

March 28, 2019

Mr. Adam G. 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. / Robert Reilly

Subject: On-Call Asbestos, Lead, Air Quality & Demolition Compliance

Agreement No. 8.07-01 (18)

HazMat Inspection – Signage Replacement, Route 9, 15 & SR571 Connector, Cromwell

& Berlin, CT

ConnDOT Assignment No. 519-5849

ConnDOT Project No. 7-189 TRC Project No. 289951.5849.0710

Dear Mr. Fox:

TRC performed a limited survey for hazardous building materials associated with the Signage Replacement, Route 9, 15 & SR571 Connector in Cromwell & Berlin, Connecticut. TRC's survey consisted of inspecting overhead, cantilever, side mounted and bridge mounted signage poles on ConnDOT Preliminary Design drawings for Project No. 7-189. Detectable amounts of lead in paint were identified/presumed on the following homogeneous green painted overhead & cantilever sign supports:

•ID 504 (Overhead)	•Sign Support No. 21026	•Sign Support No. 21027
•Sign Support No. 21031	•Sign Support No. 21032	•Sign Support No. 21033
•Sign Support No. 21036	•Sign Support No. 21038	•Sign Support No. 21073
•Sign Support No. 21075	•Sign Support No. 21076	•Sign Support No. 21079
•Sign Support No. 21081	•Sign Support No. 21082	•ID 1107 (Cantilever)

All/any other sign supports with same homogeneous green paint shall also presumed as containing lead paint. The remaining overhead and cantilever sign supports as well as the side mounted (two leg I-beam support) and bridge mounted signage poles were found to be unpainted (galvanized), therefore no lead paint was identified on them. Results obtained from TCLP waste stream sampling and analysis for leachable lead from the representative green paint on the overhead & cantilever sign supports characterized the paint waste streams as non-hazardous, non-RCRA waste. Caulking at the base of Sign Support No. 21027 was sampled and found to be non-ACM. Associated laboratory data, inspector notes, TRC Mobile Data Solutions report and project description are attached.

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

Very Truly Yours,

**TRC** 

Stephen R. Arienti, CHMM Project Manager

2 Z Cini

Reviewed by:

Fend RM

Erik R. Plimpton, P.E., CHMM, CMC Vice President - Program Manager



## **Lead Based Paint Measurement Summary Table**

Device(s): Niton XLP301-A (Serial #7587) X Ray Fluorescence (XRF) Spectrum Analyzer

Site: ConnDOT - Sign Replacements Route 9 & 15, Cromwell & Berlin

Project #: 289951.5849.0710 Date(s): 2/27/19 & 3/4/2019

Inspectors: Pat Schaffner & Tyler Macgillivray

Number	Interior/ Exterior	Location	Sign No.	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm <sup>2</sup> )	Precision (mg/cm²)	Depth Index	Duration (sec)	Date/Time
1			Self Calibration										176.9	2/27/2019 12:51
2			0.0 Calibration							0.0	0.0	1.0	1.9	2/27/2019 12:54
3			1.6 Calibration							1.4	0.1	1.1	6.8	2/27/2019 12:55
4			3.6 Calibration							3.7	0.3	1.3	4.7	2/27/2019 12:55
5	Exterior	Cromwell/Berlin	sign 1201		Pole		Metal	Green	Defective	0.0	0.0	1.5	7.5	2/27/2019 13:01
6	Exterior	Cromwell/Berlin	sign 1201		Pole		Metal	Green	Defective	0.0	0.0	2.9	5.0	2/27/2019 13:01
7	Exterior	Cromwell/Berlin	sign 1201		Pole		Metal	Green	Defective	0.0	0.0	1.0	1.9	2/27/2019 13:02
8	Exterior	Cromwell/Berlin	sign 1201		Pole		Metal	Green	Defective	0.0	0.0	2.3	5.6	2/27/2019 13:04
9	Exterior	Cromwell/Berlin	sign 1201		Pole		Metal	Green	Defective	0.0	0.0	1.0	2.1	2/27/2019 13:04
10	Exterior	Cromwell/Berlin	sign 1201		Pole		Metal	Green	Defective	0.0	0.0	2.6	4.0	2/27/2019 13:05
11	Exterior	Cromwell/Berlin	sign 1201		Pole		Metal	Green	Defective	0.0	0.0	3.9	13.4	2/27/2019 13:08
12	Exterior	Cromwell/Berlin	sign 21079		Pole		Metal	Green	Defective	0.1	0.0	1.4	12.7	2/27/2019 15:00
13	Exterior	Cromwell/Berlin	sign 21079		Pole		Metal	Green	Defective	0.1	0.3	1.7	0.7	2/27/2019 15:01
14	Exterior	Cromwell/Berlin	sign 21079		Pole		Metal	Green	Defective	0.2	0.1	1.8	6.4	2/27/2019 15:01
15	Exterior	Cromwell/Berlin	sign 21079		Pole		Metal	Green	Defective	0.3	0.1	1.9	4.8	2/27/2019 15:02
16	Exterior	Cromwell/Berlin	sign 21079		Pole		Metal	Green	Defective	0.1	0.0	1.1	3.8	2/27/2019 15:02
17			0.0 Calibration							0.0	0.0	1.0	1.4	2/27/2019 15:12
18			1.6 Calibration							1.4	0.3	1.1	3.3	2/27/2019 15:13
19			3.6 Calibration							4.0	0.2	1.4	10.4	2/27/2019 15:13
20	Exterior	Cromwell/Berlin	sign 21026		Pole		Metal	Green	Intact	0.1	0.1	2.2	7.3	2/27/2019 15:26
21	Exterior	Cromwell/Berlin	sign 21026		Pole		Metal	Green	Intact	0.2	0.1	2.6	8.7	2/27/2019 15:26
22	Exterior	Cromwell/Berlin	sign 21026		Pole		Metal	Green	Intact	0.2	0.1	2.7	5.0	2/27/2019 15:27
23			0.0 Calibration							0.0	0.0	1.0	1.6	2/27/2019 15:28
24			1.6 Calibration							1.5	0.4	1.1	1.9	2/27/2019 15:28
25			3.6 Calibration							3.4	0.6	1.3	2.3	2/27/2019 15:29
26			Self Calibration										176.9	2/27/2019 15:42
27			0.0 Calibration							0.0	0.0	1.0	1.4	2/27/2019 15:44
28			1.6 Calibration							1.5	0.2	1.1	3.3	2/27/2019 15:45
29			3.6 Calibration							3.3	0.2	1.3	16.0	2/27/2019 15:46
30	Exterior	Cromwell/Berlin	Sign 21027		Pole		Metal	Green	Intact	0.0	0.0	1.0	1.6	2/27/2019 15:48
31	Exterior	Cromwell/Berlin	Sign 21027		Pole		Metal	Green	Intact	0.2	0.1	5.6	4.0	2/27/2019 15:48
32	Exterior	Cromwell/Berlin	Sign 21027		Pole		Metal	Green	Intact	0.0	0.0	1.0	1.4	2/27/2019 15:48
33	Exterior	Cromwell/Berlin	Sign 21027		Pole		Metal	Green	Intact	0.3	0.2	5.9	3.6	2/27/2019 15:49
34	Exterior	Cromwell/Berlin	sign 21081		Pole		Metal	Green	Intact	0.0	0.0	1.0	1.6	2/27/2019 16:00
35	Exterior	Cromwell/Berlin	sign 21081		Pole		Metal	Green	Intact	0.0	0.0	1.0	1.4	2/27/2019 16:00
36	Exterior	Cromwell/Berlin	sign 21081		Pole		Metal	Green	Intact	0.0	0.0	1.0	1.4	2/27/2019 16:00
37	Exterior	Cromwell/Berlin	sign 21081		Pole		Metal	Green	Intact	0.0	0.0	1.0	1.9	2/27/2019 16:00
38	Exterior	Cromwell/Berlin	sign 21081		Pole		Metal	Green	Intact	0.0	0.0	1.0	1.6	2/27/2019 16:00
39			0.0 Calibration							0.0	0.0	1.0	1.6	2/27/2019 16:10
40			1.6 Calibration							1.6	0.4	1.2	1.9	2/27/2019 16:10
41			3.6 Calibration	$\perp$						3.5	0.3	1.3	4.7	2/27/2019 16:10
42			Self Calibration	$\perp$								L	179.0	3/4/2019 11:38
43			0.0 Calibration	$\perp$						0.0	0.0	1.0	1.4	3/4/2019 11:40
44			0.7 Calibration	$\perp$						0.7	0.1	1.1	3.3	3/4/2019 11:40
45		0	1.6 Calibration	$\perp$	D. I.		+		D ( 1	1.6	0.1	1.2	6.4	3/4/2019 11:41
46	Exterior	Cromwell/Berlin	Sign 21033 RT 9	++	Pole	-	Metal	Green	Defective	0.0	0.0	1.0	1.7	3/4/2019 11:42
47	Exterior	Cromwell/Berlin	Sign 21033 RT 9		Pole		Metal	Green	Defective	0.0	0.0	1.0	1.4	3/4/2019 11:43



## **Lead Based Paint Measurement Summary Table**

Device(s): Niton XLP301-A (Serial #7587) X Ray Fluorescence (XRF) Spectrum Analyzer Site: ConnDOT - Sign Replacements Route 9 & 15, Cromwell & Berlin

Project # : 289951.5849.0710
Date(s): 2/27/19 & 3/4/2019

Inspectors: Pat Schaffner & Tyler Macgillivray

Number	Interior/ Exterior	Location	Sign No.	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm²)	Precision (mg/cm²)	Depth Index	Duration (sec)	Date/Time
48	Exterior	Cromwell/Berlin	Sign 21033 RT 9		Pole		Metal	Green	Defective	0.0	0.0	1.0	1.4	3/4/2019 11:43
49	Exterior	Cromwell/Berlin	Sign 21033 RT 9		Pole		Metal	Green	Defective	0.0	0.0	1.0	1.4	3/4/2019 11:43
50	Exterior	Cromwell/Berlin	Sign 21033 RT 9		Pole		Metal	Green	Defective	0.0	0.0	1.0	1.4	3/4/2019 11:43
51	Exterior	Cromwell/Berlin	Sign 21038 rt 9		Pole		Metal	Green	Defective	0.0	0.1	3.2	1.7	3/4/2019 11:48
52	Exterior	Cromwell/Berlin	Sign 21038 rt 9		Pole		Metal	Green	Defective	0.0	0.0	2.9	6.9	3/4/2019 11:49
53	Exterior	Cromwell/Berlin	Sign 21038 rt 9		Pole		Metal	Green	Defective	0.0	0.0	1.0	1.4	3/4/2019 11:49
54	Exterior	Cromwell/Berlin	Sign 21038 rt 9		Pole		Metal	Green	Defective	0.0	0.0	1.0	1.5	3/4/2019 11:50
55			0.0 Calibration							0.0	0.0	1.0	1.5	3/4/2019 13:01
56			0.7 Calibration							0.7	0.2	1.2	2.2	3/4/2019 13:01
57			1.6 Calibration							1.6	0.4	1.2	2.1	3/4/2019 13:01
58			0.0 Calibration							0.0	0.0	1.0	1.6	3/4/2019 14:33
59			0.7 Calibration							0.7	0.2	1.1	1.5	3/4/2019 14:33
60			1.6 Calibration							1.5	0.3	1.2	2.8	3/4/2019 14:33



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

Client:

Mr. Patrick Schaffner

TRC Environmental Consultants

21 Griffin Rd., North Windsor, CT 06095

## Analytical Report CET# 9030091R2

Report Date: March 12, 2019

Project: DOT Sign Replace RT 9-15 Project Number: 289951.5849.0710

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 #: 9030091

Project: DOT Sign Replace RT 9-15 Project Number: 289951.5849.0710

## **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
21075	9030091-01	Paint Chip	2/27/2019 14:00	03/06/2019
21033	9030091-02	Paint Chip	3/04/2019 9:50	03/06/2019
21079	9030091-03	Paint Chip	2/27/2019 15:00	03/06/2019
21027	9030091-04	Paint Chip	2/27/2019 13:00	03/06/2019

Analyte: TCLP Lead [EPA 6020A]

Prep: EPA 3005A-1311

**Analyst: CED** 

**Matrix: Extract** 

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
9030091-01	21075	0.63	0.013	mg/L	1	B9C0721	03/07/2019	03/07/2019 16:03	
9030091-02	21033	0.15	0.013	mg/L	1	B9C0721	03/07/2019	03/07/2019 16:08	
9030091-03	21079	0.92	0.013	mg/L	1	B9C0721	03/07/2019	03/07/2019 16:13	
9030091-04	21027	0.19	0.013	mg/L	1	B9C0721	03/07/2019	03/07/2019 16:28	

CET#: 9030091

Project: DOT Sign Replace RT 9-15 Project Number: 289951.5849.0710

## **CASE NARRATIVE**

Revision: Original report dated 3/8/2019; project number revised per client request.

Revision2: Original report dated 3/11/2019; project number revised per client request.

CET #: 9030091

Project: DOT Sign Replace RT 9-15 Project Number: 289951.5849.0710

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

ity a. Theo

David Ditta

Laboratory Director

Project Manager

## Report Comments:

## Sample Result Flags:

E- The result is estimated, above the calibration range.

David Setta

- 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- Analyte exceeds method limits from second source standard in Initial Calibration Verification (ICV). No 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

Reporting Limit (RL) is the limit of detection for an analyte after any adjustment made for dilution or percent moisture.

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

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

CET #: 9030091

Project: DOT Sign Replace RT 9-15 Project Number: 289951.5849.0710

## CERTIFICATIONS

## Certified Analyses included in this Report

Analyte Certifications EPA 6020A in Water

Lead

CT

 $Complete \ Environmental \ Testing \ operates \ under \ the \ following \ certifications \ and \ accreditations:$ 

Code	Description	Number	Expires
CT	Connecticut Public Health	PH0116	09/30/2020

21 GRIFFIN ROAD NORTH

WINDSOR, CONNECTICUT 06095

TELEPHONE (860) 298-9692 FAX (860) 298-6380 PROJECT NUMBER

> TCLP CHAIN OF CUSTODY Supersede Previous Edition Edition: November 2013

LAB ID#.

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Page 1 of 1

3/6/19 (Printed)

Edition: October 2009 Supersede Previous Edition

## ASBESTOS BULK SAMPLING CHAIN OF CUSTODY 21 GRIFFIN ROAD NORTH

WINDSOR, CONNECTICUT 06095 TELEPHONE (860) 298-9692 FAX (860) 298-6380

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FAX (860) 298-6380	PROJECT NUMBER	284951-5848-0710		SIGNATURE	FIRLD	SAMPLE	10	20					

Why Men	3-4-19	Received by: (Signature) 3/5/19	Relinquished by: (Signature)	Date:	Received by: (Signature)
ZHARIEN.	Time: 1 800	(Printed) 0900	(Printed)	Time:	(Printed)



Page 1 of 1 53436.CT-DOT.doc

## **BULK ASBESTOS ANALYSIS REPORT**

CLIENT:

CT Department of Transportation

Lab Log #:

0053436

Project #:

289951.5849.0710

Date Received:

03/05/2019

Date Analyzed:

03/05/2019

Site:

Sign 21027

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

Sample No.	Color	Homogenous	Multi- Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
01	White/Tan (caulk)	Yes	No			Trace	Chrysotile
02	White/Tan (caulk)	Yes	No			Trace	Chrysotile

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.

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:

Kathleen Williamson, Laboratory Manager

Reviewed by:

Cathryn Lefnire, Approved Signatory

**Date Issued** 

03/05/2019

EPA N.O.B Qualitative

Analysis Type: Chatfield

# 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: 03/05/19

C289951 PO#:

TRC Client:

289951.5849.0710 Client Job#:

CT DOT- Sign 21027 Client Job Ref./Loc.:

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

Received by:

Hucele Land Cole 3/6/19 10:10
E. Plimpton- EPlimpton@tresolutions.com & SArienti@tresolutions.com Report to:

P. Schaffner Samplers Name:

<24 Hour <12 Hour Turnaround Time:

5 Day

<3 Day

<48 Hour

For Lab Use Only	Comments										Its
For L	Acceptable on Receipt										eported Comments
	Location	See COC			And the state of t						Results Reported
	ption	Ik									Batch #
	Description	Caulk									Client#
	Lab ID#	53436									Total
	Lal	53									# Spies
	Client ID #	02			NAMES OF THE PROPERTY OF THE P			Anderson			For Lab Use Only

# ProScience Analytical Services, Inc.

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

Client Project #: 289951.5849.0710
Client Reference: CT DOT - Sign 21027

NT 17700 NOB 3/6/2019 3/8/2019 3/8/2019

Batch: Method:

Date Received: Date Analyzed: ĝ

Yes

꿈

3.48

24.56

71.96

8

36

8

8

8

Laboratory Report

C289951

₩ 0. Client #: 297
Client Name: TRC Environmental Corp. (CT)

Total % Analyzed / Preped / Asbestos Charged Charged Date of Report: TRE Non-asb. Organic Carb. Asbestos 8 % % Other ACT CRO ANT % Asbestos Types AMO Initial Weight CHR Color Description: Field ID LAB ID

NT133197 02 Caulk .2761 .00

## Comments:

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

Mark Derosier, Analyst

ConnDOT, Route 9 and Berlin Turnpike sign survey, , , Berlin/Cromwell, , CT, , ,

Created	2019-02-27 10:21:16 EST by Catie Lemire
Updated	2019-03-26 10:24:47 EDT by Stephen Arienti
Location	41.6001162, -72.6763585
Status	Survey Complete

## Job Information

Site Name	Route 9 and Berlin Turnpike sign survey
Address	Berlin/Cromwell, CT
TRC Project Number	289951.5849.0710
Project Manager	Erik Plimpton, Stephen Arienti
Inspector(s)	Pat Schaffner, Catie Lemire, Michael Stewart, Tyler Macgillivray
Client	ConnDOT
Type of Asbestos Survey	Reno/Demo
Additional Analysis for NOB Materials (Calc)	TEM NY NOB 198.4
Date	2019-02-27
General Notes	Niton 7587 rental used for xrf.

Overview Photo



sign 1402



sign 1402



sign 1402



sign 1409



sign 1409



sign 1409



sign 1409



sign 1403



sign 1403



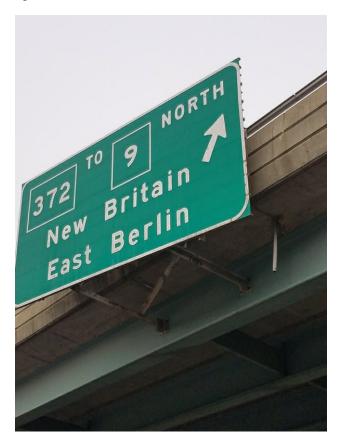
sign 1403



sign 1403



sign 1404



sign 1404



sign 1206



sign 1206



sign 1207



sign 1207



sign 1211



sign 1211



sign 1210



sign 1210



sign 1209



sign 1209



sign 1208



sign 1208



sign 1212



sign 1212



sign 1201



sign 1201



sign 1201



sign 1213



sign 1213



sign 1301



sign 1301



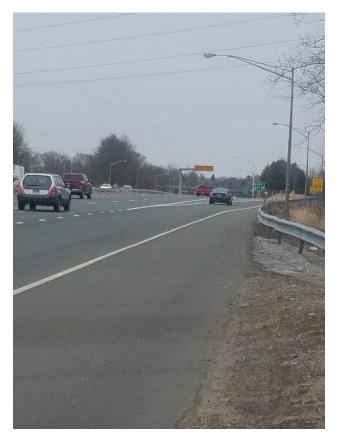
sign 1301



sign 1301



sign 1204



sign 1204



sign 1203



1203



sign 1203



sign 1303



sign 1204



sign 21079



sign 21079



sign 21026



sign 21026



sign 21026



sign 21027



sign 21027



sign 21027



sign 21081



sign 21081



sign 21081



Sing 21033



Sign 21033



Sign 1109

Surveys Performed	Asbestos, XRF
XRF Section	
XRF Survey Completed	N/A
XRF Data Downloaded	N/A
XRF Shots >1.0 on non-metallic building materials	Yes
General Information	
Asbestos Samples Submitted to TRC Lab	No
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.

What documents should be generated?	Hazardous material inventory, Photographs and other images	
Where should the document(s) be sent?	sarienti@trcsolutions.com	
Generate Documents	N/A	

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
Bureau of Engineering and
Construction

## memorandum

Subject: Preliminary Design Review Request

Project No. 0007-0189

Replacement of Existing Signing on Routes 9 (MP 24.65 to MP 34.48), 5/15 (MP 68.02 to

73.40), & SR 571 (MP 00.00 to 01.25)

Towns of Cromwell and Berlin

Date: October 22, 2018

to Donald L. Ward
District Engineer
District 1 Construction

From Mark F. Makuch

Principal Engineer

Traffic Engineering - Project Design

Barry A. Schilling, P.E. For Mark F. Makuch 2018.10.19

5849

Traffic Engineering is developing plans to replace major and minor signing on Route 9 Northbound and Southbound, including entrance and exit ramps, from the Cromwell/Middletown town line to the Berlin/New Britain town line. The project limits also include the entirety of SR 571 (Route 9 and 71A connector) and Route 5/15 (Berlin Turnpike) within the Town of Berlin from North Colony Road to Rowley Street. The project's intent is to replace all highway signing along the Route 9 corridor, including entrance and exit ramps, within the project limits, that have exceeded their useful service life or whose reflectivity is diminished, as well as sign supports that have been deemed structurally deficient. Replacement of the highway signing will include removing existing overhead, cantilever, and side mounted signs and sign support structures and installing new signs on new overhead, cantilever, and side mounted support structures.

Included in the Bluebeam Session for review are the preliminary design signing plans and calendar day chart. Also included in the Bluebeam Session for reference is the project description. These plans show the locations of proposed major signing along Route 9, SR 571 (Route 9 and 71A connector), and Route 5/15 (Berlin Turnpike), as well as existing major signs that are not being replaced under the project (designated as "NIC"). All new overhead and side-mounted extruded aluminum signs will require the removal of existing foundations, posts, and support structures and the installation of new foundations, posts, and support structures. Additionally, minor sheet aluminum signs are also included in the project, but are not shown on the preliminary design plans.

Please join the Bluebeam Session and review the preliminary design plans and calendar day chart and provide any comments and/or pertinent information that would assist in furthering the project's design by November 30, 2018.

Project #0007-0189 PD Review

Session ID: 039-196-744

Session URL: <a href="https://studio.bluebeam.com/join.html?ID=039-196-744">https://studio.bluebeam.com/join.html?ID=039-196-744</a>

Should you have any questions or comments relative to this material, please contact David Rundio at (860) 594-2727.

cc: Mark F. Carlino – Mark F. Makuch – Barry A. Schilling Mary Baier - Eric Tallarita

## PROJECT 7-189 ROUTE 9, 15, & SR 571 HIGHWAY RESIGNING

## **PROJECT DESCRIPTION**

Project No. 7-189 (Project) involves resigning CT Route 9 from Exit 18 in Cromwell to Exit 24 in Berlin and the expressway section of SR 571 (Route 9 and 71A Connector), including entrance and exit ramps. Also included within the project is Route 5/15 (Berlin Turnpike) within the Town of Berlin from North Colony Road to Rowley Street. The resigning includes replacing, relocating, and removing existing overhead and side mounted signs, installing additional signs if needed, and replacing deficient overhead sign supports. The following municipalities will be affected by this Project:

- Town of Cromwell
- Town of Berlin

### PROJECT LOCATION

Project location aerial showing the project limits are provided below (not to scale).

\*\*EXMANDION\*\*

\*\*PORTION\*\*

\*\*Brownian\*\*



R

GENERAL NOTES:

1. FEDERAL AID PROJECT NO. N/A

5. SURVEYED BY: DISTRICT 1

**DISCLAIMER** 

SUBSET NO. SUBSET TITLE

GENERAL REVISIONS

TRAFFIC

# 01

# 03

# 04

SYSTEM SYSTEM N.A.D. 1983 4. VERTICAL DATUM BASED ON NAVD 1988

INCOMPLETE AND/OR INACCURATE INFORMATION

LIST OF SUBSETS

**©**°

DISTRICT 4

DISTRICT 3

for Roads, Bridges, Facilities and Incidental Construction, Form 817, dated 2016; Supplemental Specifications, dated July 2018; and Special Provisions 3. 400 FOOT GRID BASED ON CONNECTICUT COORDINATE

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,

\*SUBSET

SHEET COUNT

 CONSTRUCTION SPECIFICATIONS: Connecticut Department of Transportation, Standard Specifications

STATE OF CONNECTICUT

## CONNECTICUT DEPARTMENT OF TRANSPORTATION



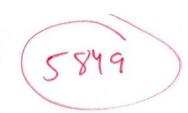
Plans For

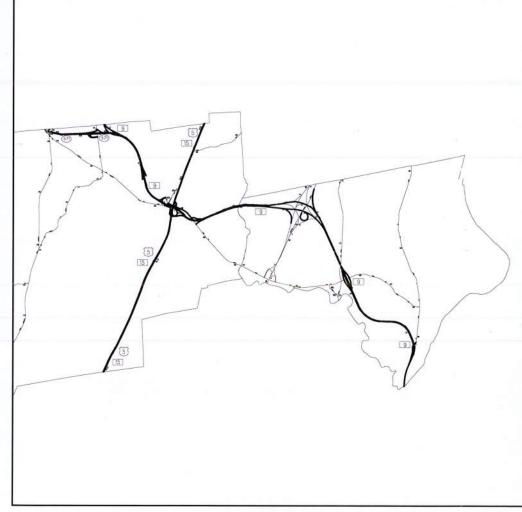
REPLACEMENT OF HIGHWAY SIGNING ON ROUTE 9, 15, & SR 571 CONNECTOR \_

Town(s)/City of CROMWELL & BERLIN



	MAINTENANCE	
F.A.P. #	RESPONSIBILITY	PROJECT #
I/A	STATE	0007-0189





LOCATION PLAN

NOT TO SCALE

## PRELIMINARY DESIGN REVIEW

# 05	LIST OF DRAWINGS SUBSET 01 - GENERAL	
	DRAWING TITLE	DRAWING NO.
	TITLE SHEET	G-1
	DETAILED ESTIMATE SHEET	G-2

M A S S A C H U S E T T S

DISTRICT 1

DISTRICT 2

-	-0-
٥.	Edge Of Road
Н	Concrete Pavement
1	Dirt Road
4	B.C.L.C.
1	Granite Curb
1	Guide Rail
-	Concrete Median Barrier
1	Conc. Sidewalk
-1	Railroad Tracks

Grid Arrow

Chain Link Fe
Rust'c Fence
Stone Wall

Board Fence
Board Fence
Ledge Outcrop
Inland Wetland Limits

STATE LINE

Fasement Line
Swamp

Building

ID CONVENTIONS

Jink Fence Water Edge Riprap Conventions

Frence Stream Tree Line

Ditch Shrub

Fence Evergreen Tree Conductors Tree Conventions

Town Line Pediduous Tree Retaining Wall

A Highway Line

Street Line

THE DESIGN APPEARS TO CONFORM TO APPLICABLE CRITERIA. APPROVAL IS NOT TO BE CONSTRUED TO MEAN THAT ALL ASPECTS OF THE DESIGN HAVE BEEN PERSONALLY CHECKED BY THE UNDERSIGNED.

SUBMITTED BY: TRANSPORTATION PRINCIPAL ENGINEER - MARK F. MAKUCH, P.E.

APPROVAL RECOMMENDED BY: MANAGER OF TRAFFIC ENGINEERING - MARK F. CARLINO, P.E.

STAT

REPLACEMENT OF HIGHWAY SIGNING ON ROUTE 9, 15, & SR 571 CONNECTOR

CROMWELL & BERLIN

0007-0189

G-1 SHEET NO. 01.01

# O3 - TRAFFIC INDEX OF DRAWINGS

DRAWING NUMBER	DRAWING TITLE	DRAWING NUMBER	DRAWING TITLE
TR-01	TRAFFIC - INDEX OF DRAWINGS		
TR-02	GENERAL SIGNING NOTES		
TR-03	INDEX OF PLANS		
TR-04 - TR-99	SIGNING MAINLINE		
ТВО	CROSS SECTIONS		
TBD	TRAFFIC ENGINEERING GUIDE SHEETS X, Y, Z		
1200	<u> </u>	<u> </u>	

THE OESIGN APPEARS TO CONFORM TO APPLICABLE CRITERIA. APPROVAL IS NOT TO BE CONSTRUED TO MEAN THAT ALL ASPECTS OF THE OESIGN HAVE BEEN PERSONALLY CHECKED BY THE UNDERSIGNED.

TRANSPORTATION PRINCIPAL ENGINEER

PRELIMINARY DESIGN REVIEW

		DESIGNER/ORAFTER: E INFORMATION, INCLUDING ESTIMATEO ANTITIES OF WORK, SHOWN ON THESE EFFS IS ASSESS ON I IMPTED	SIGNA BLOCK	CK:	CROMWELL & BERLIN PROJECT NO. 0007-0189
	INI	VESTIGATIONS BY THE STATE AND IS MAC NO WAY WARRANTED TO INDICATE	JAMES OF COMMEDIATION	FFICE OF ENGINEERING  REPLACEMENT OF HIGHY  SIGNING ON ROUTE  15, & SR 571 CONNECT	9, DRAWING TITLE: TR-01
REV. OATE	REVISION DESCRIPTION SHEET NO. Plott	0 200 400 SCALE 1"=200'	Filename:\TR_MSH_SPM0007-0189.dgn	25, 61 512 5511126	INDEX OF DRAWINGS

#### GENERAL SIGNING NOTES

- THE RELATIVE LOCATION OF EACH SIGN ON OVERHEAD STRUCTURES IS SHOWN READING ALPHABETICALLY FROM LEFT TO RIGHT AS VIEWEO BY TRAFFIC.
- REFER TO EACH INDIVIDUAL SIGNING PLAN FOR "SIGNING INSTALLATION NOTES" WHICH ARE SPECIFIC TO EACH SIGN WITHIN THE PROJECT.
- ALL SIGN FOUNOATIONS SHALL BE FIELD STAKED AND THE LOCATIONS APPROVED BY AN ENGINEER FROM THE DIVISION OF TRAFFIC ENGINEERING OR DESIGNEE A MINIMUM OF 7 DAYS PRIOR TO INSTALLATION.
- ALL EXTRUDEO ALUMINUM SIGNS, SIDE MOUNTEO SUPPORTS, AND FOUNDATIONS LOCATED WITHIN THE SIGNING LIMITS ARE TO BE REMOVED UNLESS OTHERWISE NOTEO. ALL OVERHEAD AND BRIDGE MOUNTED SUPPORTS ARE TO BE REMOVED UNLESS OTHERWISE NOTED.
- ALL PROPOSED EXTRUDED ALUMINUM SIGNS ARE TO BE NEW SIGNS ON NEW SUPPORT(S) AND FOUNDATION(S) UNLESS OTHERWISE NOTEO.
- ALL SHEET ALUMINUM SIGNS LOCATED WITHIN THE SIGNING LIMITS ON ROUTE 9 ARE TO BE REMOVED UNLESS OTHERWISE NOTEO. ALL SHEET ALUMINUM SIGNS SHOWN ON ALL OTHER ROADWAYS ARE TO BE REMOVED UNLESS OTHERWISE NOTED OR AS OIRECTEO BY THE ENGINEER.
- 7. ALL PRIVATE AND CITY/TOWN OWNED SIGNS ARE TO REMAIN UNLESS OTHERWISE NOTEO.
- 8. THE REMOVAL OF EXISTING SIDE-MOUNTED EXTRUDED ALUMINUM SIGNS, SIGN SUPPORTS, FOUNDATIONS AND SHEET ALUMINUM SIGNS AND POSTS, AS WELL AS BRIDGE MOUNTED SHEET ALUMINUM SIGNS, WILL BE PAIO FOR UNDER ITEM NO. 1206013; REMOVAL OF EXISTING SIGNS.
- THE REMOVAL OF EXISTING OVERHEAD SIGNS WILL BE PAIO FOR UNDER ITEM 1206011: REMOVAL OF EXISTING
- 10. CERTAIN OVERHEAD SIGN SUPPORTS HAVE BEEN IDENTIFIED AS CONTAINING HAZARDOUS LEVELS OF LEAD. REFER TO THE SPECIAL PROVISIONS FOR ITEM NOS. 0020903A: LEAD COMPLIANCE FOR MISCELLANEOUS EXTERIOR TASKS FOR THE REQUIRED PROCEDURES FOR REMOVING AND HANDLING HAZARDOUS MATERIALS, AS WELL AS A LISTING OF THE SPECIFIC CONTAMINATION LOCATIONS.
- 11. "CALL BEFORE YOU DIG" (C.B.Y.D.), CT DOT HIGHWAY OPERATIONS, AND CT OOT ELECTRICAL SHALL BE CONTACTED PRIOR TO THE INSTALLATION OF ANY NEW SIGNS.
- THE CONTRACTOR SHALL CLEAR, GRUB, AND TRIM AS OIRECTED BY THE ENGINEER TO PROVIDE ADEQUATE SIGHTLINE TO THE SIGNS. THIS WORK SHALL BE PAID FOR UNDER ITEM NO. 0952001A: SELECTIVE CLEARING AND THINNING AND ITEM NO. 0201001: CLEARING AND GRUBBING.
- INCIDENT MANAGEMENT SYSTEM (IMS) EQUIPMENT IS NOT INCLUDED IN THE CONTRACT UNLESS SPECIFIED OTHERWISE.
- 14. N.I.C. (XXX-XXXX): OENOTES NOT IN CONTRACT AND PROJECT NUMBER INCLUDED UNDER (IF APPLICABLE),
- SHEET ALUMINUM AND EXTRUDED ALUMINUM LOGO SERVICE SIGNS ARE TO BE NOT IN CONTRACT (N.I.C.) UNLESS OTHERWISE SHOWN ON THE PLANS.
- 16. WHEN A SIGN IS TO BE REPLACED, THE EXISTING SIGN SHOULD NOT BE REMOVED UNTIL THE REPLACEMENT SIGN IS INSTALLED
- 17. SIGNS SHALL NOT BE PLACEO LESS THAN 10 FEET FROM UTILITY POLES.
- 1B. INSTALL NEW MILE MARKER SIGNS (SIGN NO. 51-5307) ON ROUTE 9 NB & SB AT ONE MILE INTERVALS WITHIN THE PROJECT LIMITS. INSTALL NEW MILE MARKER SIGNS (SIGN NOS. 51-5104 & 51-5302) ON ROUTE 9 NB & SB AT 0.20 MILE INTERVALS WITHIN THE PROJECT LIMITS. EACH LOCATION SHALL BE MEASURED AND VERIFIED BY THE CONTRACTOR PRIOR TO INSTALLATION, NOTE THAT THESE SIGNS ARE NOT SHOWN ON THE PLANS, THIS WORK WILL BE PAID FOR UNDER ITEM NO. 1208931: SIGN FACE - SHEET ALUMINUM (TYPE IX RETROREFLECTIVE SHEETING)
- 19. OELINEATORS SHALL BE INSTALLEO WITHIN THE PROJECT LIMITS ON THE ROUTE B MAINLINE, RAMPS, AND TURNINGS ROAOWAYS. EXISTING WHITE ANO YELLOW OELINEATORS ARE TO BE REMOVEO IN AREAS WHERE NEW ONES ARE INSTALLED. INSTALL DELINEATORS IN ACCORDANCE WITH TRAFFIC ENGINEERING STANDARD DRAWINGS TR-1205-01: DELINEATION, DELINEATORS, AND OBJECT MARKER DETAILS.
- 20. ALL OBJECT MARKERS TO REMAIN UNLESS OTHERWISE NOTED.
- 21. ALL CHEVRON SIGN (SIGN NO. 41-4211 & 41-4260) POSTS ARE TO HAVE RETROREFLECTIVE STRIP(SIGN NO. 41-500B) INSTALLED EXCEPT FOR THOSE INSTALLED ON BARRIER. REFLECTORS ARE TO BE PAIO FOR UNDER ITEM NO. 120B931: SIGN FACE SHEET ALUMINUM (TYPE IX RETROREFLECTIVE SHEETING). ALL NEW CHEVRON SIGNS ARE TO BE SPACEO BO FEET APART UNLESS OTHERWISE NOTED
- 22. ALL RAMP SIGNS ARE TO HAVE A MINIMUM SPACING OF 100 FEET BETWEEN SIGNS WHERE FEASIBLE.

### SIGN NUMBERING LEGEND

MAINLINE 000X-000-00.00 X

000X = ROUTE WITH CARDINAL DIRECTION 000 = TOWN NUMBER 00.00 = APPROXIMATE MILE POINT X = SIGN LETTER PER LOCATION

RAMPS

000X-000-R000-EX00 X

000X = ROUTE WITH CARDINAL DIRECTION 000 = TOWN NUMBER R000 = SIGN ASSOCIATED RAMP NUMBER EX00 = EXIT NUMBER FOR ASSOCIATED SIGN X = SIGN LETTER PER LOCATION

#### SYMBOL & BORDER LEGEND

OVERHEAD SIGN SUPPORT

CANTILEVER SIGN SUPPORT

SIDE MOUNTED EXTRUDED ALUMINUM SIGN SUPPORT

SIDE MOUNTED SHEET ALUMINUM SIGN SUPPORT (1, 2, 3 POST)

100-YR FEMA FLOOD -100YR-PLAIN LIMIT

#### OVERHEAD SIGN CROSS-SECTION NOTES

OFFICE OF ENGINEERING

- 1. ALL INFORMATION ON THE OVERHEAD SIGN CROSS-SECTION SHEETS ARE APPROXIMATE.
- 2. THE CONTRACTOR SHALL VERIFY ALL INFORMATION PROVIDED ON THE OVERHEAD SIGN CROSS-SECTION SHEETS.
- THE OVERHEAD SIGN CROSS-SECTION SHEETS ARE USED TO SHOW THE APPROXIMATE LOCATIONS OF THE SIGN SUPPORT FOUNDATIONS AND SIGNS RELATIVE TO THE ROAOWAY LANES AND CROSS-SLOPE
- ALL OVERHEAD SIGNS SHALL BE INSTALLED WITH A MINIMUM VERTICAL CLEARANCE OF 1B FEET AS MEASURED FROM THE BOTTOM OF THE SIGN TO THE HIGH POINT OF THE ROADWAY EXCLUDING BRIDGE MOUNTED OVERHEAD SIGNS. BRIDGE MOUNTED SIGNS SHALL BE INSTALLED SUCH THAT THE BOTTOM OF THE SIGN EXCEEDS THE VERTICAL CLEARANCE OF THE BRIOGE GIROERS BY A MINIMUM OF 1 FOOT.
- ALL OVERHEAD SIGNS ARE TO BE INSTALLED VERTICALLY CENTERED ON THE HORIZONTAL MEMBER OF THE OVERHEAO SIGN SUPPORT, UNLESS A MINIMUM VERTICAL CLEARANCE OF 1B FEET CANNOT BE ACHIEVED.
- ALL NEW OVERHEAD SIGN SUPPORTS SHALL BE INSTALLED SUCH THAT THE EDGE OF FOUNDATIONS ARE NOT LOCATED WITHIN THE OFFLECTION ZONE OF A GUIDERAIL OR OTHER BARRIER AS MEASUREO FROM THE BACK OF GUIDERAIL TO THE LEADING EOGE OF THE FOUNDATION.
- ALL OVERHEAD SIGNS INSTALLEO ON THE SAME OVERHEAD SIGN SUPPORT SHALL HAVE A MINIMUM OF 1 FOOT SPACING BETWEEN SIGNS.
- B. ALL VERTICAL OVERHEAD SIGN SUPPORT MEMBERS ARE SHOWN NOT TO SCALE UNLESS DIMENSIONED OTHERWISE.
- NEW OVERHEAD SIGN SUPPORTS THAT REPLACE EXISTING OVERHEAD SIGN SUPPORTS ARE TO BE INSTALLEO AS NEAR THE EXISTING LOCATION AS FEASIBLE UNLESS OTHERWISE NOTED.

REPLACEMENT OF HIGHWAY

SIGNING ON ROUTE 9, 15, & SR 571 CONNECTOR

PRELIMINARY DESIGN REVIEW

CROMWELL & BERLIN

0007-0189

TR-02

**GENERAL SIGNING** 

**NOTES** 

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WAITCH WILL BE REGULDED. ECKED 8 STATE OF CONNECTICUT MAC SCALE IN FEET **DEPARTMENT OF TRANSPORTATION** 200 400 SCALE 1"=200' REVISION DESCRIPTIO ...\TR\_MSH\_SPM\_\_\_0007-0189.dqn

