04/24 16:10	1

Client Sample ID: SB03 0-2ft bgs River St bridge
Lab Sample ID: 620-17695-7
Date Collected: 03/26/24 15:20
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 89.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	ND		370		ug/Kg	☼	04/03/24 09:16	04/04/24 16:10	1
Indeno[1,2,3-cd]pyrene	**531**		370		ug/Kg	☼	04/03/24 09:16	04/04/24 16:10	1
Naphthalene	ND		370		ug/Kg	☼	04/03/24 09:16	04/04/24 16:10	1
Phenanthrene	**709**		370		ug/Kg	☼	04/03/24 09:16	04/04/24 16:10	1
Pyrene	**1360**		370		ug/Kg	☼	04/03/24 09:16	04/04/24 16:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*57*		*30 - 130*	*04/03/24 09:16*	*04/04/24 16:10*	*1*
2-Fluorobiphenyl (Surr)	*65*		*30 - 130*	*04/03/24 09:16*	*04/04/24 16:10*	*1*
Terphenyl-d14 (Surr)	*54*		*30 - 130*	*04/03/24 09:16*	*04/04/24 16:10*	*1*

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		21.1		ug/Kg	☼	04/03/24 11:04	04/04/24 14:17	1
PCB-1221	ND		21.1		ug/Kg	☼	04/03/24 11:04	04/04/24 14:17	1
PCB-1232	ND		21.1		ug/Kg	☼	04/03/24 11:04	04/04/24 14:17	1
PCB-1242	ND		21.1		ug/Kg	☼	04/03/24 11:04	04/04/24 14:17	1
PCB-1248	ND		21.1		ug/Kg	☼	04/03/24 11:04	04/04/24 14:17	1
PCB-1254	ND		21.1		ug/Kg	☼	04/03/24 11:04	04/04/24 14:17	1
PCB-1260	ND		21.1		ug/Kg	☼	04/03/24 11:04	04/04/24 14:17	1
PCB-1262	ND		21.1		ug/Kg	☼	04/03/24 11:04	04/04/24 14:17	1
PCB-1268	ND		21.1		ug/Kg	☼	04/03/24 11:04	04/04/24 14:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*81*		*30 - 150*	*04/03/24 11:04*	*04/04/24 14:17*	*1*
Tetrachloro-m-xylene	*83*		*30 - 150*	*04/03/24 11:04*	*04/04/24 14:17*	*1*
DCB Decachlorobiphenyl (Surr)	*85*		*30 - 150*	*04/03/24 11:04*	*04/04/24 14:17*	*1*
DCB Decachlorobiphenyl (Surr)	*68*		*30 - 150*	*04/03/24 11:04*	*04/04/24 14:17*	*1*

Method: SW846 8100 - Polynuclear Aromatic Hydrocarbons (PAHs) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
TEPH (C9-C36)	**387**		28.3		mg/Kg	☼	04/01/24 09:04	04/01/24 22:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane (Surr)	*85*		*40 - 140*	*04/01/24 09:04*	*04/01/24 22:25*	*1*
o-Terphenyl (Surr)	*80*		*40 - 140*	*04/01/24 09:04*	*04/01/24 22:25*	*1*

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		7.02		mg/Kg	☼	04/02/24 11:00	04/03/24 14:14	4
Barium	**41.1**		4.68		mg/Kg	☼	04/02/24 11:00	04/03/24 14:14	4
Cadmium	ND		2.34		mg/Kg	☼	04/02/24 11:00	04/03/24 14:14	4
Chromium	**21.2**		4.68		mg/Kg	☼	04/02/24 11:00	04/03/24 14:14	4
Lead	**252**		7.02		mg/Kg	☼	04/02/24 11:00	04/03/24 14:14	4
Selenium	ND		7.02		mg/Kg	☼	04/02/24 11:00	04/03/24 14:14	4
Silver	ND		7.02		mg/Kg	☼	04/02/24 11:00	04/03/24 14:14	4
Copper	**22.6**		4.68		mg/Kg	☼	04/02/24 11:00	04/03/24 14:14	4
Nickel	**14.4**		4.68		mg/Kg	☼	04/02/24 11:00	04/03/24 14:14	4
Zinc	**69.9**		14.0		mg/Kg	☼	04/02/24 11:00	04/03/24 14:14	4

Client Sample Results

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Client Sample ID: SB03 0-2ft bgs River St bridge
Lab Sample ID: 620-17695-7
Date Collected: 03/26/24 15:20
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 89.8

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0442		mg/Kg	☼	04/01/24 08:08	04/01/24 16:15	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids (EPA Moisture)	89.8		0.1		%			04/01/24 11:41	1

Surrogate Summary

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		BFB	TOL	DCA	DBFM
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	(70-130)
620-17695-1	SB01 0-2ft bgs Singleton St bridge	95	99	105	105
620-17695-2	SB02 0-2ft bgs Singleton St bridge	94	100	107	106
620-17695-3	SB03 0-2ft bgs Singleton St bridge	94	98	103	104
620-17695-4	Trip Blank	95	99	102	103
620-17695-5	SB01 0-2ft bgs River St bridge	96	101	103	104
620-17695-6	SB02 0-2ft bgs River St bridge	96	100	103	104
620-17695-7	SB03 0-2ft bgs River St bridge	93	100	105	105
LCS 620-33387/1-A	Lab Control Sample	100	102	100	103
LCSD 620-33387/2-A	Lab Control Sample Dup	101	103	106	105
MB 620-33387/3-A	Method Blank	98	100	103	103

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		NBZ	FBP	TPHL
Lab Sample ID	Client Sample ID	(30-130)	(30-130)	(30-130)
620-17695-1	SB01 0-2ft bgs Singleton St bridge	50	60	59
620-17695-2	SB02 0-2ft bgs Singleton St bridge	65	75	60
620-17695-3	SB03 0-2ft bgs Singleton St bridge	64	79	68
620-17695-5	SB01 0-2ft bgs River St bridge	45	57	62
620-17695-6	SB02 0-2ft bgs River St bridge	62	72	63
620-17695-7	SB03 0-2ft bgs River St bridge	57	65	54
LCS 620-33389/2-A	Lab Control Sample	49	60	87
LCSD 620-33389/3-A	Lab Control Sample Dup	44	55	64
MB 620-33389/1-A	Method Blank	45	48	80

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TPHL = Terphenyl-d14 (Surr)

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(30-150)	(30-150)	(30-150)	(30-150)
620-17695-1	SB01 0-2ft bgs Singleton St bridge	35	36	41	40
620-17695-2	SB02 0-2ft bgs Singleton St bridge	61	61	101	96
620-17695-3	SB03 0-2ft bgs Singleton St bridge	76	75	67	65

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(30-150)	(30-150)	(30-150)	(30-150)
620-17695-5	SB01 0-2ft bgs River St bridge	74	74	84	73
620-17695-6	SB02 0-2ft bgs River St bridge	74	75	65	61
620-17695-7	SB03 0-2ft bgs River St bridge	81	83	85	68
LCS 620-33404/2-A	Lab Control Sample	74	77	71	73
LCSD 620-33404/3-A	Lab Control Sample Dup	67	71	68	71
MB 620-33404/1-A	Method Blank	88	87	81	80

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl (Surr)

Method: 8100 - Polynuclear Aromatic Hydrocarbons (PAHs) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1COD	OTPH
Lab Sample ID	Client Sample ID	(40-140)	(40-140)
620-17695-1	SB01 0-2ft bgs Singleton St bridge	65	67
620-17695-2	SB02 0-2ft bgs Singleton St bridge	76	75
620-17695-3	SB03 0-2ft bgs Singleton St bridge	84	84
620-17695-5	SB01 0-2ft bgs River St bridge	74	76
620-17695-6	SB02 0-2ft bgs River St bridge	86	88
620-17695-7	SB03 0-2ft bgs River St bridge	85	80
LCS 620-33270/2-A	Lab Control Sample	77	71
LCSD 620-33270/3-A	Lab Control Sample Dup	68	65
MB 620-33270/1-A	Method Blank	78	67

Surrogate Legend

1COD = 1-Chlorooctadecane (Surr)

OTPH = o-Terphenyl (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 620-33387/3-A
Matrix: Solid
Analysis Batch: 33388

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33387

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane (Freon 113)	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Acetone	ND		50.0		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Acrylonitrile	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Benzene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Bromobenzene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Bromochloromethane	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Bromodichloromethane	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Bromoform	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Bromomethane	ND		10.0		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
2-Butanone (MEK)	ND		10.0		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
n-Butylbenzene	ND		10.0		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
sec-Butylbenzene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
tert-Butylbenzene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Carbon disulfide	ND		10.0		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Carbon tetrachloride	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Chlorobenzene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Chloroethane	ND		10.0		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Chloroform	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Chloromethane	ND		10.0		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
2-Chlorotoluene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
4-Chlorotoluene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
1,2-Dibromo-3-Chloropropane	ND		10.0		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Dibromochloromethane	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
1,2-Dibromoethane (EDB)	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Dibromomethane	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
1,2-Dichlorobenzene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
1,3-Dichlorobenzene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
1,4-Dichlorobenzene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Dichlorodifluoromethane (Freon 12)	ND		10.0		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
1,1-Dichloroethane	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
1,2-Dichloroethane	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
1,1-Dichloroethene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
cis-1,2-Dichloroethene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
trans-1,2-Dichloroethene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
1,2-Dichloropropane	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
1,3-Dichloropropane	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
2,2-Dichloropropane	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
1,1-Dichloropropene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
cis-1,3-Dichloropropene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
trans-1,3-Dichloropropene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Ethylbenzene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Hexachlorobutadiene	ND		10.0		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
2-Hexanone (MBK)	ND		10.0		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Isopropylbenzene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
4-Isopropyltoluene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Methyl tert-butyl ether	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
4-Methyl-2-pentanone (MIBK)	ND		10.0		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Methylene Chloride	ND		10.0		ug/Kg		04/03/24 09:01	04/03/24 12:39	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 620-33387/3-A
Matrix: Solid
Analysis Batch: 33388

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33387

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
N-Propylbenzene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Styrene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
1,1,1,2-Tetrachloroethane	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
1,1,2,2-Tetrachloroethane	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Tetrachloroethene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Toluene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
1,2,3-Trichlorobenzene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
1,2,4-Trichlorobenzene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
1,3,5-Trichlorobenzene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
1,1,1-Trichloroethane	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
1,1,2-Trichloroethane	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Trichloroethene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Trichlorofluoromethane (Freon 11)	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
1,2,3-Trichloropropane	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
1,2,4-Trimethylbenzene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
1,3,5-Trimethylbenzene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Vinyl chloride	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
m,p-Xylene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
o-Xylene	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Tetrahydrofuran	ND		10.0		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Ethyl ether	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Tert-amyl methyl ether	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Ethyl tert-butyl ether	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
di-Isopropyl ether	ND		5.00		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
tert-Butanol	ND		100		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
1,4-Dioxane	ND		100		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
trans-1,4-Dichloro-2-butene	ND		25.0		ug/Kg		04/03/24 09:01	04/03/24 12:39	1
Ethanol	ND		1000		ug/Kg		04/03/24 09:01	04/03/24 12:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*04/03/24 09:01*	*04/03/24 12:39*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*	*04/03/24 09:01*	*04/03/24 12:39*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*	*04/03/24 09:01*	*04/03/24 12:39*	*1*
Dibromofluoromethane (Surr)	*103*		*70 - 130*	*04/03/24 09:01*	*04/03/24 12:39*	*1*

Lab Sample ID: LCS 620-33387/1-A
Matrix: Solid
Analysis Batch: 33388

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33387

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2-Trichlorotrifluoroethane (Freon 113)	20.0	23.27		ug/Kg		116	70 - 130
Acetone	20.0	21.84	J	ug/Kg		109	70 - 130
Acrylonitrile	20.0	20.62		ug/Kg		103	70 - 130
Benzene	20.0	23.00		ug/Kg		115	70 - 130
Bromobenzene	20.0	22.09		ug/Kg		110	70 - 130
Bromochloromethane	20.0	22.35		ug/Kg		112	70 - 130
Bromodichloromethane	20.0	22.98		ug/Kg		115	70 - 130

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 620-33387/1-A
Matrix: Solid
Analysis Batch: 33388

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33387

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromoform	20.0	20.78		ug/Kg		104	70 - 130
Bromomethane	20.0	20.80		ug/Kg		104	70 - 130
2-Butanone (MEK)	20.0	22.60		ug/Kg		113	70 - 130
n-Butylbenzene	20.0	21.71		ug/Kg		109	70 - 130
sec-Butylbenzene	20.0	22.93		ug/Kg		115	70 - 130
tert-Butylbenzene	20.0	21.94		ug/Kg		110	70 - 130
Carbon disulfide	20.0	24.12		ug/Kg		121	70 - 130
Carbon tetrachloride	20.0	23.26		ug/Kg		116	70 - 130
Chlorobenzene	20.0	22.43		ug/Kg		112	70 - 130
Chloroethane	20.0	25.04		ug/Kg		125	70 - 130
Chloroform	20.0	23.15		ug/Kg		116	70 - 130
Chloromethane	20.0	22.61		ug/Kg		113	70 - 130
2-Chlorotoluene	20.0	22.67		ug/Kg		113	70 - 130
4-Chlorotoluene	20.0	22.38		ug/Kg		112	70 - 130
1,2-Dibromo-3-Chloropropane	20.0	19.65		ug/Kg		98	70 - 130
Dibromochloromethane	20.0	22.22		ug/Kg		111	70 - 130
1,2-Dibromoethane (EDB)	20.0	21.61		ug/Kg		108	70 - 130
Dibromomethane	20.0	21.95		ug/Kg		110	70 - 130
1,2-Dichlorobenzene	20.0	20.66		ug/Kg		103	70 - 130
1,3-Dichlorobenzene	20.0	22.38		ug/Kg		112	70 - 130
1,4-Dichlorobenzene	20.0	21.93		ug/Kg		110	70 - 130
Dichlorodifluoromethane (Freon 12)	20.0	23.95		ug/Kg		120	70 - 130
1,1-Dichloroethane	20.0	23.31		ug/Kg		117	70 - 130
1,2-Dichloroethane	20.0	22.84		ug/Kg		114	70 - 130
1,1-Dichloroethene	20.0	22.94		ug/Kg		115	70 - 130
cis-1,2-Dichloroethene	20.0	22.18		ug/Kg		111	70 - 130
trans-1,2-Dichloroethene	20.0	22.87		ug/Kg		114	70 - 130
1,2-Dichloropropane	20.0	22.24		ug/Kg		111	70 - 130
1,3-Dichloropropane	20.0	22.30		ug/Kg		111	70 - 130
2,2-Dichloropropane	20.0	23.17		ug/Kg		116	70 - 130
1,1-Dichloropropene	20.0	23.13		ug/Kg		116	70 - 130
cis-1,3-Dichloropropene	20.0	21.17		ug/Kg		106	70 - 130
trans-1,3-Dichloropropene	20.0	22.84		ug/Kg		114	70 - 130
Ethylbenzene	20.0	22.31		ug/Kg		112	70 - 130
Hexachlorobutadiene	20.0	20.93		ug/Kg		105	70 - 130
2-Hexanone (MBK)	20.0	20.01		ug/Kg		100	70 - 130
Isopropylbenzene	20.0	21.51		ug/Kg		108	70 - 130
4-Isopropyltoluene	20.0	22.15		ug/Kg		111	70 - 130
Methyl tert-butyl ether	20.0	22.06		ug/Kg		110	70 - 130
4-Methyl-2-pentanone (MIBK)	20.0	21.48		ug/Kg		107	70 - 130
Methylene Chloride	20.0	23.80		ug/Kg		119	70 - 130
Naphthalene	20.0	18.51		ug/Kg		93	70 - 130
N-Propylbenzene	20.0	23.01		ug/Kg		115	70 - 130
Styrene	20.0	21.82		ug/Kg		109	70 - 130
1,1,1,2-Tetrachloroethane	20.0	22.29		ug/Kg		111	70 - 130
1,1,2,2-Tetrachloroethane	20.0	21.36		ug/Kg		107	70 - 130
Tetrachloroethene	20.0	22.46		ug/Kg		112	70 - 130
Toluene	20.0	22.98		ug/Kg		115	70 - 130

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 620-33387/1-A
Matrix: Solid
Analysis Batch: 33388

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33387

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2,3-Trichlorobenzene			20.0	20.06		ug/Kg		100	70 - 130		
1,2,4-Trichlorobenzene			20.0	20.42		ug/Kg		102	70 - 130		
1,3,5-Trichlorobenzene			20.0	21.47		ug/Kg		107	70 - 130		
1,1,1-Trichloroethane			20.0	23.18		ug/Kg		116	70 - 130		
1,1,2-Trichloroethane			20.0	22.70		ug/Kg		114	70 - 130		
Trichloroethene			20.0	22.06		ug/Kg		110	70 - 130		
Trichlorofluoromethane (Freon 11)			20.0	23.87		ug/Kg		119	70 - 130		
1,2,3-Trichloropropane			20.0	21.41		ug/Kg		107	70 - 130		
1,2,4-Trimethylbenzene			20.0	21.78		ug/Kg		109	70 - 130		
1,3,5-Trimethylbenzene			20.0	22.82		ug/Kg		114	70 - 130		
Vinyl chloride			20.0	23.59		ug/Kg		118	70 - 130		
m,p-Xylene			20.0	22.40		ug/Kg		112	70 - 130		
o-Xylene			20.0	21.42		ug/Kg		107	70 - 130		
Tetrahydrofuran			20.0	19.47		ug/Kg		97	70 - 130		
Ethyl ether			20.0	23.07		ug/Kg		115	70 - 130		
Tert-amyl methyl ether			20.0	21.28		ug/Kg		106	70 - 130		
Ethyl tert-butyl ether			20.0	21.98		ug/Kg		110	70 - 130		
di-Isopropyl ether			20.0	22.72		ug/Kg		114	70 - 130		
tert-Butanol			200	197.3		ug/Kg		99	70 - 130		
1,4-Dioxane			200	163.5		ug/Kg		82	70 - 130		
trans-1,4-Dichloro-2-butene			20.0	20.45	J	ug/Kg		102	70 - 130		
Ethanol			400	339.1	J	ug/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*
Dibromofluoromethane (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 620-33387/2-A
Matrix: Solid
Analysis Batch: 33388

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33387

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichlorotrifluoroethane (Freon 113)			20.0	19.08		ug/Kg		95	70 - 130	20	30
Acetone			20.0	22.96	J	ug/Kg		115	70 - 130	5	30
Acrylonitrile			20.0	20.34		ug/Kg		102	70 - 130	1	30
Benzene			20.0	19.89		ug/Kg		99	70 - 130	15	30
Bromobenzene			20.0	19.76		ug/Kg		99	70 - 130	11	30
Bromochloromethane			20.0	20.12		ug/Kg		101	70 - 130	11	30
Bromodichloromethane			20.0	20.61		ug/Kg		103	70 - 130	11	30
Bromoform			20.0	19.60		ug/Kg		98	70 - 130	6	30
Bromomethane			20.0	18.34		ug/Kg		92	70 - 130	13	30
2-Butanone (MEK)			20.0	22.94		ug/Kg		115	70 - 130	2	30
n-Butylbenzene			20.0	16.91		ug/Kg		85	70 - 130	25	30
sec-Butylbenzene			20.0	19.04		ug/Kg		95	70 - 130	19	30
tert-Butylbenzene			20.0	19.09		ug/Kg		95	70 - 130	14	30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 620-33387/2-A
Client Sample ID: Lab Control Sample Dup
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 33388
Prep Batch: 33387

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbon disulfide	20.0	20.55		ug/Kg		103	70 - 130	16	30
Carbon tetrachloride	20.0	19.96		ug/Kg		100	70 - 130	15	30
Chlorobenzene	20.0	19.61		ug/Kg		98	70 - 130	13	30
Chloroethane	20.0	21.11		ug/Kg		106	70 - 130	17	30
Chloroform	20.0	20.23		ug/Kg		101	70 - 130	13	30
Chloromethane	20.0	19.41		ug/Kg		97	70 - 130	15	30
2-Chlorotoluene	20.0	19.64		ug/Kg		98	70 - 130	14	30
4-Chlorotoluene	20.0	19.44		ug/Kg		97	70 - 130	14	30
1,2-Dibromo-3-Chloropropane	20.0	19.71		ug/Kg		99	70 - 130	0	30
Dibromochloromethane	20.0	20.50		ug/Kg		102	70 - 130	8	30
1,2-Dibromoethane (EDB)	20.0	20.52		ug/Kg		103	70 - 130	5	30
Dibromomethane	20.0	20.72		ug/Kg		104	70 - 130	6	30
1,2-Dichlorobenzene	20.0	18.31		ug/Kg		92	70 - 130	12	30
1,3-Dichlorobenzene	20.0	19.75		ug/Kg		99	70 - 130	12	30
1,4-Dichlorobenzene	20.0	18.80		ug/Kg		94	70 - 130	15	30
Dichlorodifluoromethane (Freon 12)	20.0	19.79		ug/Kg		99	70 - 130	19	30
1,1-Dichloroethane	20.0	20.34		ug/Kg		102	70 - 130	14	30
1,2-Dichloroethane	20.0	20.85		ug/Kg		104	70 - 130	9	30
1,1-Dichloroethene	20.0	19.60		ug/Kg		98	70 - 130	16	30
cis-1,2-Dichloroethene	20.0	18.90		ug/Kg		95	70 - 130	16	30
trans-1,2-Dichloroethene	20.0	19.48		ug/Kg		97	70 - 130	16	30
1,2-Dichloropropane	20.0	19.80		ug/Kg		99	70 - 130	12	30
1,3-Dichloropropane	20.0	21.17		ug/Kg		106	70 - 130	5	30
2,2-Dichloropropane	20.0	20.19		ug/Kg		101	70 - 130	14	30
1,1-Dichloropropene	20.0	19.25		ug/Kg		96	70 - 130	18	30
cis-1,3-Dichloropropene	20.0	18.76		ug/Kg		94	70 - 130	12	30
trans-1,3-Dichloropropene	20.0	21.14		ug/Kg		106	70 - 130	8	30
Ethylbenzene	20.0	19.06		ug/Kg		95	70 - 130	16	30
Hexachlorobutadiene	20.0	17.25		ug/Kg		86	70 - 130	19	30
2-Hexanone (MBK)	20.0	19.77		ug/Kg		99	70 - 130	1	30
Isopropylbenzene	20.0	18.08		ug/Kg		90	70 - 130	17	30
4-Isopropyltoluene	20.0	17.73		ug/Kg		89	70 - 130	22	30
Methyl tert-butyl ether	20.0	20.46		ug/Kg		102	70 - 130	8	30
4-Methyl-2-pentanone (MIBK)	20.0	21.33		ug/Kg		107	70 - 130	1	30
Methylene Chloride	20.0	21.14		ug/Kg		106	70 - 130	12	30
Naphthalene	20.0	18.67		ug/Kg		93	70 - 130	1	30
N-Propylbenzene	20.0	19.20		ug/Kg		96	70 - 130	18	30
Styrene	20.0	18.93		ug/Kg		95	70 - 130	14	30
1,1,1,2-Tetrachloroethane	20.0	20.01		ug/Kg		100	70 - 130	11	30
1,1,2,2-Tetrachloroethane	20.0	21.18		ug/Kg		106	70 - 130	1	30
Tetrachloroethene	20.0	18.66		ug/Kg		93	70 - 130	18	30
Toluene	20.0	20.08		ug/Kg		100	70 - 130	13	30
1,2,3-Trichlorobenzene	20.0	19.70		ug/Kg		98	70 - 130	2	30
1,2,4-Trichlorobenzene	20.0	18.95		ug/Kg		95	70 - 130	7	30
1,3,5-Trichlorobenzene	20.0	18.01		ug/Kg		90	70 - 130	18	30
1,1,1-Trichloroethane	20.0	20.11		ug/Kg		101	70 - 130	14	30
1,1,2-Trichloroethane	20.0	21.32		ug/Kg		107	70 - 130	6	30
Trichloroethene	20.0	18.78		ug/Kg		94	70 - 130	16	30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 620-33387/2-A
Matrix: Solid
Analysis Batch: 33388

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33387

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Trichlorofluoromethane (Freon 11)			20.0	20.08		ug/Kg		100	70 - 130	17	30
1,2,3-Trichloropropane			20.0	20.86		ug/Kg		104	70 - 130	3	30
1,2,4-Trimethylbenzene			20.0	18.59		ug/Kg		93	70 - 130	16	30
1,3,5-Trimethylbenzene			20.0	19.22		ug/Kg		96	70 - 130	17	30
Vinyl chloride			20.0	20.28		ug/Kg		101	70 - 130	15	30
m,p-Xylene			20.0	18.79		ug/Kg		94	70 - 130	18	30
o-Xylene			20.0	18.51		ug/Kg		93	70 - 130	15	30
Tetrahydrofuran			20.0	20.09		ug/Kg		100	70 - 130	3	30
Ethyl ether			20.0	20.93		ug/Kg		105	70 - 130	10	30
Tert-amyl methyl ether			20.0	19.82		ug/Kg		99	70 - 130	7	30
Ethyl tert-butyl ether			20.0	19.99		ug/Kg		100	70 - 130	9	30
di-Isopropyl ether			20.0	20.17		ug/Kg		101	70 - 130	12	30
tert-Butanol			200	219.2		ug/Kg		110	70 - 130	10	30
1,4-Dioxane			200	191.3		ug/Kg		96	70 - 130	16	30
trans-1,4-Dichloro-2-butene			20.0	20.71	J	ug/Kg		104	70 - 130	1	30
Ethanol			400	423.0	J	ug/Kg		106	70 - 130	22	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
Toluene-d8 (Surr)	*103*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*
Dibromofluoromethane (Surr)	*105*		*70 - 130*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 620-33389/1-A
Matrix: Solid
Analysis Batch: 33425

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33389

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		66.7		ug/Kg		04/03/24 09:16	04/03/24 17:10	1
2-Methylnaphthalene	ND		66.7		ug/Kg		04/03/24 09:16	04/03/24 17:10	1
Acenaphthene	ND		66.7		ug/Kg		04/03/24 09:16	04/03/24 17:10	1
Acenaphthylene	ND		66.7		ug/Kg		04/03/24 09:16	04/03/24 17:10	1
Anthracene	ND		66.7		ug/Kg		04/03/24 09:16	04/03/24 17:10	1
Benzo[a]anthracene	ND		66.7		ug/Kg		04/03/24 09:16	04/03/24 17:10	1
Benzo[a]pyrene	ND		66.7		ug/Kg		04/03/24 09:16	04/03/24 17:10	1
Benzo[b]fluoranthene	ND		66.7		ug/Kg		04/03/24 09:16	04/03/24 17:10	1
Benzo[g,h,i]perylene	ND		66.7		ug/Kg		04/03/24 09:16	04/03/24 17:10	1
Benzo[k]fluoranthene	ND		66.7		ug/Kg		04/03/24 09:16	04/03/24 17:10	1
Chrysene	ND		66.7		ug/Kg		04/03/24 09:16	04/03/24 17:10	1
Dibenz(a,h)anthracene	ND		66.7		ug/Kg		04/03/24 09:16	04/03/24 17:10	1
Fluoranthene	ND		66.7		ug/Kg		04/03/24 09:16	04/03/24 17:10	1
Fluorene	ND		66.7		ug/Kg		04/03/24 09:16	04/03/24 17:10	1
Indeno[1,2,3-cd]pyrene	ND		66.7		ug/Kg		04/03/24 09:16	04/03/24 17:10	1
Naphthalene	ND		66.7		ug/Kg		04/03/24 09:16	04/03/24 17:10	1
Phenanthrene	ND		66.7		ug/Kg		04/03/24 09:16	04/03/24 17:10	1
Pyrene	ND		66.7		ug/Kg		04/03/24 09:16	04/03/24 17:10	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	45		30 - 130	04/03/24 09:16	04/03/24 17:10	1
2-Fluorobiphenyl (Surr)	48		30 - 130	04/03/24 09:16	04/03/24 17:10	1
Terphenyl-d14 (Surr)	80		30 - 130	04/03/24 09:16	04/03/24 17:10	1

Lab Sample ID: LCS 620-33389/2-A
Matrix: Solid
Analysis Batch: 33425

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33389

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1670	988.8		ug/Kg		59	30 - 109
2-Methylnaphthalene	1670	909.6		ug/Kg		55	10 - 153
Acenaphthene	1670	923.9		ug/Kg		55	35 - 93
Acenaphthylene	1670	930.7		ug/Kg		56	36 - 94
Anthracene	1670	1370		ug/Kg		82	34 - 120
Benzo[a]anthracene	1670	1493		ug/Kg		90	39 - 113
Benzo[a]pyrene	1670	1438		ug/Kg		86	38 - 109
Benzo[b]fluoranthene	1670	1226		ug/Kg		74	29 - 113
Benzo[g,h,i]perylene	1670	1365		ug/Kg		82	35 - 108
Benzo[k]fluoranthene	1670	1727		ug/Kg		104	28 - 112
Chrysene	1670	1400		ug/Kg		84	38 - 109
Dibenz(a,h)anthracene	1670	1370		ug/Kg		82	34 - 103
Fluoranthene	1670	1475		ug/Kg		89	36 - 111
Fluorene	1670	1094		ug/Kg		66	35 - 98
Indeno[1,2,3-cd]pyrene	1670	1353		ug/Kg		81	32 - 103
Naphthalene	1670	880.0		ug/Kg		53	31 - 94
Phenanthrene	1670	1272		ug/Kg		76	35 - 101
Pyrene	1670	1523		ug/Kg		91	31 - 116

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	49		30 - 130
2-Fluorobiphenyl (Surr)	60		30 - 130
Terphenyl-d14 (Surr)	87		30 - 130

Lab Sample ID: LCSD 620-33389/3-A
Matrix: Solid
Analysis Batch: 33425

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33389

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	1670	944.4		ug/Kg		57	30 - 109	5	30
2-Methylnaphthalene	1670	864.3		ug/Kg		52	10 - 153	5	30
Acenaphthene	1670	925.7		ug/Kg		56	35 - 93	0	30
Acenaphthylene	1670	918.5		ug/Kg		55	36 - 94	1	30
Anthracene	1670	1455		ug/Kg		87	34 - 120	6	30
Benzo[a]anthracene	1670	1605		ug/Kg		96	39 - 113	7	30
Benzo[a]pyrene	1670	1548		ug/Kg		93	38 - 109	7	30
Benzo[b]fluoranthene	1670	1346		ug/Kg		81	29 - 113	9	30
Benzo[g,h,i]perylene	1670	1431		ug/Kg		86	35 - 108	5	30
Benzo[k]fluoranthene	1670	1736		ug/Kg		104	28 - 112	0	30
Chrysene	1670	1501		ug/Kg		90	38 - 109	7	30
Dibenz(a,h)anthracene	1670	1457		ug/Kg		87	34 - 103	6	30
Fluoranthene	1670	1600		ug/Kg		96	36 - 111	8	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 620-33389/3-A
Matrix: Solid
Analysis Batch: 33425

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33389

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluorene			1670	1126		ug/Kg		68	35 - 98	3	30
Indeno[1,2,3-cd]pyrene			1670	1446		ug/Kg		87	32 - 103	7	30
Naphthalene			1670	818.3		ug/Kg		49	31 - 94	7	30
Phenanthrene			1670	1368		ug/Kg		82	35 - 101	7	30
Pyrene			1670	1646		ug/Kg		99	31 - 116	8	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*44*		*30 - 130*
2-Fluorobiphenyl (Surr)	*55*		*30 - 130*
Terphenyl-d14 (Surr)	*64*		*30 - 130*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 620-33404/1-A
Matrix: Solid
Analysis Batch: 33390

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33404

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		20.0		ug/Kg		04/03/24 11:04	04/03/24 15:58	1
PCB-1221	ND		20.0		ug/Kg		04/03/24 11:04	04/03/24 15:58	1
PCB-1232	ND		20.0		ug/Kg		04/03/24 11:04	04/03/24 15:58	1
PCB-1242	ND		20.0		ug/Kg		04/03/24 11:04	04/03/24 15:58	1
PCB-1248	ND		20.0		ug/Kg		04/03/24 11:04	04/03/24 15:58	1
PCB-1254	ND		20.0		ug/Kg		04/03/24 11:04	04/03/24 15:58	1
PCB-1260	ND		20.0		ug/Kg		04/03/24 11:04	04/03/24 15:58	1
PCB-1262	ND		20.0		ug/Kg		04/03/24 11:04	04/03/24 15:58	1
PCB-1268	ND		20.0		ug/Kg		04/03/24 11:04	04/03/24 15:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*88*		*30 - 150*	*04/03/24 11:04*	*04/03/24 15:58*	*1*
Tetrachloro-m-xylene	*87*		*30 - 150*	*04/03/24 11:04*	*04/03/24 15:58*	*1*
DCB Decachlorobiphenyl (Surr)	*81*		*30 - 150*	*04/03/24 11:04*	*04/03/24 15:58*	*1*
DCB Decachlorobiphenyl (Surr)	*80*		*30 - 150*	*04/03/24 11:04*	*04/03/24 15:58*	*1*

Lab Sample ID: LCS 620-33404/2-A
Matrix: Solid
Analysis Batch: 33390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33404

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016			167	134.1		ug/Kg		80	41 - 127
PCB-1016			167	137.2		ug/Kg		82	41 - 127
PCB-1260			167	116.7		ug/Kg		70	40 - 140
PCB-1260			167	117.2		ug/Kg		70	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*74*		*30 - 150*
Tetrachloro-m-xylene	*77*		*30 - 150*
DCB Decachlorobiphenyl (Surr)	*71*		*30 - 150*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 620-33404/2-A
Matrix: Solid
Analysis Batch: 33390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33404

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	73		30 - 150

Lab Sample ID: LCSD 620-33404/3-A
Matrix: Solid
Analysis Batch: 33390

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33404

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016			167	124.2		ug/Kg		75	41 - 127	8	30
PCB-1016			167	125.8		ug/Kg		75	41 - 127	9	30
PCB-1260			167	113.0		ug/Kg		68	40 - 140	3	30
PCB-1260			167	114.8		ug/Kg		69	40 - 140	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	67		30 - 150
Tetrachloro-m-xylene	71		30 - 150
DCB Decachlorobiphenyl (Surr)	68		30 - 150
DCB Decachlorobiphenyl (Surr)	71		30 - 150

Method: 8100 - Polynuclear Aromatic Hydrocarbons (PAHs) (GC)

Lab Sample ID: MB 620-33270/1-A
Matrix: Solid
Analysis Batch: 33308

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33270

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
TEPH (C9-C36)	ND		13.3		mg/Kg		03/29/24 08:30	04/01/24 18:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane (Surr)	78		40 - 140	03/29/24 08:30	04/01/24 18:20	1
o-Terphenyl (Surr)	67		40 - 140	03/29/24 08:30	04/01/24 18:20	1

Lab Sample ID: LCS 620-33270/2-A
Matrix: Solid
Analysis Batch: 33308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33270

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
TEPH (C9-C36)			360	202.2		mg/Kg		56	30 - 100		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctadecane (Surr)	77		40 - 140
o-Terphenyl (Surr)	71		40 - 140

Lab Sample ID: LCSD 620-33270/3-A
Matrix: Solid
Analysis Batch: 33308

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33270

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
TEPH (C9-C36)			360	177.4		mg/Kg		49	30 - 100	13	30

Method: 8100 - Polynuclear Aromatic Hydrocarbons (PAHs) (GC) (Continued)

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctadecane (Surr)	*68*		*40 - 140*
o-Terphenyl (Surr)	*65*		*40 - 140*

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 620-33362/1-A
Matrix: Solid
Analysis Batch: 33420

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33362

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.59		mg/Kg		04/02/24 11:00	04/03/24 12:36	1
Barium	ND		1.06		mg/Kg		04/02/24 11:00	04/03/24 12:36	1
Cadmium	ND		0.532		mg/Kg		04/02/24 11:00	04/03/24 12:36	1
Chromium	ND		1.06		mg/Kg		04/02/24 11:00	04/03/24 12:36	1
Lead	ND		1.59		mg/Kg		04/02/24 11:00	04/03/24 12:36	1
Selenium	ND		1.59		mg/Kg		04/02/24 11:00	04/03/24 12:36	1
Silver	ND		1.59		mg/Kg		04/02/24 11:00	04/03/24 12:36	1
Copper	ND		1.06		mg/Kg		04/02/24 11:00	04/03/24 12:36	1
Nickel	ND		1.06		mg/Kg		04/02/24 11:00	04/03/24 12:36	1
Zinc	ND		3.19		mg/Kg		04/02/24 11:00	04/03/24 12:36	1

Lab Sample ID: LCSSRM 620-33362/2-A
Matrix: Solid
Analysis Batch: 33420

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33362

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic			223	161.7		mg/Kg		72.5	70.4 - 102.2		
Barium			445	369.4		mg/Kg		83.0	78.0 - 110.8		
Cadmium			226	171.5		mg/Kg		75.9	73.9 - 104.9		
Chromium			230	197.1		mg/Kg		85.7	73.5 - 107.0		
Lead			275	223.8		mg/Kg		81.4	74.2 - 108.0		
Selenium			137	104.0		mg/Kg		75.9	70.9 - 108.8		
Silver			75.3	61.48		mg/Kg		81.6	72.0 - 110.1		
Copper			239	212.9		mg/Kg		89.1	75.3 - 105.9		
Nickel			118	99.01		mg/Kg		83.9	72.0 - 104.2		
Zinc			286	246.1		mg/Kg		86.1	75.9 - 111.5		

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 620-33290/1-A
Matrix: Solid
Analysis Batch: 33348

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33290

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0500		mg/Kg		04/01/24 08:08	04/01/24 15:29	1

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Method: 7471B - Mercury (CVAA)

Lab Sample ID: LCSSRM 620-33290/2-A
Matrix: Solid
Analysis Batch: 33348

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33290

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			25.5	22.22		mg/Kg		87.2	71.4 - 125.1		

GC/MS VOA

Pre Prep Batch: 33282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-17695-1	SB01 0-2ft bgs Singleton St bridge	Total/NA	Solid	Frozen Preserve	
620-17695-2	SB02 0-2ft bgs Singleton St bridge	Total/NA	Solid	Frozen Preserve	
620-17695-3	SB03 0-2ft bgs Singleton St bridge	Total/NA	Solid	Frozen Preserve	
620-17695-4	Trip Blank	Total/NA	Solid	Frozen Preserve	
620-17695-5	SB01 0-2ft bgs River St bridge	Total/NA	Solid	Frozen Preserve	
620-17695-6	SB02 0-2ft bgs River St bridge	Total/NA	Solid	Frozen Preserve	
620-17695-7	SB03 0-2ft bgs River St bridge	Total/NA	Solid	Frozen Preserve	

Prep Batch: 33387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-17695-1	SB01 0-2ft bgs Singleton St bridge	Total/NA	Solid	5035	33282
620-17695-2	SB02 0-2ft bgs Singleton St bridge	Total/NA	Solid	5035	33282
620-17695-3	SB03 0-2ft bgs Singleton St bridge	Total/NA	Solid	5035	33282
620-17695-4	Trip Blank	Total/NA	Solid	5035	33282
620-17695-5	SB01 0-2ft bgs River St bridge	Total/NA	Solid	5035	33282
620-17695-6	SB02 0-2ft bgs River St bridge	Total/NA	Solid	5035	33282
620-17695-7	SB03 0-2ft bgs River St bridge	Total/NA	Solid	5035	33282
MB 620-33387/3-A	Method Blank	Total/NA	Solid	5035	
LCS 620-33387/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 620-33387/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 33388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-17695-1	SB01 0-2ft bgs Singleton St bridge	Total/NA	Solid	8260C	33387
620-17695-2	SB02 0-2ft bgs Singleton St bridge	Total/NA	Solid	8260C	33387
620-17695-3	SB03 0-2ft bgs Singleton St bridge	Total/NA	Solid	8260C	33387
620-17695-4	Trip Blank	Total/NA	Solid	8260C	33387
620-17695-5	SB01 0-2ft bgs River St bridge	Total/NA	Solid	8260C	33387
620-17695-6	SB02 0-2ft bgs River St bridge	Total/NA	Solid	8260C	33387
620-17695-7	SB03 0-2ft bgs River St bridge	Total/NA	Solid	8260C	33387
MB 620-33387/3-A	Method Blank	Total/NA	Solid	8260C	33387
LCS 620-33387/1-A	Lab Control Sample	Total/NA	Solid	8260C	33387
LCSD 620-33387/2-A	Lab Control Sample Dup	Total/NA	Solid	8260C	33387

GC/MS Semi VOA

Prep Batch: 33389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-17695-1	SB01 0-2ft bgs Singleton St bridge	Total/NA	Solid	3546	
620-17695-2	SB02 0-2ft bgs Singleton St bridge	Total/NA	Solid	3546	
620-17695-3	SB03 0-2ft bgs Singleton St bridge	Total/NA	Solid	3546	
620-17695-5	SB01 0-2ft bgs River St bridge	Total/NA	Solid	3546	
620-17695-6	SB02 0-2ft bgs River St bridge	Total/NA	Solid	3546	
620-17695-7	SB03 0-2ft bgs River St bridge	Total/NA	Solid	3546	
MB 620-33389/1-A	Method Blank	Total/NA	Solid	3546	
LCS 620-33389/2-A	Lab Control Sample	Total/NA	Solid	3546	

GC/MS Semi VOA (Continued)

Prep Batch: 33389 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 620-33389/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Analysis Batch: 33425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-17695-1	SB01 0-2ft bgs Singleton St bridge	Total/NA	Solid	8270D	33389
MB 620-33389/1-A	Method Blank	Total/NA	Solid	8270D	33389
LCS 620-33389/2-A	Lab Control Sample	Total/NA	Solid	8270D	33389
LCSD 620-33389/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	33389

Analysis Batch: 33461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-17695-2	SB02 0-2ft bgs Singleton St bridge	Total/NA	Solid	8270D	33389
620-17695-3	SB03 0-2ft bgs Singleton St bridge	Total/NA	Solid	8270D	33389
620-17695-5	SB01 0-2ft bgs River St bridge	Total/NA	Solid	8270D	33389
620-17695-6	SB02 0-2ft bgs River St bridge	Total/NA	Solid	8270D	33389
620-17695-7	SB03 0-2ft bgs River St bridge	Total/NA	Solid	8270D	33389

GC Semi VOA

Prep Batch: 33270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-17695-1	SB01 0-2ft bgs Singleton St bridge	Total/NA	Solid	3546	
620-17695-2	SB02 0-2ft bgs Singleton St bridge	Total/NA	Solid	3546	
620-17695-3	SB03 0-2ft bgs Singleton St bridge	Total/NA	Solid	3546	
620-17695-5	SB01 0-2ft bgs River St bridge	Total/NA	Solid	3546	
620-17695-6	SB02 0-2ft bgs River St bridge	Total/NA	Solid	3546	
620-17695-7	SB03 0-2ft bgs River St bridge	Total/NA	Solid	3546	
MB 620-33270/1-A	Method Blank	Total/NA	Solid	3546	
LCS 620-33270/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 620-33270/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Analysis Batch: 33308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-17695-2	SB02 0-2ft bgs Singleton St bridge	Total/NA	Solid	8100	33270
620-17695-3	SB03 0-2ft bgs Singleton St bridge	Total/NA	Solid	8100	33270
620-17695-5	SB01 0-2ft bgs River St bridge	Total/NA	Solid	8100	33270
620-17695-6	SB02 0-2ft bgs River St bridge	Total/NA	Solid	8100	33270
620-17695-7	SB03 0-2ft bgs River St bridge	Total/NA	Solid	8100	33270
MB 620-33270/1-A	Method Blank	Total/NA	Solid	8100	33270
LCS 620-33270/2-A	Lab Control Sample	Total/NA	Solid	8100	33270
LCSD 620-33270/3-A	Lab Control Sample Dup	Total/NA	Solid	8100	33270

Analysis Batch: 33361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-17695-1	SB01 0-2ft bgs Singleton St bridge	Total/NA	Solid	8100	33270

Analysis Batch: 33390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 620-33404/1-A	Method Blank	Total/NA	Solid	8082A	33404
LCS 620-33404/2-A	Lab Control Sample	Total/NA	Solid	8082A	33404
LCSD 620-33404/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	33404

GC Semi VOA

Prep Batch: 33404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-17695-1	SB01 0-2ft bgs Singleton St bridge	Total/NA	Solid	3546	
620-17695-2	SB02 0-2ft bgs Singleton St bridge	Total/NA	Solid	3546	
620-17695-3	SB03 0-2ft bgs Singleton St bridge	Total/NA	Solid	3546	
620-17695-5	SB01 0-2ft bgs River St bridge	Total/NA	Solid	3546	
620-17695-6	SB02 0-2ft bgs River St bridge	Total/NA	Solid	3546	
620-17695-7	SB03 0-2ft bgs River St bridge	Total/NA	Solid	3546	
MB 620-33404/1-A	Method Blank	Total/NA	Solid	3546	
LCS 620-33404/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 620-33404/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Analysis Batch: 33446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-17695-1	SB01 0-2ft bgs Singleton St bridge	Total/NA	Solid	8082A	33404
620-17695-2	SB02 0-2ft bgs Singleton St bridge	Total/NA	Solid	8082A	33404
620-17695-3	SB03 0-2ft bgs Singleton St bridge	Total/NA	Solid	8082A	33404
620-17695-5	SB01 0-2ft bgs River St bridge	Total/NA	Solid	8082A	33404
620-17695-6	SB02 0-2ft bgs River St bridge	Total/NA	Solid	8082A	33404
620-17695-7	SB03 0-2ft bgs River St bridge	Total/NA	Solid	8082A	33404

Metals

Prep Batch: 33290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-17695-1	SB01 0-2ft bgs Singleton St bridge	Total/NA	Solid	7471B	
620-17695-2	SB02 0-2ft bgs Singleton St bridge	Total/NA	Solid	7471B	
620-17695-3	SB03 0-2ft bgs Singleton St bridge	Total/NA	Solid	7471B	
620-17695-5	SB01 0-2ft bgs River St bridge	Total/NA	Solid	7471B	
620-17695-6	SB02 0-2ft bgs River St bridge	Total/NA	Solid	7471B	
620-17695-7	SB03 0-2ft bgs River St bridge	Total/NA	Solid	7471B	
MB 620-33290/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 620-33290/2-A	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 33348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-17695-1	SB01 0-2ft bgs Singleton St bridge	Total/NA	Solid	7471B	33290
620-17695-2	SB02 0-2ft bgs Singleton St bridge	Total/NA	Solid	7471B	33290
620-17695-3	SB03 0-2ft bgs Singleton St bridge	Total/NA	Solid	7471B	33290
620-17695-5	SB01 0-2ft bgs River St bridge	Total/NA	Solid	7471B	33290
620-17695-6	SB02 0-2ft bgs River St bridge	Total/NA	Solid	7471B	33290
620-17695-7	SB03 0-2ft bgs River St bridge	Total/NA	Solid	7471B	33290
MB 620-33290/1-A	Method Blank	Total/NA	Solid	7471B	33290
LCSSRM 620-33290/2-A	Lab Control Sample	Total/NA	Solid	7471B	33290

Prep Batch: 33362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-17695-1	SB01 0-2ft bgs Singleton St bridge	Total/NA	Solid	3050B	
620-17695-2	SB02 0-2ft bgs Singleton St bridge	Total/NA	Solid	3050B	
620-17695-3	SB03 0-2ft bgs Singleton St bridge	Total/NA	Solid	3050B	
620-17695-5	SB01 0-2ft bgs River St bridge	Total/NA	Solid	3050B	
620-17695-6	SB02 0-2ft bgs River St bridge	Total/NA	Solid	3050B	
620-17695-7	SB03 0-2ft bgs River St bridge	Total/NA	Solid	3050B	

Metals (Continued)

Prep Batch: 33362 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 620-33362/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 620-33362/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 33420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-17695-1	SB01 0-2ft bgs Singleton St bridge	Total/NA	Solid	6010D	33362
620-17695-2	SB02 0-2ft bgs Singleton St bridge	Total/NA	Solid	6010D	33362
620-17695-3	SB03 0-2ft bgs Singleton St bridge	Total/NA	Solid	6010D	33362
620-17695-5	SB01 0-2ft bgs River St bridge	Total/NA	Solid	6010D	33362
MB 620-33362/1-A	Method Blank	Total/NA	Solid	6010D	33362
LCSSRM 620-33362/2-A	Lab Control Sample	Total/NA	Solid	6010D	33362

Analysis Batch: 33424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-17695-6	SB02 0-2ft bgs River St bridge	Total/NA	Solid	6010D	33362
620-17695-7	SB03 0-2ft bgs River St bridge	Total/NA	Solid	6010D	33362

General Chemistry

Analysis Batch: 33323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-17695-1	SB01 0-2ft bgs Singleton St bridge	Total/NA	Solid	Moisture	
620-17695-2	SB02 0-2ft bgs Singleton St bridge	Total/NA	Solid	Moisture	
620-17695-3	SB03 0-2ft bgs Singleton St bridge	Total/NA	Solid	Moisture	
620-17695-5	SB01 0-2ft bgs River St bridge	Total/NA	Solid	Moisture	
620-17695-6	SB02 0-2ft bgs River St bridge	Total/NA	Solid	Moisture	
620-17695-7	SB03 0-2ft bgs River St bridge	Total/NA	Solid	Moisture	

Lab Chronicle

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Client Sample ID: SB01 0-2ft bgs Singleton St bridge
Lab Sample ID: 620-17695-1
Date Collected: 03/26/24 13:50
Matrix: Solid
Date Received: 03/29/24 15:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	33323	MJH	EET RI	04/01/24 11:41

Client Sample ID: SB01 0-2ft bgs Singleton St bridge
Lab Sample ID: 620-17695-1
Date Collected: 03/26/24 13:50
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	Frozen Preserve			33282	KFS	EET RI	03/29/24 19:33
Total/NA	Prep	5035			33387	CLR	EET RI	04/03/24 09:01
Total/NA	Analysis	8260C		1	33388	CLR	EET RI	04/03/24 13:54
Total/NA	Prep	3546			33389	JAC	EET RI	04/03/24 09:16
Total/NA	Analysis	8270D		1	33425	JS	EET RI	04/04/24 00:56
Total/NA	Prep	3546			33404	JAC	EET RI	04/03/24 11:04
Total/NA	Analysis	8082A		1	33446	BMH	EET RI	04/04/24 12:48
Total/NA	Prep	3546			33270	JAC	EET RI	04/01/24 09:04
Total/NA	Analysis	8100		1	33361	BJJ	EET RI	04/02/24 13:11
Total/NA	Prep	3050B			33362	MEM	EET RI	04/02/24 11:00
Total/NA	Analysis	6010D		4	33420	JPC	EET RI	04/03/24 13:12
Total/NA	Prep	7471B			33290	PRB	EET RI	04/01/24 08:08
Total/NA	Analysis	7471B		1	33348	PRB	EET RI	04/01/24 16:00

Client Sample ID: SB02 0-2ft bgs Singleton St bridge
Lab Sample ID: 620-17695-2
Date Collected: 03/26/24 14:00
Matrix: Solid
Date Received: 03/29/24 15:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	33323	MJH	EET RI	04/01/24 11:41

Client Sample ID: SB02 0-2ft bgs Singleton St bridge
Lab Sample ID: 620-17695-2
Date Collected: 03/26/24 14:00
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 89.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	Frozen Preserve			33282	KFS	EET RI	03/29/24 19:33
Total/NA	Prep	5035			33387	CLR	EET RI	04/03/24 09:01
Total/NA	Analysis	8260C		1	33388	CLR	EET RI	04/03/24 15:11
Total/NA	Prep	3546			33389	JAC	EET RI	04/03/24 09:16
Total/NA	Analysis	8270D		1	33461	JS	EET RI	04/04/24 14:32
Total/NA	Prep	3546			33404	JAC	EET RI	04/03/24 11:04
Total/NA	Analysis	8082A		1	33446	BMH	EET RI	04/04/24 13:06
Total/NA	Prep	3546			33270	JAC	EET RI	04/01/24 09:04
Total/NA	Analysis	8100		1	33308	BJJ	EET RI	04/01/24 20:38
Total/NA	Prep	3050B			33362	MEM	EET RI	04/02/24 11:00
Total/NA	Analysis	6010D		2	33420	JPC	EET RI	04/03/24 13:18

Lab Chronicle

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Client Sample ID: SB02 0-2ft bgs Singleton St bridge
Lab Sample ID: 620-17695-2
Date Collected: 03/26/24 14:00
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 89.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7471B			33290	PRB	EET RI	04/01/24 08:08
Total/NA	Analysis	7471B		1	33348	PRB	EET RI	04/01/24 16:06

Client Sample ID: SB03 0-2ft bgs Singleton St bridge
Lab Sample ID: 620-17695-3
Date Collected: 03/26/24 14:10
Matrix: Solid
Date Received: 03/29/24 15:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	33323	MJH	EET RI	04/01/24 11:41

Client Sample ID: SB03 0-2ft bgs Singleton St bridge
Lab Sample ID: 620-17695-3
Date Collected: 03/26/24 14:10
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 94.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	Frozen Preserve			33282	KFS	EET RI	03/29/24 19:33
Total/NA	Prep	5035			33387	CLR	EET RI	04/03/24 09:01
Total/NA	Analysis	8260C		1	33388	CLR	EET RI	04/03/24 15:47
Total/NA	Prep	3546			33389	JAC	EET RI	04/03/24 09:16
Total/NA	Analysis	8270D		1	33461	JS	EET RI	04/04/24 14:56
Total/NA	Prep	3546			33404	JAC	EET RI	04/03/24 11:04
Total/NA	Analysis	8082A		1	33446	BMH	EET RI	04/04/24 13:24
Total/NA	Prep	3546			33270	JAC	EET RI	04/01/24 09:04
Total/NA	Analysis	8100		1	33308	BJJ	EET RI	04/01/24 21:01
Total/NA	Prep	3050B			33362	MEM	EET RI	04/02/24 11:00
Total/NA	Analysis	6010D		2	33420	JPC	EET RI	04/03/24 13:23
Total/NA	Prep	7471B			33290	PRB	EET RI	04/01/24 08:08
Total/NA	Analysis	7471B		1	33348	PRB	EET RI	04/01/24 16:08

Client Sample ID: Trip Blank
Lab Sample ID: 620-17695-4
Date Collected: 03/26/24 00:00
Matrix: Solid
Date Received: 03/29/24 15:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	Frozen Preserve			33282	KFS	EET RI	03/29/24 19:33
Total/NA	Prep	5035			33387	CLR	EET RI	04/03/24 09:01
Total/NA	Analysis	8260C		1	33388	CLR	EET RI	04/03/24 13:29

Client Sample ID: SB01 0-2ft bgs River St bridge
Lab Sample ID: 620-17695-5
Date Collected: 03/26/24 15:30
Matrix: Solid
Date Received: 03/29/24 15:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	33323	MJH	EET RI	04/01/24 11:41

Lab Chronicle

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Client Sample ID: SB01 0-2ft bgs River St bridge
Lab Sample ID: 620-17695-5
Date Collected: 03/26/24 15:30
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 93.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	Frozen Preserve			33282	KFS	EET RI	03/29/24 19:33
Total/NA	Prep	5035			33387	CLR	EET RI	04/03/24 09:01
Total/NA	Analysis	8260C		1	33388	CLR	EET RI	04/03/24 16:12
Total/NA	Prep	3546			33389	JAC	EET RI	04/03/24 09:16
Total/NA	Analysis	8270D		1	33461	JS	EET RI	04/04/24 15:21
Total/NA	Prep	3546			33404	JAC	EET RI	04/03/24 11:04
Total/NA	Analysis	8082A		1	33446	BMH	EET RI	04/04/24 13:41
Total/NA	Prep	3546			33270	JAC	EET RI	04/01/24 09:04
Total/NA	Analysis	8100		1	33308	BJJ	EET RI	04/01/24 21:24
Total/NA	Prep	3050B			33362	MEM	EET RI	04/02/24 11:00
Total/NA	Analysis	6010D		2	33420	JPC	EET RI	04/03/24 13:29
Total/NA	Prep	7471B			33290	PRB	EET RI	04/01/24 08:08
Total/NA	Analysis	7471B		1	33348	PRB	EET RI	04/01/24 16:11

Client Sample ID: SB02 0-2ft bgs River St bridge
Lab Sample ID: 620-17695-6
Date Collected: 03/26/24 15:10
Matrix: Solid
Date Received: 03/29/24 15:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	33323	MJH	EET RI	04/01/24 11:41

Client Sample ID: SB02 0-2ft bgs River St bridge
Lab Sample ID: 620-17695-6
Date Collected: 03/26/24 15:10
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 90.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	Frozen Preserve			33282	KFS	EET RI	03/29/24 19:33
Total/NA	Prep	5035			33387	CLR	EET RI	04/03/24 09:01
Total/NA	Analysis	8260C		1	33388	CLR	EET RI	04/03/24 16:37
Total/NA	Prep	3546			33389	JAC	EET RI	04/03/24 09:16
Total/NA	Analysis	8270D		1	33461	JS	EET RI	04/04/24 15:45
Total/NA	Prep	3546			33404	JAC	EET RI	04/03/24 11:04
Total/NA	Analysis	8082A		1	33446	BMH	EET RI	04/04/24 13:59
Total/NA	Prep	3546			33270	JAC	EET RI	04/01/24 09:04
Total/NA	Analysis	8100		1	33308	BJJ	EET RI	04/01/24 21:47
Total/NA	Prep	3050B			33362	MEM	EET RI	04/02/24 11:00
Total/NA	Analysis	6010D		2	33424	JPC	EET RI	04/03/24 13:47
Total/NA	Prep	7471B			33290	PRB	EET RI	04/01/24 08:08
Total/NA	Analysis	7471B		1	33348	PRB	EET RI	04/01/24 16:13

Lab Chronicle

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Client Sample ID: SB03 0-2ft bgs River St bridge
Lab Sample ID: 620-17695-7
Date Collected: 03/26/24 15:20
Matrix: Solid
Date Received: 03/29/24 15:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	33323	MJH	EET RI	04/01/24 11:41

Client Sample ID: SB03 0-2ft bgs River St bridge
Lab Sample ID: 620-17695-7
Date Collected: 03/26/24 15:20
Matrix: Solid
Date Received: 03/29/24 15:51
Percent Solids: 89.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	Frozen Preserve			33282	KFS	EET RI	03/29/24 19:33
Total/NA	Prep	5035			33387	CLR	EET RI	04/03/24 09:01
Total/NA	Analysis	8260C		1	33388	CLR	EET RI	04/03/24 17:02
Total/NA	Prep	3546			33389	JAC	EET RI	04/03/24 09:16
Total/NA	Analysis	8270D		1	33461	JS	EET RI	04/04/24 16:10
Total/NA	Prep	3546			33404	JAC	EET RI	04/03/24 11:04
Total/NA	Analysis	8082A		1	33446	BMH	EET RI	04/04/24 14:17
Total/NA	Prep	3546			33270	JAC	EET RI	04/01/24 09:04
Total/NA	Analysis	8100		1	33308	BJJ	EET RI	04/01/24 22:25
Total/NA	Prep	3050B			33362	MEM	EET RI	04/02/24 11:00
Total/NA	Analysis	6010D		4	33424	JPC	EET RI	04/03/24 14:14
Total/NA	Prep	7471B			33290	PRB	EET RI	04/01/24 08:08
Total/NA	Analysis	7471B		1	33348	PRB	EET RI	04/01/24 16:15

Laboratory References:

EET RI = Eurofins Rhode Island, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

Accreditation/Certification Summary

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Laboratory: Eurofins Rhode Island

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Rhode Island	State	LAI00368	12-31-23 *

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6010D	3050B	Solid	Arsenic
6010D	3050B	Solid	Barium
6010D	3050B	Solid	Cadmium
6010D	3050B	Solid	Chromium
6010D	3050B	Solid	Copper
6010D	3050B	Solid	Lead
6010D	3050B	Solid	Nickel
6010D	3050B	Solid	Selenium
6010D	3050B	Solid	Silver
6010D	3050B	Solid	Zinc
7471B	7471B	Solid	Mercury
8082A	3546	Solid	PCB-1016
8082A	3546	Solid	PCB-1221
8082A	3546	Solid	PCB-1232
8082A	3546	Solid	PCB-1242
8082A	3546	Solid	PCB-1248
8082A	3546	Solid	PCB-1254
8082A	3546	Solid	PCB-1260
8082A	3546	Solid	PCB-1262
8082A	3546	Solid	PCB-1268
8100	3546	Solid	TEPH (C9-C36)
8260C	5035	Solid	1,1,1,2-Tetrachloroethane
8260C	5035	Solid	1,1,1-Trichloroethane
8260C	5035	Solid	1,1,2,2-Tetrachloroethane
8260C	5035	Solid	1,1,2-Trichloroethane
8260C	5035	Solid	1,1,2-Trichlorotrifluoroethane (Freon 113)
8260C	5035	Solid	1,1-Dichloroethane
8260C	5035	Solid	1,1-Dichloroethene
8260C	5035	Solid	1,1-Dichloropropene
8260C	5035	Solid	1,2,3-Trichlorobenzene
8260C	5035	Solid	1,2,3-Trichloropropane
8260C	5035	Solid	1,2,4-Trichlorobenzene
8260C	5035	Solid	1,2,4-Trimethylbenzene
8260C	5035	Solid	1,2-Dibromo-3-Chloropropane
8260C	5035	Solid	1,2-Dibromoethane (EDB)
8260C	5035	Solid	1,2-Dichlorobenzene
8260C	5035	Solid	1,2-Dichloroethane
8260C	5035	Solid	1,2-Dichloropropane
8260C	5035	Solid	1,3,5-Trichlorobenzene
8260C	5035	Solid	1,3,5-Trimethylbenzene
8260C	5035	Solid	1,3-Dichlorobenzene
8260C	5035	Solid	1,3-Dichloropropane
8260C	5035	Solid	1,4-Dichlorobenzene
8260C	5035	Solid	1,4-Dioxane
8260C	5035	Solid	2,2-Dichloropropane

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Laboratory: Eurofins Rhode Island (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260C	5035	Solid	2-Butanone (MEK)
8260C	5035	Solid	2-Chlorotoluene
8260C	5035	Solid	2-Hexanone (MBK)
8260C	5035	Solid	4-Chlorotoluene
8260C	5035	Solid	4-Isopropyltoluene
8260C	5035	Solid	4-Methyl-2-pentanone (MIBK)
8260C	5035	Solid	Acetone
8260C	5035	Solid	Acrylonitrile
8260C	5035	Solid	Benzene
8260C	5035	Solid	Bromobenzene
8260C	5035	Solid	Bromochloromethane
8260C	5035	Solid	Bromodichloromethane
8260C	5035	Solid	Bromoform
8260C	5035	Solid	Bromomethane
8260C	5035	Solid	Carbon disulfide
8260C	5035	Solid	Carbon tetrachloride
8260C	5035	Solid	Chlorobenzene
8260C	5035	Solid	Chloroethane
8260C	5035	Solid	Chloroform
8260C	5035	Solid	Chloromethane
8260C	5035	Solid	cis-1,2-Dichloroethene
8260C	5035	Solid	cis-1,3-Dichloropropene
8260C	5035	Solid	Dibromochloromethane
8260C	5035	Solid	Dibromomethane
8260C	5035	Solid	Dichlorodifluoromethane (Freon 12)
8260C	5035	Solid	di-Isopropyl ether
8260C	5035	Solid	Ethanol
8260C	5035	Solid	Ethyl ether
8260C	5035	Solid	Ethyl tert-butyl ether
8260C	5035	Solid	Ethylbenzene
8260C	5035	Solid	Hexachlorobutadiene
8260C	5035	Solid	Isopropylbenzene
8260C	5035	Solid	m,p-Xylene
8260C	5035	Solid	Methyl tert-butyl ether
8260C	5035	Solid	Methylene Chloride
8260C	5035	Solid	Naphthalene
8260C	5035	Solid	n-Butylbenzene
8260C	5035	Solid	N-Propylbenzene
8260C	5035	Solid	o-Xylene
8260C	5035	Solid	sec-Butylbenzene
8260C	5035	Solid	Styrene
8260C	5035	Solid	Tert-amyl methyl ether
8260C	5035	Solid	tert-Butanol
8260C	5035	Solid	tert-Butylbenzene
8260C	5035	Solid	Tetrachloroethene
8260C	5035	Solid	Tetrahydrofuran
8260C	5035	Solid	Toluene

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Laboratory: Eurofins Rhode Island (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260C	5035	Solid	trans-1,2-Dichloroethene
8260C	5035	Solid	trans-1,3-Dichloropropene
8260C	5035	Solid	trans-1,4-Dichloro-2-butene
8260C	5035	Solid	Trichloroethene
8260C	5035	Solid	Trichlorofluoromethane (Freon 11)
8260C	5035	Solid	Vinyl chloride
8270D	3546	Solid	1-Methylnaphthalene
8270D	3546	Solid	2-Methylnaphthalene
8270D	3546	Solid	Acenaphthene
8270D	3546	Solid	Acenaphthylene
8270D	3546	Solid	Anthracene
8270D	3546	Solid	Benzo[a]anthracene
8270D	3546	Solid	Benzo[a]pyrene
8270D	3546	Solid	Benzo[b]fluoranthene
8270D	3546	Solid	Benzo[g,h,i]perylene
8270D	3546	Solid	Benzo[k]fluoranthene
8270D	3546	Solid	Chrysene
8270D	3546	Solid	Dibenz(a,h)anthracene
8270D	3546	Solid	Fluoranthene
8270D	3546	Solid	Fluorene
8270D	3546	Solid	Indeno[1,2,3-cd]pyrene
8270D	3546	Solid	Naphthalene
8270D	3546	Solid	Phenanthrene
8270D	3546	Solid	Pyrene
Moisture		Solid	Percent Solids

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET RI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET RI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET RI
8100	Polynuclear Aromatic Hydrocarbons (PAHs) (GC)	SW846	EET RI
6010D	Metals (ICP)	SW846	EET RI
7471B	Mercury (CVAA)	SW846	EET RI
Moisture	Percent Moisture	EPA	EET RI
3050B	Preparation, Metals	SW846	EET RI
3546	Microwave Extraction	SW846	EET RI
5035	Closed System Purge and Trap	SW846	EET RI
7471B	Preparation, Mercury	SW846	EET RI
Frozen Preserve	Freezing Samples	None	EET RI

Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET RI = Eurofins Rhode Island, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

Sample Summary

Client: AECOM
Job ID: 620-17695-1
Project/Site: RIDOT River St Bridge & Singleton St Bridge

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
620-17695-1	SB01 0-2ft bgs Singleton St bridge	Solid	03/26/24 13:50	03/29/24 15:51
620-17695-2	SB02 0-2ft bgs Singleton St bridge	Solid	03/26/24 14:00	03/29/24 15:51
620-17695-3	SB03 0-2ft bgs Singleton St bridge	Solid	03/26/24 14:10	03/29/24 15:51
620-17695-4	Trip Blank	Solid	03/26/24 00:00	03/29/24 15:51
620-17695-5	SB01 0-2ft bgs River St bridge	Solid	03/26/24 15:30	03/29/24 15:51
620-17695-6	SB02 0-2ft bgs River St bridge	Solid	03/26/24 15:10	03/29/24 15:51
620-17695-7	SB03 0-2ft bgs River St bridge	Solid	03/26/24 15:20	03/29/24 15:51

17695

620-17695 Chain of Custody

Chain of Custody Record

eurofins | Environment Testing

Client Contact: Patrick Haskell	Sampler: Kim Rinard	Lab PM	Carrier Tracking No(s)	COC No: 620-16067-2110 1
Company: AECOM	Phone: (413) 362-9048	E-Mail: kim.rinard@aecom.com	State of Origin: Rhode Island	Page: Page 1 of 1
Address: 10 Orms Street Suite 405	PWSID			Job #:
City: Providence	Due Date Requested:			
State, Zip: RI, 02904	TAT Requested (days): thank you STANDARD TAT			
Phone	Compliance Project: Δ Yes Δ No			
Email: patrick.haskell@aecom.com	PO #:			
Project Name: RIDOT	WO #:			
Site: RIDOT River St Bridge + Singleton St Bridge	Project #: 60708347 TASK 1.40			
	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Y - Trizma; Z - other (specify)

Other:

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total VOCs (High Level)	Total VOCs (Low Level)	PAHs (Total)	EPH (Bloom)	Total PCB (SPAB082)	Total RCRA metals (+Cu, Ni, Zn)	40ml MeOH vial	40ml DI H2O w/ SB	8oz jar	4oz jar	Total Number of containers	Special Instructions/Note:
	Preservation Code:																		
1	SB01 0-2ft bgs Singleton St Bridge	3/26/2024	1350	grab	Solid			X	X	X	X	X	X	1	2	2	1	6	PID 0.00 ppm
2	SB 02 0-2ft bgs	↓	1400	grab	Solid			X	X	X	X	X	X	1	2	2	1	6	↓ 0.00 ppm
3	SB 03 0-2ft bgs	↓	1410	grab	Solid			X	X	X	X	X	X	1	2	2	1	6	(M) 0.00 ppm
4	Trip Blank	LAB	LAB		Solid			X	X					1	1/2 (MM)			2/3	
					Solid														
5	SB01 0-2ft bgs River St Bridge	3/26/2024	1530	grab	Solid														
6	SB 02 0-2ft bgs	↓	1510	grab	Solid														
7	SB 03 0-2ft bgs	↓	1520	grab	Solid														
	Trip Blank	LAB	LAB																Lab to use same TB for both.

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II, III, IV, Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date	Time:	Method of Shipment: Courier dropoff
Relinquished by:	Date/Time: 3/27/2024 1600	Company	Received by: AECOM Chelmsford - Cold Storage (2 Boxes)
Relinquished by:	Date/Time	Company	Received by: Date/Time: 3/28/24 Company
Relinquished by:	Date/Time: 3/29/24 1551	Company	Received by: Date/Time: 3/29/24 1551 Company AECOM

Custody Seals Intact: Δ Yes Δ No | Custody Seal No..

Cooler Temperature(s) °C and Other Remarks: 1.6 -0.0 1.4 #6

Ver: 06/08/2021

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4/9/2024

Login Sample Receipt Checklist

Client: AECOM

Job Number: 620-17695-1

Login Number: 17695

List Source: Eurofins Rhode Island

List Number: 1

Creator: Makhoul, Elie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix C SIR Checklist

Section 1.20 of the "Remediation Regulations"
Site Investigation Report (SIR) Checklist

(The following information shall be completed and submitted with the SIR)

Contact Name:
Contact Address:
Contact Telephone:

Site Name: Bridge Group 26C
Site Address: Singleton Street and River Street, Woonsocket, RI

OFFICE USE ONLY
SITE INVESTIGATION REPORT (SIR) SITE:
PROJECT CODE:
SIR SUBMITTAL DATE:
CHECKLIST SUBMITTAL DATE:

DIRECTIONS: *The box to the left of each item listed below is for the administrative review of the SIR submission and is for* ***RIDEM USE ONLY****. Under each item listed below, cross-reference the specific sections and pages in the SIR that provide detailed information that addresses each stated requirement. Failure to include cross-references may delay review and approval. If an item is not applicable, simply state that it is not applicable and provide an explanation in the SIR.*

☐ 1.8.3(A)(1) List specific objectives of the SIR related to characterization of the Release, impacts of the Release and remedy.
Section 1.3

☐ 1.8.3(A)(2) Include information reported in the Notification of Release. A copy of the Release notification form should be included in the SIR. Include information relating to short-term response, if applicable.
Section 1.2

☐ 1.8.3(A)(3) Include documentation of any past incidents or Releases.
Section 2.1, no past incidents or releases

☐ 1.8.3(A)(4) Include list of prior property Owners and Operators, as well as sequencing of property transfers and time periods of occupancy.
Section 2.2

☐ 1.8.3(A)(5) Include previously existing environmental information which characterizes the Contaminated-Site and all information that led to the discovery of the Contaminated-Site.
Section 1.2; Section 2.1

☐ 1.8.3(A)(6) Include current uses and zoning of the Contaminated-Site, including brief statements of operations, processes employed, waste generated, Hazardous Materials handled, and any residential activities on the site, if applicable. (This section should be linked to the specific objectives section demonstrating how the compounds of concern in the investigation are

those that are used or may have been used on the site or are those that may have impacted the site from an off-site source.)

Section 3.1

☐ 1.8.3(A)(7) Include a locus map showing the location of the site using US Geological Survey 7.5-min quadrangle map or a copy of a section of that USGS map.

Figures 1 and 2

☐ 1.8.3(A)(8) Include a site plan, to scale, showing:

- ☐ Buildings
- ☐ Activities
- ☐ Structures
- ☐ North Arrow
- ☐ Wells
- ☐ UIC Systems, septic tanks, UST, piping and other underground structures
- ☐ Outdoor Hazardous Materials storage and handling areas
- ☐ Extent of paved areas
- ☐ Location of environmental samples previously taken with analytical results
- ☐ Waste management and disposal areas
- ☐ Property Lines

Figures 3 and 4

☐ 1.8.3(A)(9) Include a general characterization of the property surrounding the area including, but not limited to:

- ☐ Location and distance to any surface water bodies within 500 ft of the site.
- ☐ Location and distance to any Environmentally Sensitive Areas within 500 ft of the site.
- ☐ Actual sources of potable water for all properties immediately abutting the site.
- ☐ Location and distance to all public water supplies, which have been active within the previous 2 years and within one mile of the site.

☐ Determination as to whether the Release impacts any off-site area utilized for residential or industrial/commercial property or both.

☐ Determination of the underlying groundwater classification and if the classification is GB, the distance to the nearest GA area.

Section 3.4

☐ 1.8.3(A)(10) Include classifications of surface and ground water at and surrounding the site that could be impacted by a Release.

Section 3.4; 3.5

☐ 1.8.3(A)(11) Include a description of the contamination from the Release, including:

☐ Free liquids on the surface

☐ LNAPL and DNAPL

☐ Concentrations of Hazardous Substances which can be shown to present an actual or potential threat to human health and any concentrations in excess of any of the remedial objectives (reference Section 1.13)

☐ Impact to Environmentally Sensitive Areas

☐ Contamination of man-made structures

☐ Odors or stained soil

☐ Stressed vegetation

☐ Presence of excavated or stockpiled material and an estimate of its total volume

☐ Environmental sampling locations, procedures and copies of the results of any analytical testing at the site

☐ List of Hazardous Substances at the site

☐ Discuss if the contamination falls outside of the jurisdiction of the Remediation Regulations, including but not limited to USTs, UICs, and wetlands.

Section 4.1; 4.2; 5.1; Table 2, Table 3. None of these observed.

☐ 1.8.3(A)(12) Include the concentration gradients of Hazardous Substances throughout the site for each media impacted by the Release.

Section 5.1

☐ 1.8.3(A)(13) Include the methodology and results of any investigation conducted to determine background concentrations of Hazardous Substances identified at the Contaminated-Site (see Section 1.13).

N/A (Section 4.1)

☐ 1.8.3(A)(14) Include a listing and evaluation of the site specific hydrogeological properties which could influence the migration of Hazardous Substances throughout and away from the site, including but not limited to, where appropriate:

- ☐ Depth to GW
- ☐ Presence and effects of both the natural and man-made barriers to and conduits for contaminant migration
- ☐ Characterization of bedrock
- ☐ Groundwater contours, flow rates and gradients throughout the site

Section 5.2

☐ 1.8.3(A)(15) Include a characterization of the topography, surface water and run-off flow patterns, including the flooding potential, of the site.

Section 3.6

☐ 1.8.3(A)(16) Include the potential for Hazardous Substances from the site to volatilize and any and all potential impacts of the volatilization to structures within the site.

Section 5.4

☐ 1.8.3(A)(17) Include the potential for entrainment of Hazardous Substances from the site by wind or erosion actions.

Section 5.5

☐ 1.8.3(A)(18) Include detailed protocols for all fate and transport models used in the Site Investigation.

N/A (Section 5.3)

☐ 1.8.3(A)(19) Include a complete list of all samples taken, the location of all samples, parameters tested for and analytical methods used during the Site Investigation. (Be sure to include the samples locations and analytical results on a site figure).

Table 1, Section 4.2, Figures 5 and 6

☐ 1.8.3(A)(20) Include construction plans and development procedures for all monitoring wells. Well construction shall be consistent with the requirements of the Groundwater Quality Rules.

N/A (Section 4.1.1)

☐ 1.8.3(A)(21) Include procedures for the handling, storage and disposal of wastes derived from and during the investigation.

Section 4.4

☐ 1.8.3(A)(22) Include a quality assurance and quality control evaluation summary report for sample handling and analytical procedures, including, but not limited to, chain-of-custody procedures and sample preservation techniques.

Section 4.3, Section 4.1

☐ 1.8.3(A)(23) Include any other site-specific factor, that the Director believes, is necessary to make an accurate decision as to the appropriate Remedial Action to be taken at the site.

N/A (Section 4.6)

☐ 1.8.4 Include Remedial Alternatives. The Site Investigation Report shall contain a minimum of **TWO (2)** remedial alternatives other than no action/natural attenuation alternative, unless this requirement is waived by the Department. It should be clear which of these alternatives is most preferable. All alternatives shall be supported by relevant data contained in the Site Investigation Report and consistent with the current and reasonably forseeable land usage, and documentation of the following:

- Compliance with Section 1.9 (RISK MANGEMENT);
- Technical feasibility of the preferred remedial alternative;
- Compliance with federal, state and local laws or other public concerns; and
- The ability of the Performing Party to perform the preferred remedial alternative.

Section 6

☐ 1.8.5 **Certification Requirements:** The Site Investigation Report and all associated progress reports shall include the following statements signed by an authorized representative of the party specified:

A statement signed by an authorized representative of the Person who prepared the Site Investigation Report certifying the completeness and accuracy of the information contained in that report to the best of their knowledge; and

A statement signed by the Performing Party responsible for the submittal of the Site Investigation Report certifying that the report is a complete and accurate representation of the site and the Release and contains all known facts surrounding the Release to the best of their knowledge.

Section 8

☐ 1.8.6 **Progress Reports:** If the Site Investigation is not complete, include a schedule for the submission of periodic progress reports on the status of the investigation and interim reports on any milestones achieved in the project.

N/A - SIR is complete

☐ **Public Involvement and Notice:** Be prepared to implement public notice requirements per Sections 1.8.7 and 1.8.9 of the Remediation Regulations when the Department deems the Site Investigation Report to be complete.

Indicate if the site falls within an Environmental Justice (EJ) area and, if applicable, include all EJ public notice documentation issued, and the list of recipients.

Section 4.5

APPENDIX I

Hazardous Materials Assessment

AECOM
10 Orms Street
Providence, RI 02904
aecom.com

June 28, 2024

Robert Soscia, P.E.
Managing Engineer
Rhode Island Department of Transportation
2 Capitol Hill
Providence, RI 02903

Hazardous Material Assessment – Bridge Group 26C
Singleton Street and River Street
Woonsocket, RI

Dear Mr. Soscia,

AECOM performed a hazardous materials assessment of bridge materials associated with Bridges 955 and 956, which carry Singleton Street and River Street, respectively, over the Blackstone River. The assessment involved inspection of potential suspect asbestos containing materials, suspect polychlorinated biphenyl (PCB)-containing source materials and suspect coatings for lead on the deck and underside of the bridges and collection of samples, where warranted.

These activities and the results of sampling are described below. Inspections and sampling were performed by a US EPA Model Accreditation Program (EPA MAP) certified and Rhode Island licensed asbestos inspector (Robert Jacque, License AI01116). Copies of the inspector's EPA MAP training certificate(s) are included in Attachment A.

Laboratory analysis of the individual samples was performed by properly accredited and/or licensed analytical laboratories as follows:

- Bulk asbestos samples were analyzed by EPA 600/R-93/116 using by Polarized Light Microscopy by EMSL Woburn of Woburn, Massachusetts, a National Voluntary Laboratory Accreditation Program (NVLAP) certified laboratory (NVLAP #101147-0) and State of Rhode Island licensed asbestos laboratory (RI License #PLM00139)
- Bulk samples for lead were analyzed by Flame Atomic Absorption Spectrometry (Flame AAS) by SW-846 EPA 3050B/7000B by EMSL Chicago of Hillside, Illinois, a AIHA ELPAT (AIHA ELPAT #102992) and AIHA Laboratory Accreditation Program (AIHA LAP-102992) participant.
- Bulk suspect materials for PCBs were analyzed by EPA 8082 with 3546 microwave-assisted solvent extraction by EMSL Cinnaminson of Cinnaminson, New Jersey a National Environmental Laboratory Accreditation Program (NELAP) participant and State of New Jersey Department of Environmental Protection licensed analytical laboratory (NJ DEP Laboratory ID # 03036)
- Additional bulk suspect materials for PCBs were analyzed by SW-846 EPA 8082 with 3540C Soxhlet extraction performed by Eurofins Environment New England (Eurofins) of North Kingstown, Rhode Island.

Copies of the individual analytical laboratory accredited program certificate(s) are included in Attachment B.

Methodology and Limiting Conditions

The limited comprehensive building materials survey conducted by AECOM consisted of a walkthrough of the Site, including visual observations of materials that will be impacted by renovations, and the collection of building material samples suspected of containing asbestos, lead-based paint (LBP), and suspect PCB source materials.

The survey was limited to exposed and accessible areas of the bridge deck and bridge components at the underside of the bridge. No subsurface investigations were performed during the survey. The services described in this report were performed consistent with generally accepted professional consulting principles and practices. Investigative services performed by AECOM were conducted in a manner consistent with "state of the industry" practices. No other warranty, expressed or implied, is made.

The Site was accessible to the public at the time of the survey and sampling event. During the survey, reasonable efforts were made to locate and sample building materials representative of the materials that will be affected by the upcoming planned demolition, maintenance and/or improvements; however, the potential exists for unique or concealed hazardous materials to be present.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. AECOM is not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. AECOM does not warrant the accuracy of information supplied by others or the use of segregated portions of this report.

Effort was made during the survey to focus on areas that are relatively more likely to be disturbed by the proposed future demolition and renovations. Suspect asbestos containing materials were identified by homogeneous area, categorized according to material type (thermal system insulation, surfacing material and miscellaneous materials), quantifies and sampled. Bulk samples of the suspect asbestos containing materials were collected in general accordance with EPA NESHAP, EPA AHERA and RIDEM protocols as well as the following sampling plan:

(a) Surfacing material:

(1) At least three bulk samples shall be collected from each homogeneous area that is 1,000 ft^2 or less.

(2) At least five bulk samples shall be collected from each homogeneous area that is greater than 1,000 ft^2 but less than or equal to 5,000 ft^2.

(3) At least seven bulk samples shall be collected from each homogeneous area that is greater than 5,000 ft^2.

(b) Thermal system insulation:

(1) At least three bulk samples shall be collected from each homogeneous area of thermal system insulation.

(2) At least one bulk sample shall be collected from each homogeneous area of patched area of thermal system insulation.

(3) Sufficient samples shall be collected from elbows and fittings to determine if it contains ACM.

(4) Bulk samples shall not be collected from any homogeneous area where the state licensed asbestos inspector determined that the thermal system insulation is fiberglass, foam glass, rubber, or other non- ACM.

(c) Miscellaneous material:

(1) At least two bulk samples shall be collected from each homogeneous area that is less than 100 ft^2.

(2) At least three bulk samples shall be collected from each homogeneous area that is greater than 100 ft^2.

Suspect asbestos containing materials identified during this survey, that were sampled and analyzed with reported concentrations of asbestos *greater than one percent (≥ 1%)* have been categorized as an Asbestos Containing Material (ACM) subject to applicable federal and state regulations for removal, handling and disposal.

Materials *containing trace amounts of asbestos* less than 1% asbestos are not regulated by NESHAP or AHERA or RIDEM; however, the Occupational Safety and Health Administration regulates the removal and handling of materials containing any level of asbestos in accordance with the OSHA Asbestos Standard.

Lead compounds such as lead carbonate and lead chromate were widely used in paints for pigment, durability, drying, and corrosion resistance purposes. The Occupational Safety and Health Administration (OSHA) Standard 29 CFR 1926.62 applies to all construction work where an employee may be occupationally exposed to lead. This OSHA regulation does not cite a specific percentage of lead in paint which requires compliance, therefore, *work activities that have the potential to impact building surfaces containing any measurable levels of lead in paint* (above the laboratory analytical detection limit), are subject to the regulation. OSHA Regulation 29 CFR 1926.62 (Lead in Construction) does not recognize a "safe" or "acceptable" level of lead in dried paint film. Construction activities disturbing surfaces containing LBP which are likely to be employed (i.e., grinding, cutting, and demolishing) have been known to expose workers to airborne levels of lead in excess of the permissible exposure limit (PEL).

Lead-in-paint values were compared to the HUD threshold for a paint to be considered a lead-based paint (LBP) of 0.5 % lead by weight or by a concentration of 1.0 mg/cm^2 as well as the requirements cited in OSHA's Lead in Construction Standard (29 CFR 1926.62).

PCBs are regulated under the federal Toxic Substances Control Act (TSCA) 40 CFR §761. Under TSCA 40 CFR§761.62, PCBs present in building material products (i.e., materials intentionally manufactured with PCBs) at concentrations ≥ 50 milligram per kilogram (mg/kg) are classified as *PCB Bulk Product Waste* (PCB BPW). There are regulatory requirements pertaining to management and disposal of PCB BPW, and proper removal of the PCB BPW may be required prior to demolition.

Source materials containing greater than or equal to (≥) 50 ppm PCBs as reported by laboratory analytical methods are categorized as PCB Bulk Product Waste in accordance with 40 CFR 761.3

Excerpt from 40 CFR 761.3 Definitions –

> *"PCB Bulk Product Waste means wastes derived from manufactured products containing PCBs in a non-liquid state at any concentration where the concentration at the time of designation for disposal was > 50 ppm PCBs….PCB Bulk Product Waste includes, but is not limited to: (1) non-liquid bulk wastes or the debris from the demolition of buildings and other man made structures manufactured, coated or serviced with PCBs…."*

For materials containing greater than 1 mg/kg but less than 50 mg/kg PCBs, EPA considers material to be one of the following, depending on the conceptual site model and management strategy employed by the owner of the materials:

- As PCB Remediation Waste, subject to regulation under 40 CFR 761.61 for cleanup of releases of TSCA-regulated wastes.
- As PCB Excluded Product, wherein PCBs were present at concentrations less than 50 mg/kg at the time of their application.
- As PCB Bulk Product waste, if the materials are in contact with and managed in conjunction with PCB bulk product waste.

RIDOT in consultation with EPA has developed guidance to address the detection of PCBs in caulk on bridges where concentrations of PCBs are greater than 1 mg/kg, but less than 50 mg/kg. This technical

guidance, which directs contractors in determining the applicability of federal TSCA regulations given at 40 CFR 761, is titled “Technical Guidance – PCB Site Investigation: Technical Guidance Regarding PCBs.”

The current guidance directs contactors to manage material to manage caulk containing greater than 1 mg/kg PCBs as PCB Bulk Product Waste for the purposes of clean-up, handling, transport, and disposal. PCB source materials identified by this sampling program with reported concentrations of PCBs above 1 mg/kg have been categorized as PCB Bulk Product Waste in accordance with this guidance.

Materials managed as PCB Bulk Product Waste or PCB Remediation Waste are not accepted at the RIRRC Central Landfill, nor are they suitable for recycling. There are construction and demolition landfills outside New England that are permitted to accept PCB Bulk Product Waste. Disposal of PCB Remediation Waste is strictly controlled, and there are only a handful of facilities in the country that may accept it without EPA approval.

Removal of the asbestos containing materials (ACMs), lead-based paint, PCB Bulk Product Waste, PCB excluded product and PCB Remediation Waste is subject to worker protections, abatement/removal regulations and waste handling regulations, including but not limited to:

- 29 CFR 1926.62 OSHA Lead Standard for the Construction Industry
- 29 CFR 1926.65 OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER)
- 29 CFR 1926.1101 Asbestos Construction Standard
- 40 CFR Part 61 Subpart M Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP)
- 40 CFR 761 Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions
- 40 CFR 763 Subpart E Appendix C Asbestos Model Accreditation Plan
- 216-RICR-50-15-1 Asbestos Control
- 250-RICR-140-05-1 Rules and Regulations for Solid Waste Management Facilities and Organic Waste Management Facilities.

The following sections provide a summary of the materials associated with Bridge 955 and Bridge 956 observed and sampled during the September 5, 2023 inspection.

Bridge Materials Testing – Bridge 955

On September 5, 2023, the underside and deck of Bridge 955 was inspected, and bulk samples were collected of the following materials for analysis for asbestos. Photos of sampled materials are provided in Attachment A.

Three samples of each suspect asbestos containing material observed during the September 5, 2023 *accessible at the time of the inspection* were collected for analysis of asbestos in accordance with applicable guidance. Three bulk samples of each of the following materials were collected and analyzed for asbestos by EMSL Woburn:

- Bridge 955 (01ABC) Sidewalk and Road Seam – Black caulking, reported as non-detect for asbestos
- Bridge 955 (02ABC) Gray Cementitious Material between metal railing supports and sidewalks, reported as non-detect for asbestos
- Bridge 955 (03ABC) Black/brown elbow wrap on pipe, big pipe under bridge
  - Reported concentration of 12% chrysotile asbestos, material categorized as an Asbestos Containing Material (ACM) for the purposes of removal and disposal
- Bridge 955 (04ABC) Black/brown pipe tar wrap, small pipe under bridge,
  - Reported concentration of 15% chrysotile asbestos, material categorized as an Asbestos Containing Material (ACM) for the purposes of removal and disposal

- Bridge 955 (05ABC) Black/brown pipe penetration wrap on pipe, big pipe under bridge,
  - Reported concentration of 18% chrysotile asbestos, material categorized as an Asbestos Containing Material (ACM) for the purposes of removal and disposal;
- Bridge 955 (06ABC) Sidewalk seam Black fibrous sidewalk pad, reported as non-detect for asbestos
- Bridge 955 (07ABC) Black support pads under bridge, under metal supports, reported as non-detect for asbestos

Laboratory analytical results for bulk asbestos samples for Bridge 955 are presented in Table 1. A copy of the EMSL Woburn laboratory analytical report for the bulk asbestos samples above collected from Bridge 955 is included in Attachment B.

On September 5, 2023, the underside and deck of Bridge 955 were inspected for suspect PCB source materials. Individual bulk samples of suspect source materials identified and *accessible at the time of the inspection*. Photos of sampled materials are provided in Attachment A. The following identified and accessible source materials were sampled and analyzed for PCBs by EMSL Cinnaminson by SW-846 EPA 8082 with 3546 microwave assisted solvent extraction:

- Bridge 955 (L-01) Railing and I Beams- green paint on metal, 1 bulk sample, non-detect for PCBs
  - Laboratory reporting limit of 0.25 milligram per kilogram (mg/Kg)
- Bridge 955 (L-02) Abutment,- grey paint on concrete, 1 bulk sample, non-detect for PCBs
  - Laboratory reporting limit of 0.25 milligram per kilogram (mg/Kg)

Laboratory analytical results for bulk PCB source samples for Bridge 955 are presented in Table 2-1 and Table 2-2. A copy of the EMSL Cinnaminson laboratory analytical reports for the suspect PCB source material bulk paint samples collected from Bridge 955 are included in Attachment B.

Additional bulk samples of suspect PCB source materials identified and *accessible at the time of the inspection* were sampled and analyzed for PCBs. One bulk sample for each of following identified and accessible source materials were sampled and analyzed for PCBs by Eurofins of North Kingstown, Rhode Island by SW-846 EPA 8082 with 3540C Soxhlet extraction:

- Bridge 955 (P-01) Black caulking on sidewalk and bridge roadway,
  - non-detect for PCBs, Laboratory reporting limit of 0.557 milligram per kilogram (mg/Kg)
- Bridge 955 (P-02) Cementitious material between bridge and rail supports,
  - Non-detect for PCBs, Laboratory reporting limit of 0.130 mg/Kg
- Bridge 955 (P-03) Black elbow wrap on big pipe under bridge
  - Non-detect for PCBs, Laboratory reporting limit of 0.615 mg/Kg
- Bridge 955 (P-04) Black pipe tar wrap on smaller pipe under bridge
  - Non-detect for PCBs, Laboratory reporting limit of 0.305 mg/Kg
- Bridge 955 (P-05) Black pipe penetration wrap on pipe under bridge
  - 0.905 mg/Kg PCBs (Aroclor 1254)
- Bridge 955 (P-06) Black fibrous sidewalk pad
  - Non-detect for PCBs, Laboratory reporting limit of 0.620 mg/Kg
- Bridge 955 (P-07) Black support pad
  - 0.566 mg/Kg PCBs (Aroclor 1254)

A copy of the Eurofins laboratory analytical reports for the suspect PCB source material bulk samples collected from Bridge 955 are included in Attachment B.

Characterization samples of the surface coatings on the Bridge 955 components were collected at the time of the September 5, 2023 inspection. Two distinct coatings were observed and sampled, a green paint on metal structural components of the bridge and a gray paint on the concrete abutment of the bridge. Photos of sampled materials are provided in Attachment A. Concentrations of lead in the green paint on metal structural components were reported at 47 percent by weight and concentrations of the lead in the grey paint on the concrete abutment were reported at 0.078 percent by weight. Laboratory analytical results for bulk lead-based paint chip samples for Bridge 955 are presented in Table 3. Copies of the EMSL Hillside, Indiana analytical laboratory report are included with this report as Attachment B.

Bridge Materials Testing – Bridge 956

On September 5, 2023, the underside and deck of Bridge 956 was inspected, and bulk samples were collected of the following materials for analysis for asbestos. Photos of sampled materials are provided in Attachment C.

Three samples of each suspect asbestos containing material observed during the September 5, 2023 accessible at the time of the inspection were collected for analysis of asbestos in accordance with applicable guidance. Three bulk samples of each of the following materials were collected and analyzed for asbestos by EMSL Woburn:

- Bridge 956 (01ABC) Sidewalk Seam and Bridge Seam – Black caulking, non-detect for asbestos
- Bridge 956 (02ABC) Sidewalk seam, ends – Black fibrous sidewalk pads, non-detect for asbestos
- Bridge 956 (03ABC) Cracks on road, black crack sealant - non-detect for asbestos
- Bridge 956 (04ABC) Black elbow wrap on pipe, big pipe under bridge,
  - Reported concentration of 7 % chrysotile asbestos, material categorized as an Asbestos Containing Material (ACM) for the purposes of removal and disposal
- Bridge 956 (05ABC) Black pipe tar wrap on pipe, small pipe under bridge,
  - Reported concentration of 6 % chrysotile asbestos, material categorized as an Asbestos Containing Material (ACM) for the purposes of removal and disposal;
- Bridge 956 (06ABC) Black Pipe penetration caulking on big pipe, under bridge,
  - Reported concentration of 7 % chrysotile asbestos, material categorized as an Asbestos Containing Material (ACM) for the purposes of removal and disposal;
- Bridge 956 (07ABC) Black support pads under bridge, reported as non-detect for asbestos

Laboratory analytical results for bulk asbestos samples for Bridge 955 are presented in Table 4. A copy of the EMSL Woburn laboratory analytical report for the bulk asbestos samples above collected from Bridge 956 is included in Attachment D.

On September 5, 2023, the underside and deck of Bridge 956 were inspected for suspect PCB source materials. Individual bulk samples of suspect source materials identified and *accessible at the time of the inspection*. Photos of sampled materials are provided in Attachment C. The following identified and accessible source materials were sampled and analyzed for PCBs by EMSL Cinnaminson by SW-846 EPA 8082 with 3546 microwave assisted solvent extraction:

- Bridge 956 (L-01) Railing and I Beams- green paint on metal, 1 bulk sample, non-detect for PCBs
  - Laboratory reporting limit of 0.24 milligram per kilogram (mg/Kg)

Laboratory analytical results for bulk PCB source samples for Bridge 956 are presented in Table 5-1 and Table 5-2. A copy of the EMSL Cinnaminson laboratory analytical reports for the suspect PCB source material bulk paint samples collected from Bridge 956 are included in Attachment D.

Additional bulk samples of suspect PCB source materials identified and *accessible at the time of the inspection* were sampled and analyzed for PCBs. One bulk sample for each of following identified and accessible source materials were sampled and analyzed for PCBs by Eurofins of North Kingstown, Rhode Island by SW-846 EPA 8082 with 3540C Soxhlet extraction:

- Bridge 956 (P-01) Black caulking at sidewalk and bridge seams
  - Total PCBs reported at 2.034 mg/Kg (0.824 mg/Kg Aroclor 1254 and 1.210 mg/Kg Aroclor 1268) material is categorized as a PCB Bulk Product Waste for the purposes of handling and disposal in accordance with 40 CFR 761.
- Bridge 956 (P-02) Black fibrous sidewalk pad at sidewalk seams
  - Non-detect for PCBs, Laboratory reporting limit of 0.585 mg/Kg
- Bridge 956 (P-03) Black crack sealant at bridge road
  - Non-detect for PCBs, Laboratory reporting limit of 1.490 mg/Kg
- Bridge 956 (P-04) Black pipe elbow wrap under bridge
  - 2.440 mg/Kg Total PCBs reported as Aroclor 1254, material is categorized as a PCB Bulk Product Waste for the purposes of handling and disposal in accordance with 40 CFR 761.
- Bridge 956 (P-05) Black pipe tar wrap under bridge
  - 1.440 mg/Kg Total PCBs reported as Aroclor 1254, material is categorized as a PCB Bulk Product Waste for the purposes of handling and disposal in accordance with 40 CFR 761.
- Bridge 956 (P-06) Black pipe penetration wrap under bridge
  - 1.920 mg/Kg Total PCBs reported as Aroclor 1254, material is categorized as a PCB Bulk Product Waste for the purposes of handling and disposal in accordance with 40 CFR 761.
- Bridge 956 (P-07) Black support pads under bridge
  - 0.333 mg/Kg Total PCBs reported as Aroclor 1254

A copy of the Eurofins laboratory analytical reports for the suspect PCB source material bulk samples collected from Bridge 956 are included in Attachment D.

Characterization samples of the surface coatings on the Bridge 956 components were collected at the time of the September 5, 2023 inspection. Distinct coatings were observed and sampled, including a green paint on metal structural components of the bridge. Photos of sampled materials are provided in Attachment C. Concentrations of lead in the green paint on metal structural components were reported at 38 percent by weight. Laboratory analytical results for bulk lead-based paint chip samples for Bridge 956 are presented in Table 6. Copies of the EMSL Hillside, Indiana analytical laboratory report are included with this report as Attachment D.

Bridge Materials Discussion

The State of Rhode Island Department of Transportation contracted AECOM to perform a comprehensive hazardous material inspection of accessible materials associated with Bridge 955 and Bridge 956 in support of proposed bridge maintenance/improvements. The requested comprehensive hazardous material survey was performed on September 5, 2023.

AECOM has identified several identified materials as Asbestos Containing Materials (ACM), PCB Bulk Product Waste, and Lead-Based Paint. Removal of the asbestos containing materials (ACMs), lead-based paint and PCB excluded product is subject to worker protections, abatement/removal regulations and waste handling regulations, including but not limited to:

- 29 CFR 1926.1101 Asbestos Construction Standard
- 29 CFR 1926.62 OSHA Lead Standard for the Construction Industry
- 29 CFR 1926.65 OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER)
- 40 CFR Part 61 Subpart M National Emission Standard for Asbestos
- 40 CFR 761 Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions
- 40 CFR 763 Subpart E Appendix C Asbestos Model Accreditation Plan

- 216-RICR-50-15-1 Asbestos Control
- 250-RICR-140-05-1 Rules and Regulations for Solid Waste Management Facilities and Organic Waste Management Facilities.

AECOM performed the comprehensive hazardous materials inspections on Bridge 955 and Bridge 956 and the following represents a summary of the findings based on visual inspection and laboratory analytical results for identified suspect materials accessible at the time of the inspection.

The following sections provide a summary of the materials associated with Bridge 955 and Bridge 956 observed and sampled during the September 5, 2023 inspection that are subject to the regulatory requirements mentioned above.

Bridge 955 – Asbestos Containing Materials (ACMs)

AECOM collected twenty-one (21) individual bulk samples of suspect asbestos containing materials representing seven (7) separate homogeneous materials associated with Bridge 955.

Three homogeneous materials identified during the inspection of Bridge 955 have been categorized as Asbestos Containing Materials (ACMs) with reported concentrations above 1 percent asbestos as follows:

- Black/brown elbow wrap on big pipe under Bridge 955;
- Black/brown pipe tar wrap on small pipe under Bridge 955; and
- Black/brown pipe penetration wrap on big pipe under Bridge 955

Based on the analytical results for the inspection and sampling of Bridge 955, indicating these materials contain greater than one percent asbestos, the three homogeneous materials identified above, associated with Bridge 955 are to be handled as Asbestos Containing Materials (ACM) for the purposes of removal, handling and disposal. Additional materials discovered during site work, construction and demolition associated with Bridge 955 not mentioned in this report are to be assumed to contain asbestos until properly inspected and sampled by a properly EPA MAP certified and Rhode Island licensed inspector and analyzed by a properly accredited analytical laboratory.

Bridge 955 – PCB Suspect Source Material Summary

AECOM collected nine individual characterization samples of identified suspect PCB source materials accessible at the time of the survey. Based on the laboratory analytical results for the nine characterization samples collected from suspect source materials observed on Bridge 955 reported below 1 milligram per kilogram (mg/Kg), the nine identified suspect source materials sampled identified in this AECOM report are not subject to regulation under US EPA 40 CFR 761 or RIDEM regulations.

Based on the current RIDOT “Technical Guidance – PCB Site Investigation” document, collection and analysis of additional bulk samples of each of the suspect PCB source materials is required to meet the required three bulk samples per source material.

Bridge 955 – Lead-Based Paint Summary

AECOM collected tow individual grab samples of surface coatings from Bridge 955 components accessible at the time of the survey. Based on the laboratory analytical results for the two characterization samples collected, the predominant green paint coating observed on Bridge 955 is to be categorized as Lead-Based Paint for the purposes of removal, handling and disposal, including applicable employee/worker hazcom procedures, worker/employee protection and employee/worker personal monitoring.

Bridge 956 – Asbestos Containing Materials (ACMs)

AECOM collected twenty-one (21) individual bulk samples of suspect asbestos containing materials representing seven (7) separate homogeneous materials associated with Bridge 956.

Three homogeneous materials identified during the inspection of Bridge 956 have been categorized as Asbestos Containing Materials (ACMs) with reported concentrations greater than 1 percent asbestos as follows:

- Black elbow wrap on pipe, big pipe under Bridge 956;
- Black pipe tar wrap on pipe, small pipe under Bridge 956; and
- Black Pipe penetration caulking on big pipe under Bridge 956

Based on the analytical results for the inspection and sampling of Bridge 956, indicating these materials contain greater than one percent asbestos, the three homogeneous materials identified above, associated with Bridge 956 are to be handled as Asbestos Containing Materials (ACM) for the purposes of removal, handling and disposal. Additional materials discovered during site work, construction and demolition associated with Bridge 956 not mentioned in this report are to be assumed to contain asbestos until properly inspected and sampled by a properly EPA MAP certified and Rhode Island licensed inspector and analyzed by a properly accredited analytical laboratory.

Bridge 956 – PCB Suspect Source Material Summary

AECOM collected nine individual characterization samples of identified suspect PCB source materials accessible at the time of the survey. Based on the laboratory analytical results for the nine characterization samples collected from suspect source materials observed on Bridge 956, four of the identified suspect source materials have been categorized as a PCB Bulk Product Waste in accordance with US EPA 40 CFR 761 for the purposes of the removal, handling, and disposal. These The four materials categorized as PCB Bulk Product Waste per the EPA/RIDOT agreement are:

- Black caulking at sidewalk and bridge seams
- Black pipe elbow wrap under bridge
- Black pipe tar wrap under bridge
- Black pipe penetration wrap under bridge

Based on the current RIDOT “Technical Guidance – PCB Site Investigation” document, collection and analysis of additional bulk samples of each of the suspect PCB source materials is required to meet the required three bulk samples per source material for suspect materials not already characterized as PCB Bulk Product Waste. Sampling of substrate adjacent to PCB Bulk Product Waste (e.g,. concrete sidewalk adjacent to caulk) is likewise required in accordance with current RIDOT guidance.

Bridge 956 – Lead-Based Paint Summary

AECOM collected one grab sample of surface coatings from Bridge 956 components accessible at the time of the survey. Based on the laboratory analytical results for the characterization sample collected, the predominant green paint coating observed on Bridge 956 is to be categorized as Lead-Based Paint for the purposes of removal, handling and disposal, including applicable employee/worker hazcom procedures, worker/employee protection and employee/worker personal monitoring.

Bridge 955 and Bridge 956 Recommendations

Based on the summarized findings above for the laboratory analytical results of the samples collected during the September 5, 2023 comprehensive inspections of Bridge 955 and Bridge 956, several materials subject to being disturbed during the proposed bridge repair, maintenance and/or demolition activities have been categorized as Asbestos Containing Materials (ACMs), lead-based paint(LBP) and/or PCB Bulk Product Waste subject to the applicable federal, state and local regulations.

- Asbestos Containing Materials identified on Bridge 955 to include: Black/brown elbow wrap on big pipe under Bridge 955, Black/brown pipe tar wrap on small pipe under Bridge 955 and Black/brown pipe penetration wrap on big pipe under Bridge 955 subject to potential disturbance during the bridge repair, maintenance and/or demolition activities must be properly removed/abated by a State of Rhode Island licensed asbestos contractor utilizing properly EPA MAP trained/certified and State of Rhode Island licensed asbestos supervisor(s) and asbestos worker(s).
- Asbestos Containing Materials identified on Bridge 956 to include: black caulking at sidewalk and bridge seams, black pipe elbow wrap under bridge, black pipe tar wrap under bridge, and black

pipe penetration wrap under bridge subject to potential disturbance during the bridge repair, maintenance and/or demolition activities must be properly removed/abated by a State of Rhode Island licensed asbestos contractor utilizing properly EPA MAP trained/certified and State of Rhode Island licensed asbestos supervisor(s) and asbestos worker(s).

AECOM recommends preparing an asbestos abatement specification prepared by a properly EPA MAP trained/accredited and State of Rhode Island licensed project designer and a hazardous materials specification in support of the bidding process for the proposed Bridge 955 and 956 maintenance/improvement activities. This hazardous materials assessment report for RIDOT Bridges 955 and 956 is intended to provide data by which to develop further plans for assessment and management of materials but and is not intended to represent a bidding document.

Please let us know if you have any questions on the attached.

Yours sincerely,

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Attachments:

Table 1	Summary of Asbestos Bulk Sample Analytical Results
Table 2-1	Summary of PCB Suspect Source Material Bulk Sample Analytical Results
Table 2-2	Summary of PCB Suspect Source Material Bulk Sample Analytical Results
Table 3	Summary of Suspect Lead-based Paint Bulk Sample Analytical Results
Table 4	Summary of Asbestos Bulk Sample Analytical Results
Table 5-1	Summary of PCB Suspect Source Material Bulk Sample Analytical Results
Table 5-2	Summary of PCB Suspect Source Material Bulk Sample Analytical Results
Table 6	Summary of Suspect Lead-based Paint Bulk Sample Analytical Results

Attachment A	Photos of Sampled Materials - Bridge 955
Attachment B	Bridge 955 Laboratory Analytical Reports
Attachment C	Photos of Sampled Materials - Bridge 956
Attachment D	Bridge 956 Laboratory Analytical Reports

Tables

AECOM

Table 1 Summary of Asbestos Bulk Sample Analytical Results
Bridge 955 – Singleton Street
Woonsocket, Rhode Island

Sample	Description	Location	% Asbestos
01A	Sidewalk and Road Seam – Black caulking	Sidewalk and road seam	None Detected
01B	Sidewalk and Road Seam – Black caulking	Sidewalk and road seam	None Detected
01C	Sidewalk and Road Seam – Black caulking	Sidewalk and road seam	None Detected
02A	Gray Cementitious Material	Between metal railings and supports	None Detected
02B	Gray Cementitious Material	Between metal railings and supports	None Detected
02C	Gray Cementitious Material	Between metal railings and supports	None Detected
03A	**Black/brown elbow wrap on pipe**	**Big pipe under bridge**	**12% Chrysotile**
03B	**Black/brown elbow wrap on pipe**	**Big pipe under bridge**	**Positive Stop/NA**
03C	**Black/brown elbow wrap on pipe**	**Big pipe under bridge**	**Positive Stop/NA**
04A	**Black/brown pipe tar wrap on pipe**	**Small pipe under bridge**	**15% Chrysotile**
04B	**Black/brown pipe tar wrap on pipe**	**Small pipe under bridge**	**Positive Stop/NA**
04C	**Black/brown pipe tar wrap on pipe**	**Small pipe under bridge**	**Positive Stop/NA**
05A	**Black/brown pipe penetration wrap on big pipe**	**Big pipe under bridge**	**18% Chrysotile**
05B	**Black/brown pipe penetration wrap on big pipe**	**Big pipe under bridge**	**Positive Stop/NA**
05C	**Black/brown pipe penetration wrap on big pipe**	**Big pipe under bridge**	**Positive Stop/NA**
06A	Black fibrous sidewalk pad at sidewalk seam	at sidewalk seam	None Detected
06B	Black fibrous sidewalk pad at sidewalk seam	at sidewalk seam	None Detected
06C	Black fibrous sidewalk pad at sidewalk seam	at sidewalk seam	None Detected
07A	Black support pads	Under metal bridge supports under bridge	None Detected
07B	Black support pads	Under metal bridge supports under bridge	None Detected
07C	Black support pads	Under metal bridge supports under bridge	None Detected

Notes

1. Bulk samples were analyzed by EMSL Woburn of Woburn, Massachusetts by AHERA Method 40CFR 763 Subpart E Appendix E with EPA 600/R-93/11 using Polarized Light Microscopy.
2. “Positive Stop/NA = This suspect material was identified as containing >1% asbestos and therefore no further analysis was performed on additional samples of this material.”

AECOM

Table 2-1 Summary of PCB Suspect Source Material Bulk Sample Analytical Results
Bridge 955 – Singleton Street
Woonsocket, Rhode Island

Sample	Description	Location	RL (mg/Kg)	Total PCBs (mg/Kg)
L-01	Green paint on metal structures of bridge	Railings and I-Beams	0.25	Non-detect
L-02	Grey paint on concrete abutment under bridge	Abutment	0.25	Non-detect

Notes
1. RL Denotes analytical laboratory reporting limit.
2. Bulk samples in Table 2-1 were analyzed by EMSL Cinnaminson of Cinnaminson, New Jersey for EPA 8082 PCBs with 3546 microwave extraction.

Table 2-2 Summary of PCB Suspect Source Material Bulk Sample Analytical Results
Bridge 955 – Singleton Street
Woonsocket, Rhode Island

Sample	Description	Location	RL (mg/Kg)	Total PCBs (mg/Kg)	Aroclor
P-01	Black caulking	Sidewalk and bridge roadway	0.557	Non-detect	
P-02	Cementitious material	Between bridge and railing supports	0.130	Non-detect	
P-03	Black elbow wrap on pipe	Under bridge. Big pipe	0.615	Non-detect	
P-04	Black pipe tar wrap	Under bridge, small pipe	0.305	Non-detect	
P-05	Black pipe penetration wrap	Under bridge, big pipe	0.571	**0.905**	PCB- 1254
P-06	Black fibrous sidewalk pad	Sidewalk seam	0.620	Non-detect	
P-07	Black support pas	Under bridge	0.275	**0.566**	PCB- 1254

Notes
1. RL Denotes analytical laboratory reporting limit.
2. Bulk samples in Table 2-2 were analyzed by Eurofins of New England of Providence, Rhode Island for EPA 8082 PCBs with 3540C soxhlet extraction.
3. **BOLD** denotes samples contained reported concentrations of PCBs above the Eurofins laboratory reporting limit.

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Table 3 Summary of Suspect Lead-based Paint Bulk Sample Analytical Results
Bridge 955 – Singleton Street
Woonsocket, Rhode Island

Sample	Description	Location	Weight	Lead Concentration (%)
L-01	**Green paint on metal structures of bridge**	**Railings and I-Beams**	**0.2529 g**	**47 %**
L-02	Grey paint on concrete abutment under bridge	Abutment	0.25 g	0.078 %

Notes

1. Bulk samples in Table 3 were analyzed by EMSL Chicago of Hillside, Illinois for SW-846 Lead in Paint Chips by Flame AAS (SW846 3050B/7050B)

AECOM

Table 4 Summary of Asbestos Bulk Sample Analytical Results
Bridge 956 – River Street
Woonsocket, Rhode Island

Sample	Description	Location	% Asbestos
01A	Sidewalk and Road Seam – Black caulking	Sidewalk and road seam	None Detected
01B	Sidewalk and Road Seam – Black caulking	Sidewalk and road seam	None Detected
01C	Sidewalk and Road Seam – Black caulking	Sidewalk and road seam	None Detected
02A	Black fibrous sidewalk pads	Sidewalk Seam Ends	None Detected
02B	Black fibrous sidewalk pads	Sidewalk Seam Ends	None Detected
02C	Black fibrous sidewalk pads	Sidewalk Seam Ends	None Detected
03A	Cracks on Road- Black Crack Sealant	Cracks on Road	None Detected
03B	Cracks on Road- Black Crack Sealant	Cracks on Road	None Detected
03C	Cracks on Road- Black Crack Sealant	Cracks on Road	None Detected
04A	**Black elbow wrap on pipe**	**Big pipe under bridge**	**7 % Chrysotile**
04B	**Black elbow wrap on pipe**	**Big pipe under bridge**	**Positive Stop/NA**
04C	**Black elbow wrap on pipe**	**Big pipe under bridge**	**Positive Stop/NA**
05A	**Black pipe tar wrap on big pipe**	**Small pipe under bridge**	**6% Chrysotile**
05B	**Black pipe tar wrap on big pipe**	**Small pipe under bridge**	**Positive Stop/NA**
05C	**Black pipe tar wrap on big pipe**	**Small pipe under bridge**	**Positive Stop/NA**
06A	**Black pipe penetration caulking**	**Big pipe under bridge**	**7 % Chrysotile**
06B	**Black pipe penetration caulking**	**Big pipe under bridge**	**Positive Stop/NA**
06C	**Black pipe penetration caulking**	**Big pipe under bridge**	**Positive Stop/NA**
07A	Black support pads	Under metal bridge supports under bridge	None Detected
07B	Black support pads	Under metal bridge supports under bridge	None Detected
07C	Black support pads	Under metal bridge supports under bridge	None Detected

Notes

1. Bulk samples were analyzed by EMSL Woburn of Woburn, Massachusetts by AHERA Method 40CFR 763 Subpart E Appendix E with EPA 600/R-93/11 using Polarized Light Microscopy.
2. “Positive Stop/NA = This suspect material was identified as containing >1% asbestos and therefore no further analysis was performed on additional samples of this material.”

AECOM

Table 5-1 Summary of PCB Suspect Source Material Bulk Sample Analytical Results
Bridge 956 – River Street
Woonsocket, Rhode Island

Sample	Description	Location	RL (mg/Kg)	Total PCBs (mg/Kg)	Aroclor
L-01	Green paint on metal structures of bridge	Railings and I-Beams	0.24	Non-detect	

Notes
1. RL Denotes analytical laboratory reporting limit.
2. Bulk samples in Table 5-1 were analyzed by EMSL Cinnaminson of Cinnaminson, New Jersey for EPA 8082 PCBs with 3546 microwave extraction.

Table 5-2 Summary of PCB Suspect Source Material Bulk Sample Analytical Results
Bridge 956 – River Street
Woonsocket, Rhode Island

Sample	Description	Location	RL (mg/Kg)	Total PCBs (mg/Kg)	Aroclor
P-01	**Black caulking**	**Sidewalk and bridge roadway**	**0.557**	**0.824** **1.210**	**PCB-1254** **PCB-1268**
P-02	Cementitious material	Between bridge and railing supports	0.585	Non-detect	
P-03	Black elbow wrap on pipe	Under bridge. Big pipe	1.490	Non-detect	
P-04	Black pipe tar wrap	Under bridge, small pipe	1.430	**2.440**	PCB-1254
P-05	Black pipe penetration wrap	Under bridge, big pipe	0.272	**1.440**	PCB-1254
P-06	Black fibrous sidewalk pad	Sidewalk seam	1.370	**1.920**	PCB-1254
P-07	Black support pas	Under bridge	0.262	**0.333**	PCB-1254

Notes
1. RL Denotes analytical laboratory reporting limit.
2. Bulk samples in Table 5-2 were analyzed by Eurofins of New England of Providence, Rhode Island for EPA 8082 PCBs with 3540C soxhlet extraction.
3. **BOLD** denotes samples contained reported concentrations of PCBs above the Eurofins laboratory reporting limit.

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Table 6 Summary of Suspect Lead-based Paint Bulk Sample Analytical Results
Bridge 956 – River Street
Woonsocket, Rhode Island

Sample	Description	Location	Weight	Lead Concentration (%)
L-01	**Green paint on metal structures of bridge**	**Railings and I-Beams**	**0.2528 g**	**38 %**

Notes

1. Bulk samples in Table 6 were analyzed by EMSL Chicago of Hillside, Illinois for SW-846 Lead in Paint Chips by Flame AAS (SW846 3050B/7050B)

Attachment A – Photos of Sampled Materials - Bridge 955

AECOM

PHOTOGRAPH LOG

Facility Name:	**Site Location:**	**Project No.**
RIDOT BG26C Bridge 955 Woonsocket, Rhode Island	Singleton Street Woonsocket, Rhode Island	60708347

Photo No. 1/2	**Date:** September 2023	
Photo 1 depicting: Black caulking at sidewalk seams Photo 2 depicting: Black caulking at sidewalk seams		

Photo No. 3/4	**Date:** September 2023	
Photo 3 depicting: Black elbow wrap on pipe Photo 4 depicting: Black elbow wrap on pipe		

Photo No. 5/6	**Date:** September 2023	
Photo 5 Depicting: Black fibrous sidewalk pad Photo 6 depicting Black fibrous sidewalk pad		

Photo No. 7/8	**Date:** September 2023	
Photo 7 depicting: Black pipe penetration wrap **Photo 8 depicting:** Black pipe tar wrap		

Photo No. 9/10	**Date:** September 2023	
Photo 9 Depicting: Black support pad **Photo 10 depicting:** Cementitious material		

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PHOTOGRAPH LOG

Facility Name:	**Site Location:**	**Project No.**
RIDOT BG26C Bridge 955 Woonsockett, Rhode Island	Singleton Street Woonsockett, Rhode Island	60708347

Photo No. 11 / 12	**Date:** September 2023		
Photo 11 Description: Damaged green paint on metal Photo 12 Description: Damaged green paint on metal			

Photo No. 13/14	**Date:** September 2023		
Photo 13 Description: Damaged green paint on metal			INTENTIONALLY LEFT BLANK

Attachment B – Bridge 955 Laboratory Analytical Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Patrick Haskell
AECOM
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Providence, Rhode Island 02904

Generated 9/25/2023 8:03:18 AM

JOB DESCRIPTION

RIDOT Bridge 955 - Woonsocket, RI

JOB NUMBER

620-13881-1

Eurofins New England
646 Camp Ave
North Kingstown RI 02852

See page two for job notes and contact information.

Job Notes

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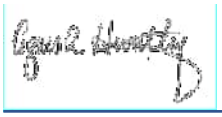
Authorization



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Definitions/Glossary

Client: AECOM
Job ID: 620-13881-1
Project/Site: RIDOT Bridge 955 - Woonsocket, RI

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: AECOM
Job ID: 620-13881-1
Project/Site: RIDOT Bridge 955 - Woonsocket, RI

Job ID: 620-13881-1

Laboratory: Eurofins New England

Narrative

Job Narrative
620-13881-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 9/13/2023 12:24 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 22.0°C

PCBs
Method 8082A: The %D for the surrogates in the aroclor CCV was outside of the recommended control limits for the following sample: (CCV 620-26918/4) and (CCV 620-26918/5). The surrogates recoveries and the aroclor target peaks were within control limits. The surrogate is reported based on the 1016/1260 continuing calibration.

Method 8082A: Due to the matrix, the following sample could not be concentrated to the final method required volume: P-01 (620-13881-1). The reporting limits (RLs) are elevated proportionately.

Method 8082A: Due to the matrix, the following samples could not be concentrated to the final method required volume: P-03 (620-13881-3), P-05 (620-13881-5) and P-06 (620-13881-6). The reporting limits (RLs) are elevated proportionately.

Method 8082A: Internal Standard recovery flag was removed due to a TALs calculation error. The CCV's associated have passing internal area counts. The data was reported. (CCV 620-26960/4) and (CCV 620-26960/50)

Method 8082A: The %D for the surrogates in the 1221/1254 aroclor CCV was outside of the recommended control limits for the following sample: (CCV 620-27071/4). The surrogates recoveries and the 1221/1254 aroclor target peaks were within control limits. The surrogate is reported based on the 1016/1260 continuing calibration.

Method 8082A: The DCB Decachlorobiphenyl (Surr) surrogate recovery for the following samples was outside acceptance limits (low biased) on the confirmation column: (CCV 620-27071/20). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control. All data was reported off the primary column.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: AECOM
Job ID: 620-13881-1
Project/Site: RIDOT Bridge 955 - Woonsocket, RI

Client Sample ID: P-01 — Lab Sample ID: 620-13881-1

No Detections.

Client Sample ID: P-02 — Lab Sample ID: 620-13881-2

No Detections.

Client Sample ID: P-03 — Lab Sample ID: 620-13881-3

No Detections.

Client Sample ID: P-04 — Lab Sample ID: 620-13881-4

No Detections.

Client Sample ID: P-05 — Lab Sample ID: 620-13881-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
PCB-1254	905		571		ug/Kg	1		8082A	Total/NA

Client Sample ID: P-06 — Lab Sample ID: 620-13881-6

No Detections.

Client Sample ID: P-07 — Lab Sample ID: 620-13881-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
PCB-1254	566		275		ug/Kg	1		8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Client: AECOM
Job ID: 620-13881-1
Project/Site: RIDOT Bridge 955 - Woonsocket, RI

Client Sample ID: P-01
Lab Sample ID: 620-13881-1
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		557		ug/Kg		09/18/23 16:40	09/20/23 23:22	1
PCB-1221	ND		557		ug/Kg		09/18/23 16:40	09/20/23 23:22	1
PCB-1232	ND		557		ug/Kg		09/18/23 16:40	09/20/23 23:22	1
PCB-1242	ND		557		ug/Kg		09/18/23 16:40	09/20/23 23:22	1
PCB-1248	ND		557		ug/Kg		09/18/23 16:40	09/20/23 23:22	1
PCB-1254	ND		557		ug/Kg		09/18/23 16:40	09/20/23 23:22	1
PCB-1260	ND		557		ug/Kg		09/18/23 16:40	09/20/23 23:22	1
PCB-1262	ND		557		ug/Kg		09/18/23 16:40	09/20/23 23:22	1
PCB-1268	ND		557		ug/Kg		09/18/23 16:40	09/20/23 23:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*86*		*30 - 150*	*09/18/23 16:40*	*09/20/23 23:22*	*1*
Tetrachloro-m-xylene	*97*		*30 - 150*	*09/18/23 16:40*	*09/20/23 23:22*	*1*
DCB Decachlorobiphenyl (Surr)	*87*		*30 - 150*	*09/18/23 16:40*	*09/20/23 23:22*	*1*
DCB Decachlorobiphenyl (Surr)	*85*		*30 - 150*	*09/18/23 16:40*	*09/20/23 23:22*	*1*

Client: AECOM
Job ID: 620-13881-1
Project/Site: RIDOT Bridge 955 - Woonsocket, RI

Client Sample ID: P-02
Lab Sample ID: 620-13881-2
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		130		ug/Kg		09/18/23 16:50	09/20/23 23:40	1
PCB-1221	ND		130		ug/Kg		09/18/23 16:50	09/20/23 23:40	1
PCB-1232	ND		130		ug/Kg		09/18/23 16:50	09/20/23 23:40	1
PCB-1242	ND		130		ug/Kg		09/18/23 16:50	09/20/23 23:40	1
PCB-1248	ND		130		ug/Kg		09/18/23 16:50	09/20/23 23:40	1
PCB-1254	ND		130		ug/Kg		09/18/23 16:50	09/20/23 23:40	1
PCB-1260	ND		130		ug/Kg		09/18/23 16:50	09/20/23 23:40	1
PCB-1262	ND		130		ug/Kg		09/18/23 16:50	09/20/23 23:40	1
PCB-1268	ND		130		ug/Kg		09/18/23 16:50	09/20/23 23:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*75*		*30 - 150*	*09/18/23 16:50*	*09/20/23 23:40*	*1*
Tetrachloro-m-xylene	*86*		*30 - 150*	*09/18/23 16:50*	*09/20/23 23:40*	*1*
DCB Decachlorobiphenyl (Surr)	*56*		*30 - 150*	*09/18/23 16:50*	*09/20/23 23:40*	*1*
DCB Decachlorobiphenyl (Surr)	*63*		*30 - 150*	*09/18/23 16:50*	*09/20/23 23:40*	*1*

Client: AECOM
Job ID: 620-13881-1
Project/Site: RIDOT Bridge 955 - Woonsocket, RI

Client Sample ID: P-03
Lab Sample ID: 620-13881-3
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		615		ug/Kg		09/18/23 16:50	09/20/23 23:58	1
PCB-1221	ND		615		ug/Kg		09/18/23 16:50	09/20/23 23:58	1
PCB-1232	ND		615		ug/Kg		09/18/23 16:50	09/20/23 23:58	1
PCB-1242	ND		615		ug/Kg		09/18/23 16:50	09/20/23 23:58	1
PCB-1248	ND		615		ug/Kg		09/18/23 16:50	09/20/23 23:58	1
PCB-1254	ND		615		ug/Kg		09/18/23 16:50	09/20/23 23:58	1
PCB-1260	ND		615		ug/Kg		09/18/23 16:50	09/20/23 23:58	1
PCB-1262	ND		615		ug/Kg		09/18/23 16:50	09/20/23 23:58	1
PCB-1268	ND		615		ug/Kg		09/18/23 16:50	09/20/23 23:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*86*		*30 - 150*	*09/18/23 16:50*	*09/20/23 23:58*	*1*
Tetrachloro-m-xylene	*85*		*30 - 150*	*09/18/23 16:50*	*09/20/23 23:58*	*1*
DCB Decachlorobiphenyl (Surr)	*76*		*30 - 150*	*09/18/23 16:50*	*09/20/23 23:58*	*1*
DCB Decachlorobiphenyl (Surr)	*80*		*30 - 150*	*09/18/23 16:50*	*09/20/23 23:58*	*1*

Client: AECOM
Job ID: 620-13881-1
Project/Site: RIDOT Bridge 955 - Woonsocket, RI

Client Sample ID: P-04
Lab Sample ID: 620-13881-4
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		305		ug/Kg		09/18/23 16:50	09/22/23 15:25	1
PCB-1221	ND		305		ug/Kg		09/18/23 16:50	09/22/23 15:25	1
PCB-1232	ND		305		ug/Kg		09/18/23 16:50	09/22/23 15:25	1
PCB-1242	ND		305		ug/Kg		09/18/23 16:50	09/22/23 15:25	1
PCB-1248	ND		305		ug/Kg		09/18/23 16:50	09/22/23 15:25	1
PCB-1254	ND		305		ug/Kg		09/18/23 16:50	09/22/23 15:25	1
PCB-1260	ND		305		ug/Kg		09/18/23 16:50	09/22/23 15:25	1
PCB-1262	ND		305		ug/Kg		09/18/23 16:50	09/22/23 15:25	1
PCB-1268	ND		305		ug/Kg		09/18/23 16:50	09/22/23 15:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*41*		*30 - 150*	*09/18/23 16:50*	*09/22/23 15:25*	*1*
Tetrachloro-m-xylene	*48*		*30 - 150*	*09/18/23 16:50*	*09/22/23 15:25*	*1*
DCB Decachlorobiphenyl (Surr)	*41*		*30 - 150*	*09/18/23 16:50*	*09/22/23 15:25*	*1*
DCB Decachlorobiphenyl (Surr)	*32*		*30 - 150*	*09/18/23 16:50*	*09/22/23 15:25*	*1*

Client: AECOM
Job ID: 620-13881-1
Project/Site: RIDOT Bridge 955 - Woonsocket, RI

Client Sample ID: P-05
Lab Sample ID: 620-13881-5
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		571		ug/Kg		09/18/23 16:50	09/21/23 00:16	1
PCB-1221	ND		571		ug/Kg		09/18/23 16:50	09/21/23 00:16	1
PCB-1232	ND		571		ug/Kg		09/18/23 16:50	09/21/23 00:16	1
PCB-1242	ND		571		ug/Kg		09/18/23 16:50	09/21/23 00:16	1
PCB-1248	ND		571		ug/Kg		09/18/23 16:50	09/21/23 00:16	1
PCB-1254	**905**		571		ug/Kg		09/18/23 16:50	09/21/23 00:16	1
PCB-1260	ND		571		ug/Kg		09/18/23 16:50	09/21/23 00:16	1
PCB-1262	ND		571		ug/Kg		09/18/23 16:50	09/21/23 00:16	1
PCB-1268	ND		571		ug/Kg		09/18/23 16:50	09/21/23 00:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*77*		*30 - 150*	*09/18/23 16:50*	*09/21/23 00:16*	*1*
Tetrachloro-m-xylene	*92*		*30 - 150*	*09/18/23 16:50*	*09/21/23 00:16*	*1*
DCB Decachlorobiphenyl (Surr)	*76*		*30 - 150*	*09/18/23 16:50*	*09/21/23 00:16*	*1*
DCB Decachlorobiphenyl (Surr)	*75*		*30 - 150*	*09/18/23 16:50*	*09/21/23 00:16*	*1*

Client: AECOM
Job ID: 620-13881-1
Project/Site: RIDOT Bridge 955 - Woonsocket, RI

Client Sample ID: P-06
Lab Sample ID: 620-13881-6
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		620		ug/Kg		09/18/23 16:50	09/21/23 00:33	1
PCB-1221	ND		620		ug/Kg		09/18/23 16:50	09/21/23 00:33	1
PCB-1232	ND		620		ug/Kg		09/18/23 16:50	09/21/23 00:33	1
PCB-1242	ND		620		ug/Kg		09/18/23 16:50	09/21/23 00:33	1
PCB-1248	ND		620		ug/Kg		09/18/23 16:50	09/21/23 00:33	1
PCB-1254	ND		620		ug/Kg		09/18/23 16:50	09/21/23 00:33	1
PCB-1260	ND		620		ug/Kg		09/18/23 16:50	09/21/23 00:33	1
PCB-1262	ND		620		ug/Kg		09/18/23 16:50	09/21/23 00:33	1
PCB-1268	ND		620		ug/Kg		09/18/23 16:50	09/21/23 00:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*88*		*30 - 150*	*09/18/23 16:50*	*09/21/23 00:33*	*1*
Tetrachloro-m-xylene	*93*		*30 - 150*	*09/18/23 16:50*	*09/21/23 00:33*	*1*
DCB Decachlorobiphenyl (Surr)	*65*		*30 - 150*	*09/18/23 16:50*	*09/21/23 00:33*	*1*
DCB Decachlorobiphenyl (Surr)	*63*		*30 - 150*	*09/18/23 16:50*	*09/21/23 00:33*	*1*

Client: AECOM
Job ID: 620-13881-1
Project/Site: RIDOT Bridge 955 - Woonsocket, RI

Client Sample ID: P-07
Lab Sample ID: 620-13881-7
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		275		ug/Kg		09/18/23 16:50	09/21/23 00:51	1
PCB-1221	ND		275		ug/Kg		09/18/23 16:50	09/21/23 00:51	1
PCB-1232	ND		275		ug/Kg		09/18/23 16:50	09/21/23 00:51	1
PCB-1242	ND		275		ug/Kg		09/18/23 16:50	09/21/23 00:51	1
PCB-1248	ND		275		ug/Kg		09/18/23 16:50	09/21/23 00:51	1
PCB-1254	**566**		275		ug/Kg		09/18/23 16:50	09/21/23 00:51	1
PCB-1260	ND		275		ug/Kg		09/18/23 16:50	09/21/23 00:51	1
PCB-1262	ND		275		ug/Kg		09/18/23 16:50	09/21/23 00:51	1
PCB-1268	ND		275		ug/Kg		09/18/23 16:50	09/21/23 00:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*75*		*30 - 150*	*09/18/23 16:50*	*09/21/23 00:51*	*1*
Tetrachloro-m-xylene	*88*		*30 - 150*	*09/18/23 16:50*	*09/21/23 00:51*	*1*
DCB Decachlorobiphenyl (Surr)	*58*		*30 - 150*	*09/18/23 16:50*	*09/21/23 00:51*	*1*
DCB Decachlorobiphenyl (Surr)	*65*		*30 - 150*	*09/18/23 16:50*	*09/21/23 00:51*	*1*

Surrogate Summary

Client: AECOM
Job ID: 620-13881-1
Project/Site: RIDOT Bridge 955 - Woonsocket, RI

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(30-150)	(30-150)	(30-150)	(30-150)
620-13881-1	P-01	86	97	87	85
620-13881-2	P-02	75	86	56	63
620-13881-3	P-03	86	85	76	80
620-13881-4	P-04	41	48	41	32
620-13881-5	P-05	77	92	76	75
620-13881-6	P-06	88	93	65	63
620-13881-7	P-07	75	88	58	65
LCS 620-26898/2-A	Lab Control Sample	89	93	90	86
LCS 620-26899/2-A	Lab Control Sample	67	71	84	84
LCSD 620-26898/3-A	Lab Control Sample Dup	84	89	84	81
LCSD 620-26899/3-A	Lab Control Sample Dup	83	87	82	78
MB 620-26898/1-A	Method Blank	84	87	81	75
MB 620-26899/1-A	Method Blank	78	85	86	87

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl (Surr)

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 620-26898/1-A
Matrix: Solid
Analysis Batch: 26918

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26898

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		20.0		ug/Kg		09/18/23 16:36	09/19/23 11:24	1
PCB-1221	ND		20.0		ug/Kg		09/18/23 16:36	09/19/23 11:24	1
PCB-1232	ND		20.0		ug/Kg		09/18/23 16:36	09/19/23 11:24	1
PCB-1242	ND		20.0		ug/Kg		09/18/23 16:36	09/19/23 11:24	1
PCB-1248	ND		20.0		ug/Kg		09/18/23 16:36	09/19/23 11:24	1
PCB-1254	ND		20.0		ug/Kg		09/18/23 16:36	09/19/23 11:24	1
PCB-1260	ND		20.0		ug/Kg		09/18/23 16:36	09/19/23 11:24	1
PCB-1262	ND		20.0		ug/Kg		09/18/23 16:36	09/19/23 11:24	1
PCB-1268	ND		20.0		ug/Kg		09/18/23 16:36	09/19/23 11:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*84*		*30 - 150*	*09/18/23 16:36*	*09/19/23 11:24*	*1*
Tetrachloro-m-xylene	*87*		*30 - 150*	*09/18/23 16:36*	*09/19/23 11:24*	*1*
DCB Decachlorobiphenyl (Surr)	*81*		*30 - 150*	*09/18/23 16:36*	*09/19/23 11:24*	*1*
DCB Decachlorobiphenyl (Surr)	*75*		*30 - 150*	*09/18/23 16:36*	*09/19/23 11:24*	*1*

Lab Sample ID: LCS 620-26898/2-A
Matrix: Solid
Analysis Batch: 26918

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26898

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016			167	151.8		ug/Kg		91	41 - 127		
PCB-1016			167	157.4		ug/Kg		94	41 - 127		
PCB-1260			167	183.2		ug/Kg		110	40 - 140		
PCB-1260			167	183.4		ug/Kg		110	40 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*89*		*30 - 150*
Tetrachloro-m-xylene	*93*		*30 - 150*
DCB Decachlorobiphenyl (Surr)	*90*		*30 - 150*
DCB Decachlorobiphenyl (Surr)	*86*		*30 - 150*

Lab Sample ID: LCSD 620-26898/3-A
Matrix: Solid
Analysis Batch: 26918

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 26898

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016			167	147.9		ug/Kg		89	41 - 127	3	30
PCB-1016			167	151.4		ug/Kg		91	41 - 127	4	30
PCB-1260			167	172.1		ug/Kg		103	40 - 140	6	30
PCB-1260			167	173.3		ug/Kg		104	40 - 140	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*84*		*30 - 150*
Tetrachloro-m-xylene	*89*		*30 - 150*
DCB Decachlorobiphenyl (Surr)	*84*		*30 - 150*
DCB Decachlorobiphenyl (Surr)	*81*		*30 - 150*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 620-26899/1-A
Matrix: Solid
Analysis Batch: 26960

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26899

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		20.0		ug/Kg		09/18/23 16:50	09/20/23 12:50	1
PCB-1221	ND		20.0		ug/Kg		09/18/23 16:50	09/20/23 12:50	1
PCB-1232	ND		20.0		ug/Kg		09/18/23 16:50	09/20/23 12:50	1
PCB-1242	ND		20.0		ug/Kg		09/18/23 16:50	09/20/23 12:50	1
PCB-1248	ND		20.0		ug/Kg		09/18/23 16:50	09/20/23 12:50	1
PCB-1254	ND		20.0		ug/Kg		09/18/23 16:50	09/20/23 12:50	1
PCB-1260	ND		20.0		ug/Kg		09/18/23 16:50	09/20/23 12:50	1
PCB-1262	ND		20.0		ug/Kg		09/18/23 16:50	09/20/23 12:50	1
PCB-1268	ND		20.0		ug/Kg		09/18/23 16:50	09/20/23 12:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*78*		*30 - 150*	*09/18/23 16:50*	*09/20/23 12:50*	*1*
Tetrachloro-m-xylene	*85*		*30 - 150*	*09/18/23 16:50*	*09/20/23 12:50*	*1*
DCB Decachlorobiphenyl (Surr)	*86*		*30 - 150*	*09/18/23 16:50*	*09/20/23 12:50*	*1*
DCB Decachlorobiphenyl (Surr)	*87*		*30 - 150*	*09/18/23 16:50*	*09/20/23 12:50*	*1*

Lab Sample ID: LCS 620-26899/2-A
Matrix: Solid
Analysis Batch: 26960

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26899

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016			167	153.7		ug/Kg		92	41 - 127		
PCB-1016			167	152.2		ug/Kg		91	41 - 127		
PCB-1260			167	187.3		ug/Kg		112	40 - 140		
PCB-1260			167	186.9		ug/Kg		112	40 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*67*		*30 - 150*
Tetrachloro-m-xylene	*71*		*30 - 150*
DCB Decachlorobiphenyl (Surr)	*84*		*30 - 150*
DCB Decachlorobiphenyl (Surr)	*84*		*30 - 150*

Lab Sample ID: LCSD 620-26899/3-A
Matrix: Solid
Analysis Batch: 26960

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 26899

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016			167	156.4		ug/Kg		94	41 - 127	2	30
PCB-1016			167	165.4		ug/Kg		99	41 - 127	8	30
PCB-1260			167	184.2		ug/Kg		111	40 - 140	2	30
PCB-1260			167	182.1		ug/Kg		109	40 - 140	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*83*		*30 - 150*
Tetrachloro-m-xylene	*87*		*30 - 150*
DCB Decachlorobiphenyl (Surr)	*82*		*30 - 150*
DCB Decachlorobiphenyl (Surr)	*78*		*30 - 150*

QC Association Summary

Client: AECOM
Job ID: 620-13881-1
Project/Site: RIDOT Bridge 955 - Woonsocket, RI

GC Semi VOA

Prep Batch: 26898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-13881-1	P-01	Total/NA	Solid	3540C	
MB 620-26898/1-A	Method Blank	Total/NA	Solid	3540C	
LCS 620-26898/2-A	Lab Control Sample	Total/NA	Solid	3540C	
LCSD 620-26898/3-A	Lab Control Sample Dup	Total/NA	Solid	3540C	

Prep Batch: 26899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-13881-2	P-02	Total/NA	Solid	3540C	
620-13881-3	P-03	Total/NA	Solid	3540C	
620-13881-4	P-04	Total/NA	Solid	3540C	
620-13881-5	P-05	Total/NA	Solid	3540C	
620-13881-6	P-06	Total/NA	Solid	3540C	
620-13881-7	P-07	Total/NA	Solid	3540C	
MB 620-26899/1-A	Method Blank	Total/NA	Solid	3540C	
LCS 620-26899/2-A	Lab Control Sample	Total/NA	Solid	3540C	
LCSD 620-26899/3-A	Lab Control Sample Dup	Total/NA	Solid	3540C	

Analysis Batch: 26918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 620-26898/1-A	Method Blank	Total/NA	Solid	8082A	26898
LCS 620-26898/2-A	Lab Control Sample	Total/NA	Solid	8082A	26898
LCSD 620-26898/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	26898

Analysis Batch: 26960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-13881-1	P-01	Total/NA	Solid	8082A	26898
620-13881-2	P-02	Total/NA	Solid	8082A	26899
620-13881-3	P-03	Total/NA	Solid	8082A	26899
620-13881-5	P-05	Total/NA	Solid	8082A	26899
620-13881-6	P-06	Total/NA	Solid	8082A	26899
620-13881-7	P-07	Total/NA	Solid	8082A	26899
MB 620-26899/1-A	Method Blank	Total/NA	Solid	8082A	26899
LCS 620-26899/2-A	Lab Control Sample	Total/NA	Solid	8082A	26899
LCSD 620-26899/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	26899

Analysis Batch: 27071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-13881-4	P-04	Total/NA	Solid	8082A	26899

Lab Chronicle

Client: AECOM
Job ID: 620-13881-1
Project/Site: RIDOT Bridge 955 - Woonsocket, RI

Client Sample ID: P-01
Lab Sample ID: 620-13881-1
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3540C			26898	AAH	EET NE	09/18/23 16:40
Total/NA	Analysis	8082A		1	26960	SFL	EET NE	09/20/23 23:22

Client Sample ID: P-02
Lab Sample ID: 620-13881-2
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3540C			26899	AAH	EET NE	09/18/23 16:50
Total/NA	Analysis	8082A		1	26960	SFL	EET NE	09/20/23 23:40

Client Sample ID: P-03
Lab Sample ID: 620-13881-3
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3540C			26899	AAH	EET NE	09/18/23 16:50
Total/NA	Analysis	8082A		1	26960	SFL	EET NE	09/20/23 23:58

Client Sample ID: P-04
Lab Sample ID: 620-13881-4
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3540C			26899	AAH	EET NE	09/18/23 16:50
Total/NA	Analysis	8082A		1	27071	SFL	EET NE	09/22/23 15:25

Client Sample ID: P-05
Lab Sample ID: 620-13881-5
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3540C			26899	AAH	EET NE	09/18/23 16:50
Total/NA	Analysis	8082A		1	26960	SFL	EET NE	09/21/23 00:16

Client Sample ID: P-06
Lab Sample ID: 620-13881-6
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3540C			26899	AAH	EET NE	09/18/23 16:50
Total/NA	Analysis	8082A		1	26960	SFL	EET NE	09/21/23 00:33

Lab Chronicle

Client: AECOM
Job ID: 620-13881-1
Project/Site: RIDOT Bridge 955 - Woonsocket, RI

Client Sample ID: P-07
Lab Sample ID: 620-13881-7
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3540C			26899	AAH	EET NE	09/18/23 16:50
Total/NA	Analysis	8082A		1	26960	SFL	EET NE	09/21/23 00:51

Laboratory References:

EET NE = Eurofins New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

Accreditation/Certification Summary

Client: AECOM
Job ID: 620-13881-1
Project/Site: RIDOT Bridge 955 - Woonsocket, RI

Laboratory: Eurofins New England

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Rhode Island	State	LAI00368	12-31-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8082A	3540C	Solid	PCB-1016
8082A	3540C	Solid	PCB-1221
8082A	3540C	Solid	PCB-1232
8082A	3540C	Solid	PCB-1242
8082A	3540C	Solid	PCB-1248
8082A	3540C	Solid	PCB-1254
8082A	3540C	Solid	PCB-1260
8082A	3540C	Solid	PCB-1262
8082A	3540C	Solid	PCB-1268

Method Summary

Client: AECOM
Job ID: 620-13881-1
Project/Site: RIDOT Bridge 955 - Woonsocket, RI

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET NE
3540C	Soxhlet Extraction	SW846	EET NE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET NE = Eurofins New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

Sample Summary

Client: AECOM
Job ID: 620-13881-1
Project/Site: RIDOT Bridge 955 - Woonsocket, RI

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
620-13881-1	P-01	Solid	09/05/23 00:00	09/13/23 12:24
620-13881-2	P-02	Solid	09/05/23 00:00	09/13/23 12:24
620-13881-3	P-03	Solid	09/05/23 00:00	09/13/23 12:24
620-13881-4	P-04	Solid	09/05/23 00:00	09/13/23 12:24
620-13881-5	P-05	Solid	09/05/23 00:00	09/13/23 12:24
620-13881-6	P-06	Solid	09/05/23 00:00	09/13/23 12:24
620-13881-7	P-07	Solid	09/05/23 00:00	09/13/23 12:24

620-13881 Chain of Custody

13881

250 Apollo Drive
Chelmsford, MA. 01824

CHAIN OF CUSTODY RECORD

PAGE 1 OF ____

REPORT/INVOICE TO (NAME): Patrick Haskell patrick.Haskell@aecom.com	**PLEASE PROVIDE RESULTS BY:** ☒ EMAIL ☐ FAX

☐	1155 Elm Street, Manchester, NH, 03101	☒	250 Apollo Drive, Chelmsford, MA. 01824
☐	1 Federal Street, Boston, MA, 02110	☐	10 Orms Street, #405, Providence, RI, 02904
☐	500 Enterprise Drive, #1a, Rocky Hill, CT, 06067	☐	
☐	**Stop at first Positive**	☐	

EMAIL ADDRESS (Results): patrick.Haskell@aecom.com	**TELEPHONE #:** 978-866-9078
PROJECT NUMBER: 60708347 **TASK NUMBER:**	**REQUESTED TURN-AROUND TIME:** Standard 2 weeks
CLIENT/PROJECT NAME: RIDOT	**SAMPLES COLLECTED BY:** Bob Jacque
LOCATION/ DESCRIPTON: Bridge 955	**SIGNATURE:** Bob Jacque
ADDRESS: Singleton St, Woonsocket, RI	**DATE:** 9/12/23

SPECIAL INSTRUCTIONS:

ASBESTOS BULK SAMPLE ANALYSIS

- ☐ PLM BULK (EPA 600/R-93/116)
- ☐ TEM EPA NOB (600/R-93/116B)
- ☐ MAINE PROTOCOL
  - ☐ • EPA 600/R-93/116
  - ☐ • PLM EPA NOB *(for NOB materials only)*
  - ☐ • TEM EPA NOB *(for NOB materials only)*
- ☐ NEW YORK STATE PROTOCOL
  - ☐ • PLM NYS Friable 198.1
  - ☐ • PLM NOB (Gravimetric) NYS 198.1
  - • TEM NOB (Gravimetric) NYS 198.4

FUNGAL ANALYSIS

AIR SAMPLES

- ☐ Mold & Fungi by Spore Trap
- ☐ Mold & Fungi Culture (Genus Only)
- ☐ Mold & Fungi Culture (Genus & Species)

WIPE & BULK SAMPLES

- ☐ Mold & Fungi - Direct Examination (Tape Lift, Swab, Bulk)
- ☐ Mold & Fungi Culture (Genus Only)
- ☐ Mold & Fungi Culture (Genus & Species)

Lead

- ☐ PAINT CHIPS (SW-846-7000B)
- ☐ WIPES (SW-846-7000B)
- ☐ AIR (NIOSH 7082)
- ☐ SOILS (SW-846-7000B)
- ☐ DRINKING WATER (EPA 200.9)

PCB

- ☐ PCB WIPE (SW-846-3550C / 8082A)
- ☒ PCB BULK (SW-846-3550C / 8082A / 608.3)
- ☐ PCB AIR SAMPLE (TO-10A)
- ☐ PCB AIR SAMPLE (TO-4A)
- ☐ DATA PACKAGE NEEDED

RELINQUISHED BY: Bob Jacque		**RECEIVED BY:**	
DATE: 9/12/23	**TIME:** 1300	**DATE:** 9/12/23	**TIME:** 12:24

v2014-05

13881

AECOM	250 Apollo Drive Chelmsford, Massachusetts 01824	PCB AIR / BULK SAMPLE CHAIN OF CUSTODY RECORD	PAGE 2 OF 2

CLIENT/PROJECT NAME: RIDOT	INSPECTOR'S NAME: Bob Jacque	REQUESTED TURN-AROUND TIME: Standard 2 week
LOCATION/ DESCRIPTON: Bridge 955	SIGNATURE: Bob Jacque	PROJECT NUMBER: 60708347
ADDRESS: Singleton St, Woonsocket, RI	DATE: 9/12/23	LABORATORY NUMBER:

NOTES / COMMENTS: ~~Analyze all air samples using EPA TO-10A Method~~

SAMPLE ID # (1, 2, 3 ONLY; DO NOT USE a, b, c)	Type	SAMPLE DESCRIPTION: MATERIAL / EMPLOYEE ID	Date of Sample	SAMPLE LOCATION (S)	TIME / CONDITION / AMOUNT: Start Time	Stop Time	Flow Rate	Volume	MATRIX
-1 P-01	Bulk	Black Caulking	9/5/23	sidewalk & Bridge road					
-2 P-02		Cementitious material		Between Bridge & rail supports					
-3 P-03		Black Elbow wrap on pipe		under Bridge, Big pipe					
-4 P-04		Black pipe tar wrap		under Bridge, small pipe					
-5 P-05		Black pipe Penetration ~~Caulking~~ Wrap		under Bridge, Big pipe					
-6 P-06		Black Fibrous Sidewalk Pad		sidewalk seam					
-7 P-07		Black support pads		under Bridge					

Type - C=Composite, G=grab, AA=Area Air, PA=Personal Air

RELINQUISHED BY: Bob Jacque	DATE: 9/12/23	TIME: 1300	RECEIVED BY:	DATE: 9/12/23	TIME: 12:24
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:

21.8 +0.2 22.0 #6 AMB

ORIGIN ID:BXCA (413) 320-6760
ROBERT JACQUE
AECOM
168 FELTON STREET

WALTHAM, MA 02453
UNITED STATES US

SHIP DATE: 11SEP23
ACTWGT: 1.00 LB
CAD: 308600009/INET4642

BILL CREDIT CARD

TO **SAMPLES RECEIVING**
EUROFINS ENVIRONMENTAL TESTING
646 CAMP AVENUE

NORTH KINGSTOWN RI 02852
(413) 789-9018 REF:
INV: DEPT:
PO:

583J4/8B35/9AE3

FedEx Express

J233123073101uv

TUE - 12 SEP 10:30A
PRIORITY OVERNIGHT

TRK# 7733 7088 4931
0201

04 NCOA

02852
RI-US PVD

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Login Sample Receipt Checklist

Client: AECOM

Job Number: 620-13881-1

Login Number: 13881

List Source: Eurofins New England

List Number: 1

Creator: Makhoul, Elie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Refer to Job Narrative for details.
Cooler Temperature is acceptable.	False	Refer to Job Narrative for details.
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

http://www.EMSL.com / bostonlab@emsl.com

EMSL Order:	132306163
Customer ID:	AMMA25
Customer PO:	60708347
Project ID:	

Attention:	Patrick Haskell	**Phone:**	(978) 905-2100
	AECOM	**Fax:**	(978) 905-2101
	250 Apollo Drive	**Received Date:**	09/22/2023 8:30 AM
	Chelmsford, MA 01824	**Analysis Date:**	09/27/2023
		Collected Date:	09/21/2023

Project: 60708347 - RIDOT; Bridge 955; Singleton Street; Woonsocket, RI

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
01A *132306163-0001*	Sidewalk & Road Seam - Black Caulking	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
01B *132306163-0002*	Sidewalk & Road Seam - Black Caulking	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
01C *132306163-0003*	Sidewalk & Road Seam - Black Caulking	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
02A *132306163-0004*	Between Metal Railing Supports & Sidewalk - Gray Cementitious Material	Brown/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
02B *132306163-0005*	Between Metal Railing Supports & Sidewalk - Gray Cementitious Material	Brown/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
02C *132306163-0006*	Between Metal Railing Supports & Sidewalk - Gray Cementitious Material	Brown/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
03A *132306163-0007*	Big Pipe, under Bridge - Black/Brown Elbow Wrap on Pipe	Gray/Black Fibrous Homogeneous		88% Non-fibrous (Other)	12% Chrysotile
03B *132306163-0008*	Big Pipe, under Bridge - Black/Brown Elbow Wrap on Pipe				Positive Stop (Not Analyzed)
03C *132306163-0009*	Big Pipe, under Bridge - Black/Brown Elbow Wrap on Pipe				Positive Stop (Not Analyzed)
04A *132306163-0010*	Small Pipe, under Bridge - Black/Brown Pipe Tar Wrap	Brown/Black Fibrous Homogeneous	25% Synthetic	60% Non-fibrous (Other)	15% Chrysotile
04B *132306163-0011*	Small Pipe, under Bridge - Black/Brown Pipe Tar Wrap				Positive Stop (Not Analyzed)
04C *132306163-0012*	Small Pipe, under Bridge - Black/Brown Pipe Tar Wrap				Positive Stop (Not Analyzed)
05A *132306163-0013*	Big Pipe, under Bridge - Black/Brown Pipe Penetration Wrap	Brown/Black Fibrous Homogeneous		82% Non-fibrous (Other)	18% Chrysotile
05B *132306163-0014*	Big Pipe, under Bridge - Black/Brown Pipe Penetration Wrap				Positive Stop (Not Analyzed)

Initial report from: 09/27/2023 08:39:11

EMSL Analytical, Inc.
5 Constitution Way, Unit A Woburn, MA 01801
Tel/Fax: (781) 933-8411 / (781) 933-8412
http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132306163
Customer ID: AMMA25
Customer PO: 60708347
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
05C *132306163-0015*	Big Pipe, under Bridge - Black/Brown Pipe Penetration Wrap				Positive Stop (Not Analyzed)
06A *132306163-0016*	Sidewalk Seam - Black Fibrous Sidewalk Pad	Black Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
06B *132306163-0017*	Sidewalk Seam - Black Fibrous Sidewalk Pad	Black Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
06C *132306163-0018*	Sidewalk Seam - Black Fibrous Sidewalk Pad	Black Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
07A *132306163-0019*	Under Bridge, under Metal Bridge Supports - Black Support Pads	Red/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
07B *132306163-0020*	Under Bridge, under Metal Bridge Supports - Black Support Pads	Red/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
07C *132306163-0021*	Under Bridge, under Metal Bridge Supports - Black Support Pads	Red/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)
Ramon Buenaventura (15)

Steve Grise, Laboratory Manager
or Other Approved Signatory

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Samples analyzed by EMSL Analytical, Inc. Woburn, MA NVLAP Lab Code 101147-0, CT PH-0315, MA AA000188, RI AAL-139, VT AL998919, ME LB-0039

Initial report from: 09/27/2023 08:39:11

EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077
Telephone: 856-858-4800 Fax:856-786-5974
EMSL-CIN-01

EMSL Order ID: 012362692
LIMS Reference ID: AB62692
EMSL Customer ID: AMMA25

October 09, 2023

Patrick Haskell
AECOM [AMMA25]
250 Apollo Drive
Chelmsford, MA 01824

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 9/27/2023. The results are tabulated on the attached pages for the following client designated project:

60708347-Bridge 955

The reference number for these samples is EMSL Order #: AB62692 . Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact the lab at 856-858-4800.

Owen McKenna Laboratory Manager or other approved signatory

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LIMS Reference ID: AB62692
EMSL Customer ID: AMMA25

Attention: Patrick Haskell
AECOM [AMMA25]
250 Apollo Drive
Chelmsford, MA 01824
(978) 905-2100
patrick.haskell@aecom.com

Project Name: 60708347-Bridge 955
Customer PO:
EMSL Sales Rep: Christopher Brandt
Received: 09/27/2023 14:15
Reported: 10/09/2023 18:06

Sample Condition on Receipt

Cooler ID: Default Cooler **Temperature:** **°C**

Custody Seals	Y
Containers Intact	Y
COC/Labels Agree	Y
Preservation Confirmed	Y

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patrick.haskell@aecom.com

Project Name: 60708347-Bridge 955
Customer PO:
EMSL Sales Rep: Christopher Brandt
Received: 09/27/2023 14:15
Reported: 10/09/2023 18:06

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
AB62692-01	L-01	Solid	09/26/2023	09/27/2023
AB62692-02	L-02	Solid	09/26/2023	09/27/2023

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Project Name: 60708347-Bridge 955

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LIMS Reference ID: AB62692
EMSL Customer ID: AMMA25

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(978) 905-2100
patrick.haskell@aecom.com

Project Name: 60708347-Bridge 955
Customer PO:
EMSL Sales Rep: Christopher Brandt
Received: 09/27/2023 14:15
Reported: 10/09/2023 18:06

Sample Results

Sample: L-01/Railings/I-Beams
AB62692-01 (Solid)

Analyte	Result	Q	DF	RL	Units	Prepared Date/Time	Analyzed Date/Time	Prep/Analyst Initials	Prep Method	Analytical Method
GC-SVOA										
Aroclor-1016	ND		1	0.25	mg/kg	10/04/23 13:01	10/06/23 15:35	MxB/TL1	SW846 3546	SW 846-8082A
Aroclor-1221	ND		1	0.25	mg/kg	10/04/23 13:01	10/06/23 15:35	MxB/TL1	SW846 3546	SW 846-8082A
Aroclor-1232	ND		1	0.25	mg/kg	10/04/23 13:01	10/06/23 15:35	MxB/TL1	SW846 3546	SW 846-8082A
Aroclor-1242	ND		1	0.25	mg/kg	10/04/23 13:01	10/06/23 15:35	MxB/TL1	SW846 3546	SW 846-8082A
Aroclor-1248	ND		1	0.25	mg/kg	10/04/23 13:01	10/06/23 15:35	MxB/TL1	SW846 3546	SW 846-8082A
Aroclor-1254	ND		1	0.25	mg/kg	10/04/23 13:01	10/06/23 15:35	MxB/TL1	SW846 3546	SW 846-8082A
Aroclor-1260	ND		1	0.25	mg/kg	10/04/23 13:01	10/06/23 15:35	MxB/TL1	SW846 3546	SW 846-8082A
Aroclor-1262	ND		1	0.25	mg/kg	10/04/23 13:01	10/06/23 15:35	MxB/TL1	SW846 3546	SW 846-8082A
Aroclor-1268	ND		1	0.25	mg/kg	10/04/23 13:01	10/06/23 15:35	MxB/TL1	SW846 3546	SW 846-8082A
Surrogate(s)	**Recovery**	**Q**		**Limits**						
Surrogate: Tetrachloro-m-xylene	*56%*			*21-123*		10/04/23 13:01	10/06/23 15:35	MxB/TL1	SW846 3546	*SW 846-8082A*
Surrogate: Decachlorobiphenyl	*65%*			*17-128*		10/04/23 13:01	10/06/23 15:35	MxB/TL1	SW846 3546	*SW 846-8082A*

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EMSL-CIN-01

EMSL Order ID: 012362692
LIMS Reference ID: AB62692
EMSL Customer ID: AMMA25

Attention: Patrick Haskell
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250 Apollo Drive
Chelmsford, MA 01824
(978) 905-2100
patrick.haskell@aecom.com

Project Name: 60708347-Bridge 955
Customer PO:
EMSL Sales Rep: Christopher Brandt
Received: 09/27/2023 14:15
Reported: 10/09/2023 18:06

Sample Results
(Continued)

Sample: L-02/Abatment
AB62692-02 (Solid)

Analyte	Result	Q	DF	RL	Units	Prepared Date/Time	Analyzed Date/Time	Prep/Analyst Initials	Prep Method	Analytical Method
GC-SVOA										
Aroclor-1016	ND		1	0.25	mg/kg	10/04/23 13:01	10/06/23 15:57	MxB/TL1	SW846 3546	SW 846-8082A
Aroclor-1221	ND		1	0.25	mg/kg	10/04/23 13:01	10/06/23 15:57	MxB/TL1	SW846 3546	SW 846-8082A
Aroclor-1232	ND		1	0.25	mg/kg	10/04/23 13:01	10/06/23 15:57	MxB/TL1	SW846 3546	SW 846-8082A
Aroclor-1242	ND		1	0.25	mg/kg	10/04/23 13:01	10/06/23 15:57	MxB/TL1	SW846 3546	SW 846-8082A
Aroclor-1248	ND		1	0.25	mg/kg	10/04/23 13:01	10/06/23 15:57	MxB/TL1	SW846 3546	SW 846-8082A
Aroclor-1254	ND		1	0.25	mg/kg	10/04/23 13:01	10/06/23 15:57	MxB/TL1	SW846 3546	SW 846-8082A
Aroclor-1260	ND		1	0.25	mg/kg	10/04/23 13:01	10/06/23 15:57	MxB/TL1	SW846 3546	SW 846-8082A
Aroclor-1262	ND		1	0.25	mg/kg	10/04/23 13:01	10/06/23 15:57	MxB/TL1	SW846 3546	SW 846-8082A
Aroclor-1268	ND		1	0.25	mg/kg	10/04/23 13:01	10/06/23 15:57	MxB/TL1	SW846 3546	SW 846-8082A
Surrogate(s)	**Recovery**	**Q**		**Limits**						
Surrogate: Tetrachloro-m-xylene	*46%*			*21-123*		10/04/23 13:01	10/06/23 15:57	MxB/TL1	SW846 3546	*SW 846-8082A*
Surrogate: Decachlorobiphenyl	*52%*			*17-128*		10/04/23 13:01	10/06/23 15:57	MxB/TL1	SW846 3546	*SW 846-8082A*

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EMSL-CIN-01

EMSL Order ID: 012362692
LIMS Reference ID: AB62692
EMSL Customer ID: AMMA25

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250 Apollo Drive
Chelmsford, MA 01824
(978) 905-2100
patrick.haskell@aecom.com

Project Name: 60708347-Bridge 955
Customer PO:
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Received: 09/27/2023 14:15
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Quality Control

GC-SVOA

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BBJ0061 - SW846 3546										
Blank (BBJ0061-BLK1)					Prepared: 10/4/2023 Analyzed: 10/6/2023					
Aroclor-1016	ND		0.25	mg/kg						
Aroclor-1221	ND		0.25	mg/kg						
Aroclor-1232	ND		0.25	mg/kg						
Aroclor-1242	ND		0.25	mg/kg						
Aroclor-1248	ND		0.25	mg/kg						
Aroclor-1254	ND		0.25	mg/kg						
Aroclor-1260	ND		0.25	mg/kg						
Aroclor-1262	ND		0.25	mg/kg						
Aroclor-1268	ND		0.25	mg/kg						
Surrogate(s)										
Surrogate: Tetrachloro-m-xylene					*0.5000*		*60*	*21-123*		
Surrogate: Decachlorobiphenyl					*0.5000*		*72*	*17-128*		
LCS (BBJ0061-BS1)					Prepared: 10/4/2023 Analyzed: 10/6/2023					
Aroclor-1016	3.64		0.25	mg/kg	5.000		73	37-120		
Aroclor-1260	3.98		0.25	mg/kg	5.000		80	45-121		
Surrogate(s)										
Surrogate: Tetrachloro-m-xylene					*0.5000*		*68*	*21-123*		
Surrogate: Decachlorobiphenyl					*0.5000*		*80*	*17-128*		
Matrix Spike (BBJ0061-MS1)		**Source: AB62637-01**			Prepared: 10/4/2023 Analyzed: 10/6/2023					
Aroclor-1016	2.76		0.24	mg/kg	4.808	ND	57	30-133		
Aroclor-1260	2.76		0.24	mg/kg	4.808	ND	57	30-134		
Surrogate(s)										
Surrogate: Tetrachloro-m-xylene					*0.4808*		*60*	*21-123*		
Surrogate: Decachlorobiphenyl					*0.4808*		*58*	*17-128*		
Matrix Spike Dup (BBJ0061-MSD1)		**Source: AB62637-01**			Prepared: 10/4/2023 Analyzed: 10/6/2023					
Aroclor-1016	2.86		0.24	mg/kg	4.831	ND	59	30-133	4	28
Aroclor-1260	2.96		0.24	mg/kg	4.831	ND	61	30-134	7	28
Surrogate(s)										
Surrogate: Tetrachloro-m-xylene					*0.4831*		*65*	*21-123*		
Surrogate: Decachlorobiphenyl					*0.4831*		*62*	*17-128*		

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Certified Analyses included in this Report

Analyte	CAS #	Certifications
SW 846-8082A in Solid		
Aroclor-1016	12674-11-2	NJDEP,NYSDOH,PADEP,California ELAP
Aroclor-1221	11104-28-2	NJDEP,NYSDOH,PADEP,California ELAP
Aroclor-1232	11141-16-5	NJDEP,NYSDOH,PADEP,California ELAP
Aroclor-1242	53469-21-9	NJDEP,NYSDOH,PADEP,California ELAP
Aroclor-1248	12672-29-6	NJDEP,NYSDOH,PADEP,California ELAP
Aroclor-1254	11097-69-1	NJDEP,NYSDOH,PADEP,California ELAP
Aroclor-1260	11096-82-5	NJDEP,NYSDOH,PADEP,California ELAP
Aroclor-1262	37324-23-5	NJDEP,NYSDOH,PADEP
Aroclor-1262 [2C]	37324-23-5	NJDEP,NYSDOH,PADEP
Aroclor-1268	11100-14-4	NJDEP,NYSDOH,PADEP

List of Certifications

Code	Description	Number	Expires
MADEP	Massachusetts Department of Environmental Protection	M-NJ337	06/30/2023
California ELAP	California Water Boards	1877	06/30/2024
A2LA	A2LA Enivronmental Certificate	2845.01	07/31/2024
AIHA LAP	EMSL Analytical, Inc. Cinnaminson, NJ AIHA-LAP, LLC-ELLAP Accredited	100194	01/01/2025
NJDEP	New Jersey Department of Environmental Protection	03036	06/30/2023
PADEP	Pennsylvania Department of Environmental Protection	68-00367	11/30/2023
NYSDOH	New York State Department of Health	10872	04/01/2024
CTDPH	Connecticut Department of Public Health	PH-0270	06/23/2023

Please see the specific Field of Testing (FOT) on www.emsl.com <http://www.emsl.com> for a complete listing of parameters for which EMSL is certified.

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Received: 09/27/2023 14:15
Reported: 10/09/2023 18:06

Notes and Definitions

Item	Definition
(Dig)	For metals analysis, sample was digested.
[2C]	Reported from the second channel in dual column analysis.
DF	Dilution Factor
MDL	Method Detection Limit.
ND	Analyte was NOT DETECTED at or above the detection limit.
Q	Qualifier
RL	Reporting Limit
%REC	Percent Recovery
RPD	Relative Percent Difference
Source	Sample that was matrix spiked or duplicated

Measurement of uncertainty and any applicable definitions of method modifications are available upon request. Per EPA NLLAP policy, sample results are not blank corrected.

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AB 62692

AECOM	250 Apollo Drive Chelmsford, MA. 01824	CHAIN OF CUSTODY RECORD	PAGE 1 OF 2

REPORT/INVOICE TO (NAME): Patrick Haskell		PLEASE PROVIDE RESULTS BY: ☒ EMAIL ☐ FAX	
☐	1155 Elm Street, Manchester, NH, 03101	☒	250 Apollo Drive, Chelmsford, MA. 01824
☐	1 Federal Street, Boston, MA, 02110	☐	10 Orms Street, #405, Providence, RI, 02904
☐	500 Enterprise Drive, #1a, Rocky Hill, CT, 06067	☐	
☐	**Stop at first Positive**	☐	
EMAIL ADDRESS (Results): Patrick.haskell@aecom.com		TELEPHONE #: 978-866-9078	
PROJECT NUMBER: 60708347	TASK NUMBER:	REQUESTED TURN-AROUND TIME: 3 Day	
CLIENT/PROJECT NAME: RIDOT		SAMPLES COLLECTED BY: Bob Jacque	
LOCATION/ DESCRIPTON: Bridge 955		SIGNATURE: Bob Jacque	
ADDRESS: Singleton St, Woonsocket, RI		DATE: 9/26/23	

SPECIAL INSTRUCTIONS:

ASBESTOS BULK SAMPLE ANALYSIS

- ☐ PLM BULK (EPA 600/R-93/116)
- ☐ TEM EPA NOB (600/R-93/116B)
- ☐ MAINE PROTOCOL
  - ☐ • EPA 600/R-93/116
  - ☐ • PLM EPA NOB *(for NOB materials only)*
  - ☐ • TEM EPA NOB *(for NOB materials only)*
- ☐ NEW YORK STATE PROTOCOL
  - ☐ • PLM NYS Friable 198.1
  - ☐ • PLM NOB (Gravimetric) NYS 198.1
  - • TEM NOB (Gravimetric) NYS 198.4

FUNGAL ANALYSIS

AIR SAMPLES

- ☐ Mold & Fungi by Spore Trap
- ☐ Mold & Fungi Culture (Genus Only)
- ☐ Mold & Fungi Culture (Genus & Species)

WIPE & BULK SAMPLES

- ☐ Mold & Fungi - Direct Examination (Tape Lift, Swab, Bulk)
- ☐ Mold & Fungi Culture (Genus Only)
- ☐ Mold & Fungi Culture (Genus & Species)

Lead

- ☒ PAINT CHIPS (SW-846-7000B)
- ☐ WIPES (SW-846-7000B)
- ☐ AIR (NIOSH 7082)
- ☐ SOILS (SW-846-7000B)
- ☐ DRINKING WATER (EPA 200.9)

PCB

- ☐ PCB WIPE (SW-846-3550C / 8082A)
- ☐ PCB BULK (SW-846-3550C / 8082A / 608.3)
- ☐ PCB AIR SAMPLE (TO-10A)
- ☐ PCB AIR SAMPLE (TO-4A)
- ☐ DATA PACKAGE NEEDED

RELINQUISHED BY: Bob Jacque		RECEIVED BY: CL EPX	
DATE: 9/26/23	TIME: 1700	DATE: 9/27/23	TIME: 11am

Shannelly 9/27/23 2:15pm.

AB62692

AECOM	250 Apollo Drive Chelmsford, Massachusetts	LEAD BULK SAMPLE CHAIN OF CUSTODY RECORD	PAGE 2 OF 2

CLIENT/PROJECT NAME: RIDOT	INSPECTOR'S NAME: Bob Jacque	REQUESTED TURN-AROUND TIME: 3 Day
LOCATION/ DESCRIPTON: Bridge 955	SIGNATURE: Bob Jacque	PROJECT NUMBER: 60708347
ADDRESS: Singleton St, Woonsocket, RI	DATE: 9/26/23	BATCH/PO NUMBER:
NOTES / COMMENTS:		

SAMPLE ID # (1, 2, 3 ONLY; DO NOT USE a, b, c)	PAINT TYPE #	SAMPLE DESCRIPTION						CONDITION (INTACT / DAMG'D)	QUANTITY OF MATERIAL (INCLUDE UNITS)	
		COMPONENT (EX: WALL, DOOR, WINDOW, ETC.)	SUBSTRATE (EX: BRICK, CONCRETE, DRYWALL, PLASTER)	COLOR	FLOOR	ROOM	LOCATION		TOTAL QUANTITY	DAMAGED QUANTITY (OR "N/A")
L-01	1	Railings & I-Beams	Metal	Green	N/A		on metal structure of bridge	Damaged		
L-02	2	Abutment	Concrete	Gray	N/A		on concrete Abutment under bridge	Damaged		

RELINQUISHED BY: Bob Jacque	DATE: 9/26/23	TIME: 1700	RECEIVED BY:	DATE:	TIME:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:

EMSL Analytical, Inc.
4140 Litt Drive, Hillside, IL 60162
Phone/Fax: (773) 313-0099 / (773) 313-0139
http://www.EMSL.com chicagolab@emsl.com

EMSL Order:	262308868
CustomerID:	AMMA25
CustomerPO:	
ProjectID:	

Attn: **Patrick Haskell**
AECOM
250 Apollo Drive
Chelmsford, MA 01824

Phone:	(978) 905-2100
Fax:	(978) 905-2101
Received:	9/27/2023 11:00 AM
Collected:	

Project: **60708347/ RIDOT/ BRIDGE 955**

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)*

Client Sample Description	*Lab ID*	*Collected*	*Analyzed*	*Weight*	*Lead Concentration*
L-01	*262308868-0001*		9/29/2023	0.2529 g	47 % wt
	Site: ON METAL STRUCTURES OF BRIDGE Desc: GREEN				
L-02	*262308868-0002*		9/29/2023	0.2540 g	0.078 % wt
	Site: ON CONCRETE ABATEMENT UNDER BRIDGE Desc: GRAY				

Lisa M. Odeshoo

Lisa Odeshoo, Laboratory Manager
or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted.
* Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008% wt based on the minimum sample weight per our SOP. "<" (less than) result signifies the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. Definitions of modifications are available upon request.
Samples analyzed by EMSL Analytical, Inc. Hillside, IL AIHA LAP, LLC-ELLAP Accredited #102992

Initial report from 09/29/2023 15:19:35

Attachment C – Photos of Sampled Materials - Bridge 956

AECOM

PHOTOGRAPH LOG

Facility Name:	**Site Location:**	**Project No.**
RIDOT BG26C Bridge 956 Woonsocket, Rhode Island	Woonsocket, Rhode Island	60708347

Photo No. 1/2	**Date:** September 2023	
Photo 1 depicting: Black caulking Photo 2 depicting: Black caulking		

Photo No. 3/4	**Date:** September 2023	
Photo 3 depicting: Black caulking Photo 4 depicting: Black caulking		

Photo No. 5/6	**Date:** September 2023	
Photo 5 Depicting: Black caulking Photo 6 depicting: Black crack sealant		

Photo No. 7/8	**Date:** September 2023	
Photo 7 depicting: Black elbow wrap on pipe **Photo 8 depicting:** Black elbow wrap on pipe		

Photo No. 9/10	**Date:** September 2023	
Photo 9 Depicting: Black fibrous sidewalk **Photo 10 depicting:** Black pipe penetration caulking		

AECOM

PHOTOGRAPH LOG

Facility Name: RIDOT BG26C Bridge 956 Woonsocket, Rhode Island	**Site Location:** Woonsocket, Rhode Island	**Project No.** 60708347

Photo No. 11	**Date:** September 2023		
Photo 11 Description: Black Support Pads			INTENTIONALLY LEFT BLANK

Attachment D – Bridge 956 Laboratory Analytical Reports

ANALYTICAL REPORT

PREPARED FOR

Attn: Patrick Haskell
AECOM
10 Orms Street
Suite 405
Providence, Rhode Island 02904

Generated 9/21/2023 10:23:23 AM

JOB DESCRIPTION

RIDOT Bridge 956 - Woonsocket, RI

JOB NUMBER

620-13880-1

Eurofins New England
646 Camp Ave
North Kingstown RI 02852

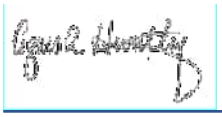
See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization



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Authorized for release by
Agnes Huntley, Project Manager
Agnes.Huntley@et.eurofinsus.com
(401)372-3482

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Definitions/Glossary

Client: AECOM
Job ID: 620-13880-1
Project/Site: RIDOT Bridge 956 - Woonsocket, RI

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: AECOM
Job ID: 620-13880-1
Project/Site: RIDOT Bridge 956 - Woonsocket, RI

Job ID: 620-13880-1

Laboratory: Eurofins New England

Narrative

Job Narrative
620-13880-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 9/13/2023 12:24 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 22.0°C

PCBs
Method 8082A: Due to the matrix, the following samples could not be concentrated to the final method required volume: P-01 (620-13880-1), P-02 (620-13880-2), P-03 (620-13880-3), P-04 (620-13880-4) and P-06 (620-13880-6). The reporting limits (RLs) are elevated proportionately.

Method 8082A: The DCB Decachlorobiphenyl (Surr) surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column due to matrix interference: P-05 (620-13880-5). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Method 8082A: The DCB Decachlorobiphenyl (Surr) surrogate recovery for the following samples was outside acceptance limits (low biased) on the primary column: P-07 (620-13880-7). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Method 8082A: The DCB Decachlorobiphenyl (Surr) surrogate recovery for the following samples was outside acceptance limits (low biased) on the confirmation column: (CCV 620-26962/50). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: AECOM
Job ID: 620-13880-1
Project/Site: RIDOT Bridge 956 - Woonsocket, RI

Client Sample ID: P-01 — Lab Sample ID: 620-13880-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
PCB-1254	824		557		ug/Kg	1		8082A	Total/NA
PCB-1268	1210		557		ug/Kg	1		8082A	Total/NA

Client Sample ID: P-02 — Lab Sample ID: 620-13880-2

No Detections.

Client Sample ID: P-03 — Lab Sample ID: 620-13880-3

No Detections.

Client Sample ID: P-04 — Lab Sample ID: 620-13880-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
PCB-1254	2440		1430		ug/Kg	1		8082A	Total/NA

Client Sample ID: P-05 — Lab Sample ID: 620-13880-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
PCB-1254	1440		272		ug/Kg	1		8082A	Total/NA

Client Sample ID: P-06 — Lab Sample ID: 620-13880-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
PCB-1254	1920		1370		ug/Kg	1		8082A	Total/NA

Client Sample ID: P-07 — Lab Sample ID: 620-13880-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
PCB-1254	333		262		ug/Kg	1		8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Client: AECOM
Job ID: 620-13880-1
Project/Site: RIDOT Bridge 956 - Woonsocket, RI

Client Sample ID: P-01
Lab Sample ID: 620-13880-1
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		557		ug/Kg		09/18/23 16:36	09/20/23 22:23	1
PCB-1221	ND		557		ug/Kg		09/18/23 16:36	09/20/23 22:23	1
PCB-1232	ND		557		ug/Kg		09/18/23 16:36	09/20/23 22:23	1
PCB-1242	ND		557		ug/Kg		09/18/23 16:36	09/20/23 22:23	1
PCB-1248	ND		557		ug/Kg		09/18/23 16:36	09/20/23 22:23	1
PCB-1254	**824**		557		ug/Kg		09/18/23 16:36	09/20/23 22:23	1
PCB-1260	ND		557		ug/Kg		09/18/23 16:36	09/20/23 22:23	1
PCB-1262	ND		557		ug/Kg		09/18/23 16:36	09/20/23 22:23	1
PCB-1268	**1210**		557		ug/Kg		09/18/23 16:36	09/20/23 22:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*80*		*30 - 150*	*09/18/23 16:36*	*09/20/23 22:23*	*1*
Tetrachloro-m-xylene	*91*		*30 - 150*	*09/18/23 16:36*	*09/20/23 22:23*	*1*
DCB Decachlorobiphenyl (Surr)	*149*		*30 - 150*	*09/18/23 16:36*	*09/20/23 22:23*	*1*
DCB Decachlorobiphenyl (Surr)	*101*		*30 - 150*	*09/18/23 16:36*	*09/20/23 22:23*	*1*

Client: AECOM
Job ID: 620-13880-1
Project/Site: RIDOT Bridge 956 - Woonsocket, RI

Client Sample ID: P-02
Lab Sample ID: 620-13880-2
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		585		ug/Kg		09/18/23 16:36	09/20/23 22:41	1
PCB-1221	ND		585		ug/Kg		09/18/23 16:36	09/20/23 22:41	1
PCB-1232	ND		585		ug/Kg		09/18/23 16:36	09/20/23 22:41	1
PCB-1242	ND		585		ug/Kg		09/18/23 16:36	09/20/23 22:41	1
PCB-1248	ND		585		ug/Kg		09/18/23 16:36	09/20/23 22:41	1
PCB-1254	ND		585		ug/Kg		09/18/23 16:36	09/20/23 22:41	1
PCB-1260	ND		585		ug/Kg		09/18/23 16:36	09/20/23 22:41	1
PCB-1262	ND		585		ug/Kg		09/18/23 16:36	09/20/23 22:41	1
PCB-1268	ND		585		ug/Kg		09/18/23 16:36	09/20/23 22:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*80*		*30 - 150*	*09/18/23 16:36*	*09/20/23 22:41*	*1*
Tetrachloro-m-xylene	*88*		*30 - 150*	*09/18/23 16:36*	*09/20/23 22:41*	*1*
DCB Decachlorobiphenyl (Surr)	*64*		*30 - 150*	*09/18/23 16:36*	*09/20/23 22:41*	*1*
DCB Decachlorobiphenyl (Surr)	*44*		*30 - 150*	*09/18/23 16:36*	*09/20/23 22:41*	*1*

Client: AECOM
Job ID: 620-13880-1
Project/Site: RIDOT Bridge 956 - Woonsocket, RI

Client Sample ID: P-03
Lab Sample ID: 620-13880-3
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		1490		ug/Kg		09/18/23 16:36	09/20/23 22:58	1
PCB-1221	ND		1490		ug/Kg		09/18/23 16:36	09/20/23 22:58	1
PCB-1232	ND		1490		ug/Kg		09/18/23 16:36	09/20/23 22:58	1
PCB-1242	ND		1490		ug/Kg		09/18/23 16:36	09/20/23 22:58	1
PCB-1248	ND		1490		ug/Kg		09/18/23 16:36	09/20/23 22:58	1
PCB-1254	ND		1490		ug/Kg		09/18/23 16:36	09/20/23 22:58	1
PCB-1260	ND		1490		ug/Kg		09/18/23 16:36	09/20/23 22:58	1
PCB-1262	ND		1490		ug/Kg		09/18/23 16:36	09/20/23 22:58	1
PCB-1268	ND		1490		ug/Kg		09/18/23 16:36	09/20/23 22:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*91*		*30 - 150*	*09/18/23 16:36*	*09/20/23 22:58*	*1*
Tetrachloro-m-xylene	*110*		*30 - 150*	*09/18/23 16:36*	*09/20/23 22:58*	*1*
DCB Decachlorobiphenyl (Surr)	*106*		*30 - 150*	*09/18/23 16:36*	*09/20/23 22:58*	*1*
DCB Decachlorobiphenyl (Surr)	*75*		*30 - 150*	*09/18/23 16:36*	*09/20/23 22:58*	*1*

Client: AECOM
Job ID: 620-13880-1
Project/Site: RIDOT Bridge 956 - Woonsocket, RI

Client Sample ID: P-04
Lab Sample ID: 620-13880-4
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		1430		ug/Kg		09/18/23 16:36	09/20/23 23:15	1
PCB-1221	ND		1430		ug/Kg		09/18/23 16:36	09/20/23 23:15	1
PCB-1232	ND		1430		ug/Kg		09/18/23 16:36	09/20/23 23:15	1
PCB-1242	ND		1430		ug/Kg		09/18/23 16:36	09/20/23 23:15	1
PCB-1248	ND		1430		ug/Kg		09/18/23 16:36	09/20/23 23:15	1
PCB-1254	**2440**		1430		ug/Kg		09/18/23 16:36	09/20/23 23:15	1
PCB-1260	ND		1430		ug/Kg		09/18/23 16:36	09/20/23 23:15	1
PCB-1262	ND		1430		ug/Kg		09/18/23 16:36	09/20/23 23:15	1
PCB-1268	ND		1430		ug/Kg		09/18/23 16:36	09/20/23 23:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*85*		*30 - 150*	*09/18/23 16:36*	*09/20/23 23:15*	*1*
Tetrachloro-m-xylene	*90*		*30 - 150*	*09/18/23 16:36*	*09/20/23 23:15*	*1*
DCB Decachlorobiphenyl (Surr)	*69*		*30 - 150*	*09/18/23 16:36*	*09/20/23 23:15*	*1*
DCB Decachlorobiphenyl (Surr)	*39*	*p*	*30 - 150*	*09/18/23 16:36*	*09/20/23 23:15*	*1*

Client: AECOM
Job ID: 620-13880-1
Project/Site: RIDOT Bridge 956 - Woonsocket, RI

Client Sample ID: P-05
Lab Sample ID: 620-13880-5
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		272		ug/Kg		09/18/23 16:36	09/20/23 23:33	1
PCB-1221	ND		272		ug/Kg		09/18/23 16:36	09/20/23 23:33	1
PCB-1232	ND		272		ug/Kg		09/18/23 16:36	09/20/23 23:33	1
PCB-1242	ND		272		ug/Kg		09/18/23 16:36	09/20/23 23:33	1
PCB-1248	ND		272		ug/Kg		09/18/23 16:36	09/20/23 23:33	1
PCB-1254	**1440**		272		ug/Kg		09/18/23 16:36	09/20/23 23:33	1
PCB-1260	ND		272		ug/Kg		09/18/23 16:36	09/20/23 23:33	1
PCB-1262	ND		272		ug/Kg		09/18/23 16:36	09/20/23 23:33	1
PCB-1268	ND		272		ug/Kg		09/18/23 16:36	09/20/23 23:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*114*		*30 - 150*	*09/18/23 16:36*	*09/20/23 23:33*	*1*
Tetrachloro-m-xylene	*114*		*30 - 150*	*09/18/23 16:36*	*09/20/23 23:33*	*1*
DCB Decachlorobiphenyl (Surr)	*151*	*S1+*	*30 - 150*	*09/18/23 16:36*	*09/20/23 23:33*	*1*
DCB Decachlorobiphenyl (Surr)	*78*	*p*	*30 - 150*	*09/18/23 16:36*	*09/20/23 23:33*	*1*

Client: AECOM
Job ID: 620-13880-1
Project/Site: RIDOT Bridge 956 - Woonsocket, RI

Client Sample ID: P-06
Lab Sample ID: 620-13880-6
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		1370		ug/Kg		09/18/23 16:40	09/20/23 23:50	1
PCB-1221	ND		1370		ug/Kg		09/18/23 16:40	09/20/23 23:50	1
PCB-1232	ND		1370		ug/Kg		09/18/23 16:40	09/20/23 23:50	1
PCB-1242	ND		1370		ug/Kg		09/18/23 16:40	09/20/23 23:50	1
PCB-1248	ND		1370		ug/Kg		09/18/23 16:40	09/20/23 23:50	1
PCB-1254	**1920**		1370		ug/Kg		09/18/23 16:40	09/20/23 23:50	1
PCB-1260	ND		1370		ug/Kg		09/18/23 16:40	09/20/23 23:50	1
PCB-1262	ND		1370		ug/Kg		09/18/23 16:40	09/20/23 23:50	1
PCB-1268	ND		1370		ug/Kg		09/18/23 16:40	09/20/23 23:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*89*		*30 - 150*	*09/18/23 16:40*	*09/20/23 23:50*	*1*
Tetrachloro-m-xylene	*89*		*30 - 150*	*09/18/23 16:40*	*09/20/23 23:50*	*1*
DCB Decachlorobiphenyl (Surr)	*77*		*30 - 150*	*09/18/23 16:40*	*09/20/23 23:50*	*1*
DCB Decachlorobiphenyl (Surr)	*51*	*p*	*30 - 150*	*09/18/23 16:40*	*09/20/23 23:50*	*1*

Client: AECOM
Job ID: 620-13880-1
Project/Site: RIDOT Bridge 956 - Woonsocket, RI

Client Sample ID: P-07
Lab Sample ID: 620-13880-7
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		262		ug/Kg		09/18/23 16:40	09/21/23 00:07	1
PCB-1221	ND		262		ug/Kg		09/18/23 16:40	09/21/23 00:07	1
PCB-1232	ND		262		ug/Kg		09/18/23 16:40	09/21/23 00:07	1
PCB-1242	ND		262		ug/Kg		09/18/23 16:40	09/21/23 00:07	1
PCB-1248	ND		262		ug/Kg		09/18/23 16:40	09/21/23 00:07	1
PCB-1254	**333**		262		ug/Kg		09/18/23 16:40	09/21/23 00:07	1
PCB-1260	ND		262		ug/Kg		09/18/23 16:40	09/21/23 00:07	1
PCB-1262	ND		262		ug/Kg		09/18/23 16:40	09/21/23 00:07	1
PCB-1268	ND		262		ug/Kg		09/18/23 16:40	09/21/23 00:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*87*		*30 - 150*	*09/18/23 16:40*	*09/21/23 00:07*	*1*
Tetrachloro-m-xylene	*43*	*p*	*30 - 150*	*09/18/23 16:40*	*09/21/23 00:07*	*1*
DCB Decachlorobiphenyl (Surr)	*117*		*30 - 150*	*09/18/23 16:40*	*09/21/23 00:07*	*1*
DCB Decachlorobiphenyl (Surr)	*25*	*p S1-*	*30 - 150*	*09/18/23 16:40*	*09/21/23 00:07*	*1*

Surrogate Summary

Client: AECOM
Job ID: 620-13880-1
Project/Site: RIDOT Bridge 956 - Woonsocket, RI

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(30-150)	(30-150)	(30-150)	(30-150)
620-13880-1	P-01	80	91	149	101
620-13880-2	P-02	80	88	64	44
620-13880-3	P-03	91	110	106	75
620-13880-4	P-04	85	90	69	39 p
620-13880-5	P-05	114	114	151 S1+	78 p
620-13880-6	P-06	89	89	77	51 p
620-13880-7	P-07	87	43 p	117	25 p S1-

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl (Surr)

QC Association Summary

Client: AECOM
Job ID: 620-13880-1
Project/Site: RIDOT Bridge 956 - Woonsocket, RI

GC Semi VOA

Prep Batch: 26898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-13880-1	P-01	Total/NA	Solid	3540C	
620-13880-2	P-02	Total/NA	Solid	3540C	
620-13880-3	P-03	Total/NA	Solid	3540C	
620-13880-4	P-04	Total/NA	Solid	3540C	
620-13880-5	P-05	Total/NA	Solid	3540C	
620-13880-6	P-06	Total/NA	Solid	3540C	
620-13880-7	P-07	Total/NA	Solid	3540C	

Analysis Batch: 26962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-13880-1	P-01	Total/NA	Solid	8082A	26898
620-13880-2	P-02	Total/NA	Solid	8082A	26898
620-13880-3	P-03	Total/NA	Solid	8082A	26898
620-13880-4	P-04	Total/NA	Solid	8082A	26898
620-13880-5	P-05	Total/NA	Solid	8082A	26898
620-13880-6	P-06	Total/NA	Solid	8082A	26898
620-13880-7	P-07	Total/NA	Solid	8082A	26898

Lab Chronicle

Client: AECOM
Job ID: 620-13880-1
Project/Site: RIDOT Bridge 956 - Woonsocket, RI

Client Sample ID: P-01
Lab Sample ID: 620-13880-1
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3540C			26898	AAH	EET NE	09/18/23 16:36
Total/NA	Analysis	8082A		1	26962	SFL	EET NE	09/20/23 22:23

Client Sample ID: P-02
Lab Sample ID: 620-13880-2
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3540C			26898	AAH	EET NE	09/18/23 16:36
Total/NA	Analysis	8082A		1	26962	SFL	EET NE	09/20/23 22:41

Client Sample ID: P-03
Lab Sample ID: 620-13880-3
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3540C			26898	AAH	EET NE	09/18/23 16:36
Total/NA	Analysis	8082A		1	26962	SFL	EET NE	09/20/23 22:58

Client Sample ID: P-04
Lab Sample ID: 620-13880-4
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3540C			26898	AAH	EET NE	09/18/23 16:36
Total/NA	Analysis	8082A		1	26962	SFL	EET NE	09/20/23 23:15

Client Sample ID: P-05
Lab Sample ID: 620-13880-5
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3540C			26898	AAH	EET NE	09/18/23 16:36
Total/NA	Analysis	8082A		1	26962	SFL	EET NE	09/20/23 23:33

Client Sample ID: P-06
Lab Sample ID: 620-13880-6
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3540C			26898	AAH	EET NE	09/18/23 16:40
Total/NA	Analysis	8082A		1	26962	SFL	EET NE	09/20/23 23:50

Lab Chronicle

Client: AECOM
Job ID: 620-13880-1
Project/Site: RIDOT Bridge 956 - Woonsocket, RI

Client Sample ID: P-07
Lab Sample ID: 620-13880-7
Date Collected: 09/05/23 00:00
Matrix: Solid
Date Received: 09/13/23 12:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3540C			26898	AAH	EET NE	09/18/23 16:40
Total/NA	Analysis	8082A		1	26962	SFL	EET NE	09/21/23 00:07

Laboratory References:

EET NE = Eurofins New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

Accreditation/Certification Summary

Client: AECOM
Job ID: 620-13880-1
Project/Site: RIDOT Bridge 956 - Woonsocket, RI

Laboratory: Eurofins New England

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Rhode Island	State	LAI00368	12-31-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8082A	3540C	Solid	PCB-1016
8082A	3540C	Solid	PCB-1221
8082A	3540C	Solid	PCB-1232
8082A	3540C	Solid	PCB-1242
8082A	3540C	Solid	PCB-1248
8082A	3540C	Solid	PCB-1254
8082A	3540C	Solid	PCB-1260
8082A	3540C	Solid	PCB-1262
8082A	3540C	Solid	PCB-1268

Method Summary

Client: AECOM
Job ID: 620-13880-1
Project/Site: RIDOT Bridge 956 - Woonsocket, RI

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET NE
3540C	Soxhlet Extraction	SW846	EET NE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET NE = Eurofins New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

Sample Summary

Client: AECOM
Job ID: 620-13880-1
Project/Site: RIDOT Bridge 956 - Woonsocket, RI

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
620-13880-1	P-01	Solid	09/05/23 00:00	09/13/23 12:24
620-13880-2	P-02	Solid	09/05/23 00:00	09/13/23 12:24
620-13880-3	P-03	Solid	09/05/23 00:00	09/13/23 12:24
620-13880-4	P-04	Solid	09/05/23 00:00	09/13/23 12:24
620-13880-5	P-05	Solid	09/05/23 00:00	09/13/23 12:24
620-13880-6	P-06	Solid	09/05/23 00:00	09/13/23 12:24
620-13880-7	P-07	Solid	09/05/23 00:00	09/13/23 12:24

620-13880 Chain of Custody

13880

250 Apollo Drive
Chelmsford, MA. 01824

CHAIN OF CUSTODY RECORD

PAGE 1 OF 2

REPORT/INVOICE TO (NAME): Patrick Haskell	**PLEASE PROVIDE RESULTS BY:** ☒ EMAIL ☐ FAX

☐	1155 Elm Street, Manchester, NH, 03101	☒	250 Apollo Drive, Chelmsford, MA. 01824
☐	1 Federal Street, Boston, MA, 02110	☐	10 Orms Street, #405, Providence, RI, 02904
☐	500 Enterprise Drive, #1a, Rocky Hill, CT, 06067	☐	
☐	**Stop at first Positive**	☐	

EMAIL ADDRESS (Results): Patrick Haskell	**TELEPHONE #:** 978-866-9078
PROJECT NUMBER: 6070347 **TASK NUMBER:**	**REQUESTED TURN-AROUND TIME:** Standard 2week
CLIENT/PROJECT NAME: RI DOT	**SAMPLES COLLECTED BY:** Bob Jacque
LOCATION/ DESCRIPTON: Bridge 956	**SIGNATURE:** Bob Jacque
ADDRESS: River St, Woonsocket, RI	**DATE:** 9/12/23

SPECIAL INSTRUCTIONS:

ASBESTOS BULK SAMPLE ANALYSIS

- ☐ PLM BULK (EPA 600/R-93/116)
- ☐ TEM EPA NOB (600/R-93/116B)
- ☐ MAINE PROTOCOL
  - ☐ • EPA 600/R-93/116
  - ☐ • PLM EPA NOB *(for NOB materials only)*
  - ☐ • TEM EPA NOB *(for NOB materials only)*
- ☐ NEW YORK STATE PROTOCOL
  - ☐ • PLM NYS Friable 198.1
  - ☐ • PLM NOB (Gravimetric) NYS 198.1
  - • TEM NOB (Gravimetric) NYS 198.4

FUNGAL ANALYSIS

AIR SAMPLES

- ☐ Mold & Fungi by Spore Trap
- ☐ Mold & Fungi Culture (Genus Only)
- ☐ Mold & Fungi Culture (Genus & Species)

WIPE & BULK SAMPLES

- ☐ Mold & Fungi - Direct Examination (Tape Lift, Swab, Bulk)
- ☐ Mold & Fungi Culture (Genus Only)
- ☐ Mold & Fungi Culture (Genus & Species)

Lead

- ☐ PAINT CHIPS (SW-846-7000B)
- ☐ WIPES (SW-846-7000B)
- ☐ AIR (NIOSH 7082)
- ☐ SOILS (SW-846-7000B)
- ☐ DRINKING WATER (EPA 200.9)

PCB

- ☐ PCB WIPE (SW-846-3550C / 8082A)
- ☒ PCB BULK (SW-846-3550C / 8082A / 608.3)
- ☐ PCB AIR SAMPLE (TO-10A)
- ☐ PCB AIR SAMPLE (TO-4A)
- ☐ DATA PACKAGE NEEDED

RELINQUISHED BY: Bob Jacque		**RECEIVED BY:**	
DATE: 9/12/23	**TIME:** 1300	**DATE:** 9/12/23	**TIME:** 12:24

v2014-05

13880

AECOM	250 Apollo Drive Chelmsford, Massachusetts 01824	PCB AIR / BULK SAMPLE CHAIN OF CUSTODY RECORD	PAGE 2 OF 2

CLIENT/PROJECT NAME: RIDOT	INSPECTOR'S NAME: Bob Jacque	REQUESTED TURN-AROUND TIME: Standard 2 week
LOCATION/ DESCRIPTON: Bridge 956	SIGNATURE: Bob Jacque	PROJECT NUMBER: 60708347
ADDRESS: River St, Woonsocket, RI	DATE: 9/12/23	LABORATORY NUMBER:

NOTES / COMMENTS: ~~Analyze all air samples using EPA TO-10A~~ Method

SAMPLE ID #	Type	SAMPLE DESCRIPTION			TIME / CONDITION / AMOUNT				
(1, 2, 3 ONLY; DO NOT USE a, b, c)		MATERIAL / EMPLOYEE ID	Date of Sample	SAMPLE LOCATION (S)	Start Time	Stop Time	Flow Rate	Volume	MATRIX
P-01	Bulk	Black Caulking	9/5/23	sidewalk & Bridge seams					
P-02		Black Fibrous sidewalk pad		Sidewalk seam					
P-03		Black crack sealant		Bridge Road					
P-04		Black pipe elbow wrap		under bridge, large pipe					
P-05		Black pipe tar wrap		under bridge, small pipe					
P-06		Black pipe penetration wrap		under bridge, Large pipe					
P-07		Black support pads		under bridge, between metal supports & concrete abutment					

Type - C=Composite, G=grab, AA=Area Air, PA=Personal Air

RELINQUISHED BY: Bob Jacque	DATE: 9/12/23	TIME: 1300	RECEIVED BY:	DATE: 9/12/23	TIME: 12:24
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:

21.8 +0.2 22.0 #6 AMB

After printing this label
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Login Sample Receipt Checklist

Client: AECOM

Job Number: 620-13880-1

Login Number: 13880

List Source: Eurofins New England

List Number: 1

Creator: Makhoul, Elie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Refer to Job Narrative for details.
Cooler Temperature is acceptable.	False	Refer to Job Narrative for details.
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

http://www.EMSL.com / bostonlab@emsl.com

EMSL Order:	132306164
Customer ID:	AMMA25
Customer PO:	60708347
Project ID:	

Attention:	Patrick Haskell	**Phone:**	(978) 905-2100
	AECOM	**Fax:**	(978) 905-2101
	250 Apollo Drive	**Received Date:**	09/22/2023 8:30 AM
	Chelmsford, MA 01824	**Analysis Date:**	09/27/2023
		Collected Date:	09/21/2023

Project: 60708347 - RIDOT; Bridge 956; River Street; Woonsocket, RI

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
01A *132306164-0001*	Sidewalk Seam & Bridge Seam - Black Caulking	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
01B *132306164-0002*	Sidewalk Seam & Bridge Seam - Black Caulking	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
01C *132306164-0003*	Sidewalk Seam & Bridge Seam - Black Caulking	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
02A *132306164-0004*	Sidewalk Seam, Ends - Black Fibrous Sidewalk Pad	Black Fibrous Homogeneous	75% Cellulose	25% Non-fibrous (Other)	None Detected
02B *132306164-0005*	Sidewalk Seam, Ends - Black Fibrous Sidewalk Pad	Black Fibrous Homogeneous	75% Cellulose	25% Non-fibrous (Other)	None Detected
02C *132306164-0006*	Sidewalk Seam, Ends - Black Fibrous Sidewalk Pad	Black Fibrous Homogeneous	75% Cellulose	25% Non-fibrous (Other)	None Detected
03A *132306164-0007*	Cracks on Road - Black Crack Sealant	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
03B *132306164-0008*	Cracks on Road - Black Crack Sealant	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
03C *132306164-0009*	Cracks on Road - Black Crack Sealant	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
04A *132306164-0010*	Big Pipe, under Bridge - Black Elbow Wrap on Pipe	Black Non-Fibrous Homogeneous		93% Non-fibrous (Other)	7% Chrysotile
04B *132306164-0011*	Big Pipe, under Bridge - Black Elbow Wrap on Pipe				Positive Stop (Not Analyzed)
04C *132306164-0012*	Big Pipe, under Bridge - Black Elbow Wrap on Pipe				Positive Stop (Not Analyzed)
05A *132306164-0013*	Small Pipe, under Bridge - Black Pipe Tar Wrap	Black Non-Fibrous Homogeneous	30% Cellulose 5% Glass	59% Non-fibrous (Other)	6% Chrysotile
05B *132306164-0014*	Small Pipe, under Bridge - Black Pipe Tar Wrap				Positive Stop (Not Analyzed)
05C *132306164-0015*	Small Pipe, under Bridge - Black Pipe Tar Wrap				Positive Stop (Not Analyzed)
06A *132306164-0016*	Big Pipe, under Bridge - Black Pipe Penetration Caulking	Black Non-Fibrous Homogeneous	10% Glass	83% Non-fibrous (Other)	7% Chrysotile

Initial report from: 09/27/2023 09:31:26

EMSL Analytical, Inc.
5 Constitution Way, Unit A Woburn, MA 01801
Tel/Fax: (781) 933-8411 / (781) 933-8412
http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132306164
Customer ID: AMMA25
Customer PO: 60708347
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
06B *132306164-0017*	Big Pipe, under Bridge - Black Pipe Penetration Caulking				Positive Stop (Not Analyzed)
06C *132306164-0018*	Big Pipe, under Bridge - Black Pipe Penetration Caulking				Positive Stop (Not Analyzed)
07A *132306164-0019*	Under Bridge - Black Support Pads	Brown/Black Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
07B *132306164-0020*	Under Bridge - Black Support Pads	Brown/Black Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
07C *132306164-0021*	Under Bridge - Black Support Pads	Brown/Black Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected

Analyst(s)
Ava Kopellas (15)

Steve Grise, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 “Interim Method”) but augmented with procedures outlined in the 1993 (”final”) version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Woburn, MA NVLAP Lab Code 101147-0, CT PH-0315, MA AA000188, RI AAL-139, VT AL998919, ME LB-0039

Initial report from: 09/27/2023 09:31:26

EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077
Telephone: 856-858-4800 Fax:856-786-5974
EMSL-CIN-01

EMSL Order ID: 012362690
LIMS Reference ID: AB62690
EMSL Customer ID: AMMA25

October 09, 2023

Patrick Haskell
AECOM [AMMA25]
250 Apollo Drive
Chelmsford, MA 01824

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 9/27/2023. The results are tabulated on the attached pages for the following client designated project:

60708347-Bridge 956

The reference number for these samples is EMSL Order #: AB62690 . Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact the lab at 856-858-4800.

Owen McKenna Laboratory Manager or other approved signatory

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EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077
Telephone: 856-858-4800 Fax:856-786-5974
EMSL-CIN-01

EMSL Order ID: 012362690
LIMS Reference ID: AB62690
EMSL Customer ID: AMMA25

Attention: Patrick Haskell
AECOM [AMMA25]
250 Apollo Drive
Chelmsford, MA 01824
(978) 905-2100
patrick.haskell@aecom.com

Project Name: 60708347-Bridge 956
Customer PO:
EMSL Sales Rep: Christopher Brandt
Received: 09/27/2023 14:15
Reported: 10/09/2023 18:05

Sample Condition on Receipt

Cooler ID: Default Cooler **Temperature:** **°C**

Custody Seals	Y
Containers Intact	Y
COC/Labels Agree	Y
Preservation Confirmed	Y

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EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077
Telephone: 856-858-4800 Fax:856-786-5974
EMSL-CIN-01

EMSL Order ID: 012362690
LIMS Reference ID: AB62690
EMSL Customer ID: AMMA25

Attention: Patrick Haskell
AECOM [AMMA25]
250 Apollo Drive
Chelmsford, MA 01824
(978) 905-2100
patrick.haskell@aecom.com

Project Name: 60708347-Bridge 956
Customer PO:
EMSL Sales Rep: Christopher Brandt
Received: 09/27/2023 14:15
Reported: 10/09/2023 18:05

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
AB62690-01	L-01	Solid	09/26/2023	09/27/2023

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EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077
Telephone: 856-858-4800 Fax:856-786-5974
EMSL-CIN-01

EMSL Order ID: 012362690
LIMS Reference ID: AB62690
EMSL Customer ID: AMMA25

Attention: Patrick Haskell
AECOM [AMMA25]
250 Apollo Drive
Chelmsford, MA 01824
(978) 905-2100
patrick.haskell@aecom.com

Project Name: 60708347-Bridge 956

Customer PO:
EMSL Sales Rep: Christopher Brandt
Received: 09/27/2023 14:15
Reported: 10/09/2023 18:05

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted."

EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077
Telephone: 856-858-4800 Fax:856-786-5974
EMSL-CIN-01

EMSL Order ID: 012362690
LIMS Reference ID: AB62690
EMSL Customer ID: AMMA25

Attention: Patrick Haskell
AECOM [AMMA25]
250 Apollo Drive
Chelmsford, MA 01824
(978) 905-2100
patrick.haskell@aecom.com

Project Name: 60708347-Bridge 956
Customer PO:
EMSL Sales Rep: Christopher Brandt
Received: 09/27/2023 14:15
Reported: 10/09/2023 18:05

Sample Results

Sample: L-01/Railings/I-Beams
AB62690-01 (Solid)

Analyte	Result	Q	DF	RL	Units	Prepared Date/Time	Analyzed Date/Time	Prep/Analyst Initials	Prep Method	Analytical Method
GC-SVOA										
Aroclor-1016	ND		1	0.24	mg/kg	10/04/23 13:01	10/06/23 15:13	MxB/TL1	SW846 3546	SW 846-8082A
Aroclor-1221	ND		1	0.24	mg/kg	10/04/23 13:01	10/06/23 15:13	MxB/TL1	SW846 3546	SW 846-8082A
Aroclor-1232	ND		1	0.24	mg/kg	10/04/23 13:01	10/06/23 15:13	MxB/TL1	SW846 3546	SW 846-8082A
Aroclor-1242	ND		1	0.24	mg/kg	10/04/23 13:01	10/06/23 15:13	MxB/TL1	SW846 3546	SW 846-8082A
Aroclor-1248	ND		1	0.24	mg/kg	10/04/23 13:01	10/06/23 15:13	MxB/TL1	SW846 3546	SW 846-8082A
Aroclor-1254	ND		1	0.24	mg/kg	10/04/23 13:01	10/06/23 15:13	MxB/TL1	SW846 3546	SW 846-8082A
Aroclor-1260	ND		1	0.24	mg/kg	10/04/23 13:01	10/06/23 15:13	MxB/TL1	SW846 3546	SW 846-8082A
Aroclor-1262	ND		1	0.24	mg/kg	10/04/23 13:01	10/06/23 15:13	MxB/TL1	SW846 3546	SW 846-8082A
Aroclor-1268	ND		1	0.24	mg/kg	10/04/23 13:01	10/06/23 15:13	MxB/TL1	SW846 3546	SW 846-8082A
Surrogate(s)	**Recovery**	**Q**		**Limits**						
Surrogate: Tetrachloro-m-xylene	*53%*			*21-123*		10/04/23 13:01	10/06/23 15:13	MxB/TL1	SW846 3546	*SW 846-8082A*
Surrogate: Decachlorobiphenyl	*60%*			*17-128*		10/04/23 13:01	10/06/23 15:13	MxB/TL1	SW846 3546	*SW 846-8082A*

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EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077
Telephone: 856-858-4800 Fax:856-786-5974
EMSL-CIN-01

EMSL Order ID: 012362690
LIMS Reference ID: AB62690
EMSL Customer ID: AMMA25

Attention: Patrick Haskell
AECOM [AMMA25]
250 Apollo Drive
Chelmsford, MA 01824
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Quality Control

GC-SVOA

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BBJ0061 - SW846 3546										
Blank (BBJ0061-BLK1)					Prepared: 10/4/2023 Analyzed: 10/6/2023					
Aroclor-1016	ND		0.25	mg/kg						
Aroclor-1221	ND		0.25	mg/kg						
Aroclor-1232	ND		0.25	mg/kg						
Aroclor-1242	ND		0.25	mg/kg						
Aroclor-1248	ND		0.25	mg/kg						
Aroclor-1254	ND		0.25	mg/kg						
Aroclor-1260	ND		0.25	mg/kg						
Aroclor-1262	ND		0.25	mg/kg						
Aroclor-1268	ND		0.25	mg/kg						
Surrogate(s)										
Surrogate: Tetrachloro-m-xylene					*0.5000*		*60*	*21-123*		
Surrogate: Decachlorobiphenyl					*0.5000*		*72*	*17-128*		
LCS (BBJ0061-BS1)					Prepared: 10/4/2023 Analyzed: 10/6/2023					
Aroclor-1016	3.64		0.25	mg/kg	5.000		73	37-120		
Aroclor-1260	3.98		0.25	mg/kg	5.000		80	45-121		
Surrogate(s)										
Surrogate: Tetrachloro-m-xylene					*0.5000*		*68*	*21-123*		
Surrogate: Decachlorobiphenyl					*0.5000*		*80*	*17-128*		
Matrix Spike (BBJ0061-MS1)		**Source: AB62637-01**			Prepared: 10/4/2023 Analyzed: 10/6/2023					
Aroclor-1016	2.76		0.24	mg/kg	4.808	ND	57	30-133		
Aroclor-1260	2.76		0.24	mg/kg	4.808	ND	57	30-134		
Surrogate(s)										
Surrogate: Tetrachloro-m-xylene					*0.4808*		*60*	*21-123*		
Surrogate: Decachlorobiphenyl					*0.4808*		*58*	*17-128*		
Matrix Spike Dup (BBJ0061-MSD1)		**Source: AB62637-01**			Prepared: 10/4/2023 Analyzed: 10/6/2023					
Aroclor-1016	2.86		0.24	mg/kg	4.831	ND	59	30-133	4	28
Aroclor-1260	2.96		0.24	mg/kg	4.831	ND	61	30-134	7	28
Surrogate(s)										
Surrogate: Tetrachloro-m-xylene					*0.4831*		*65*	*21-123*		
Surrogate: Decachlorobiphenyl					*0.4831*		*62*	*17-128*		

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EMSL-CIN-01

EMSL Order ID: 012362690
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EMSL Customer ID: AMMA25

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Project Name: 60708347-Bridge 956
Customer PO:
EMSL Sales Rep: Christopher Brandt
Received: 09/27/2023 14:15
Reported: 10/09/2023 18:05

Certified Analyses included in this Report

Analyte	CAS #	Certifications
SW 846-8082A in Solid		
Aroclor-1016	12674-11-2	NJDEP,NYSDOH,PADEP,California ELAP
Aroclor-1221	11104-28-2	NJDEP,NYSDOH,PADEP,California ELAP
Aroclor-1232	11141-16-5	NJDEP,NYSDOH,PADEP,California ELAP
Aroclor-1242	53469-21-9	NJDEP,NYSDOH,PADEP,California ELAP
Aroclor-1248	12672-29-6	NJDEP,NYSDOH,PADEP,California ELAP
Aroclor-1254	11097-69-1	NJDEP,NYSDOH,PADEP,California ELAP
Aroclor-1260	11096-82-5	NJDEP,NYSDOH,PADEP,California ELAP
Aroclor-1262	37324-23-5	NJDEP,NYSDOH,PADEP
Aroclor-1268	11100-14-4	NJDEP,NYSDOH,PADEP

List of Certifications

Code	Description	Number	Expires
MADEP	Massachusetts Department of Environmental Protection	M-NJ337	06/30/2023
California ELAP	California Water Boards	1877	06/30/2024
A2LA	A2LA Enivronmental Certificate	2845.01	07/31/2024
AIHA LAP	EMSL Analytical, Inc. Cinnaminson, NJ AIHA-LAP, LLC-ELLAP Accredited	100194	01/01/2025
NJDEP	New Jersey Department of Environmental Protection	03036	06/30/2023
PADEP	Pennsylvania Department of Environmental Protection	68-00367	11/30/2023
NYSDOH	New York State Department of Health	10872	04/01/2024
CTDPH	Connecticut Department of Public Health	PH-0270	06/23/2023

Please see the specific Field of Testing (FOT) on www.emsl.com <http://www.emsl.com> for a complete listing of parameters for which EMSL is certified.

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Telephone: 856-858-4800 Fax:856-786-5974
EMSL-CIN-01

EMSL Order ID: 012362690
LIMS Reference ID: AB62690
EMSL Customer ID: AMMA25

Attention: Patrick Haskell
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250 Apollo Drive
Chelmsford, MA 01824
(978) 905-2100
patrick.haskell@aecom.com

Project Name: 60708347-Bridge 956
Customer PO:
EMSL Sales Rep: Christopher Brandt
Received: 09/27/2023 14:15
Reported: 10/09/2023 18:05

Notes and Definitions

Item	Definition
(Dig)	For metals analysis, sample was digested.
[2C]	Reported from the second channel in dual column analysis.
DF	Dilution Factor
MDL	Method Detection Limit.
ND	Analyte was NOT DETECTED at or above the detection limit.
Q	Qualifier
RL	Reporting Limit
%REC	Percent Recovery
RPD	Relative Percent Difference
Source	Sample that was matrix spiked or duplicated

Measurement of uncertainty and any applicable definitions of method modifications are available upon request. Per EPA NLLAP policy, sample results are not blank corrected.

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AB62690

AECOM	250 Apollo Drive Chelmsford, MA. 01824	CHAIN OF CUSTODY RECORD	PAGE 1 OF 2

REPORT/INVOICE TO (NAME): Patrick Haskell

PLEASE PROVIDE RESULTS BY: ☒ EMAIL ☐ FAX

☐	1155 Elm Street, Manchester, NH, 03101	☒	250 Apollo Drive, Chelmsford, MA. 01824
☐	1 Federal Street, Boston, MA, 02110	☐	10 Orms Street, #405, Providence, RI, 02904
☐	500 Enterprise Drive, #1a, Rocky Hill, CT, 06067	☐	
☐	**Stop at first Positive**	☐	

EMAIL ADDRESS (Results): Patrick.Haskell@aecom.com

TELEPHONE #: 978-866-9078

PROJECT NUMBER: 60708347

TASK NUMBER:

REQUESTED TURN-AROUND TIME: 3 Day

CLIENT/PROJECT NAME: RIDOT

SAMPLES COLLECTED BY: Bob Jacque

LOCATION/ DESCRIPTON: Bridge 956

SIGNATURE: Bob Jacque

ADDRESS: River St, Woonsocket, RI

DATE: 9/26/23

SPECIAL INSTRUCTIONS:

ASBESTOS BULK SAMPLE ANALYSIS

- ☐ PLM BULK (EPA 600/R-93/116)
- ☐ TEM EPA NOB (600/R-93/116B)
- ☐ MAINE PROTOCOL
- ☐ • EPA 600/R-93/116
- ☐ • PLM EPA NOB *(for NOB materials only)*
- ☐ • TEM EPA NOB *(for NOB materials only)*
- ☐ NEW YORK STATE PROTOCOL
- ☐ • PLM NYS Friable 198.1
- ☐ • PLM NOB (Gravimetric) NYS 198.1
- • TEM NOB (Gravimetric) NYS 198.4

FUNGAL ANALYSIS

AIR SAMPLES

- ☐ Mold & Fungi by Spore Trap
- ☐ Mold & Fungi Culture (Genus Only)
- ☐ Mold & Fungi Culture (Genus & Species)

WIPE & BULK SAMPLES

- ☐ Mold & Fungi - Direct Examination (Tape Lift, Swab, Bulk)
- ☐ Mold & Fungi Culture (Genus Only)
- ☐ Mold & Fungi Culture (Genus & Species)

Lead

- ☒ PAINT CHIPS (SW-846-7000B)
- ☐ WIPES (SW-846-7000B)
- ☐ AIR (NIOSH 7082)
- ☐ SOILS (SW-846-7000B)
- ☐ DRINKING WATER (EPA 200.9)

PCB

- ☐ PCB WIPE (SW-846-3550C / 8082A)
- ☐ PCB BULK (SW-846-3550C / 8082A / 608.3)
- ☐ PCB AIR SAMPLE (TO-10A)
- ☐ PCB AIR SAMPLE (TO-4A)
- ☐ DATA PACKAGE NEEDED

RELINQUISHED BY: Bob Jacque		RECEIVED BY: CL EPX	
DATE: 9/26/23	TIME: 1700	DATE: 9/27/23	TIME: 11am

split lead/clem.

LDonnelly 9/27/23 2:15pm

AB62690

AECOM	250 Apollo Drive Chelmsford, Massachusetts	LEAD BULK SAMPLE CHAIN OF CUSTODY RECORD	PAGE 2 OF 2

CLIENT/PROJECT NAME: RIDOT	INSPECTOR'S NAME: Bob Jacque	REQUESTED TURN-AROUND TIME: 3 Day
LOCATION/ DESCRIPTON: Bridge 956	SIGNATURE: Bob Jacque	PROJECT NUMBER: 60708347
ADDRESS: River St, Woonsocket, RI	DATE: 9/26/23	BATCH/PO NUMBER:

NOTES / COMMENTS:

SAMPLE ID # (1, 2, 3 ONLY; DO NOT USE a, b, c)	PAINT TYPE #	SAMPLE DESCRIPTION						CONDI-TION (INTACT / DAMG'D)	QUANTITY OF MATERIAL (INCLUDE UNITS)	
		COMPONENT (EX: WALL, DOOR, WINDOW, ETC.)	SUBSTRATE (EX: BRICK, CONCRETE, DRYWALL, PLASTER)	COLOR	FLOOR	ROOM	LOCATION		TOTAL QUANTITY	DAMAGED QUANTITY (OR "N/A")
L-01	1	~~Railings~~ I-Beams	Metal	Green	N/A		on metal structure of Bridge	Damaged		

RELINQUISHED BY: Bob Jacque	DATE: 9/26/23	TIME: 1700	RECEIVED BY:	DATE:	TIME:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:

EMSL Analytical, Inc.
4140 Litt Drive, Hillside, IL 60162
Phone/Fax: (773) 313-0099 / (773) 313-0139
http://www.EMSL.com chicagolab@emsl.com

EMSL Order:	262308867
CustomerID:	AMMA25
CustomerPO:	
ProjectID:	

Attn: **Patrick Haskell**
AECOM
250 Apollo Drive
Chelmsford, MA 01824

Phone:	(978) 905-2100
Fax:	(978) 905-2101
Received:	9/27/2023 11:00 AM
Collected:	

Project: **60708347/ RIDOT/BRIDGE 956**

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)*

Client Sample Description	*Lab ID*	*Collected*	*Analyzed*	*Weight*	*Lead Concentration*
L-01	*262308867-0001*		9/29/2023	0.2528 g	38 % wt
	Site: ON METAL STRUCTURE OF BRIDGE Desc: GREEN				

Lisa M. Odeshoo

Lisa Odeshoo, Laboratory Manager
or other approved signatory

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* Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008% wt based on the minimum sample weight per our SOP. "<" (less than) result signifies the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. Definitions of modifications are available upon request.
Samples analyzed by EMSL Analytical, Inc. Hillside, IL AIHA LAP, LLC-ELLAP Accredited #102992

Initial report from 09/29/2023 15:15:24

APPENDIX J

RI Department of Environmental Management Insignificant Alteration Permit [PENDING]

APPENDIX K

US Army Corps of Engineers Authorization
[PENDING]