March 13, 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. / Felix Mathieu

Subject: On-Call Asbestos, Lead, Air Quality & Demolition Compliance
Agreement No. 04.27-01(15)
HazMat Inspection - Bridge No. 01446, Wheelers Farms Road over SR 796, Milford, CT
ConnDOT Assignment No. 514-5693
ConnDOT Project No. 83-264
TRC Project No. 222165.5693.0710

Dear Mr. Fox:

TRC performed a limited survey for hazardous building materials associated with the replacement of Bridge No. 01446, Wheelers Farms Road over SR 796 in Milford, Connecticut. Results of the survey identified lead paint to be present on the structural steel/metal bridge/railing components of Bridge No. 01446. Results obtained from TCLP waste stream sampling and analysis for leachable lead from the paint on the structural steel/metal bridge/railing components characterized the paint waste stream at Bridge No. 01446 as CTDEEP/RCRA hazardous waste. At Bridge No. 01446, suspect asbestos containing grey caulking on concrete abutments, grey flexible railing caulking, black flexible tar on road and off-white flexible caulking at base of the abutments were sampled and found to contain no asbestos. Potential universal waste (UW) items associated with the electronic variable message sign (VMS) (i.e. Hg lamps/electronic ballasts and/or printed circuit boards) are also likely present but are not to be impacted as part of this project. No bird/pigeon guano accumulations or items of bloodborne pathogens (BBP) concern were observed in accessible areas of Bridge No. 01446. Associated laboratory data, inspector notes, project descriptions and site maps 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: ConnDOT - Bridge No. 01446, Milford, CT
Project # : 222165.5693.0710
Date(s): 1/9/18 & 1/24/2018
Inspectors: David Heelon (CTDPH License #002188) & Zac Smith

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**										45.9	1/9/2018 11:16
2			**0.0 Calibration**							0.0	0.0	1.0	5.5	1/9/2018 11:18
3			**3.6 Calibration**							3.6	0.3	1.3	8.0	1/9/2018 11:18
4			**0.3 Calibration**							0.3	0.1	1.0	6.1	1/9/2018 11:19
5	Exterior	Milford	Bridge No. 01446	east	railing		Metal	Grey	Defective	**3.0**	**0.2**	1.6	8.5	1/9/2018 11:28
6	Exterior	Milford	Bridge No. 01446	east	railing		Metal	Grey	Defective	**0.6**	**0.1**	1.6	11.6	1/9/2018 11:28
7	Exterior	Milford	Bridge No. 01446	east	railing		Metal	Grey	Defective	**1.3**	**0.1**	2.3	17.7	1/9/2018 11:29
8	Exterior	Milford	Bridge No. 01446	east	railing		Metal	Grey	Defective	0.0	0.0	1.0	10.4	1/9/2018 11:30
9	Exterior	Milford	Bridge No. 01446	west	railing		Metal	Grey	Defective	**0.1**	**0.0**	2.0	23.1	1/9/2018 11:31
10	Exterior	Milford	Bridge No. 01446	west	railing		Metal	Grey	Defective	**0.5**	**0.1**	1.7	11.6	1/9/2018 11:32
11	Exterior	Milford	Bridge No. 01446	west	railing		Metal	Grey	Defective	**6.0**	**0.7**	2.3	20.1	1/9/2018 11:33
12	Exterior	Milford	Bridge No. 01446	west	railing		Metal	Grey	Defective	**1.1**	**0.1**	1.7	29.2	1/9/2018 11:33
13			**0.0 Calibration**							0.0	0.0	1.0	6.1	1/9/2018 12:24
14			**0.3 Calibration**							0.3	0.0	1.0	10.3	1/9/2018 12:24
15			**3.6 Calibration**							3.6	0.3	1.3	5.5	1/9/2018 12:24
16			**Self Calibration**										48.0	1/24/2018 10:46
17			**0.0 Calibration**							0.0	0.0	1.0	4.8	1/24/2018 11:01
18			**0.7 Calibration**							0.7	0.1	1.1	4.8	1/24/2018 11:01
19			**1.6 Calibration**							1.7	0.1	1.2	28.6	1/24/2018 11:01
20	Exterior	Milford	Bridge No. 01446		steel beam		Metal	Tan	Defective	**7.2**	**1.0**	2.6	9.6	1/24/2018 11:15
21	Exterior	Milford	Bridge No. 01446		steel beam		Metal	Tan	Defective	**7.5**	**1.1**	2.7	7.7	1/24/2018 11:15
22	Exterior	Milford	Bridge No. 01446		structural steel beam		Metal	Tan	Defective	**1.7**	**0.2**	2.9	11.9	1/24/2018 11:47
23	Exterior	Milford	Bridge No. 01446		structural steel beam		Metal	Tan	Defective	**16.8**	**1.4**	2.8	10.7	1/24/2018 11:48
24	Exterior	Milford	Bridge No. 01446		structural steel beam		Metal	Tan	Defective	**4.4**	**0.7**	2.1	11.3	1/24/2018 11:49
25	Exterior	Milford	Bridge No. 01446		structural steel beam		Metal	Silver	Defective	**0.1**	**0.0**	2.6	11.9	1/24/2018 12:18
26	Exterior	Milford	Bridge No. 01446		structural steel beam		Metal	Silver	Defective	0.0	0.0	2.0	24.5	1/24/2018 12:18
27			**0.0 Calibration**							0.0	0.0	1.0	2.4	1/24/2018 12:21
28			**0.7 Calibration**							0.7	0.1	1.1	4.8	1/24/2018 12:21
29			**1.6 Calibration**							1.6	0.1	1.2	26.3	1/24/2018 12:22

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

COMPLETE ENVIRONMENTAL TESTING, INC.

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# 8010186

Report Date:January 12, 2018
Project: CTDOT, Bridge
Project Number: 222165.5693.0710, Bridge 01446, Milford

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

New York NELAP Accreditation: 11982
Rhode Island Certification: 199

CET # : 8010186
Project: CTDOT, Bridge
Project Number: 222165.5693.0710, Bridge 01446, Milford

SAMPLE SUMMARY

The sample(s) were received at 24.8°C.
This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
1	8010186-01	Paint Chip	1/09/2018 11:45	01/10/2018

Analyte: TCLP Lead [EPA 6020A] **Analyst: CED**

Prep: EPA 3005A-1311 **Matrix: Extract**

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
8010186-01	1	**37**	0.013	mg/L	1	B8A1120	01/11/2018	01/11/2018 13:27	

CET # : 8010186
Project: CTDOT, Bridge
Project Number: 222165.5693.0710, Bridge 01446, Milford

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

Sincerely,

David Ditta
Laboratory Director

This technical report was reviewed by Timothy Fusco

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 # : 8010186
Project: CTDOT, Bridge
Project Number: 222165.5693.0710, Bridge 01446, Milford

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 6020A in Water	
Lead	NY,CT

Complete Environmental Testing operates under the following certifications and accreditations:

Code	Description	Number	Expires
CT	Connecticut Public Health	PH0116	09/30/2018
NY	New York Certification (NELAC)	11982	04/01/2018

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

Edition: November 2013
Supersede Previous Edition

TCLP CHAIN OF CUSTODY

LAB ID #.

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
222165.5693.0710	CTDOT Bridge 01446, Milford, CT		24hr X 48hr 3day 5day 24hr 48hr 3day 5day

INSPECTOR: (SIGNATURE) Cathryn Lemire (PRINTED) Cathryn Lemire

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	RCRA Pb	RCRA Pb, AS, CR, CD	8 RCRA Metals	TCLP Pb	SPLP Pb		MATERIAL
1	1/9/18	1145		x	Railings (top of Bridge)				X			Grey Paint

TCLP N 1-8

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
	1/9/18	1255 1-10-18		1-10-18	
(Printed) Cathryn Lemire	Time: 1344	(Printed) Robert Pergament	(Printed) Robert Pergament	Time: 1650	(Printed)

please email eplimpton@trcsolutions.com and Sarienti@trcsolutions.com

80 Lupes Drive
Stratford, CT 06615

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

Client: Mr. Stephen Arienti
TRC Environmental Consultants
21 Griffin Rd., North
Windsor, CT 06095

Analytical Report

CET# 8010627

Report Date:January 30, 2018
Project: Bridge, 01466, Milford
Project Number: 222165.5695.0710

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

New York NELAP Accreditation: 11982
Rhode Island Certification: 199

SAMPLE SUMMARY

The sample(s) were received at 22.0°C.

This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
Structural I-Beams	8010627-01	Paint Chip	1/24/2018 12:00	01/25/2018

Analyte: TCLP Lead [EPA 6020A] **Analyst: CED**

Prep: EPA 3005A-1311 **Matrix: Extract**

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
8010627-01	Structural I-Beams	**73**	0.013	mg/L	1	B8A2921	01/29/2018	01/29/2018 16:07	

CET # : 8010627
Project: Bridge, 01466, Milford
Project Number: 222165.5695.0710

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

Sincerely,

David Ditta
Laboratory Director

This technical report was reviewed by Timothy Fusco

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 # : 8010627
Project: Bridge, 01466, Milford
Project Number: 222165.5695.0710

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 6020A in Water	
Lead	NY,CT

Complete Environmental Testing operates under the following certifications and accreditations:

Code	Description	Number	Expires
CT	Connecticut Public Health	PH0116	09/30/2018
NY	New York Certification (NELAC)	11982	04/01/2018

8010627

TRC
21 GRIFFIN ROAD NOR...
WINDSOR, CONNECTICUT 06095
TELEPHONE (860) 298-9692
FAX (860) 298-6380

Edition: November 2013
Supersede Previous Edition

TCLP CHAIN OF CUSTODY

LAB ID #.

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
222165.5695.0710	Bridge 01466 Milford		TCLP ☐ 24hr ☐ 48hr ☒ 3day ☐ 5day ☐ 24hr ☐ 48hr ☐ 3day ☐ 5day
INSPECTOR: (SIGNATURE) Eric Gitberg	(PRINTED) Eric Gitberg		

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	RCRA Pb	RCRA Pb, AS, CR, CD	8 RCRA Metals	TCLP Pb	SPLP Pb		MATERIAL
01	1/24/18	1300			Structural I-Beams				X			Tan Paint

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
Eric Gitberg	1/24/18	1220 1/25/18		1/25/18	
(Printed) Eric Gitberg	Time:	(Printed) 1158 GREG GIVNEY	(Printed) GREG GIVNEY	Time: 1520	(Printed) Courtney Catharine

Results to sarienti@trcsolutions.com and eplimpton@trcsolutions.com

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 #. 51785

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
222165.5693.0710	Bridge #01446 CTDOT Milford, CT		PLM: 8hr 24hr X 48hr 3day TEM: 24hr 48hr 3day 5day
SIGNATURE: David Heelon	INSPECTOR: David Heelon		

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	1/9/18	1124		✓	Exterior - Top of Bridge	✓					Gray Caulk on Concrete Abutments (C1)
2	1/9/18	1126		✓	↓	✓				✓	↓

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
David Heelon	1/9/18	1/9/18			
(Printed) David Heelon	Time: 1405	(Printed) Kathryn Lemire 1500	(Printed)	Time:	(Printed)

Remarks: Email results to Erik Plimpton & Steve Arienti. Thanks

Condition of Samples: _____
Acceptable: Yes X 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 #:	0051785
Project #:	222165.5693.0710
Date Received:	01/09/2018
Date Analyzed:	01/10/2018

Site: Bridge 01446, Milford, 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	Grey (caulk)	Yes	No	- -	- - -	ND	None
2	Grey (caulk)	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, 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.

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

Reviewed by: Cathryn Lemire — Cathryn Lemire, Approved Signatory

Date Issued 01/10/2018

Proscience Analytical Services, Inc.

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

NT 16991

TEM Bulk Chain of Custody Record

Date: 01/10/17

PO#: **C222165**
Client: TRC
Client Job#: 222165.5693.0710
Client Job Ref./Loc.: CT DOT- Bridge #01446, Milford, CT
Relinquished by: K.Williamson- KWilliamson@trcsolutions.com
Received by: Paula Keevitt Cole 1/11/18 9:15
Report to: E. Plimpton- EPlimpton@trcsolutions.com & SArienti@trcsolutions.com
Samplers Name: D. Heelon

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	51785	Caulk	See COC		

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 #: 222165.5693.0710
Client Reference: CT DOT - Bridge #01446, Milford, CT
PO #: C222165
Client #: 297
Client Name: TRC Environmental Corp. (CT)

Batch: NT 16991
Method: NOB
Date Received: 1/11/2018
Date Analyzed: 1/15/2018
Date of Report: 1/15/2018

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						
NT128383	2	Caulk on Concrete Abutments		.5902	.00	.00	.00	.00	.00	.00	36.43	27.84	35.73	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

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 #. 51854

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
22265.5693.0710	Bridge # 01446 Milford, CT		PLM: [ ] 8hr [ ] 24hr [X] 48hr [ ] 3day
			TEM: [ ] 24hr [X] 48hr [ ] 3day [ ] 5day

SIGNATURE	INSPECTOR
Eric Gitberg	Eric Gitberg

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
01	1/24/18	1117		X	Base of railing	X					C1-Gray flexible caulk
02	"	1117		X	"					X	"
03	"	1200		X	Concrete side of road	X					RP1- Black flexible tar
04	"	1200		X	Road					X	"
05	"	1300		X	Base of abutment	X					C3 - Offwhite flexible caulk
06	"	1305		X	"					X	"

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
Eric Gitberg	1/24/18	1/24/18			
(Printed) Eric Gitberg	Time:	(Printed) 1700	(Printed)	Time:	(Printed)

Remarks:
Results to eplimpton@trcsolutions.com and sarient@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 #:	0051854
Project #:	222165.5693.0710
Date Received:	01/24/2018
Date Analyzed:	01/25/2018

Site: Bridge #01446, Milford, 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	Grey (caulk)	Yes	No	- -	- - -	ND	None
02	Grey (caulk)	Yes	No	- -	- - -	ND	None
03	Black (tar)	Yes	No	- -	- - -	ND	None
04	Black (tar)	Yes	No	- -	- - -	ND	None
05	Off White (caulk)	Yes	No	- -	- - -	ND	None
06	Off White (caulk)	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, 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.

Analyzed by: K. Williamson
Kathleen Williamson, Laboratory Manager

Reviewed by: Cathryn Lemire
Cathryn Lemire, Approved Signatory

Date Issued
01/27/2018

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

jae 1/30/18
NTH 17024

Proscience Analytical Services, Inc.

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

TEM Bulk Chain of Custody Record

Date: 01/29/17

PO#: **C222165** Analysis Type: Chatfield **EPA N.O.B** Qualitative

Client: TRC

Client Job#: 222165.5693.0710

Client Job Ref./Loc.: CT DOT- Bridge #01446, Milford, CT

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

Received by: Paula Leavitt Cole 1/30/18 10:10

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

Samplers Name: E. Gitberg

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**
02	51854	Caulk	See COC		
04	51854	Tar			
06	51854	Caulk			

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 #: 222165.5693.0710
Client Reference: CT DOT - Bridge #01446, Milford, CT
PO #: C222165
Client #: 297
Client Name: TRC Environmental Corp. (CT)

Batch: **NT 17024**
Method: NOB
Date Received: 1/30/2018
Date Analyzed: 2/1/2018
Date of Report: 2/1/2018

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
NT128541	02	Gray Flexible Caulk		.3696	.00	.00	.00	.00	.00	.00	49.24	26.54	24.22	ND	Yes	No
NT128542	04	Black Flexible Tar		.6110	.00	.00	.00	.00	.00	.00	14.14	66.22	19.64	ND	Yes	No
NT128543	06	Offwhite Flexible Caulk		.2773	.00	.00	.00	.00	.00	.00	5.91	83.38	10.71	ND	Yes	No

Comments:

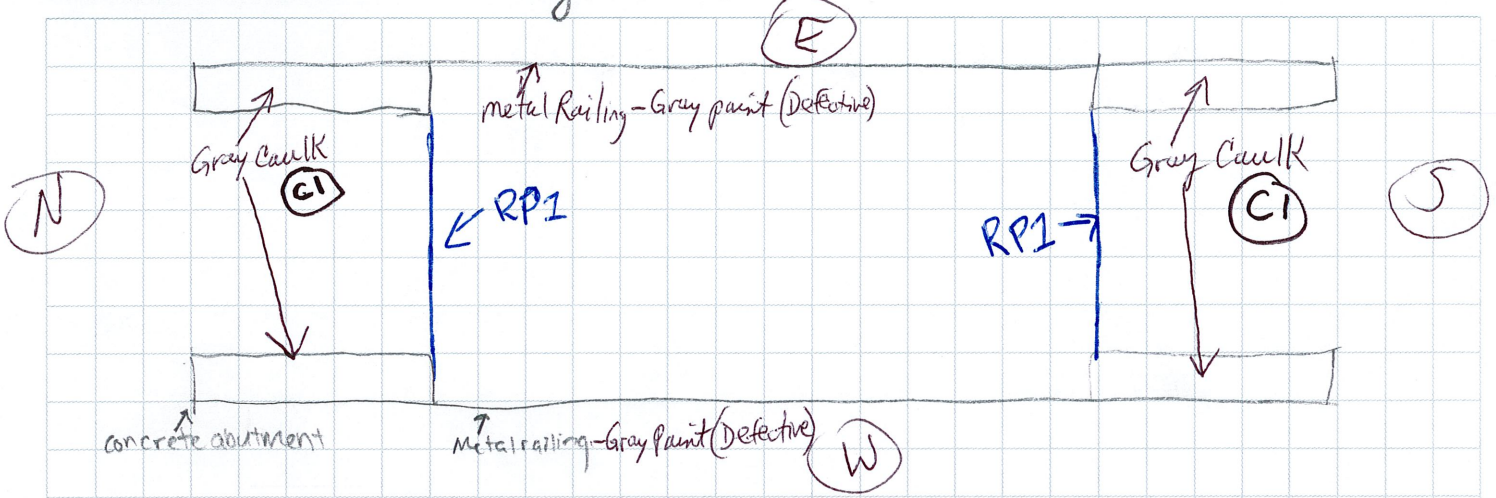
Key: CHR = Chrysotile AMO = Amosite CRO = Crocidolite ACT = Actinolite TRE = Tremolite ANT = Anthophyllite TR = Trace = < 1% ND = None Detected

Mark Derosier, Analyst

SHEET NO. 1 OF 1
PROJECT NO. 222165.5693.0710
DATE 1/9/17
BY CL + DH
CHK'D

TRC Results you can rely on

SUBJECT Bridge 01446



Top of BRIDGE

* See pictures in file folder on computer for photos of top of bridge and Bottom of Bridge.

1/24/17 EG + ZS

(W) C3 - Off-white gray caulk at concrete pad for bridge abutment (under)
(N) C2 - Gray flexible caulk at base of metal guard rails and top of metal beam on side of concrete deck.
(S) RP1 - Black Flexible tar on road and on concrete

- Bridge mounted LED traffic sign (no paint) (NSA(N))
- Tan paint on structural beams + metal beam on side of deck Paint: positive confirmed by XRF. (Took sample for total pb and TCLP analysis.
- Concrete slab under bridge Unpainted
- Does not seem to have rocker pad (can't get ladder close enough to confirm. See photo)

C2 ~ 150 lf
C3 ~ 100 lf
RP1 ~ 50 lf

- Silver paint at end of structural beams where beams goes into concrete abutment. (Trace amounts of pb confirmed by xrf. Able to grab sample for total pb)

A

Bridge #01446; Milford, CT 222165-5693.0710

✓ 1) take pictures. (above & below Bridge)
✓ 2) take asbestos samples.
✓ 3) Take Notes.
✓ 4) Niton - Lead paint.
✓ 5) Take paint chips - (TCLP/Total Lead)
✓✓(6) Biohazard? Bird Guano? Needles?
✓✓7) Haz Regulated ~~Items~~ - Fluorescent Bulb/Ballasts?

(*) Note - Unable to take shots with Niton underneath bridge due to snow & inability to safely set up ladder to get up to steel beams. Also unable to take paint chips for TCLP underneath bridge.

Complete

(*) Bridge runs North/South.

top of bridge -

steel guard rails on both west + east side painted Gray. (Defective)

4 Concrete abutments. 2 on each side. Has silicone caulk (Gray) (C1) ↑ sampled for asbestos.

(*) Note - There is snow at base of guard rails (see pictures) so can not see if any ~~for~~ possible ACM materials at this location. Complete

Electric Meter located at Northwest corner of Bridge.

Bottom of Bridge -

concrete Abutments on North + South ends of bridge. No paint
Steel beams under bridge running north/south painted Tan. (Defective)
Also steel crossbeams running west/east - Tan.
No bird guano/biohazard. No fluorescent bulbs/ballasts.
There are 3 metal pipes (for electrical) running along the west side of Bridge.
No Drain Pipes (for water) found.

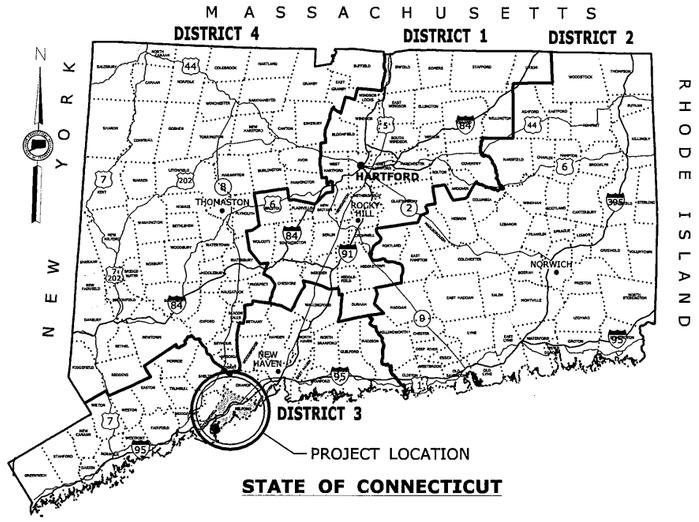
CONNECTICUT DEPARTMENT OF TRANSPORTATION

Plans For

REPLACEMENT OF BRIDGE NO. 01446, WHEELERS FARMS ROAD OVER SR 796

Town of

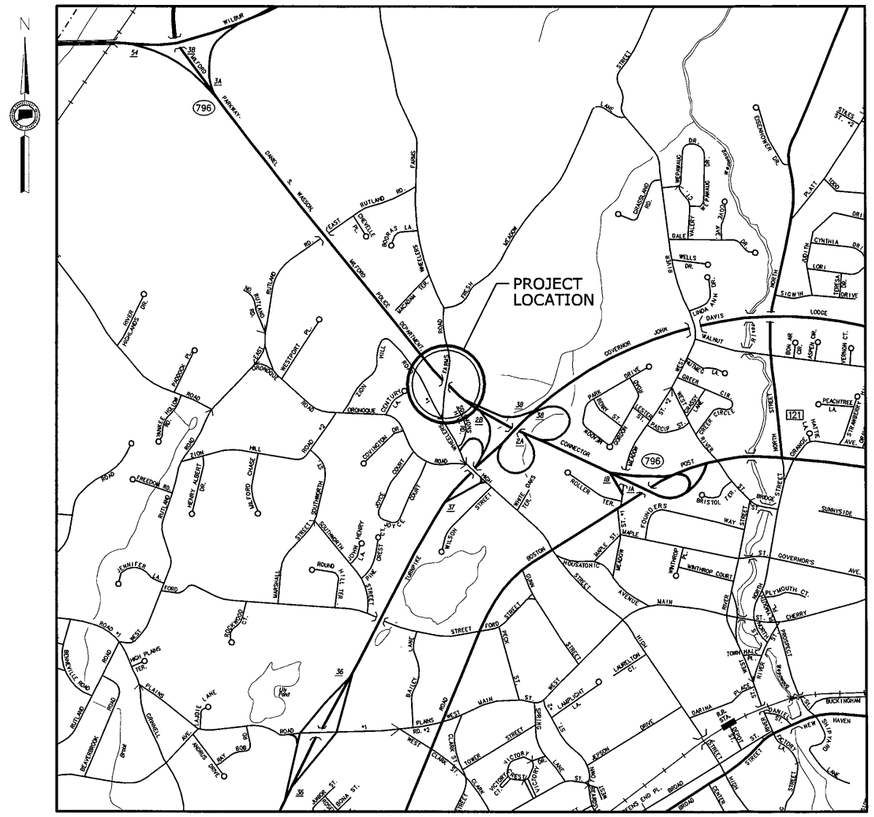
MILFORD



STATE OF CONNECTICUT

ROAD	MAINTENANCE RESPONSIBILITY	LENGTH
WHEELERS FARMS ROAD	STATE	575 FEET

F.A.P. #	MAINTENANCE RESPONSIBILITY	PROJECT #
0053(109)	STATE	083-0264



LOCATION PLAN

NOT TO SCALE

GENERAL NOTES:

1. FEDERAL AID PROJECT NO. 0053(109)
2. CONSTRUCTION SPECIFICATIONS:
   Connecticut Department of Transportation, Standard Specifications for Roads, Bridges, Facilities and Incidental Construction, Form 817, dated 2016; Supplemental Specifications, dated 2016; and Special Provisions.
3. 400 FOOT GRID BASED ON CONNECTICUT COORDINATE SYSTEM SYSTEM N.A.D. 1927
4. VERTICAL DATUM BASED ON N.A.V.D. OF 1988

ADT: 7600 VPD (2013)
CONNECTICUT D.O.T. CLASSIFICATION: URBAN MINOR ARTERIAL
DESIGN SPEED: 35 MPH

DISCLAIMER

IT IS THE RESPONSIBILITY OF EACH BIDDER AND ALL OTHER INTERESTED PARTIES TO OBTAIN ALL BIDDING RELATED INFORMATION AND DOCUMENTS FROM OFFICIAL SOURCES WITHIN THE DEPARTMENT.

PERSONS AND/OR ENTITIES WHICH REPRODUCE AND/OR MAKE SUCH INFORMATION AVAILABLE BY ANY MEANS ARE NOT AUTHORIZED BY THE DEPARTMENT TO DO SO AND MAY BE LIABLE FOR CLAIMS RESULTING FROM THE DISSEMINATION OF UNOFFICIAL, INCOMPLETE AND/OR INACCURATE INFORMATION.

LIST OF SUBSETS

SUBSET NO.	SUBSET TITLE	*SUBSET SHEET COUNT
01	GENERAL	3
02	REVISIONS	1
03	HIGHWAYS	12
04	STRUCTURES	31
05	TRAFFIC	8
06	FOR INFORMATION ONLY	7
	HIGHWAY STANDARD SHEET INDEX	
	TRAFFIC STANDARD SHEET INDEX	

*THE INITIAL SUBSET SHEET COUNT DOES NOT INCLUDE ADDENDUMS AND CHANGE ORDERS

SEMI FINAL DESIGN REVIEW

LIST OF DRAWINGS
SUBSET 01 - GENERAL

DRAWING TITLE	DRAWING NO.
TITLE SHEET	G-01
DETAILED ESTIMATE SHEET - 1	G-02
DETAILED ESTIMATE SHEET - 2	G-03

STANDARD CONVENTIONS

North Arrow W/No. Coor.
Edge Of Road
Concrete Pavement
Dirt Road
B.C.L.C.
Granite Curb
Gulde Rail
Concrete Median Barrier
Bit. Walk
Conc. Sidewalk
Railroad Tracks
Grid Arrow
Limit Of Marsh
Stone Wall
Ledge Outcrop
Inland Wetland Limits
STATE LINE
Power Line
Swamp
Building
Transmission Tower
Chain Link Fence
Rustic Fence
Pipe Fence
Board Fence
Water Edge
Stream
Ditch
TOWN LINE
Riprap
Hedge Row
Tree Line
Shrub
Evergreen Tree
Deciduous Tree
Retaining Wall
Highway Line
Street Line
Property Line
Lot Line
Easement Line

Plans For
REPLACEMENT OF
BRIDGE NO. 01446, WHEELERS
FARMS ROAD OVER SR 796

Town of
MILFORD

STATE PROJECT NO.
083-0264

DRAWING NO.
G-01

SHEET NO.
01.01