STATE OF CONNECTICUT

DEPARTMENT OF TRANSPORTATION

m e m o r a n d u m

subject: Project No. 172-447
Rehab of Bridges Nos. 278, 279, 280, 288, 1415 & 3434, Various Locations, District 2

date: March 22, 2016

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to: Rabih M. Barakat
Principal Engineer
Bureau of Engineering and Construction

from: Christopher J. Bonsignore
Principal Engineer
Bureau of Engineering and Construction

In response to your memo dated March 7, 2016, this project has been re-evaluated and determined that no further soil investigations are warranted. Attached is a copy of the Task 100, Environmental Screening Review form by which the project was evaluated. If the scope should change, then further work may be required.

Upon receipt of approved Preliminary Design Plans, this project will be forwarded to TRC Environmental Corp. who will survey the Project for lead based paint and any other contaminated or hazardous materials (e.g. asbestos, guano, hazmat items, etc.). Plans, specifications and cost estimate will be provided, if required, pending the results of this review.

If you have any questions or comments, please call Mr. Roger Levesque, Project Engineer, at ext. 3339.

Attachment

Roger Levesque:
cc: Kevin Blasi-Ryan Martin
Christopher J. Bonsignore-Judith Nemecek

S:/ENVIRON/Levesque/Barakat100e-172-447

FROM THE DESK OF
TRANSPORTATION PRINCIPAL ENGINEER
BRIDGE DESIGN
APR 05 2016
PLS. SEE ME

TASK 100 ENVIRONMENTAL SCREENING REVIEW

Project Number: 0172-0447- ASSIGNMENT #:: 154-5309 Date: 3/22/2016

Project Description: Rehab Br. Nos. 278, 279, 280, 288, 1415 & 3434, Dist. 2

RIGHT-OF-WAY ACTIVITIES

Project Area Type:

Full Take: ☐

Partial Take, Substantial: ☐

Partial Take, Minor: ☐

Easements: ☐

Comments: No Rights of Way

SUPPORTING CATEGORIES

Drainage Improvements Relocations: ☐

Utility Involvement Relocations: ☐

De-watering Operations During Construction: ☐

Environmental Permits Required: ☐

River Work: ☐

Railroad Property Involvement: ☐

Excavations in Excess of 3 Feet Deep: ☐

Excess Materials Generated for Offsite Disposal: ☐

Potential Lead Based Paint Impact: ☑

Potential Asbestos Material Impact : ☐

Comments:

Recommendation Task 710

Reviewer:: Roger Levesque

July 15, 2016

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

Attention: Judith Nemecek, P.E. / Felix Mathieu

Subject: On-Call Asbestos, Lead, Air Quality & Demolition Compliance
Agreement No. 04.27-01(15)
HazMat Inspection – Bridge Nos. 00278, 00279, 00280, 00288, 01415 & 03434, District 2 Bridges, CT
ConnDOT Assignment No. 514-5331
ConnDOT Project No. 172-447
TRC Project No. 222165.5331.00710

Dear Mr. Bonsignore:

TRC performed a limited survey for hazardous building materials associated with Bridge Nos. 00278, 00279, 00280, 00288, 01415 & 03434 in District 2 of Connecticut. Results of the survey identified lead based paint (LBP) associated with the structural steel/metal bridge components at Bridge Nos. 00278, 00279, 00280, 00288, 01415 & 03434. Results obtained from TCLP waste stream sampling and analysis for leachable lead from the paint on the structural steel/metal bridge components characterized the paint waste stream at Bridge Nos. 00278, 00279, 00280, 00288, 01415 & 03434 as EPA RCRA/CTDEEP hazardous waste. Metal railing caulk at base of supports (Bridge Nos. 00278, 00279, 00280 & 00288), expansion joint caulking on abutments (Bridge No. 00279 & 00288), expansion joint caulking between parapet wall sections (Bridge No. 00280) and black joint tar between parapet wall/wing wall sections (Bridge No. 00288) were found to contain asbestos but are not projected to be impacted by the bridge repairs. Bearing pads (Bridge Nos. 00278, 00279, 00280 & 03434), black asphalt tar (Bridge Nos. 00278, 00279, 00280, 00288, 01415 & 03434), black expansion joint tar (Bridge Nos. 00278, 00279 & 00280), ribbed pipe interior insulation (Bridge No. 00288), white pipe end cap (Bridge No. 03434), black pipe wrap (Bridge No. 03434) and various caulkings (all bridges) not mentioned above were found to be non-ACM. No pigeon/bird guano accumulations were identified in accessible areas of Bridge Nos. 00278, 00279, 00280, 00288, 01415 & 03434.

Laboratory data, project description and inspector notes are attached.

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

Very Truly Yours,

TRC

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

Edmund J. Burke, P.E.
Engineer-in-Charge

80 Lupes Drive
Stratford, CT 06615

COMPLETE ENVIRONMENTAL TESTING, INC.

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

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

Analytical Report
CET# 6040563

Report Date:April 27, 2016
Project: CTDOT, Bridge
Project Number: DOT Bridge 278, 222165-5331-0710

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

NELAP ACCREDITED LAB

New York Certification: 11982
Rhode Island Certification: 199

SAMPLE SUMMARY

The sample(s) were received at 16.1°C.

This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
01 Bridge 278	6040563-01	Paint Chip	4/21/2016 9:00	04/25/2016
02 Bridge 278	6040563-02	Paint Chip	4/21/2016 9:00	04/25/2016

Analyte: Total Lead [EPA 6010C] **Analyst: SS**

Prep: EPA 3050B **Matrix: Paint Chip**

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
6040563-01	01 Bridge 278	**14**	0.10	%	1	B6D2613	04/26/2016	04/27/2016 10:36	

Analyte: TCLP Lead [EPA 6010C] **Analyst: SS**

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

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
6040563-02	02 Bridge 278	**130**	0.013	mg/L	1	B6D2618	04/26/2016	04/26/2016 18:55	

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

Sincerely,

David Ditta
Laboratory Director

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 Homogenity 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.

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 the specified detection limit
All analyses were performed in house unless a Reference Laboratory is listed.
Samples will be disposed of 30 days after the report date.

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 6010C in Soil	
Lead	CT,NY
EPA 6010C in Solid	
Lead	CT

Complete Environmental Testing operates under the following certifications and accreditations:

Code	Description	Number	Expires
CT	Connecticut Public Health	PH0116	09/30/2016
NY	New York Certification (NELAC)	11982	04/01/2016

6040563

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

Edition: November 2013
Supersede Previous Edition

TCLP CHAIN OF CUSTODY

LAB ID #.

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
222165-5331-0710	DOT Bridge 278		24hr / 48hr / 3day / 5day
INSPECTOR: (SIGNATURE)	(PRINTED) Bryce Aston		24hr x 48hr / 3day / 5day

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	RCRA Pb	RCRA Pb, AS, CR, CD	8 RCRA Metals	TCLP Pb	SPLP Pb	Total PB	MATERIAL
1	4/21/16	900			Bridge 278						x	Paint chip total lead
2	4/21/16	900			Bridge 278				x			TCLP paint

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
[signature]	4/21/16	[signature] 4/25/16 1300			
(Printed) Bryce Aston	Time: 1400	(Printed) 16.1°N	(Printed)	Time:	(Printed)

Results to Steve Arienti

80 Lupes Drive
Stratford, CT 06615

COMPLETE ENVIRONMENTAL TESTING, INC.

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

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

Analytical Report
CET# 6040564

Report Date:April 27, 2016
Project: CTDOT, Bridge
Project Number: DOT Bridge 279, 222165-5331-0710

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

NELAP ACCREDITED TNI LABORATORY

New York Certification: 11982
Rhode Island Certification: 199

SAMPLE SUMMARY

The sample(s) were received at 16.1°C.

This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
01 Bridge 279	6040564-01	Paint Chip	4/20/2016 13:00	04/25/2016
02 Bridge 279	6040564-02	Paint Chip	4/20/2016 12:55	04/25/2016

Analyte: Total Lead [EPA 6010C] **Analyst: SS**

Prep: EPA 3050B **Matrix: Paint Chip**

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
6040564-01	01 Bridge 279	**10**	0.10	%	1	B6D2613	04/26/2016	04/27/2016 10:41	

Analyte: TCLP Lead [EPA 6010C] **Analyst: SS**

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

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
6040564-02	02 Bridge 279	**180**	0.013	mg/L	1	B6D2618	04/26/2016	04/26/2016 19:08	

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

Sincerely,

David Ditta
Laboratory Director

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 Homogenity 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.

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 the specified detection limit
All analyses were performed in house unless a Reference Laboratory is listed.
Samples will be disposed of 30 days after the report date.

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 6010C in Soil	
Lead	CT,NY
EPA 6010C in Solid	
Lead	CT

Complete Environmental Testing operates under the following certifications and accreditations:

Code	Description	Number	Expires
CT	Connecticut Public Health	PH0116	09/30/2016
NY	New York Certification (NELAC)	11982	04/01/2016

6040564

TRC

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

Edition: November 2013
Supersede Previous Edition

TCLP CHAIN OF CUSTODY

LAB ID #.

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
222165-5331-0710	DOT Bridge 279		24hr / 48hr / 3day / 5day
INSPECTOR: (SIGNATURE)	(PRINTED) Bryce Aston		24hr x 48hr / 3day / 5day

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	RCRA Pb	RCRA Pb, AS, CR, CD	8 RCRA Metals	TCLP Pb	SPLP Pb	Total PB	MATERIAL
1	4/20/16	1300			Bridge 279						x	Paint chip total lead
2	4/20/16	1255			Bridge 279				x			TCLP paint

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
Fed Ex	4/21/16	[signature] 4/25/16 1300			
(Printed) Bryce Aston	Time: 1400	(Printed) 1610N	(Printed)	Time:	(Printed)

Results to Steve Arienti

80 Lupes Drive
Stratford, CT 06615

COMPLETE ENVIRONMENTAL TESTING, INC.

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

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

Analytical Report
CET# 6040566

Report Date:April 27, 2016
Project: CTDOT, Bridge
Project Number: DOT Bridge 280, 222165-5331-0710

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

NELAP ACCREDITED LABORATORY

New York Certification: 11982
Rhode Island Certification: 199

SAMPLE SUMMARY

The sample(s) were received at 16.1°C.

This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
01 Bridge 0280	6040566-01	Paint Chip	4/20/2016 10:40	04/25/2016
02 Bridge 0280	6040566-02	Paint Chip	4/20/2016 10:35	04/25/2016

Analyte: Total Lead [EPA 6010C] **Analyst: SS**

Prep: EPA 3050B **Matrix: Paint Chip**

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
6040566-01	01 Bridge 0280	**18**	0.10	%	1	B6D2613	04/26/2016	04/27/2016 10:49	

Analyte: TCLP Lead [EPA 6010C] **Analyst: SS**

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

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
6040566-02	02 Bridge 0280	**160**	0.013	mg/L	1	B6D2618	04/26/2016	04/26/2016 19:17	

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

Sincerely,

David Ditta
Laboratory Director

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 Homogenity may be a problem.
+- The Surrogate was diluted out.
*C1- The Continuing Calibration did not meet method specifications and was biased low for this analyte. Increased uncertainty is associated with the reported value which is likely to be biased low.
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*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.

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 the specified detection limit
All analyses were performed in house unless a Reference Laboratory is listed.
Samples will be disposed of 30 days after the report date.

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 6010C in Soil	
Lead	CT,NY
EPA 6010C in Solid	
Lead	CT

Complete Environmental Testing operates under the following certifications and accreditations:

Code	Description	Number	Expires
CT	Connecticut Public Health	PH0116	09/30/2016
NY	New York Certification (NELAC)	11982	04/01/2016

6040566

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

Edition: November 2013
Supersede Previous Edition

TCLP CHAIN OF CUSTODY

LAB ID #.

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
222165-5331-0710	DOT Bridge 280		☐ 24hr ☐ 48hr ☐ 3day ☐ 5day
			☐ 24hr ☒ 48hr ☐ 3day ☐ 5day
INSPECTOR: (SIGNATURE)	(PRINTED) Bryce Aston		

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	RCRA Pb	RCRA Pb, AS, CR, CD	8 RCRA Metals	TCLP Pb	SPLP Pb	Total PB	MATERIAL
1	4/20/16	1040			Bridge 280						x	Paint chip total lead
2	4/20/16	1035			Bridge 280				x			TCLP paint

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
fed ex	4/21/16	1300 4/25/16			
(Printed) Bryce Aston	Time: 1400	(Printed) 16.1°N	(Printed)	Time:	(Printed)
Results to Steve Arienti					Page 1 of 1

80 Lupes Drive
Stratford, CT 06615

COMPLETE ENVIRONMENTAL TESTING, INC.

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

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

Analytical Report
CET# 6040565

Report Date:April 27, 2016
Project: CTDOT, Bridge
Project Number: DOT Bridge 0288, 222165-5331-0710

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

NELAP ACCREDITED LAB

New York Certification: 11982
Rhode Island Certification: 199

SAMPLE SUMMARY

The sample(s) were received at 16.1°C.

This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
01 Bridge 0288	6040565-01	Paint Chip	4/21/2016 9:15	04/25/2016
02 Bridge 0288	6040565-02	Paint Chip	4/21/2016 9:20	04/25/2016

Analyte: Total Lead [EPA 6010C] **Analyst: SS**

Prep: EPA 3050B **Matrix: Paint Chip**

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
6040565-01	01 Bridge 0288	**14**	0.10	%	1	B6D2613	04/26/2016	04/27/2016 10:45	

Analyte: TCLP Lead [EPA 6010C] **Analyst: SS**

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

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
6040565-02	02 Bridge 0288	**310**	0.013	mg/L	1	B6D2618	04/26/2016	04/26/2016 19:12	

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

Sincerely,

David Ditta
Laboratory Director

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 Homogenity 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.

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 the specified detection 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 # : 6040565
Project: CTDOT, Bridge
Project Number: DOT Bridge 0288, 222165-5331-0710

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 6010C in Soil	
Lead	CT,NY
EPA 6010C in Solid	
Lead	CT

Complete Environmental Testing operates under the following certifications and accreditations:

Code	Description	Number	Expires
CT	Connecticut Public Health	PH0116	09/30/2016
NY	New York Certification (NELAC)	11982	04/01/2016

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

6040565

Edition: November 2013
Supersede Previous Edition

TCLP CHAIN OF CUSTODY

LAB ID #.

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
222165-5331-0710	DOT Bridge 0288		☐ 24hr ☐ 48hr ☐ 3day ☐ 5day
			☐ 24hr ☒ 48hr ☐ 3day ☐ 5day
INSPECTOR: (SIGNATURE)	(PRINTED) Bryce Aston		

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	RCRA Pb	RCRA Pb, AS, CR, CD	8 RCRA Metals	TCLP Pb	SPLP Pb	Total PB	MATERIAL
1	4/21/16	915			Bridge 0288						x	Paint chip total lead
2	4/21/16	920			Bridge 0288				x			TCLP paint

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
	4/21/16	FedEx 1300 Balm 4/25/16 16.1°C			
(Printed) Bryce Aston	Time: 1400	(Printed)	(Printed)	Time:	(Printed)
Results to Steve Arienti					Page 1 of 1

80 Lupes Drive
Stratford, CT 06615

COMPLETE ENVIRONMENTAL TESTING, INC.

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

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

Analytical Report
CET# 6040562

Report Date:April 27, 2016
Project: CTDOT, Bridge
Project Number: DOT Bridge 1415, 222165-5331-0710

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

NELAP ACCREDITED TNI LABORATORY

New York Certification: 11982
Rhode Island Certification: 199

SAMPLE SUMMARY

The sample(s) were received at 16.1°C.

This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
01 Bridge 1415	6040562-01	Paint Chip	4/22/2016 9:30	04/25/2016
02 Bridge 1415	6040562-02	Paint Chip	4/22/2016 10:30	04/25/2016

Analyte: Total Lead [EPA 6010C] **Analyst: SS**

Prep: EPA 3050B **Matrix: Paint Chip**

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
6040562-01	01 Bridge 1415	**16**	0.10	%	1	B6D2613	04/26/2016	04/27/2016 10:32	

Analyte: TCLP Lead [EPA 6010C] **Analyst: SS**

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

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
6040562-02	02 Bridge 1415	**15**	0.013	mg/L	1	B6D2618	04/26/2016	04/26/2016 18:50	

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

Sincerely,

David Ditta
Laboratory Director

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 Homogenity 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.

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 the specified detection 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 # : 6040562
Project: CTDOT, Bridge
Project Number: DOT Bridge 1415, 222165-5331-0710

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 6010C in Soil	
Lead	CT,NY
EPA 6010C in Solid	
Lead	CT

Complete Environmental Testing operates under the following certifications and accreditations:

Code	Description	Number	Expires
CT	Connecticut Public Health	PH0116	09/30/2016
NY	New York Certification (NELAC)	11982	04/01/2016

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

Edition: November 2013
Supersede Previous Edition

TCLP CHAIN OF CUSTODY

LAB ID #.

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
222165-5331-0710	DOT Bridge 1415		[ ] 24hr [ ] 48hr [ ] 3day [ ] 5day
			[ ] 24hr [x] 48hr [ ] 3day [ ] 5day
INSPECTOR: (SIGNATURE)	(PRINTED) Bryce Aston		

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	RCRA Pb	RCRA Pb, AS, CR, CD	8 RCRA Metals	TCLP Pb	SPLP Pb	Total PB	MATERIAL
1	4/20/16	930			Bridge 1415						x	Paint chip total lead
2	4/20/16	1030			Bridge 1415				x			TCLP paint

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
Fed Ex	4/21/16	Bolm 4/25/16 1300			
(Printed) Bryce Aston	Time: 1400	(Printed) 16.1°N	(Printed)	Time:	(Printed)
Results to Steve Arienti					Page 1 of 1

80 Lupes Drive
Stratford, CT 06615

COMPLETE ENVIRONMENTAL TESTING, INC.

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

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

Analytical Report
CET# 6040567

Report Date:April 27, 2016
Project: CTDOT, Bridge
Project Number: DOT Bridge 3434, 222165-5331-0710

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

NELAP ACCREDITED LABORATORY

New York Certification: 11982
Rhode Island Certification: 199

SAMPLE SUMMARY

The sample(s) were received at 16.1°C.

This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
01 Bridge 3434	6040567-01	Paint Chip	4/21/2016 9:15	04/25/2016
02 Bridge 3434	6040567-02	Paint Chip	4/21/2016 9:20	04/25/2016

Analyte: Total Lead [EPA 6010C] **Analyst: SS**

Prep: EPA 3050B **Matrix: Paint Chip**

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
6040567-01	01 Bridge 3434	**32**	0.10	%	1	B6D2613	04/26/2016	04/27/2016 11:02	

Analyte: TCLP Lead [EPA 6010C] **Analyst: SS**

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

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
6040567-02	02 Bridge 3434	**100**	0.013	mg/L	1	B6D2618	04/26/2016	04/26/2016 19:21	

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

Sincerely,

David Ditta
Laboratory Director

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 Homogenity 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.

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 the specified detection limit
All analyses were performed in house unless a Reference Laboratory is listed.
Samples will be disposed of 30 days after the report date.

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 6010C in Soil	
Lead	CT,NY
EPA 6010C in Solid	
Lead	CT

Complete Environmental Testing operates under the following certifications and accreditations:

Code	Description	Number	Expires
CT	Connecticut Public Health	PH0116	09/30/2016
NY	New York Certification (NELAC)	11982	04/01/2016

6040567

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

Edition: November 2013
Supersede Previous Edition

TCLP CHAIN OF CUSTODY

LAB ID #.

PROJECT NUMBER	PROJECT NAME
222165-5331-0710	DOT Bridge 3434

TURNAROUND TIME: [ ] 24hr [ ] 48hr [ ] 3day [ ] 5day
[ ] 24hr [x] 48hr [ ] 3day [ ] 5day

INSPECTOR: (SIGNATURE)

(PRINTED) Bryce Aston

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	RCRA Pb	RCRA Pb, AS, CR, CD	8 RCRA Metals	TCLP Pb	SPLP Pb	Total PB	MATERIAL
1	4/21/16	915			Bridge 3434						x	Paint chip total lead
2	4/21/16	920			Bridge 3434				x			TCLP paint

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
	4/21/16	4/25/16 1300			
(Printed) Bryce Aston	Time: 1400	(Printed) 16.17	(Printed)	Time:	(Printed)

Results to Steve Arienti

TRC

Edition: October 2009
Supersede Previous Edition

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

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

LAB ID #. 47948

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
222165.5331.0710	Dot Bridge 00278		PLM: 8hr 24hr 48hr 3day
			TEM: 24hr x 48hr 3day 5day
SIGNATURE	INSPECTOR: Bryce Aston		

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	MATERIAL
01	4/21/16	910			Bridge 00278 Below bridge	X					Brown bearing pad base BPB-1
02	4/21/16	912			Bridge 00278 Below bridge	X					Brown bearing pad base BPB-1
03	4/21/16	925			Bridge 00278 top of bridge	X					Grey expansion joint caulk JC-1
04	4/21/16	927			Bridge 00278 top of bridge	X					Grey expansion joint caulk JC-1
05	4/21/16	950			Bridge 00278 top of bridge	X					Black asphalt tar AT-1
06	4/21/16	955			Bridge 00278 top of bridge	X					Black asphalt tar AT-1
07	4/21/16	935			Bridge 00278 top and bottom of bridge	X				x	Black expansion joint tar
08	4/21/16	945			Bridge 00278 top and bottom of bridge	X					Black expansion joint tar
09	4/21/16	1000			Bridge 00278 top of bridge	X					Grey railing base caulk c-1
10	4/21/16	1002			Bridge 00278 top of bridge	X					Grey railing base caulk c-1

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
	4/20/16	4/22/16			
(Printed) Bryce Aston	Time: 1330	(Printed) 1000	(Printed)	Time:	(Printed)

Remarks: Results to Steve Arienti

Condition of Samples: _____
Acceptable: Yes ___/___ No _____
Comments:

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

TRC
Results you can rely on

BULK ASBESTOS ANALYSIS REPORT

CLIENT: CT Department of Transportation

Lab Log #: 0047948
Project #: 222165.5331.0710
Date Received: 04/22/2016
Date Analyzed: 04/25/2016

Site: Bridge 00278

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials		Asbestos %	Asbestos Type
01	Brown	Yes	No	- -	80%	cellulose	ND	None
02	Brown	Yes	No	- -	80%	cellulose	ND	None
03	Grey	Yes	No	- -		- - -	ND	None
04	Grey	Yes	No	- -		- - -	ND	None
05	Black	Yes	No	- -		- - -	ND	None
06	Black	Yes	No	- -		- - -	ND	None
07	Black	Yes	No	- -		- - -	ND	None
08	Black	Yes	No	- -		- - -	ND	None
09	Grey	Yes	No	- -		- - -	5%	Chrysotile
10	- -	- -	- -	- -		- -	NA/PS	- -

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

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

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

Reporting limit- asbestos present at 1%
ND - asbestos was not detected
Trace - asbestos was observed at level of less than 1%
NA/PS - Not Analyzed / Positive Stop
SNA- Sample Not Analyzed- See Chain of Custody for details

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation (1982), and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116), July 1993, R.L. Perkins and B.W. Harvey which utilizes 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, 2016. TRC is an American Industrial Hygiene Association (AIHA) accredited lab for PLM effective through October 1, 2016. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and the QC data related to the samples is available upon written request from the client.

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

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

Reviewed by: Margaret Flanagan — Margaret Flanagan, Approved Signatory

Date Issued 04/26/2016

NT 15761

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: 04/27/16

PO#: **C222165**
Client: TRC
Client Job#: 222165.5331.0710
Client Job Ref./Loc.: CT DOT- Bridge 00278
Relinquished by: K. Williamson-KWilliamson@trcsolutions.com
Received by: Kathy Artone 4-28-16 @10:15AM
Report to: E. Plimpton – EPlimpton@trcsolutions.com & SArienti@trcsolutions.com
Samplers Name: B. Aston

Analysis Type: Chatfield **EPA N.O.B** Qualitative

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

				For Lab Use Only	
Client ID #	**Lab ID#**	**Description**	**Location**	**Acceptable on Receipt**	**Comments**
04	47948	Caulk	See COC		
06	47948	Tar			
08	47948	Tar			

For Lab Use Only	# Spies	Total	Client #	Batch #	Results Reported	Comments

ProScience Analytical Services, Inc.

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

Laboratory Report

Client Project #: 222165.5331.0710
Client Reference: CT DOT - Bridge 00278
PO #: C222165
Client #: 297
Client Name: TRC Environmental Corp. (CT)

Batch: **NT 15761**
Method: NOB
Date Received: 4/28/2016
Date Analyzed: 5/2/2016
Date of Report: 5/2/2016

LAB ID	Field ID	Description:	Color	Initial Weight	% Asbestos Types						% Other	%	%	Total %	Analyzed / Charged	Prepped / Charged
					CHR	AMO	ACT	CRO	ANT	TRE	Non-asb.	Organic	Carb.	Asbestos		
NT120079	04	Grey Expansion Joint Caulk		.3342	.00	.00	.00	.00	.00	.00	10.89	33.96	55.15	**ND**	Yes	No
NT120080	06	Black Asphalt Tar		.5818	.00	.00	.00	.00	.00	.00	2.99	67.91	29.10	**ND**	Yes	No
NT120081	08	Black Expansion Joint Tar		.3712	.13	.00	.00	.00	.00	.00	26.53	63.31	10.16	**TR**	Yes	No

Comments:

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

Mark Derosier, Analyst

TRC

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

Edition: October 2009
Supersede Previous Edition

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

LAB ID #. 47950

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
222165.5331.0710	Dot Bridge 00279		PLM: [ ] 8hr [ ] 24hr [ ] 48hr [ ] 3day
			TEM: [ ] 24hr [x] 48hr [ ] 3day [ ] 5day
SIGNATURE	INSPECTOR		
	Bryce Aston		

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	MATERIAL
01	4/20/16	1325			Bridge 00279 Below bridge	X					Brown bearing pad base BPB-1
02	4/20/16	1330			Bridge 00279 Below bridge	X					Brown bearing pad base BPB-1
03	4/20/16	1320			Bridge 00279 Below bridge	X					Black expansion joint tar JT-1
04	4/20/16	1322			Bridge 00279 Below bridge	X					Black expansion joint tar JT-1
05	4/20/16	1310			Bridge 00279 Below bridge	X					White expansion joint caulk JC-1
06	4/20/16	1312			Bridge 00279 Below bridge	X					White expansion joint caulk JC-1
07	4/20/16	1340			Bridge 00279 top of bridge	X					Grey expansion joint caulk C-1
08	4/20/16	1342			Bridge 00279 top of bridge	X					Grey expansion joint caulk C-1
09	4/20/16	1355			Bridge 00279 top of bridge	X					Grey railing base caulk c-2
10	4/20/16	1400			Bridge 00279 top of bridge	X					Grey railing base caulk c-2
11	4/20/16	1415			Bridge 00279 top of bridge	x					White expansion joint caulk sidewalk c-3

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
	4/20/16	4/22/16			
(Printed) Bryce Aston	Time: 1330	(Printed) 1600	(Printed)	Time:	(Printed)

Remarks: Results to Steve Arienti

Condition of Samples: ____
Acceptable: Yes ✓ No ____
Comments:

TRC

Edition: October 2009
Supersede Previous Edition

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

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

LAB ID #. 47950

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
222165.5331.0710	Dot Bridge 00279		PLM: ☐ 8hr ☐ 24hr ☐ 48hr ☐ 3day
			TEM: ☐ 24hr ☒ 48hr ☐ 3day ☐ 5day
SIGNATURE	INSPECTOR		
	Bryce Aston		

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	MATERIAL
12	4/20/16	1415			Bridge 0279 top side	x					White expansion joint caulk sidewalk c-3
13	4/20/16	1405			Bridge 0279 top side	X					Black asphalt tar AT-1
14	4/20/16	1410			Bridge 0279 top side	X				x	Black asphalt tar AT-1

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
	4/20/16	4/22/16			
(Printed) Bryce Aston	Time: 1330	(Printed) 1600 Williamson	(Printed)	Time:	(Printed)

Remarks: Results to Steve Arienti

Condition of Samples:
Acceptable: Yes ✓ No
Comments:

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

TRC
Results you can rely on

BULK ASBESTOS ANALYSIS REPORT

CLIENT: CT Department of Transportation

Lab Log #: 0047950
Project #: 222165.5331.0710
Date Received: 04/22/2016
Date Analyzed: 04/25/2016

Site: Bridge 00279

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials		Asbestos %	Asbestos Type
01	Brown	Yes	No	--	80%	cellulose	ND	None
02	Brown	Yes	No	--	80%	cellulose	ND	None
03	Black	Yes	No	--	30%	cellulose	ND	None
04	Black	Yes	No	--	30%	cellulose	ND	None
05	White	Yes	No	--		---	10%	Chrysotile
06	--	--	--	--		--	NA/PS	--
07	Grey	Yes	No	--		---	ND	None
08	Grey	Yes	No	--		---	ND	None
09	Grey	Yes	No	--		---	ND	None
10	Grey	Yes	No	--		---	ND	None
11	White	Yes	No	--		---	ND	None
12	White	Yes	No	--		---	ND	None
13	Black	Yes	No	--		---	ND	None
14	Black	Yes	No	--		---	ND	None

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Windsor, CT 06095
(860) 298-6308

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

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

Reporting limit- asbestos present at 1%
ND - asbestos was not detected
Trace - asbestos was observed at level of less than 1%
NA/PS - Not Analyzed / Positive Stop
SNA- Sample Not Analyzed- See Chain of Custody for details

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation (1982), and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116), July 1993, R.L. Perkins and B.W. Harvey which utilizes 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, 2016. TRC is an American Industrial Hygiene Association (AIHA) accredited lab for PLM effective through October 1, 2016. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and the QC data related to the samples is available upon written request from the client.

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

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

Reviewed by: Margaret Flanagan — Margaret Flanagan, Approved Signatory

Date Issued
04/26/2016

Proscience Analytical Services, Inc.

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

TEM Bulk Chain of Custody Record

NT 15765

Date: 04/27/16

PO#: **C222165**
Client: TRC
Client Job#: 222165.5331.0710
Client Job Ref./Loc.: CT DOT- Bridge 00279
Relinquished by: K. Williamson-KWilliamson@trcsolutions.com
Received by: Kathy Artone 4-28-16 @10:15AM
Report to: E. Plimpton – EPlimpton@trcsolutions.com & SArienti@trcsolutions.com
Samplers Name: B. Aston

Analysis Type: Chatfield **EPA N.O.B** Qualitative

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

				For Lab Use Only	
Client ID #	**Lab ID#**	**Description**	**Location**	**Acceptable on Receipt**	**Comments**
04	47950	Tar	See COC		
08	47950	Caulk			
10	47950	Caulk			
12	47950	Caulk			
14	47950	Tar			

For Lab Use Only	# Spies	Total	Client #	Batch #	Results Reported	Comments

ProScience Analytical Services, Inc.

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

Laboratory Report

Client Project #: 222165.5331.0710
Client Reference: CT DOT - Bridge 00279
PO #: C222165
Client #: 297
Client Name: TRC Environmental Corp. (CT)

Batch: **NT 15765**
Method: NOB
Date Received: 4/28/2016
Date Analyzed: 5/2/2016
Date of Report: 5/2/2016

LAB ID	Field ID	Description:	Color	Initial Weight	% Asbestos Types						% Other	%	%	Total %	Analyzed /	Prepped /
					CHR	AMO	ACT	CRO	ANT	TRE	Non-asb.	Organic	Carb.	Asbestos	Charged	Charged
NT120095	04	Black Expansion Joint Tar		.1374	.20	.00	.00	.00	.00	.00	1.96	97.02	1.02	**TR**	Yes	No
NT120096	08	Grey Expansion Joint Caulk		.5640	.00	.00	.00	.00	.00	.00	33.07	33.33	33.60	**ND**	Yes	No
NT120097	10	Grey Railing Base Caulk		.3907	1.88	.00	.00	.00	.00	.00	16.88	7.65	73.59	**1.88**	Yes	No
NT120098	12	White Expansion Joint Caulk		.8321	.00	.00	.00	.00	.00	.00	1.64	51.23	47.13	**ND**	Yes	No
NT120099	14	Black Asphalt Tar		.6308	.00	.00	.00	.00	.00	.00	9.77	65.50	24.73	**ND**	Yes	No

Comments:

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

Mark Derosier, Analyst

TRC

Edition: October 2009
Supersede Previous Edition

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

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

LAB ID #. 47950 1

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
222165.5331.0710	Dot Bridge 00280		PLM: 8hr 24hr 48hr 3day
			TEM: 24hr x 48hr 3day 5day
SIGNATURE	INSPECTOR		
	Bryce Aston		

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	MATERIAL
01	4/20/16	1145			Bridge 00280 Below bridge	X					Brown bearing pad base BPB-1
02	4/20/16	1147			Bridge 00280 Below bridge	X					Brown bearing pad base BPB-1
03	4/20/16	1205			Bridge 00280 Below bridge	X					Black expansion joint tar JT-1
04	4/20/16	1208			Bridge 00280 Below bridge	X					Black expansion joint tar JT-1
05	4/20/16	1157			Bridge 00280 Below bridge	X					White expansion joint caulk C-1
06	4/20/16	1200			Bridge 00280 Below bridge	X					White expansion joint caulk C-1
07	4/20/16	1215			Bridge 00280 top of bridge	X					Grey expansion joint caulk C-2
08	4/20/16	1216			Bridge 00280 top of bridge	X					Grey expansion joint caulk C-2
09	4/20/16	1218			Bridge 00280 top of bridge	X					Grey railing base caulk c-3
10	4/20/16	1225			Bridge 00280 top of bridge	X					Grey railing base caulk c-3
11	4/20/16	1150			Bridge 00280 top of bridge	x					Black asphalt tar AT-1

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
	4/20/16	4/22/16			
(Printed)	Time:	(Printed)	(Printed)	Time:	(Printed)
Bryce Aston	1330	1600 Williamson			

Remarks: Results to Steve Arienti

Condition of Samples: _____
Acceptable: Yes ✓ No _____
Comments:

TRC

Edition: October 2009
Supersede Previous Edition

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

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

LAB ID #. 47951

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
222165.5331.0710	Dot Bridge 00280		PLM: 8hr 24hr 48hr 3day
			TEM: 24hr x 48hr 3day 5day
SIGNATURE	INSPECTOR		
	Bryce Aston		

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	MATERIAL
12	4/20/16	1155			Bridge 0280 top side	x				x	Black asphalt tar AT-1

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
	4/20/16	4/22/16			
(Printed) Bryce Aston	Time: 1330	(Printed) Lee Williamson 160	(Printed)	Time:	(Printed)

Remarks: Results to Steve Arienti

Condition of Samples:
Acceptable: Yes ✓ No
Comments:

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

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Results you can rely on

BULK ASBESTOS ANALYSIS REPORT

CLIENT: CT Department of Transportation

Lab Log #:	0047951
Project #:	222165.5331.0710
Date Received:	04/22/2016
Date Analyzed:	04/26/2016

Site: Bridge 00280

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials		Asbestos %	Asbestos Type
01	Brown	Yes	No	--	80%	cellulose	ND	None
02	Brown	Yes	No	--	80%	cellulose	ND	None
03	Black	Yes	No	--		---	ND	None
04	Black	Yes	No	--		---	ND	None
05	White	Yes	No	--		---	5%	Chrysotile
06	--	--	--	--		--	NA/PS	--
07	Grey	Yes	No	--		---	ND	None
08	Grey	Yes	No	--		---	ND	None
09	Grey	Yes	No	--		---	5%	Chrysotile
10	--	--	--	--		--	NA/PS	--
11	Black	Yes	No	--		---	ND	None
12	Black	Yes	No	--		---	ND	None

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

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

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

Reporting limit- asbestos present at 1%
ND - asbestos was not detected
Trace - asbestos was observed at level of less than 1%
NA/PS - Not Analyzed / Positive Stop
SNA- Sample Not Analyzed- See Chain of Custody for details

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation (1982), and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116), July 1993, R.L. Perkins and B.W. Harvey which utilizes 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, 2016. TRC is an American Industrial Hygiene Association (AIHA) accredited lab for PLM effective through October 1, 2016. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and the QC data related to the samples is available upon written request from the client.

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

Reviewed by: Margaret Flanagan — Margaret Flanagan, Approved Signatory

Date Issued 04/26/2016

Proscience Analytical Services, Inc.

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

TEM Bulk Chain of Custody Record

NT 15762

Date: 04/27/16

PO#: **C222165**
Client: TRC
Client Job#: 222165.5331.0710
Client Job Ref./Loc.: CT DOT- Bridge 00280
Relinquished by: K. Williamson-KWilliamson@trcsolutions.com
Received by: Kathy Aston 4-28-16 @ 10:15AM
Report to: E. Plimpton /EPlimpton@trcsolutions.com & SArienti@trcsolutions.com
Samplers Name: B. Aston

Analysis Type: Chatfield **EPA N.O.B** Qualitative

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

				For Lab Use Only	
Client ID #	**Lab ID#**	**Description**	**Location**	**Acceptable on Receipt**	**Comments**
04	47951	Tar	See COC		
08	47951	Caulk			
12	47951	Tar			

For Lab Use Only	# Spies	Total	Client #	Batch #	Results Reported	Comments

ProScience Analytical Services, Inc.

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

Laboratory Report

Client Project #: 222165.5331.0710
Client Reference: CT DOT - Bridge 00280
PO #: C222165
Client #: 297
Client Name: TRC Environmental Corp. (CT)

Batch: **NT 15762**
Method: NOB
Date Received: 4/28/2016
Date Analyzed: 5/2/2016
Date of Report: 5/2/2016

LAB ID	Field ID	Description:	Color	Initial Weight	% Asbestos Types						% Other	%	%	Total %	Analyzed /	Preped /
					CHR	AMO	ACT	CRO	ANT	TRE	Non-asb.	Organic	Carb.	Asbestos	Charged	Charged
NT120082	04	Black Expansion Joint Tar		.4579	.00	.00	.00	.00	.00	.00	14.06	67.09	18.85	**ND**	Yes	No
NT120083	08	Grey Expansion Joint Caulk		.7573	.00	.00	.00	.00	.00	.00	10.13	27.19	62.68	**ND**	Yes	No
NT120084	12	Black Asphalt Tar		.4494	.29	.00	.00	.00	.00	.00	14.51	79.37	6.12	**TR**	Yes	No

Comments:

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

Mark Derosier, Analyst

TRC

Edition: October 2009
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21 GRIFFIN ROAD NORTH
WINDSOR, CONNECTICUT 06095
TELEPHONE (860) 298-9692
FAX (860) 298-6380

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

LAB ID #. 47953

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
222165.5331.0710	Dot Bridge 00288		PLM: [ ] 8hr [ ] 24hr [ ] 48hr [ ] 3day
			TEM: [ ] 24hr [x] 48hr [ ] 3day [ ] 5day
SIGNATURE	INSPECTOR		
	Bryce Aston		

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	MATERIAL
01	4/21/16	1010			Bridge 0288 Below bridge	X					Ribbed pipe interior insulation DPI-1
02	4/21/16	1012			Bridge 0288 Below bridge	X					Ribbed pipe interior insulation DPI-1
03	4/21/16	927			Bridge 0288 Below bridge	X					Grey expansion joint caulk JC-1
04	4/21/16	928			Bridge 0288 Below bridge	X					Grey expansion joint caulk JC-1
05	4/21/16	958			Bridge 0288 top of bridge	X					Black Joint tar JT-1
06	4/21/16	1002			Bridge 0288 top of bridge	X					Black Joint tar JT-1
07	4/21/16	930			Bridge 0288 top of bridge	X					White joint caulk C-1
08	4/21/16	931			Bridge 0288 top of bridge	X					White joint caulk C-1
09	4/21/16	947			Bridge 0288 top of bridge	X					Grey joint caulk c-2
10	4/21/16	950			Bridge 0288 top of bridge	X					Grey joint caulk c-2
11	4/21/16	930			Bridge 0288 top of bridge	x					White railing base caulk C-3

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
	4/20/16	4/22/16			
(Printed)	Time:	(Printed)	(Printed)	Time:	(Printed)
Bryce Aston	1330	1000			

Remarks: Results to Steve Arienti

Condition of Samples:
Acceptable: Yes ___ No ___
Comments:

TRC

Edition: October 2009
Supersede Previous Edition

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FAX (860) 298-6380

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

LAB ID #. 47953

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
222165.5331.0710	Dot Bridge 00280 8		PLM: [ ] 8hr [ ] 24hr [ ] 48hr [ ] 3day
			TEM: [ ] 24hr [x] 48hr [ ] 3day [ ] 5day
SIGNATURE	INSPECTOR		
	Bryce Aston		

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	MATERIAL
12	4/21/16	932			Bridge 0288 top of bridge	x					White railing base caulk C-3
13	4/21/16	940			Bridge 0288 top of bridge	X					Black asphalt tar AT-1
14	4/21/15	942			Bridge 0288 top of bridge	x				x	Black asphalt tar AT-1

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
	4/20/16	4/22/16			
(Printed) Bryce Aston	Time: 1330	(Printed) 1600 Williamson	(Printed)	Time:	(Printed)

Remarks: Results to Steve Arienti

Condition of Samples:
Acceptable: Yes ✓ No
Comments:

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

TRC
Results you can rely on

BULK ASBESTOS ANALYSIS REPORT

CLIENT: CT Department of Transportation

Lab Log #:	0047953
Project #:	222165.5331.0710
Date Received:	04/22/2016
Date Analyzed:	04/25/2016

Site: Bridge 00288

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials		Asbestos %	Asbestos Type
01	Black/Brown	Yes	No	--	---		ND	None
02	Black/Brown	Yes	No	--	---		ND	None
03	Grey	Yes	No	--	---		10%	Chrysotile
04	--	--	--	--	--		NA/PS	--
05	Black	Yes	No	--	10%	cellulose	ND	None
06	Black	Yes	No	--	10%	cellulose	ND	None
07	White	Yes	No	--	---		ND	None
08	White	Yes	No	--	---		ND	None
09	Grey	Yes	No	--	---		ND	None
10	Grey	Yes	No	--	---		ND	None
11	White	Yes	No	--	---		10%	Chrysotile
12	--	--	--	--	--		NA/PS	--
13	Black	Yes	No	--	---		ND	None
14	Black	Yes	No	--	---		ND	None

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

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

Reporting limit- asbestos present at 1%
ND - asbestos was not detected
Trace - asbestos was observed at level of less than 1%
NA/PS - Not Analyzed / Positive Stop
SNA- Sample Not Analyzed- See Chain of Custody for details

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation (1982), and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116), July 1993, R.L. Perkins and B.W. Harvey which utilizes 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, 2016. TRC is an American Industrial Hygiene Association (AIHA) accredited lab for PLM effective through October 1, 2016. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and the QC data related to the samples is available upon written request from the client.

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

Reviewed by: Margaret Flanagan — Margaret Flanagan, Approved Signatory

Date Issued 04/27/2016

Proscience Analytical Services, Inc.

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

TEM Bulk Chain of Custody Record

NT 15763

Date: 04/27/16

PO#: **C222165**
Client: TRC
Client Job#: 222165.5331.0710
Client Job Ref./Loc.: CT DOT- Bridge 00288
Relinquished by: K. Williamson-KWilliamson@trcsolutions.com
Received by: Kathy Artone 4-28-16 @10:15AM
Report to: E. Plimpton - EPlimpton@trcsolutions.com & SArienti@trcsolutions.com
Samplers Name: B. Aston

Analysis Type: Chatfield **EPA N.O.B** Qualitative

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

				For Lab Use Only	
Client ID #	**Lab ID#**	**Description**	**Location**	**Acceptable on Receipt**	**Comments**
06	47953	Tar	See COC		
08	47953	Caulk			
10	47953	Caulk			
14	47953	Tar			

For Lab Use Only	# Spies	Total	Client #	Batch #	Results Reported	Comments

ProScience Analytical Services, Inc.

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

Laboratory Report

Client Project #: 222165.5331.0710
Client Reference: CT DOT - Bridge 00288
PO #: C222165
Client #: 297
Client Name: TRC Environmental Corp. (CT)

Batch: NT 15763
Method: NOB
Date Received: 4/28/2016
Date Analyzed: 5/2/2016
Date of Report: 5/2/2016

LAB ID	Field ID	Description:	Color	Initial Weight	% Asbestos Types						% Other	%	%	Total %	Analyzed /	Preped /
					CHR	AMO	ACT	CRO	ANT	TRE	Non-asb.	Organic	Carb.	Asbestos	Charged	Charged
NT120085	06	Black Joint Tar		1.0291	2.11	.00	.00	.00	.00	.00	18.97	71.27	7.65	**2.11**	Yes	No
NT120086	08	White Joint Caulk		1.2926	.00	.00	.00	.00	.00	.00	1.52	41.98	56.50	**ND**	Yes	No
NT120087	10	Grey Joint Caulk		.7708	.00	.00	.00	.00	.00	.00	38.82	32.25	28.93	**ND**	Yes	No
NT120088	14	Black Asphalt Tar		.4844	.00	.00	.00	.00	.00	.00	1.55	89.14	9.31	**ND**	Yes	No

Comments:

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

Mark Derosier, Analyst

TRC

Edition: October 2009
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TELEPHONE (860) 298-9692
FAX (860) 298-6380

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

LAB ID #. 47949

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
222165.5331.0710	Dot Bridge 01415		PLM: [ ] 8hr [ ] 24hr [ ] 48hr [ ] 3day
			TEM: [ ] 24hr [x] 48hr [ ] 3day [ ] 5day
SIGNATURE	INSPECTOR		
	Bryce Aston		

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	MATERIAL
01	4/20/16	930			Bridge 01415 Below bridge	X					Black end cap caulk EC-1
02	4/20/16	930			Bridge 01415 Below bridge	X					Bridge 01415 Below bridge
03	4/20/16	945			Bridge 01415 Below bridge	X					White caulking at abutment C-1
04	4/20/16	940			Bridge 01415 Below bridge	X					White caulking at abutment C-1
05	4/20/16	1005			Bridge 01415 Top side	X					Dark grey caulk on side walk c-2
06	4/20/16	1006			Bridge 01415 Top side	X					Dark grey caulk on side walk c-2
07	4/20/16	1010			Bridge 01415 Top side	X					Dark Grey railing base caulk C-3
08	4/20/16	1015			Bridge 01415 Top side	X					Dark Grey railing base caulk C-3
09	4/20/16	1015			Bridge 01415 Top side	X					Black Asphalt tar AT-1
10	4/20/16	1018			Bridge 01415 Top side	X				x	Black Asphalt tar AT-1
11	4/20/16	1000			Bridge 01415 Top side	X					Light grey joint caulk JC-1

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
	4/20/16	4/22/16			
(Printed) Bryce Aston	Time: 1330	(Printed) 1600 Williamson	(Printed)	Time:	(Printed)

Remarks: Results to Steve Arienti

Condition of Samples:
Acceptable: Yes ✓ No
Comments:

TRC

Edition: October 2009
Supersede Previous Edition

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

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

LAB ID #. 47949

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
222165.5331.0710	Dot Bridge 01415		PLM: [ ] 8hr [ ] 24hr [ ] 48hr [ ] 3day
			TEM: [ ] 24hr [x] 48hr [ ] 3day [ ] 5day
SIGNATURE	INSPECTOR		
	Bryce Aston		

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	MATERIAL
12	4/20/16	1002			Bridge 01415 Top side	X					Light grey joint caulk JC-1

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
	4/20/16	4/22/16			
(Printed) Bryce Aston	Time: 1330	(Printed) 1600 Williamson	(Printed)	Time:	(Printed)

Remarks: Results to Steve Arienti

Condition of Samples:
Acceptable: Yes ✓ No
Comments:

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

TRC
Results you can rely on

BULK ASBESTOS ANALYSIS REPORT

CLIENT: CT Department of Transportation

Lab Log #: 0047949
Project #: 222165.5331.0710
Date Received: 04/22/2016
Date Analyzed: 04/25/2016

Site: Bridge 01415

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials		Asbestos %	Asbestos Type
01	Black	Yes	No	--	10%	cellulose	ND	None
02	Black	Yes	No	--	10%	cellulose	ND	None
03	White	Yes	No	--		---	ND	None
04	White	Yes	No	--		---	ND	None
05	Dark Grey	Yes	No	--		---	ND	None
06	Dark Grey	Yes	No	--		---	ND	None
07	Dark Grey	Yes	No	--		---	ND	None
08	Dark Grey	Yes	No	--		---	ND	None
09	Black	Yes	No	--		---	ND	None
10	Black	Yes	No	--		---	ND	None
11	Light Grey	Yes	No	--		---	ND	None
12	Light Grey	Yes	No	--		---	ND	None

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(860) 298-6308

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

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

Reporting limit- asbestos present at 1%
ND - asbestos was not detected
Trace - asbestos was observed at level of less than 1%
NA/PS - Not Analyzed / Positive Stop
SNA- Sample Not Analyzed- See Chain of Custody for details

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation (1982), and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116), July 1993, R.L. Perkins and B.W. Harvey which utilizes 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, 2016. TRC is an American Industrial Hygiene Association (AIHA) accredited lab for PLM effective through October 1, 2016. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and the QC data related to the samples is available upon written request from the client.

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

Reviewed by: Margaret Flanagan — Margaret Flanagan, Approved Signatory

Date Issued 04/26/2016

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

NT15766

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: 04/27/16

PO#: **C222165**
Client: TRC
Client Job#: 222165.5331.0710
Client Job Ref./Loc.: CT DOT- Bridge 01415
Relinquished by: K. Williamson-KWilliamson@trcsolutions.com
Received by: Kathy Artese 4-28-16 @ 10:15AM
Report to: E. Plimpton – EPlimpton@trcsolutions.com & SArienti@trcsolutions.com
Samplers Name: B. Aston

Analysis Type: Chatfield **EPA N.O.B** Qualitative

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

				For Lab Use Only	
Client ID #	**Lab ID#**	**Description**	**Location**	**Acceptable on Receipt**	**Comments**
02	47949	Caulk	See COC		
04	47949	Caulk			
06	47949	Caulk			
08	47949	Caulk			
10	47949	Tar			
12	47949	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 #: 222165.5331.0710
Client Reference: CT DOT - Bridge 01415
PO #: C222165
Client #: 297
Client Name: TRC Environmental Corp. (CT)

Batch: NT 15766
Method: NOB
Date Received: 4/28/2016
Date Analyzed: 5/2/2016
Date of Report: 5/2/2016

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						
NT120100	02	Black End Cap Caulk		.1707	.00	.00	.00	.00	.00	.00	13.48	65.14	21.38	ND	Yes	No
NT120101	04	White Caulking		.5807	.00	.00	.00	.00	.00	.00	15.84	24.44	59.72	ND	Yes	No
NT120102	06	Dark Grey Caulk		.1648	.00	.00	.00	.00	.00	.00	6.79	48.97	44.24	ND	Yes	No
NT120103	08	Dark Grey Railing Base Caulk		.2943	.00	.00	.00	.00	.00	.00	5.68	91.13	3.19	ND	Yes	No
NT120104	10	Black Asphalt Tar		.2825	.00	.00	.00	.00	.00	.00	13.49	67.54	18.97	ND	Yes	No
NT120105	12	Light Grey Joint Caulk		.2655	.00	.00	.00	.00	.00	.00	9.45	86.97	3.58	ND	Yes	No

Comments:

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

Mark Derosier, Analyst

TRC

Edition: October 2009
Supersede Previous Edition

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

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

LAB ID #. 47952

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
222165.5331.0710	Dot Bridge ~~00280~~ 03434		PLM: 8hr 24hr 48hr 3day TEM: 24hr x 48hr 3day 5day
SIGNATURE	INSPECTOR		
	Bryce Aston		

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	MATERIAL
01	4/21/16	1130			Bridge 3434 Below bridge	X					White pipe end cap EC-1
02	4/21/16	1135			Bridge 3434 Below bridge	X					White pipe end cap EC-1
03	4/21/16	1200			Bridge 3434 Below bridge	X					Black pipe wrap PW-1
04	4/21/16	1202			Bridge 3434 Below bridge	X					Black pipe wrap PW-1
05	4/21/16	1110			Bridge 3434 top of bridge	X					Brown bearing pad base BPB-1
06	4/21/16	1115			Bridge 3434 top of bridge	X					Brown bearing pad base BPB-1
07	4/21/16	1230			Bridge 3434 top of bridge	X					Black railing base caulk C-1
08	4/21/16	1231			Bridge 3434 top of bridge	X					Black railing base caulk C-1
09	4/21/16	1235			Bridge 3434 top of bridge	X					White railing base caulk c-2
10	4/21/16	1237			Bridge 3434 top of bridge	X					White railing base caulk c-2
11	4/21/16	1240			Bridge 3434 top of bridge	x					Grey expansion joint caulk C-3

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
	4/20/16	4/22/16			
(Printed) Bryce Aston	Time: 1330	(Printed) 1600 Williamson	(Printed)	Time:	(Printed)

Remarks: Results to Steve Arienti

Condition of Samples:
Acceptable: Yes ✓ No
Comments:

TRC

Edition: October 2009
Supersede Previous Edition

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

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

LAB ID #. 47952

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
222165.5331.0710	Dot Bridge ~~00280~~ 03434		PLM: 8hr 24hr 48hr 3day TEM: 24hr x 48hr 3day 5day

SIGNATURE	INSPECTOR
	Bryce Aston

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	MATERIAL
12	4/21/16	1242			Bridge 3434 top of bridge	x					Grey expansion joint caulk C-3
13	4/21/16	1242			Bridge 3434 top of bridge	X					Black asphalt tar AT-1
14	4/21/15	1245			Bridge 3434 top of bridge	x				x	Black asphalt tar AT-1

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
	4/20/16	4/22/16			
(Printed) Bryce Aston	Time: 1330	(Printed) 1600 Williamson	(Printed)	Time:	(Printed)

Remarks: Results to Steve Arienti

Condition of Samples:
Acceptable: Yes ✓ No
Comments:

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

TRC
Results you can rely on

BULK ASBESTOS ANALYSIS REPORT

CLIENT: CT Department of Transportation

Lab Log #: 0047952
Project #: 222165.5331.0710
Date Received: 04/22/2016
Date Analyzed: 04/26/2016

Site: Bridge 03434

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	Yes	No	- -		- - -	ND	None
02	White	Yes	No	- -		- - -	ND	None
03	Black	Yes	No	- -		- - -	ND	None
04	Black	Yes	No	- -		- - -	ND	None
05	Brown	Yes	No	- -	80%	cellulose	ND	None
06	Brown	Yes	No	- -	80%	cellulose	ND	None
07	Black	Yes	No	- -		- - -	ND	None
08	Black	Yes	No	- -		- - -	ND	None
09	White	Yes	No	- -		- - -	ND	None
10	White	Yes	No	- -		- - -	ND	None
11	Grey	Yes	No	- -		- - -	ND	None
12	Grey	Yes	No	- -		- - -	ND	None
13	Black	Yes	No	- -		- - -	ND	None
14	Black	Yes	No	- -		- - -	ND	None

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

TRC
Results you can rely on

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

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

Reporting limit- asbestos present at 1%
ND - asbestos was not detected
Trace - asbestos was observed at level of less than 1%
NA/PS - Not Analyzed / Positive Stop
SNA- Sample Not Analyzed- See Chain of Custody for details

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation (1982), and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116), July 1993, R.L. Perkins and B.W. Harvey which utilizes 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, 2016. TRC is an American Industrial Hygiene Association (AIHA) accredited lab for PLM effective through October 1, 2016. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and the QC data related to the samples is available upon written request from the client.

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

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

Reviewed by: Margaret Flanagan — Margaret Flanagan, Approved Signatory

Date Issued 04/26/2016

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 #AL.014538 LA#05011 VA #3333 000283 AZ #A20944 HI #L-09-004 NJ #CT004 CA #2907
CO# AL-15020 PHIL# 461 PA#68-03387

NT 15764

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: 04/27/16

PO#: **C222165**
Client: TRC
Client Job#: 222165.5331.0710
Client Job Ref./Loc.: CT DOT- Bridge 03434
Relinquished by: K. Williamson-KWilliamson@trcsolutions.com
Received by: Kathy Astone 4-28-16 @10:15AM
Report to: E. Plimpton – EPlimpton@trcsolutions.com & SArienti@trcsolutions.com
Samplers Name: B. Aston

Analysis Type: Chatfield **EPA N.O.B** Qualitative

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

				For Lab Use Only	
Client ID #	**Lab ID#**	**Description**	**Location**	**Acceptable on Receipt**	**Comments**
02	47952	End Cap	See COC		
04	47952	Pipe Wrap			
08	47952	Caulk			
10	47952	Caulk			
12	47952	Caulk			
14	47952	Tar			

For Lab Use Only	# Spies	Total	Client #	Batch #	Results Reported	Comments

ProScience Analytical Services, Inc.

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

Laboratory Report

Client Project #: 222165.5331.0710
Client Reference: CT DOT - Bridge 03434
PO #: C222165
Client #: 297
Client Name: TRC Environmental Corp. (CT)

Batch: **NT 15764**
Method: NOB
Date Received: 4/28/2016
Date Analyzed: 5/2/2016
Date of Report: 5/2/2016

LAB ID	Field ID	Description:	Color	Initial Weight	% Asbestos Types						% Other	%	%	Total %	Analyzed /	Preped /
					CHR	AMO	ACT	CRO	ANT	TRE	Non-asb.	Organic	Carb.	Asbestos	Charged	Charged
NT120089	02	White Pipe End Cap		.0818	.00	.00	.00	.00	.00	.00	47.07	38.26	14.67	ND	Yes	No
NT120090	04	Black Pipe Wrap		.0645	.00	.00	.00	.00	.00	.00	16.28	78.29	5.43	ND	Yes	No
NT120091	08	Black Railing Base Caulk		.3601	.00	.00	.00	.00	.00	.00	6.09	86.36	7.55	ND	Yes	No
NT120092	10	White Railing Base Caulk		.0907	.00	.00	.00	.00	.34	.00	68.47	3.75	27.78	TR	Yes	No
NT120093	12	Grey Expansion Joint Caulk		.8501	.00	.00	.00	.00	.00	.00	34.45	33.18	32.37	ND	Yes	No
NT120094	14	Black Asphalt Tar		.3644	.00	.00	.00	.00	.00	.00	38.42	55.27	6.31	ND	Yes	No

Comments:

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

Mark Derosier, Analyst

SHEET NO. _____ OF _____

PROJECT NO. _____

DATE 4/20/16

BY RB + BA

CHK'D _____

SUBJECT Bridge 00278

Below

- Metal Girders
- Concrete Decking
- PVC drain pipes

- BPB_1 - Brown Bearing Pad Base (≈ 42 SF)
- JT_1 - Black Expansion Joint Tape (≈ 50 SF) ← Below (≈ 100 SF) Above
  - ↳ Corner abutments below
  - ↳ Sidewalls above

Topside

AT_1 - Black Asphalt Tape (≈ 180 SF)

C_1 - Gray Railing Caulk (≈ 100 SF) (Foot pads of Rail)

JC_1 - Gray Expansion Joint Caulk (≈ 10 LF)

JT_1 on sidewalls

- No paint on Railing / Chain link fence

A

SHEET NO. _____ OF _____

PROJECT NO. _____

DATE 4/20/16

BY RB + BA

CHK'D _____

SUBJECT Bridge 00279

Below

- Metal Girders
- Concrete Deck

JT_1 - Black Expansion Joint Tar (~ 25 SF)
JC_1 - White Expansion Joint Caulk (~ 25 SF)
BPB_1 - Bearing Pad Base, Brown (~ 42 SF)

Top Side

C_1 - Gray Expansion Joint Caulk (~ 160 SF) (Road & Sidewalks)
C_2 - Gray Railing Caulking (~ 80 SF)
AT_1 - Black Asphalt Tar (~ 120 LF)
C_3 - White Expansion Joint Caulk (Sidewalks) (~ 10 SF)

- No paint on Railing or Chain link fence

SHEET NO. _____ OF _____

PROJECT NO. _____

DATE 4/20/16

BY RB + BA

CHK'D _____

SUBJECT Bridge 00280

Below

- Steel Frame
- Concrete Deck
- Graffiti on abutment & Girders
- Deteriorating paint
- PVC Drain pipes
- Metal foot rockers on Girder abutments

* - BPB$_1$ - Brown Bearing Pad Base (~ 42 SF) @ 21 total pads
- AT$_1$ - Black Abutment Tar (~ 60 SF) @ 15SF each corner

Topside

C1 - White Expansion Joint caulk (sidewalks) (~ 56SF)
JT$_1$ - Black Roadway Joint Tar (~ 200SF)
C$_2$ - Gray Expansion Joint caulk on sidewalls (~ 10 LF)
C$_3$ - Gray Railing caulk (~ 100SF) @ 2SF per foot w/ 50 feet

- Trash on Side embankments
- No paint on railings / Chain link fence

A

TRC Results you can rely on

SHEET NO. _____ OF _____

PROJECT NO. _____

DATE 4/21/16

BY RB + BA

CHK'D _____

SUBJECT Bridge 00288

Below

- Metal Beams
- Concrete Deck
- PVC drain pipes

(2) 20" diameter wrapped pipes

JC$_1$ - Gray Expansion Joint Caulk (~20 LF)
DPI$_1$ - Ribbed pipe interior insulation (~80 SF)

Topside

JT$_1$ - Black Joint Tar (~200 SF)
C$_1$ - White Joint Caulking (~80 LF)
C$_2$ - Gray Joint Caulking (~40 SF)
AT$_1$ - Black Asphalt Tar (~320 SF)
C$_3$ - White Railing Caulk (~60 SF)

- JT$_1$ on sidewalls in between concrete panels & on sloped sides of bridge
  ↳ C$_1$ on top of JT$_1$ on sloped sides

- No paint on railing or chain link fence

A

TRC Results you can rely on

SUBJECT Bridge 01415

SHEET NO. ____ OF ____

PROJECT NO. ____

DATE 4/20/16

BY RB + BA

CHK'D ____

Below

- Trash around abutements
- Rubbish on beams & concrete abutements

- No rubber or gaskets on feet to metal girders

(2) 20" (Insulation) diameter pipe on North side under bridge
↳ Metal wrap with Brown Silicone caulk
↳ EC1 - Black end cap (~ 60 SF)
↳ C1 - White caulking at abatement (~ 8 SF)

- Concrete decking

Topside

-JC1	- Light Gray Joint Caulk	(~ 30 LF)	
-C2	- Dark Gray Sidewalk Caulk	(~ 400 LF)	
C3	- Dark Gray Railing Caulk	(~ 120 SF)	@ 110 Railing feet
AT,	- Black Asphalt Tar	(~ 40 LF)	

A

TRC Results you can rely on

SUBJECT Bridge 03434

SHEET NO. ____ OF ____

PROJECT NO. ____

DATE 4/21/16

BY RB + BA

CHK'D ____

Below

- Metal Beams
- Concrete Decking
- PVC Drain pipes

(1) 12" diameter pipe with Black Wrap (West Side.)
↳ PW$_1$

(1) 20" diameter pipe with metal/styrofoam wrap on East Side
↳ EC$_1$

BPB$_1$ - Bearing Pad Base, Brown (~ 18 SF)
EC$_1$ = White Pipe end Cap (~ 24 SF)
PW$_1$ - Black Pipe Wrap (~ 110 LF)

Topside

C$_1$ - Black Railing Caulk (~ 36 SF)
C$_2$ - White Railing Caulk (~ 120 SF)
C$_3$ - Gray Expansion Joint Caulk (~ 80 SF)
AT$_1$ - Black Asphalt Tar (~ 120 SF)

C$_2$ under C3 on bridge sidewalls

- No paint on Railings

A

PROJECT DESCRIPTION

PROJECT #172-447 – BEAM END REPAIRS AND BEARING REPLACEMENT IN DISTRICT 2

The bridge modifications associated with this Scope of Services for Project #172-447 includes the design of repairs for the rehabilitation of 6 bridges.

Bridge #01415, Route 169 over Shetucket River, Norwich
Bridge #03434, Route 97 over Abandoned Canal, Sprague
Bridge #00278, Scotland Road over Interstate 395, Norwich
Bridge #00279, Lawler lane over Interstate 395, Norwich
Bridge #00280, Canterbury Turnpike over Interstate 395, Norwich
Bridge #00288, Route 138 over Interstate 395, Griswold

The bridge rehabilitation that will be performed in this project are minor in nature and will primarily be of a maintenance type of work. The following types of repairs are anticipated

- Bearing replacements
- Steel beam end repairs
- Beam end painting
- Bearing pedestal repairs
- Joint replacements
- Reconstruction of deck ends
- Deck patching
- New deck membrane and overlay
- Remove hollow girder haunches over roadways
- Substructure concrete repairs

All project Access will be from the top of deck side and from underside of the bridge where accessible and in non-wetland areas. Where required, in areas adjacent to traffic (pedestrian, railroad and vehicular) and in areas over wetlands, temporary debris shields will be installed prior to any deck concrete removal to prevent debris from falling onto roadways or streams below the bridge. All staging is expected to be from platforms suspended from the superstructure or from ground supported scaffolding where feasible. All work will be performed using temporary lane closures in off peak hours. No excavation or other earthwork is anticipated beyond minor excavation that may be required for the foundations of temporary jacking towers/supports.

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

memorandum

subject: **Environmental Screening Request**
Project No. 172-447
F.A.P. No. – 000R(916)
Rehabilitation of Bridge #00278
Scotland Road over Interstate 395,
Norwich
date: March 7, 2016

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

from: for Rabih M. Barakat
Transportation Principal Engineer
Bureau of Engineering and Construction

Please provide an environmental screening for this project and inform this office of any environmental concerns by **Monday, March 28, 2016**.

Attached for your information and use are the following:

- Project Description
- Location Map
- Aerial Photo

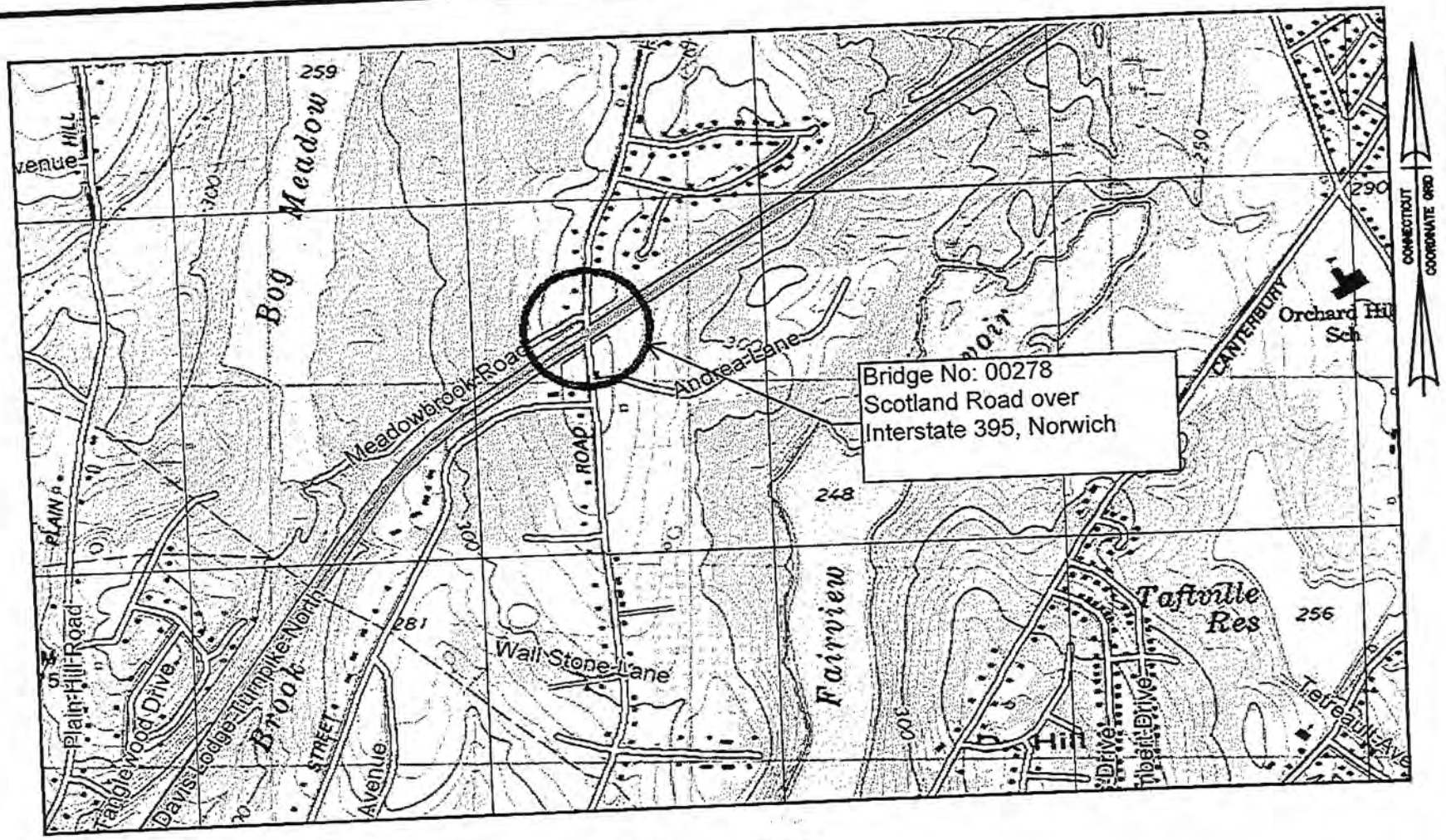
This is a rehabilitation of Bridge #00278 - Scotland Road over Interstate 395, Norwich.

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

This project does not involve excavation activities.

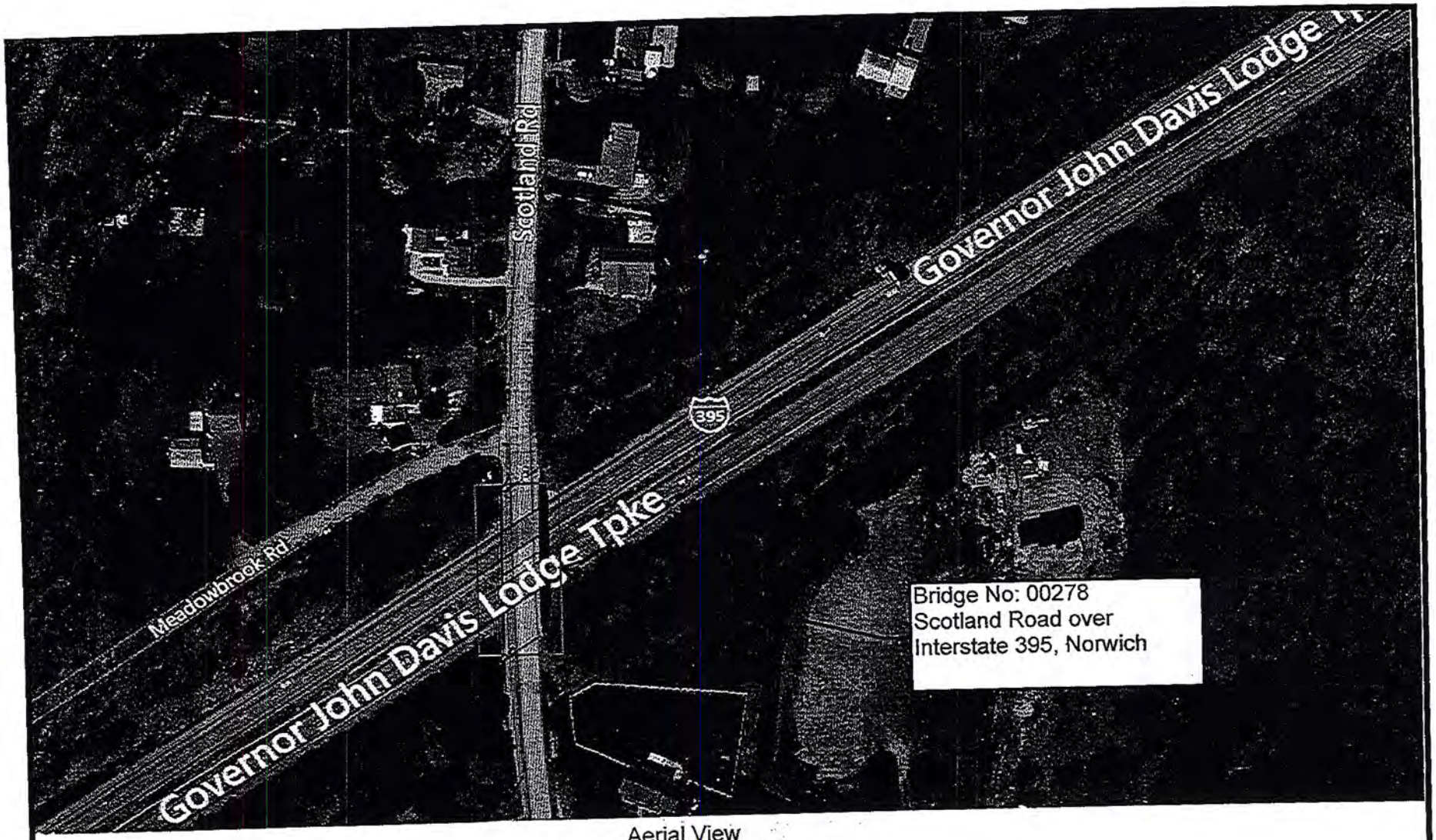
Please contact Ryan D. Martin, Project Engineer, at (860) 594-3205 should you have any questions or require additional information.

Attachments
Ryan D. Martin/rdm
cc: Rabih M. Barakat - Kevin V. Blasi - Ryan D. Martin



Project Location Map

STATE PROJECT NO.:	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	OFFICE OF ENGINEERING	DATE:
172-447 CITY/TOWN: NORWICH	REHABILITATION OF BRIDGE # 00278 Scotland Road over Interstate 395, Norwich		



Aerial View

STATE PROJECT NO.:	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	OFFICE OF ENGINEERING	DATE:
172-447 CITY/TOWN: NORWICH	REHABILITATION OF BRIDGE # 00278 Scotland Road over Interstate 395, Norwich		

PROJECT DESCRIPTION

PROJECT #172-447 – BEAM END REPAIRS AND BEARING REPLACEMENT IN DISTRICT 2

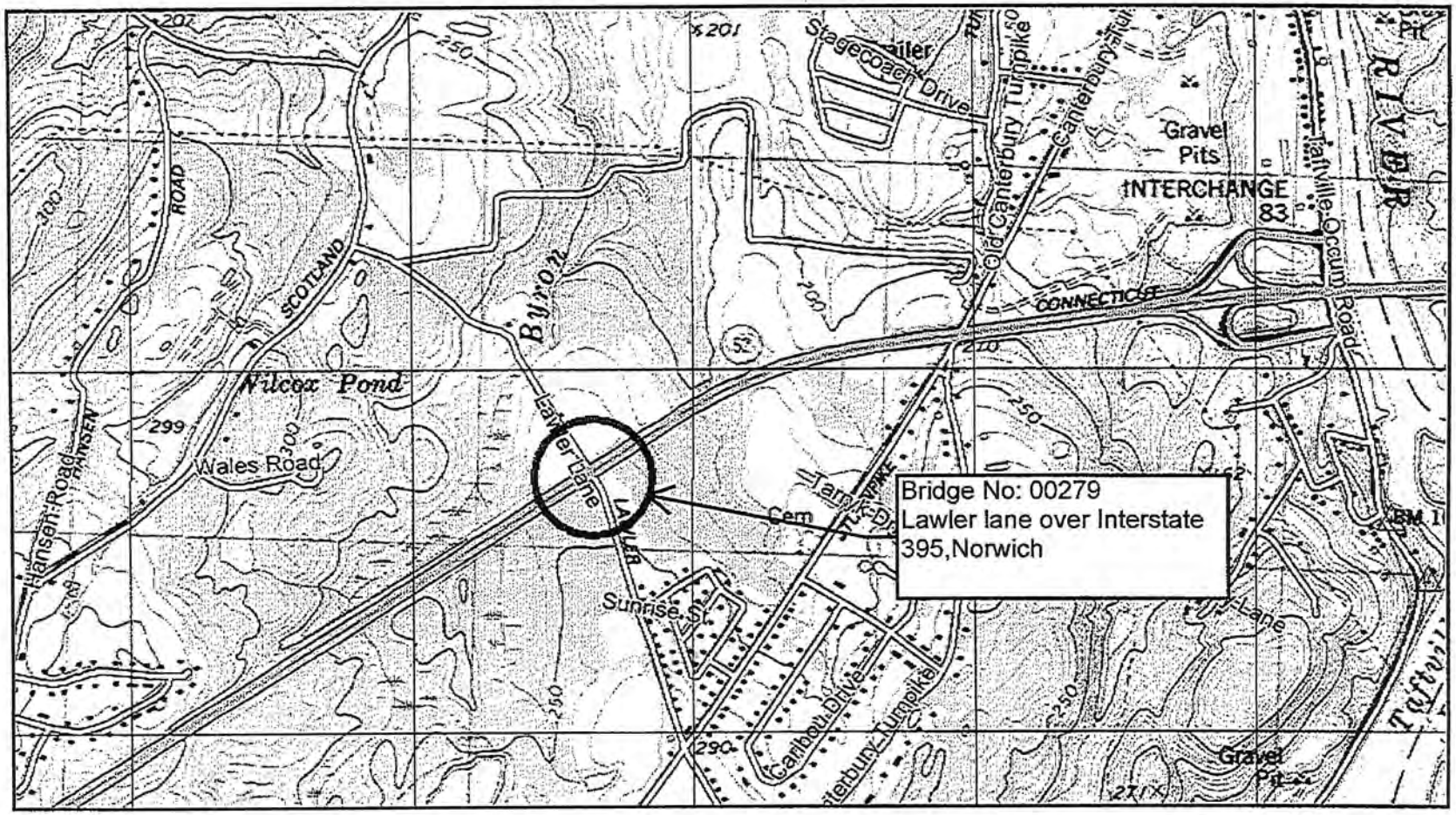
The bridge modifications associated with this Scope of Services for Project #172-447 includes the design of repairs for the rehabilitation of 6 bridges.

Bridge #01415, Route 169 over Shetucket River, Norwich
Bridge #03434, Route 97 over Abandoned Canal, Sprague
Bridge #00278, Scotland Road over Interstate 395, Norwich
Bridge #00279, Lawler lane over Interstate 395, Norwich
Bridge #00280, Canterbury Turnpike over Interstate 395, Norwich
Bridge #00288, Route 138 over Interstate 395, Griswold

The bridge rehabilitation that will be performed in this project are minor in nature and will primarily be of a maintenance type of work. The following types of repairs are anticipated

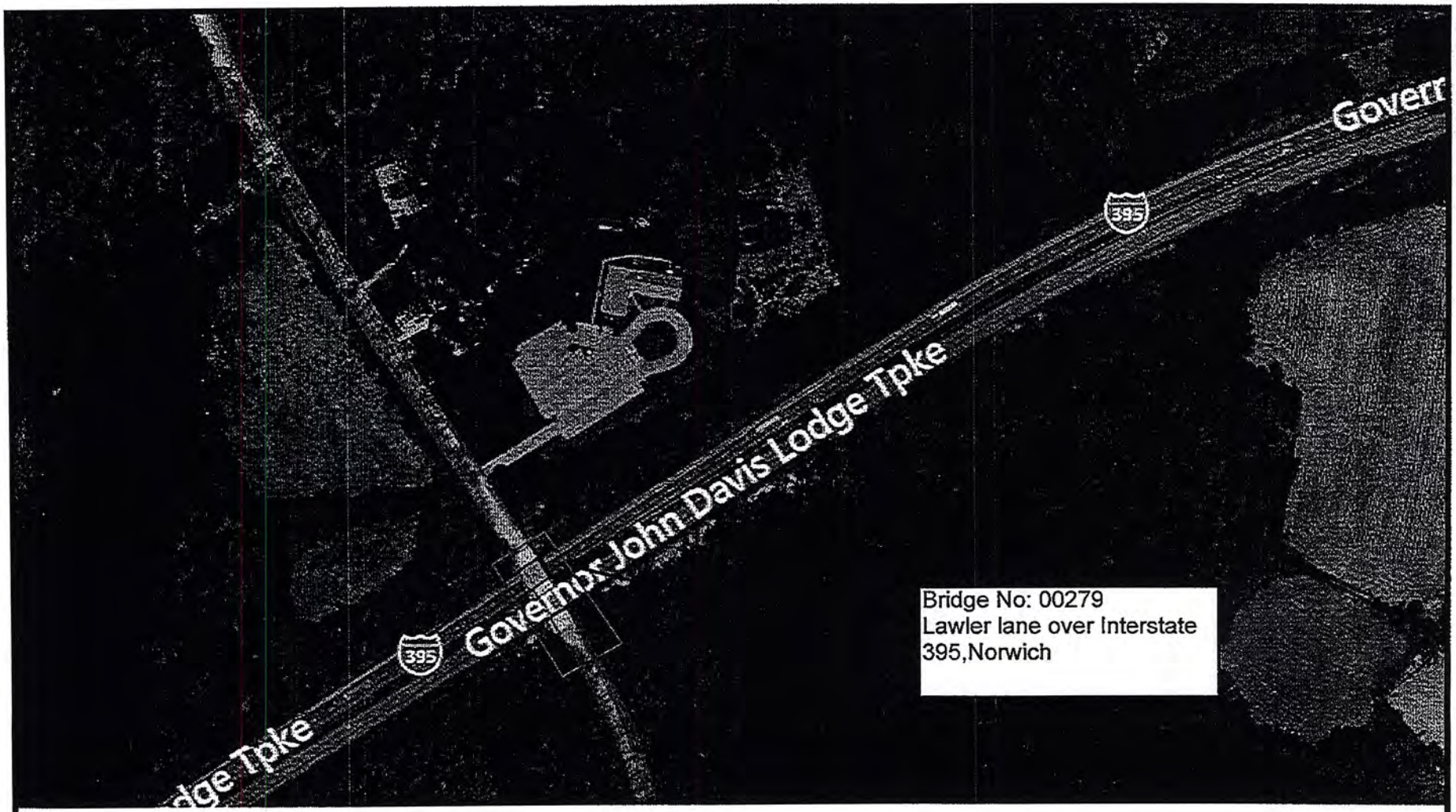
- Bearing replacements
- Steel beam end repairs
- Beam end painting
- Bearing pedestal repairs
- Joint replacements
- Reconstruction of deck ends
- Deck patching
- New deck membrane and overlay
- Remove hollow girder haunches over roadways
- Substructure concrete repairs

All project Access will be from the top of deck side and from underside of the bridge where accessible and in non-wetland areas. Where required, in areas adjacent to traffic (pedestrian, railroad and vehicular) and in areas over wetlands, temporary debris shields will be installed prior to any deck concrete removal to prevent debris from falling onto roadways or streams below the bridge. All staging is expected to be from platforms suspended from the superstructure or from ground supported scaffolding where feasible. All work will be performed using temporary lane closures in off peak hours. No excavation or other earthwork is anticipated beyond minor excavation that may be required for the foundations of temporary jacking towers/supports.



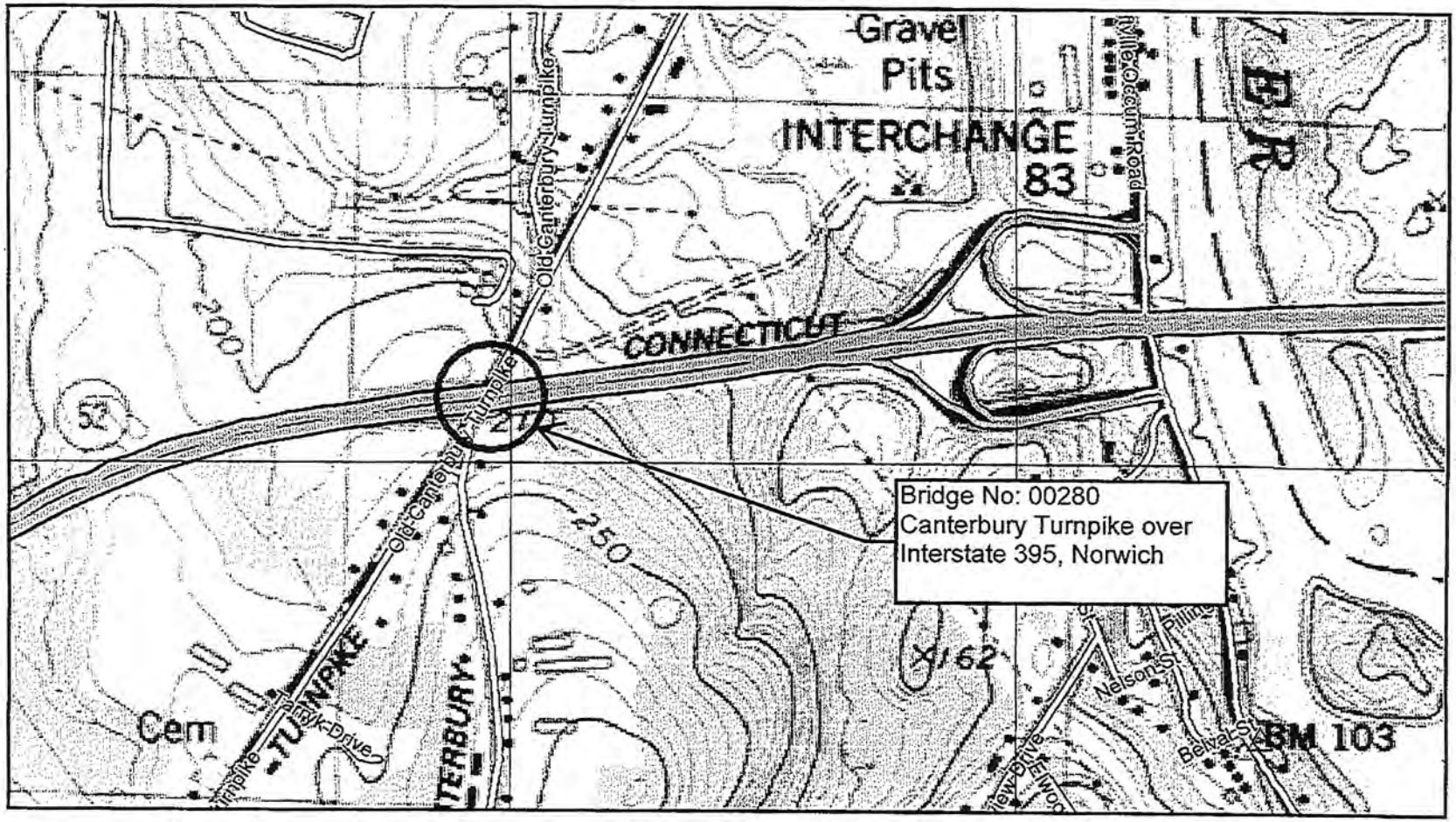
Project Location Map

STATE PROJECT NO.:	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	OFFICE OF ENGINEERING	DATE:
172-447 CITY/TOWN: NORWICH	REHABILITATION OF BRIDGE # 00279 Lawler lane over Interstate 395,Norwich		



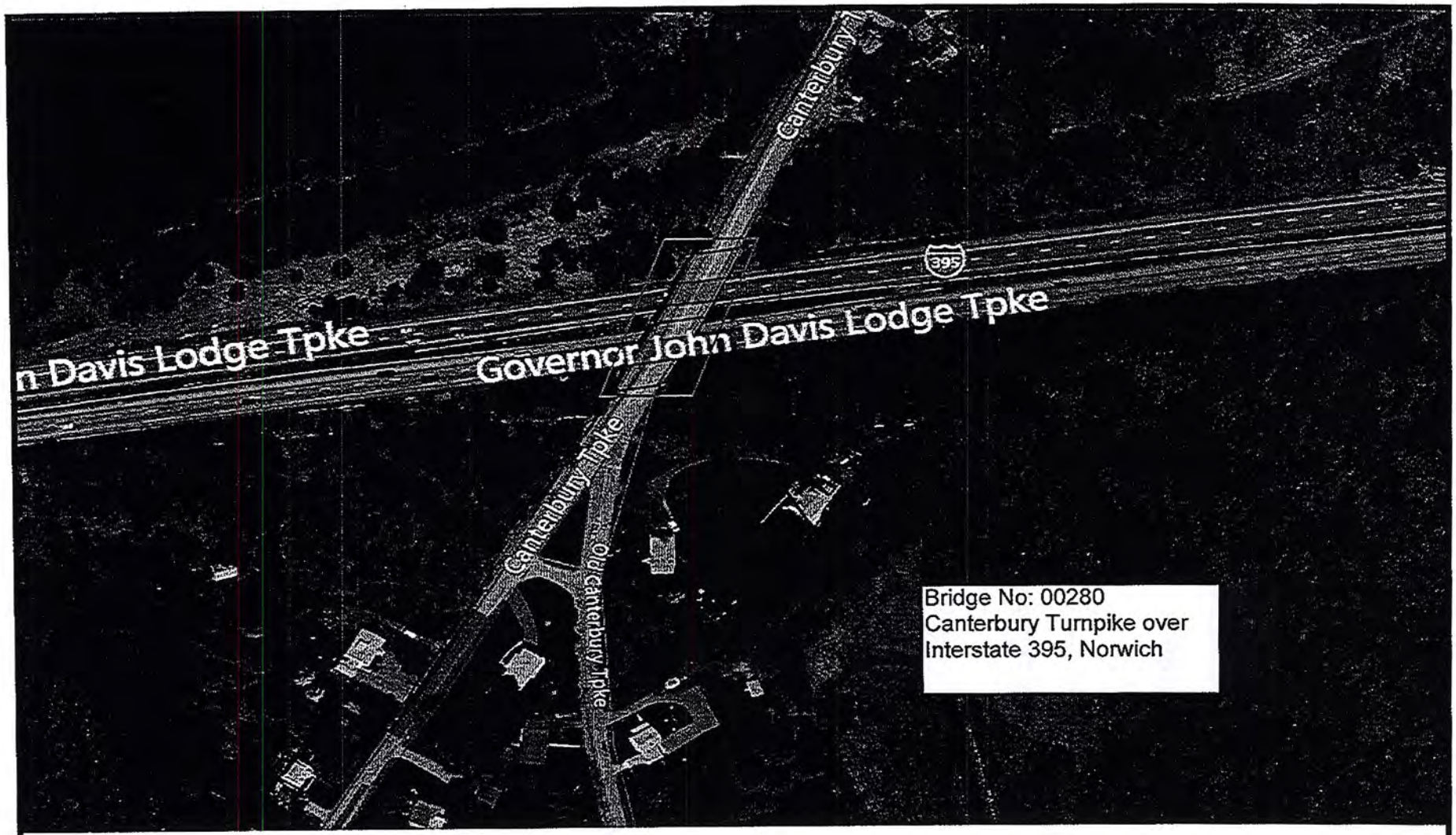
Aerial View

STATE PROJECT NO.:	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	OFFICE OF ENGINEERING	DATE:
172-447 CITY/TOWN: NORWICH	**REHABILITATION OF BRIDGE # 00279** **Lawler lane over Interstate 395,Norwich**		



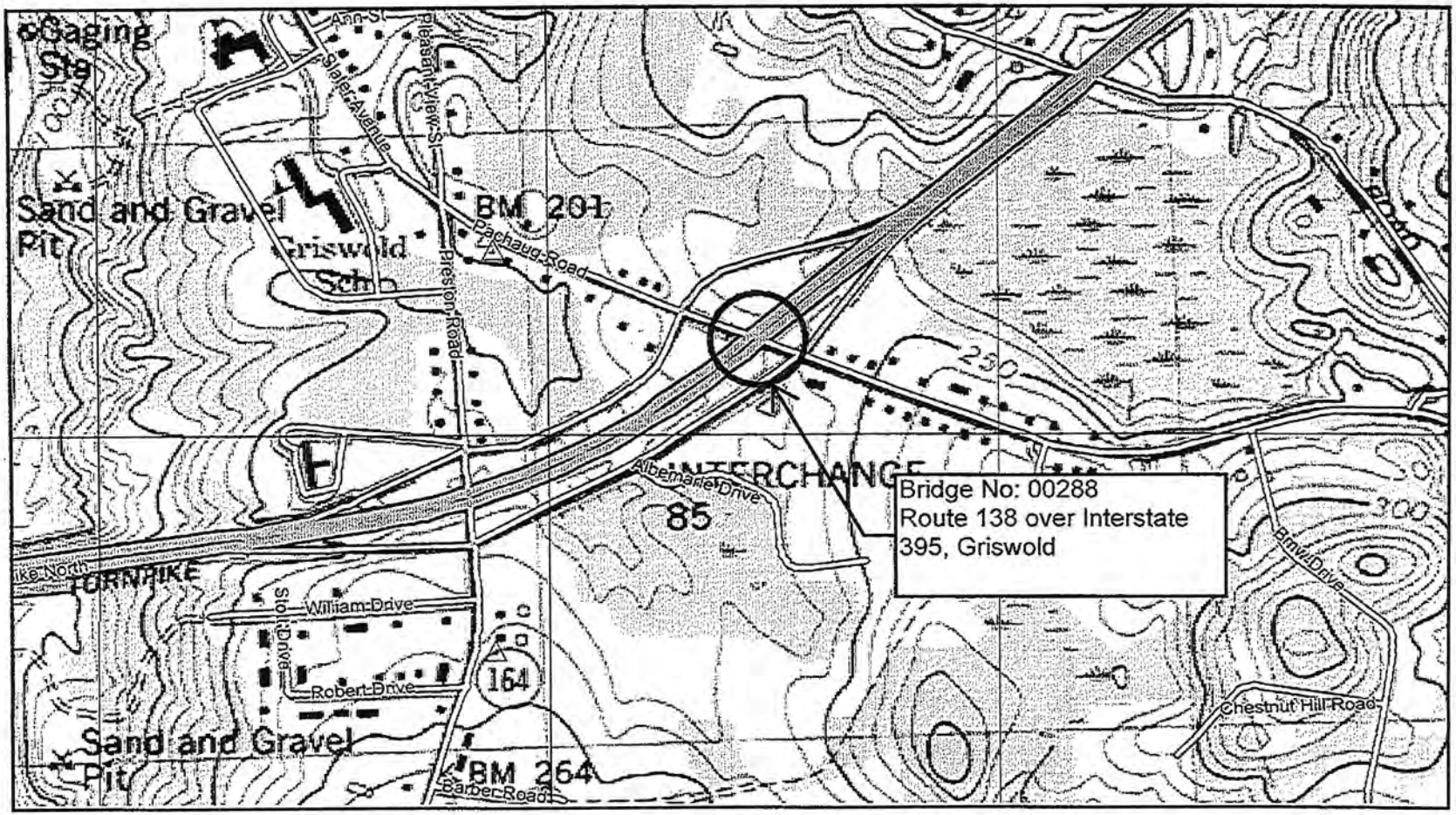
Project Location Map

STATE PROJECT NO.: 172-447 CITY/TOWN: NORWICH	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION REHABILITATION OF BRIDGE # 00280 Canterbury Turnpike over Interstate 395, Norwich	OFFICE OF ENGINEERING	DATE:



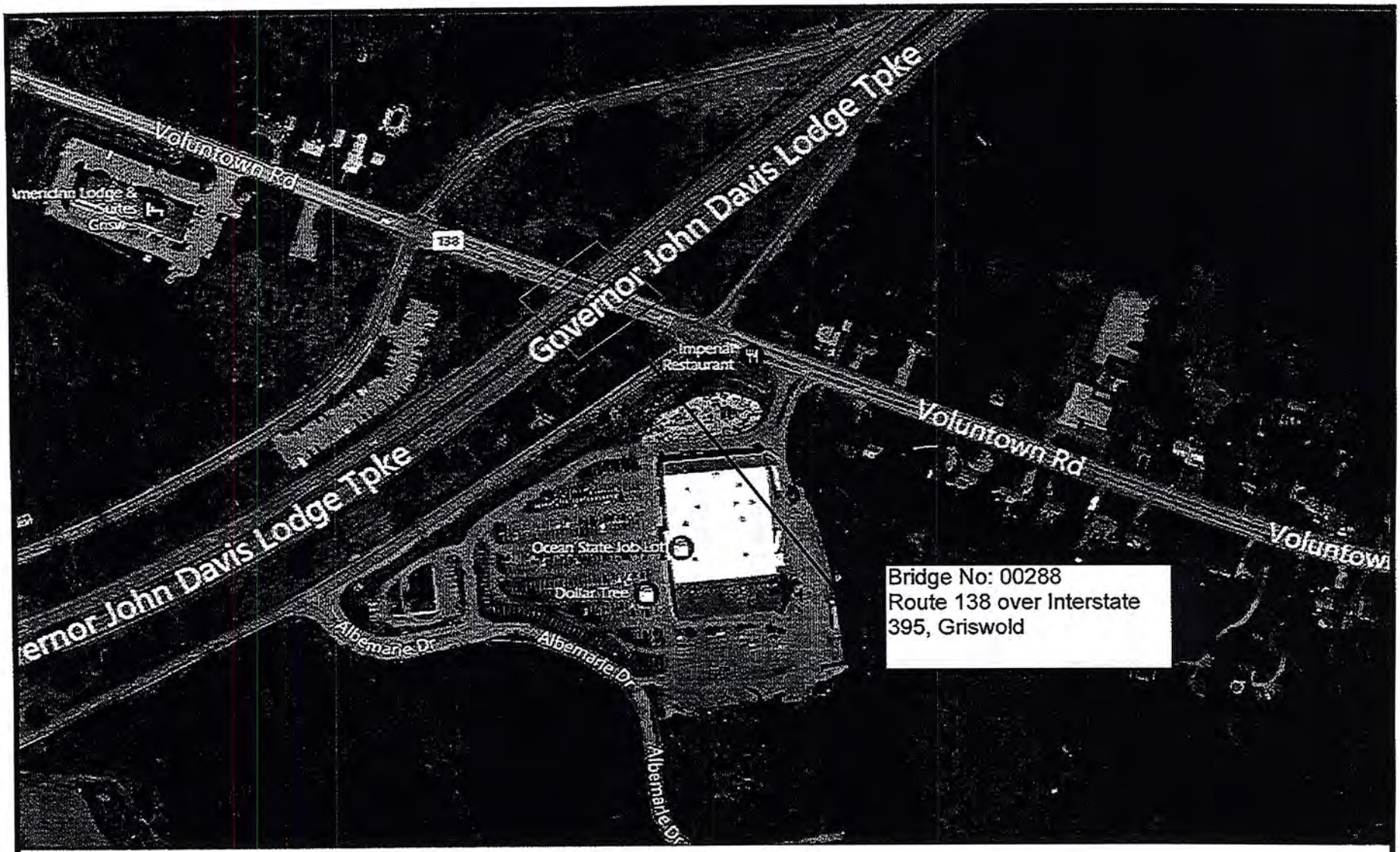
Aerial View

STATE PROJECT NO.:	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	OFFICE OF ENGINEERING	DATE:
172-447 CITY/TOWN: NORWICH	REHABILITATION OF BRIDGE # 00280 Canterbury Turnpike over Interstate 395, Norwich		



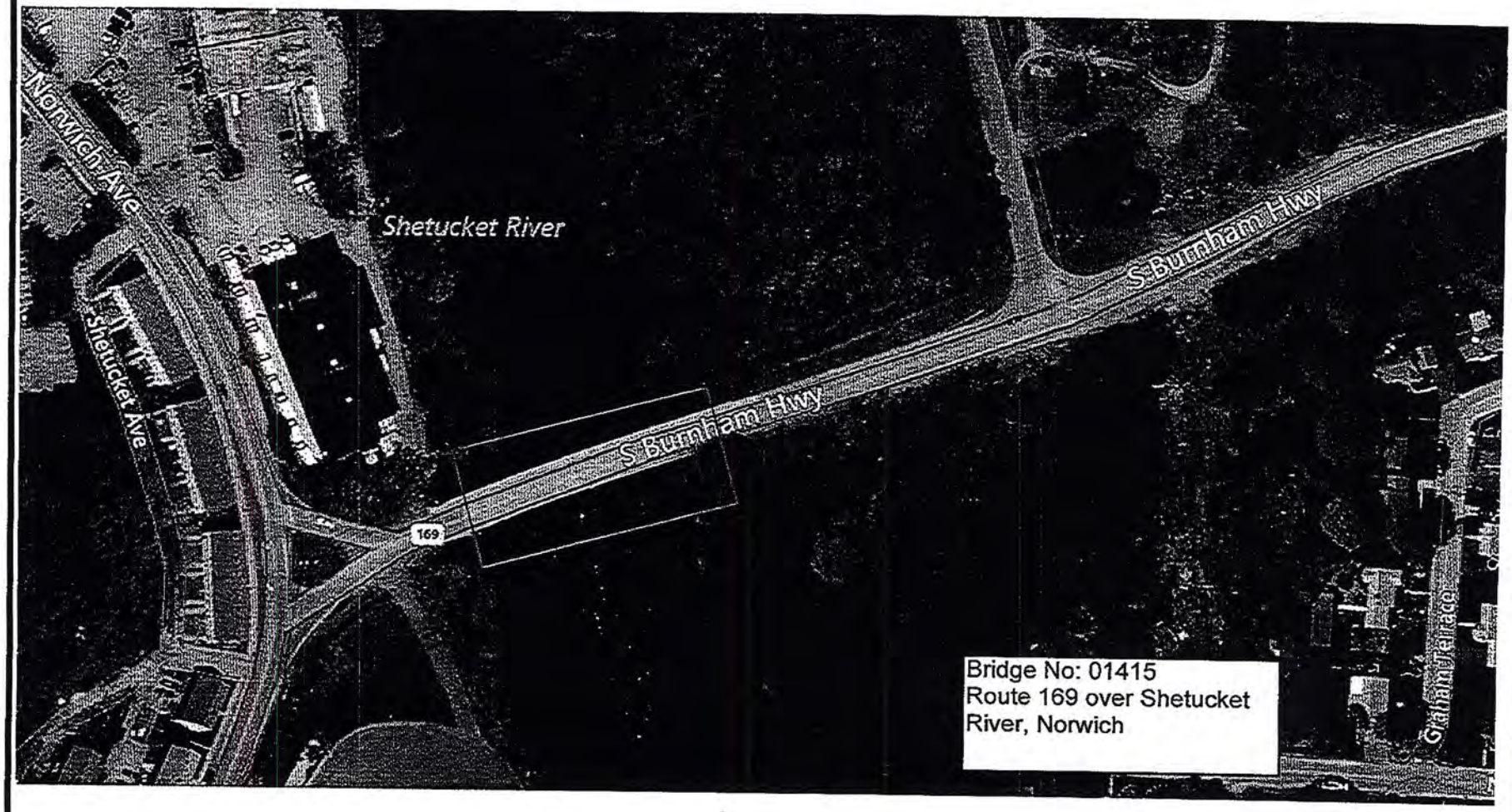
Project Location Map

STATE PROJECT NO.:	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	OFFICE OF ENGINEERING	DATE:
172-447 CITY/TOWN: GRISWOLD	REHABILITATION OF BRIDGE # 00288 Route 138 over Interstate 395, Griswold		



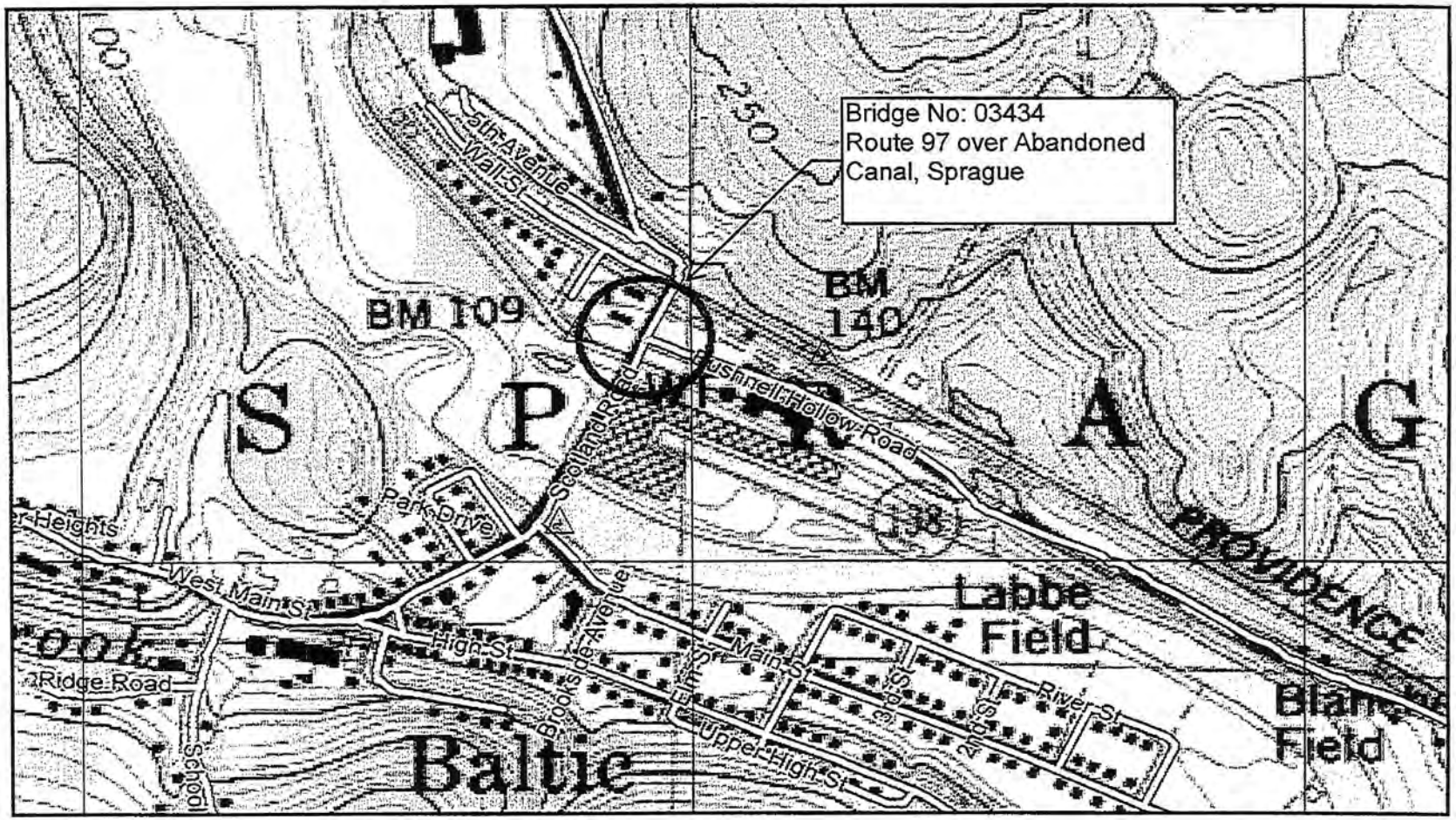
Aerial View

STATE PROJECT NO.:	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	OFFICE OF ENGINEERING	DATE:
172-447 CITY/TOWN: GRISWOLD	REHABILITATION OF BRIDGE # 00288 Route 138 over Interstate 395,Griswold		



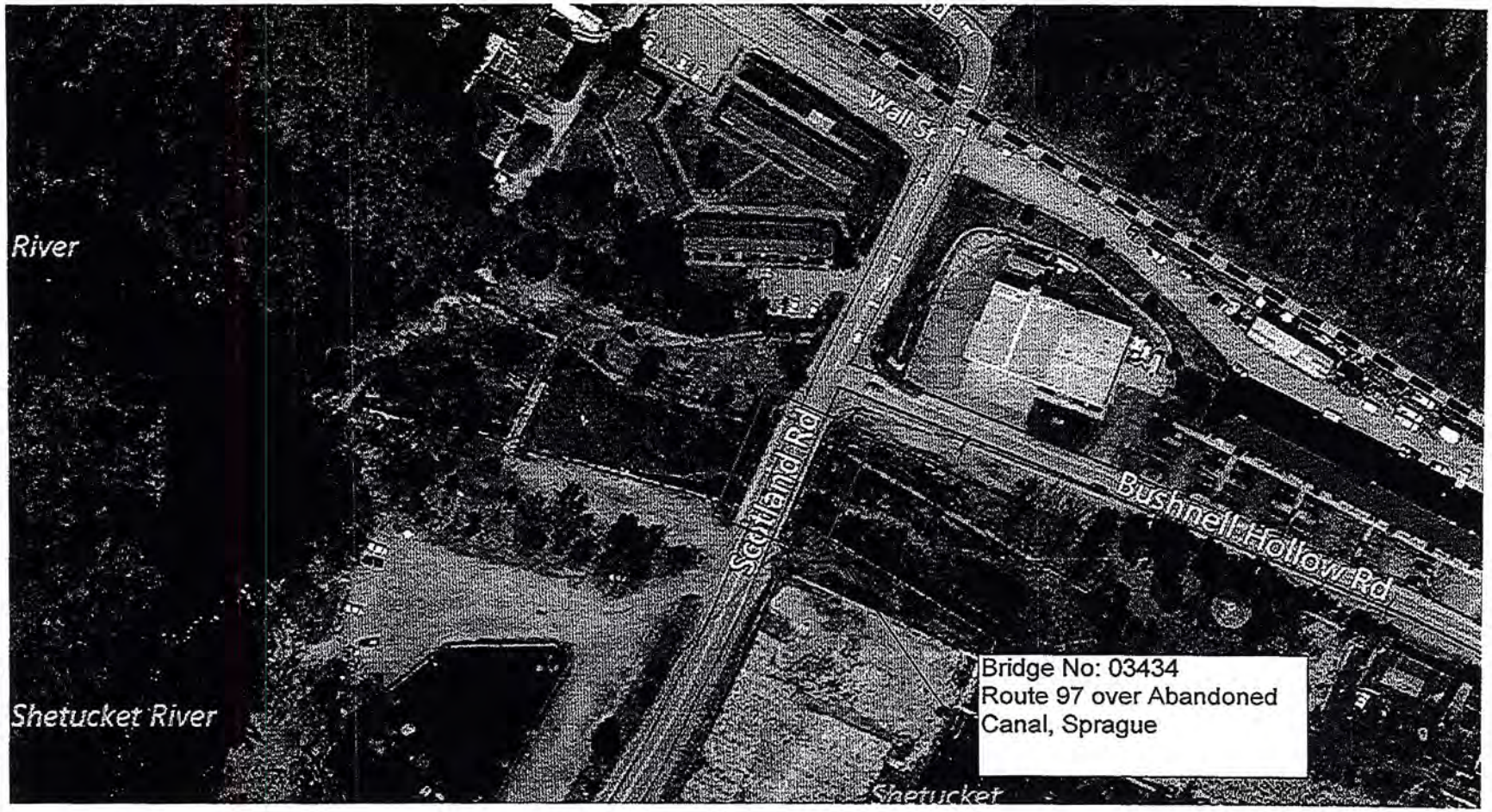
Aerial View

STATE PROJECT NO.: 172-447	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	OFFICE OF ENGINEERING	DATE:
CITY/TOWN: NORWICH	REHABILITATION OF BRIDGE # 01415 – Route 169 over Shetucket River, Norwich		



Project Location Map

STATE PROJECT NO.:	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	OFFICE OF ENGINEERING	DATE:
172-447 CITY/TOWN: SPRAGUE	REHABILITATION OF BRIDGE # 03434 Route 97 over Abandoned Canal, Sprague		



Aerial View

STATE PROJECT NO.:	STATE OF CONNECTICUT	OFFICE OF	DATE:
172-447	DEPARTMENT OF TRANSPORTATION	ENGINEERING	
CITY/TOWN: SPRAGUE	REHABILITATION OF BRIDGE # 03434 Route 97 over Abandoned Canal, Sprague		