



February 9, 2018

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

Attention: Amie Maines, P.E. / Michael Bedson, EIT

Subject: On-Call Asbestos, Lead, Air Quality & Demolition Compliance
Agreement No. 04.27-01(15)
HazMat Inspection – Bridge No. 01343, Route 133 over Housatonic River,
Brookfield/Bridgewater, CT
ConnDOT Assignment No. 514-5691
ConnDOT Project No. 18-134
TRC Project No. 222165.5691.0710

Dear Mr. Fox:

TRC performed a limited survey for hazardous building materials associated with the rehabilitation of Bridge No. 01343, Route 133 over Housatonic River, Brookfield / Bridgewater, Connecticut. Results of the survey identified no detectable levels of lead in paint to be present on the structural steel bridge components of Bridge No. 01343. Any paint waste generated from the structural steel bridge surfaces at Bridge No. 01343 is considered to be non-hazardous, non-RCRA waste. Black/fibrous expansion joint caulk, white/hard expansion joint caulk, white/stretchy expansion joint caulk, orange canvas like rocker bearing pad and hard /black tar at Bridge No. 01343 were sampled and found to be non-ACM. No bird/pigeon guano accumulations, hazardous/regulated items or evidence of homeless activity were observed in accessible areas of Bridge No. 01343. Associated laboratory data, inspector notes/sketches, project descriptions and site maps are attached.

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

Very Truly Yours,

TRC

A handwritten signature in black ink, appearing to read "Michael C. Kostruba".

Michael C. Kostruba CSP, CHMM
Project Manager

Reviewed by:

A handwritten signature in black ink, appearing to read "Erik R. Plimpton".

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



Lead Based Paint Measurement Summary Table

Device(s) : Niton XLP301-A (Serial #24792) X Ray Fluorescence (XRF) Spectrum Analyzer
 Client : Connecticut Department of Transportation
 Site : Bridge 01343-Brookfield, CT
 Project # : 222165.5691.0710
 Date(s) : 12/19/2017
 Inspector : Cathryn Lemire

Number	Interior/ Exterior	Area of Bridge	Room	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm ²)	Precision (mg/cm ²)	Depth Index	Duration (sec)	Date/Time
1	Shutter Calibration												150.44	12/19/2017 11:13
2	Calibration (<0.01 mg/cm ²)									0.0	0.0	1.01	3.5	12/19/2017 11:15
3	Calibration (3.58 mg/cm ²)									4.1	0.2	1.34	12.28	12/19/2017 11:16
4	Calibration (0.31 mg/cm ²)									0.3	0.1	1.1	3.95	12/19/2017 11:16
5	Exterior	Topside of Bridge	N/A	N/A	Beam	N/A	Metal	Blue-grey	N/A	0.0	0.0	1.0	3.25	12/19/2017 11:26
6	Exterior	Topside of Bridge	N/A	N/A	Beam	N/A	Metal	Blue-grey	N/A	0.0	0.0	1.0	3.94	12/19/2017 11:26
7	Exterior	Topside of Bridge	N/A	N/A	Beam	N/A	Metal	Grey	N/A	0.0	0.0	1.36	2.55	12/19/2017 11:41
8	Exterior	Topside of Bridge	N/A	N/A	Beam	N/A	Metal	Grey	N/A	0.0	0.0	1.0	4.39	12/19/2017 11:41
9	Exterior	Underside of Bridge	N/A	N/A	Girder	N/A	Metal	Blue-grey	N/A	0.0	0.0	1.0	0.23	12/19/2017 11:42
10	Exterior	Underside of Bridge	N/A	N/A	Girder	N/A	Metal	Blue-grey	N/A	0.0	0.0	1.0	2.78	12/19/2017 11:43
11	Exterior	Underside of Bridge	N/A	N/A	Girder	N/A	Metal	Blue-grey	N/A	0.0	0.0	1.4	2.78	12/19/2017 11:43
12	Exterior	Underside of Bridge	N/A	N/A	Girder	N/A	Metal	Blue-grey	N/A	0.0	0.0	1.07	3.02	12/19/2017 11:44
13	Exterior	Underside of Bridge	N/A	N/A	Girder	N/A	Metal	Blue-grey	N/A	0.0	0.0	3.61	4.65	12/19/2017 11:54
14	Exterior	Underside of Bridge	N/A	N/A	Girder	N/A	Metal	Blue-grey	N/A	0.0	0.0	1.0	0.69	12/19/2017 11:55
15	Exterior	Underside of Bridge	N/A	N/A	Girder	N/A	Metal	Blue-grey	N/A	0.0	0.0	1.72	2.32	12/19/2017 11:55
16	VOID	Underside of Bridge	VOID				Metal	VOID	N/A	0.0	0.0			VOID
17	Exterior	Underside of Bridge	N/A	N/A	Girder	N/A	Metal	Blue-grey	N/A	0.0	0.0	3.83	22.33	12/19/2017 11:57
18	Exterior	Underside of Bridge	N/A	N/A	Girder	N/A	Metal	Blue-grey	N/A	0.0	0.0	3.17	20.59	12/19/2017 12:25
19	Exterior	Underside of Bridge	N/A	N/A	Girder	N/A	Metal	Blue-grey	N/A	0.0	0.1	4.52	1.62	12/19/2017 12:26
20	Exterior	Underside of Bridge	N/A	N/A	Girder	N/A	Metal	Blue-grey	N/A	0.0	0.0	1.0	1.63	12/19/2017 12:26
21	Calibration (0.01 mg/cm ²)									0.0	0.0	1.0	2.55	12/19/2017 12:43
22	Calibration (3.58 mg/cm ²)									4.1	0.4	1.36	5.57	12/19/2017 12:44
23	Calibration (0.31 mg/cm ²)									0.3	0.1	1.11	4.88	12/19/2017 12:44

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

80 Lupes Drive
Stratford, CT 06615



Tel: (203) 377-9984
Fax: (203) 377-9952
e-mail: cet1@cetlabs.com

Client: Mr. Erik Plimpton
TRC Environmental Consultants
21 Griffin Rd., North
Windsor, CT 06095

Analytical Report

CET# 7120608

Report Date: December 27, 2017
Project: Bridge
Project Number: Bridge 01343, Brookfield
PO Number: 222165.5691.0710

Connecticut Laboratory Certificate: PH 0116
Massachusetts laboratory Certificate: M-CT903



New York NELAP Accreditation: 11982
Rhode Island Certification: 199

CET # : 7120608

Project: Bridge

Project Number: Bridge 01343, Brookfield

SAMPLE SUMMARY

The sample(s) were received at 24.9°C.

This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
1	7120608-01	Paint Chip	12/19/2017 11:05	12/20/2017

Analyte: Total Lead [EPA 6010C]

Analyst: SS

Matrix: Paint Chip

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
7120608-01	1	ND	0.10	%	1	B7L2226	12/22/2017	12/26/2017 15:18	

CET #: 7120608

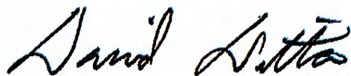
Project: Bridge

Project Number: Bridge 01343, Brookfield

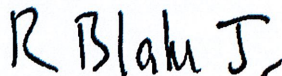
All questions related to this report should be directed to David Ditta, Timothy Fusco, or Robert Blake at 203-377-9984.

Sincerely,

This technical report was reviewed by Robert Blake



David Ditta
Laboratory Director



Project Manager

Report Comments:

Sample Result Flags:

- E- The result is estimated, above the calibration range.
- H- The surrogate recovery is above the control limits.
- L- The surrogate recovery is below the control limits.
- B- The compound was detected in the laboratory blank.
- P- The Relative Percent Difference (RPD) of dual column analyses exceeds 40%.
- D- The RPD between the sample and the sample duplicate is high. Sample Homogeneity may be a problem.
- + - The Surrogate was diluted out.
- *C1- The Continuing Calibration did not meet method specifications and was biased low for this analyte. Increased uncertainty is associated with the reported value which is likely to be biased low.
- *C2- The Continuing Calibration did not meet method specifications and was biased high for this analyte. Increased uncertainty is associated with the reported value which is likely to be biased high.
- *F1- The Laboratory Control Sample recovery is outside of control limits. Reported value for this analyte is likely to be biased on the low side.
- *F2- The Laboratory Control Sample recovery is outside of control limits. Reported value for this analyte is likely to be biased on the high side.
- I- The Analyte exceeds %RSD limits for the Initial Calibration. This is a non-directional bias.

All results met standard operating procedures unless indicated by a data qualifier next to a sample result, or a narration in the QC report.

For Percent Solids, if any of the following prep methods (3050B, 3540C, 3545A, 3550C, 5035 and 9013A) were used for samples pertaining to this report, the percent solids procedure is within that prep method.

Complete Environmental Testing is only responsible for the certified testing and is not directly responsible for the integrity of the sample before laboratory receipt.

ND is None Detected at or above the specified reporting limit

RL is the Reporting Limit.

All analyses were performed in house unless a Reference Laboratory is listed.

Samples will be disposed of 30 days after the report date.

CET # : 7120608

Project: Bridge

Project Number: Bridge 01343, Brookfield

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>EPA 6010C in Solid</i>	
Lead	CT

Complete Environmental Testing operates under the following certifications and accreditations:

Code	Description	Number	Expires
CT	Connecticut Public Health	PH0116	09/30/2018

Complete Environmental Testing, Inc.

80 Lupes Drive, Stratford, CT 06615 • Tel: 203-377-9984 • Fax: 203-377-9952 • www.cetlabs.com



Page 5 of 5

LAB ID #:

TURNAROUND TIME

Sda

1

Blue-Grey body paint

Received by: (Signature)

(Printed)

(continued)

Page 1 of 1



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

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

Edition: October 2009
Supersede Previous Edition

LAB ID #. 51697

PROJECT NUMBER		PROJECT NAME		PARAMETERS				TURNAROUND TIME						
222165.5691.0710		Bridge 01343, Brookfield, CT		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)	PLM:	8hr	24hr	48hr	3day	5day
SIGNATURE		INSPECTOR		MATERIAL										
FIELD SAMPLE NUMBER	DATE	TIME	TYPE	COMP	GRAB	SAMPLE LOCATION								
01	12/19/17	1020	X		X	Inbetween bridge side wall sections "	X							
02		1110	X		X	"		X						
03		1030	X		X	Where bridge meets abutment "	X							
04		0115	X		X	"								
05		1100	X		X	Inbetween (2) bridge side wall sections "	X							
06		1102	X		X	"								
07		1050	X		X	Bridge rocker bearings "	X							
08		1120	X		X	"								
09		1140	X		X	on top of road "	X							
10		1142	X		X	"		X						

Relinquished by: (Signature)	Date:	Received by: (Signature)	Date:	Relinquished by: (Signature)	Date:	Received by: (Signature)	Date:
	12/19/17		12/19/17				
(Printed) Zachary Smith	Time: 1500	(Printed) 1510		(Printed)	Time:	(Printed)	
Remarks: Send results to SArienti@TRCSolutions.com				Condition of Samples: Acceptable: Yes ☒ No ☐ Comments:			



BULK ASBESTOS ANALYSIS REPORT

CLIENT: CT Department of Transportation

Lab Log #: 0051697
Project #: 222165.5691.0710
Date Received: 12/19/2017
Date Analyzed: 12/20/2017

Site: Bridge 01343, Brookfield, CT

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
01	Black (joint caulk)	Yes	No	--	10% cellulose	ND	None
02	Black (joint caulk)	Yes	No	--	10% cellulose	ND	None
03	White (joint caulk)	Yes	No	--	---	ND	None
04	White (joint caulk)	Yes	No	--	---	ND	None
05	White (joint caulk)	Yes	No	--	---	ND	None
06	White (joint caulk)	Yes	No	--	---	ND	None
07	Orange (rocker pad)	Yes	No	--	80% cellulose	ND	None
08	Orange (rocker pad)	Yes	No	--	80% cellulose	ND	None
09	Black (tar)	Yes	No	--	---	ND	None
10	Black (tar)	Yes	No	--	---	ND	None

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code 101424-0
RI #AAL-007 TX #300354
CO# AL-15020

AIHA-LAP,LLC #100122 CT #PH-0426
VT #AL014538 LA#05011 VA #3333 000283
PHIL# 461 PA#68-03387

ME LA-0075, LB-0071 MA #AA000052 NY #10980 WV# LT000411
AZ #A20944 HI #L-09-004 NJ #CT004 CA #2907



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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
------------	-------	------------	---------------	-----------	------------------------	------------	---------------

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, 2018. TRC is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene Program (IHLAP) for PLM effective through October 1, 2018. 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.

This report shall not be reproduced, except in full, without the written approval of TRC. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested.

Analyzed by:

K. Williamson
Kathleen Williamson, Laboratory Manager

Reviewed by:

Cathryn Lemire
Cathryn Lemire, Approved Signatory

Date Issued

12/20/2017

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code 101424-0
RI #AAL-007 TX #300354
CO# AL-15020

AIHA-LAP, LLC #100122 CT #PH-0426
VT #AL014538 LA#05011 VA #3333 000283
PHIL# 461 PA#68-03387

ME LA-0075, LB-0071 MA #AA000052 NY #10980 WV# LT000411
AZ #A20944 HI #L-09-004 NJ #CT004 CA #2907

VT 16960

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

TEM Bulk Chain of Custody Record

Date: 12/20/17

PO#: C222165

Client: TRC

Client Job#: 222165.5691.0710

Client Job Ref./Loc.: CT DOT- Bridge 01343, Brookfield, CT

Relinquished by: **K. Williamson-KWilliamson@trcsolutions.com**

Received by: Doreen Thompson 12/21/17 at 1:20

Report to: E. Plimpton- EPlimpton@trcsolutions.com & S.Arienti@trcsolutions.com

Samplers Name: Z. Smith

Analysis Type:	Chatfield	EPA N.O.B	Qualitative

Turn Around 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	51697	Joint Caulk	See COC			
4	51697	Joint Caulk				
6	51697	Joint Caulk				
8	51697	Rocker Pad				
10	51697	Tar				
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 #: 222165.5691.0710
Client Reference: CT DOT - Bridge 01343, Brookfield, CT
PO #: C222165
Client #: 297
Client Name: TRC Environmental Corp. (CT)

Batch: NT 16960
Method: NOB
Date Received: 12/21/2017
Date Analyzed: 12/27/2017
Date of Report: 12/27/2017

LAB ID	Field ID	Description:	Color	Initial Weight	% Asbestos Types					% Other Non-asb.	% Organic	% Carb.	Total % Asbestos	Analyzed / Charged	Preped / Charged
					CHR	AMO	ACT	CRO	ANT	TRE					
NT128104	2	Black Fibrous Expansion Joint Caulk		.4566	.00	.00	.00	.00	.00	.00	37.60	2.76	ND	Yes	No
NT128105	4	White Stretchy Expansion Joint Caulk		.3996	.00	.00	.00	.00	.00	.00	60.86	36.76	ND	Yes	No
NT128106	6	White Hard Expansion Joint Caulk		.2272	.00	.00	.00	.00	.00	.00	20.95	76.54	ND	Yes	No
NT128107	8	Orange Canvas Like Rocker Pad		.5570	.00	.00	.00	.00	.00	.00	60.13	10.32	ND	Yes	No
NT128108	10	Hard Black Tar		.3154	.00	.00	.00	.00	.00	.00	53.77	32.05	ND	Yes	No

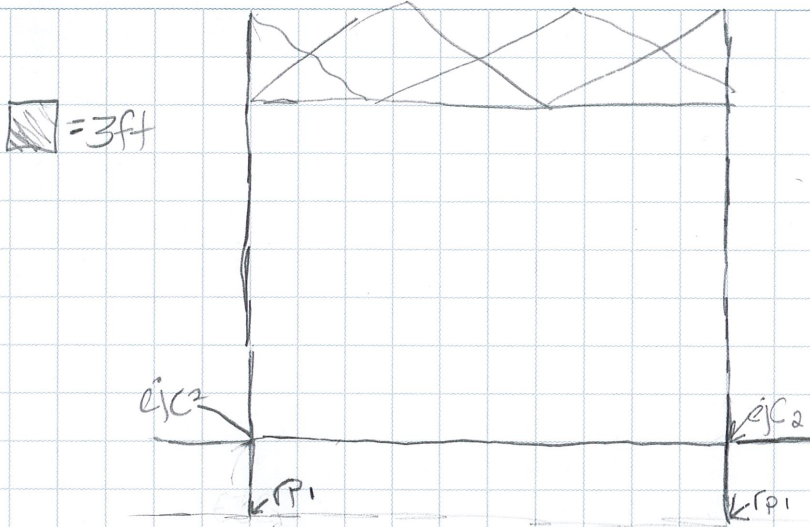
Comments:

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


Mark Derossier, Analyst



SUBJECT Bridge 01343 Brookfield CT



- ejc1, black expansion joint between bridge wall sections
- ejc2 - white stretchy expansion joint

- rp1 - Brown/orange rumble pad (2x4 feet) x (10 posts) = 80 sq feet

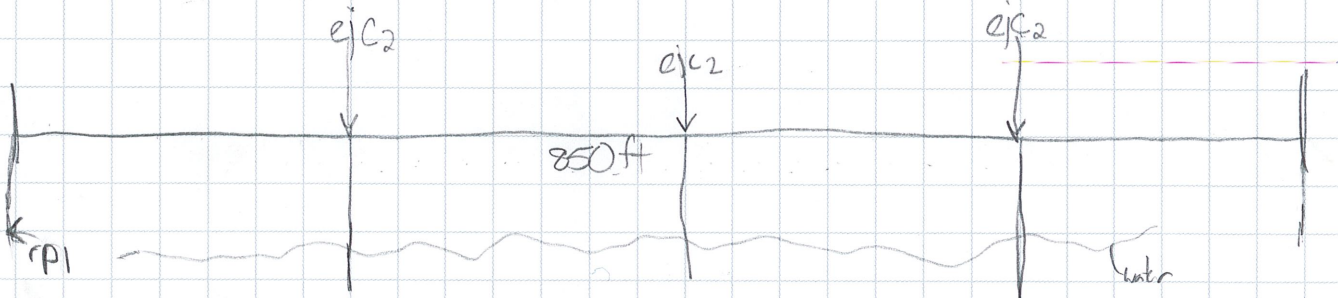
- ejc3 (7LF) white expansion joint caulking on 1st Seam section. Southeast side

- assumed vapor barrier / waterproofing behind abutment

- Silicone along drains underneath bridge

- 41 bridge wall section seams with ejc1 between all (except 1 has EJC3)

- T1 Tar material on top of road, black Patching material



- 3 piers in the water - assumed rp1 on each
- fiberglass piping along east side of bridge

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

subject: State Bridge Program
State Project No. 18-134
Bridge No. 01343
Route 133 over Housatonic River
Brookfield

m e m o r a n d u m

to:

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

date:

January 29, 2016

from:

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

Hazardous/Contaminated Materials Screening

This project consists of the following repairs:

- Structural steel repairs to truss members, gusset plates, and the floor system
- Field touch-up painting of steel at repair locations and localized areas of missing paint
- Cleaning and painting of all bearings
- Replacement of overstressed rivets at gusset plate connections with high strength bolts (if necessary based on analysis)
- Deck repair with partial and full depth deck patching
- Replacement of waterproofing and bituminous overlay
- Joint replacement with strip seal joints with normal weight concrete headers at the south abutment and all piers, and an asphaltic plug joint at the north abutment
- Replacement of the existing bridge parapets and reconstruction of the east and west edges of the deck to accommodate new parapets and a new drainage system
- Improvements to the existing drainage system, including the removal of the existing slotted drains and hoppers, addition of new scuppers and extending short or missing weeps
- Substructure patching
- Removal of the existing concrete endwall and disconnected corrugated metal pipe at the southwest corner of the bridge and construction of a new endwall closer to the approach roadway with a pipe that connects to the existing approach roadway drainage system and outlets into a swale

Minor excavation is anticipated for the removal of the existing endwall and the construction of the new endwall.

Additional information is attached for your use in generating the screening evaluation for the subject bridge:

- Location Map
- Limits of Work

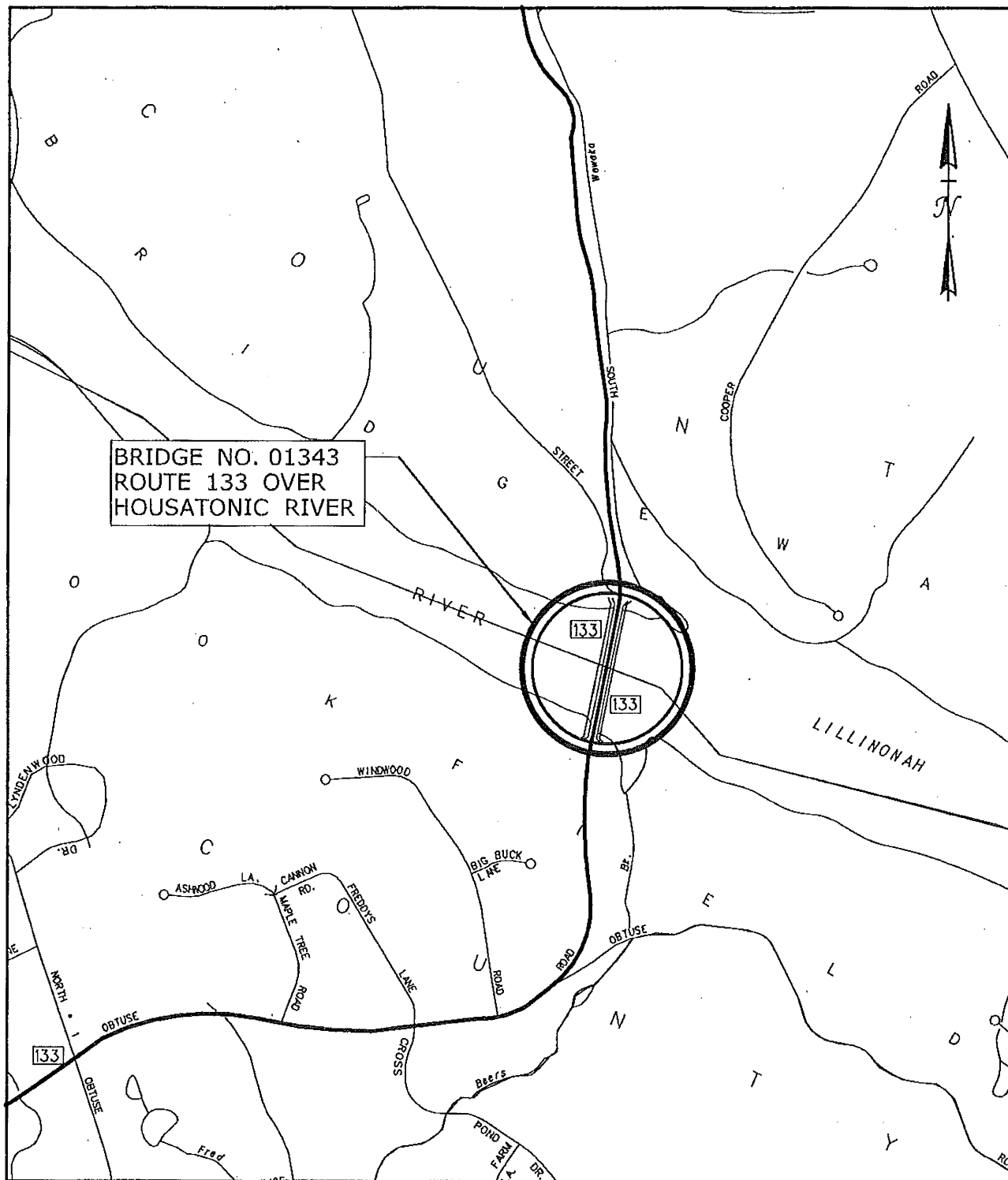
Please provide this office with the results of the screening evaluation for use in developing and advancing this project.

A reply by February 26, 2016 would be appreciated. Time expended for the completion of these activities should be charged to Project No. 18-134. If you have any questions or require additional information, please contact Ms. Dobieslaw A. Kania, Transportation Engineer III, at Ext. 3389.

Attachments

Tracey A. Brais/tab

cc: Rabil M. Barakat – Andrew J. Cardinali – Dobieslaw A. Kania
Bryan L. Busch – Donald P. Wurst (CME)



BRIDGE NO. 01343
ROUTE 133 OVER
HOUSATONIC RIVER

SCALE IN FEET

1000 0 1000 2000

STATE PROJECT NO.:

18-134

CITY/TOWN:

BROOKFIELD



STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION



BRIDGE NO. 01343
LOCATION MAP



CME Associates, Inc.
CONSULTING ENGINEERS &
ENVIRONMENTAL PLANNERS
231 E. FORTY-THIRD, SUITE 400
EAST HARTFORD, CT 06108

DATE:

01/20/2016

SHEET NO.:

1 OF 1