



May 9, 2023

Mr. Garrett Foley
Regional Construction Manager
The Kroger Co.
40393 Grand River Avenue
Novi, Michigan 48375

**RE: Asbestos Survey Report
Kroger Store D-707 Renovation
2010 Whittaker Road
Ypsilanti, Michigan
Project No. 328-211.0001**

Dear Mr. Foley:

Civil & Environmental Consultants, Inc. (CEC) was retained by The Kroger Co. (Kroger) to conduct an asbestos-containing material (ACM) survey at Kroger Store D-707 Renovation in Ypsilanti, Michigan (subject property). The survey was conducted in accordance with CEC Proposal No. 328-211, and authorized via Kroger Purchase Order No. 833990, dated March 3, 2023. CEC understands that this asbestos survey was requested due to planned renovation of the subject property structure.

CEC's subcontractor, Micro Air Inc. (Micro Air), conducted the survey on April 14, 2023. The survey was conducted in general accordance with The Kroger Co., Asbestos-Containing Materials Scope of Work and Report Requirements (dated January 2022), the USEPA Asbestos National Emissions Standard for Hazardous Air Pollutants (NESHAP; 40 CFR Part 61, Subpart M) and the sample collection protocols established in EPA regulation 40 CFR 763, the Asbestos Hazard Emergency Response Act (AHERA). The Micro Air report is attached and must be read in its entirety for a comprehensive understanding of the findings of the survey and recommendations.

PROJECT INFORMATION

The building was constructed in 2003, was expanded to the north in 2008, and encompasses approximately 79,726 square-feet under roof. The building was constructed on a concrete slab foundation supporting concrete block and brick exterior walls, with metal roof joists and a corrugated metal roof deck. Interior finishes consists of wallboard and concrete block walls. Ceilings were suspended acoustical ceiling tiles or exposed roof joists. Floors were carpet, vinyl or ceramic tile, or concrete. The roofing system consisted of a ballasted rubber membrane over isocyanate panels and associated sealants.

The subject property consisted of Kroger Store D-707 and asphalt parking lot. The Kroger Store consisted of a grocery sales area, department preparation areas, pharmacy, office area, and a warehouse. Additional tenants within the Kroger Store included Michigan First Credit Union and Starbucks.

FIELD ACTIVITIES

CEC's subcontractor, Micro Air Inc. (Micro Air), utilizing a Michigan-licensed asbestos inspector, conducted the survey. The survey was limited to accessible areas and destructive sampling (e.g., breaking into wall voids) was not conducted.

Survey activities began with a visual inspection of interior and exterior (including roofs) areas of the subject property to identify homogeneous areas of suspect asbestos-containing materials (ACM). A homogeneous area (HA) consists of building materials that appear similar throughout in terms of color, texture and consideration of date of installation or application.

Based on the findings of the visual inspection, bulk samples of suspect ACM were collected in general accordance with AHERA sample collection protocols. Bulk samples were collected of the following suspect materials: brick mortar, brick expansion joint, concrete block mortar, concrete block expansion joint, window/door frame caulk, window glazing, exterior wall foundation joint caulk, woodgrain pattern sheet flooring and adhesive, polished concrete joint sealant, drywall and joint compound, stainless steel sink insulation, poured flooring, carpet tile mastic, plastic wall adhesive, clay floor tile grout, ceramic wall tile grout, bare concrete slab, gasket material on cooler/freezer walls, vinyl base molding and adhesive (two colors), 2' x 4' ceiling tile (two patterns), exterior finishing system, seam sealant on rubber membrane roof, asphalt sealant on roof penetrations, and roofing felts under rubber membrane roof.

Bulk samples were submitted under chain of custody to a laboratory accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for analysis by polarized light microscopy (PLM) with dispersion staining techniques per EPA's Method for the Determination of Asbestos in Bulk Building Materials (600/R-93-116).

PREVIOUS SURVEYS

Kroger provided a prior asbestos survey report for the building titled *Asbestos Survey Report, Kroger Store D-707 Renovation, Ypsilanti, Michigan, dated February 10, 2015, and prepared by Amec Foster Wheeler Environment & Infrastructure, Inc (AFW)*. The report summarized a survey conducted in January 2015. A total of 28 bulk samples were collected and submitted for analysis. Asbestos was not identified in submitted samples. Information presented in the prior report is incorporated into this survey where appropriate. A copy of the AFW report is attached.

REGULATORY OVERVIEW

The State of Michigan Department of Environmental Quality (MDEQ), Air Division enforces the USEPA Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61, Subpart M). The Asbestos NESHAP regulates asbestos fiber emissions, asbestos waste disposal practices, and requires the identification and classification according to friability of existing ACM prior to demolition or renovation activity.

Asbestos abatement notifications for all demolition and renovation activities involving the removal or disturbance of RACM and non-friable ACMs should be submitted to the Michigan Department of Environmental Quality (MDEQ) and LARA at least 10-working days prior to the commencement of project activities. If remodeling/renovation efforts include repair, removal or replacement of “load bearing” structural members, this is considered demolition and a 10-day notification to the local municipal agency may be required.

FINDINGS

Eighty-nine bulk samples of suspect ACMs were collected during the inspection and submitted to an accredited laboratory for analysis by PLM. Asbestos was not identified in the samples collected and analyzed.

RECOMMENDATIONS

Based on the results of this asbestos survey, CEC does not recommend additional inspection or assessment activities for the subject property building. However, suspect materials, other than those identified during this asbestos survey may exist within the building. Should suspect materials other than those which were identified during this survey be uncovered during demolition/renovation, those materials should be assumed asbestos-containing until sampling and analysis can confirm or deny asbestos content.

GENERAL COMMENTS

This report has been prepared for the exclusive use and reliance of The Kroger Co. and its subsidiaries and affiliates and its authorized representatives (Users), who may solely rely upon the conclusions presented herein. Reliance on this Asbestos Survey by the Users and all authorized parties will be subject to the terms, conditions and limitations stated in the Professional Services and Consulting Agreement (PSCA) signed by Civil & Environmental Consultants, Inc. and the Kroger Co. General Offices (G.O.) on June 20, 2019. The use or reliance by a third party is not permitted without the specific written permission of both the CEC and Kroger. ***This report is not a bidding document.*** Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary. CEC does not warrant the work of regulatory agencies, laboratories or other third parties supplying information which may have been used in the preparation of this report. No warranty, express or implied is made.

CEC appreciates the opportunity to serve The Kroger Co. on this project. Please call us if we can be of any further assistance.

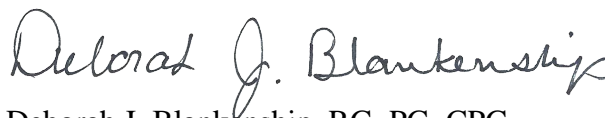
Sincerely,

Civil & Environmental Consultants, Inc.



Bryan N. Gatlin

Senior Environmental Scientist



Deborah J. Blankenship, RG, PG, CPG

Principal

Attachment

Micro Air Renovation Asbestos Survey Report, dated May 5, 2023

Amec Foster Wheeler Asbestos Survey Report, dated February 10, 2015

cc: Cliff Brown, The Kroger Co.
Marty Cristo, The Kroger Co.
Peg Chandler, The Kroger Co.
Stephanie Barlow, The Kroger Co.
Brett Smollen, The Kroger Co.

ATTACHMENT

2023

NESHAP Renovation Asbestos Survey Report

For

**Existing Kroger Store D-707
2010 Whittaker Road
Ypsilanti, Michigan 48197**

Prepared For:

Civil & Environmental Consultants, Inc.

3000 Little Hills Expressway, Suite 102

St. Charles, MO 63301

Attn: Ms. Deborah J. Blankenship, P.G., R.G., Principal

Prepared By:



Micro Air, Inc.

6320 La Pas Trail

Indianapolis, Indiana 46268

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TAB 1

ASBESTOS SURVEY REPORT



6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268
TELEPHONE: (317) 293-1533 FAX: (317) 290-3566

E-MAIL: microair@microair.com
WEB SITE: <http://www.microair.com>

Indoor Air Quality
Catastrophe Services
Microbiology
Asbestos Surveys
Air Monitoring
Industrial Hygiene
Epidemiology
Radon Testing
Water Testing
Lead Testing

May 5th, 2023

Ms. Deborah J. Blankenship, P.G
Principal
Civil & Environmental Consultants, Inc.
3000 Little Hills Expressway; Suite 102
Saint Charles, MO 63301

**RE: Renovation Asbestos Inspection
Existing Kroger Store D-707
2010 Whittaker Road
Ypsilanti, Michigan 48197
Micro Air, Inc. Job #20-19109-D**

Dear Ms. Blankenship:

Micro Air, Inc. was contracted by Civil & Environmental Consultants, Inc. to conduct an asbestos inspection of the Kroger Store D-707 located at 2010 Whittaker Road in Ypsilanti, Michigan. Mr. Donald G. French of Micro Air, Inc. (State of Michigan asbestos inspector accreditation number A11834, Exp. Date: 02/18/2024) conducted the inspection on April 14th, 2023. The survey was conducted in order to accommodate renovation of the existing Kroger Store at the site.

All survey work was conducted following guidelines established under the EPA National Emission Standard for Asbestos (40 CFR 61 Subpart M) and the EPA "Asbestos Hazard Emergency Response Act (AHERA)" (40 CFR 763 subpart E). **Sampling of the roofing system was conducted during the course of the survey per the request of Civil & Environmental Consultants, Inc.**

All bulk samples collected during the inspection were submitted to Micro Air, Inc.'s laboratory located at 6320 La Pas Trail in Indianapolis, Indiana for analysis. All bulk samples were analyzed utilizing the EPA approved Polarized Light Microscopy method (EPA Method/600/R-93/116). Following is a synopsis of the findings of the survey:

**Existing Kroger Store D-707
2010 Whittaker Road
Ypsilanti, Michigan 48197**

According to the Ypsilanti Township Assessor's Office the building was constructed in 2003, remodeled in 2008, and contains approximately 79,726 square feet of floor space. The retail space is constructed of concrete block and brick with exterior finishing system fascia, aluminum door and window system, concrete block walls and structural steel supporting a corrugated metal roof deck. A rubber membrane roofing system was identified at the site.

Interior finishes consist of drywall interior walls, drop acoustical tile ceilings and carpet, sheet flooring, vinyl floor tile and ceramic tile applied over poured concrete floors. Polished concrete floors were identified throughout the main sales floor. An administrative office, mechanical room, lunch room, bakery/deli and an ECR room were identified on the ground level of the store. A pharmacy, click-list, credit union, recycling center, and a Starbucks were also identified on the ground level.

Domestic water and refrigerant lines throughout the building are insulated with either non-suspect armaflex or fiberglass insulation. Non-suspect wood was identified at the interior cooler walls. The building is heated by rooftop gas units with supplemental electric cooling.

The following potential, asbestos-containing materials were identified at the retail space and sampled for asbestos content during the inspection:

1. Brick mortar
2. Brick expansion joint
3. Concrete block mortar
4. Concrete block expansion joint
5. Window/door frame caulk
6. Window glazing
7. Exterior wall foundation joint caulk
8. Woodgrain pattern sheet flooring and adhesive
9. Polished concrete joint sealant
10. Perimeter drywall and associated joint compound
11. Interior drywall and associative joint compound
12. Stainless steel sink insulation
13. Poured flooring
14. Carpet tile mastic
15. Plastic wall adhesive
16. Clay floor tile grout
17. Ceramic wall tile grout
18. Bare concrete slab
19. Gasket material on cooler/freezer walls
20. Vinyl base molding and adhesive (two colors)

21. 2' x 4' Ceiling tile (two patterns)
22. Exterior finishing system
23. Seam sealant on rubber membrane roof
24. Asphalt sealant on roof penetrations
25. Roofing felts under rubber membrane roof

The results of laboratory analysis indicated no asbestos-containing materials present within the Kroger Store D-707 located at 2010 Whittaker Road in Ypsilanti, Michigan.

Enclosed is a copy of the laboratory bulk sample reports/chain of custody logs, bulk sample location drawings, photographs of materials sampled and inspector/laboratory certifications.

Thank you for the opportunity to provide our asbestos related services. If you have any questions concerning this report or need additional information, please do not hesitate to contact me.

Respectfully submitted,

A handwritten signature in black ink that reads "Donald G. French". The signature is written in a cursive, flowing style.

Donald G. French
Asbestos Inspector
Micro Air, Inc.

TAB 2

PHOTOGRAPHS

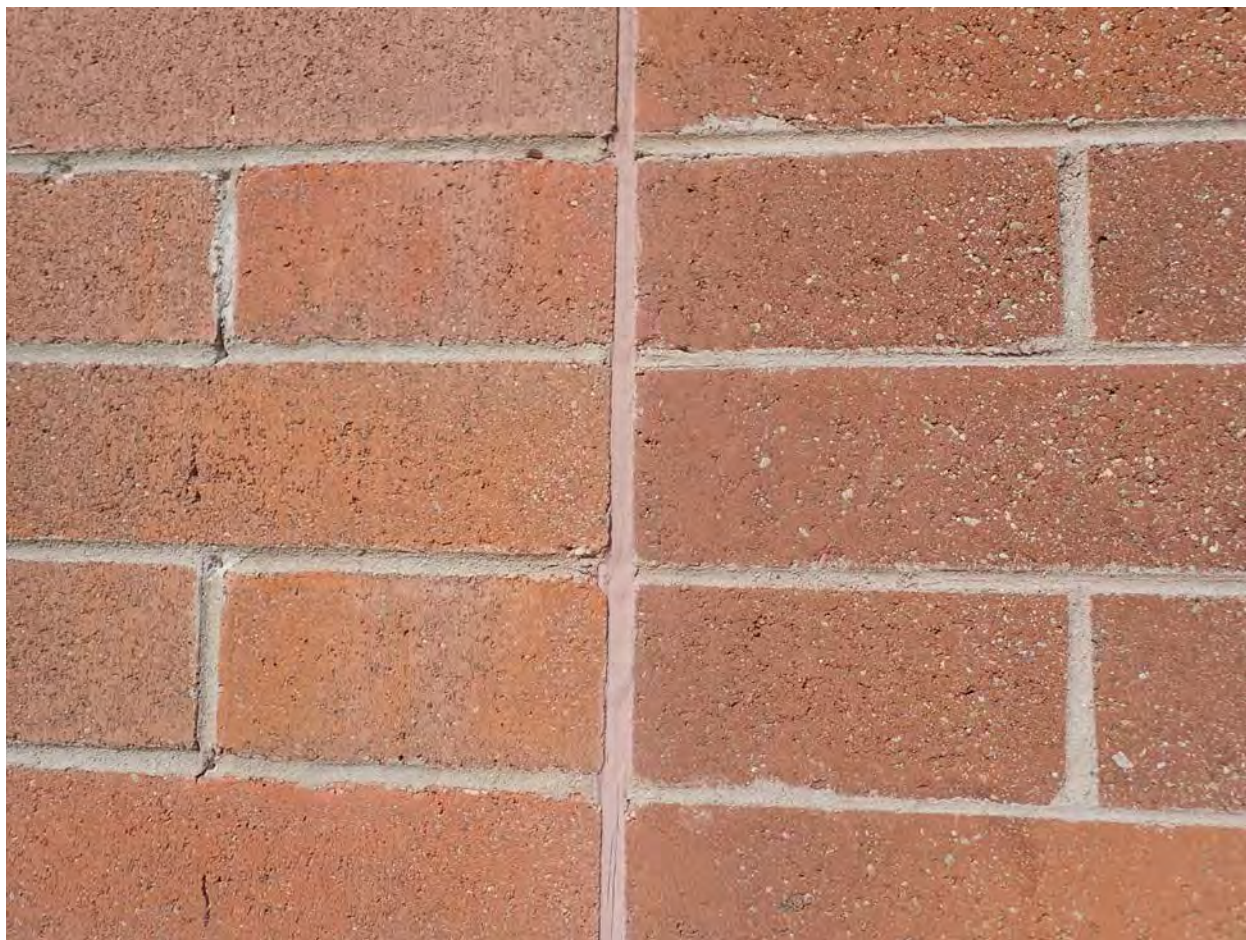


Existing Kroger Store D-707

2010 Whittaker Road

Ypsilanti, Michigan 48197

Exterior Photo



Existing Kroger Store D-707

2010 Whittaker Road

Ypsilanti, Michigan 48197

Brick Mortar and Expansion Joint

Exterior Fascia

No Asbestos Detected



Existing Kroger Store D-707

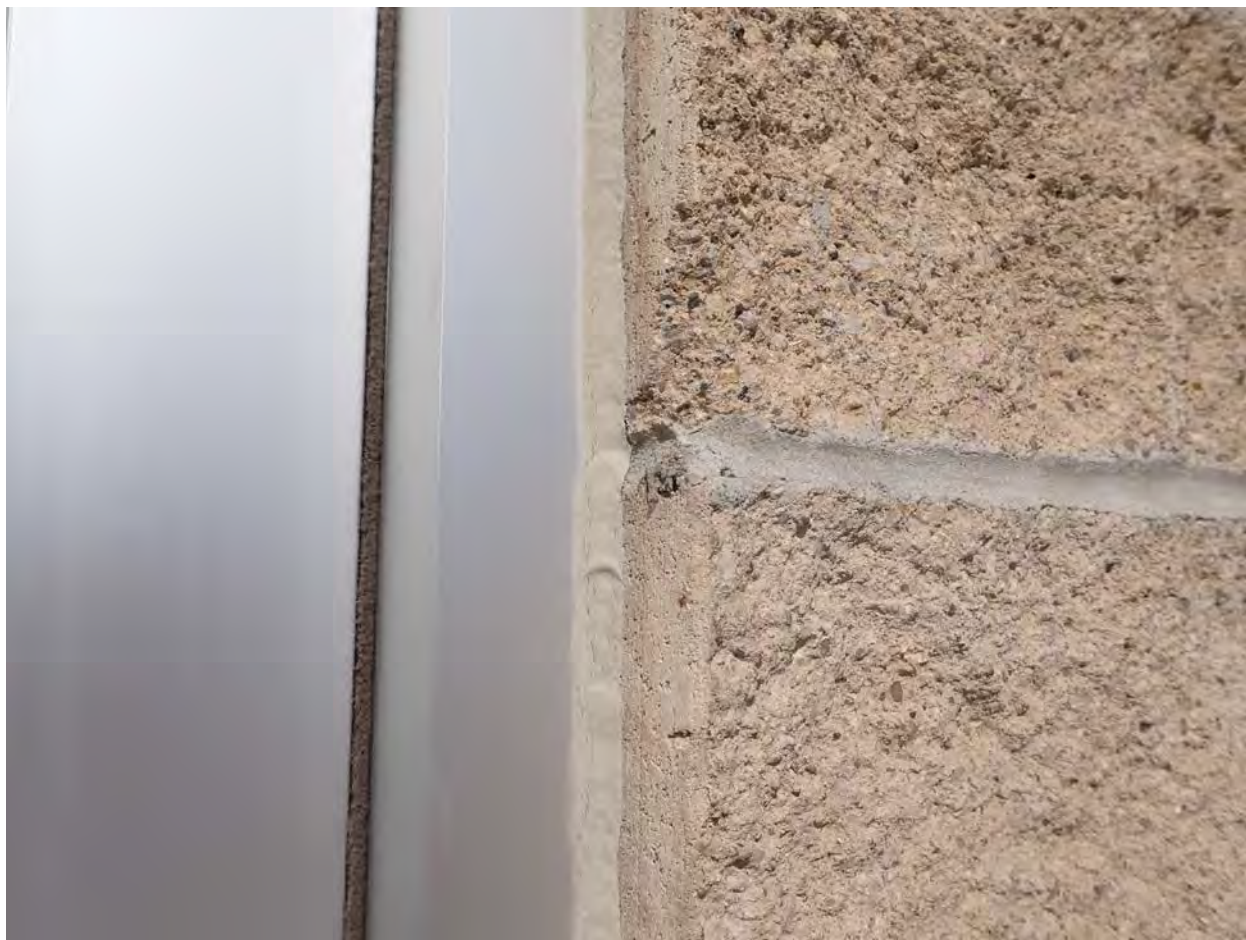
2010 Whittaker Road

Ypsilanti, Michigan 48197

Concrete Block Mortar and Expansion Joint

Loading Dock and Warehouse Areas

No Asbestos Detected



Existing Kroger Store D-707

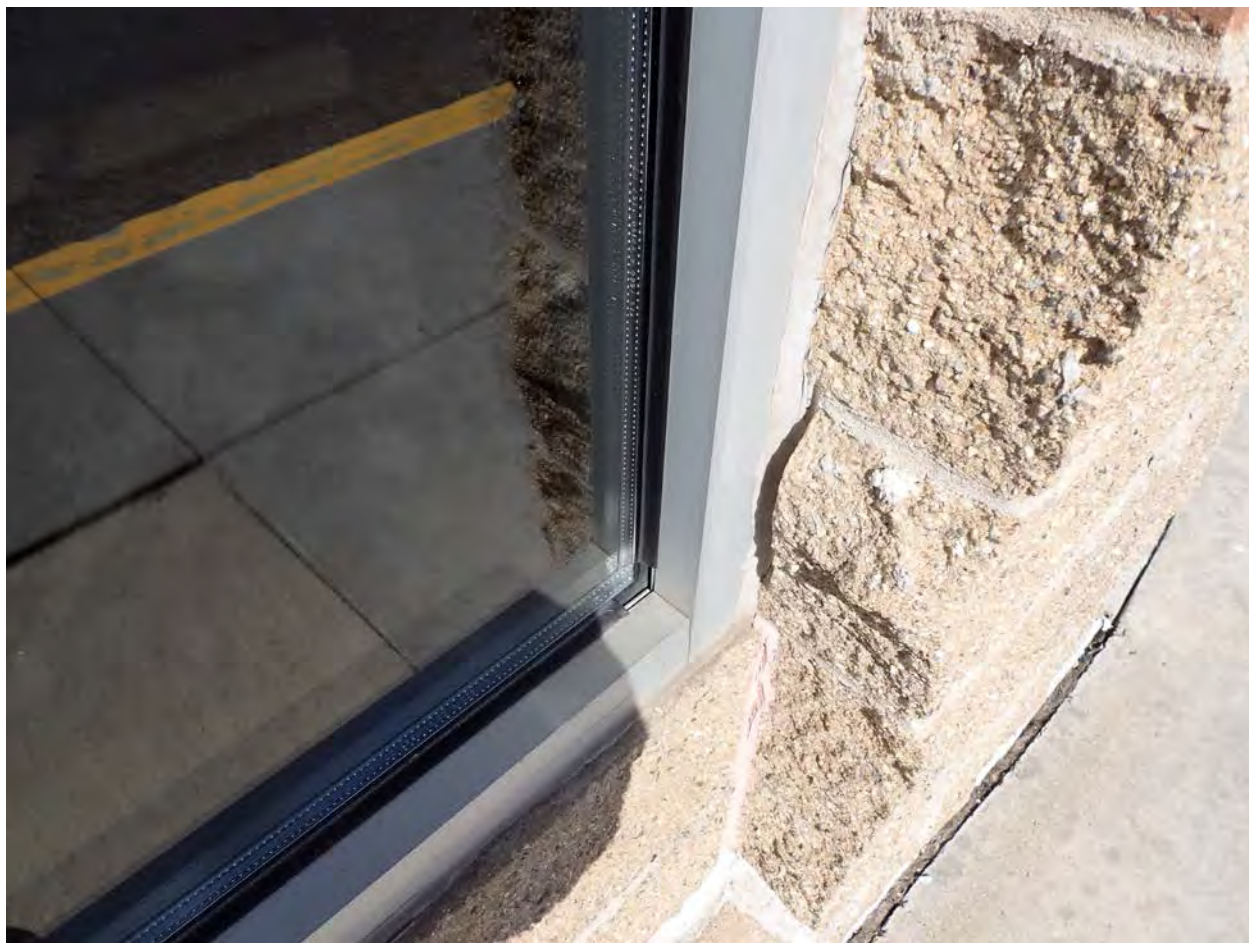
2010 Whittaker Road

Ypsilanti, Michigan 48197

Window/Door Frame Caulk

Exterior – East Side

No Asbestos Detected



Existing Kroger Store D-707

2010 Whittaker Road

Ypsilanti, Michigan 48197

Window Glazing

Exterior – East Side

No Asbestos Detected



Existing Kroger Store D-707

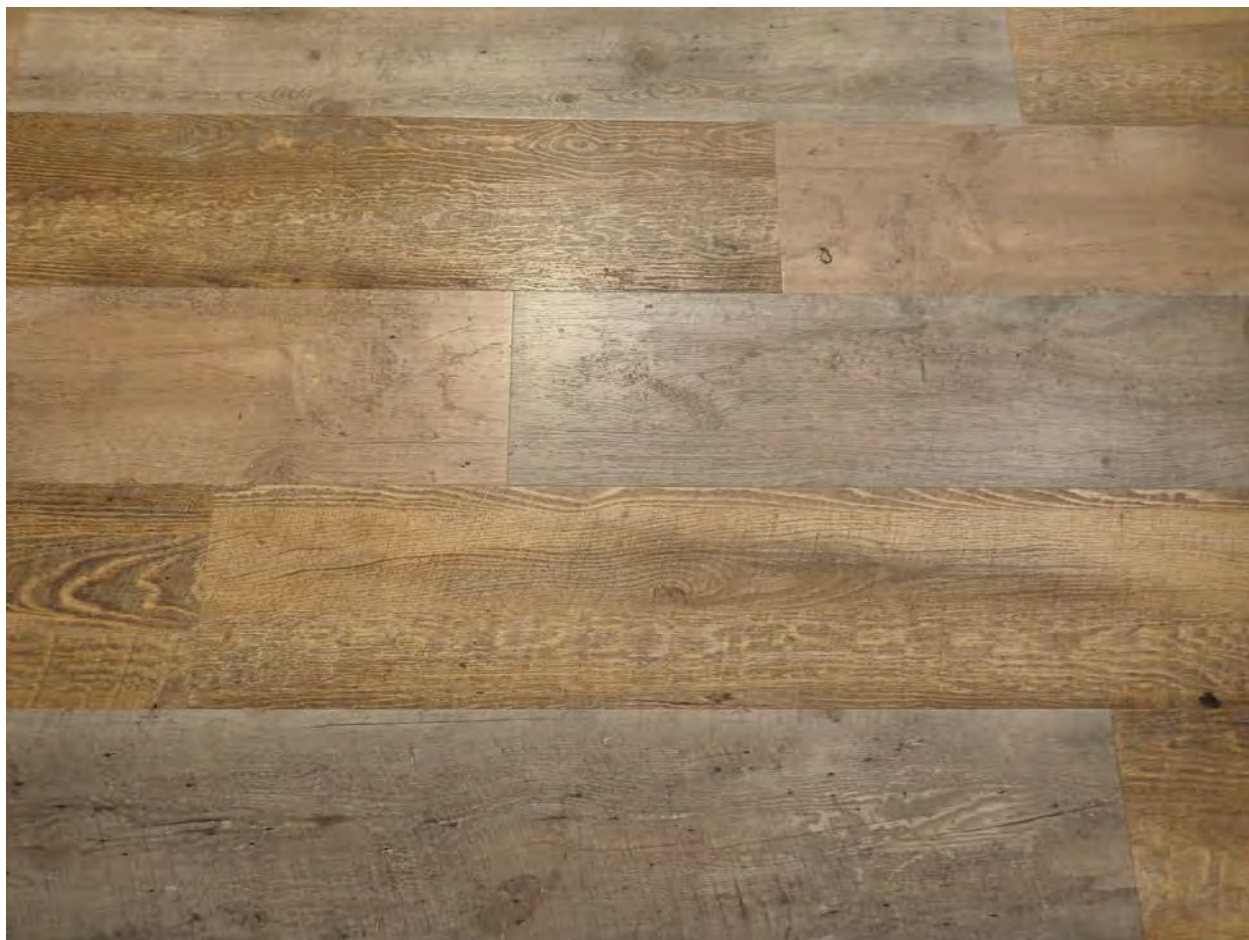
2010 Whittaker Road

Ypsilanti, Michigan 48197

Foundation Joint Caulk

Exterior Perimeter at Base of Walls

No Asbestos Detected



Existing Kroger Store D-707

2010 Whittaker Road

Ypsilanti, Michigan 48197

Woodgrain Linoleum Flooring and Adhesive

Vestibule, Southern Section of Store Floor, Credit Union

No Asbestos Detected



Existing Kroger Store D-707

2010 Whittaker Road

Ypsilanti, Michigan 48197

Polished Concrete Joint Sealant

North and Central Areas of Store Floor

No Asbestos Detected



Existing Kroger Store D-707

2010 Whittaker Road

Ypsilanti, Michigan 48197

Perimeter and Interior Drywall and Associated Joint Compound

Interior and Perimeter Walls

No Asbestos Detected



Existing Kroger Store D-707

2010 Whittaker Road

Ypsilanti, Michigan 48197

Black Stainless Steel Sink Insulation

Pharmacy Sink

No Asbestos Detected



Existing Kroger Store D-707

2010 Whittaker Road

Ypsilanti, Michigan 48197

White Stainless Steel Sink Insulation

Floral Sink

No Asbestos Detected



Existing Kroger Store D-707

2010 Whittaker Road

Ypsilanti, Michigan 48197

Poured Flooring

Recycling, Food Prep Areas, Dairy and Meat Coolers

No Asbestos Detected



Existing Kroger Store D-707

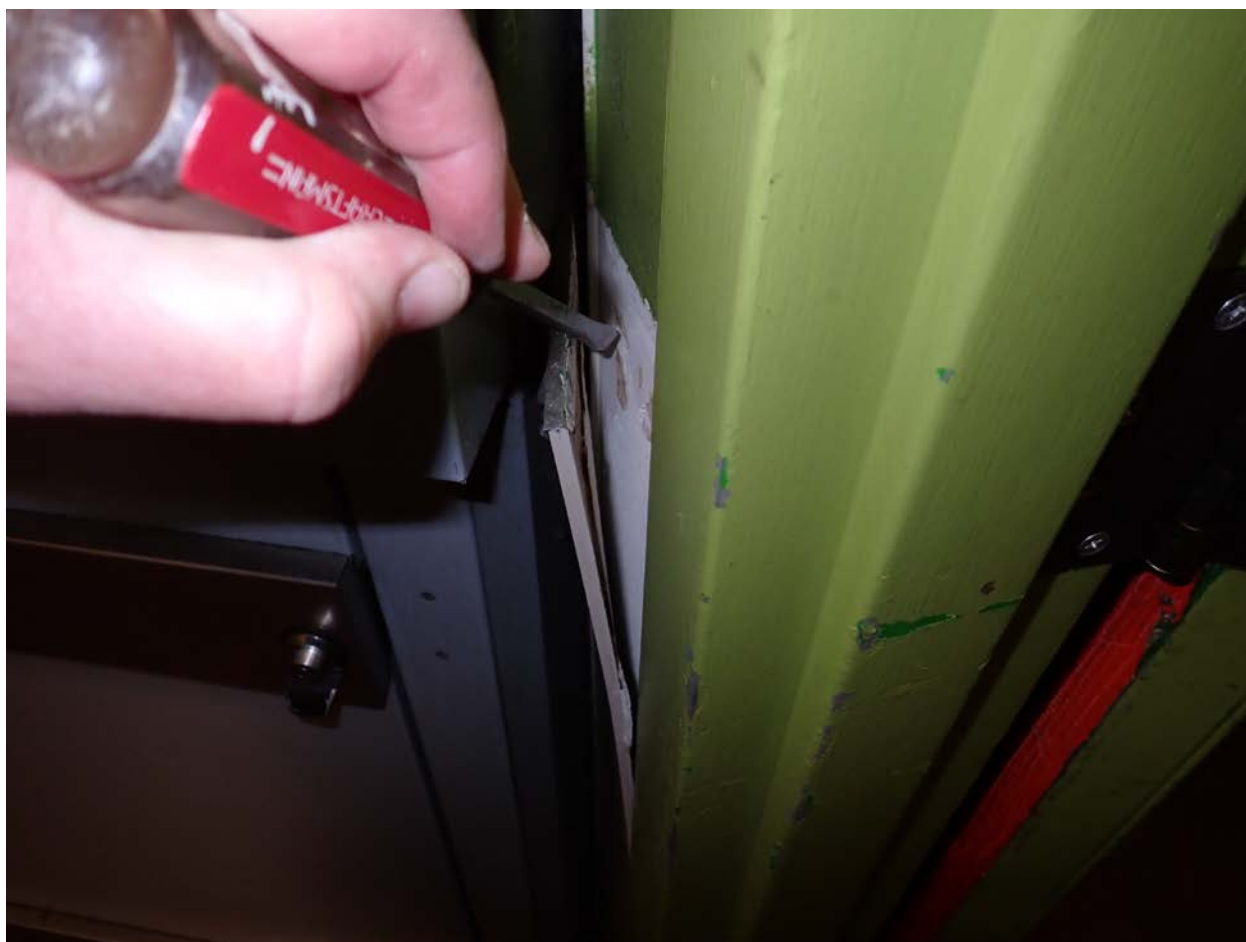
2010 Whittaker Road

Ypsilanti, Michigan 48197

Carpet Tile Mastic

Vestibule, Customer Care Areas, Office Areas, and Pharmacy

No Asbestos Detected



Existing Kroger Store D-707

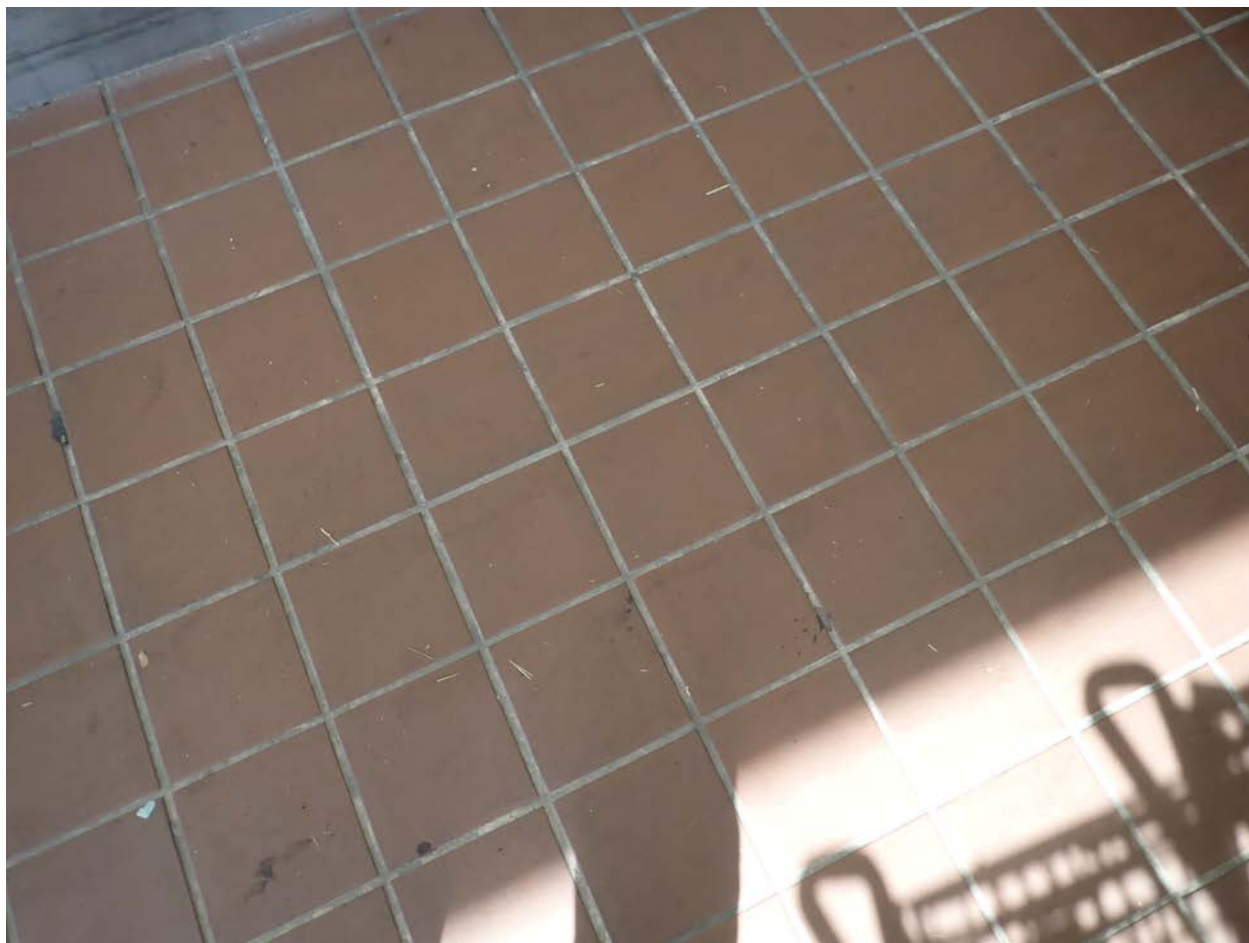
2010 Whittaker Road

Ypsilanti, Michigan 48197

Adhesive on Plastic Wall Covering

Lower Walls throughout Store

No Asbestos Detected



Existing Kroger Store D-707

2010 Whittaker Road

Ypsilanti, Michigan 48197

Clay Floor Tile Grout

Cart Return and Recycling

No Asbestos Detected



Existing Kroger Store D-707

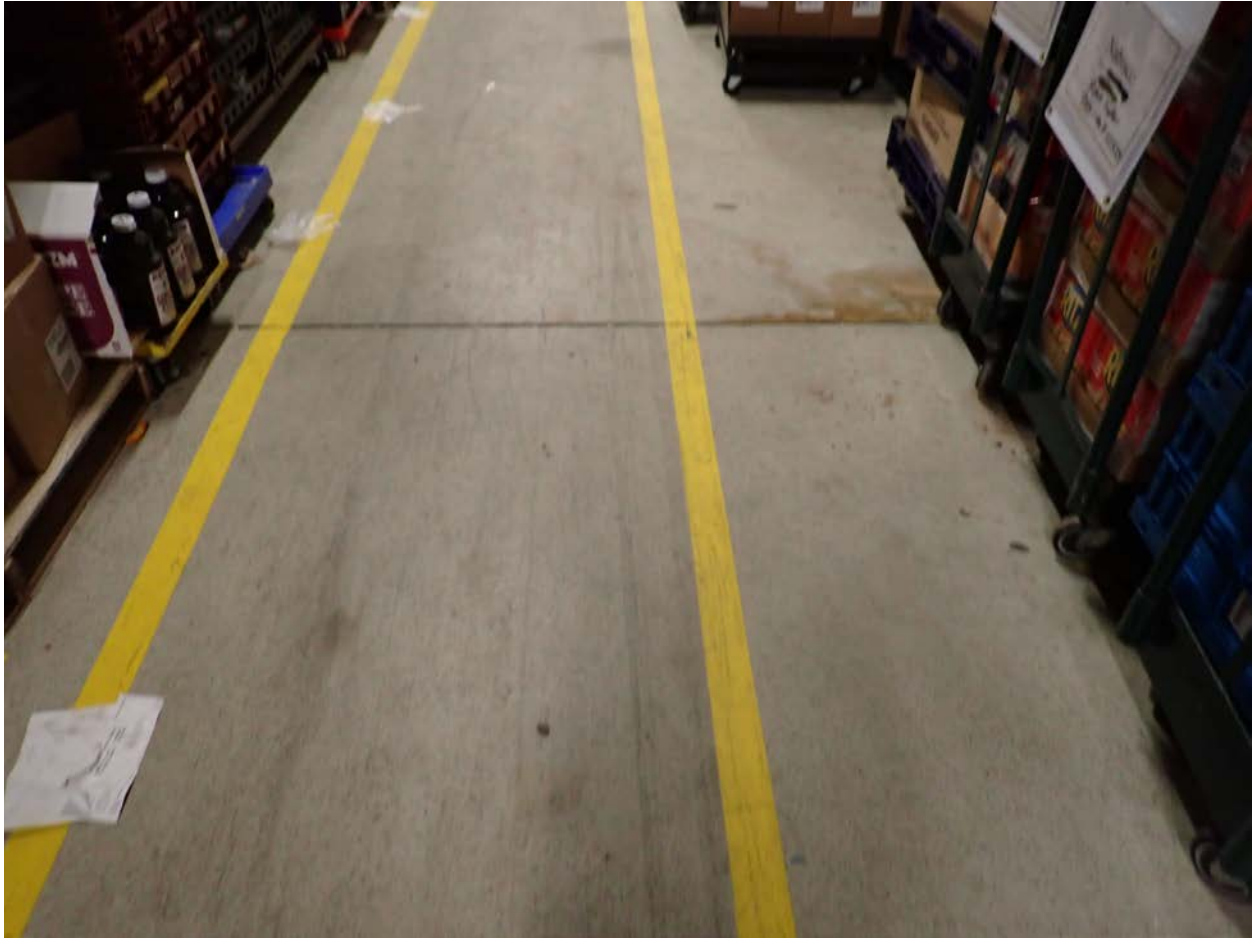
2010 Whittaker Road

Ypsilanti, Michigan 48197

Ceramic Wall Tile Grout

Restrooms and Food Prep Areas

No Asbestos Detected



Existing Kroger Store D-707

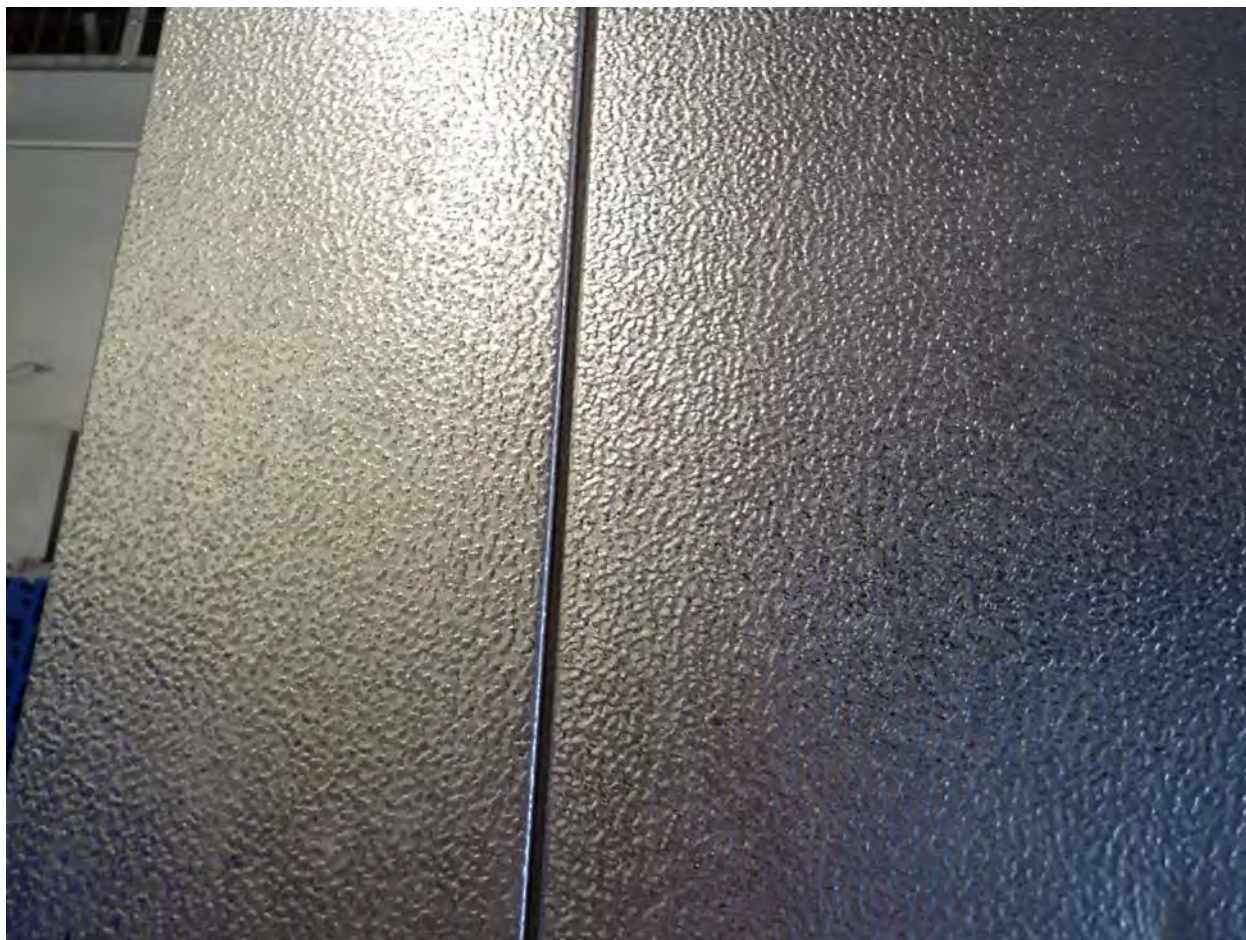
2010 Whittaker Road

Ypsilanti, Michigan 48197

Bare Concrete Slab Flooring

Throughout

No Asbestos Detected



Existing Kroger Store D-707

2010 Whittaker Road

Ypsilanti, Michigan 48197

Gasket at Cooler Walls

Metal Coolers / Freezers

No Asbestos Detected



Existing Kroger Store D-707

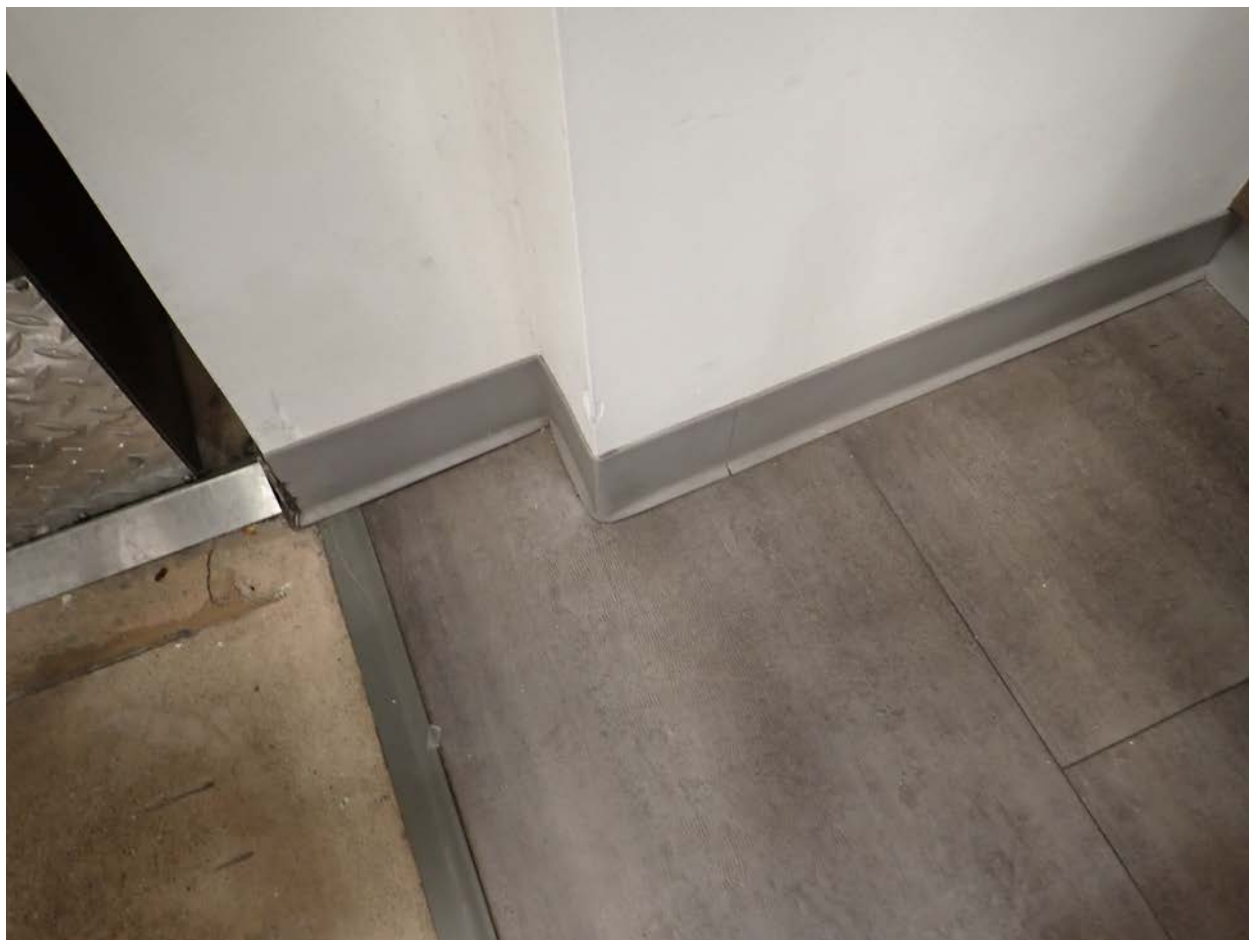
2010 Whittaker Road

Ypsilanti, Michigan 48197

Brown Vinyl Base Molding and Adhesive

Throughout Store

No Asbestos Detected



Existing Kroger Store D-707

2010 Whittaker Road

Ypsilanti, Michigan 48197

Grey Vinyl Base Molding and Adhesive

Credit Union

No Asbestos Detected



Existing Kroger Store D-707

2010 Whittaker Road

Ypsilanti, Michigan 48197

2' x 4' Pinhole Pattern Ceiling Tile

Vestibule, Pharmacy, Office Areas, Click List

No Asbestos Detected



Existing Kroger Store D-707

2010 Whittaker Road

Ypsilanti, Michigan 48197

2' x 4' Drywall Pattern Ceiling Tile

Floral Storage, Recycling Center, and Food Prep Areas

No Asbestos Detected



Existing Kroger Store D-707

2010 Whittaker Road

Ypsilanti, Michigan 48197

Non-Suspect 2' x 2' Metal Pan Ceiling Tile

Credit Union



Existing Kroger Store D-707

2010 Whittaker Road

Ypsilanti, Michigan 48197

EFS

Exterior East Side Upper Wall

No Asbestos Detected



Existing Kroger Store D-707

2010 Whittaker Road

Ypsilanti, Michigan 48197

Seam Sealant on Rubber Membrane Roof

Roof

No Asbestos Detected



Existing Kroger Store D-707

2010 Whittaker Road

Ypsilanti, Michigan 48197

Asphalt Sealant on Roof Penetrations

Roof

No Asbestos Detected



Existing Kroger Store D-707

2010 Whittaker Road

Ypsilanti, Michigan 48197

Roofing Felts under Rubber Membrane Roof

Roof

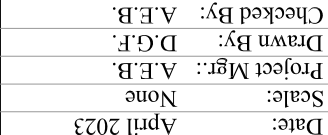
No Asbestos Detected



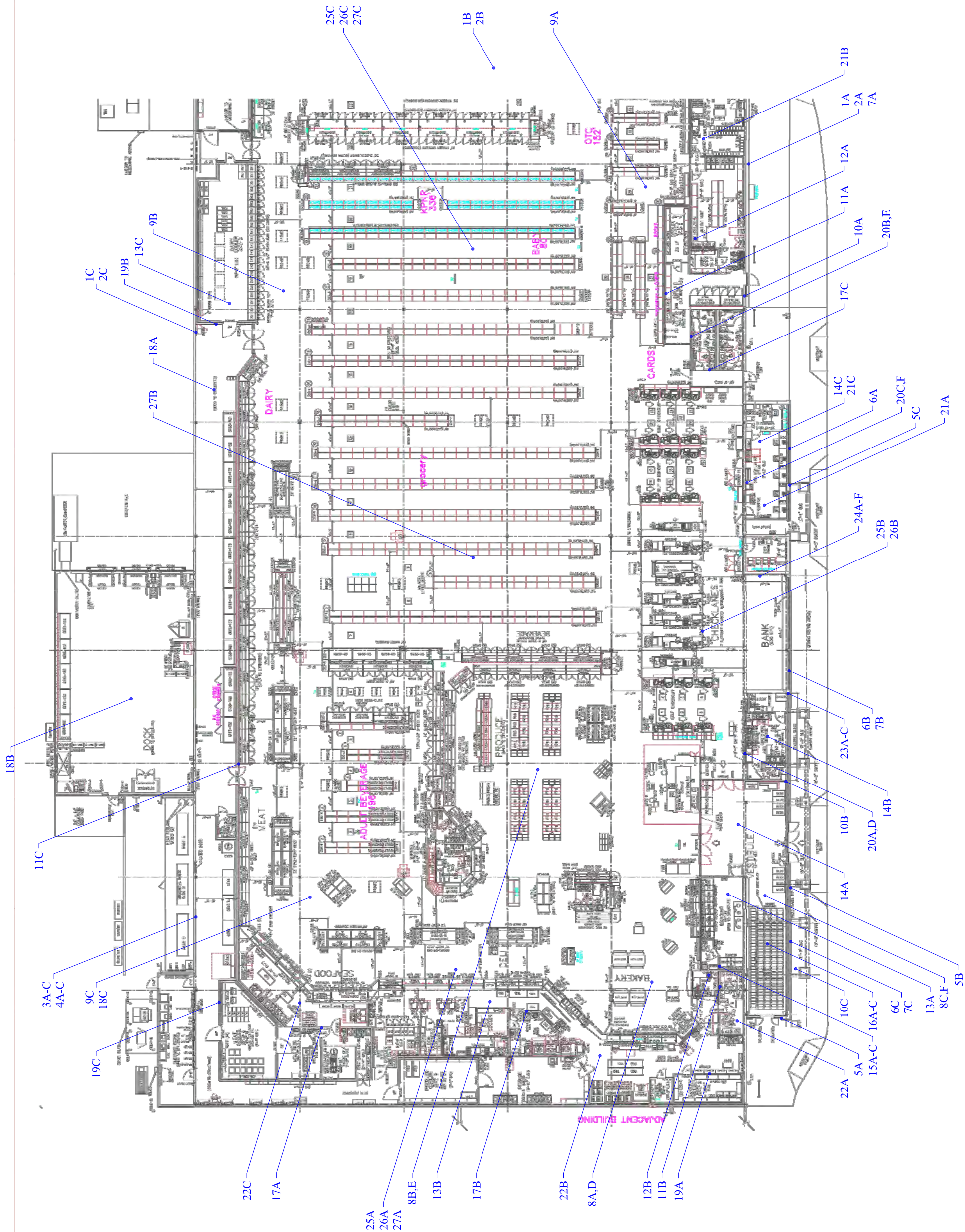
Existing Kroger Store D-707
2010 Whittaker Road
Ypsilanti, Michigan 48197
Non-Suspect Rubber Pipe Insulation
Warehouse Areas

TAB 3

ASBESTOS BULK SAMPLE LOCATION DRAWING



Existing Kroger Store D-707
2010 Whittaker Road
Ypsilanti, Michigan 48197
Asbestos Bulk Sample Location Drawing
Drawing #: 20-19109-D SLD



TAB 4

ASBESTOS BULK SAMPLE REPORT/CHAIN OF CUSTODY



micro air inc.

6320 La Pas Trail, Indianapolis, IN 46268 * Phone: (317) 293-1533 * lab@microair.com * www.microair.com

April 19, 2023

Civil & Environmental Consultants
Deborah Blankenship
3000 Little Hills Expressway
Suite 102
St. Charles, MO 63301

Polarized Light Microscopy (PLM) Bulk Sample Results

Project Name: Kroger Store D-707
Project Number: 20-19109-D

Location: 2010 Whittaker Rd. - Ypsilanti, MI
Date Received: April 17, 2023

Enclosed please find the results of samples analyzed by the Micro Air, Inc. laboratory.

Samples were analyzed by 40 CFR Part 763 Appendix E to Subpart E - Interim Method for the Determination of Asbestos in Bulk Insulation Samples using Polarized Light Microscopy (PLM) with Dispersion Staining. Where appropriate, analytical procedures outlined in the EPA Method/600/R-93/116, Method for the Determination of Asbestos in Bulk Building Materials (July 1993) may also be used during analysis. All samples may be heated to release fibrous material.

Samples are considered asbestos-containing material (ACM), as defined by the EPA, when asbestos is found in greater than 1% of the sample. Sample percentages are calculated using comparative visual estimation (CVES). Asbestos regulations and EPA methods state that distinct layers must be analyzed and reported separately. If composite analysis is requested and performed on multi-layered samples, the sample is considered ACM if any quantity of asbestos is found. This report should not be used to imply product or service endorsement by NVLAP, NIST, or any agency of the U.S. Government.

Disclaimer: PLM results of non-friable organic bound (NOB) materials, such as floor tiles and roofing materials, can be inconclusive due to analytical difficulties in standard bulk sample analysis techniques. If desired, results can be confirmed with transmission electron microscopy (TEM) to ensure that asbestos has not been missed during PLM analysis.

This report may not be reproduced, except in full, without written approval from Micro Air, Inc. These results only relate to the items tested and are only as accurate as the sampling information submitted by the customer (e.g. air volumes). Samples are received in good condition unless otherwise noted.

Please consult your Project Manager, Donald French, with any questions regarding these results.

Analyzed By:

Makayla Ohrberg

Authorized By:

Betsie L. McAfee
Technical Manager

Client: Civil & Environmental Consultants
Report Date: 4/19/2023
Lab Number: 167230

Project Number: 20-19109-D
Project Name: Kroger Store D-707

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 2010 Whittaker Rd. - Ypsilanti, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
001	1A	4/14/2023	4/17/2023	Brick Mortar; Exterior - E. Side	NO	G	YES	N/A	Binder 100%
002	1B	4/14/2023	4/17/2023	Brick Mortar; Exterior - N. Side	NO	G	YES	N/A	Binder 100%
003	1C	4/14/2023	4/17/2023	Brick Mortar; Exterior - W. Side	NO	G	YES	N/A	Binder 100%
004	2A	4/14/2023	4/17/2023	Brick Expansion Joint; Exterior - E. Side	NO	R	YES	N/A	Binder 100%
005	2B	4/14/2023	4/17/2023	Brick Expansion Joint; Exterior - N. Side	NO	R	YES	N/A	Binder 100%
006	2C	4/14/2023	4/17/2023	Brick Expansion Joint; Exterior - W. Side	NO	R	YES	N/A	Binder 100%
007	3A	4/14/2023	4/17/2023	Concrete Block Mortar; Warehouse SW	NO	G	YES	N/A	Binder 100%

Client: Civil & Environmental Consultants
Report Date: 4/19/2023
Lab Number: 167230

Project Number: 20-19109-D
Project Name: Kroger Store D-707

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 2010 Whittaker Rd. - Ypsilanti, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
008	3B	4/14/2023	4/17/2023	Concrete Block Mortar; Warehouse SW	NO	G	YES	N/A	Binder 100%
009	3C	4/14/2023	4/17/2023	Concrete Block Mortar; Warehouse SW	NO	G	YES	N/A	Binder 100%
010	4A	4/14/2023	4/17/2023	Concrete Block Expansion Joint; Warehouse by Roof Ladder	NO	G	YES	N/A	Binder 100%
011	4B	4/14/2023	4/17/2023	Concrete Block Expansion Joint; Warehouse by Roof Ladder	NO	G	YES	N/A	Binder 100%
012	4C	4/14/2023	4/17/2023	Concrete Block Expansion Joint; Warehouse by Roof Ladder	NO	G	YES	N/A	Binder 100%
013	5A	4/14/2023	4/19/2023	Window/Door Frame Caulk; Exterior - Cart Return Door Frame	NO	G	YES	N/A	Cellulose <1% Binder 100%
014	5B	4/14/2023	4/19/2023	Window/Door Frame Caulk; Exterior - Vestibule Window Frame	NO	G	YES	N/A	Cellulose <1% Binder 100%

Client: Civil & Environmental Consultants
Report Date: 4/19/2023
Lab Number: 167230

Project Number: 20-19109-D
Project Name: Kroger Store D-707

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 2010 Whittaker Rd. - Ypsilanti, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
015	5C	4/14/2023	4/19/2023	Window/Door Frame Caulk; Exterior - NE Window Frame	NO	G	YES	N/A	Cellulose <1% Binder 100%
016	6A	4/14/2023	4/19/2023	Window Glazing; Exterior - E. Side, N.	NO	B	YES	N/A	Binder 100%
017	6B	4/14/2023	4/19/2023	Window Glazing; Exterior - E. Side, Center	NO	B	YES	N/A	Binder 100%
018	6C	4/14/2023	4/19/2023	Window Glazing; Exterior - E. Side, S.	NO	B	YES	N/A	Binder 100%
019	7A	4/14/2023	4/19/2023	Foundation Joint Caulk; Exterior - E. Side, N.	NO	G	YES	N/A	Binder 100%
020	7B	4/14/2023	4/19/2023	Foundation Joint Caulk; Exterior - E. Side, Center	NO	G	YES	N/A	Binder 100%
021	7C	4/14/2023	4/19/2023	Foundation Joint Caulk; Exterior - E. Side, S.	NO	G	YES	N/A	Cellulose <1% Binder 100%

Client: Civil & Environmental Consultants
 Report Date: 4/19/2023
 Lab Number: 167230

Project Number: 20-19109-D
 Project Name: Kroger Store D-707

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 2010 Whittaker Rd. - Ypsilanti, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
022	8A	4/14/2023	4/19/2023	Woodgrain Linoleum; Store Floor - Bakery	NO	BR - B	NO	N/A	Cellulose <1% Binder 100%
023	8B	4/14/2023	4/19/2023	Woodgrain Linoleum; Store Floor - Produce	NO	BR - B	NO	N/A	Cellulose <1% Binder 100%
024	8C	4/14/2023	4/19/2023	Woodgrain Linoleum; Vestibule	NO	BR - B	NO	N/A	Cellulose <1% Binder 100%
025	8D	4/14/2023	4/19/2023	Woodgrain Linoleum Mastic; Store Floor - Bakery	N/A	N/A	N/A	NOT ANALYZED	QUANTITY NON SUFFICIENT
026	8E	4/14/2023	4/19/2023	Woodgrain Linoleum Mastic; Store Floor - Produce	NO	W	YES	N/A	Binder 100%
027	8F	4/14/2023	4/19/2023	Woodgrain Linoleum Mastic; Vestibule	NO	W	YES	N/A	Binder 100%
028	9A	4/14/2023	4/19/2023	Polished Concrete Flooring Joint Caulk; Store Floor - Pharmacy	NO	BR	YES	N/A	Binder 100%

Client: Civil & Environmental Consultants
 Report Date: 4/19/2023
 Lab Number: 167230

Project Number: 20-19109-D
 Project Name: Kroger Store D-707

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 2010 Whittaker Rd. - Ypsilanti, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
029	9B	4/14/2023	4/19/2023	Polished Concrete Flooring Joint Caulk; Store Floor - Dairy	NO	BR	YES	N/A	Binder 100%
030	9C	4/14/2023	4/19/2023	Polished Concrete Flooring Joint Caulk; Store Floor - Meats	NO	BR	YES	N/A	Binder 100%
031	10A	4/14/2023	4/19/2023	Perimeter Drywall & Associated Joint Caulk; Click List - E. Wall	NO	W	NO	N/A	Cellulose 2% Fiberglass <1% Binder 98%
032	10B	4/14/2023	4/19/2023	Perimeter Drywall & Associated Joint Caulk; Vestibule	NO	W	NO	N/A	Cellulose 2% Fiberglass <1% Binder 98%
033	10C	4/14/2023	4/19/2023	Perimeter Drywall & Associated Joint Caulk; Soffit	NO	W	NO	N/A	Cellulose 2% Fiberglass <1% Binder 98%
034	11A	4/14/2023	4/19/2023	Interior Drywall & Associated Joint Caulk; Click List - W. Wall	NO	W	NO	N/A	Cellulose 3% Fiberglass <1% Binder 97%
035	11B	4/14/2023	4/19/2023	Interior Drywall & Associated Joint Caulk; Floral Storage	NO	W	NO	N/A	Cellulose 2% Fiberglass <1% Binder 98%

Client: Civil & Environmental Consultants
Report Date: 4/19/2023
Lab Number: 167230

Project Number: 20-19109-D
Project Name: Kroger Store D-707

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 2010 Whittaker Rd. - Ypsilanti, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
036	11C	4/14/2023	4/19/2023	Interior Drywall & Associated Joint Caulk; Store Floor - W. Side, Lunch Meat	NO	W	NO	N/A	Cellulose 3% Fiberglass <1% Binder 97%
037	12A	4/14/2023	4/19/2023	Stainless Steel Sink Insulation; Pharmacy	NO	B	YES	N/A	Cellulose <1% Binder 100%
038	12B	4/14/2023	4/19/2023	Stainless Steel Sink Insulation; Floral	NO	G	YES	N/A	Binder 100%
039	13A	4/14/2023	4/19/2023	Poured Flooring; Recycling Center	NO	BR - G	YES	N/A	Binder 100%
040	13B	4/14/2023	4/19/2023	Poured Flooring; Deli	NO	R - G	YES	N/A	Binder 100%
041	13C	4/14/2023	4/19/2023	Poured Flooring; Dairy Cooler	NO	G	YES	N/A	Binder 100%
042	14A	4/14/2023	4/19/2023	Carpet Mastic; Vestibule	NO	GR	YES	N/A	Cellulose 2% Binder 98%

Client: Civil & Environmental Consultants
Report Date: 4/19/2023
Lab Number: 167230

Project Number: 20-19109-D
Project Name: Kroger Store D-707

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 2010 Whittaker Rd. - Ypsilanti, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
043	14B	4/14/2023	4/19/2023	Carpet Mastic; Customer Care	NO	GR	YES	N/A	Cellulose <1% Binder 100%
044	14C	4/14/2023	4/19/2023	Carpet Mastic; Office	NO	G	YES	N/A	Cellulose 2% Binder 98%
045	15A	4/14/2023	4/19/2023	Plastic Wall Panel Adhesive; Recycling Center	NO	T	YES	N/A	Binder 100%
046	15B	4/14/2023	4/19/2023	Plastic Wall Panel Adhesive; Recycling Center	NO	T	YES	N/A	Binder 100%
047	15C	4/14/2023	4/19/2023	Plastic Wall Panel Adhesive; Recycling Center	NO	T	YES	N/A	Binder 100%
048	16A	4/14/2023	4/19/2023	Clay Tile Grout; Cart Return	NO	BR	YES	N/A	Binder 100%
049	16B	4/14/2023	4/19/2023	Clay Tile Grout; Cart Return	NO	BR	YES	N/A	Binder 100%

Client: Civil & Environmental Consultants
Report Date: 4/19/2023
Lab Number: 167230

Project Number: 20-19109-D
Project Name: Kroger Store D-707

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 2010 Whittaker Rd. - Ypsilanti, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
050	16C	4/14/2023	4/19/2023	Clay Tile Grout; Cart Return	NO	BR	YES	N/A	Binder 100%
051	17A	4/14/2023	4/19/2023	Ceramic Wall Tile Grout; Meat & Seafood	NO	T	YES	N/A	Cellulose <1% Binder 100%
052	17B	4/14/2023	4/19/2023	Ceramic Wall Tile Grout; Deli	NO	T	YES	N/A	Cellulose <1% Binder 100%
053	17C	4/14/2023	4/19/2023	Ceramic Wall Tile Grout; Public Men's RR	NO	T	YES	N/A	Binder 100%
054	18A	4/14/2023	4/19/2023	Bare Concrete; Warehouse	NO	G	YES	N/A	Binder 100%
055	18B	4/14/2023	4/19/2023	Bare Concrete; Loading Dock	NO	G	YES	N/A	Binder 100%
056	18C	4/14/2023	4/19/2023	Bare Concrete; Store Floor - Meats	NO	G	YES	N/A	Binder 100%

Client: Civil & Environmental Consultants
 Report Date: 4/19/2023
 Lab Number: 167230

Project Number: 20-19109-D
 Project Name: Kroger Store D-707

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 2010 Whittaker Rd. - Ypsilanti, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
057	19A	4/14/2023	4/19/2023	Cooler/Freezer Panel Gasket; Bakery Cooler	NO	G	YES	N/A	Cellulose <1% Binder 100%
058	19B	4/14/2023	4/19/2023	Cooler/Freezer Panel Gasket; Dairy Cooler	NO	G	YES	N/A	Cellulose <1% Binder 100%
059	19C	4/14/2023	4/19/2023	Cooler/Freezer Panel Gasket; Meat Freezer	NO	G	YES	N/A	Cellulose <1% Binder 100%
060	20A	4/14/2023	4/19/2023	4" Brown Vinyl Base Molding; Store Floor - Vestibule	NO	BR	YES	N/A	Binder 100%
061	20B	4/14/2023	4/19/2023	4" Brown Vinyl Base Molding; Store Floor - RR Hall	NO	BR	YES	N/A	Binder 100%
062	20C	4/14/2023	4/19/2023	4" Brown Vinyl Base Molding; Office	NO	BR	YES	N/A	Binder 100%
063	20D	4/14/2023	4/19/2023	4" Brown Vinyl Base Molding Mastic; Store Floor - Vestibule	NO	T	YES	N/A	Cellulose <1% Binder 100%

Client: Civil & Environmental Consultants
 Report Date: 4/19/2023
 Lab Number: 167230

Project Number: 20-19109-D
 Project Name: Kroger Store D-707

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 2010 Whittaker Rd. - Ypsilanti, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
064	20E	4/14/2023	4/19/2023	4" Brown Vinyl Base Molding Mastic; Store Floor - RR Hall	NO	T	YES	N/A	Binder 100%
065	20F	4/14/2023	4/19/2023	4" Brown Vinyl Base Molding Mastic; Office	NO	T	YES	N/A	Binder 100%
066	21A	4/14/2023	4/19/2023	2' x 4' Pinhole Pattern Ceiling Tile; Office	NO	T - W	YES	N/A	Cellulose 87% Fiberglass 3% Binder 10%
067	21B	4/14/2023	4/19/2023	2' x 4' Pinhole Pattern Ceiling Tile; Break Room	NO	T - W	YES	N/A	Cellulose 88% Fiberglass 2% Binder 10%
068	21C	4/14/2023	4/19/2023	2' x 4' Pinhole Pattern Ceiling Tile; Pharmacy	NO	T - W	YES	N/A	Cellulose 88% Fiberglass 2% Binder 10%
069	22A	4/14/2023	4/19/2023	2' x 4' Drywall Ceiling Tile; Floral Storage	NO	W	YES	N/A	Cellulose <1% Fiberglass <1% Binder 100%
070	22B	4/14/2023	4/19/2023	2' x 4' Drywall Ceiling Tile; Bakery	NO	W	YES	N/A	Cellulose <1% Fiberglass 2% Binder 98%

Client: Civil & Environmental Consultants
 Report Date: 4/19/2023
 Lab Number: 167230

Project Number: 20-19109-D
 Project Name: Kroger Store D-707

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 2010 Whittaker Rd. - Ypsilanti, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
071	22C	4/14/2023	4/19/2023	2' x 4' Drywall Ceiling Tile; Meat & Seafood	NO	W	YES	N/A	Cellulose <1% Fiberglass 2% Binder 98%
072	23A	4/14/2023	4/19/2023	EFS; Exterior - E. Upper Fascia	NO	W - G	YES	N/A	Fiberglass 20% Binder 80%
073	23B	4/14/2023	4/19/2023	EFS; Exterior - E. Upper Fascia	NO	W - G	YES	N/A	Fiberglass 20% Binder 80%
074	23C	4/14/2023	4/19/2023	EFS; Exterior - E. Upper Fascia	NO	W - G	YES	N/A	Fiberglass 20% Binder 80%
075	24A	4/14/2023	4/19/2023	4" Grey Vinyl Base Molding; Bank	NO	G	YES	N/A	Binder 100%
076	24B	4/14/2023	4/19/2023	4" Grey Vinyl Base Molding; Bank	NO	G	YES	N/A	Binder 100%
077	24C	4/14/2023	4/19/2023	4" Grey Vinyl Base Molding; Bank	NO	G	YES	N/A	Binder 100%

Client: Civil & Environmental Consultants
 Report Date: 4/19/2023
 Lab Number: 167230

Project Number: 20-19109-D
 Project Name: Kroger Store D-707

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 2010 Whittaker Rd. - Ypsilanti, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
078	24D	4/14/2023	4/19/2023	4" Grey Vinyl Base Molding Mastic; Bank	NO	T	YES	N/A	Cellulose <1% Binder 100%
079	24E	4/14/2023	4/19/2023	4" Grey Vinyl Base Molding Mastic; Bank	NO	T	YES	N/A	Cellulose <1% Binder 100%
080	24F	4/14/2023	4/19/2023	4" Grey Vinyl Base Molding Mastic; Bank	NO	T	YES	N/A	Cellulose <1% Binder 100%
081	25A	4/14/2023	4/19/2023	Seam Sealant on Rubber Membrane Roof; Roof	NO	B	YES	N/A	Binder 100%
082	25B	4/14/2023	4/19/2023	Seam Sealant on Rubber Membrane Roof; Roof	NO	B	YES	N/A	Binder 100%
083	25C	4/14/2023	4/19/2023	Seam Sealant on Rubber Membrane Roof; Roof	NO	B	YES	N/A	Binder 100%
084	26A	4/14/2023	4/19/2023	Tar Flashing on Roof Penetrations; Roof - Vent, S. Side	NO	B	YES	N/A	Binder 100%

Client: Civil & Environmental Consultants
Report Date: 4/19/2023
Lab Number: 167230

Project Number: 20-19109-D
Project Name: Kroger Store D-707

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 2010 Whittaker Rd. - Ypsilanti, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
085	26B	4/14/2023	4/19/2023	Tar Flashing on Roof Penetrations; Roof - Vent, E. Side	NO	B	YES	N/A	Binder 100%
086	26C	4/14/2023	4/19/2023	Tar Flashing on Roof Penetrations; Roof - Vent, N. Side	NO	B	YES	N/A	Binder 100%
087	27A	4/14/2023	4/19/2023	Roofing Felts Under Rubber Membrane Roof; Roof - S. End	NO	G	YES	N/A	Cellulose <1% Fiberglass 100%
088	27B	4/14/2023	4/19/2023	Roofing Felts Under Rubber Membrane Roof; Roof - Center	NO	G	YES	N/A	Cellulose <1% Fiberglass 100%
089	27C	4/14/2023	4/19/2023	Roofing Felts Under Rubber Membrane Roof; Roof - N. End	NO	G	YES	N/A	Cellulose <1% Fiberglass 100%

Color: B-Black, BL-Blue, BR-Brown, CL-Clear, GL-Gold, G-Gray, GR-Green, O-Orange, P-Pink, PR-Purple, R-Red, S-Silver, T-Tan, W-White, Y-Yellow

Betsie L. McAfee has reviewed this final report and has taken overall technical responsibility for the data.

micro air inc.

6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268
TELEPHONE: (317) 293-1533 FAX: (317) 290-3588

E-MAIL: microair@microair.com
WEB SITE: www.microair.com

167230

DAILY BULK SAMPLE LOG

TECHNICIAN Donell G French DATE 4-14-23 JOB # 20-19109-D
LOCATION Kroger Store D-707, 2010 Whittaker Road, Ypsilanti, MI PAGE 1 OF 5

	SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL CONDITION	PHOTO NUMBER	SAMPLE DESCRIPTION
-001	1 A	Exterior - E side			Brick Mortar
-002	B	" - N side			↓
-003	C	" - W side			
-004	2 A	Exterior - E side			Brick
-005	B	" - N side			Expansion Joint
-006	C	" - W side			↓
-007	3 A	Warehouse SW			Concrete Block
-008	B	↓			Mortar
-009	C				↓
-010	4 A	Warehouse by Roof Ladder			Concrete Block
-011	B	↓			Expansion Joint
-012	C				↓
-013	5 A	Exterior - Cart Return Door Frame			Window/Door
-014	B	" - Vestibule Window Frame			Frame Caulk
-015	C	" - NE Window Frame			↓
-016	6 A	Exterior E side - North			Window
-017	B	" " " - Center			Glazing
-018	C	" " " - South			↓

White - Office

Yellow - Laboratory

CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY

CUSTODY TRANSFERRED TO:

RECEIVED IN LABORATORY BY:

NAME

DATE

NAME

DATE

NAME

DATE

4/17/23

8:14AM

micro air inc.

6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268
TELEPHONE: (317) 293-1533 FAX: (317) 290-3566

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DAILY BULK SAMPLE LOG

TECHNICIAN Donald G. French DATE 4-14-23 JOB # 20-19109-D
LOCATION Kroger Store D-707 PAGE 2 OF 5

	SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL CONDITION	PHOTO NUMBER	SAMPLE DESCRIPTION
-019	7 A	Exterior East Side - North			Foundation
-020	B	" " " - Center			Joint Caulk
-021	C	" " " - South			↓
-022	8 A	Store Floor by Bakery			Woodgrain
-023	B	" " - Produce			Linoleum
-024	C	Vestibule			↓
-025	D	↓			Mastic on Above
-026	E				↓
-027	F				↓
-028	9 A	Store Floor - by Pharmacy			Polished Concrete
-029	B	" " - by Dairy			Flooring
-030	C	" " - by Meats			Joint Caulk
-031	10 A	Click List - E Wall			Perimeter
-032	B	Vestibule			Drywall & Associated
-033	C	Soffit			Joint Caulk
-034	11 A	Click List - W Wall			Interior
-035	B	Floral Storage			Drywall & Associated
-036	C	Store Floor - W Side by Lunch Meat			
-037	12 A	Pharmacy			Stainless Steel
-038	B	Floral			Sink Insulation

White - Office

Yellow - Laboratory

CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY:

CUSTODY TRANSFERRED TO:

RECEIVED IN LABORATORY BY:

NAME

DATE

NAME

DATE

NAME

DATE

4/17/2023
8:14AM

micro air inc.6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268
TELEPHONE: (317) 293-1533 FAX: (317) 290-3566E-MAIL: microair@microair.com
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DAILY BULK SAMPLE LOGTECHNICIAN Donald G French DATE 4-14-23 JOB # 20-19109-D
LOCATION Kroger Store D-707 PAGE 3 OF 5

	SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL CONDITION	PHOTO NUMBER	SAMPLE DESCRIPTION
-039	13 A	Recycling Center			Poured
-040	B	Deli			Flooring
-041	C	Dairy Cooler			↓
-042	14 A	Vestibule			Carpet
-043	B	Customer Care			Mastic
-044	C	Office			↓
-045	15 A	Recycling Center			Plastic Wall Panel
-046	B	" "			Adhesive
-047	C	" "			↓
-048	16 A	Cart Return			Clay Tile Grout
-049	B	↓			↓
-050	C				
-051	17 A	Meat & Seafood			Ceramic Wall
-052	B	Deli			Tile Grout
-053	C	Public Men's Restroom			↓
-054	18 A	Warehouse			Bare Concrete
-055	B	Loading Dock			↓
-056	C	Store Floor by Meats			

White - Office

Yellow - Laboratory

CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY:

CUSTODY TRANSFERRED TO:

RECEIVED IN LABORATORY BY:

NAME

DATE

NAME

DATE

NAME

DATE

4/17/23

8:15 AM

micro air inc.

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DAILY BULK SAMPLE LOG

TECHNICIAN Donald G. French DATE 4-14-23 JOB # 20-19109-D
LOCATION Kroger Store D-707 PAGE 4 OF 5

	SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL CONDITION	PHOTO NUMBER	SAMPLE DESCRIPTION
-057	19 A	Bakery Cooler			Cooler/Freezer
-058	B	Dairy Cooler			Panel Gasket
-059	C	Meat Freezer			↓
-060	20 A	Store Floor by Vestibule			4" Brown Vinyl
-061	B	" " - Restroom Hall			Base Molding
-062	C	Office			↓
-063	D	↓			Mastic on Above
-064	E				↓
-065	F	↓			↓
-066	21 A	Office			2'x4' Ceiling Tile
-067	B	Break Room			(Pinhole Pattern)
-068	C	Pharmacy			↓
-069	22 A	Floral Storage			2'x4' Ceiling Tile
-070	B	Bakery			(Drywall)
-071	C	Meat & Seafood			↓
-072	23 A	Exterior East Upper Fascia			EFS
-073	B	↓			↓
-074	C				

White - Office

Yellow - Laboratory

CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY:

CUSTODY TRANSFERRED TO:

RECEIVED IN LABORATORY BY:

NAME

DATE

NAME

DATE

NAME

DATE

4/17/23
8:15AM

micro air inc.

6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268
TELEPHONE: (317) 293-1533 FAX: (317) 290-3566

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167230

DAILY BULK SAMPLE LOG

TECHNICIAN Donald G French DATE 4-14-23 JOB # 20-19109-D

LOCATION Kroger Store D-707 PAGE 5 OF 5

[illegible]**White - Office**

Yellow – Laboratory

CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY:

CUSTODY TRANSFERRED TO:

RECEIVED IN LABORATORY BY:

NAME _____

DATE _____

NAME _____

DATE _____

NAME _____

DATE _____

8:15 AM

TAB 5
CERTIFICATIONS

State of Michigan
Department of Labor and Economic Opportunity
Michigan Occupational Safety & Health Administration - Asbestos Program

 **Asbestos Inspector**

Donald G. French
6320 LaPas Trail
Indianapolis, IN 46268



Accreditation Number
A11834

Expiration Date
02/10/2024

 **DOB: 07/16/1960**

This individual has satisfactorily met or exceeded the requirements of Michigan Public Act 440 of 1988, as amended, to be accredited as an Asbestos Inspector.

Accreditation card is not valid if altered

163359

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 101221-0

Micro Air, Inc.
Indianapolis, IN

*is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:*

Asbestos Fiber Analysis

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).*

2023-04-01 through 2024-03-31

Effective Dates




For the National Voluntary Laboratory Accreditation Program

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

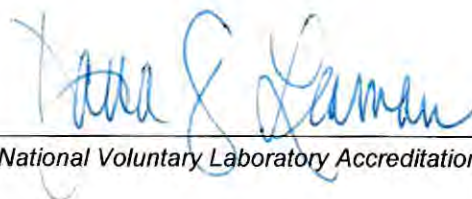
Micro Air, Inc.
6320 La Pas Trail
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ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 101221-0

Bulk Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials



For the National Voluntary Laboratory Accreditation Program

ASBESTOS SURVEY REPORT

**Kroger Store D-707 Renovation
2010 Whittaker Road
Ypsilanti, Michigan**

Prepared by:



Environment & Infrastructure Americas
15933 Clayton Road, Suite 215
Ballwin, MO 63011
636.386.3800
www.amecfw.com

Amec Foster Wheeler Project No. 242415013

February 10, 2015

February 10, 2015



Mr. Mark Millerwise
Construction Manager
The Kroger Co.
40393 Grand River
Novi, Michigan 48375

RE: **Asbestos Survey Report**
Kroger Store D-707 Renovation
2010 Whittaker Road
Ypsilanti, Michigan
Project No. 242415013

Dear Mr. Millerwise:

Amec Foster Wheeler Environment & Infrastructure, Inc. (AMEC Foster Wheeler) is pleased to present this Asbestos Survey Report for the above-referenced project. The asbestos survey was conducted in accordance with Amec Foster Wheeler's proposal dated January 15, 2015, and authorized via Kroger Purchase Order DO1237105, dated January 19, 2015. Amec Foster Wheeler conducted the asbestos survey on January 27, 2015.

Amec Foster Wheeler appreciates the opportunity to serve The Kroger Co. on this project. Please call us if we can be of any further assistance.

Sincerely,
Amec Foster Wheeler Environment & Infrastructure Inc.

A handwritten signature in blue ink, appearing to read "Kevin S. Arnold".

Kevin S. Arnold
Senior Environmental Scientist

A handwritten signature in black ink, appearing to read "Deborah J. Blankenship".

Deborah J. Blankenship, PG, CPG
Associate Geologist/Project Manager

cc: Keith Oliver, The Kroger Co.
Breana Trauger, The Kroger Co.
Brett Smollen, The Kroger Co.



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EXECUTIVE SUMMARY

Amec Foster Wheeler Environment & Infrastructure, Inc. (AMEC Foster Wheeler) was retained by The Kroger Co. to conduct an asbestos survey of the Kroger Store D-707 Renovation located at 2010 Whittaker Road, Ypsilanti, Michigan. The asbestos survey was conducted in accordance with Amec Foster Wheeler's proposal dated January 15, 2015, and authorized via Kroger Purchase Order DO1237105, dated January 19, 2015. The survey was conducted by a State of Michigan-licensed building inspector on January 27, 2015. Amec Foster Wheeler understands that this asbestos survey was requested due to planned renovation of Kroger Store D-707. Details are not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of this survey.

The subject property includes Kroger Store D-707. Twenty-eight bulk samples of suspect asbestos-containing materials (ACMs) were collected during the inspection and submitted to an accredited laboratory for analysis by polarized light microscopy (PLM). Asbestos was not identified in the samples collected and analyzed.

It should be noted that suspect ACMs, other than those identified during this asbestos survey may exist within the building. Should suspect ACMs other than those which were identified during this survey be uncovered during the demolition process, those materials should be assumed asbestos-containing until sampling and analysis can confirm or deny asbestos content.



1.0 INTRODUCTION

Amec Foster Wheeler Environmental & Infrastructure, Inc. (AMEC Foster Wheeler) was retained by The Kroger Co. to conduct an asbestos survey of the Kroger Store D-707 Renovation located at 2010 Whittaker Road, Ypsilanti, Michigan. The survey was conducted in general accordance with Amec Foster Wheeler's proposal dated January 15, 2015 and "The Kroger Co., Environmental Site Assessment Specification, v. December 2013" (Kroger Scope of Work) and authorized via Kroger Purchase Order DO1237105, dated January 19, 2015. Amec Foster Wheeler understands that this asbestos survey was requested due to planned renovation of the subject property building.

1.1 Reliance

This report has been prepared for the exclusive use and reliance of The Kroger Co. and its subsidiaries and affiliates and its authorized representatives (Users), who may solely rely upon the conclusions presented herein. Reliance on this asbestos survey report by the Users and all authorized parties will be subject to the terms, conditions and limitations stated in the Master Service Agreement (MSA) No. 3268 signed by Amec Foster Wheeler Environmental & Infrastructure, Inc. (dba Amec Foster Wheeler) and the Kroger Co. General Offices (G.O.) on June 12, 2008.

2.0 SUBJECT PROPERTY DESCRIPTION

The subject property consists of Kroger Store D-707. The building was constructed in 2003 of brick exterior walls, with a flat metal roof, on a concrete slab foundation. The building encompasses approximately 62,828 square-feet under roof. Interior finishes consists of wallboard and brick walls. Ceilings were suspended acoustical ceiling tiles or exposed roof decking. Floors were carpet, vinyl or ceramic tile, or concrete. The roofing system consisted of asphaltic-based built-up roof with a stone ballast and associated sealants. The Kroger Store consisted of a grocery sales area, department preparation areas, pharmacy, tenant area, office area, a warehouse, and mezzanine mechanical area.

3.0 FIELD ACTIVITIES

The survey was conducted by State of Michigan-certified asbestos inspector, Mr. Mike Dende of Amec Foster Wheeler on January 27, 2015. Mr. Dende was not escorted during the survey. The survey was

conducted in general accordance with the sample collection protocols established in EPA regulation 40 CFR 763, the Asbestos Hazard Emergency Response Act (AHERA). A copy of Mr. Dende's asbestos inspector certification is contained in Appendix D. A summary of the survey activities is provided in the following subsections.

3.1 Visual Assessment

Survey activities began with a visual inspection of interior and exterior of the building to identify, document the location, condition and approximate quantities of suspect asbestos-containing materials (ACM). Suspect ACMs were grouped into homogeneous areas. A homogeneous area consists of building materials that appear similar throughout in terms of color, texture and consideration of date of installation or application. Building materials identified as concrete, glass, wood, masonry, metal, rubber or silicone are not considered suspect ACM and, therefore, were not sampled. Also, if information was available to indicate a material did not contain asbestos (i.e., product label), the material was not sampled. Photographs of identified suspect ACMs are provided in Appendix A.

The inspection was limited to accessible areas. Destructive sampling (e.g., breaking into wall voids) was not conducted. At the request of Mr. Mark Millerwise of Kroger, the roofing system was sampled as part of this survey.

Amec Foster Wheeler did not observe additional flooring layers unless mentioned in this report; however, as Amec Foster Wheeler could not assess beneath all floor covering in all areas, there may be isolated areas of additional suspect material present beneath existing flooring. Although reasonable effort was made to survey accessible suspect materials, additional suspect but un-sampled materials could be located in walls, in voids or in other concealed areas (e.g., locked doors, inaccessible attics).

3.2 Bulk Sample Collection

Based on the findings of the visual inspection, bulk samples of suspect ACM were collected in general accordance with AHERA sample collection protocols. Random samples were collected for each suspect homogeneous material identified. Samples were placed in sealable containers, labeled with unique sample numbers, using an indelible marker.

Sample collection likely resulted in some isolated damage to building materials. However, damage was limited to the extent necessary for sample collection. If possible, Amec Foster Wheeler repaired sample

locations, but did not return building materials to the original finish. Roof sample locations were repaired with a temporary patch and location identified with marking paint. Reportedly, Kroger will dispatch a roofing contractor for a permanent repair.

Twenty-eight bulk samples of suspect ACMs were collected during the inspection. Some bulk samples collected included multiple layers (e.g., floor tile and mastic). Due to safety issues, suspect materials identified on electrical and mechanical equipment or systems were not sampled as part of this survey.

A floor plan depicting approximate sample locations is presented as Figure 1, Sample Location Map. A summary of sample numbers, material descriptions, and sample locations is contained in Appendix B.

3.3 Sample Analysis

Bulk samples were submitted under chain of custody to EMSL Analytical, Inc. (EMSL) in St. Louis, Missouri, for analysis by polarized light microscopy with dispersion staining techniques per EPA's Method for the Determination of Asbestos in Bulk Building Materials (600/R-93-116). The percentage of asbestos, where applicable, was established by microscopic visual estimation. EMSL is an accredited National Voluntary Laboratory Accreditation Program (NVLAP Accreditation No. 200742-0) laboratory. Laboratory analytical reports are contained in Appendix C.

3.4 Building Plans or Prior Reports

Kroger did not provide prior asbestos survey reports or an Operation and Maintenance Program for the subject property for review. Further, no as-built plans, construction plans, or material schedules were available for review.

4.0 REGULATORY OVERVIEW

The State of Michigan Department of Environmental Quality (MDEQ), Air Division NESHAP Program, enforces the Asbestos NESHAP. The Asbestos NESHAP (40 CFR Part 61, Subpart M) regulates asbestos fiber emissions and asbestos waste disposal practices. It also requires the identification and classification according to friability of existing ACM prior to demolition or renovation activity.

The NESHAP regulation classifies ACM as either regulated asbestos-containing material (RACM), Category I non-friable ACM, or Category II non-friable ACM. RACM includes friable ACM, along with

Category I non-friable ACM that has become friable or will be or has been subjected to sanding, grinding, cutting or abrading, and Category II non-friable ACM that has a high probability of becoming friable in the course of renovation or demolition activity. Friable ACM is a material containing more than 1% asbestos that, when dry, may be crumbled, pulverized or reduced to powder by hand pressure. Category I non-friable ACMs are exclusively asbestos-containing packings, gaskets, resilient floor coverings, resilient floor covering mastics and asphalt roofing products that contain more than 1% asbestos. Category II non-friable ACM are all other non-friable materials other than Category I non-friable ACM that contain more than 1% asbestos.

Friable ACM along with Category I and Category II non-friable ACM which is in poor condition and has become friable or which will be subjected to drilling, sanding, grinding, cutting or abrading and could be crushed or pulverized during anticipated renovation or renovation activities are considered regulated ACM (RACM). RACM must be removed prior to renovation or demolition activities which will disturb the materials.

The Occupational Safety and Health Administration (OSHA) asbestos standard for construction (29 CFR 1926.1101) regulates workplace exposure to asbestos. The OSHA standard requires that employee exposures to airborne asbestos fibers be maintained below 0.1 fiber per cubic centimeter of air (0.1 f/cc) as an eight (8) hour-time weighted average (TWA) and not exceed 1.0 fibers per cubic centimeter of air (1. f/cc) over a 30 minute time period, the excursion limit. The TWA and excursion limit together are known as the OSHA permissible exposure limits or PELs. The OSHA standard classifies construction and maintenance activities which could disturb ACM, and specifies work practices and precautions which employers must follow when engaging in each class of regulated work.

In the State of Michigan the owner or operator must provide the State of Michigan Department of Environmental Quality (MDEQ) and Department of Licensing and Regulatory Affairs (LARA) with written notification at least 10 working days prior to the commencement of any renovation activity which will include the disturbance of at least 160 square feet or 260 linear feet or 35 cubic feet of RACM or prior to the commencement of demolition. Removal of RACM must be conducted by a LARA-licensed asbestos abatement contractor.

5.0 FINDINGS AND RECOMMENDATIONS

5.1 Findings and Recommendations

Amec Foster Wheeler conducted an asbestos survey of the Kroger Store D-707 Renovation located at 2010 Whittaker Road, Ypsilanti, Michigan. The subject property consists of Kroger Store D-707. Twenty-eight bulk samples of suspect ACMs were collected during the inspection and submitted to an accredited laboratory for analysis by polarized light microscopy (PLM). Asbestos was not identified in the samples collected and analyzed.

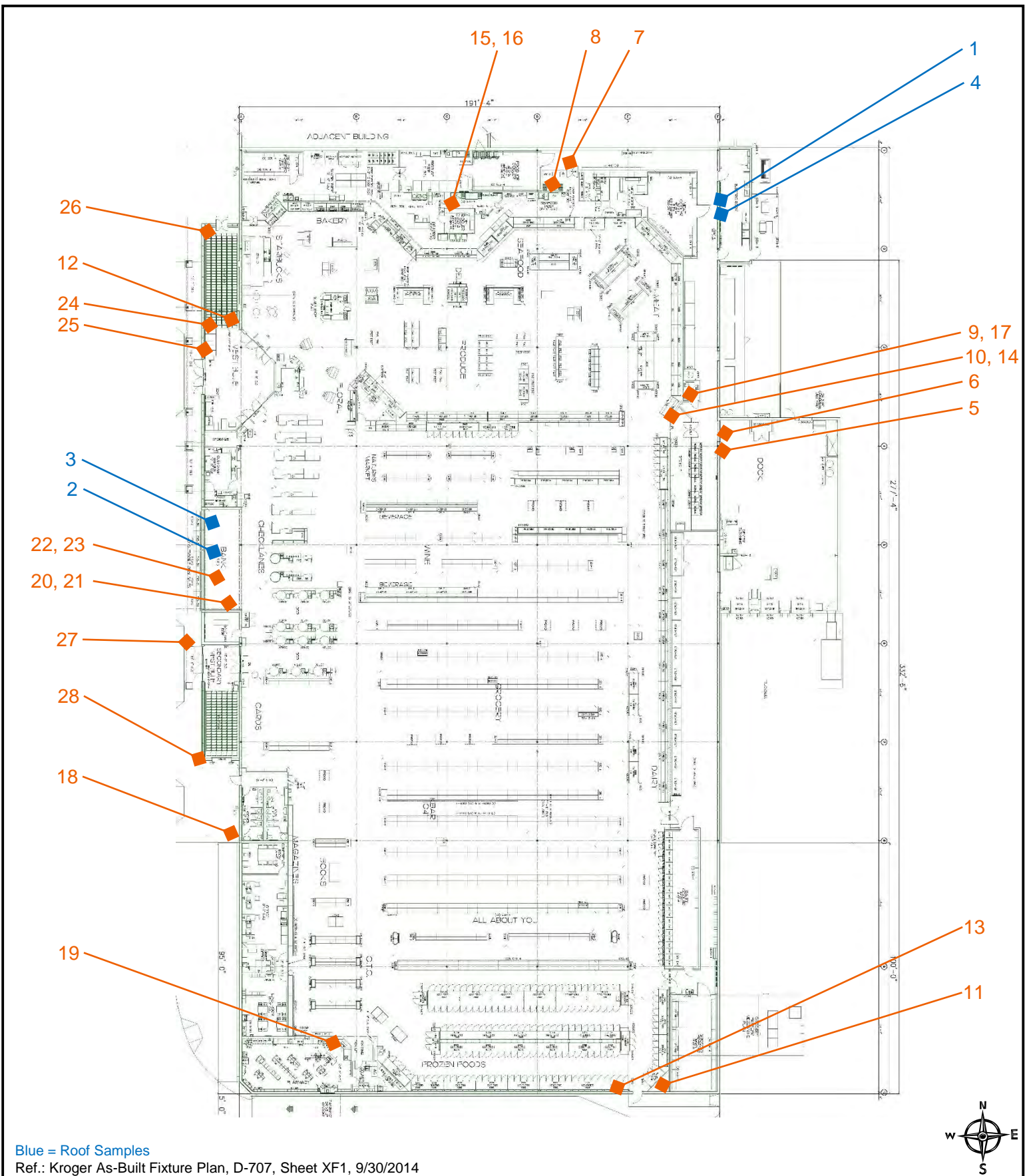
It should be noted that suspect materials, other than those identified during this asbestos survey may exist within the building. Should suspect materials other than those which were identified during this survey be uncovered during renovation, those materials should be assumed asbestos-containing until sampling and analysis can confirm or deny asbestos content.

6.0 GENERAL COMMENTS

This asbestos survey was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The results, findings, conclusions and recommendations expressed in this report are based on conditions observed during our survey of the building. The information contained in this report is relevant to the date on which this survey was performed, and should not be relied upon to represent conditions at a later date. This report has been prepared on behalf of and exclusively for use by the Kroger Company for specific application to their project as discussed. *This report is not a bidding document. Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary.* Amec Foster Wheeler does not warrant the work of regulatory agencies, laboratories or other third parties supplying information which may have been used in the preparation of this report. No warranty, express or implied is made.

FIGURES

Figures 1: Sample Location Map



Sample Location Map

The Kroger Co.
Kroger Store D-707 Renovation
2010 Whittaker Road
Ypsilanti, Michigan



Environment & Infrastructure
19533 Clayton Road, Suite 215
Ballwin, MO 63011

FIGURE 1

Scale: NTS

Project No: 242415013

Drawn by: KSA

Date Drawn: 2/3/15



APPENDIX A

Photographs

**Photographic Documentation
Kroger Store D-707 Renovation
Ypsilanti, Michigan
Project No. 242414013**



Photo: 1

Description:

View of homogeneous
area (HA)-1, roofing
material.



Photo: 2

Description:

View of HA-2, black
flashing sealant.



**Photographic Documentation
Kroger Store D-707 Renovation
Ypsilanti, Michigan
Project No. 242414013**



Photo: 3

Description:

View of HA-3, interior
gray construction caulk.

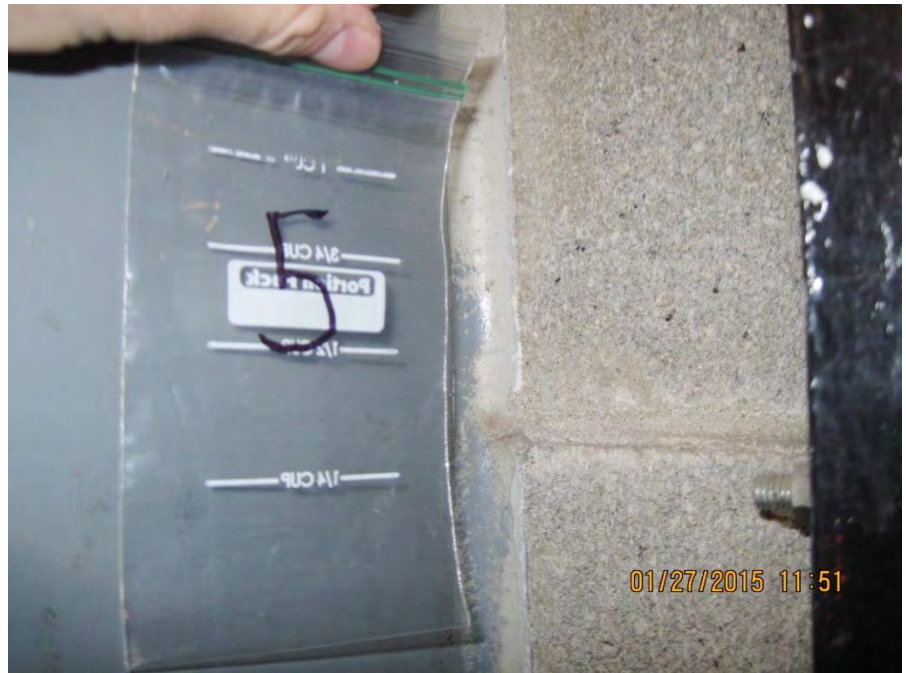


Photo: 4

Description:

View of HA-4, red
textured flooring.



**Photographic Documentation
Kroger Store D-707 Renovation
Ypsilanti, Michigan
Project No. 242414013**



Photo: 5

Description:

View of HA-9, white ceramic tile grout.



Photo: 6

Description:

View HA-6, drywall/joint compound.



**Photographic Documentation
Kroger Store D-707 Renovation
Ypsilanti, Michigan
Project No. 242414013**



Photo: 7

Description:

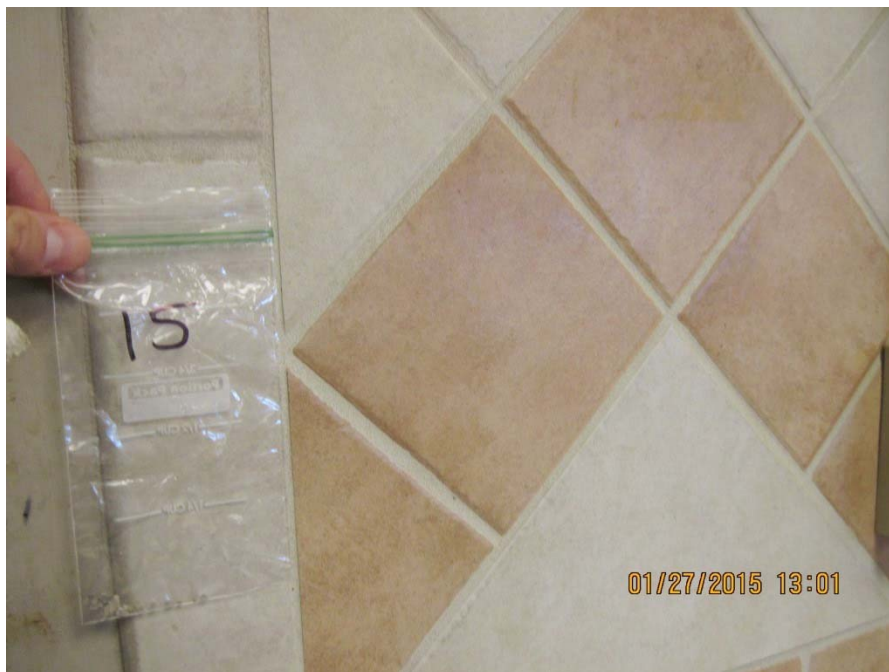
View of HA-7, brown
cove base and mastic.



Photo: 8

Description:

View of HA-8, tan
ceramic tile grout.



**Photographic Documentation
Kroger Store D-707 Renovation
Ypsilanti, Michigan
Project No. 242414013**



Photo: 9

Description:

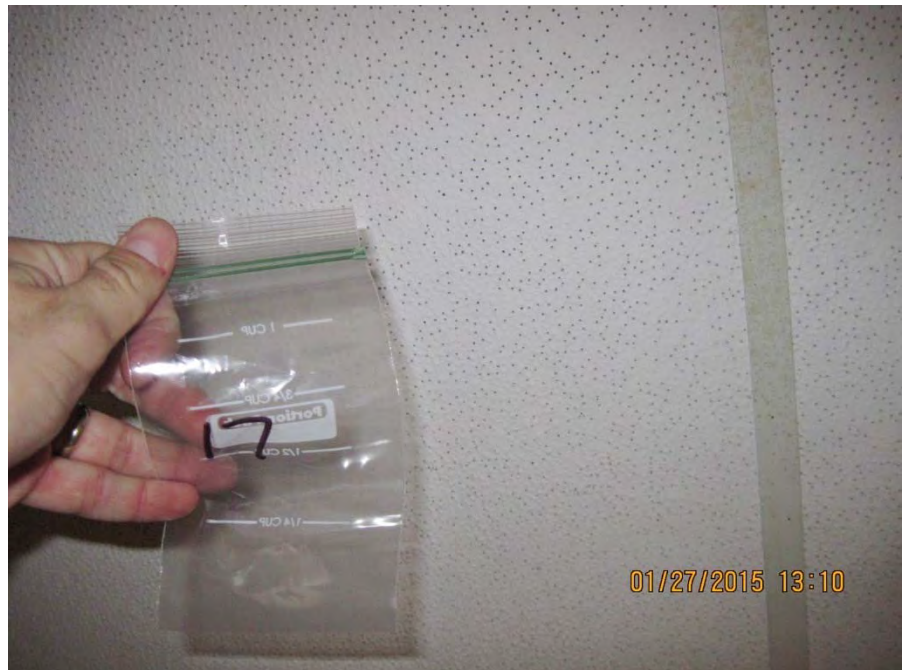
View of HA-9, white ceramic tile grout.



Photo: 10

Description:

View of HA-10, 2' x 4' dot acoustical ceiling tile.



**Photographic Documentation
Kroger Store D-707 Renovation
Ypsilanti, Michigan
Project No. 242414013**



Photo: 11

Description:

View of HA-11, carpet padding mastic.



Photo: 12

Description:

View of HA-12, 12" x 12" blue vinyl floor tile and mastic.



**Photographic Documentation
Kroger Store D-707 Renovation
Ypsilanti, Michigan
Project No. 242414013**



Photo: 13

Description:

View of HA-13, 2' x 2'
white acoustical ceiling
tile.



Photo: 14

Description:

View of HA-14, yellow
carpet mastic.



**Photographic Documentation
Kroger Store D-707 Renovation
Ypsilanti, Michigan
Project No. 242414013**



Photo: 15

Description:

View of HA-15, carpet mastic (all-weather).

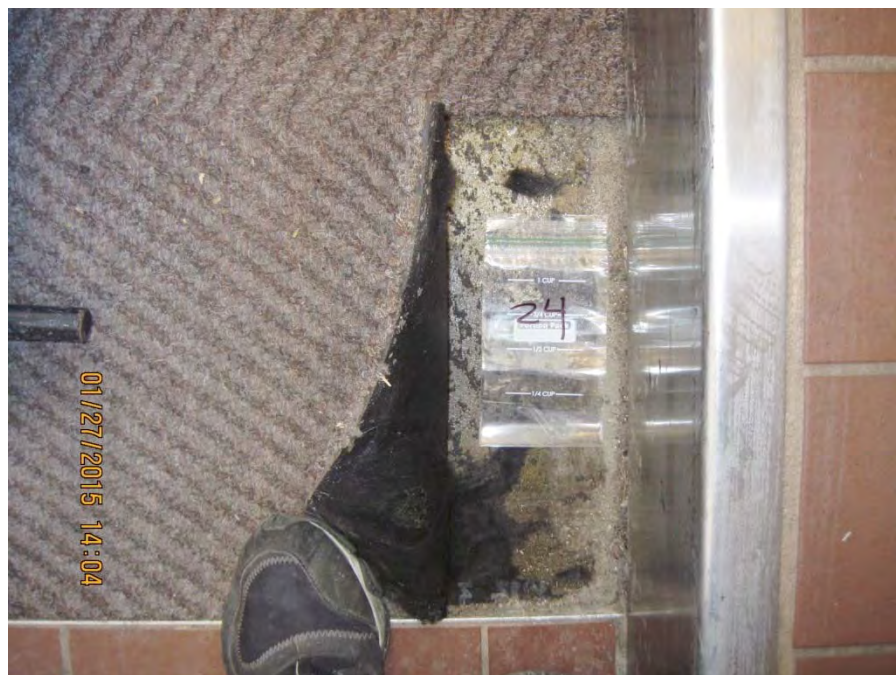
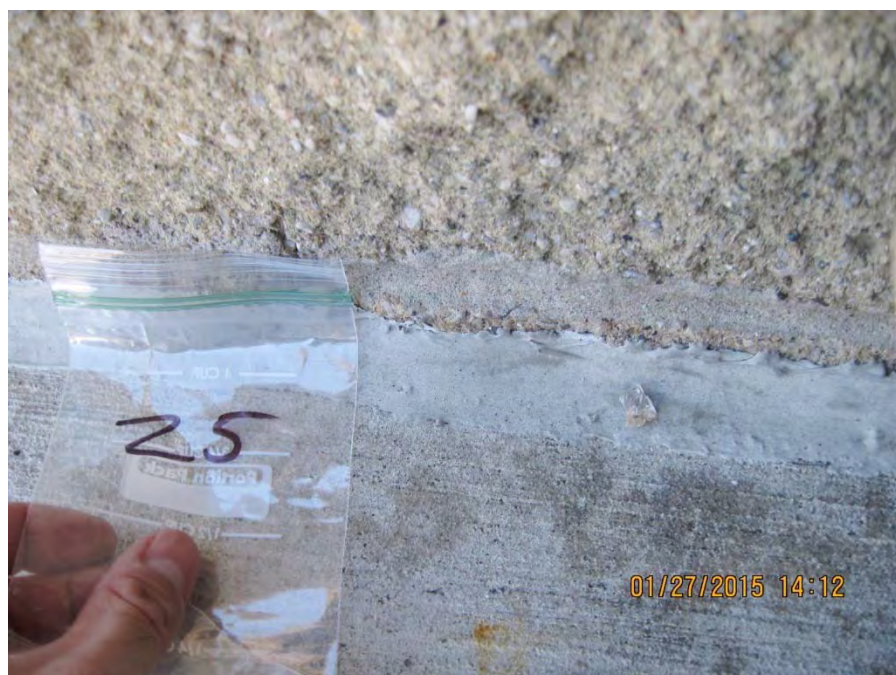


Photo: 16

Description:

View of HA-16, gray exterior construction caulk.



**Photographic Documentation
Kroger Store D-707 Renovation
Ypsilanti, Michigan
Project No. 242414013**



Photo: 17

Description:

View of HA-17, red exterior construction caulk.



Photo: 18

Description:

View of typical roof sample temporary patch and location marking.





APPENDIX B

Sample Summary



ASBESTOS SURVEY SAMPLE SUMMARY Kroger Store D-707 Renovation 2010 Whittaker Road Ypsilanti, Michigan Amec Foster Wheeler Project No. 242415013			
HA	Sample No.	Description	Sample Location
1	1	Roofing material	Roof, east side, near hatch
	2		Roof, west side, above bank tenant
2	3	Flashing tar (black)	Roof, east wall
	4		Roof, west wall
3	5	Interior construction caulk-gray	Loading dock, north overhead door
	6		Hallway, west of loading dock
4	7	Red textured flooring	Meat counter, north entrance
	8		Meat department, north wash room
5	9	White ceramic tile grout	Loading dock, employee restroom
6	10	Drywall/joint compound	Bottle return area
	11		Southeast exit door
	12		Near north vestibule
7	13	Brown cove base and mastic	Southeast exit door
	14		Bottle return area
8	15	Tan ceramic tile grout	Deli department
9	16	White ceramic tile grout	Deli department
10	17	2' x 4' Dot acoustical ceiling tile	Loading dock employee restroom
	18		Men's restroom
11	19	Carpet padding mastic	Pharmacy
12	20	12" x 12" Blue vinyl floor tile and mastic	Bank tenant space
	21		Bank tenant space
13	22	2' x 2' White acoustical ceiling tile	Bank tenant space, back room
14	23	Carpet mastic, yellow	Bank tenant space, back room
15	24	Carpet mastic	North vestibule
16	25	Exterior construction caulk, gray	Exterior, north vestibule
	26		Exterior, north vestibule
17	27	Exterior construction caulk, red	Exterior, south vestibule
	28		Exterior, south vestibule



APPENDIX C

Laboratory Reports

**EMSL Analytical, Inc.**

3029 S. Jefferson, Saint Louis, MO 63118

Phone/Fax: (314) 577-0150 / (314) 776-3313

<http://www.EMSL.com>saintlouislalab@emsl.com

EMSL Order: 391500883

CustomerID: AMECMM25

CustomerPO: C012603559

ProjectID:

Attn: **Kevin Arnold**
AMEC E&I, Inc.
15933 Clayton Road
Suite 215
Ballwin, MO 63011

Phone: (314) 209-5900
Fax:
Received: 01/30/15 9:45 AM
Analysis Date: 2/3/2015
Collected:

Project: 242415013

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1-Roof 391500883-0001		Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
Insufficient adhesive for analysis.					
1-Felt 391500883-0001A		Brown Fibrous Homogeneous	58% Cellulose 18% Glass	24% Non-fibrous (other)	None Detected
Insufficient adhesive for analysis.					
1-Insulation 391500883-0001B		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
Insufficient adhesive for analysis.					
2-Roof 391500883-0002		Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-Adhesive 391500883-0002A		Clear Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-Felt 391500883-0002B		Brown Fibrous Homogeneous	59% Cellulose 19% Glass	22% Non-fibrous (other)	None Detected
2-Insulation 391500883-0002C		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
3 391500883-0003		Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)

Sue Ferrario (49)

Jeff Siria, Laboratory Manager
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

Samples analyzed by EMSL Analytical, Inc. Saint Louis, MO NVLAP Lab Code 200742-0

Initial report from 02/03/2015 13:55:41

**EMSL Analytical, Inc.**

3029 S. Jefferson, Saint Louis, MO 63118

Phone/Fax: (314) 577-0150 / (314) 776-3313

<http://www.EMSL.com>saintlouislabs@emsl.com

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4 391500883-0004		Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
5 391500883-0005		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
6 391500883-0006		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
7-Flooring 391500883-0007		Various Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
7-Adhesive 391500883-0007A		Clear Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
8 391500883-0008		Various Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
9 391500883-0009		Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
10-Tape 391500883-0010		Gray Non-Fibrous Homogeneous	100% Cellulose	0% Non-fibrous (other)	None Detected

Analyst(s)

Sue Ferrario (49)

Jeff Siria, Laboratory Manager
or other approved signatory

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Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos	
			% Fibrous	% Non-Fibrous	% Type	
10-Mastic 391500883-0010A		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected	
10-Drywall 391500883-0010B		Various Non-Fibrous Heterogeneous	16% Cellulose	84% Non-fibrous (other)	None Detected	
11-Wallpaper 391500883-0011		Various Non-Fibrous Homogeneous	17% Synthetic 17% Fibrous (other)	66% Non-fibrous (other)	None Detected	
11-Adhesive 391500883-0011A		Clear Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected	
11-Joint Compound 391500883-0011B		White Non-Fibrous Homogeneous		27% Perlite 73% Non-fibrous (other)	None Detected	
11-Drywall 391500883-0011C		Various Non-Fibrous Heterogeneous	17% Cellulose	83% Non-fibrous (other)	None Detected	
12-Wallpaper 391500883-0012		Various Non-Fibrous Heterogeneous	18% Synthetic 18% Fibrous (other)	64% Non-fibrous (other)	None Detected	
12-Adhesive 391500883-0012A		Clear Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected	

Analyst(s)

Sue Ferrario (49)

Jeff Siria, Laboratory Manager
 or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Saint Louis, MO NVLAP Lab Code 200742-0

Initial report from 02/03/2015 13:55:41

**EMSL Analytical, Inc.**

3029 S. Jefferson, Saint Louis, MO 63118

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Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
12-Joint Compound 391500883-0012B		White Non-Fibrous Homogeneous		28% Perlite 72% Non-fibrous (other)	None Detected
12-Wall 391500883-0012C		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
13-CB 391500883-0013		Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
13-Mast 391500883-0013A		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
14-CB 391500883-0014		Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
14-Mast 391500883-0014A		Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
15 391500883-0015		Gray Non-Fibrous Homogeneous		19% Quartz 81% Non-fibrous (other)	None Detected
16-Adhesive 391500883-0016		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)

Sue Ferrario (49)

Jeff Siria, Laboratory Manager
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

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EMSL Order: 391500883

CustomerID: AMECMM25

CustomerPO: C012603559

ProjectID:

Attn: **Kevin Arnold**
AMEC E&I, Inc.
15933 Clayton Road
Suite 215
Ballwin, MO 63011

Phone: (314) 209-5900
Fax:
Received: 01/30/15 9:45 AM
Analysis Date: 2/3/2015
Collected:

Project: 242415013

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos	
			% Fibrous	% Non-Fibrous	% Type	
16-Grout 391500883-0016A		White Non-Fibrous Homogeneous		100% Non-fibrous (other)		None Detected
17 391500883-0017		Various Fibrous Heterogeneous	26% Cellulose 35% Min. Wool	26% Perlite 13% Non-fibrous (other)		None Detected
18 391500883-0018		Various Fibrous Heterogeneous	27% Cellulose 36% Min. Wool	27% Perlite 10% Non-fibrous (other)		None Detected
19 391500883-0019		Black Non-Fibrous Homogeneous		100% Non-fibrous (other)		None Detected
20-VFT 391500883-0020		Blue Non-Fibrous Homogeneous		100% Non-fibrous (other)		None Detected
20-Mastic 391500883-0020A		Black Non-Fibrous Homogeneous		100% Non-fibrous (other)		None Detected
20-Flooring Compound 391500883-0020B		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)		None Detected
21-VFT 391500883-0021		Blue Non-Fibrous Homogeneous		100% Non-fibrous (other)		None Detected

Analyst(s)

Sue Ferrario (49)

Jeff Siria, Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Saint Louis, MO NVLAP Lab Code 200742-0

Initial report from 02/03/2015 13:55:41

**EMSL Analytical, Inc.**

3029 S. Jefferson, Saint Louis, MO 63118

Phone/Fax: (314) 577-0150 / (314) 776-3313

<http://www.EMSL.com>saintlouislabs@emsl.com

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Sample	Description	Appearance	<u>Non-Asbestos</u>		<u>Asbestos</u>
			% Fibrous	% Non-Fibrous	% Type
21-Mastic 391500883-0021A		Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
21-Flooring Compound 391500883-0021B		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
22 391500883-0022		Various Fibrous Heterogeneous	28% Cellulose 37% Min. Wool	28% Perlite 7% Non-fibrous (other)	None Detected
23 391500883-0023		Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
24 391500883-0024		Black Non-Fibrous Homogeneous	99% Synthetic	1% Non-fibrous (other)	None Detected
25 391500883-0025		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
26 391500883-0026		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
27 391500883-0027		Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)

Sue Ferrario (49)

Jeff Siria, Laboratory Manager
 or other approved signatory

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Collected:

Project: 242415013

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	<u>Non-Asbestos</u>		<u>Asbestos</u>
			% Fibrous	% Non-Fibrous	% Type
28		Tan		100% Non-fibrous (other)	None Detected
391500883-0028		Non-Fibrous Homogeneous			

Analyst(s)

Sue Ferrario (49)

Jeff Siria, Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Saint Louis, MO NVLAP Lab Code 200742-0

Initial report from 02/03/2015 13:55:41



EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

391500883

St. Louis, MO 63118

PHONE: (314)-577-0150

FAX: (314)-776-3313

Company: AMEC E & I, Inc.		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 15933 Clayton Road, Ste. 215		Third Party Billing requires written authorization from third party	
City: Ballwin	State/Province: MO	Zip/Postal Code: 63011	Country: United States
Report To (Name): Kevin Arnold		Telephone #: 6362005137	
Email Address: kevin.arnold@amec.com		Fax #:	Purchase Order: C012603559
Project Name/Number: 242415013		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: MO		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options* - Please Check

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 48 Hour ☒ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PLM - Bulk (reporting limit)

- ☒ PLM EPA 600/R-93/116 (<1%)
☐ PLM EPA NOB (<1%)
 Point Count ☐ 400 (<0.25%) ☐ 1000 (<0.1%)
 Point Count w/Gravimetric ☐ 400 (<0.25%) ☐ 1000 (<0.1%)
☐ NIOSH 9002 (<1%)
☐ NY ELAP Method 198.1 (friable in NY)
☐ NY ELAP Method 198.6 NOB (non-friable-NY)
☐ OSHA ID-191 Modified
☐ Standard Addition Method

TEM - Bulk

- ☐ TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
☐ NY ELAP Method 198.4 (TEM)
☐ Chatfield Protocol (semi-quantitative)
☐ TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
☐ TEM Qualitative via Filtration Prep Technique
☐ TEM Qualitative via Drop Mount Prep Technique

Other

☐ Check For Positive Stop - Clearly Identify Homogenous Group

Date Sampled: 1/27/15

Samplers Name: MICHAEL DENDE

Samplers Signature: [Signature]

Sample #	HA #	Sample Location	Material Description
1			ROOF
2			ROOF
3			TAR
4			TAR
5			CONS. CAULK GRAY
6			"
7			RED FLOORING
8			"
9			TILE GROUT WHITE
10			DRYWALL + MASTER

Client Sample # (s): 28

Total # of Samples:

Relinquished (Client): [Signature]

Date: 1/28/15

Time: 11:45

Received (Lab): [Signature]

Date: 1-30-15

Time: 9:45 E

Comments/Special Instructions:

Provided composite result for positive wallboard/joint compound sample.

Bill To: AMEC E & I, Inc., 15933 Clayton Road, Ste. 215, Ballwin, MO, 63011, United States

Attention: Jennifer Schneider Phone: 636-200-5151 Email: Jennifer.Schneider@amec.com Purchase Order: C012601916

790126138794

39 15 00 883

FAX: (314)-776-3313



APPENDIX D

Certifications

State of Michigan
 Department of Licensing and Regulatory Affairs
 Michigan Occupational Safety & Health Administration - Asbestos Program

Asbestos Inspector

Michael J. Dende
 1125 Funnycide Way
 Howell, MI 48842

Accreditation Number
A40192

Expiration Date
06/17/2015

DOB: 02/05/1979

110968

This individual has satisfactorily met or exceeded the requirements of Michigan Public Act 440 of 1988, as amended, to be accredited as an Asbestos Inspector.

Accreditation card is not valid if altered.