



December 28, 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 – Replacement of Highway Signing, West Hartford, Hartford & East
Hartford, CT
ConnDOT Assignment No. 514-5742
ConnDOT Project No. 155-173
TRC Project No. 222165.5742.00710

Dear Mr. Fox:

TRC performed a limited survey for hazardous building materials associated with replacement of highway signing in West Hartford, Hartford & East Hartford, Connecticut. Results of the survey identified the following on the sign support surfaces at the following Sign Support Nos.:

- Galvanized (unpainted) sign support poles were confirmed present at Site Nos 1, 4, 7, 15, 16, 18, 20, 22, 33, 42, 45, 46, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 59, 60, 61, 66, 67, 68, & 69, therefore no lead paint was identified.
- Detectable amounts of lead in paint were either identified or presumed at Site Nos. 2, 3, 5, 6, 8, 9, 10, 11, 12, 13, 14, 17, 19, 21, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40, 41, 43, 44, 47, 52, 62, 63, 64, & 65.
- Projected paint waste debris was characterized as non-hazardous, non-RCRA waste at Site Nos. 2, 3, 5, 9, 11, 14, 17, 26, 32, 36, 27, 28, 39, 44, 47, 62, 63, 64 & 65.
- Projected paint waste debris at Site Nos. 6, 8, 10, 12, 13, 19, 21, 23, 24, 25, 27, 28, 29, 30, 31, 34, 35, 40, 41, 43 & 52 was either characterized or is presently presumed as CTDEEP/RCRA hazardous waste.
- Caulkings (C1, C2, C3 & C4) around the metal sign support baseplates and concrete foundations at Site Nos. 11, 24, 25, 37 & 64 were found to contain asbestos, however the caulking at these sites are not projected to be impacted as the scope of work is for new signs to be placed on the existing sign supports.

Laboratory data, Site No. information and inspector notes 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 #24792) X Ray Fluorescence (XRF) Spectrum Analyzer
 Site: ConnDOT - Sign Supports I-84, West Hartford, East Hartford & Hartford
 Project #: 222165.5742.0710
 Date(s): 6/11/2018, 6/12/2018, 6/14/2018
 Inspectors: Zac Smith & Tom Martin

Number	Interior/ Exterior	Location	Sign Support No.	Structure	Feature	Material	Color	Condition	Reading (mg/cm ²)	Precision (mg/cm ²)	Depth Index	Duration (sec)	Date/Time
1			Self Calibration									100.4	6/11/2018 9:24
2			0.0 Calibration						0.0	0.0	1.0	2.8	6/11/2018 9:31
3			0.7 Calibration						0.7	0.2	1.1	2.8	6/11/2018 9:31
4			1.6 Calibration						1.7	0.1	1.2	7.0	6/11/2018 9:32
5	Exterior	84 eb	sign 21578	cantilever pole		Metal	Grey	Intact	0.0	0.0	1.0	2.4	6/11/2018 10:44
6	Exterior	84 eb	sign 21578	cantilever base		Metal	Grey	Intact	0.2	0.1	2.1	6.1	6/11/2018 10:45
7	Exterior	84 eb	sign 21578	cantilever pole		Metal	Grey	Intact	0.0	0.0	1.2	3.0	6/11/2018 10:46
8	Exterior	84 eb	sign 21589	cantilever pole		Metal	Grey	Intact	0.0	0.0	1.0	2.3	6/11/2018 11:49
9	Exterior	84 eb	sign 21589	cantilever base		Metal	Grey	Intact	0.0	0.1	7.6	8.9	6/11/2018 11:49
10					VOID								
11					VOID								
12	Exterior	84 eb	sign 21590	sign post		Metal	Grey	Intact	0.8	0.3	10.0	30.0	6/11/2018 12:05
13													
14	Exterior	84 eb	sign 21590	sign post		Metal	Grey	Intact	0.1	0.2	5.1	1.6	6/11/2018 12:05
15	Exterior	84 eb 46 off ramp	sign 21189	sign post		Metal	Grey	Intact	0.2	0.2	8.3	4.4	6/11/2018 12:27
16	Exterior	84 eb 46 off ramp	sign 21189	sign post		Metal	Grey	Intact	0.0	0.0	1.0	1.4	6/11/2018 12:27
17					VOID								
18	Exterior	84 eb 46 off ramp	sign 21189	sign post cross beam		Metal	Grey	Intact	0.0	0.0	1.0	1.4	6/11/2018 12:29
19	Exterior	84 eb 46 on ramp	sign 21186	sign post cross beam		Metal	Grey	Intact	0.1	0.1	5.8	3.3	6/11/2018 12:30
20	Exterior	84 eb 46 on ramp	sign 21186	sign post		Metal	Grey	Intact	0.0	0.0	1.6	1.6	6/11/2018 12:31
21	Exterior	84 eb 46 on ramp	sign 21185	sign post		Metal	Grey	Intact	0.0	0.0	1.0	1.9	6/11/2018 12:35
22	Exterior	84 eb 46 on ramp	sign 21185	sign post base		Metal	Grey	Intact	0.0	0.1	2.6	1.9	6/11/2018 12:35
23	Exterior	84 eb	sign 21596	sign post		Metal	Grey	Intact	11.3	1.8	1.8	4.2	6/11/2018 13:31
24	Exterior	84 eb	sign 21596	sign post base		Metal	Grey	Intact	15.9	1.9	2.2	4.7	6/11/2018 13:31
25			0.0 Calibration						0.0	0.0	1.0	1.9	6/11/2018 13:34
26			0.7 Calibration						0.7	0.1	1.0	3.5	6/11/2018 13:34
27			1.6 Calibration						1.4	0.1	1.1	4.2	6/11/2018 13:35
28			Self Calibration									98.3	6/11/2018 13:38
29			0.0 Calibration						0.0	0.0	1.0	1.6	6/11/2018 13:39
30			0.7 Calibration						0.8	0.1	1.1	7.5	6/11/2018 13:40
31			1.6 Calibration						1.6	0.1	1.2	6.5	6/11/2018 13:40
32	Exterior	84 eb	sign 21597	sign post		Metal	Grey	Intact	10.8	1.6	1.7	5.4	6/11/2018 13:50
33	Exterior	84 eb	sign 21597	sign post base		Metal	Grey	Intact	11.0	1.7	1.7	4.4	6/11/2018 13:51
34	Exterior	84 eb	sign 21598	sign post		Metal	Grey	Intact	10.0	1.4	1.7	6.3	6/11/2018 13:59
35	Exterior	84 eb	sign 21598	sign post base		Metal	Grey	Intact	9.9	1.9	1.7	3.7	6/11/2018 14:00
36					VOID								
37					VOID								
38	Exterior	84 eb	sign 21599	sign post		Metal	Tan/beige	Intact	0.0	0.1	2.0	1.4	6/11/2018 14:16
39	Exterior	84 eb	sign 21599	sign post base		Metal	Tan/beige	Intact	0.1	0.1	5.3	3.5	6/11/2018 14:17
40	Exterior	84 eb	sign 21601	sign post		Metal	Tan/beige	Intact	0.0	0.0	3.4	3.5	6/11/2018 14:35
41	Exterior	84 eb	sign 21601	sign post base		Metal	Tan/beige	Intact	0.0	0.0	2.0	3.5	6/11/2018 14:35
42			0.0 Calibration						0.0	0.0	2.0	2.3	6/11/2018 16:16
43			0.7 Calibration						0.7	0.2	1.0	1.9	6/11/2018 16:16
44			1.6 Calibration						1.5	0.2	1.1	4.0	6/11/2018 16:17
45			Self Calibration									98.5	6/12/2018 9:18

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



Lead Based Paint Measurement Summary Table

Device(s): Niton XLP301-A (Serial #24792) X Ray Fluorescence (XRF) Spectrum Analyzer
 Site: ConnDOT - Sign Supports I-84, West Hartford, East Hartford & Hartford
 Project #: 222165.5742.0710
 Date(s): 6/11/2018, 6/12/2018, 6/14/2018
 Inspectors: Zac Smith & Tom Martin

Number	Interior/ Exterior	Location	Sign Support No.	Structure	Feature	Material	Color	Condition	Reading (mg/cm ²)	Precision (mg/cm ²)	Depth Index	Duration (sec)	Date/Time
46			0.0 Calibration						0.0	0.0	1.0	2.6	6/12/2018 9:19
47			0.7 Calibration						0.7	0.1	1.1	3.7	6/12/2018 9:19
48			1.6 Calibration						1.5	0.1	1.1	4.9	6/12/2018 9:20
49	Exterior	A	Sign 21767	Sign Post		Metal	Tan/beige	Defective	0.6	0.4	8.5	19.6	6/12/2018 10:23
50	Exterior	A	Sign 21766	Sign Post		Metal	Tan/beige	Defective	0.0	0.0	3.9	6.7	6/12/2018 10:27
51	Exterior	A	Sign 21604	Sign Post		Metal	Grey	Intact	0.8	0.3	10.0	30.0	6/12/2018 11:58
52	Exterior	A	Sign 21604	Sign Post		Metal	Grey	Intact	0.9	0.3	10.0	30.0	6/12/2018 12:00
53	Exterior	A	Sign 21604	Sign Post		Metal	Grey	Intact	0.2	0.1	7.7	9.3	6/12/2018 12:00
54			Sign 21604						0.0	0.0	1.0	1.6	6/12/2018 13:42
55			Sign 21604						0.7	0.1	1.1	4.2	6/12/2018 13:43
56			Sign 21604						1.6	0.1	1.2	4.9	6/12/2018 13:43
57	Exterior	84 wb	Sign 21668	sign post		Metal	Grey	Intact	9.2	1.7	1.8	4.0	6/12/2018 13:49
58	Exterior	84 wb	Sign 21668	sign post base		Metal	Grey	Intact	6.9	2.5	1.8	3.0	6/12/2018 13:50
59					VOID								
60					VOID								
61	Exterior	84 wb	Sign 21673	sign post base		Metal	Grey	Intact	0.0	0.1	4.2	2.1	6/12/2018 14:16
62					VOID								
63	Exterior	84 wb	Sign 21673	sign post base		Metal	Grey	Intact	0.1	0.2	5.0	1.6	6/12/2018 14:17
64	Exterior	84 wb	Sign 21674	sign post		Metal	Grey	Intact	0.0	0.0	1.0	1.6	6/12/2018 14:24
65	Exterior	84 wb	Sign 21674	sign post base		Metal	Grey	Intact	0.0	0.0	1.0	1.9	6/12/2018 14:24
66	Exterior	84 wb	Sign 21675	sign post		Metal	Grey	Intact	0.0	0.0	1.0	1.4	6/12/2018 14:34
67	Exterior	84 wb	Sign 21675	sign post base		Metal	Grey	Intact	0.0	0.0	1.0	0.9	6/12/2018 14:34
68	Exterior	84 wb	Sign 21675	sign post base		Metal	Grey	Intact	0.0	0.0	1.0	1.6	6/12/2018 14:34
69					VOID								
70	Exterior	84 wb	Sign 21678	sign post		Metal	Grey	Intact	0.0	0.1	3.0	1.4	6/12/2018 14:59
71	Exterior	84 wb	Sign 21678	sign post base		Metal	Grey	Intact	0.0	0.1	2.6	2.1	6/12/2018 14:59
72					VOID								
73					VOID								
74	Exterior	84 wb	Sign 21678	sign post base		Metal	Grey	Intact	0.0	0.1	2.3	1.4	6/12/2018 15:00
75	Exterior	84 wb	Sign 21778	sign post		Metal	Grey	Intact	0.1	0.2	6.1	1.4	6/12/2018 15:14
76	Exterior	84 wb	Sign 21778	sign post base		Metal	Grey	Intact	0.0	0.1	2.0	1.4	6/12/2018 15:14
77	Exterior	84 eb	Sign 21586	sign post		Metal	Grey	Intact	0.0	0.0	1.0	1.6	6/12/2018 15:29
78	Exterior	84 eb	Sign 21586	sign post base		Metal	Grey	Intact	0.0	0.0	1.0	1.4	6/12/2018 15:29
79			0.0 Calibration						0.8	0.1	1.2	5.1	6/12/2018 16:09
80			0.7 Calibration						1.5	0.2	1.1	4.0	6/12/2018 16:10
81			1.6 Calibration						0.8	0.1	1.1	10.2	6/14/2018 8:55
82			Self Calibration						1.6	0.1	1.2	10.7	6/14/2018 8:57
83			0.7 Calibration						3.7	0.2	1.3	10.2	6/14/2018 8:58
84			1.6 Calibration						0.1	0.2	5.0	3.3	6/14/2018 10:13
85			3.6 Calibration						0.2	0.1	6.9	9.8	6/14/2018 10:14
86	Exterior		Sign 21764	Sign Pole		Metal	Tan/beige	Intact	0.1	0.2	5.0	3.3	6/14/2018 10:13
87	Exterior		Sign 21764	Sign Pole		Metal	Tan/beige	Intact	0.2	0.1	1.1	10.4	6/14/2018 10:36
88			0.7 Calibration						0.7	0.1	1.1	10.4	6/14/2018 10:36
89			1.6 Calibration						1.6	0.1	1.2	10.2	6/14/2018 10:36
90			3.6 Calibration						3.7	0.2	1.3	10.2	6/14/2018 10:37

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. Michael Stewart
TRC Environmental Consultants
21 Griffin Rd., North
Windsor, CT 06095

Analytical Report

CET# 8060558



Report Date: June 22, 2018
Project: CT DOT I84 Signs
Project Number: 222165.5742.0710

Connecticut Laboratory Certificate: PH 0116
Massachusetts Laboratory Certificate: M-CT903
Rhode Island Laboratory Certificate: 199



New York NELAP Accreditation: 11982
Pennsylvania Certificate: 68-02927

CET #: 8060558
Project: CT DOT 184 Signs
Project Number: 222165.5742.0710

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
1	8060558-01	Paint Chip	6/12/2018 10:28	06/15/2018

Analyte: Total Lead [EPA 6010C]

Analyst: SS

Prep: EPA 3051A

Matrix: Paint Chip

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
8060558-01	1	ND	0.10	%	1	B8F1917	06/19/2018	06/21/2018 14:58	

CET # : 8060558

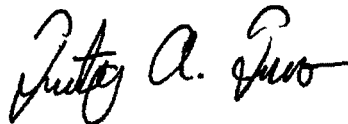
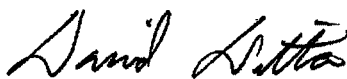
Project: CT DOT 184 Signs

Project Number: 222165.5742.0710

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 Timothy Fusco



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 # : 8060558
Project: CT DOT I84 Signs
Project Number: 222165.5742.0710

CERTIFICATIONS

Certified Analyses included in this Report

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

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	04/01/2019
PA	Pennsylvania DEP	68-02927	05/31/2019



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

CHAIN OF CUSTODY



8060558

*Edition: September 2007
Supersede Previous Edition*

PROJECT NUMBER: 200165, 5742, 0710
PROJECT NAME: Can Det I 84 5305
INSPECTOR: Mike Stuck

LAB ID #:

TURNAROUND TIME				
24hr	48hr	3day	5day	
				<input checked="" type="radio"/>

FIELD SAMPLE NUMBER	DATE	TIME	TYPE		SAMPLE LOCATION	PARAMETERS	NOTES
			COMP	GRAB			
1	6/15/15	1630	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sign 21266		Del 1 RB

Relinquished by: (Signature) <i>[Signature]</i>	Date: 6/15/15	Received by: (Signature) <i>[Signature]</i>	Date: 6-15-15	Relinquished by: (Signature) <i>[Signature]</i>	Date: 6-15-15	Received by: (Signature) <i>[Signature]</i>
(Printed) Mike Stuck	Time: 1630	(Printed) GREG GILMAN	Time: 0900	(Printed) GREG GILMAN	Time: 1610	(Printed) M. Sabo
Remarks:						

80 Lupes Drive
Stratford, CT 06615



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

Client: Mr. Michael Stewart
TRC Environmental Consultants
21 Griffin Rd., North
Windsor, CT 06095

Analytical Report

CET# 8060559



Report Date: June 25, 2018
Project: CT DOT I84 Signs
Project Number: 222165.5742.0710

Connecticut Laboratory Certificate: PH 0116
Massachusetts Laboratory Certificate: M-CT903
Rhode Island Laboratory Certificate: 199



New York NELAP Accreditation: 11982
Pennsylvania Certificate: 68-02927

CET # : 8060559

Project: CT DOT I84 Signs

Project Number: 222165.5742.0710

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
1	8060559-01	Paint Chip	6/11/2018	06/15/2018
2	8060559-02	Paint Chip	6/11/2018	06/15/2018
3	8060559-03	Paint Chip	6/11/2018	06/15/2018
4	8060559-04	Paint Chip	6/11/2018	06/15/2018

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
8060559-01	1	1.4	0.013	mg/L	1	B8F2212	06/22/2018	06/25/2018 10:56	
8060559-02	2	0.18	0.013	mg/L	1	B8F2212	06/22/2018	06/25/2018 11:00	
8060559-03	3	0.50	0.013	mg/L	1	B8F2212	06/22/2018	06/25/2018 11:05	
8060559-04	4	160	0.052	mg/L	4	B8F2212	06/22/2018	06/25/2018 14:22	

CET #: 8060559

Project: CT DOT I84 Signs

Project Number: 222165.5742.0710

CASE NARRATIVE

No collection times provided by client on chain of custody for the following samples: 8060559-01 thru -04.

CET #: 8060559

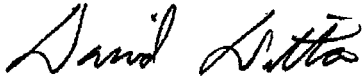
Project: CT DOT I84 Signs

Project Number: 222165.5742.0710

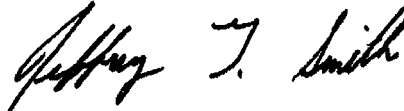
All questions related to this report should be directed to David Ditta, Timothy Fusco, or Robert Blake at 203-377-9984.

Sincerely,

This technical report was reviewed by Jeffrey Smith



David Ditta
Laboratory Director



Project Manager

Report Comments:

Sample Result Flags:

- E- The result is estimated, above the calibration range.
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- 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.
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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 # : 8060559
Project: CT DOT I84 Signs
Project Number: 222165.5742.0710

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>EPA 6020A in Water</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



8060559



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

Edition: November 2013
 Supersedes Previous Edition

TCLP CHAIN OF CUSTODY

LAB ID #

TURNAROUND TIME	
24hr	3day
48hr	3day
24hr	5day
48hr	5day

FIELD SAMPLE NUMBER	DATE	TIME	TYPE		SAMPLE LOCATION	RCRA Pb	RCRA Pb, AS, CR, CD	8 RCRA Metals	TCLP Pb	SPLP Pb	MATERIAL
			COMP	GRAB							
			PROJECT NAME								
1	6/11/17		<input checked="" type="checkbox"/>		051515 215771601217162702						Paint chipp - beauregard
2			<input checked="" type="checkbox"/>		051515 21601						- grey powder
3			<input checked="" type="checkbox"/>		Sign 215771601217162702						- grey negative
4			<input checked="" type="checkbox"/>		Sign 215771601217162702						- grey positive

PROJECT NAME: **Goodlet IS4 Project**
 (PRINTED) *Mike St. Jean*
 INSPECTOR: (SIGNATURE) *[Signature]*

Relinquished by: (Signature) <i>[Signature]</i>	Date: 6/14/17	Received by: (Signature) <i>[Signature]</i>	Date: 6-15-18	Relinquished by: (Signature) <i>[Signature]</i>	Date: 6-15-18	Received by: (Signature) <i>[Signature]</i>
(Printed) <i>Mike St. Jean</i>	Time: 1630	(Printed) <i>GREG GILDAY</i>	Time: 2200	(Printed) <i>GREG GILDAY</i>	Time: 1610	(Printed) <i>M. Sabo</i>



BULK ASBESTOS ANALYSIS REPORT

CLIENT: CT Department of Transportation

Lab Log #: 0052398
 Project #: 222165.5742.0710
 Date Received: 06/15/2018
 Date Analyzed: 06/15/2018

Site: I 84 Signs, I-84 E, West Hartford, East Hartford, Hartford, 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	--	---	3%	Chrysotile
2	--	--	--	--	--	NA/PS	--
3	Grey (caulk)	Yes	No	--	---	5%	Chrysotile
4	--	--	--	--	--	NA/PS	--
5	Grey (caulk)	Yes	No	--	---	5%	Chrysotile
6	--	--	--	--	--	NA/PS	--
7	Grey (caulk)	Yes	No	--	---	5%	Chrysotile
8	--	--	--	--	--	NA/PS	--
9	Grey (caulk)	Yes	No	--	---	5%	Chrysotile
10	--	--	--	--	--	NA/PS	--

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



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 Reviewed by: Cathryn Lemire **Date Issued**
 Kathleen Williamson, Laboratory Manager Cathryn Lemire, Approved Signatory 06/19/2018

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
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 CO# AL-15020 PHIL# 461 PA#68-03387



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 #. 52398

PROJECT NUMBER		PROJECT NAME		PARAMETERS					TURNAROUND TIME								
222165.5742.0710		ConnDOT I-84 signs, I-84, West Hartford, Hartford, East Hartford, 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				
SIGNATURE 		INSPECTOR Jonathan Gentile, Michael Stewart, Zac Smith							TEM:	24hr	48hr	3day	5day				
FIELD SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION		MATERIAL											
				COMP	GRAB	C1 - Gray gummy sign pole caulk	C1 - Gray gummy sign pole caulk	C2 - Gray brittle caulk	C2 - Gray brittle caulk	C3 - Gray brittle caulk	C3 - Gray brittle caulk	C4 - Gray brittle caulk	C4 - Gray brittle caulk	C5 - Gray brittle caulk	C5 - Gray brittle caulk		
01	6/11/18	11:47	X		X			X									
02	6/11/18	11:48	X		X												
03	6/11/18	12:16	X	21184 Rt side	X			X									
04	6/11/18	12:17	X	21184 Rt side	X												
05	6/11/18	13:47	X		X			X									
06	6/11/18	13:48	X		X												
07	6/11/18	13:57	X		X												
08	6/11/18	13:58	X		X												
09	6/12/18	14:23	X		X			X									
10	6/12/18	14:24	X		X												

Relinquished by: (Signature) 	Date: 6/11/18	Received by: (Signature) 	Date: 6/15/18
(Printed) Mike Stewart	Time: 16:15	(Printed) 08:30	Time: 08:30
Remarks:	Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Comments:
	Relinquished by: (Signature)	Received by: (Signature)	Date:
	(Printed)	(Printed)	Time:
			Page 1 of 1

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION



memorandum

subject: Hazardous/Contaminated Materials
Screening Request

Project No.: 155-173
F.A.P. No.: NHPP 0843(237)
Replacement of Highway Signing on I-84
West Hartford, Hartford & East Hartford

date: March 16, 2018

to: Adam G. Fox
Transportation Principal Engineer
Bureau of Engineering and Construction

from: Mark F. Makuch *Mark Makuch* Mark F. Makuch, P.E.
2018.03.21 12:45:18-04'00'
Transportation Principal Engineer
Bureau of Engineering and Construction

Please provide a hazardous/contaminated materials screening for this project and inform this office of any environmental concerns by **April 16, 2018**.

Project Schedule:

FDP: ~~6/27/2018~~
DCD: 8/8/2018
ADV: 9/5/2018

8/22/18 11/16/19

5742

Federal Program: State

PE Funding: 01550173PE

Attached for your information and use are the following:

- Project Description and Location Map
- List of Overhead Sign Support Removal Sites

Right-of-Way will not be required for this project.

This project does involve excavation activities.

Please contact Stephen Bruno, Project Engineer, at (860) 594-2710, should you have any questions or require additional information.

Please address your response to the attention of: Barry A. Schilling, Project Manager – Michael A. Chachakis, Project Engineer.

Attachments

Stephen D. Bruno
cc: Mark F. Makuch – Barry A. Schilling – Michael A. Chachakis

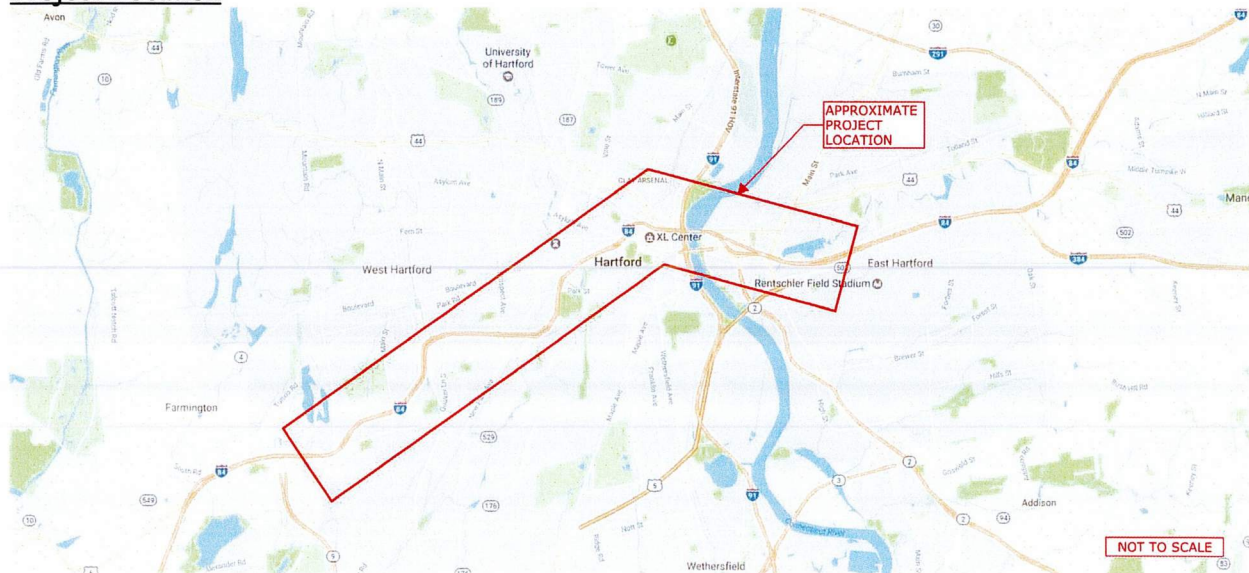
Project 155-173**Interstate 84 Corridor Resigning – Exits 41-56****Project Description**

The project involves removing, replacing, and relocating existing signs, support structures, and foundations on Interstate 84 (I-84) Eastbound (EB) and Westbound (WB). The project includes entrance and exit ramps and begins at the Farmington – West Hartford town line and ends in the vicinity of Exit 56 in East Hartford.

The project limits encompass the following municipalities:

- Town of West Hartford
- City of Hartford
- Town of East Hartford

The scope of the project involves replacement of signs that have exceeded their useful service life, have less than adequate retroreflectivity, or have evidence of sign or sign support damage. Interstate and ramp sign legends and locations will be modified, added, and/or removed in conformance with federal standards set by the *Manual on Uniform Traffic Control Devices (MUTCD) 2009 Edition* as well as engineering judgement. Excluded from the project are signs and sign supports that have been recently replaced or are scheduled to be replaced under other various construction projects. Also excluded are sign supports located within the Hartford city limits included within the *I-84 Hartford Project*, however, new signs will be installed on the existing structures. It is likely that the new signs in this section will not meet current *MUTCD* standards, however, these signs and sign supports will be upgraded to *MUTCD* standards as part of the *I-84 Hartford Project*. This project also proposes to replace any existing sign support that is deemed “structurally deficient” by the Bridge Safety and Evaluation Unit. It is also of note that certain sign supports, even though they may be structurally sufficient, may require replacement due to new sign sizing requirements applicable to newly installed signs set by the *MUTCD*.

Project Location

○ Non Haz
○ Haz

155-173 LIST OF OVERHEAD SIGN SUPPORT REMOVAL SITES

SITE NO.	SUPPORT	ROUTE	DIR.	MILEAGE	TYPE	COATING	ACTION
1 ✓	21156	2	W	0.4	CANTILEVER	HOT-DIPPED GALVANIZED	TO BE REPLACED
2 ✓	21766	44	E	53.68	FULL OVH	PAINT WITH GALVANIZED	TO BE REPLACED
3 ✓	21767	44	E	53.73	FULL OVH	PAINT WITH GALVANIZED	TO BE REPLACED
4 ✓	21768	44	E	54.05	FULL OVH	HOT-DIPPED GALVANIZED	TO BE REPLACED
5 ✓	21578	84	E	56.22	CANTILEVER	PAINT WITH GALVANIZED	TO BE REPLACED
6	21582	84	E	57.23	BRIDGE	PAINT <i>Pressure</i>	TO BE REMOVED
7 ✓	21584	84	E	57.83	CANTILEVER	HOT-DIPPED GALVANIZED	TO BE REPLACED
8 ✓	21585	84	E	57.97	FULL OVH	PAINT <i>Pressure</i>	TO BE REPLACED
9 ✓	21586	84	E	58.22	CANTILEVER	PAINT	TO BE REPLACED
10 ✓	21587A	84	E	58.96	BRIDGE	PAINT <i>Pressure</i>	TO BE REPLACED
11 ✓	21589	84	E	59.56	FULL OVH	PAINT WITH GALVANIZED	NEW SIGNS ON EXISTING SUPPORT
12 ✓ <i>No access site</i>	21602	84	E	62.48	FULL OVH	PAINT <i>Pressure</i>	NEW SIGNS ON EXISTING SUPPORT
13 ✓	21603A	84	E	62.54	BRIDGE	PAINT <i>Pressure</i>	TO BE REPLACED
14 ✓	21604	84	E	62.86	FULL OVH	PAINT WITH GALVANIZED <i>Pressure</i>	TO BE REPLACED
15 ✓	21605	84	E	62.96	CANTILEVER	HOT-DIPPED GALVANIZED	TO BE REPLACED

check
P4W
access

✓
✓
✓

✓

16 ✓	21606	84	E	63.2	FULL OVH	HOT-DIPPED GALVANIZED	TO BE REPLACED
17 ✓	21590	84	E	59.97	FULL OVH	PAINT WITH GALVANIZED	NEW SIGNS ON EXISTING SUPPORT
18 ✓	21843	84	E	60.42	FULL OVH	HOT-DIPPED GALVANIZED	NEW SIGNS ON EXISTING SUPPORT
19 ✓	21593	84	E	60.94	FULL OVH	PAINT WITH GALVANIZED	NEW SIGNS ON EXISTING SUPPORT
20 ✓	No Safe Access 21594	84	E	61.23	FULL OVH	HOT-DIPPED GALVANIZED	NEW SIGNS ON EXISTING SUPPORT
21 ✓	No Safe Access 21595	84	E	61.38	FULL OVH	PAINT WITH GALVANIZED	NEW SIGNS ON EXISTING SUPPORT
22 ✓	21469	84	E	Ramp	FULL OVH	HOT-DIPPED GALVANIZED	NEW SIGNS ON EXISTING SUPPORT
23 ✓	21596	84	E	61.6	CANTILEVER	PAINT WITH GALVANIZED	NEW SIGNS ON EXISTING SUPPORT
24 ✓	21597	84	E	61.72	FULL OVH	PAINT WITH GALVANIZED	NEW SIGNS ON EXISTING SUPPORT
25 ✓	21598	84	E	61.86	FULL OVH	PAINT WITH GALVANIZED	NEW SIGNS ON EXISTING SUPPORT
26 ✓	21599	84	E	61.99	FULL OVH	PAINT WITH GALVANIZED	NEW SIGNS ON EXISTING SUPPORT
27 ✓	21600A	84	E	62.1	BRIDGE	HOT-DIPPED GALVANIZED	NEW SIGNS ON EXISTING SUPPORT
28 ✓	21600B	84	E	62.1	BRIDGE	HOT-DIPPED GALVANIZED	NEW SIGNS ON EXISTING SUPPORT
29 ✓	21600C	84	E	62.1	BRIDGE	HOT-DIPPED GALVANIZED	NEW SIGNS ON EXISTING SUPPORT
30 ✓	21600D	84	E	62.1	BRIDGE	HOT-DIPPED GALVANIZED	NEW SIGNS ON EXISTING SUPPORT
31 ✓	21600E	84	E	62.1	BRIDGE	HOT-DIPPED GALVANIZED	NEW SIGNS ON EXISTING SUPPORT
32 ✓	21601	84	E	62.15	FULL OVH	PAINT	NEW SIGNS ON EXISTING SUPPORT

No Safe Access

No Access to Road

Handwritten marks on the right side of the table, including checkmarks and scribbles.

Handwritten notes on the right side of the table, including "Green" and "Red" with arrows pointing to specific rows.

Handwritten checkmark at the bottom right of the page.

50	21588B	84	W	59.29	BRIDGE	HOT-DIPPED GALVANIZED	TO BE REPLACED
51	21588C	84	W	59.29	BRIDGE	HOT-DIPPED GALVANIZED	TO BE REPLACED
52	21666	84	W	62.64	FULL OVH	PAINT WITH GALVANIZED <i>Resurf</i>	NEW SIGNS ON EXISTING SUPPORT
53	21968	84	W	63.06	FULL OVH	HOT-DIPPED GALVANIZED	TO BE REPLACED
54	21664	84	W	63.43	FULL OVH	HOT-DIPPED GALVANIZED	TO BE REPLACED
55	21663	84	W	63.53	FULL OVH	HOT-DIPPED GALVANIZED	TO BE REPLACED
56	21662	84	W	63.67	FULL OVH	HOT-DIPPED GALVANIZED	TO BE REPLACED
57	21539	84	W	64.11	FULL OVH	HOT-DIPPED GALVANIZED	TO BE REPLACED
58	21659	84	W	64.43	FULL OVH	HOT-DIPPED GALVANIZED	TO BE REPLACED
59	21155	500	N	0.09	FULL OVH	HOT-DIPPED GALVANIZED	TO BE REPLACED
60	21758	500	S	0.44	FULL OVH	HOT-DIPPED GALVANIZED	TO BE REPLACED
61	21759	500	S	0.39	FULL OVH	HOT-DIPPED GALVANIZED	TO BE REPLACED
62	21778	501	S	0.47	FULL OVH	PAINT	TO BE REPLACED
63	21186	503	E	0.13	FULL OVH	PAINT WITH GALVANIZED	NEW SIGNS ON EXISTING SUPPORT
64	21184	503	W	0.05	FULL OVH	PAINT WITH GALVANIZED	NEW SIGNS ON EXISTING SUPPORT
65	21185	SISSON AVENUE	-	-	CANTILEVER	PAINT WITH GALVANIZED	NEW SIGNS ON EXISTING SUPPORT
66	21208	MARKET STREET	-	-	BRIDGE	HOT-DIPPED GALVANIZED	NEW SIGNS ON EXISTING SUPPORT

67	21762	SIGOURNEY STREET	-	-	BRIDGE	HOT-DIPPED GALVANIZED	NEW SIGNS ON EXISTING SUPPORT
68	21763	BROAD STREET	-	-	BRIDGE	HOT-DIPPED GALVANIZED	NEW SIGNS ON EXISTING SUPPORT
69	21665	84	W	63.91	CANTILEVER	HOT-DIPPED GALVANIZED	TO BE REPLACED

Not Side Access