



April 9, 2018

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

Attention: Jason Coite, P.E. / Stephen Clout

Subject: On-Call Asbestos, Lead, Air Quality & Demolition Compliance
Agreement No. 04.27-01(15)
HazMat Inspection – Eleven (11) Bridges, Along I-84, Newtown, CT
ConnDOT Assignment No. 514-5629
ConnDOT Project No. 96-200
TRC Project No. 222165.5629.0710

Dear Mr. Fox:

TRC performed a limited survey for hazardous building materials associated with the rehabilitations of 11 bridges, along I-84, in Newtown, Connecticut. Results of the survey identified lead paint to be present on the structural steel/metal bridge components at Bridge Nos. 00505 & 01211 and the metal railings at Bridge Nos. 01206, 01207, 01208 & 01214. Results obtained from TCLP waste stream sampling analysis for leachable lead from the paint on the structural steel/metal bridge components at Bridge Nos. 00505 & 01211 and the metal railings at Bridge Nos. 01206, 01207, 01208 & 01214, characterized the paint waste streams as CTDEEP/RCRA hazardous waste. No detectable amounts of lead were identified on the factory coated fencing at Bridge No. 00505 and on the structural steel/metal bridge components as well as the concrete bearing pedestal at Bridge Nos. 00897, 00898, 01206, 01207, 01210, 01211 (concrete only), 01212, 01213 & 01214, therefore any paint waste debris generated would be non-hazardous, non-RCRA waste. White brittle caulking at base of the bridge railings at Bridge Nos. 01206, 01207, 01208 & 01214, transite drain pipe embedded in the abutments of Bridge No. 01208 and transite cable pipes underneath Bridge No. 00505 were identified as asbestos-containing materials (ACM), however none are projected to be impacted by the rehabilitations. Other various caulking, tar coatings, pipe coatings, fiber layers and cloth bearing/rocker pads at the 11 bridges were sampled and found to be non-ACM. Bird/pigeon guano accumulations were observed in accessible areas of Bridge Nos. 00898 & 01206 only. No other hazardous/regulated items or bloodborne pathogen (BBP) concerns were identified at any of the 11 bridges. Associated laboratory data, project descriptions, inspector notes and site maps are attached.

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

Very Truly Yours,

TRC

Reviewed by:

A handwritten signature in black ink, appearing to read "Stephen R. Arienti".

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

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

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



Lead Based Paint Measurement Summary Table

Device(s): Niton XLP301-A (Serial #25555) X Ray Fluorescence (XRF) Spectrum Analyzer
 Site: ConnDOT - 11 Bridges, Newtown, CT
 Project #: 222165.5629.0710
 Date(s): 10/24/2017
 Inspectors: David Heelon (CTDPH License #002188)

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		0.0 Calibration								0.0	0.0	1.0	1.4	10/24/2017 8:56
2		0.6 Calibration								0.6	0.1	1.0	4.4	10/24/2017 8:56
3		1.6 Calibration								1.6	0.1	1.2	6.3	10/24/2017 8:57
4	Exterior	Newtown	Bridge 1212	east	beam		Metal	Green	Intact	0.0	0.0	1.0	1.8	10/24/2017 9:01
5	Exterior	Newtown	Bridge 1212	east	beam		Metal	Green	Intact	0.0	0.1	3.3	2.5	10/24/2017 9:01
6	Exterior	Newtown	Bridge 1212	east	beam		Metal	Green	Intact	0.0	0.0	5.9	6.9	10/24/2017 9:02
7	Exterior	Newtown	Bridge 1213	west	beam		Metal	Green	Intact	0.0	0.0	1.0	4.3	10/24/2017 9:09
8	Exterior	Newtown	Bridge 1213	west	beam		Metal	Green	Intact	0.0	0.0	1.0	2.2	10/24/2017 9:09
9	Exterior	Newtown	Bridge 1213	west	support pad		Concrete	Green	Intact	0.0	0.0	1.0	2.4	10/24/2017 9:11
10	Exterior	Newtown	Bridge 1213	west	support pad		Concrete	Green	Intact	0.0	0.1	3.8	2.2	10/24/2017 9:12
11					VOID									
12	Exterior	Newtown	Bridge 1210	east	support pad		Concrete	Green	Intact	0.0	0.0	1.0	2.2	10/24/2017 9:24
13	Exterior	Newtown	Bridge 1210	east	beam	horizontal	Metal	Green	Intact	0.0	0.0	1.0	2.2	10/24/2017 9:26
14	Exterior	Newtown	Bridge 1210	east	beam	horizontal	Metal	Green	Intact	0.0	0.0	1.0	3.3	10/24/2017 9:26
15	Exterior	Newtown	Bridge 1210	west	beam	horizontal	Metal	Green	Intact	0.0	0.0	1.0	2.2	10/24/2017 9:27
16	Exterior	Newtown	Bridge 1210	west	beam	horizontal	Metal	Green	Intact	0.0	0.0	1.0	3.3	10/24/2017 9:28
17					VOID									
18					VOID									
19					VOID									
20	Exterior	Newtown	Bridge 1211	east	support pad	horizontal	Concrete	Grey	Defective	0.0	0.0	1.0	2.2	10/24/2017 9:38
21	Exterior	Newtown	Bridge 1211	east	support pad	horizontal	Concrete	Grey	Defective	0.0	0.0	1.0	2.2	10/24/2017 9:38
22	Exterior	Newtown	Bridge 1211	east	beam	horizontal	Metal	Green	Defective	1.2	0.2	2.1	4.0	10/24/2017 9:40
23	Exterior	Newtown	Bridge 1211	east	beam	horizontal	Metal	Green	Defective	15.1	11.0	2.8	1.0	10/24/2017 9:41
24	Exterior	Newtown	Bridge 1211	east	beam	horizontal	Metal	Green	Defective	14.0	2.3	2.9	3.7	10/24/2017 9:42
25	Exterior	Newtown	Bridge 1211	west	beam	horizontal	Metal	Green	Defective	15.1	2.0	2.5	4.9	10/24/2017 9:45
26	Exterior	Newtown	Bridge 1211	west	beam	horizontal	Metal	Green	Defective	17.5	4.4	2.6	2.9	10/24/2017 9:46
27	Exterior	Newtown	Bridge 1211	west	rock bearing	horizontal	Metal	Grey	Defective	0.1	0.1	1.1	2.2	10/24/2017 9:48
28	Exterior	Newtown	Bridge 1211	west	rock bearing	horizontal	Metal	Grey	Defective	0.1	0.0	1.2	3.2	10/24/2017 9:49
29	Exterior	Newtown	bridge 0897	west	support pad	horizontal	Concrete	Blue	Intact	0.0	0.0	1.0	2.4	10/24/2017 10:07
30	Exterior	Newtown	bridge 0897	west	support pad	horizontal	Concrete	Blue	Intact	0.0	0.0	1.0	2.2	10/24/2017 10:08
31	Exterior	Newtown	bridge 0897	west	beam	horizontal	Metal	Blue	Intact	0.0	0.0	1.0	2.2	10/24/2017 10:09
32	Exterior	Newtown	bridge 0897	west	beam	horizontal	Metal	Blue	Intact	0.0	0.1	3.1	3.2	10/24/2017 10:10
33	Exterior	Newtown	bridge 0897	east	beam	horizontal	Metal	Blue	Intact	0.0	0.1	7.8	3.2	10/24/2017 10:15
34	Exterior	Newtown	bridge 0897	east	beam	horizontal	Metal	Blue	Intact	0.0	0.0	1.0	2.2	10/24/2017 10:16
35	Exterior	Newtown	bridge 0897	east	support pad	horizontal	Concrete	Blue	Defective	0.0	0.0	1.7	3.2	10/24/2017 10:17
36	Exterior	Newtown	bridge 0897	east	support pad	horizontal	Concrete	Blue	Defective	0.0	0.0	1.0	2.2	10/24/2017 10:18
37	Exterior	Newtown	bridge 0898	east	support pad	horizontal	Concrete	Blue	Defective	0.0	0.0	2.6	2.2	10/24/2017 10:21
38	Exterior	Newtown	bridge 0898	east	support pad	horizontal	Concrete	Blue	Defective	0.0	0.0	1.0	2.2	10/24/2017 10:22
39	Exterior	Newtown	bridge 0898	east	beam	horizontal	Metal	Blue	Intact	0.0	0.0	1.0	4.2	10/24/2017 10:24
40	Exterior	Newtown	bridge 0898	east	beam	horizontal	Metal	Blue	Intact	0.0	0.0	1.0	2.2	10/24/2017 10:24

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 #25555) X Ray Fluorescence (XRF) Spectrum Analyzer
 Site: ConnDOT - 11 Bridges, Newtown, CT
 Project #: 222165.5629.0710
 Date(s): 10/24/2017
 Inspectors: David Healon (CTDPH License #002188)

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
41	Exterior	Newtown	bridge 0898	west	beam	horizontal	Metal	Blue	Intact	0.0	0.0	1.1	2.2	10/24/2017 10:25
42	Exterior	Newtown	bridge 0898	west	beam	horizontal	Metal	Blue	Intact	0.0	0.0	1.0	2.2	10/24/2017 10:25
43	Exterior	Newtown	bridge 0898	west	support pad	horizontal	Concrete	Blue	Intact	0.0	0.0	1.0	3.2	10/24/2017 10:26
44	Exterior	Newtown	bridge 0898	west	support pad	horizontal	Concrete	Blue	Intact	0.0	0.0	1.8	1.7	10/24/2017 10:28
45	Exterior	Newtown	bridge 1206	east top of bridge	railing	horizontal	Metal	Grey	Defective	7.2	3.5	2.1	2.4	10/24/2017 10:39
46	Exterior	Newtown	bridge 1206	east top of bridge	railing support	horizontal	Metal	Grey	Defective	12.5	4.7	2.1	2.1	10/24/2017 10:40
47	Exterior	Newtown	bridge 1206	east	beam	horizontal	Metal	Blue	Intact	0.0	0.0	2.2	2.4	10/24/2017 10:43
48	Exterior	Newtown	bridge 1206	east	beam	horizontal	Metal	Blue	Intact	0.0	0.1	5.4	3.3	10/24/2017 10:44
49	Exterior	Newtown	bridge 1206	east	support psd	horizontal	Concrete	Blue	Intact	0.0	0.0	1.0	2.2	10/24/2017 10:45
50	Exterior	Newtown	bridge 1206	east	support psd	horizontal	Concrete	Blue	Intact	0.0	0.0	1.0	2.6	10/24/2017 10:46
51	Exterior	Newtown	bridge 1206	east	support psd	horizontal	Concrete	Blue	Intact	0.0	0.1	6.0	3.0	10/24/2017 10:50
52	Exterior	Newtown	bridge 1206	south	support psd	horizontal	Concrete	Blue	Intact	0.0	0.0	1.5	4.0	10/24/2017 10:50
53	Exterior	Newtown	bridge 1206	south	support psd	horizontal	Concrete	Blue	Intact	0.0	0.0	1.2	2.2	10/24/2017 10:51
54	Exterior	Newtown	bridge 1206	south	support psd	horizontal	Concrete	Blue	Intact	0.0	0.0	1.0	2.2	10/24/2017 10:52
55	Exterior	Newtown	bridge 1206	south	beam	horizontal	Metal	Blue	Intact	0.0	0.0	4.3	3.6	10/24/2017 10:53
56	Exterior	Newtown	bridge 1206	south	beam	horizontal	Metal	Blue	Intact	0.0	0.0	1.1	1.4	10/24/2017 10:53
57	Exterior	Newtown	bridge 1207	west top of bridge	railing	horizontal	Metal	Grey	Defective	5.9	4.5	1.7	1.4	10/24/2017 11:40
58	Exterior	Newtown	bridge 1207	west top of bridge	railing support	horizontal	Metal	Grey	Defective	6.0	3.3	2.1	2.4	10/24/2017 11:41
59	Exterior	Newtown	bridge 1207	east top of bridge	railing	horizontal	Metal	Grey	Defective	7.2	1.9	2.1	1.5	10/24/2017 11:43
60	Exterior	Newtown	bridge 1207	east top of bridge	railing support	horizontal	Metal	Grey	Defective	6.4	4.4	2.0	1.4	10/24/2017 11:43
61	Exterior	Newtown	bridge 1208	east top of bridge	railing	horizontal	Metal	Grey	Defective	6.5	4.6	2.2	1.4	10/24/2017 11:59
62	Exterior	Newtown	bridge 1208	east top of bridge	railing support	horizontal	Metal	Grey	Defective	10.7	5.4	2.3	1.5	10/24/2017 12:00
63	Exterior	Newtown	bridge 1208	west top of bridge	railing	horizontal	Metal	Grey	Defective	5.0	1.3	2.1	1.5	10/24/2017 12:01
64	Exterior	Newtown	bridge 1208	west top of bridge	railing support	horizontal	Metal	Grey	Defective	12.4	5.2	2.2	1.8	10/24/2017 12:02
65	Exterior	Newtown	bridge 1214	west top of bridge	railing	horizontal	Metal	Grey	Defective	6.6	4.6	1.6	1.4	10/24/2017 12:20
66	Exterior	Newtown	bridge 1214	west top of bridge	railing support	horizontal	Metal	Grey	Defective	9.3	5.0	2.0	1.5	10/24/2017 12:20
67	Exterior	Newtown	bridge 1214	east top of bridge	railing	horizontal	Metal	Grey	Defective	4.7	1.0	1.3	1.5	10/24/2017 12:21
68	Exterior	Newtown	bridge 1214	east top of bridge	railing support	horizontal	Metal	Grey	Defective	9.8	4.9	2.2	1.7	10/24/2017 12:22
69	Exterior	Newtown	bridge 1214	north under bridge	beam	horizontal	Metal	Tan/beige	Intact	0.0	0.0	1.3	2.2	10/24/2017 12:27
70	Exterior	Newtown	bridge 1214	north under bridge	beam	horizontal	Metal	Tan/beige	Intact	0.0	0.0	1.0	2.2	10/24/2017 12:28
71					VOID									
72					VOID									
73	Exterior	Newtown	bridge 1214	north under bridge	support pad	horizontal	Metal	Tan/beige	Intact	0.0	0.1	2.0	1.7	10/24/2017 12:31
74	Exterior	Newtown	bridge 1214	south under bridge	support pad	horizontal	Metal	Tan/beige	Intact	0.0	0.1	1.0	0.3	10/24/2017 12:34
75	Exterior	Newtown	bridge 1214	south under bridge	support pad	horizontal	Metal	Tan/beige	Intact	0.0	0.0	1.0	1.3	10/24/2017 12:34
76	Exterior	Newtown	bridge 1214	south under bridge	support pad	horizontal	Metal	Tan/beige	Intact	0.0	0.1	4.2	3.0	10/24/2017 12:34
77	Exterior	Newtown	bridge 1214	south under bridge	beam	horizontal	Metal	Tan/beige	Intact	0.0	0.1	5.7	2.2	10/24/2017 12:35
78	Exterior	Newtown	bridge 1214	south under bridge	beam	horizontal	Metal	Tan/beige	Intact	0.0	0.0	1.8	2.2	10/24/2017 12:35
79	Exterior	Newtown	bridge 0505	west above bridge	fence railing	horizontal	Metal	Brown	Intact	0.0	0.0	1.0	4.3	10/24/2017 12:46
80	Exterior	Newtown	bridge 0505	west above bridge	fence railing	horizontal	Metal	Brown	Intact	0.0	0.0	1.0	4.5	10/24/2017 12:47

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 #25555) X Ray Fluorescence (XRF) Spectrum Analyzer
 Site: ConnDOT - 11 Bridges, Newtown, CT
 Project #: 222165.5629.0710
 Date(s): 10/24/2017
 Inspectors: David Heelon (CTDPH License #002188)

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
81	Exterior	Newtown	bridge 0505	east above bridge	fence railing	horizontal	Metal	Brown	Intact	0.0	0.0	1.0	3.9	10/24/2017 12:49
82	Exterior	Newtown	bridge 0505	east above bridge	fence railing	horizontal	Metal	Brown	Intact	0.0	0.0	1.0	4.3	10/24/2017 12:50
83	Exterior	Newtown	bridge 0505	north under bridge	beam	horizontal	Metal	Brown	Defective	2.4	0.6	1.4	1.7	10/24/2017 12:58
84	Exterior	Newtown	bridge 0505	north under bridge	beam	horizontal	Metal	Brown	Defective	19.1	6.2	2.2	1.8	10/24/2017 12:59
85	Exterior	Newtown	bridge 0505	north under bridge	beam	horizontal	Metal	Brown	Defective	4.6	1.2	1.8	1.4	10/24/2017 13:00
86	Exterior	Newtown	bridge 0505	north under bridge	support pad	horizontal	Metal	Brown	Defective	4.3	1.0	1.7	1.5	10/24/2017 13:02
87	Exterior	Newtown	bridge 0505	north under bridge	support pad	horizontal	Metal	Brown	Defective	3.1	0.8	1.6	1.5	10/24/2017 13:02
88	Exterior	Newtown	bridge 0505	south under bridge	support pad	horizontal	Metal	Brown	Defective	3.7	1.0	1.9	1.5	10/24/2017 13:03
89	Exterior	Newtown	bridge 0505	south under bridge	support pad	horizontal	Metal	Brown	Defective	3.7	0.9	1.7	1.5	10/24/2017 13:04
90	Exterior	Newtown	bridge 0505	south under bridge	support pad	horizontal	Metal	Brown	Defective	3.0	0.7	1.4	1.5	10/24/2017 13:05
91	Exterior	Newtown	bridge 0505	south under bridge	beam	horizontal	Metal	Brown	Defective	13.7	5.4	2.1	1.8	10/24/2017 13:05
92		0.0 Calibration								0.0	0.0	1.0	2.2	10/24/2017 13:14
93		0.3 Calibration								0.2	0.1	1.0	4.0	10/24/2017 13:14
94		0.7 Calibration								0.7	0.2	1.1	2.4	10/24/2017 13:15
95		3.6 Calibration								3.5	0.6	1.3	2.2	10/24/2017 13:15

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

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

80 Lupes Drive
Stratford, CT 06615



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

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

Analytical Report

CET# 7100952

Report Date: November 01, 2017
Project: 11 Bridges, Newtown, CT
Project Number: 222165.5629.0710

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



New York NELAP Accreditation: 11982
Rhode Island Certification: 199

CET # : 7100952

Project: 11 Bridges, Newtown, CT

Project Number: 222165.5629.0710

SAMPLE SUMMARY

The sample(s) were received at 26.0°C.

This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
1	7100952-01	Paint Chip	10/25/2017 10:45	10/30/2017
3	7100952-02	Paint Chip	10/25/2017 12:15	10/30/2017
5	7100952-03	Paint Chip	10/25/2017 12:35	10/30/2017
6	7100952-04	Paint Chip	10/25/2017 13:25	10/30/2017
7	7100952-05	Paint Chip	10/25/2017 14:50	10/30/2017
8	7100952-06	Paint Chip	10/26/2017 13:15	10/30/2017
10	7100952-07	Paint Chip	10/26/2017 12:58	10/30/2017
11	7100952-08	Paint Chip	10/26/2017 13:05	10/30/2017
12	7100952-09	Paint Chip	10/26/2017 10:40	10/30/2017
14	7100952-10	Paint Chip	10/27/2017 10:08	10/30/2017
15	7100952-11	Paint Chip	10/27/2017 9:45	10/30/2017
17	7100952-12	Paint Chip	10/27/2017 11:50	10/30/2017

CET # : 7100952

Project: 11 Bridges, Newtown, CT

Project Number: 222165.5629.0710

Analyte: Total Lead [EPA 6010C]

Analyst: SS

Matrix: Paint Chip

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
7100952-01	1	ND	0.10	%	1	B7J3038	10/30/2017	10/31/2017 12:54	
7100952-02	3	ND	0.10	%	1	B7J3038	10/30/2017	10/31/2017 12:58	
7100952-06	8	ND	0.10	%	1	B7J3038	10/30/2017	10/31/2017 13:02	
7100952-07	10	0.69	0.10	%	1	B7J3038	10/30/2017	10/31/2017 13:07	
7100952-09	12	ND	0.10	%	1	B7J3038	10/30/2017	10/31/2017 13:11	
7100952-11	15	ND	0.10	%	1	B7J3038	10/30/2017	10/31/2017 13:15	

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
7100952-03	5	69	0.013	mg/L	1	B7J3124	10/31/2017	10/31/2017 16:39	
7100952-04	6	59	0.013	mg/L	1	B7J3124	10/31/2017	10/31/2017 16:44	
7100952-05	7	79	0.013	mg/L	1	B7J3124	10/31/2017	10/31/2017 16:48	
7100952-08	11	74	0.013	mg/L	1	B7J3124	10/31/2017	10/31/2017 17:03	
7100952-10	14	100	0.013	mg/L	1	B7J3124	10/31/2017	10/31/2017 17:08	
7100952-12	17	310	0.013	mg/L	1	B7J3124	10/31/2017	10/31/2017 17:13	

CET # : 7100952

Project: 11 Bridges, Newtown, CT

Project Number: 222165.5629.0710

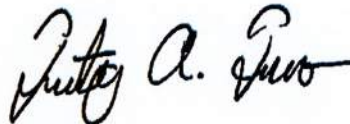
All questions related to this report should be directed to David Ditta, Timothy Fusco, or Robert Blake at 203-377-9984.

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 # : 7100952

Project: 11 Bridges, Newtown, CT

Project Number: 222165.5629.0710

CERTIFICATIONS

Certified Analyses included in this Report

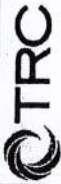
Analyte	Certifications
<i>EPA 6010C in Solid</i>	
Lead	CT
<i>EPA 6020A in Water</i>	
Lead	NY,CT

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

⊗ DAS Rates Apply

Email results to: E.Plimpton@trcsolutions.com



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

TCLP CHAIN OF CUSTODY



7100952

Edition: November 2013
Supersede Previous Edition

FIELD SAMPLE NUMBER	DATE	TIME	TYPE		PROJECT NAME	PARAMETERS					TURNAROUND TIME			LAB ID #	MATERIAL	
			COMP	GRAB		RCRA Pb	RCRA Pb, AS, CR, CD	8 RCRA Metals	TCLP Pb	SPLP Pb	24hr	48hr	24hr			3day
					(PRINTED) David Heelon											
1	10/25/17	1045	✓		Bridge 0897											Blue Paint chips (under bridge)
2	10/25/17	1045	✓		Bridge 0897					✓						Blue Paint chips (under bridge)
3	10/25/17	1215	✓		Bridge 1206											Blue Paint chips (under bridge)
4	10/25/17	1215	✓		Bridge 1206											Blue Paint chips (under bridge)
5	10/25/17	1235	✓		Bridge 1206											Gray paint on rail above bridge
6	10/25/17	1325	✓		Bridge 1207											Gray paint on rail above bridge
7	10/25/17	1450	✓		Bridge 1208											Green paint on rail above bridge
8	10/26/17	1315	✓		Bridge 1210											Blue Paint chips (under bridge)
9	10/26/17	1315	✓		Bridge 1210											Gray paint chips on Rocker Bearings
10	10/26/17	1258	✓		Bridge 1211											Green paint (under bridge)
11	10/26/17	1305	✓		Bridge 1211											Green paint (under bridge)

Relinquished by: (Signature)	Date:	Received by: (Signature)	Date:	Received by: (Signature)
David Heelon	10/27/17	David Heelon	10/27/17	Monica Lowy
David Heelon	1530	David Heelon	1530	Monica Lowy

⊗ Analyze for total lead first. If positive then analyze for matching sample.
If negative, do not analyze for TCLP.

Data Rates apply Email results to: Elimplon@trcsolutions.com



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TCLP CHAIN OF CUST

Edition: November 2013
Supersede Previous Edition

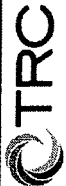


PROJECT NUMBER: 227165.5629.0710
PROJECT NAME: 11 Bridges, Newtown, CT
INSPECTOR: (SIGNATURE) *David Heelon* (PRINTED) David Heelon
LAB ID #: 7100952
TURNAROUND TIME: 24hr, 48hr, 3day, 5day

FIELD SAMPLE NUMBER	DATE	TIME	TYPE		SAMPLE LOCATION	RCRA Pb	RCRA Pb, AS, CR, CD	8 RCRA Metals	TCLP Pb	SPL Pb	Total Lead	MATERIAL
			COMP	GRAB								
12	10/26/17	1040	✓		Bridge 1212				✓			Green paint chips (under bridge)
13	10/26/17	1040	✓		Bridge 1212				✓			Green paint on rails above bridge.
14	10/27/17	1008	✓		Bridge 1214				✓			Tan paint chips (under bridge)
15	10/27/17	0945	✓		Bridge 1214				✓			Brown paint chips with orange (under bridge)
16	10/27/17	0945	✓		Bridge 1214				✓			
17	10/27/17	1150	✓		Bridge 0505				✓			

Relinquished by: (Signature) *David Heelon* (Printed) David Heelon
Date: 10/27/17
Time: 1530
Received by: (Signature) *Robert Preshaw* (Printed) Robert Preshaw
Date: 10/27/17
Time: 1355
Relinquished by: (Signature) *Robert Preshaw* (Printed) Robert Preshaw
Date: 10/30/17
Time: 1030
Received by: (Signature) *Monica Lewis* (Printed) Monica Lewis
Date: 10/30/17
Time: 2:06 PM

Analyses for total lead first, if positive then analyze for TCLP.
If negative, do not analyze for TCLP. *David Heelon*



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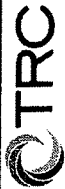
**ASBESTOS BULK SAMPLING
 CHAIN OF CUSTODY**

Edition: October 2009
 Supersede Previous Edition

LAB ID #. 51491

FIELD SAMPLE NUMBER	DATE	TIME	TYPE		PROJECT NAME	PARAMETERS					MATERIAL
			COMP	GRAB		PLM EPA 600/R9/116 (POSITIVE STOP)	PLM EPA 600/R9/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	
1	10/25/17	1025	✓	✓	11 Bridge, Newtown, CT	✓					Expansion Joint Caulk (EJ1)
2		1026	✓	✓	David Heelon + Kelly Gray	✓					Expansion Joint Caulk (EJ2)
3		1028	✓	✓		✓					Expansion Joint Caulk (EJ2)
4		1033	✓	✓		✓					Expansion Joint Caulk (EJ2)
5		1120	✓	✓		✓					Expansion Joint Caulk (EJ3)
6		1122	✓	✓		✓					Expansion Joint Caulk (EJ3)
7		1158	✓	✓		✓					Expansion Joint Caulk (EJ4)
8		1200	✓	✓		✓					Expansion Joint Caulk (EJ4)
9		1205	✓	✓		✓					Expansion Joint Caulk (EJ5)
10		1207	✓	✓		✓					Expansion Joint Caulk (EJ5)

Relinquished by: (Signature) <i>David Heelon</i>	Date: 10/27/17	Received by: (Signature) <i>[Signature]</i>	Date: 10/30/17	Relinquished by: (Signature)	Date:	Received by: (Signature)
(Printed) David Heelon	Time: 1630	(Printed) Cathryn Lemire	Time: 1005	(Printed)	Time:	(Printed)
Remarks: Email Erik Flimpton	Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Comments:		Page 1 of 9	



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ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

Edition: October 2009
 Supersede Previous Edition

LAB ID #. **51491**

PROJECT NUMBER	PROJECT NAME		INSPECTOR		PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 1984 (IF PLM SERIES NEG)	TURNAROUND TIME						
	DATE	TIME	TYPE	COMP						SAMPLE LOCATION	PLM:	TEM:	8hr	24hr	48hr	3day
2021655629, 0710	11 Bridge, Newtown CT		David Heelon + Kelly		✓	✓			✓							
					✓	✓			✓							
					✓	✓			✓							
					✓	✓			✓							
					✓	✓			✓							
					✓	✓			✓							
					✓	✓			✓							
					✓	✓			✓							
					✓	✓			✓							
					✓	✓			✓							
					✓	✓			✓							

Relinquished by: (Signature) <i>David Heelon</i>	Date 10/27/17	Received by: (Signature) <i>Cathy Genic</i>	Date 10/30/17
(Printed) David Heelon	Time 1630	(Printed) Cathy Genic	Time 1005
Remarks: Email Erik Plimpton	Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Comments: Page 2 of 9



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**ASBESTOS BULK SAMPLING
 CHAIN OF CUSTODY**

Edition: October 2009
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PROJECT NUMBER	PROJECT NAME	INSPECTOR	PARAMETERS		MATERIAL		
			PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)			
FIELD SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	ANALYZE BY LAYER	POINT COUNT (IF > 1% & > 10%)	TEM NY NOB 1984 (IF PLM SERIES NEG)
21	10/26/17	1021	✓	Bridge 1212			
22		1113	✓	Bridge 1213			Expansion Joint Caulk (EJ 11)
23		1115	✓	Bridge 1213			Expansion Joint Caulk (EJ 12)
24		1117	✓	Bridge 1213			Expansion Joint Caulk (EJ 13)
25		1242	✓	Bridge 1211			Expansion Joint Caulk (EJ 14)
26		1347	✓	Bridge 1210			Expansion Joint Caulk (EJ 15)
27		1240	✓	Bridge 1211			
28		1340	✓	Bridge 1210			
29		1238	✓	Bridge 1211			
30		1338	✓	Bridge 1210			

LAB ID #: 51491

TURNAROUND TIME

PLM:	8hr	24hr	48hr	3day	5day
TEM:					

Relinquished by: (Signature) David Heelon	Date: 10/27/17	Received by: (Signature) Cathy Lemire	Date: 10/30/17
(Printed) David Heelon	Time: 16:30	(Printed) Cathy Lemire	Time: 1005
Remarks: Email Erik Plimpton	Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Page 3 of 9



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ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

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PROJECT NUMBER 220165-5629, 0710		PROJECT NAME 11 Bridges, Newtown CT		INSPECTOR David Heelon + Kelly Grey		PARAMETERS				TURNAROUND TIME					
						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:	TEM:	8hr	24hr	48hr
FIELD SAMPLE NUMBER	DATE	TIME	TYPE	COMP	GRAB	SAMPLE LOCATION	MATERIAL								
								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)	8hr	24hr	48hr
31	10/29/17	0935	✓	✓	✓	Bridge 1214	Expansion Joint Caulk (EJ16)	✓							
32	↓	0936	✓	✓	✓	Bridge 1214	Expansion Joint Caulk (EJ17)	✓							
33	↓	0956	✓	✓	✓	Bridge 1214	Expansion Joint Caulk (EJ17)	✓							
34	↓	0957	✓	✓	✓	Bridge 1214	Expansion Joint Caulk (EJ18)	✓							
35	↓	1143	✓	✓	✓	Bridge 0505	Expansion Joint Caulk (EJ18)	✓							
36	↓	1145	✓	✓	✓	Bridge 0505	Expansion Joint Caulk (EJ18)	✓							
37	10/28/17	1004	✓	✓	✓	Bridge 0897	Black Coating on Drain Pipe (TC1)	✓							
38	↓	1005	✓	✓	✓	Bridge 0897	Black Coating on Drain Pipe (TC1)	✓							
39	↓	1410	✓	✓	✓	Bridge 1209	Tar Coating (Under Bridge) (TC2)	✓							
40	↓	1412	✓	✓	✓	Bridge 1209	Tar Coating (Under Bridge) (TC2)	✓							

Relinquished by: (Signature) <i>David Heelon</i>	Date: 10/29/17	Received by: (Signature) <i>Cathy Plimpton</i>	Date: 10/31/17
(Printed) David Heelon	Time: 16:30	(Printed) Cathy Plimpton	Time: 1005
Remarks: Email to Erik Plimpton	Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
		Relinquished by: (Signature)	Received by: (Signature)
		Date:	Date:
		Time:	Time:
		(Printed)	(Printed)
			Page 1 of 9



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PROJECT NUMBER		PROJECT NAME		LAB ID #. 51491		TURNAROUND TIME					
						PLM:	TEM:	8hr	24hr	48hr	3day
FIELD SAMPLE NUMBER	DATE	TIME	TYPE	COMB	GRAB	INSPECTOR	PARAMETERS				MATERIAL
							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%)	
SIGNATURE		DATE		TIME		SAMPLE LOCATION					
David Heelon		10/27/17		1214		Bridge 0505					
David Heelon		10/27/17		1216		Bridge 0505					
David Heelon		10/25/17		1235		Bridge 1206					
David Heelon		10/25/17		1237		Bridge 1206					
David Heelon		10/25/17		1328		Bridge 1207					
David Heelon		10/25/17		1330		Bridge 1207					
David Heelon		10/25/17		1435		Bridge 1208					
David Heelon		10/25/17		1438		Bridge 1208					
David Heelon		10/27/17		1003		Bridge 1214					
David Heelon		10/27/17		1001		Bridge 1214					

Relinquished by: (Signature) <i>David Heelon</i>	Date: 10/27/17	Received by: (Signature) <i>[Signature]</i>	Date: 10/30/17
(Printed) David Heelon	Time: 1630	(Printed) Cathryn Lemire	Time: 1055
Remarks: David Erik Plimpton		Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Comments:	



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ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

Edition: October 2009
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PROJECT NUMBER 22765-5629-0910		PROJECT NAME 11 Bridges, Newtown, CT		LAB ID #. 51491		TURNAROUND TIME					
						PLM: 8hr	24hr	48hr	3day	5day	
FIELD SAMPLE NUMBER	DATE	TIME	TYPE	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	
										COMP	GRAB
61	10/27/17	1110	✓	Bridge 0505	✓	✓		✓	✓	Chalk (CS)	above bridge on parapet (North)
62	10/27/17	1113	✓	Bridge 0505	✓	✓		✓	✓	Chalk (CS)	above bridge on parapet (South)
63	10/25/17	1010	✓	Bridge 0897	✓	✓		✓	✓	Rocker Pad (RP1)	
64	10/25/17	1012	✓	Bridge 0897	✓	✓		✓	✓	Rocker Pad (RP1)	
65	10/25/17	1105	✓	Bridge 0897	✓	✓		✓	✓	Rocker Pad (RP2)	
66	10/25/17	1107	✓	Bridge 0897	✓	✓		✓	✓	Rocker Pad (RP2)	
67	10/25/17	1217	✓	Bridge 1206	✓	✓		✓	✓	Rocker Pad (RP3)	
68	10/25/17	1218	✓	Bridge 1206	✓	✓		✓	✓	Rocker Pad (RP3)	
69	10/26/17	1047	✓	Bridge 1212	✓	✓		✓	✓	Rocker Pad (RP4)	
70	10/26/17	1049	✓	Bridge 1212	✓	✓		✓	✓	Rocker Pad (RP4)	

SIGNATURE: *David Heelon*
 INSPECTOR: *David Heelon + Kelly Goret*

Relinquished by: (Signature) <i>David Heelon</i>	Date: 10/27/17	Received by: (Signature) <i>[Signature]</i>	Date: 10/30/17
(Printed) David Heelon	Time: 1630	(Printed) Cathryn Lemire	Time: 1005
Remarks: <i>Erick Erik Ampton</i>	Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Comments:



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ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

Edition: October 2009
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LAB ID #. 51491		TURNAROUND TIME	
PROJECT NUMBER	PROJECT NAME	PLM: 8hr	24hr
202165-5679.0710	11 Bridges, Newtown, CT	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SIGNATURE	INSPECTOR	TEM: 24hr	48hr
<i>David Heelon</i>	<i>David Heelon + Kelly Gray</i>	<input type="checkbox"/>	<input type="checkbox"/>
FIELD SAMPLE NUMBER	DATE	TIME	MATERIAL
71	10/26/17	1125	Rocker Pad (RP5)
72	10/26/17	1127	Rocker Pad (RP5)
73	10/26/17	1220	Rocker Pad (RP6)
74	10/26/17	1235	Rocker Pad (RP6)
75	10/26/17	1334	Rocker Pad (RP7)
76	10/26/17	1336	Rocker Pad (RP7)
77	10/27/17	0931	Rocker Pad (RP8)
78	10/27/17	0933	Rocker Pad (RP8)
79	10/27/17	1130	Rocker Pad (RP9)
80	10/27/17	1133	Rocker Pad (RP9)

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 1984 (IF PLM SERIES NEG)
<input checked="" type="checkbox"/>			46	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>			46	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>			47	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>			46	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>			40	<input checked="" type="checkbox"/>

Relinquished by: (Signature) <i>David Heelon</i>	Date: 10/27/17	Received by: (Signature) <i>Cathy Lemire</i>	Date: 10/30/17
(Printed) David Heelon	Time: 1630	(Printed) Cathy Lemire	Time: 1005
Remarks: Email Erik Plimpton	Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Page 8 of 9



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ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

LAB ID #. 51491

PROJECT NUMBER		PROJECT NAME		PARAMETERS				TURNAROUND TIME								
								PLM:	TEM:	8hr	24hr	48hr	3day	5day		
202165-5629-0710		11 Bridges, Newtown, CT						PLM:				48hr				
SIGNATURE David Heelon		INSPECTOR David Heelon + Kelly						TEM:		24hr	48hr	3day				
FIELD SAMPLE NUMBER	DATE	TIME	TYPE	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					
				COMP	GRAB						Transit Panel (TR)	Transit Panel (TR)	Transit Panel (TR)	Transit Panel (TR)	Fiber Layer (FL)	Fiber Layer (FL)
81	10/25/17	1505	✓	Bridge 1208		✓					Transit Panel (TR)	under bridge inside drain hole				
82	10/25/17	1507	✓	Bridge 1208		✓					Transit Panel (TR)	under bridge inside drain hole				
83	10/25/17	1138	✓	Bridge 0505		✓					Transit Panel (TR)	under bridge pipe				
84	10/25/17	1140	✓	Bridge 0505		✓					Transit Panel (TR)	under bridge pipe				
85	10/25/17	1404	✓	Bridge 1207		✓					Fiber Layer (FL)	under bridge				
86	10/25/17	1406	✓	Bridge 1207		✓			40		Fiber Layer (FL)	under bridge				

Relinquished by: (Signature) David Heelon	Date: 10/27/17	Received by: (Signature) Cathy Lemire	Date: 10/30/17
(Printed) David Heelon	Time: 1630	(Printed) Cathy Lemire	Time: 1055
Remarks: Email Erik Plimpton		Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
		Received by: (Signature)	
		(Printed)	
		Date:	
		Time:	
		Page 9 of 9	

BULK ASBESTOS ANALYSIS REPORT

CLIENT: CT Department of Transportation

Lab Log #: 0051491
 Project #: 222165.5629.0710
 Date Received: 10/30/2017
 Date Analyzed: 10/31/2017

Site: 11 Bridges, Newtown, 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 (expansion joint caulk)	Yes	No	--	---	ND	None
2	Grey (expansion joint caulk)	Yes	No	--	---	ND	None
3	Grey (expansion joint caulk)	Yes	No	--	---	ND	None
4	Grey (expansion joint caulk)	Yes	No	--	---	ND	None
5	Black (expansion joint)	Yes	No	--	3% cellulose	ND	None
6	Black (expansion joint)	Yes	No	--	3% cellulose	ND	None
7	Black (expansion joint)	Yes	No	--	3% cellulose	ND	None
8	Black (expansion joint)	Yes	No	--	3% cellulose	ND	None
9	Grey (expansion joint caulk)	Yes	No	--	---	ND	None
10	Grey (expansion joint caulk)	Yes	No	--	---	ND	None
11	Black (expansion joint)	Yes	No	--	3% cellulose	ND	None
12	Black (expansion joint)	Yes	No	--	3% cellulose	ND	None
13	Grey (expansion joint caulk)	Yes	No	--	---	ND	None
14	Grey (expansion joint caulk)	Yes	No	--	---	ND	None
15	Black (expansion joint)	Yes	No	--	3% cellulose	ND	None
16	Black (expansion joint)	Yes	No	--	3% cellulose	ND	None
17	Grey (expansion joint caulk)	Yes	No	--	---	ND	None

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
18	Grey (expansion joint caulk)	Yes	No	--	---	ND	None
19	Black (expansion joint)	Yes	No	--	---	ND	None
20	Black (expansion joint)	Yes	No	--	---	ND	None
21	Grey (expansion joint caulk)	Yes	No	--	---	ND	None
22	Grey (expansion joint caulk)	Yes	No	--	---	ND	None
23	Grey (expansion joint caulk)	Yes	No	--	---	ND	None
24	Grey (expansion joint caulk)	Yes	No	--	---	ND	None
25	Black (expansion joint)	Yes	No	--	3% cellulose	ND	None
26	Black (expansion joint)	Yes	No	--	3% cellulose	ND	None
27	Grey (expansion joint caulk)	Yes	No	--	---	ND	None
28	Grey (expansion joint caulk)	Yes	No	--	---	ND	None
29	Black (expansion joint)	Yes	No	--	---	ND	None
30	Black (expansion joint)	Yes	No	--	---	ND	None
31	Grey (expansion joint caulk)	Yes	No	--	---	ND	None
32	Grey (expansion joint caulk)	Yes	No	--	---	ND	None
33	Grey (expansion joint caulk)	Yes	No	--	---	ND	None
34	Grey (expansion joint caulk)	Yes	No	--	---	ND	None
35	Black (expansion joint)	Yes	No	--	---	ND	None
36	Black (expansion joint)	Yes	No	--	---	ND	None
37	Black (coating)	Yes	No	--	---	ND	None
38	Black (coating)	Yes	No	--	---	ND	None
39	Black (tar coating)	Yes	No	--	---	ND	None
40	Black (tar coating)	Yes	No	--	---	ND	None

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
CO# AL-15020	PHIL# 461		PA#68-03387		NJ #CT004	CA #2907



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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
41	Black (coating)	Yes	No	--	---	ND	None
42	Black (coating)	Yes	No	--	---	ND	None
43	Black (tar coating)	Yes	No	--	---	ND	None
44	Black (tar coating)	Yes	No	--	---	ND	None
45	Black (tar coating)	Yes	No	--	---	ND	None
46	Black (tar coating)	Yes	No	--	---	ND	None
47	Black (tar coating)	Yes	No	--	---	ND	None
48	Black (tar coating)	Yes	No	--	---	ND	None
49	Black (tar coating)	Yes	No	--	---	ND	None
50	Black (tar coating)	Yes	No	--	---	ND	None
51	Black (tar coating)	Yes	No	--	5% cellulose	ND	None
52	Black (tar coating)	Yes	No	--	5% cellulose	ND	None
53	Brown/Grey (caulk)	Yes	No	--	---	3%	Chrysotile
54	--	--	--	--	--	NA/PS	--
55	Brown/Grey (caulk)	Yes	No	--	---	3%	Chrysotile
56	--	--	--	--	--	NA/PS	--
57	Grey (caulk)	Yes	No	--	---	3%	Chrysotile
58	--	--	--	--	--	NA/PS	--
59	Tan (caulk)	Yes	No	--	---	5%	Chrysotile
60	--	--	--	--	--	NA/PS	--
61	Light Grey (caulk)	Yes	No	--	---	ND	None
62	Light Grey (caulk)	Yes	No	--	---	ND	None

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
63	Grey (rocker pad)	Yes	No	--	3% cellulose 80% synthetic fiber	ND	None
64	Grey (rocker pad)	Yes	No	--	3% cellulose 80% synthetic fiber	ND	None
65	Grey (rocker pad)	Yes	No	--	3% cellulose 80% synthetic fiber	ND	None
66	Grey (rocker pad)	Yes	No	--	3% cellulose 80% synthetic fiber	ND	None
67	Grey (rocker pad)	Yes	No	--	3% cellulose 80% synthetic fiber	ND	None
68	Grey (rocker pad)	Yes	No	--	3% cellulose 80% synthetic fiber	ND	None
69	Grey (rocker pad)	Yes	No	--	3% cellulose 80% synthetic fiber	ND	None
70	Grey (rocker pad)	Yes	No	--	3% cellulose 80% synthetic fiber	ND	None
71	Grey (rocker pad)	Yes	No	--	3% cellulose 80% synthetic fiber	ND	None
72	Grey (rocker pad)	Yes	No	--	3% cellulose 80% synthetic fiber	ND	None
73	Grey (rocker pad)	Yes	No	--	3% cellulose 80% synthetic fiber	ND	None
74	Grey (rocker pad)	Yes	No	--	3% cellulose 80% synthetic fiber	ND	None
75	Grey (rocker pad)	Yes	No	--	3% cellulose 80% synthetic fiber	ND	None
76	Grey (rocker pad)	Yes	No	--	3% cellulose 80% synthetic fiber	ND	None
77	Grey (rocker pad)	Yes	No	--	3% cellulose 80% synthetic fiber	ND	None
78	Grey (rocker pad)	Yes	No	--	3% cellulose 80% synthetic fiber	ND	None

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code 101424-0	AHIA-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
79	Grey (rocker pad)	Yes	No	--	3% cellulose 80% synthetic fiber	ND	None
80	Grey (rocker pad)	Yes	No	--	3% cellulose 80% synthetic fiber	ND	None
81	Grey (transite)	Yes	No	--	---	20%	Chrysotile
82	--	--	--	--	--	NA/PS	--
83	Grey (transite)	Yes	No	--	---	10% 5%	Chrysotile Crocidolite
84	--	--	--	--	--	NA/PS	--
85	Brown (fiber layer)	Yes	No	--	80% cellulose 3% synthetic fiber	ND	None
86	Brown (fiber layer)	Yes	No	--	80% cellulose 3% synthetic fiber	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.

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: *Cathryn Lempre* Reviewed by: *K. Williamson* Date Issued: 10/31/2017
 Cathryn Lempre, Laboratory Analyst Kathleen Williamson, Laboratory Manager

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

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

Proscience Analytical Services, Inc.

22 Cummings Park, Woburn, MA 01801 Ph. 781-935-3212 Fax 781-932-4857
 TEM Bulk Chain of Custody Record

NFT/6869

Date: 11/01/17

PO#: C222165

Client: TRC

Client Job#: 222165.5629.0710

Client Job Ref./Loc.: CT DOT- 11 Bridges, Newtown, CT

Relinquished by: G. Lemire- CLemire@trcsolutions.com

Received by: *Paula Le Devantice 11/3/17 9:55*

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

Samplers Name: D. Heelon & K. Grey

Analysis Type: Chatfield EPA N.O.B Qualitative

Turn Around Time: <12 Hour <24 Hour <48 Hour <3 Day 5 Day Other:

Client ID #	Lab ID#	Description	Location	For Lab Use Only	
				Acceptable on Receipt	Comments
2		Expansion Joint Caulk	See COC		
4		Expansion Joint Caulk			
6		Expansion Joint			
8		Expansion Joint			
10		Expansion Joint Caulk			
12		Expansion Joint			
14		Expansion Joint Caulk			
16		Expansion Joint			
18		Expansion Joint Caulk			
20		Expansion Joint			
22		Expansion Joint Caulk			
24		Expansion Joint Caulk			
26		Expansion Joint			
28		Expansion Joint Caulk			
30		Expansion Joint			
32		Expansion Joint 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 #: 222165.5629.0710
 Client Reference: CT DOT - 11 Bridges, Newtown, CT
 PO #: C222165
 Client #: 297
 Client Name: TRC Environmental Corp. (CT)

Batch: NT 16869
 Method: NOB
 Date Received: 11/3/2017
 Date Analyzed: 11/8/2017
 Date of Report: 11/8/2017

LAB ID	Field ID	Description:	Color	Initial Weight	% Asbestos Types						% Other Non-asp.	% Carb.	Total % Asbestos	Analyzed / Charged	Preped / Charged		
					CHR	AMO	ACT	CRO	ANT	TRE							
NT127820	2	Expansion Joint Caulk (EJ1)		1.6619	.00	.00	.00	.00	.00	.00	.00	57.89	28.61	13.50	ND	Yes	No
NT127821	4	Expansion Joint Caulk (EJ2)		.5891	.00	.00	.00	.00	.00	.00	.00	12.74	81.28	5.98	ND	Yes	No
NT127822	6	Expansion Joint (EJ3)		.4770	.14	.00	.00	.00	.00	.00	.00	27.59	62.77	9.64	TR	Yes	No
NT127823	8	Expansion Joint (EJ4)		.8437	.06	.00	.00	.00	.00	.00	.00	11.12	85.24	3.64	TR	Yes	No
NT127824	10	Expansion Joint Caulk (EJ5)		.3747	.00	.00	.00	.00	.00	.00	.00	38.32	34.99	26.69	ND	Yes	No
NT127825	12	Expansion Joint (EJ6)		.2952	.00	.00	.00	.00	.00	.00	.00	21.04	68.12	10.84	ND	Yes	No
NT127826	14	Expansion Joint Caulk (EJ7)		.2762	.00	.00	.00	.00	.00	.00	.00	35.92	35.30	28.78	ND	Yes	No
NT127827	16	Expansion Joint (EJ8)		.2599	.09	.00	.00	.00	.00	.00	.00	17.24	70.14	12.62	TR	Yes	No
NT127828	18	Expansion Joint Caulk (EJ9)		.4245	.00	.00	.00	.00	.00	.00	.00	23.32	37.13	39.55	ND	Yes	No
NT127829	20	Expansion Joint (EJ10)		.1975	.00	.00	.00	.00	.00	.00	.00	25.01	63.29	11.70	ND	Yes	No
NT127830	22	Expansion Joint Caulk (EJ11)		.2940	.00	.00	.00	.00	.00	.00	.00	10.51	79.63	9.86	ND	Yes	No
NT127831	24	Expansion Joint Caulk (EJ12)		.7480	.00	.00	.00	.00	.00	.00	.00	39.58	33.33	27.09	ND	Yes	No
NT127832	26	Expansion Joint (EJ13)		.5556	.21	.00	.00	.00	.00	.00	.00	20.50	69.11	10.39	TR	Yes	No
NT127833	28	Expansion Joint Caulk (EJ14)		1.3376	.00	.00	.00	.00	.00	.00	.00	41.68	36.04	22.28	ND	Yes	No
NT127834	30	Expansion Joint (EJ15)		.8458	.00	.00	.00	.00	.00	.00	.00	13.80	82.89	3.31	ND	Yes	No

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 #: 222165.5629.0710
 Client Reference: CT DOT - 11 Bridges, Newtown, CT
 PO #: C222165
 Client #: 297
 Client Name: TRC Environmental Corp. (CT)

Batch: NT 16869
 Method: NOB
 Date Received: 11/3/2017
 Date Analyzed: 11/8/2017
 Date of Report: 11/8/2017

LAB ID	Field ID	Description:	Color	Initial Weight	% Asbestos Types							% Other Non-asb.	% Organic	% Carb.	Total % Asbestos	Analyzed / Charged	Preped / Charged
					CHR	AMO	ACT	CRO	ANT	TRE							
NT127835	32	Expansion Joint Caulk (EJ16)		.3030	.00	.00	.00	.00	.00	.00	.00	.00	9.44	9.44	Yes	No	
NT127836	34	Expansion Joint Caulk (EJ17)		.6677	.00	.00	.00	.00	.00	.00	.00	.00	27.45	27.45	Yes	No	
NT127837	36	Expansion Joint (EJ18)		.5455	.00	.00	.00	.00	.00	.00	.00	.00	7.53	7.53	Yes	No	
NT127838	38	Black Coating On Drain Pipe (TC1)		120.1043	.00	.00	.00	.00	.00	.00	.00	.00	.01	ND	Yes	No	
NT127839	40	Tar Coating Under Bridge (TC2)		.1354	.00	.00	.00	.00	.00	.00	.00	.00	10.64	ND	Yes	No	
NT127840	42	Drain Pipe Coating (TC3)		.3421	.00	.00	.00	.00	.00	.00	.00	.00	4.36	ND	Yes	No	
NT127841	44	Tar Coating (TC4) (Eastside)		.1442	.00	.00	.00	.00	.00	.00	.00	.00	7.77	ND	Yes	No	
NT127842	46	Tar Coating (TC5)		.1566	.00	.00	.00	.00	.00	.00	.00	.00	6.39	ND	Yes	No	
NT127843	48	Tar Coating (TC6)		.0743	.00	.00	.00	.00	.00	.00	.00	.00	2.29	ND	Yes	No	
NT127844	49	Tar Coating (TC7)		.1932	.00	.00	.00	.00	.00	.00	.00	.00	5.23	ND	Yes	No	
NT127845	52	Tar Coating (TC8)		.0402	.00	.00	.00	.00	.00	.00	.00	.00	7.46	ND	Yes	No	
NT127846	62	Caulk (C5)		.3343	.00	.00	.00	.00	.00	.00	.00	.00	72.33	ND	Yes	No	

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 #: 222165.5629.0710
 Client Reference: CT DOT - 11 Bridges, Newtown, CT
 PO #: C222165
 Client #: 297
 Client Name: TRC Environmental Corp. (CT)

Batch: NT 16869
 Method: NOB
 Date Received: 11/3/2017
 Date Analyzed: 11/8/2017
 Date of Report: 11/8/2017

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

Comments:

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


 Mark Derosier, Analyst



SUBJECT

New Town - 11 Bridges

SHEET NO. _____ OF _____

PROJECT NO. _____

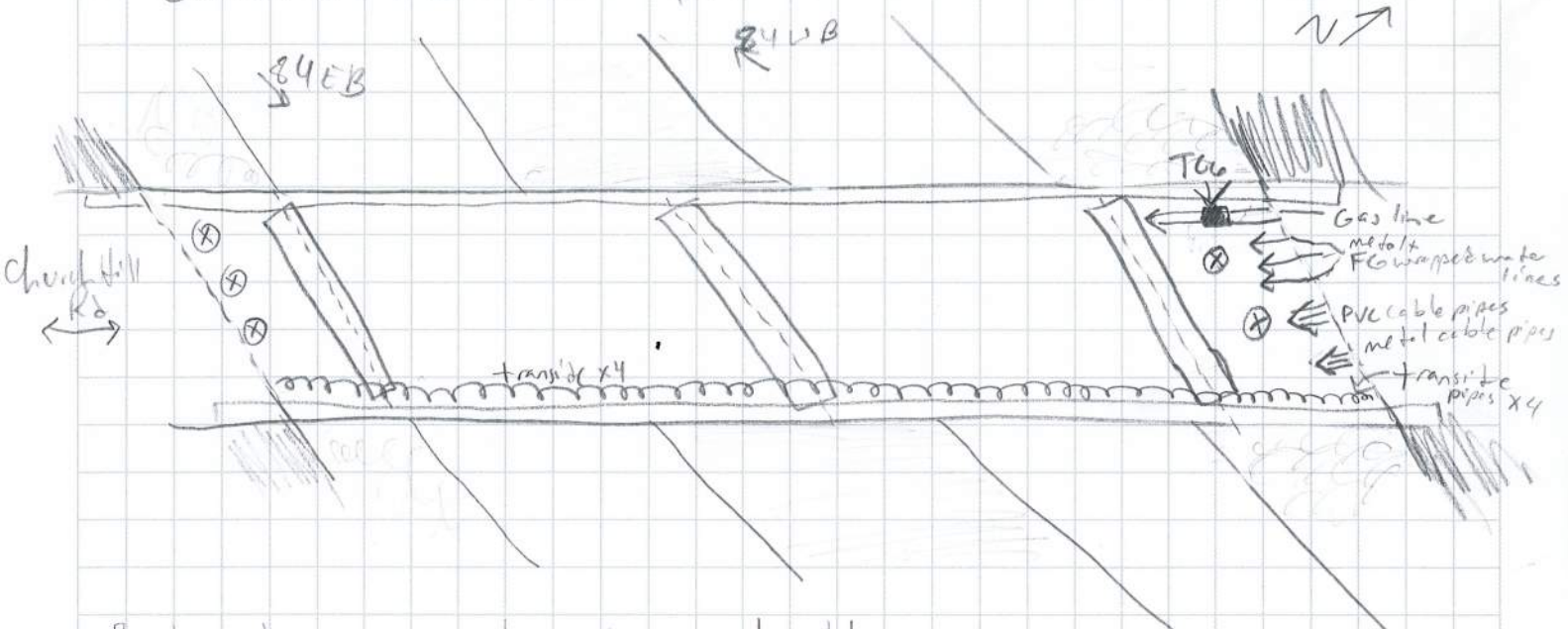
DATE 10/27/17

BY K6 + DH

CHK'D _____

● Bridge 0505
Church Hill Rd

over 84EB+WB



- Bridge has fence style railings w/ rubber pad below supports
 - Brown factory applied coating Pb 4005 too thin for paint chip
 - ~ 45 supports per side = 90 supports total

- C5 caulk in parapet and sidewalk seams every 2 rail fence supports and along curb

- 6 Spans, 3 piers
 - Brown paint + Pb ~ 10-20

* Multiple utility pipes under bridge

- x4 - **TR2-5"** transits cable pipes run length of bridge on south side
- x4 - metal cable pipes
- x8 - PVC cable pipes
- x3 - water lines w/ Fiberglass + Metal jacket + TC 8 in pipe ~ 2 LF
- x1 - gas line w/ rubber tape wrap and TC6 painted over valve cover (East end)

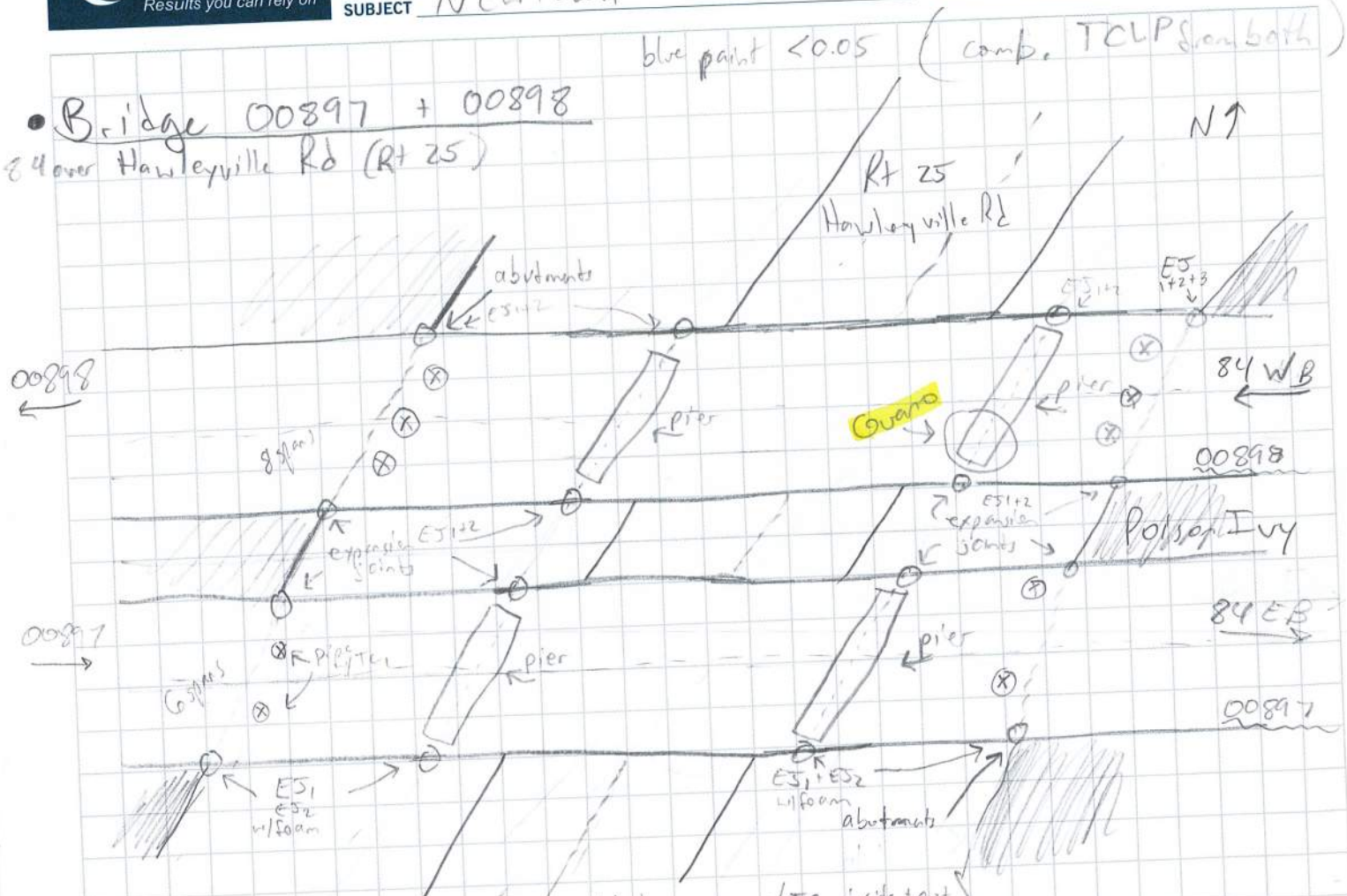
- Rockers are metal/metal w/ RPa below base plate

- Drains w/ TC7 - buried
 - Only 2 found, may be 3^{total} on East embankment
 - 3 on west side coming out of concrete abutment



SUBJECT Newton - II

SHEET NO. _____ OF _____
 PROJECT NO. 222165, 5629, 0710
 DATE _____
 BY _____
 CHK'D _____



(X) = corrugated metal drain pipe w/TC1 inside + out
 (O) = expansion joint w/ ES₁ + ES₂ } paint applied → 10/90 -00897
 9/93 -00898

- 00897
- 2 spans, 2 piers w/ double rockers
 - Roker Bearings w/ RP₁ on 0897 only at abutments, 1
 - Co bearings per joint at abutments = 12 RP₁, piers are double (metal to metal rockers no visible strcra)
 - Expansion Joints w/ ES₁ + ES₂ + foam core
 - at abutments + piers → 4 per bridge
 - Railings - unpainted metal (galvanized) some have supplemental RP₂
 - RSP₁ - railing support pads = rubber + fiber under all supports = 28 pads = 56 per bridge
 - Guano on east pier of Bridge 00898 (south end only = ~20 SF)
 - 2 spans, 2 piers w/ double rockers -
 - rocker pad is rubber - non suspect at abutments
 - inaccessible metal on metal rockers at piers
 - joints include ES₃ (for fiber) at abudment (visual NE end only)

coating on corrugated metal drain pipe



SUBJECT Newtown - 11 Bridges

SHEET NO. _____ OF _____

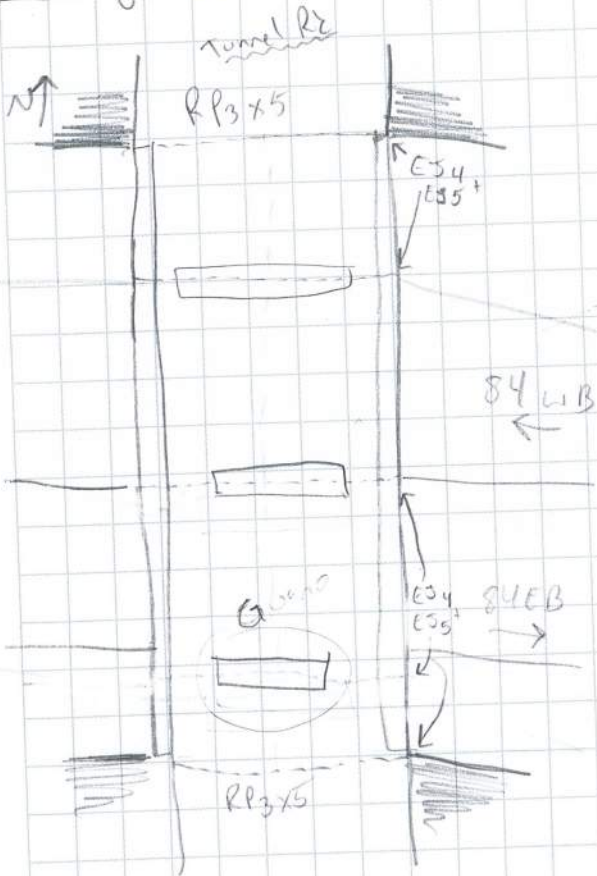
PROJECT NO. _____

DATE 10/25/17

BY KG + JH

CHK'D _____

• Bridge 1206 - Tunnel Rd over 84 E + WB



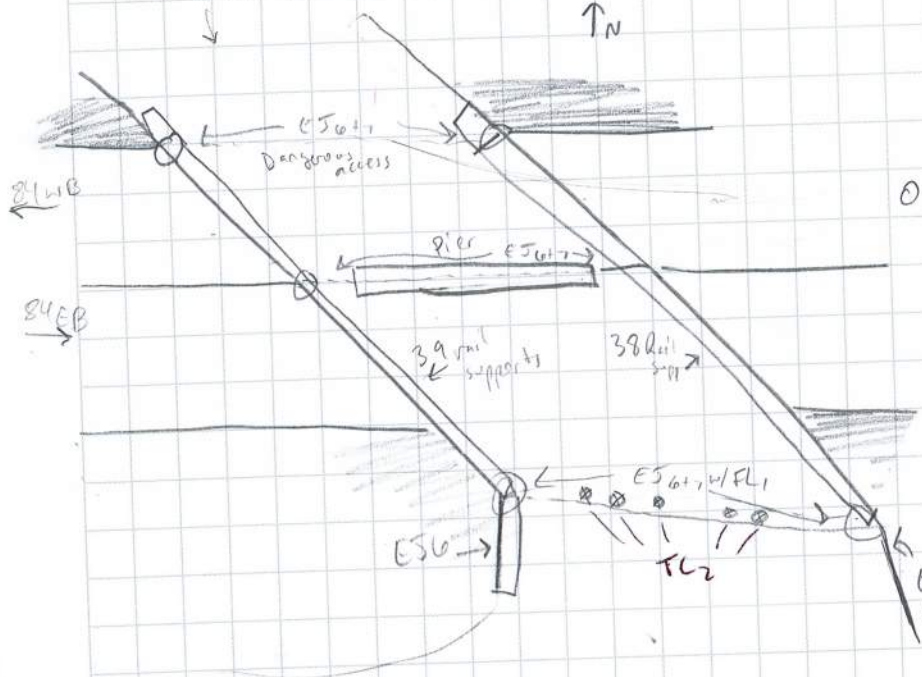
- 5 spans
- Blue paint < 0.05 chip/TCLP
- Rocker pads at abutments w/ RP3 x 12
- Rocker Pads at piers (double at pier)
- no visible SACM - no access - too tall metal-metal
- Expansion joints at abutments + Piers
 - ES4 inside joint (fer)
 - ES5 over joint at parapet (caulk)
- Railings + Pb - TCLP
 - 34 per side = 68 total rail supports
 - C1 - white caulk at railing support base
- ES4 also at parapet expansion joints every 2 rail supports
- Covano on South pier ~ 205F



SUBJECT Newton - 11 Bridges

SHEET NO. _____ OF _____
 PROJECT NO. 227281.5629.0710
 DATE 10/25/17
 BY KL + DH
 CHK'D _____

• Bridge 1207
 - Cornituck Rd over BUEW



- Railings
 - + Pb - T&LP
 - C2 at base
 - 39 west side / 38 east side = 77 rail supports
- = Expansion joint
 - EJ6 - bar at expansion joints in parapet - every 2 rail supports in joint
 - EJ7 - light gray caulk over EJ6 in parapet
 - FL1 - fiber layer w/ EJ6 in south abutment vertical seams
 - assume in North Abutment
- EJ6 in side of abutment
- TC2
- FL1

Below

* Abutments below bridge are tall (~20ft high) and inaccessible from road above (accessed south end, north end has less shoulder and cliffside walls)

- 6 spans across
- Same blue point as other bridges
 - grabbed concrete w/ blue paint
- No obvious signs of Guano from ground - not good visually of top of abutments / pier
- ⊗ = drain pipe in lower abutment w/ TC2 + concrete lining in South Abutment
 assume also in North Abutment



SUBJECT

Newton - 11 Bridges

SHEET NO. _____ OF _____

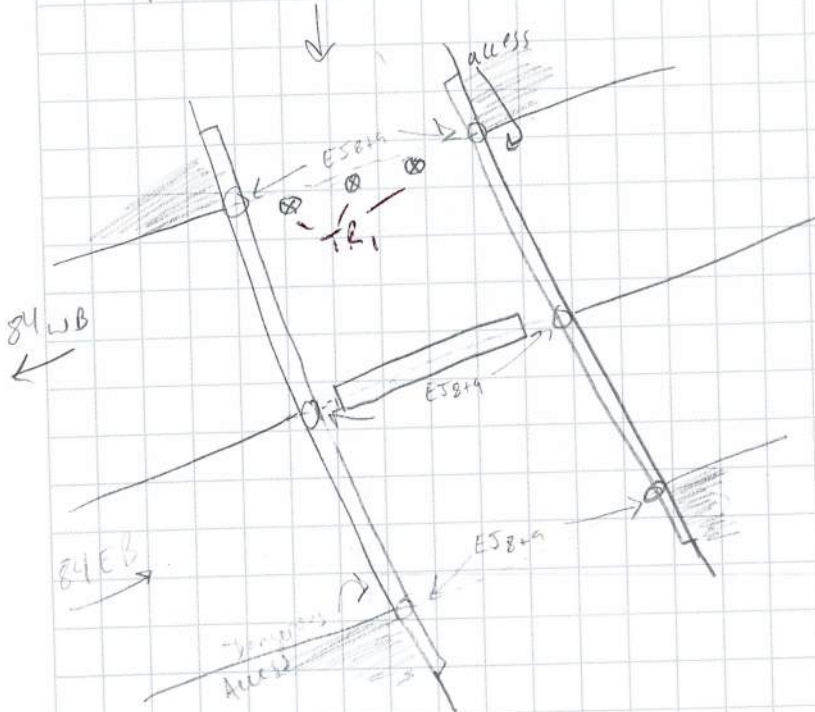
PROJECT NO. _____

DATE _____

BY _____

CHK'D _____

Bridge 1208
Parnalce Hill Rd over 84 EB+WB



- Railings + P₃
- C₃ - white coule at railing support base
- 34 each side = 68 total supports

- Expansion joints in road at abutments and pier
- ES₈ - black tar at parapet joints every 2 railing supports and down sides of abutment
- ES₉ - coule covers ES space on parapet at road EJs

Below - too high for ladder - inaccessible

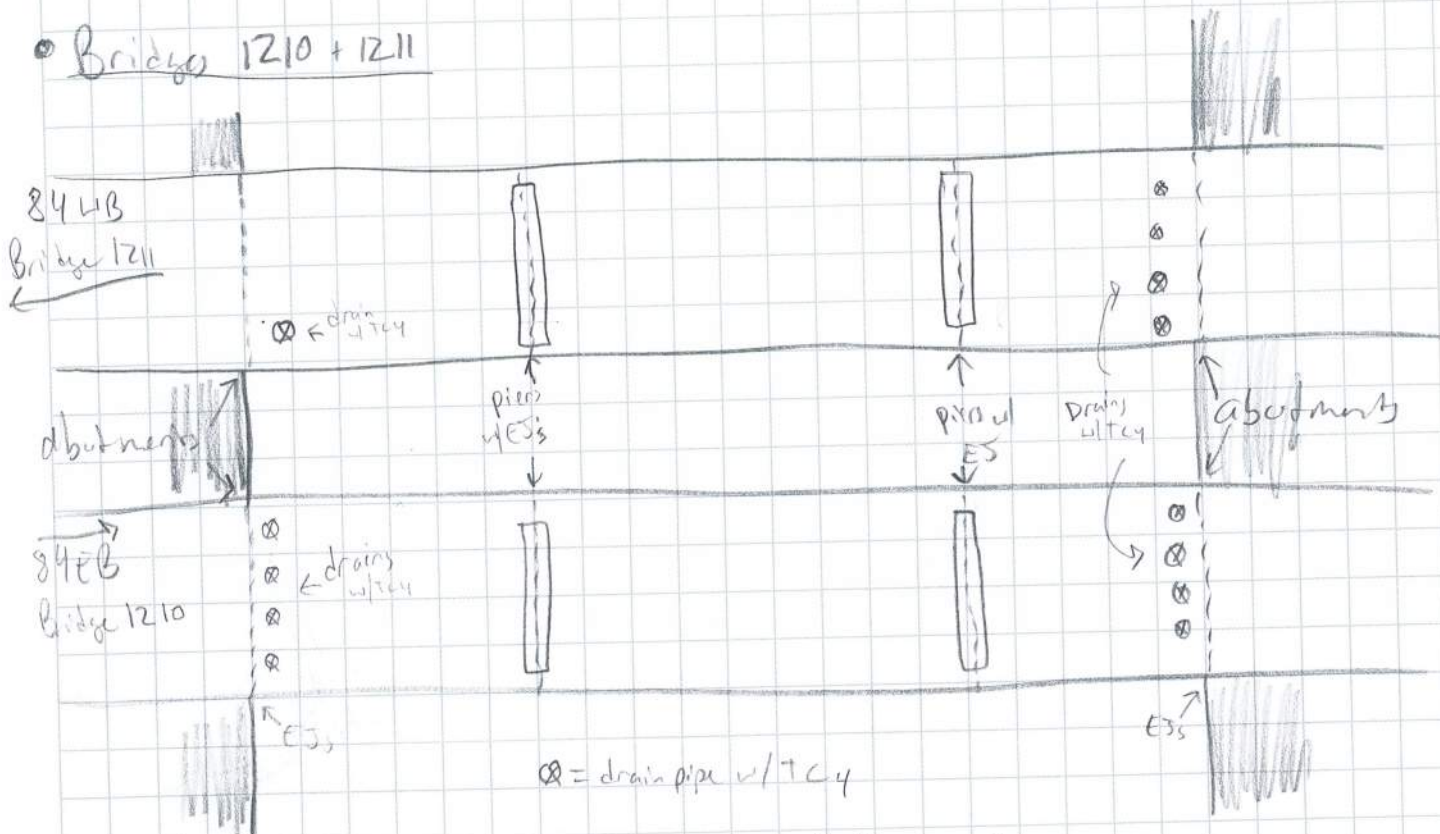
- Dangerous access on south abutment, unable to scale cliff / park below
- North abutment
 - cannot access point - too high
 - 3 drain pipes in cement abutment
 - TR₁ - possible transverse lining



SUBJECT Norwalk - 11 Bridges

SHEET NO. _____ OF _____
 PROJECT NO. 772605.5629.0710
 DATE 10/26/17
 BY KG+DH
 CHK'D _____

• Bridges 1210 + 1211



Bridge 1210

- 6 spans
- blue paint Pb < 0.05 paintable/94
- 2 piers w/ double rockers + ES
- Expansion joints
 - ES 13+14+15 at joints in parapets
 - ES 13 also in vertical abutment joints
- Railings Galvanized w/ RSP3 pads
- No Guano
- Rockers have rubber pad RP7 below metal base plate
- 4 drain pipes in embankment w/TC4
- 4 drains in West bank w/TC4

Bridge 1211

- 7 spans
- Green paint Pb + ~15
- 2 piers w/ double rockers
- Expansion joints
 - ES 13+14+15 at joints in parapet
 - ES 13 at abutment ES's vertical
- Railings - Galvanized w/ RSP3 pads
- No Guano
- Rockers are metal-metal (Painted Gray)
 - RP6 fiber pad below base
- ?? - only 1 drain pipe w/TC4 seen in West bank
- 4 drain pipes in east embankment w/TC4

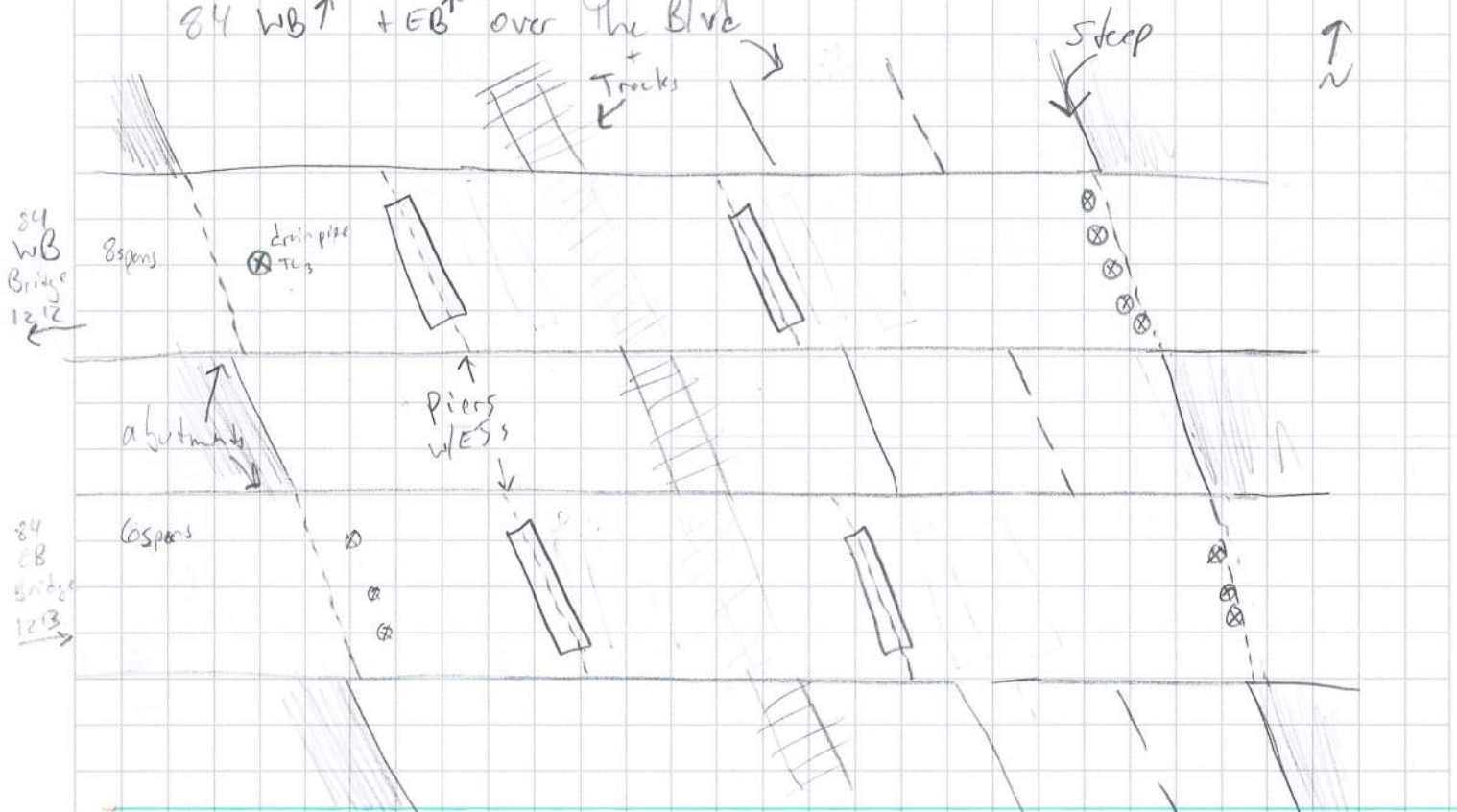


SUBJECT Newtown - 11 Bridges

SHEET NO. _____ OF _____
 PROJECT NO. 222165.5629.0710
 DATE 10/26/15
 BY KG + SH
 CHK'D _____

① Bridges 1212 + 1213

84 WB ↑ + EB ↑ over The Blvd



Bridge 1212 84 WB

- 8 spans across
- Blue/green paint $P_b < 0.05$
- 2 piers w/ double rockers
- Expansion joints at abutments + piers
 - E510 + 11 at each parapet E-joint
- Rocker pads are Rubber
 - RPy fiber pad below baseplate
- No Curans
- Railings ~ 42 per side = 84
 - RSP2 pad under rail support
 - galvanized

Bridge 1213 84 EB

- 4 spans across
- blue/green paint $P_b < 0.05$
- 2 piers w/ double rockers
- Expansion Joints at abutments + Piers
 - E510 + 11 + 12 at each parapet e-joint
 - E510 in abutment / parapet joints
- Rockers are metal - metal w/RP5 below base
- Railings galvanized
 - w/ RSP2 pads below rail support
- No Curans

- ② Drain pipe in west bank w/TC3
 - E510 in abutment + parapet joints
- 5 drain pipes in East Abutment w/TC3

- ② - 3 drain pipes w/TC3 in west bank
- 3 drain pipes in east abutment

* Cork and g-rand - assumed inside Expansion joints in Rd below bridges



SUBJECT

Newtown - 11 Bridges

SHEET NO. _____ OF _____

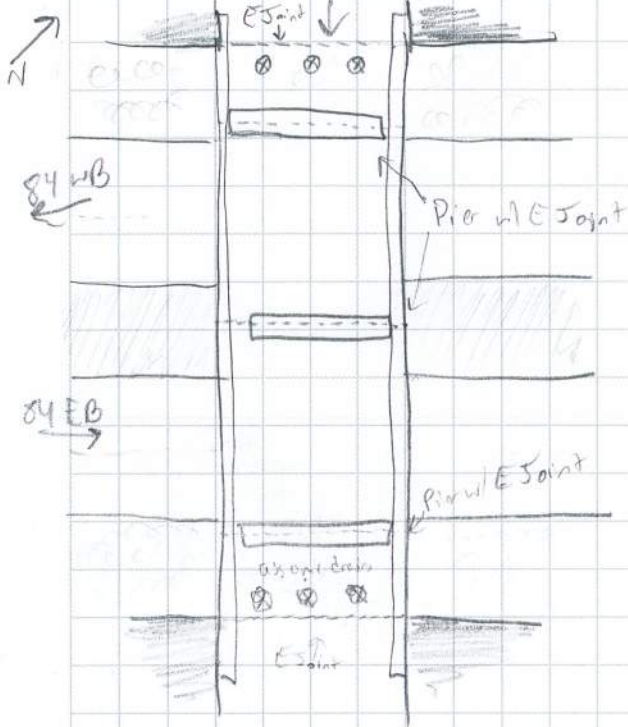
PROJECT NO. 222165.5029

DATE 10/27/17

BY KE + DH

CHK'D _____

• Bridge 1214
School House Rd over 84 EB + WB



- 5 spans, 3 piers w/ double rockers for Pier Pb < 0.05
- Expansion Joints at abutments + Piers w/ EJ16 in parapets + vert abut. seams also EJ17 in parapets
- Rockers metal to metal w/ RP8 fiber between

- ⊗ - 3 corrugated metal drain pipes in North embankment w/ TC5
- ?? - assume 3 drains in south end. \ difficult access

- Railings
 - Pb + ~ 15 silver/gray paint
 - Cy under railing supports
 - 33 per side = 66 supports w/ Cy

- expansion joints in roadway are rubber + metal strip
- EJ16 in parapet every 2 rail supports



SUBJECT Newtown 11 Bridges

SHEET NO. _____ OF _____
PROJECT NO. 222165, 5629, 0710
DATE 10/24/17
BY DH, ZS, CJ
CHK'D _____

Bridge 1210 - Green - Negative < 0.05

1211 - Green Paint - Positive ~ 15
Grey Paint - Negative < 0.05

1212 - ~~Grey~~ Green Paint - Negative < 0.05

1213 - Green Paint - Negative < 0.05

0897 - Green Paint - Negative < 0.05 (change green to blue)

0898 - Blue Paint - Negative < 0.05

Tennel Rd 1206 - ~~Grey~~ ^{Grey} Paint - Positive ~ 12 (change East + West to North + South)
blue Paint - Negative < 0.05

Church Rd 1207 - Grey Paint - Positive ~ 16
Blue Paint - Inaccessible - 20-30ft abutment
(Similar blue color to other blue painted beams)

Parmelee Hill Rd 1208 - Grey Paint - Positive ~ 15
Blue Paint - Same Blue Paint - Inaccessible
(Abutments are ~ 25ft high)

Schoolhouse Hill Rd 1214 - Grey Paint - Positive ~ 15
Tan Paint - Negative < 0.05

Church Hill Rd - 0505 - Brown Paint - Above - Negative < 0.05
Brown Paint - Under - Positive 10-20

Transite Pipes

→ This was a powder coating manufactured "paint"
Not really a paint.
(could not scrape any sample into bag)



SUBJECT

Newtown II Bridges

SHEET NO. _____ OF _____
PROJECT NO. 222105.5629.0710
DATE 10/15
BY KG+DH
CHK'D _____

Item List

- ✓ RSP₁ - yellow fiber rocker pad
- ✓ TC₁ - tar coating inside + outside corrugated metal drain pipes
- ✓ ES₁ - soft rubbery gray expansion joint caulk (new material)
- ✓ ES₂ - semi-flexible original expansion joint caulk
- ✓ RSP₁ - Railing support pad - black rubber/fiber pad
- ✓ RSP₂ - vinyl rocker pad on metal sheet w/ yellow glue (supplementary)
- ✓ ES₃ - black tar fiber expansion joint in abutment (B0898)
- ✓ ES₄ - black tar fiber expansion joint in parapet (B1206)
- ✓ ES₅ - light gray soft rubbery expansion joint caulk
- ✓ RSP₃ - fiber rocker pad below metal baseplate
- ✓ C₁ - white railing support caulk
- ✓ C₂ - white railing support caulk
- ✓ ES₆ - black tar fiber expansion joint in parapet
- ✓ ES₇ - light gray soft rubbery expansion joint caulk
- ✓ TC₂ - tar coating in concrete drain pipe w/ concrete coatings
- ✓ FL₁ - fiber layer alongside ES₆ in abutment vertical seams
- ✓ C₃ - white railing support caulk
- ✓ ES₈ - black tar expansion joint in parapet + abutment
- ✓ ES₉ - light gray soft rubbery expansion joint caulk
- ✓ TR₁ - transite pipe lining in drain (North abutment sample 2)
- ✓ TC₃ - tar coating inside/outside drain pipe
- ✓ RSP₂ - rubber/fiber railing support pad
- ✓ ES₁₀ - black tar expansion joint
- ✓ ES₁₁ - light gray firm expansion joint caulk
- ✓ RSP₄ - fiber pad under rocker baseplate at abutment
- ✓ ES₁₂ - gray soft rubbery expansion joint caulk
- ✓ RSP₅ - fiber pad below metal-metal rocker joint
- ✓ TC₄ - tar coating inside/outside corrugated metal drain pipe
- ✓ RSP₆ - fiber rocker pad below baseplate (bridge 1211)
- ✓ ES₁₃ - black tar expansion joint
- ✓ ES₁₄ - gray soft rubbery expansion joint caulk
- ✓ ES₁₅ - light gray firm expansion joint caulk
- ✓ RSP₇ - rubber/fiber railing support pad
- ✓ RSP₈ - fiber rocker pad below baseplate (Bridge 1212)

B0898/B0898

B 1206

B 1207

B 1208

1212/1213

1210/1211



SUBJECT

Newtown - 11 Bridges

ACM List Conds.

SHEET NO. _____ OF _____

PROJECT NO. 222165, 5629.0710

DATE 10/27/17

BY KL + DH

CHK'D _____

- ✓ ES₁₆ - black tar expansion joint material 1214
- ✓ TC₅ - black tar coating inside/outside corr. metal drain pipes
- ✓ RP₈ - fiber pad below rocker baseplate
- ✓ ES₁₇ - light gray soft expansion joint caulk in parapet
- ✓ C₄ - white caulk below railing support
- ✓ C₅ - white caulk in parapet + sidewalk seams 0565
- ✓ RP₉ - fiber rocker pad below baseplate
- ✓ TR₂ - transite cable pipes (45" pipes run length of bridge on south side)
- ✓ ES₁₃ - black tar expansion joint in parapets + verticle abutment seams
- ✓ TC₆ - black tar coating over gas line valve cover (~ 2 LF, ~ 10" across)
- ✓ TC₇ - black tar coating on drain pipe
- ✓ TC₈ - black tar coating on water line pipes below FG wrap

3.3 Limitation of Operations

During times when construction interferes with maintaining the existing traffic operations and movements, standard CTDOT practices will be followed, including standard CTDOT holiday restrictions. Refer to the Limitations of Operations Chart attached in Appendix G.

4. Structures – Mainline and Underpass Bridges

The Department has identified the following bridges within this corridor that require repair and rehabilitation work:

Mainline Bridge (Bridges Carrying I-84)

- 15 Hawleyville Rd. → ① Bridge Nos. 00897^E & 00898^W – I-84 over Route 25 ✓✓ Hawleyville Rd. is Rte. 25.
- 60 Hanover Rd. → ⑤ Bridge Nos. 01210^E & 01211^W – I-84 over Hanover Road
- 87 Boulevard Rd. → ⑥ Bridge Nos. 01212^W & 01213^E – I-84 over HRCC and The Boulevard Road

Proposed rehabilitation work for these bridges are identified in the design plans and they are generally as follows:

- Remove and replace 2½” bituminous wearing surface with 3” HMA wearing surface on new membrane waterproofing.
For Bridge No. 00897, replacement wearing surface will consist of 2½” HMA wearing surface (*recommended per Load Rating Analysis*).
- Remove and replace asphaltic plug expansion joint system at piers and abutments.
For Bridge No. 01213, modify elastomeric compression seal and concrete header.
- Miscellaneous steel repairs, which includes cleaning and painting of beam ends on specified locations shown on the plans.
- Replace expansion bearings for Bridge Nos. 01211 & 01213 with steel-reinforced elastomeric bearings.
- Clean and paint bearings where identified on the plans.
- Clean clogged scuppers where identified on the plans.
- Miscellaneous concrete patching repair on substructures.
- Remove debris and emulsions from pier caps and bearings.

Underpass Bridge (Bridge Carrying State Road)

- 2 Berkshire Rd. (Church Hill Rd) → ⑧ Bridge No. 00505 – Route 816 over I-84 Glen Rd is Rte 816

Proposed rehabilitation work for this bridge are identified in the design plans and they are generally as follows:

Transite pipes underneath bridge. 21

- Remove and replace asphaltic plug expansion joint system at Abutment 1 and at Pier 3.
- Miscellaneous steel repairs.
- Reconstruct guiderail transitions at Wingwalls 1B and 2B.
- Remove section of unreinforced concrete haunches that extends beyond the width of the girder's top flange. Haunch removal limits shall extend within the projected roadway limits below.
- Miscellaneous concrete patching repair on substructures.

Underpass Bridges (Bridges Carrying Local Roads)

- 24 Tunnel Rd → ② Bridge No. 01206 – Tunnel Road over I-84 ✓
- 62 Currituck Rd → ③ Bridge No. 01207 – Currituck Road over I-84 ✓
- 3 Parmalee Hill Rd → ④ Bridge No. 01208 – Parmalee Road over I-84 ✓
- 35 Schoolhouse Hill Rd → ⑦ Bridge No. 01214 – School House Road over I-84 ✓

Proposed rehabilitation work for these bridges is the removal of the unreinforced concrete haunch section that extends beyond the width of the girder's top flange. Haunch removal limits shall extend within the project roadway limits below.

Structure Evaluation

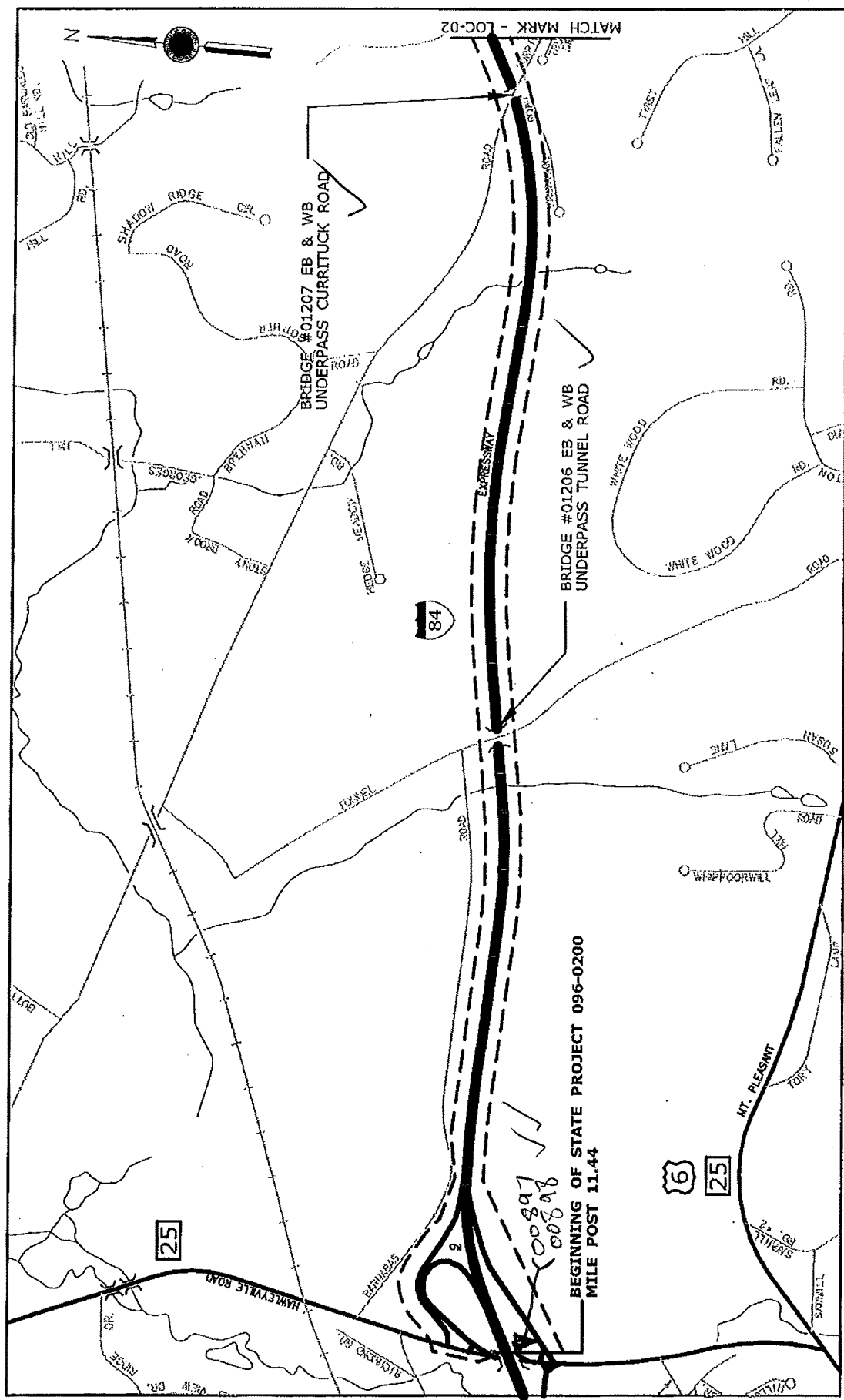
As part of the rehabilitation work to replace the bituminous wearing surface with 3" HMA wearing surface, the Mainline Bridges were evaluated for their load carrying capacity taking into consideration the additional superimposed dead load from the thicker replacement wearing surface. Subsequently, a load rating analysis was performed on these bridges. In addition, these bridges will also be structurally evaluated based on the additional superimposed dead load including girder deflection, bearing capacity, abutment stability and soil bearing pressure, and pier cap and column analysis. Seismic analysis to assess effects of the additional dead load will not be performed.

Load Rating Analysis

The load rating analyses were performed based on the current condition of the structures as noted in the latest Routine Bridge Inspection Reports and the Record Plans. The ADT count provided in the Bridge Inspection Report was used in the analyses and no accommodations were made for future escalation of this traffic count.

- Bridge No. 00897 does not rate for the Design Load (HL-93) Rating Vehicle in both the Inventory (IRF = 0.66) and Operating (ORF = 0.86) Levels. This indicates that the bridge does not conform to current design standards.

Results of a load rating analysis based on 3" wearing surface indicate that the bridge does not rate above statutory levels for some of the legal loads and permit load vehicles.



LOC-01

STATE PROJECT NO.:
 0096-0200
 CITY/TOWN:
 NEWTOWN

DATE:

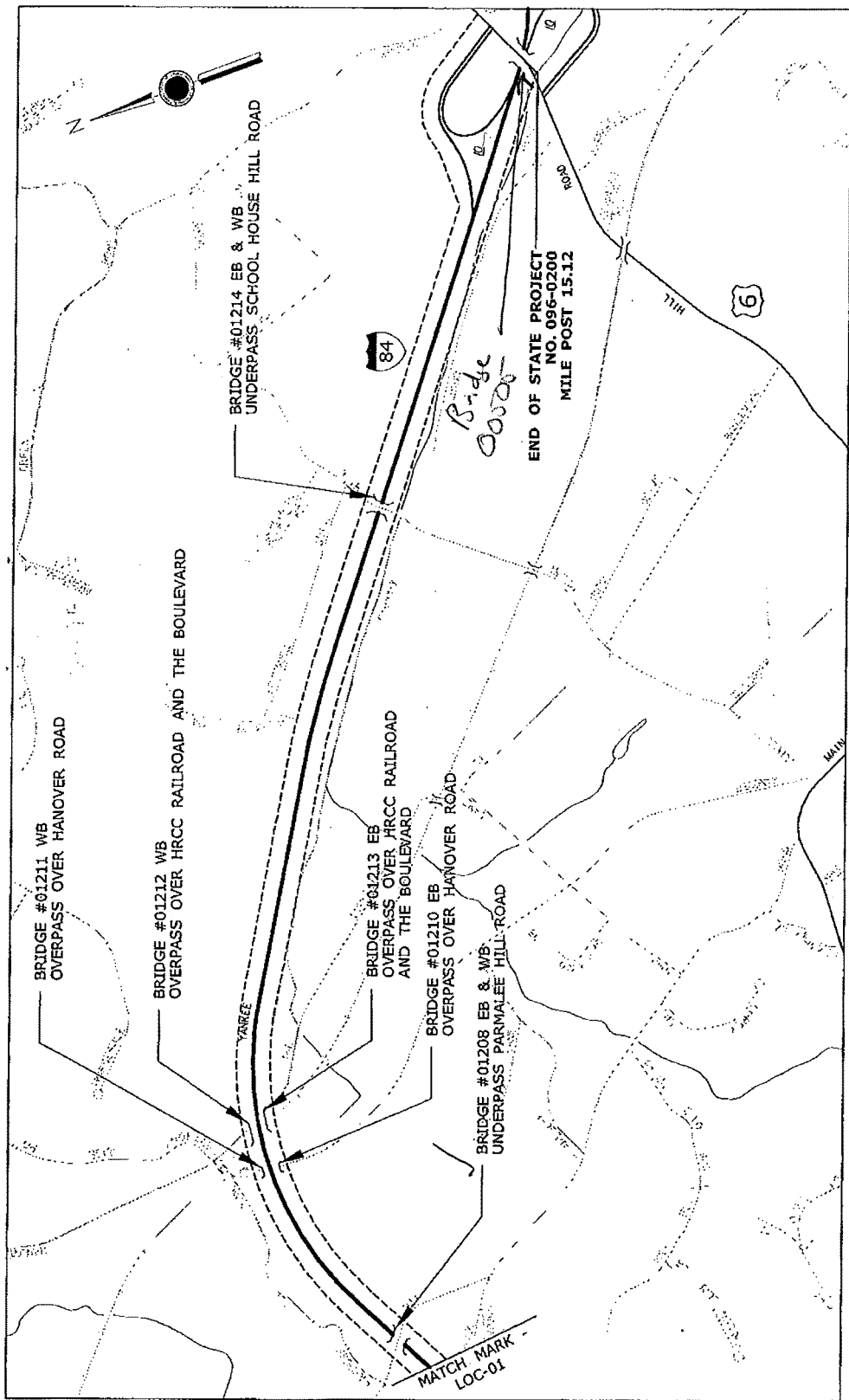
MAY 2015



OFFICE OF
 ENGINEERING



STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION

I-84 RESURFACING, BRIDGE REHABILITATION,
 AND SAFETY IMPROVEMENTS



LOC-02	DATE: MAY 2015
OFFICE OF ENGINEERING	
STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION  I-84 RESURFACING, BRIDGE REHABILITATION, AND SAFETY IMPROVEMENTS	STATE PROJECT NO.: 0096-0200 CITY/TOWN: NEWTOWN