ARCADIS Design & Consultancy for natural and built assets

ASBESTOS SURVEY REPORT

Bridge No. 33035560004 (Over Debutts Railyard, LM 0.15-L)
Hamilton County, Tennessee
TDOT Project No. 33LCIT-F0-010; PIN No. 133281.00

March 2024

Greg Hodges
Tennessee-Accredited Asbestos Inspector A-I-44534-136836

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Greg Drelich
Tennessee-Accredited Asbestos Inspector
A-I-103660-138639

Erin Woodson
Certified Project Manager II

Prepared for:
Tennessee Department of Transportation

Prepared by:
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Suite 200
Chattanooga
Tennessee 37421

Our Ref:
30195168

Date:
March 22, 2024

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ACRONYMS AND ABBREVIATIONS

%	percent
ACM	asbestos-containing materials
CFR	Code of Federal Regulations
COC	chain-of-custody
EMSL	EMSL Analytical, Inc.
HA	homogeneous area
NESHAP	National Emission Standards for Hazardous Air Pollutants
OSHA	Occupational Safety and Health Administration
PACM	presumed asbestos-containing materials
PLM	polarized light microscopy
RACM	regulated asbestos-containing materials
SR	state route
TDOT	Tennessee Department of Transportation
TSI	thermal system insulation
USEPA	U.S. Environmental Protection Agency

1 INTRODUCTION

A thorough survey, including the collection of samples of suspect asbestos containing materials (ACM), was recently conducted by Arcadis at the existing Wilcox Boulevard bridge traveling westbound over the Debutts Railyard located in Hamilton County, Tennessee. The purpose of this survey was to identify and quantify suspect ACM within the bridge components prior to potential disturbance of the structure related to a future bridge replacement. The survey was conducted in a phased approach, including visual observations, suspect material sampling, laboratory analysis, and reporting.

1.1 Bridge Identification

The bridge is identified in the Tennessee Department of Transportation (TDOT) Project System/Bridge Management System as follows:

TDOT Project Number:	33LCIT-F0-010
TDOT PIN Number:	133281.00
Bridge Inventory Number:	33035560004 (33-03556-00.15L)
Route Number:	FAU 03556 (Wilcox Boulevard)

The structure evaluated is located on Wilcox Boulevard over the Debutts Railyard at 0.15-L in Hamilton County, Tennessee.

1.2 Bridge Description

An 818-foot-long, two-lane, seventeen-span structure constructed with a concrete deck and wearing surface was evaluated for this project. This bridge (Figure 1) was constructed in 1958 and is in poor condition. Details regarding stormwater drains and utilities are discussed below in Section 2.2.

2 INSPECTION AND SAMPLING

The identification of ACM is performed by collecting bulk samples of suspect materials and having those samples analyzed by a laboratory. ACM are those materials found to contain greater than 1 percent (%) asbestos by calibrated visual area estimation by polarized light microscopy (PLM).

Bulk sampling is a procedure in which representative homogeneous areas (HAs) in a structure are identified and then sampled. An HA is defined as an area that contains material of the same type (uniform in color and texture) and is applied during the same general time period. Once the HAs are identified, representative bulk samples are collected at the discretion of licensed inspectors, based on site conditions and professional judgment. It should be noted that it was necessary to minimally damage existing finishes to collect bulk samples for this project. Sample locations were patched using a high-strength urethane grout.

2.1 Personnel Qualifications and Sampling Date

Mr. Greg Hodges performed the inspection at the existing bridge structure for this project. Mr. Hodges is a State of Tennessee-accredited asbestos inspector (Appendix A). Arcadis is also accredited by the State of Tennessee (Accreditation No. A-F-710-82206) to conduct asbestos activities (Appendix A). The ACM survey and associated bulk sample collection were conducted by Arcadis on February 26, 2024. Traffic control measures for temporary lane closures were not required for the survey.

2.2 Visual Survey

The inspection began with a visual survey of the structure to identify HAs, determine sample locations for suspect ACM, and identify potential ACM containing utilities and/or stormwater drains associated with the bridge. No suspect materials were identified to be associated with the stormwater drainage features, utilities, or streetlights observed on the bridge structure.

The bridge is located over Debutts Railyard which includes mainly Norfolk Southern tracks. The eastern portion of the bridge crosses over CSX tracks.

2.3 Sampling of Bridge Components

Bulk sampling procedures included physically touching suspect material to determine friability; classifying and recording detailed observations including color, texture, condition, and quantity; and collecting bulk samples in a random and representative manner for laboratory analysis. Sample areas were thoroughly brushed and rinsed, as needed, to remove surface debris and reduce the possibility of sample contamination from potentially asbestos-containing vehicular brake dust. The sample collection of suspect materials then followed these general steps:

- Bulk samples of concrete materials were collected by removing a thin layer of material (i.e., concrete, skim coating, or patching material) from the surface, which was discarded. The concrete layer beneath the surface was then collected in a sample collection bag.
- The collected samples were then labeled for transmittal to the laboratory.
- All equipment was then cleaned, and the operation repeated at various representative locations as needed.

Materials such as metal, fiberglass, foam, and rubber (if present) were not considered suspect ACM, and therefore not sampled. Materials associated with the upper bridge wearing surface, if present, (i.e., reflector mastic, asphalt, pavement marker mastic, etc.) were not sampled per TDOT's request. A total of 15 suspect ACM samples from 5 HAs were submitted for laboratory analysis. Additionally, one HA was assumed as ACM and not collected due to inaccessibility at the time of the survey.

Generalized sample locations are illustrated on Figure 1. Representative photographs of each HA are provided in Appendix B. The laboratory analytical data sheets and chain -of -custody (COC), which include detailed descriptions of sample locations, texture, quantities, and condition for each HA, are presented in Appendix C. The bridge crosses over the Debutts Railyard at an angle, generally from southeast to northwest. The TDOT inspection reports describe this bridge in an east-west direction, with flow of traffic traveling west. On the Appendix C descriptions, the inspector associated the western edge

of the bridge as north and the eastern edge of the bridge as south. Individual bridge components described in the following subsections were sampled utilizing methods as outlined in Section 2.3 above.

2.3.1 Bridge Pile Base Concrete

Three bulk samples were collected from the grey bridge pile joint concrete (HA-01) located under the bridge.

2.3.2 Bridge Abutment Concrete

Three bulk samples were collected from the grey bridge abutment concrete (HA-02) located on the eastern and western ends of the bridge.

2.3.3 Bridge Curb/Sidewalk Concrete

Three bulk samples were collected from the grey bridge curb/sidewalk concrete (HA-03) located on the northern and southern sides on top of the bridge.

2.3.4 Bridge Roadway Concrete

Three bulk samples were collected from the grey bridge roadway concrete (HA-04) located on top of the bridge.

2.3.5 Asphaltic Vibration Pads

The black asphaltic vibration pads (HA-05) were inaccessible at the time of the survey and not sampled. The HA is shown on the original bridge construction plans for Bridge Number 33035560003, which is the eastbound bridge adjacent to this bridge. Specifically, the plans show the adjacent bridge contains “trowel grade asbestos asphalt roofing cement”, specifically at expansion devices on bent structures 2, 5, 9, 13, and 17. The original plans were not available for this bridge, however, the material and build style appear to be similar for both bridges, so this material was assumed present.

2.3.6 Bridge Bent Concrete

Three bulk samples were collected from the grey bridge bent concrete (HA-06) located on the eastern underside of the bridge.

3 ANALYTICAL PROCEDURES

The suspect asbestos-containing bulk samples were submitted under proper COC protocol for analysis to EMSL Analytical, Inc. (EMSL). The bridge number was incorrectly identified as 33035560001 on the COC based on the weathered appearance of the bridge number at the time of the survey (see Appendix B, Photograph 7). The correct bridge number is 33035560004, and references to bridge number 33035560001 are for bridge number 33035560004.

EMSL is a National Voluntary Laboratory Accreditation Program accredited laboratory and an American Industrial Hygiene Association accredited laboratory, using procedures compliant with the guidelines established by the U.S. Environmental Protection Agency (USEPA).

The bulk samples are analyzed in the laboratory using PLM coupled with dispersion staining and calibrated visual area estimation (USEPA Method 600/R-93/116). PLM is an analytical method for asbestos identification, which identifies the specific asbestos minerals by their unique optical properties. The optical properties are a result of the mineral's chemical composition, physical structure, and visual morphology. This is the USEPA recommended method of analysis for asbestos identification in bulk samples. No other analytical methods (Point Counting, California Air Resource Board 435, or Transmission Electron Microscopy) were used or recommended per TDOT guidance.

4 REGULATORY CRITERIA

4.1 National Emission Standards for Hazardous Air Pollutants

The USEPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) asbestos regulation 40 Code of Federal Regulations (CFR) Part 61, Subpart M, specifically 40 CFR Part 61.145, requires a "thorough inspection" be conducted to identify ACM prior to renovation and demolition activities. Additionally, NESHAP requires that all identified regulated asbestos-containing materials (RACM) be properly removed prior to any renovation or demolition activities that will cause disturbance of the RACM, with specific pre-notification requirements.

4.1.1 NESHAP Definitions

Significant definitions related to regulation of asbestos under NESHAP (40 CFR Part 61.141) include:

Category I nonfriable asbestos-containing material (ACM) means any asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Category II nonfriable ACM means any material, excluding Category I nonfriable ACM, containing more than 1 percent asbestos as determined using the methods specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Friable asbestos material means any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy, that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.

Nonfriable asbestos-containing material means any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy, that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Regulated asbestos-containing material means (a) Friable asbestos material, (b) Category I nonfriable ACM that has become friable, (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this subpart.

4.2 Occupational Safety and Health Administration

The Occupational Safety and Health Administration (OSHA) mandates specific work practices, engineering controls, training, communication, and personal protective equipment requirements for employees performing work that could come into contact with or disturb materials containing any amount asbestos (including those that are less than 1%), as outlined in the following OSHA regulations:

- 29 CFR Part 1910.1001 General Industry
- 29 CFR Part 1926.1101 Construction Industry.

4.2.1 OSHA Definitions

Significant definitions related to regulation of asbestos under OSHA include:

Class I asbestos work means activities involving the removal of thermal system insulation (TSI) and surfacing ACM, and presumed ACM (PACM).

Class II asbestos work means activities involving the removal of ACM which is not TSI or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastics.

Class III asbestos work means repair and maintenance operations, where "ACM", including TSI and surfacing ACM and PACM, is likely to be disturbed and is limited to what can fit into one standard glove bag or asbestos waste bag.

Class IV asbestos work means maintenance and custodial activities during which employees contact but do not disturb ACM or PACM and activities to clean up dust, waste, and debris resulting from Class I, II, and III activities.

Intact means that the material has not crumbled, been pulverized, or otherwise deteriorated so that the asbestos is no longer likely to be bound with its matrix.

Presumed Asbestos-Containing Material means TSI and surfacing materials found in buildings constructed no later than 1980. The designation of a material as "PACM" may be rebutted through inspection and sampling as required by OSHA regulations.

5 RESULTS

Fifteen bulk samples were collected and submitted for analysis from this bridge. Multiple samples of each HA were collected in accordance with State of Tennessee, Department of Transportation Environmental Division, Social and Cultural Resources Office, Hazardous Materials Section

requirements and delivered to the laboratory for visual observation and microscopic analysis. The samples were selected based on HAs of suspect materials, as described in Section 2.

Based on the laboratory analytical results, asbestos was not detected in any of the materials collected from the five HAs identified and sampled. The laboratory analytical report for bulk samples obtained and analyzed by PLM is presented in Appendix C. Photographs of all HAs sampled are also presented in Appendix B.

One HA (HA-05: Black Asphaltic Vibration Pads) was assumed ACM and not sampled due to inaccessibility at the time of the survey. The HA is shown on the original bridge construction plans for Bridge Number 33035560003, which is the eastbound bridge adjacent to this bridge, as “trowel grade asbestos asphalt roofing cement”. Specifically, the plans show the adjacent bridge contains this material at expansion devices on bent structures 2, 5, 9, 13, and 17. The original plans were not available for this bridge, however, the material and build style appear to be similar for both bridges, so this material was assumed present. Due to inaccessibility to verify location, quantity and condition, it is assumed HA-05 is on all bent structures.

6 LIMITATIONS

Arcadis performed services in a manner consistent with the level of care and expertise exercised by members of the asbestos inspection and assessment profession. Arcadis does not imply or guarantee that every utility, stormwater drain, and suspect ACM on or in the structure has been identified and/or sampled. Historically, asbestos has been used extensively in the United States. This inspection is intended to identify those components that are reasonably suspect and are most likely to be ACM in quantities subject to regulation based on existing industry and regulatory standards. The inspector did not utilize extensive destructive sampling techniques to assess those materials potentially located in the structural components.

The information presented herein is based on information obtained during the site visit(s) and from professional judgment. If additional information becomes available which might impact this report, Arcadis requests the opportunity to review the information and reassess the potential concerns and modify this report, if warranted.

There are no third-party rights or benefits conferred under this report. Use of this report is strictly limited to Alfred Benesch & Company, the only party to whom Arcadis intends to confer any rights. Any reliance on the contents of this report by any third party is the sole responsibility of that party.

FIGURE

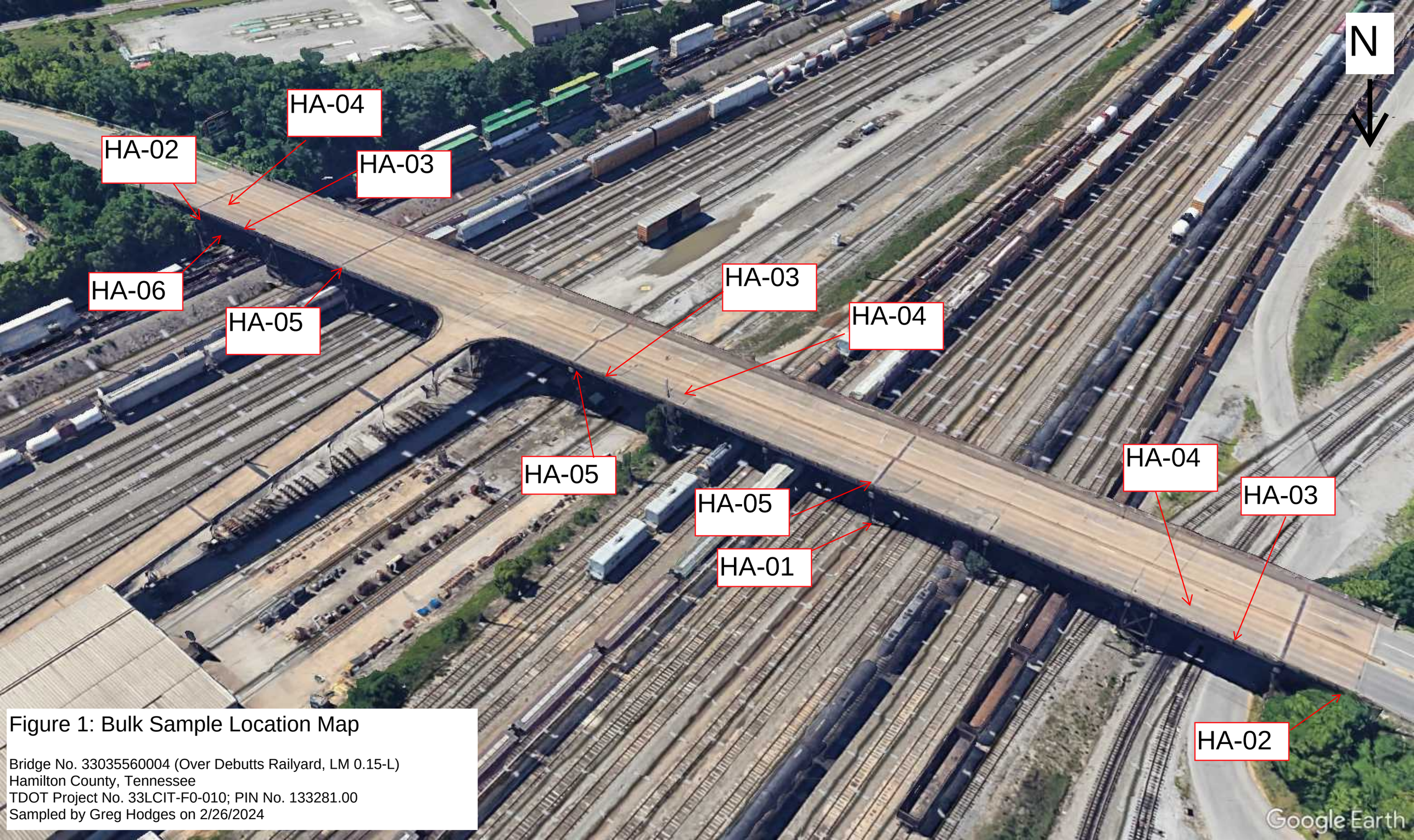


Figure 1: Bulk Sample Location Map

Bridge No. 33035560004 (Over Debutts Railyard, LM 0.15-L)
Hamilton County, Tennessee
TDOT Project No. 33LCIT-F0-010; PIN No. 133281.00
Sampled by Greg Hodges on 2/26/2024

APPENDIX A

Accreditations

THE STATE OF TENNESSEE

Department of Environment and Conservation Division of Solid Waste Management
Toxic Substances Program
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 14th Floor Nashville TN 37243

By virtue of the authority vested by the Division of Solid Waste Management, the Company named below is hereby accreditted to offer and/or conduct Asbestos activities pursuant to Rule 1200-01-20:

Arcadis U.S., Inc.

110 W. Fayette Street, Ste 300 Syracuse NY, 13202

To conduct ASBESTOS ACTIVITIES in schools or public and commercial buildings in Tennessee. This firm is responsible for compliance with the applicable requirements of Rule 1200-01-20.

Discipline	Type	Accreditation Number	Effective Date	Expiration Date
Accreditation	Re-Accreditation	A-F-710-156868	December 01, 2023	December 31, 2024

Given under the Seal of the State of Tennessee in Nashville.

This **28th** Day of **December 2023**

Division of Solid Waste Management
Toxic Substance Program

CN-1324 **(Rev 6/13)** **RDA-3020**

Inspector Certifications

Inspector	Greg B. Hodges
Certification	Certified Asbestos Inspector/Management Planner/Project Monitor/Supervisor
Certified By	State of Tennessee – Department of Environment and Conservation
Certification Number	A-I-44534-136836/A-MP-44534-136837/A-PM-44534-136835/A-S-44534-136834
Expiration Date	June 30, 2024 and March 31, 2024

THE STATE OF TENNESSEE

Department of Environment and Conservation
Division of Solid Waste Management
Toxic Substances Program

Greg B. Hodges

DOB	Sex	HGT	WGT
[redacted]	M	6' 0"	250

Discipline	Accreditation	Expiration
Inspector	A-I-44534-136836	Jun-30-2024
Management Planner	A-MP-44534-136837	Jun-30-2024
Project Monitor	A-PM-44534-136835	Jun-30-2024
Supervisor	A-S-44534-136834	Mar-31-2024

Date Issued 3/13/2023

Re-Accreditation

Asbestos Accreditation

Is hereby Accredited pursuant to Rule 1200-01-20 Asbestos Accreditation Requirements to perform Asbestos Activities associated with the Discipline(s) listed on the front of this card.

A false statement pertaining to accreditation(s) is subject to the penalties of perjury.

Date Issued 3/13/2023

Note: In order for this Tennessee issued accreditation to remain valid through the expiration date, the individual must maintain current applicable accredited asbestos refresher training course(s)

THIS CARD IS NOT TO BE USED FOR ANY OTHER IDENTIFICATION PURPOSES. IF FOUND, RETURN TO:
Department of Environment and Conservation
Division of Solid Waste Management
Toxic Substances Program
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 14th Floor
Nashville TN 37243

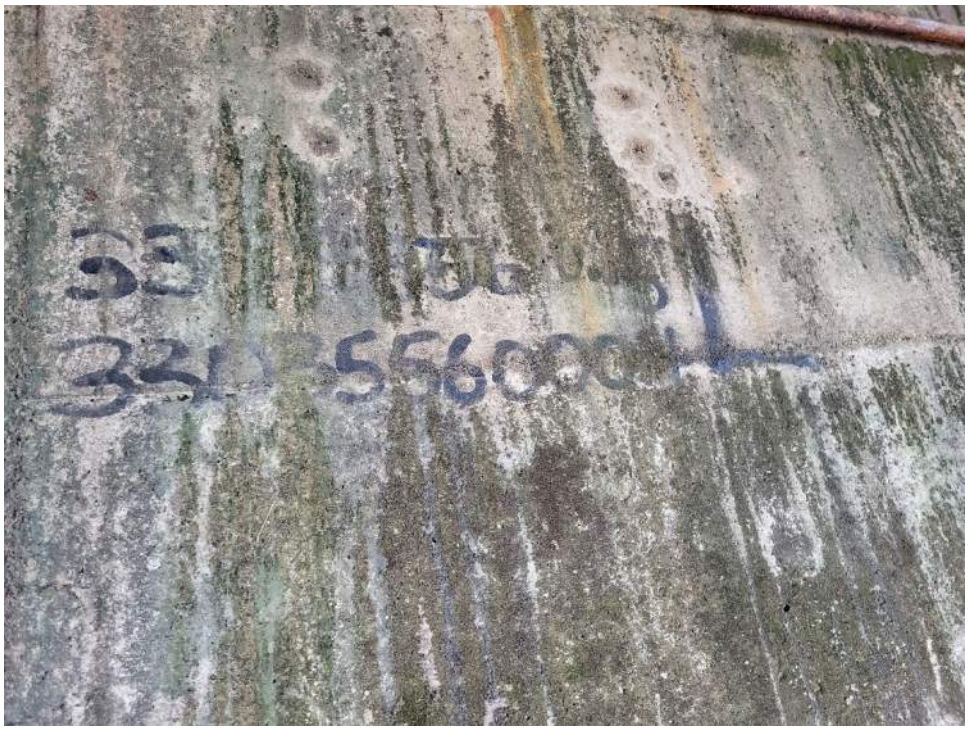
CN-1324 (Rev 6/13) RDA-3020

APPENDIX B

Project Photographs

Photograph Log

Bridge No. 33035560004 (Over Debutts Railyard, LM 0.15-L)
Hamilton County, Tennessee
TDOT Project No. 33LCIT-F0-010; PIN No. 133281.00



Photograph: 1

Description:
Bridge ID

Location:
Wilcox Avenue Bridge
33035560004

Photograph taken by:
Greg Hodges

Date: 2/26/2024

Photograph: 2

Description:
HA-01 –Bridge Pile
Joint Concrete Sample

Location:
Bent Under Wilcox
Avenue Bridge
33035560004

Photograph taken by:
Greg Hodges

Date: 2/26/2024

Photograph Log

Bridge No. 33035560004 (Over Debutts Railyard, LM 0.15-L)
Hamilton County, Tennessee
TDOT Project No. 33LCIT-F0-010; PIN No. 133281.00

Photograph: 3

Description:
HA-02 –Bridge Abutment Concrete Sample

Location:
Western Abutment Under Wilcox Avenue Bridge 33035560004

Photograph taken by:
Greg Hodges

Date: 2/26/2024

Photograph: 4

Description:
HA-03 – Bridge Curb/Sidewalk Concrete Sample

Location:
Near Western Abutment, Looking North

Photograph taken by:
Greg Hodges

Date: 2/26/2024

Photograph Log

Bridge No. 33035560004 (Over Debutts Railyard, LM 0.15-L)
Hamilton County, Tennessee
TDOT Project No. 33LCIT-F0-010; PIN No. 133281.00

Photograph: 5

Description:
HA-04 – Bridge Roadway Concrete Sample

Location:
Near Western Abutment, Looking East

Photograph taken by:
Greg Hodges

Date: 2/26/2024

Photograph: 6

Description:
HA-05 – Sample Location Inaccessible

Location:
Typical Expansion Joint Location

Photograph taken by:
Greg Hodges

Date: 2/26/2024

Photograph Log

Bridge No. 33035560004 (Over Debutts Railyard, LM 0.15-L)
Hamilton County, Tennessee
TDOT Project No. 33LCIT-F0-010; PIN No. 133281.00

Photograph: 7

Description:
HA-06 – Bridge Bent Concrete Sample

Location:
Bent on Eastern End
Under Wilcox Avenue
Bridge 33035560004

Photograph taken by:
Greg Hodges

Date: 2/26/2024

APPENDIX C

Laboratory Analytical Data

EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Tel/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order:	042404007
Customer ID:	ACAD78J
Customer PO:	30195168.04
Project ID:	

Attention:	Greg Drelich	**Phone:**	(781) 356-7300
	ARCADIS U.S., Inc.	**Fax:**	
	25 Braintree Hill Office Park, Suite 200	**Received Date:**	02/28/2024 9:31 AM
	Braintree, MA 02184-8796	**Analysis Date:**	02/28/2024 - 03/04/2024
		Collected Date:	02/26/2024

Project: ARCADIS; TDOT PROJECT #33LCI-F0-010 - PIN 133281.00 - PROPERY ID - 33035560001 - WILCOX BOULEVARD BRIDGE - 30195168.04

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
1A *042404007-0001*	EXTERIOR - SOUTH PILES - GRAY BRIDGE PILE BASE CONCRETE	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 1 HA Number: 1 Material Type: M - Other, Not Listed (add description) Friable: Yes		
1B *042404007-0002*	EXTERIOR - CENTER PILES - GRAY BRIDGE PILE BASE CONCRETE	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 1 HA Number: 1 Material Type: M - Other, Not Listed (add description) Friable: Yes		
1C *042404007-0003*	EXTERIOR - NORTH PILES - GRAY BRIDGE PILE BASE CONCRETE	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 1 HA Number: 1 Material Type: M - Other, Not Listed (add description) Friable: Yes		
2A *042404007-0004*	EXTERIOR - NORTH ABATMENT - GRAY BRIDGE ABATEMENT CONCRETE	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 2 HA Number: 2 Material Type: M - Other, Not Listed (add description) Friable: Yes		
2B *042404007-0005*	EXTERIOR - NORTH ABATMENT - GRAY BRIDGE ABATEMENT CONCRETE	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 2 HA Number: 2 Material Type: M - Other, Not Listed (add description) Friable: Yes		
2C *042404007-0006*	EXTERIOR - SOUTH ABATMENT - GRAY BRIDGE ABATEMENT CONCRETE	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 2 HA Number: 2 Material Type: M - Other, Not Listed (add description) Friable: Yes		
3A *042404007-0007*	EXTERIOR - SOUTH SECTION - GRAY BRIDGE CURB / SIDEWALK CONCRETE	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 03/04/2024 12:07:23

EMSL Analytical, Inc.
200 Route 130 North Cinnaminson, NJ 08077
Tel/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order:	042404007
Customer ID:	ACAD78J
Customer PO:	30195168.04
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type
			HA: 3 HA Number: 3 Material Type: M - Other, Not Listed (add description) Friable: Yes		
3B *042404007-0008*	EXTERIOR - CENTER SECTION - GRAY BRIDGE CURB / SIDEWALK CONCRETE	Gray/Tan Fibrous Homogeneous	5% Cellulose HA: 3 HA Number: 3 Material Type: M - Other, Not Listed (add description) Friable: Yes	95% Non-fibrous (Other)	None Detected
3C *042404007-0009*	EXTERIOR - NORTH SECTION - GRAY BRIDGE CURB / SIDEWALK CONCRETE	Gray/Tan Non-Fibrous Homogeneous	HA: 3 HA Number: 3 Material Type: M - Other, Not Listed (add description) Friable: Yes	100% Non-fibrous (Other)	None Detected
4A *042404007-0010*	EXTERIOR - SOUTH SECTION - GRAY BRIDGE ROADWAY CONCRETE	Gray/Tan Non-Fibrous Homogeneous	HA: 4 HA Number: 4 Material Type: M - Other, Not Listed (add description) Friable: Yes	100% Non-fibrous (Other)	None Detected
4B *042404007-0011*	EXTERIOR - CENTER SECTION - GRAY BRIDGE ROADWAY CONCRETE	Gray/Tan Non-Fibrous Homogeneous	HA: 4 HA Number: 4 Material Type: M - Other, Not Listed (add description) Friable: Yes	100% Non-fibrous (Other)	None Detected
4C *042404007-0012*	EXTERIOR - NORTH SECTION - GRAY BRIDGE ROADWAY CONCRETE	Gray/Tan Non-Fibrous Homogeneous	HA: 4 HA Number: 4 Material Type: M - Other, Not Listed (add description) Friable: Yes	100% Non-fibrous (Other)	None Detected
6A *042404007-0013*	EXTERIOR - SOUTH BENT - GRAY BRIDGE BENT CONCRETE	Gray/Tan Non-Fibrous Homogeneous	HA: 6 HA Number: 6 Material Type: M - Other, Not Listed (add description) Friable: Yes	100% Non-fibrous (Other)	None Detected
6B *042404007-0014*	EXTERIOR - SOUTH BENT - GRAY BRIDGE BENT CONCRETE	Gray/Tan Non-Fibrous Homogeneous	HA: 6 HA Number: 6 Material Type: M - Other, Not Listed (add description) Friable: Yes	100% Non-fibrous (Other)	None Detected
6C *042404007-0015*	EXTERIOR - SOUTH BENT - GRAY BRIDGE BENT CONCRETE	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 03/04/2024 12:07:23

EMSL Analytical, Inc.
200 Route 130 North Cinnaminson, NJ 08077
Tel/Fax: (800) 220-3675 / (856) 786-5974
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EMSL Order:	042404007
Customer ID:	ACAD78J
Customer PO:	30195168.04
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
			HA: 6 HA Number: 6 Material Type: M - Other, Not Listed (add description) Friable: Yes		

Analyst(s)

Amy Schulze (2)
Andrea Doughty (8)
Britney Ferdetta (5)

Samantha Rundstrom, Laboratory Manager
or Other Approved Signatory

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Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA LAP, LLC-IHLAP Lab 100194, PA ID# 68-00367, LA #04127

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