January 31, 2019

Mr. Adam G. Fox, P.E.
Principal Engineer
Division of Environmental Compliance
Bureau of Engineering and Construction
State of Connecticut Department of Transportation
2800 Berlin Turnpike, P.O. Box 317546
Newington, CT 06131-7546

Attention: Jason Coite, P.E. / Mandy Socolosky

Subject: On-Call Asbestos, Lead, Air Quality & Demolition Compliance
Agreement No. 8.07-01 (18)
HazMat Inspection – Bridge No. 02931 (Box Culvert) Route 2A over Poquetanuck Cove, Preston, CT
ConnDOT Assignment No. 519-5749
ConnDOT Project No. 113-107
TRC Project No. 289951.5749.0710

Dear Mr. Fox:

TRC performed a limited hazardous materials site investigation associated with the planned replacement of Bridge No. 02931, Route 2A over Poquetanuck Cove in Preston, Connecticut. At Bridge No. 02931, there were no painted surfaces identified on the actual bridge/box culvert components themselves that were scheduled for impact, therefore no lead paint was identified. Non-detectable levels of lead in paint were found on two (2) pipes and their brackets that ran alongside the north and south sides of the bridge. Since the paint was found to have non-detectable levels of lead, any paint waste stream associated with the pipes would be non-hazardous, non-RCRA waste. The black tar adhesive on metal pipe (north side & south side), grey caulk on pipe bracket and tan canvas pipe cover were sampled and found to contain no detectable amounts of asbestos. Laboratory results, site sketches, TRC Mobile Data Solutions report and site description are attached.

If you have any questions, please call TRC at (860) 298-9692.

Very Truly Yours,

**TRC**

Stephen R. Arienti, CHMM
Senior Project Manager – Program Manager

Erik R. Plimpton, P.E., CHMM, CMC
Vice President – Engineer in Charge

# Lead Based Paint Measurement Summary Table

**Device(s):** Niton XLP301-A (Serial #25555) X Ray Fluorescence (XRF) Spectrum Analyzer
**Site:** Bridge No. 02931, Preston, CT
**Project # :** 289951.5749.0710
**Date(s):** 12/26/2018
**Inspectors:** Jaime Robinson

| Number | Interior/ Exterior | Location | Bridge No. | Side | Structure | Feature | Material | Color | Condition | Reading ($mg/cm^2$) | Precision ($mg/cm^2$) | Depth Index | Duration (sec) | Date/Time |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | **Self Calibration** | | | | | | | | | | 77.7 | 12/26/2018 10:14 |
| 2 | | | **0.3 Calibration** | | | | | | | 0.3 | 0.0 | 1.0 | 18.4 | 12/26/2018 10:22 |
| 3 | | | **0.0 Calibration** | | | | | | | 0.0 | 0.0 | 1.0 | 2.6 | 12/26/2018 10:22 |
| 4 | | | **0.7 Calibration** | | | | | | | 0.6 | 0.1 | 1.1 | 9.6 | 12/26/2018 10:22 |
| 5 | | | | | | **VOID** | | | | | | | | |
| 6 | | | | | | **VOID** | | | | | | | | |
| 7 | Exterior | Preston | Bridge No. 02931 | S | Pipe | Pipe Supports | Metal | Red | Defective | 0.0 | 0.0 | 1.0 | 11.0 | 12/26/2018 10:34 |
| 8 | Exterior | Preston | Bridge No. 02931 | S | Pipe | Pipe Supports | Metal | Red | Defective | 0.0 | 0.0 | 1.0 | 7.0 | 12/26/2018 10:36 |
| 9 | | | | | | **VOID** | | | | | | | | |
| 10 | Exterior | Preston | Bridge No. 02931 | S | Pipe | | Metal | Black | Intact | 0.0 | 0.0 | 1.0 | 9.5 | 12/26/2018 10:41 |
| 11 | | | **0.3 Calibration** | | | | | | | 0.3 | 0.2 | 1.2 | 2.2 | 12/26/2018 10:45 |
| 12 | | | **0.0 Calibration** | | | | | | | 0.0 | 0.0 | 1.0 | 0.7 | 12/26/2018 10:46 |
| 13 | | | **0.0 Calibration** | | | | | | | 0.0 | 0.0 | 1.0 | 1.8 | 12/26/2018 10:46 |
| 14 | | | **0.7 Calibration** | | | | | | | 0.6 | 0.1 | 1.0 | 7.0 | 12/26/2018 10:46 |

Lead paint includes paint found to contain **any detectable** amount of lead by Atomic Absorption Spectrophotometry (AAS) or X-Ray Fluorescence (XRF).

Side A = Street side; Sides B,C,D follow clockwise

TRC

*Edition: October 2009*
*Supersede Previous Edition*

21 GRIFFIN ROAD NORTH
WINDSOR, CONNECTICUT 06095
TELEPHONE (860) 298-9692
FAX (860) 298-6380

# ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

LAB ID #. 53202

| PROJECT NUMBER | PROJECT NAME | PARAMETERS | TURNAROUND TIME |
|---|---|---|---|
| 289951, 5749. 0710 | CONN DOT BRIDGE #02931 PRESTON CT | | PLM: 8hr 24hr 48hr [X] 3day<br>TEM: 24hr 48hr [X] 3day 5day |

SIGNATURE: [signature] INSPECTOR: JAIME ROBINSON, CARMEN JACKO

| FIELD SAMPLE NUMBER | DATE | TIME | TYPE: COMP | TYPE: GRAB | SAMPLE LOCATION | PLM EPA 600/R93/116 (POSITIVE STOP) | PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP) | ANALYZE BY LAYER | POINT COUNT (IF >1% & <10%) | TEM NY NOB 198.4 (IF PLM SERIES NEG) | MATERIAL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 12/26/18 | 1015 | | x | NORTH SIDE | x | | | | | TAR ADHESIVE ON METAL PIPE |
| 2 | " | 1017 | | x | " | x | | | | x | " |
| 3 | | 1030 | | x | SOUTH SIDE PIPE HANGER | x | | | | | GREY CAULK ON PIPE BRACKET |
| 4 | | 1032 | | x | " | x | | | | x | " |
| 5 | | 1040 | | x | SOUTH SIDE WEST | x | | | | | TAN CANVAS PIPE COVER |
| 6 | | 1043 | | x | " EAST | x | | | | | " |
| 7 | | 1100 | | x | SOUTH SIDE WEST | x | | | | | TAR ADHESIVE ON PIPE |
| 8 | " | 1103 | | x | ~~TAR ADHESIVE ON PIPE~~ EAST | x | | | | x | " |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| Relinquished by: (Signature) | Date: | Received by: (Signature) | Relinquished by: (Signature) | Date: | Received by: (Signature) |
|---|---|---|---|---|---|
| [signature] | 12/26/18 | [signature] 12/26/18 | | | |
| (Printed) CARMEN JACKO | Time: | (Printed) 1600 [signature] | (Printed) | Time: | (Printed) |

Remarks: SEND TO EPLIMPTON@TRCSOLUTIONS.COM

Condition of Samples: /
Acceptable: Yes ___ No ___
Comments:

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308



TRC
*Results you can rely on*

# BULK ASBESTOS ANALYSIS REPORT

CLIENT: CT Department of Transportation

| | |
|---|---|
| Lab Log #: | 0053202 |
| Project #: | 289951.5749.0710 |
| Date Received: | 12/26/2018 |
| Date Analyzed: | 12/27/2018 |

Site: Bridge #02931, Preston, CT

## POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

| Sample No. | Color | Homogenous | Multi-Layered | Layer No. | Other Matrix Materials | | Asbestos % | Asbestos Type |
|---|---|---|---|---|---|---|---|---|
| 1 | Black (tar) | Yes | No | - - | | - - - | ND | None |
| 2 | Black (tar) | Yes | No | - - | | - - - | ND | None |
| 3 | Grey (caulk) | Yes | No | - - | | - - - | ND | None |
| 4 | Grey (caulk) | Yes | No | - - | | - - - | ND | None |
| 5 | Tan (canvas pipe cover) | Yes | No | - - | 20% | synthetic fiber | ND | None |
| 6 | Tan (canvas pipe cover) | Yes | No | - - | 20% | synthetic fiber | ND | None |
| 7 | Black (tar) | Yes | No | - - | | - - - | ND | None |
| 8 | Black (tar) | Yes | No | - - | | - - - | ND | None |

Reporting limit- asbestos present at 1%
ND - asbestos was not detected
Trace - asbestos was observed at level of less than 1%
NA/PS - Not Analyzed / Positive Stop
SNA- Sample Not Analyzed- See Chain of Custody for details

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation 1982 (EPA 600/M4-82-020) Bulk Analysis Code 18/A01 and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials July 1993, R.L. Perkins and B.W. Harvey, (EPA/600/R-93/116) Bulk Analysis Code 18/A03, which utilize polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2019. TRC is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene Program (IHLAP) for PLM effective through October 1, 2019. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and QC data related to the samples is available upon written request from client.



**Analyzed by:** K. Williamson — Kathleen Williamson, Laboratory Manager

**Reviewed by:** Cathryn Lemire, Approved Signatory

**Date Issued** 12/27/2018

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code 101424-0 AIHA-LAP,LLC #100122 CT #PH-0426 ME LA-0075, LB-0071 MA #AA000052 NY #10980 WV# LT000411
RI #AAL-007 TX #300354 VT #AL014538 LA#05011 VA #3333 000283 AZ #A20944 HI #L-09-004 NJ #CT004 CA #2907
CO# AL-15020 PHIL# 461 PA#68-03387

# Proscience Analytical Services, Inc.

22 Cummings Park, Woburn, MA 01801 Ph. 781-935-3212 Fax 781-932-4857

TEM Bulk Chain of Custody Record

NT17628

Date: 12/28/18

**PO#:** **C289951**
Client: TRC
Client Job#: 289951.5749.0710
Client Job Ref./Loc.: CTDOT- Bridge #02931, Preston, CT
Relinquished by: K. Williamson- KWilliamson@trcsolutions.com
Received by: Stephen Beatte 12/31/18 9:10
Report to: E. Plimpton- EPlimpton@trcsolutions.com & SArienti@trcsolutions.com
Samplers Name: C. Jacko

Analysis Type: Chatfield **EPA N.O.B** Qualitative

Turnaround Time: <12 Hour <24 Hour <48 Hour **<3 Day** 5 Day Other:

| | | | | For Lab Use Only | |
|---|---|---|---|---|---|
| **Client ID #** | **Lab ID#** | **Description** | **Location** | **Acceptable on Receipt** | **Comments** |
| 2 | 53202 | Tar Adhesive | See COC | | |
| 4 | 53202 | Caulk | | | |
| 8 | 53202 | Tar Adhesive | | | |
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| For Lab Use Only | # Spies | Total | Client # | Batch # | Results Reported | Comments |
|---|---|---|---|---|---|---|
| | | | | | | |

# ProScience Analytical Services, Inc.

22 Cummings Park, Woburn, Massachusetts 01801
781-935-3212 ~ Fax: 781-932-4857 ~ E-Mail general@proscience.net

**Laboratory Report**

Client Project #: 289951.5749.0710
Client Reference: CTDOT - Bridge #02931, Preston, CT
PO #: C289951
Client #: 297
Client Name: TRC Environmental Corp. (CT)

**Batch:** NT 17628
Method: NOB
Date Received: 12/31/2018
Date Analyzed: 1/4/2019
Date of Report: 1/4/2019

| LAB ID | Field ID | Description: | Color | Initial Weight | % Asbestos Types | | | | | | % Other | % | % | Total % | Analyzed / | Preped / |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | CHR | AMO | ACT | CRO | ANT | TRE | Non-asb | Organic | Carb. | Asbestos | Charged | Charged |
| NT132792 | 2 | Tar Adhesive | | .2466 | .00 | .00 | .00 | .00 | .00 | .00 | 1.71 | 95.86 | 2.43 | ND | Yes | No |
| NT132793 | 4 | Grey Caulk | | .1395 | .00 | .00 | .00 | .00 | .00 | .00 | 25.59 | 73.69 | .72 | ND | Yes | No |
| NT132794 | 8 | Tar Adhesive | | .7092 | .00 | .00 | .00 | .00 | .00 | .00 | 16.36 | 83.01 | .63 | ND | Yes | No |

**Comments:**

Key: CHR = Chrysotile AMO = Amosite CRO = Crocidolite ACT = Actinolite TRE = Tremolite ANT = Anthophyllite TR = Trace = < 1% ND = None Detected

Mark Derosier, Analyst

SHEET NO. _____ OF _____

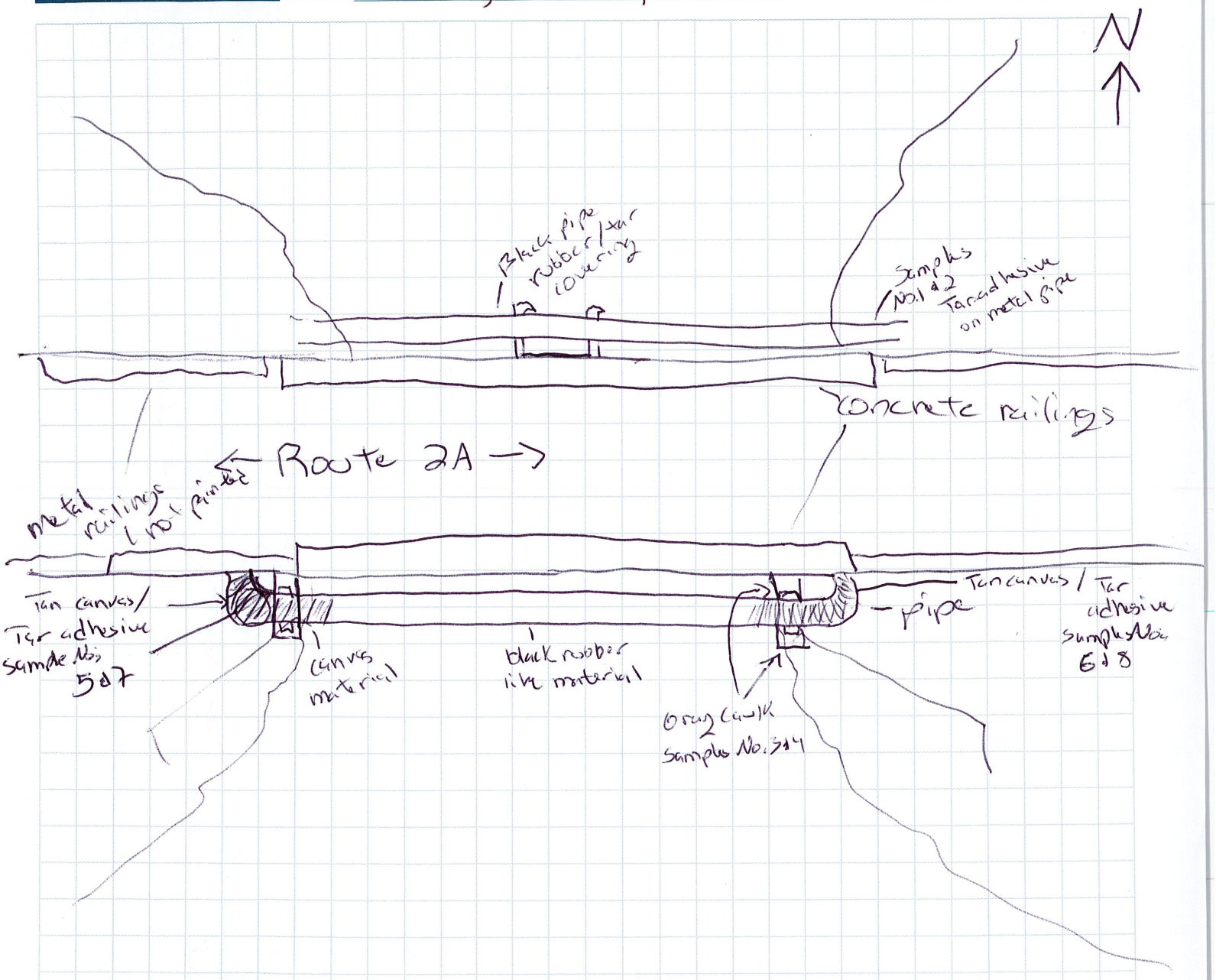
PROJECT NO. _____

DATE 12-26-18

BY _____

CHK'D _____

SUBJECT Bridge 02931, Preston




A

TRC
Results you can rely on

SHEET NO. _____ OF _____
PROJECT NO. 289951
DATE 12/26/18
BY _____
CHK'D _____

SUBJECT CONN DOT BRIDGE 2931

CONCRETE BRIDGE
NO PAINT ON BRIDGE
NO COATINGS ON BRIDGE

PIPES RUNNING PARALLEL TO BRIDGE
ON BOTH NORTH AND SOUTH SIDE

NORTH SIDE PIPE ≈ 12"
METAL PIPE
RUBBER OUTER COVER
TAR ADHESIVE ON METAL

SOUTH SIDE PIPE
METAL PIPE
TAR ADHESIVE ON PIPE
RUBBER OUTER COATING
CANVAS COATING ON RUBBER AT EACH
END OF PIPE
CAULK ON METAL BRACKET SUPPORTING PIPE

A

## ConnDOT, Conn DOT Bridge 2931, New London, , Preston, 06382, CT, US, Route 2A,

| | |
|---|---|
| Created | 2018-12-26 11:36:08 EST by Carmen Jacko |
| Updated | 2019-01-31 13:45:24 EST by Stephen Arienti |
| Location | 41.4781993814199, -72.0994884800837 |
| Status | Survey Complete |

## Job Information

| | |
|---|---|
| Site Name | Conn DOT Bridge 2931 |
| Address | Route 2A<br>Preston, CT 06382 |
| TRC Project Number | 289951.5749.0710 |
| Project Manager | Erik Plimpton |
| Inspector(s) | Jaime Robinson, Carmen Jacko |
| Client | ConnDOT |
| Type of Asbestos Survey | Reno/Demo |
| Additional Analysis for NOB Materials (Calc) | TEM NY NOB 198.4 |
| Date | 2018-12-26 |
| Overview Photo |  |

Looking south

Pipe on North side of bridge

South side of bridge

Under side of bridge

North side of bridge

North side of bridge

South side of bridge

| | |
|---|---|
| Surveys Performed | Asbestos, XRF |

## XRF Section

| | |
|---|---|
| XRF Survey Completed | Yes |
| XRF Data Downloaded | Yes |
| XRF Shots >1.0 on non-metallic building materials | No |

## General Information

| | |
|---|---|
| Asbestos Samples Submitted to TRC Lab | Yes |
| Date Submitted to Lab | 2018-12-26 |
| App Name | WinBSI HBM Survey 1.0 |

## Generate Report Documentation

Select one or more documents below to be generated. Once completed in the cloud, they will be sent to the listed email address. Please report any difficulties or errors to Justin Coleman.

| | |
|---|---|
| Where should the document(s) be sent? | sarienti@trcsolutions.com |
| Generate Documents | N/A |

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

*subject:* State Bridge Program
State Project No. 113-107
Bridge No. 02931
Route 2A over Poquetanuck Cove
Preston

***m e m o r a n d u m***

*date:* December 30, 2016

*to:*
Mr. Christopher J. Bonsignore
Transportation Principal Engineer
Bureau of Engineering and Construction

*from:*
Andrew J. Cardinali
Transportation Supervising Engineer
Bureau of Engineering and Construction

Hazardous/Contaminated Materials Screening

This project consists of the following:

- Replacement of bridge with a 10 ft. wide x 8 ft. high reinforced concrete box culvert to be placed within limits of the existing span opening.
- Install (1) 4 ft. diameter smooth wall pipe 8 ft. west of the existing bridge behind the abutment. This temporary pipe for water handling will be filled with flowable fill and abandoned in place after the construction of box culvert is complete.
- A wetland mitigation component, consisting of Phragmites Control at a separate mitigation site, between the junction of Route 2A, Route 12, and the Thames River.

Excavation is anticipated for the replacement of Bridge No. 02931. The existing bridge will be demolished and removed, though most of the abutments will remain in place. The proposed box culvert will be placed within the existing abutments. The bypass pipe used for water handling west of the bridge will require excavation to install. Additionally, the wetland mitigation site may require ground excavation. Phragmites Control may be performed above ground through spraying and mowing to avoid excavation, should there be contamination or cultural resources that would prevent excavation at the mitigation site.

Additional information is attached for your use in generating the screening evaluation for the subject bridge and proposed wetland mitigation site:

- Location Maps
- Limits of Work

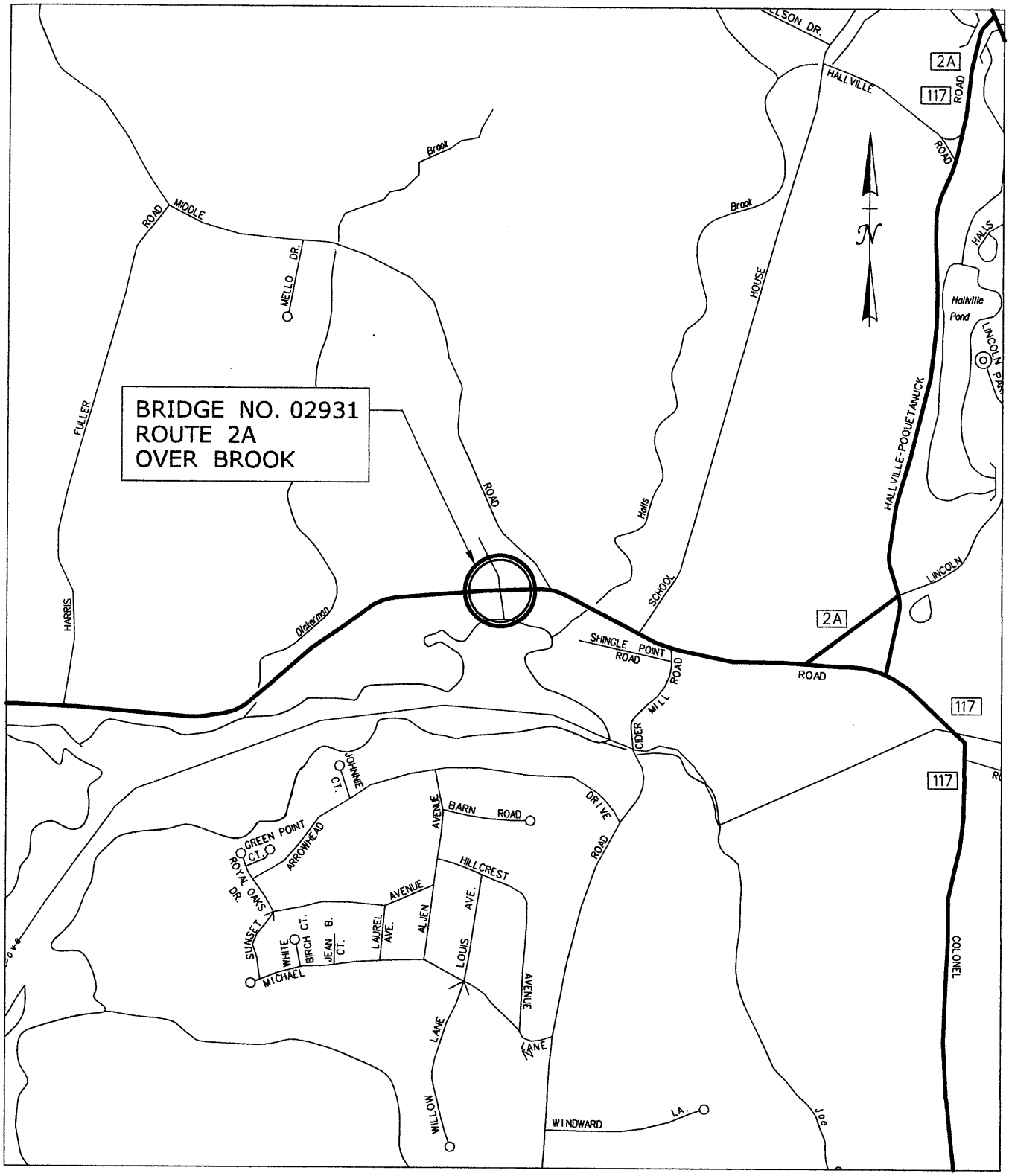
Please provide this office with the results of the screening evaluation for use in developing and advancing this project. A reply by February 24, 2017 for the initial screening would be appreciated. Should a lead investigation or other hazardous material investigation be required, please provide the results, including all special provisions, by November 17, 2017.

Time expended for the completion of these activities should be charged to Project No. 113-107. If you have any questions or require additional information, please contact Ms. Veronica M. Calin, Transportation Engineer III, at Ext. 3226.

Attachments

Susan Bakulski / mjg

cc: Rabih M. Barakat – Andrew J. Cardinali – Veronica M. Calin
Donald P. Wurst – Susan K. Bakulski (CME)




| | | |
|---|---|---|
| STATE PROJECT NO.: 113-107<br>CITY/TOWN: PRESTON | **STATE OF CONNECTICUT**<br>DEPARTMENT OF TRANSPORTATION<br>**BRIDGE NO. 02931**<br>**LOCATION MAP** | CME<br>CME Associates, Inc.<br>CONSULTING ENGINEERS & ENVIRONMENTAL PLANNERS<br>333 E. RIVER DR., SUITE 400<br>EAST HARTFORD, CT 06108 |
| DATE: 10/2014<br>SHEET NO.: 1 OF 1 | | |