ANALYSIS OF BROWNFIELD CLEANUP ALTERNATIVES

United States Environmental Protection Agency Revolving Loan Fund
Agreement ID #4B-00E03232
Indiana Brownfield Program Site #4060054

Former Dodge Manufacturing Company / Former RMG Foundry Facility
500 South Union Street
Mishawaka, Saint Joseph County, Indiana
May 2026

This Analysis of Brownfield Cleanup Alternatives (ABCA) was prepared in cooperation among the Indiana Brownfields Program (Program), the City of Mishawaka (City) and Heartland Environmental Associates, Inc. (Heartland) as a requirement for utilizing United States Environmental Protection Agency (USEPA) grant funding to remediate a Brownfield. More specifically, this project utilizes funds through a USEPA Revolving Loan Fund (RLF) subgrant (RLF Grant #4B-00E-3232) for the cleanup of the former Dodge Foundry / former RMG Foundry facility located at 500 South Union Street in Mishawaka, Saint Joseph County, Indiana (Site). The Program and the USEPA deemed the Site eligible for the expenditure of approximately $500,000. The Site currently consists of one (1) one to four-story former industrial building encompassing approximately 372,981-square feet and one (1) detached former boiler / utility building encompassing approximately 14,973-square feet, with associated asphalt and concrete parking areas and landscaped areas.

The Site was developed by at least 1878 as the Dodge Manufacturing Company/Corporation sawmill and factory. Operations at the site progressively expanded through at least the mid-1960s. In 1967, the Dodge Manufacturing Company was purchased and became a division of Reliance Electric Company. The Dodge Manufacturing Company closed in 1999, reopened with new owners and operated under the name RMG Foundry until the foundry operations ultimately ceased in 2006. The Site has been vacant and not in use since 2024, and was only utilized for warehousing and storage after 2007.

The Site was acquired by the City in October 2024 and is being evaluated for demolition due to the significantly deteriorated condition of the site buildings. The Site is planned for redevelopment after demolition of the site buildings is completed. This ABCA has been prepared as the City is planning to utilize RLF funding for the abatement of asbestos containing materials (ACMs) identified within the site buildings. The scope of the proposed abatement serves to protect human health and the environment, and supports the future redevelopment of the Site.

This ABCA outlines the following two (2) remedial alternatives considered for the Site. The "No Action" alternative is provided for comparison purposes. The alternatives considered are as follows:

1. Alternative #1: No Action
2. Alternative #2: Abatement of all ACMs, including both regulated, friable ACMs and transite siding materials, which can become friable during demolition activities.

These removal action alternatives were evaluated independently using broad criteria, including effectiveness, implementability and cost. Following the evaluation of the alternatives, the alternatives were compared to evaluate their relative effectiveness and performances, and to identify advantages and disadvantages to may affect the removal action selection.

The proposed action, Alternative #2, meets all the comparison criteria, protects human health and the environment, and will facilitate demolition and redevelopment of the Site. This ABCA generally follows the outline developed by the USEPA and serves to summarize Site information, identify applicable regulations and document remedial alterative evaluation.

Site Background Information

Site Name and Location: Former Dodge Manufacturing Company / Former RMG Foundry
500 South Union Street
Mishawaka, Saint Joseph County, Indiana 46544

Site Owner: City of Mishawaka
c/o Redevelopment Commission
100 Lincolnway West
Mishawaka, Saint Joseph County, Indiana 46544

Site Background:

The Site was developed by at least 1878 as the Dodge Manufacturing Company/Corporation sawmill and factory. Operations at the Site progressively expanded through at least the mid-1960s. In 1967, the Dodge Manufacturing Company was purchased and became a division of Reliance Electric Company. The Dodge Manufacturing Company closed in 1999, reopened with new owners and operated under the name RMG Foundry until the foundry operations ultimately ceased in 2006. The Site was most recently utilized for warehousing of equipment, boats, automobiles, and RVs as well as for minor amounts of small vehicle repair. In 2013, a large fire occurred on the property and destroyed the far southern portion of the main site building. In 2023 and 2024, the site property and buildings were substantially emptied. The Site has been vacant and not in use since 2024, and was only utilized for warehousing and storage after 2007.

The Site was obtained by the City in October 2024. Figures depicting the site are included with this ABCA (see Figure 1 for a site location map and Figure 2 for a site map with parcel boundaries).

Previous Environmental Assessments and Investigations:

The Site has been subject to extensive environmental assessment activities, dating back to 1991. These investigations have included extensive subsurface investigative assessments, and have also included investigations of the site buildings.

A comprehensive asbestos building inspection was completed in December 2024, and encompassed the entirety of the facility buildings. The December 2024 inspection served to update an inspection that was completed in 1995, which documented the presence of significant quantities of ACMs within the site building at that time.

Based on the findings of the December 2024 asbestos building inspection, friable, regulated asbestos containing materials (RACMs) were encountered in the buildings in the form of thermal systems insulation (TSI) pipe wrapping, pipe fittings and textured ceiling material. RACMs in the form of TSI pipe wrapping and pipe fittings were encountered cladded on exposed pipe chases throughout all floors of the site buildings. RACMs in the form of textured ceiling materials were encountered on the ceilings in the north offices in the pattern shop.

In general, the RACMs were encountered in fair to poor condition, with several sections of TSI pipe wrap and pipe fittings encountered either intact or slightly damaged. However, significant amounts of TSI were observed to be damaged or significantly damaged. Additionally, several sections of TSI were scattered on the floor as debris. This included areas in the basement portion of the main site building, where asbestos containing debris was strewn. Potential exposure to damaged and friable RACMs was determined to be a concern, particularly in the basement where strewn TSI was observed on the floors in several areas.

RACMs pose an exposure risk if disturbed; therefore, these materials require abatement in the State of Indiana prior to the onset of demolition activities.

Additionally, non-friable ACMs in the form of resilient vinyl floor coverings and associated mastics, rolled asphalt roofing, rubberized roofing and roof flashing were encountered within select areas of the site building. Resilient vinyl flooring materials and associated mastics, rolled asphalt roofing and roof flashing are considered non-friable ACMs and therefore are not regulated. These materials do not pose an exposure concern to occupants of the site building unless subject to sanding, grinding, abrading or any other mechanical process which would render these materials friable.

Finally, non-friable ACMs in the form of transite wallboard materials were encountered on the exterior and interior of the site building, on the east mezzanine wall of the main foundry and on the ceiling of the 2nd floor, west mezzanine offices within the main foundry. The transite wallboard materials are considered non-friable ACMs and therefore are not regulated. However, these materials will likely become friable RACMs during demolition activities and therefore require abatement in the State of Indiana prior to the onset of demolition activities.

Table 1 below provides a summary of identified ACMs, as outlined in Heartland's Asbestos Building Inspection Report date January 6, 2025.

Table 1
Summary of Positively Identified Sampled Asbestos Containing Building Materials
Former Dodge Manufacturing Company / Former RMG Foundry
500 South Union Street
Mishawaka, Indiana

MAIN FOUNDRY BUILDING					
Material/Location	**Friable**	**Category**	**Asbestos Content**	**Area (ft^2) ***	**Sample #**
Floor Tile/Mastic – 12" x 12" Dark Gray / Tan – 1st Floor Warehouse	No	I (Mastic Only)	**2% Chrysotile (Mastic Only)**	**~1,500**	FT – 1 (A-E)
Floor Tile/Mastic – 9" x 9" Green / Streaks – Main Foundry Rooms	No	I (Mastic Only)	**2% Chrysotile (Tile and Mastic)**	**~1,500**	FT – 2 (A-E)

Table 1
Summary of Positively Identified Sampled Asbestos Containing Building Materials
Former Dodge Manufacturing Company / Former RMG Foundry
500 South Union Street
Mishawaka, Indiana

Floor Tile/Mastic – 12" x 12" Cream w/Brown Streaks – 2nd Floor Room in Main Foundry	No	I (Mastic Only)	**2% Chrysotile (Tile and Mastic)**	**~500**	FT – 4 (A-C)
Floor Tile/Mastic – 12" x 12" Mauve w/ Streaks – Northwest Office Entryway, 1st Floor	No	I (Mastic Only)	**3% Chrysotile (Mastic Only)**	**~500**	FT –6 (A-C)
Floor Tile/Mastic – 12" x 12" Light Green – West Office in South Foundry	No	I (Mastic Only)	**2% Chrysotile (Tile Only)**	**~100**	FT – 8 (A)
Rolled Asphalt Roofing Material, Roof of Building	No	I	**3% Chrysotile**	-	RF – 1 (A-C)
Rubberized Roofing Material, Roof of Building	No	I	**3% Chrysotile**	-	RF – 2 (A-C)
Roofing Flashing, Roof of Building	No	I	**2% Chrysotile**	-	FL – 1 (A-C)
Corrugated Debris – Scattered As Debris on Floor of Warehouse Basement	No	I	**70% Chrysotile**	**~Strewn About Over ~18,900 Square Feet of Basement Space** **Note: Area includes 90' x 60' on the North Side; 90' x 120' centrally in basement; and 90' x 30' on the South Side**	DB – 1 (A-C)
Corrugated Transite Wallboard – Exterior of Building	No	II	**30% Chrysotile**	**~2,240**	SD – 1 (A-C)
Flat Panel Transite Siding – Exterior of Building	No	II	**20% Chrysotile**	**~21,352** **Note area includes side panels and exterior roofing panels**	SD – 2 (A-C)
Ceiling Panels – Ceiling of West Mezzanine Office in Main Foundry	No	II	**20% Chrysotile**	**~1,000**	CP – 1 (A-C)
Wallboard – East Mezzanine in Main Foundry	No	II	**20% Chrysotile**	**~40**	WB – 1 (A)
Window Glazing – Gray, Windows of Warehouse	No	I	<1% Chrysotile	-	WG – 1 (A-G)

Table 1 Summary of Positively Identified Sampled Asbestos Containing Building Materials Former Dodge Manufacturing Company / Former RMG Foundry 500 South Union Street Mishawaka, Indiana					
Window Glazing – Gray, Windows of Building	No	I	<1% Chrysotile	-	WG – 2 (A-G)
Textured Ceiling Material – North Offices in Pattern Shop	Yes	I	**15% Chrysotile**	**~500**	TC – 1 (A-C)
Thermal Systems Insulation Pipe Wrapping – 2", 3" and 5" Runs in Pattern Shop	Yes	RACM	**PACM**	**~~185 LF + ~8 Mud Joints**	NS
Thermal Systems Insulation Pipe Wrapping – 2", 3" and 5" Runs in South Core Room	Yes	RACM	**PACM**	**~245 LF + ~6 to 8 Mud Joints**	NS
Thermal Systems Insulation Pipe Wrapping – 2", 3" and 5" Runs, West Catwalk / Packing	Yes	RACM	**PACM**	**~355 LF + ~18 to 23 Mud Joints**	NS
Thermal Systems Insulation Pipe Wrapping – 2", 3" and 5" Runs, East Catwalk / Packing	Yes	RACM	**PACM**	**~135 LF + ~2 to 6 Mud Joints**	NS
Thermal Systems Insulation Pipe Wrapping – 3" and 4" Runs in Locker Room	Yes	RACM	**PACM**	**~170 LF + ~2 to 7 Mud Joints**	NS
Thermal Systems Insulation Pipe Wrapping – 2" and 3" Runs, East 1st Floor Packing	Yes	RACM	**PACM**	**~140 LF + ~2 to 4 Mud Joints**	NS
Thermal Systems Insulation Pipe Wrapping – 4" and 5" Runs, Central 1st Floor Packing	Yes	RACM	**PACM**	**~55 LF + ~4 Mud Joints**	NS
Thermal Systems Insulation Pipe Wrapping – 3" and 5" Runs, Basement	Yes	RACM	**PACM**	**~30 LF + ~6 to 8 Mud Joints**	NS
Thermal Systems Insulation Pipe Wrapping – 3" and 5" Runs – Foundry Main NW	Yes	RACM	**PACM**	**~60 to 80 LF + ~6 to 12 Mud Joints**	NS
Thermal Systems Insulation Pipe Wrapping – 12" Runs under tunnel chase, Foundry Main NW	Yes	RACM	**PACM**	**~100 – 200 LF (Could Not Definitively Ascertain Quantity due to chase location)**	NS
Thermal Systems Insulation Pipe Wrapping – 5" Runs – Mid-West North Foundry Room	Yes	RACM	**PACM**	**~12 - 15 Mud Joints**	NS
Thermal Systems Insulation Pipe Wrapping – 2" Runs – Middle North Foundry Room	Yes	-	**PACM**	**~120 LF (~80 LF Encapsulated) + ~20 to 25 Mud Joints**	NS
Thermal Systems Insulation Pipe Wrapping – 5" Runs – Eastern North Foundry Room	Yes	-	**PACM**	**~25 to 30 LF + ~15 to 20 Mud Joints**	NS
POWER HOUSE BUILDING					

Table 1
Summary of Positively Identified Sampled Asbestos Containing Building Materials
Former Dodge Manufacturing Company / Former RMG Foundry
500 South Union Street
Mishawaka, Indiana

Floor Tile / Mastic – 9" x 9" light grayish beige w/dark brown streaks, northern portion of site building	No	I	**2% Chrysotile (Tile)** **2% Chrysotile (Mastic)**	~1,350	FT – 1 (A-C)
Floor Tile / Mastic – yellow and green pattern vinyl sheet, northern office	No	I	**2% Chrysotile (Tile)** **4% Chrysotile (Mastic)**	~40	FT – 2 (A)
Floor Tile / Mastic – 12" x 12" greenish brown squiggle and marble pattern, northern office hallways	No	I	ND (Tile) **3% Chrysotile (Mastic)**	~30	FT – 3 (A)
Transite Wallboard Material – wall panel near mezzanine, southern portion of the site building	No	II	**20% Chrysotile**	~100	TS – 1 (A)
TSI Pipe Wrap – 12"-diameter horizontal and vertical pipe chases, mezzanine, southern portion of the site building	Yes	RACM	**PACM**	~90 - 145 LF	-
Boiler Jacket Material – Clad on 5,000-gallon boiler in mezzanine, southern portion of the site building	Yes	RACM	**PACM**	~600	-
TSI Mud Joints, Tunnel (8" – 12" Diameter)	Yes	RACM	**20% Chrysotile**	~8 – 12 Joints	MJ – 1 (A)
Asphalt Roof Flashing	No	I	**2% Chrysotile**	~1,400	FL – 1 (A-C)

Friable: Yes – hand friable, No – non-friable
ND: No asbestos detected
NS: Not Sampled
PACM: Presumed Asbestos Containing Materials
Results in **BOLD** indicate positive results for asbestos
LF: Linear Feet
*Square footage estimates determined from during site inspection activities and take into account reasonable assumptions for locations that were inaccessible.

A copy of the full asbestos building inspection reports is included as Attachment A to this ABCA document.

Site Specific Remedial Goals:

The Site is currently vacant and not in use, and the site buildings are in a significant state of disrepair. The Site is being evaluated for redevelopment for potential mixed use residential and commercial purposes to revitalize the Site and the surrounding area. Due to the significant state of disrepair of the site building, demolition of the buildings has been determined necessary, and the abatement of regulated and unregulated ACMs, specifically friable RACMs and non-regulated but potentially damageable transite siding materials, will be required to safely demolish the site building, in accordance with Indiana Department of Environmental Management (IDEM) guidance for demolitions. Therefore, abatement of these materials must occur to protect human health and the

environment prior to the onset of demolition, and should occur anyway due to the imminent dangers currently present relative to the damaged and/or significantly damaged ACMs present within the site buildings.

Regulations and Cleanup Standards

Project Oversight:

The Program has worked and will continue to work with the City in addressing environmental conditions at the Site. Heartland was engaged by the City and the Program to complete and develop documents related to the utilization of the RLF for abatement activities. All site activities will be completed by Heartland in accordance to its Quality Assurance Project Plan (QAPP) submitted to the USEPA for this project site. In concert with the development of this ABCA, Heartland will be submitting a Remediation Work Plan (RWP) to address and outline proposed abatement activities. Implementation of the final, approved remedial alternative will be completed by Heartland under supervision of the Program and the USEPA.

Cleanup Standards and other Applicable Laws and Regulations:

Asbestos is a mineral fiber that naturally occurs in rock and soil. Because of its fiber strength and heat resistance, asbestos has been used in a variety of building construction materials for insulation and as a fire retardant. Asbestos has also been used in a wide range of manufactured goods, mostly in building materials, friction products, heat-resistant fabrics, packaging, gaskets, and coatings. The inhalation of asbestos is the primary exposure route of concern. The effects on the lung resulting from inhalation of asbestos fibers are the main cause for asbestos related health issues. Chronic inhalation exposure to asbestos can result in lung diseases, scarring of tissue surrounding the lungs, pulmonary hypertension, and immunological effects.

Abatement of ACMs is regulated by IDEM in the State of Indiana due to the risk that abatement presents to workers. The National Emissions Standards for Hazardous Air Pollutants (NESHAP) for asbestos relating to demolition and renovations is the work practice standard adhered to in Indiana. The standard requires that specific actions be taken to control emissions. All abated ACMs will be properly abated and disposed of at an appropriately designated off-site landfill.

All site activities will comply with the USEPA Brownfields Program requirements for site activities and will be completed with the site-specific QAPP and RWP. Furthermore, all site activities and implemented remedial alternatives will comply with USEPA *Principles for Greener Cleanups*, promoting environmentally friendly site operations.

Evaluation of Remedial Alternatives

Remedial Alternatives Evaluated:

The following two (2) remedial alternatives considered for the Site:

1. Alternative 1: No Action
2. Alternative 2: Abatement of all ACMs, including both regulated, friable ACMs and transite siding materials, which can become friable during demolition activities.

Candidate remedial alternatives were evaluated based on effectiveness of the proposed alternative, the feasibility in implementation of the proposed alternative and the costs, both initial and long term, in remedial implementation.

Remedial Alternative Evaluation:

Based on the identified impacted media, extent and magnitude of impacts, and the corrective action goals, candidate remediation technologies were evaluated to address ACMs within and on the exterior of the site buildings. Heartland has evaluated the following as potential remedial alternatives:

Alternative #1: No Action

The "No Action" alternative was evaluated to provide a baseline to which other remedial action alternatives can be judged. "No Action" means that no abatement would be performed to minimize or eliminate the potential hazards. The "No Action" Alternative would consist of leaving the site buildings in their current condition. In their current state, the Site cannot be redeveloped, and redevelopment planning cannot continue. Based on the exposed and dilapidated state of the site building, asbestos related exposure risks are present, as actions from trespassers, such as starting fires for warmth and attempting to damage and/or otherwise vandalize the buildings, could release asbestos and possibly expose the public and contaminate the environment.

There would be no mitigation of contaminant migration or exposure pathways under this alternative. Long term maintenance would be required under the No Action alternative, as asbestos related exposure concerns would remain. The potential for exposure concerns related to asbestos would likely increase over time, as the buildings further deteriorate. This alternative would provide no additional protection to human health or the environment.

The "No Action" alternative would likely not gain community approval or acceptance, as this option would prevent redevelopment of the Site and asbestos related exposure risks would continue to be present. In its current state, the Site is a potential attraction for trespassers which could raise concern for the local citizens.

The "No Action" alternative would involve no direct or indirect capital costs, but there would be some expense associated with maintaining the buildings in a vacant status. The planned redevelopment of the Site could not proceed.

Alternative #2: Abatement

The abatement alternative would consist of the abatement and offsite disposal at an IDEM approved and permitted landfill of all identified RACMs within the site building, as well as all exterior and interior located transite wallboard siding materials. A licensed asbestos supervisor accredited in the State of Indiana will be required on site during all work hours to identify and segregate all potential ACMs at the point of abatement. All ACMs would be double bagged, sealed, and subsequently disposed at an offsite permitted landfill. Personnel monitoring and perimeter air monitoring would be required during abatement activities to determine whether airborne asbestos is a potential threat to workers on site or to areas outside of negative containment and downwind of the Site.

This alternative is the only alternative that completely removes all of the asbestos from the Site that poses a threat to human health and the environment, would facilitate demolition of the site buildings and would further facilitate redevelopment of the Site. This option further serves to protect human health exposure for the community, that may be present due to the continued vacancy and ongoing deterioration of the site buildings. As this option would be completed utilizing industry standards, the engineering controls would adequately protect the public health and safety as well as protect the environment.

Benefits of this approach are as follows:

- Overall Protection of Human Health and the Environment - The physical removal and offsite disposal of onsite ACMs would serve to protect human health and the environment by eliminating the potential exposure pathways related to asbestos. Protection against worker exposure and potential offsite exposures during the removal action would be ensured through air monitoring, appropriate negative air containment for asbestos abatement, appropriate personal protective equipment for the workers within the building and proper offsite disposal.
- Long-Term Effectiveness and Permanence - The physical removal and offsite disposal of the ACM would achieve long-term protection of human health and the environment by eliminating the potential exposure pathways related to asbestos. The ACMs would be double-bagged prior to disposal off-site, thereby protecting human health and the environment during transportation to the disposal facility.
- Reduction of Toxicity, Mobility, or Volume through Treatment - Removal and off-site disposal of the ACMs would eliminate migration of contaminants at the Site. Contaminated materials disposed off-site would be transported to landfills that are designed to prevent contaminant migration. The containerization (wrapping and bagging) and disposal of ACMs would further reduce the mobility of asbestos fibers.
- Short-Term Effectiveness - Abatement of ACMs has the potential to release fugitive asbestos fibers into the air, which could leave the Site; however, the abatement of asbestos is subject to state regulation and is monitored. The regulations require that indoor asbestos be abated under negative air pressure, ensuring that fibers released to the air do not leave the work area. All the regulated abatement work is conducted within an enclosure and the negative air pressure is attained through the use of specialized equipment that creates a partial vacuum within the containment area.

  Personal protective equipment is necessary for workers within the containment. This alternative would include air sampling on the outside of the abatement area to ensure that no asbestos fibers are released that may pose an exposure risk to the off-site community at large. Dust suppression measures (such as wetting) would also be implemented as necessary to reduce the potential for exposure and off site releases. It is anticipated that IDEM will conduct routine inspections during the abatement.

The feasibility of this approach was also evaluated based on its implementability. This is outlined as follows:

Asbestos removal must be conducted in accordance with all municipal, state, and federal regulations. This includes, but is not limited to, guidance outlined in State of Indiana Administrative Code (326 IAC 14-10). Contractors performing asbestos abatement must be licensed

by IDEM, and removal accomplished in accordance with IDEM guidance. Removal activities are under IDEM regulatory oversight and include removal of all RACMs and materials that may become friable (i.e., transite) during the course of demolition activities which may render the materials friable.

RACMs were identified in quantities (260 linear feet/160 square feet/35 cubic feet) greater than the written notification requirements specified in Indiana Administrative Code (326 IAC 14-10). Therefore, written notification to IDEM will be required pertaining to asbestos related demolition and/or renovation actions at this property. Abatement of these materials will be required to be conducted by an accredited asbestos abatement contractor licensed in the State of Indiana prior to any future planned renovation and/or demolition activities.

This alternative would be technically feasible, and the required work is standard practice prior to demolition and renovation. There are many contractors who specialize in the abatement of asbestos. No future operations and maintenance (O&M) activities would be required for this alternative since the contaminants of concern would be removed. This alternative would achieve long-term protection, which would allow the Site to be developed.

Furthermore, this alternative would require the on-site presence of an accredited Asbestos Abatement Supervisor during all asbestos abatement activities and an accredited Asbestos Inspector to identify and sample all potential ACM prior to abatement. These services are readily available in the area of the Site, and contractors have already been vetted to perform these services.

Finally, this alternative would likely be readily accepted by both municipal and State agencies because it eliminates all potential exposure pathways and is a permanent remedy that is consistent with the redevelopment plans. Public acceptance of this alternative would be expected since the Site would be mitigated and utilized for redevelopment. Implementation of this alternative will eliminate a potential threat to human health and the environment and ultimately create a positive economic impact for the Site and the surrounding community.

The estimated costs for this remedial alternative are approximately $500,000. There are no ongoing O&M costs or any future remedial action costs associated with this option, as all contaminants of concern will be subject to removal and off-site disposal.

Recommended Remedial Alternative:

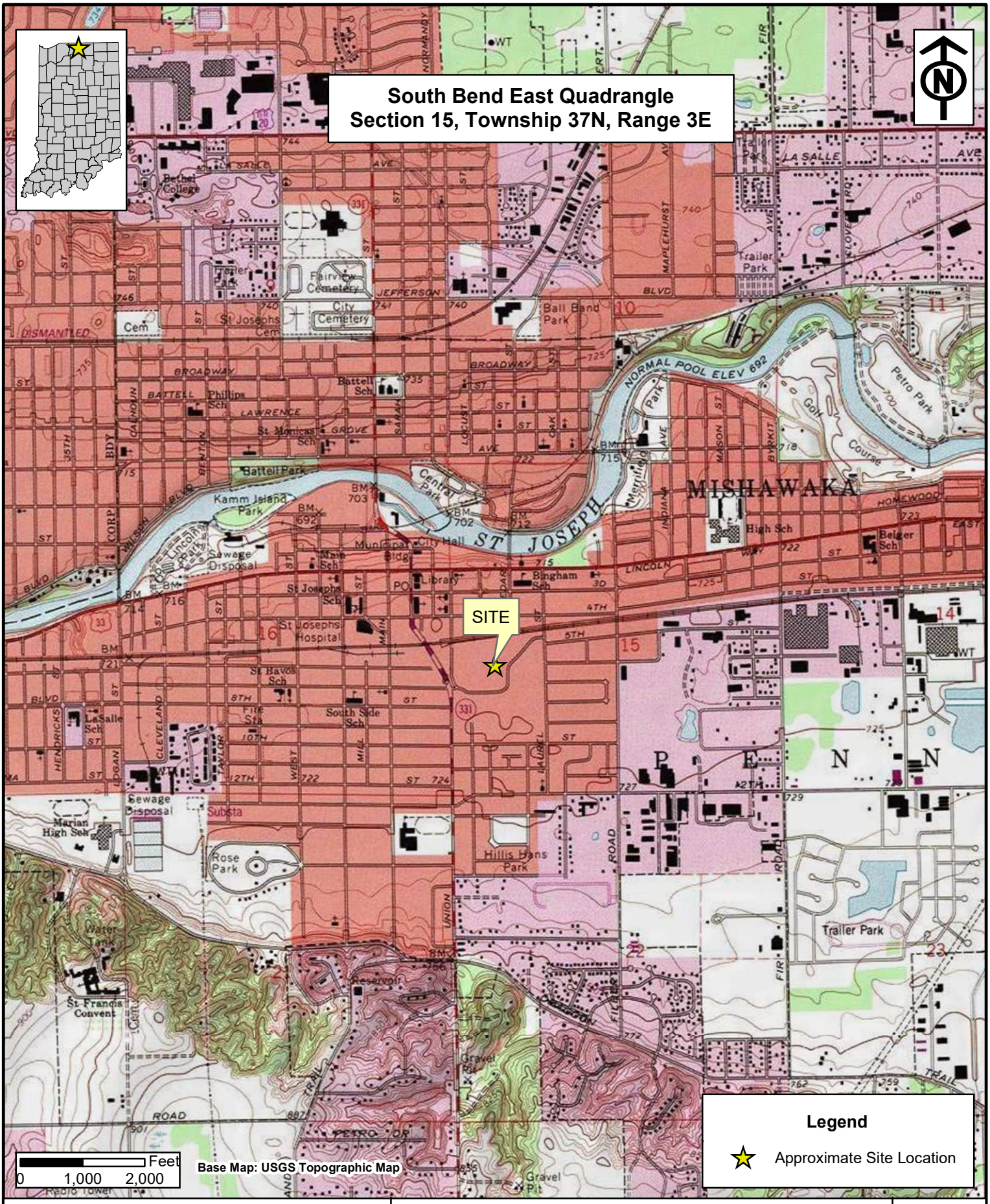
Based on all evaluated alternatives, the selected and only feasible option is Alternative #2, which incorporated that abatement of all friable, regulated ACMs and the abatement of all potentially rendered friable (during demolition) exterior and interior transite siding materials. Alternative #1 (“No Action”) is not feasible as this options does not eliminate potential human health exposure risks as it relates to asbestos, and eliminates the potential for redevelopment of the Site, as demolition of the site buildings cannot take place without abatement.

Decision Document

A decision document will be issued at the close of the public comment period with additional details on the selected remedial alternative. This decision document will serve as a notice to proceed with federally funded remedial activities and will be available in the local information

repositories for public view, along with this Site ABCA and other Site-related documents for public review.

FIGURES



HEA
HEARTLAND ENVIRONMENTAL ASSOCIATES INC.

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3410 Mishawaka Avenue, South Bend, Indiana 46615
1324 East 16th Street, Indianapolis, Indiana 46202

FIGURE 1
SITE LOCATION MAP

FORMER RMG / DODGE MANUFACTURING COMPANY FOUNDRY
500 UNION STREET
MISHAWAKA, INDIANA 46544-2340

Date: 5/14/2024
Scale: 1"=2,000'
Drawn By: NV

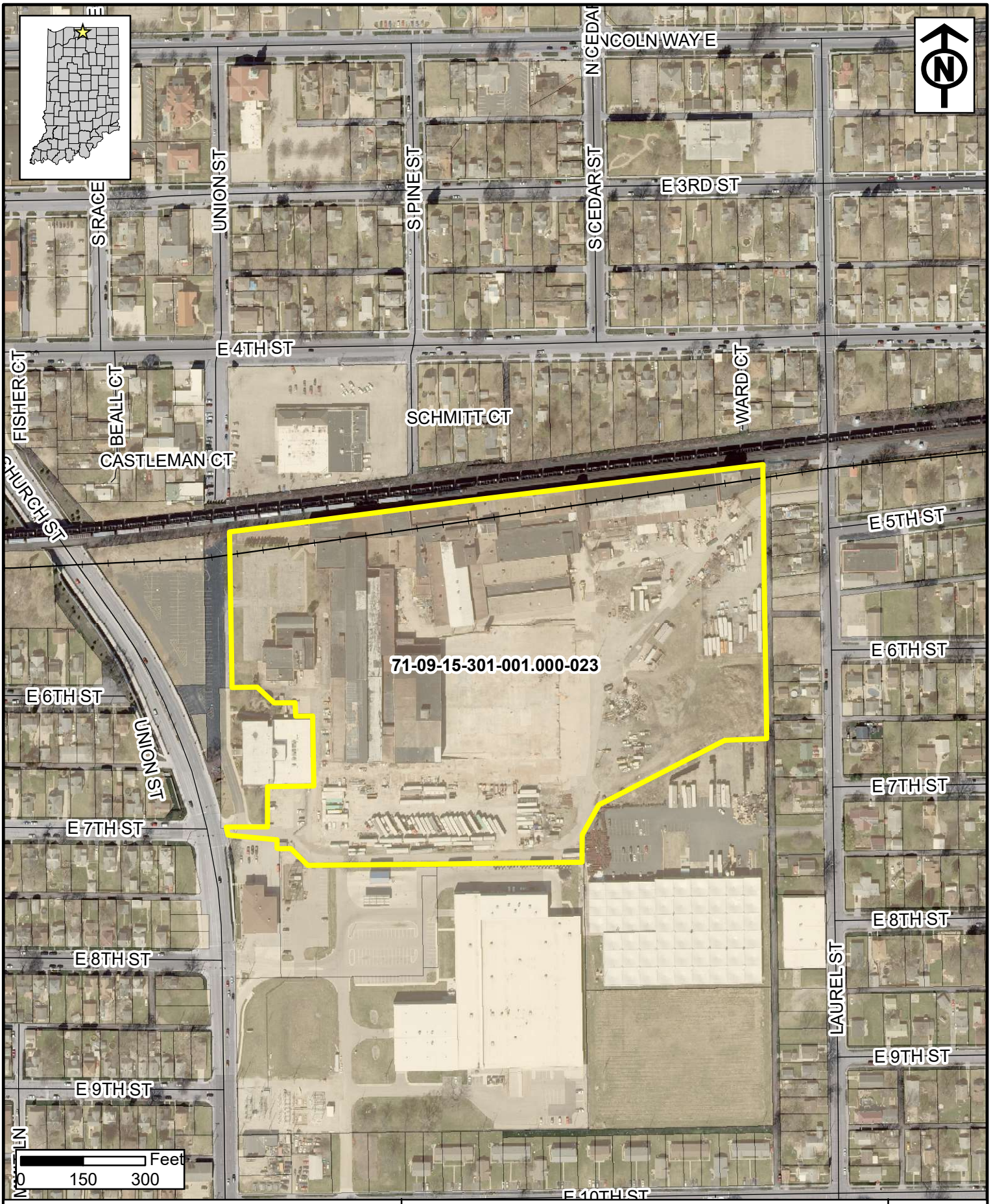

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FIGURE 2
SITE MAP W/PARCEL BOUNDARY

FORMER RMG / DODGE MANUFACTURING COMPANY FOUNDRY
500 UNION STREET
MISHAWAKA, INDIANA 46544-2340

Date: 5/14/2024
Scale: 1"=300'
Drawn By: NV

ATTACHMENT A
Asbestos Building Inspection Reports

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

ASBESTOS BUILDING INSPECTION REPORT

Former Dodge Manufacturing Company / Former RMG Foundry
Main Foundry Building
500 South Union Street
Mishawaka, Indiana 46544

January 6, 2025

Heartland Project Number 5306-24-01

"Your dependable partner for environmental compliance"
3410 Mishawaka Avenue South Bend, Indiana 46615 Phone 574.289.1191 Fax 574.289.7480

This report is prepared by:

Heartland Environmental Associates, Inc.
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Prepared For:

City of Mishawaka, Indiana
c/o Department of Planning & Community Development
Attn: Mr. Kenneth B. Prince ASLA, AICP
600 East Third Street
Mishawaka, Indiana 46544

For the Site:

Former Dodge Manufacturing Company / Former RMG Foundry
Main Foundry Building
500 Union Street
Mishawaka, Indiana 46544
Heartland Project #5306-24-01

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EXECUTIVE SUMMARY

Heartland Environmental Associates, Inc. (Heartland), on behalf of the City of Mishawaka (City), conducted an asbestos building inspection of the former Dodge Manufacturing Company / former RMG Foundry facility located at 500 South Union Street in Mishawaka, Indiana. The subject property is located on one (1) parcel of land (Parcel ID #71-09-15-301-001.000-023) situated on an area of approximately 22.38-acres. The site is improved with one (1) one to four-story former industrial building encompassing approximately 372,981-square feet. The remaining portions of the site are capped with vegetation, concrete, crushed gravel and asphalt. The purpose of this inspection was to evaluate for the presence and/or absence of asbestos containing materials (ACMs) within the site building. This inspection was completed as part of pre-demolition project planning being initiated at the site and was requested by the City.

Note that the subject site also contains one (1) single-story detached structure formerly utilized as a boiler / utility building (referred to as the Power House Building). This building is situated west of the main foundry building subject to this inspection. This detached building was inspected in concert with this inspection and the results of the inspection of the Power House Building are reported under separate cover to this report.

Based on the results of this inspection, friable, regulated asbestos containing materials (RACMs) were encountered at the building in the form of thermal systems insulation (TSI) pipe wrapping, pipe fittings and textured ceiling material. RACMs in the form of TSI pipe wrapping and pipe fittings were encountered cladded on exposed pipe chases throughout all floors of the site building. RACMs in the form of textured ceiling materials were encountered on the ceilings in the north offices in the pattern shop. The TSI pipe wrap and pipe fittings were all presumed asbestos containing materials (PACMs) and were therefore not sampled.

The potential exists that some of the TSI pipe fitting materials extend upwards throughout the building; however, due to several of the interior walls being composed of concrete block and due to the dilapidated condition of the site building, a fully comprehensive inspection of potential hidden pipe chases could not be conducted due to safety considerations of the sampling personnel.

RACMs were identified in quantities (260 linear feet/160 square feet/35 cubic feet) greater than the written notification requirements specified in Indiana Administrative Code (326 IAC 14-10). **Therefore, written notification to the Indiana Department of Environmental Management (IDEM) will be required pertaining to asbestos related demolition and/or renovation actions at this property, as RACMs were encountered at the site exceeding written notification requirements. Abatement of these materials will be required to be conducted by an accredited asbestos abatement contractor licensed in the State of Indiana prior to any future planned renovation and/or demolition activities.**

In general, the RACMs were encountered in fair to poor condition, with several sections of TSI pipe wrap and pipe fittings encountered either intact or slightly damaged. However, significant amounts of TSI were observed to be damaged or significantly damaged. Additionally, several sections of TSI were scattered on the floor as debris. This included areas in the basement portion of the site building, where asbestos containing debris was strewn. Potential exposure to damaged and friable RACMs is a concern, particularly in the basement where strewn TSI was observed on the floors in several areas.

Additionally, non-friable ACMs in the form of resilient vinyl floor coverings and associated mastics, rolled asphalt roofing, rubberized roofing and roof flashing were encountered within select areas of the site building. Resilient vinyl flooring materials and associated mastics, rolled asphalt roofing and roof flashing are considered non-friable ACMs and therefore are not regulated. These materials do not pose an exposure concern to occupants of the site building unless subject to sanding, grinding, abrading or any other mechanical process which would render these materials friable.

Non-friable, unregulated ACMs can be disposed of as construction related demolition debris and will not require special abatement. Future abatement of these materials may be warranted, should these materials be subject to mechanical processes (i.e., sanding, grinding and/or abrading) as part of any future planned demolition activities. Note that, should abatement of these materials be desired, abatement work should be conducted by licensed asbestos abatement workers accredited in the State of Indiana.

Finally, non-friable ACMs in the form of transite wallboard materials were encountered on the exterior and interior of the site building, on the east mezzanine wall of the main foundry and on the ceiling of the 2nd floor, west mezzanine offices within the main foundry. The transite wallboard materials are considered non-friable ACMs and therefore are not regulated. However, these materials will likely become friable RACMs during demolition activities. **Therefore, abatement of these transite wallboard materials will be required to be conducted by an accredited asbestos abatement contractor licensed in the State of Indiana prior to any future planned renovation and/or demolition activities.**

Reasonable efforts were made to identify suspect ACMs within the facility building inspected. This inspection was performed using a combination of “destructive” and “non-destructive” sampling methods. The manner of the inspection did not compromise the structural integrity of the building or endanger the safety of sampling personnel or other contractors/occupants. Furthermore, this inspection was limited in that a comprehensive inspection of the entire site building was not feasible due to some areas being restricted by concrete block walls and general safety considerations due to the dilapidated nature of the site building. As such, areas behind some concrete block walls and areas not accessible by ladder were not fully accessed as part of this inspection. Focus was made to identify ACMs and/or suspect ACMs in all accessible areas of the site building and in common locations throughout the building.

1.0 INTRODUCTION

Heartland was provided with authorization from the City, and coordinated access with representatives and staff from the City, to conduct an asbestos building inspection of the former Dodge Manufacturing Company / former RMG Foundry facility located at 500 South Union Street in Mishawaka, Indiana. The purpose of the inspection was to identify ACMs in order to assist the City as part of its pre-demolition project planning efforts. A site location map has been provided as Figure 1. A site map depicting the site and parcel boundaries is provided as Figure 2.

The site consists of one (1) vacant, industrial building addressed at 500 South Union Street in Mishawaka, Indiana. The site is located in a mixed industrial, commercial and residentially developed area on the southeast side of downtown Mishawaka. The site is bounded to the north by a railroad corridor, followed by a mix of residential and commercial properties, with East 4th Street located farther to the north. The site is bounded to the east by South Laurel Street (northern portion of site) and residential properties (southern portion of site) with residential properties located farther to the east. The site is bounded to the south by commercial and industrial properties (including the City of Mishawka Fire Department and City of Mishawka Street Department facilities), followed by residential properties, with East 10th Street located farther to the south, and the site is bounded to the west by South Union Street with residential properties located farther to the west.

The site was improved with one (1) one to four-story former industrial building and one (1) detached, single-story former boiler / utility building, with associated asphalt and concrete parking areas and landscaped areas. The subject property is located on one (1) parcel of land (Parcel Identification #71-09-15-301-001.000-023) situated on approximately 22.38-acres. The subject property was accessible via paved driveway approaches extending from South Union Street to the west and South Laurel Street to the northeast. Note that 7th Street, which is no longer a public thoroughfare, transects the southern and eastern portions of the site property and is now incorporated into the site parcel.

It should be noted that the detached, single-story former boiler / utility building (commonly referred to as the Power House Building) was inspected separately and the results of the inspection are provided under separate cover. This asbestos inspection report focuses on the main former industrial building.

The site conducted extensive manufacturing and foundry operations throughout its time of operation from at least 1878 through 2006.

The main site building consisted of a one to four-story, interconnected former industrial building encompassing approximately 372,981-square feet of space. The building consisted of a building and successive building additions. In general, the building consisted of a combination of brick, wood and steel frame construction and was constructed on a concrete foundation with basement

areas underlying some portions of the building. Exterior walls were finished with a combination of brick, metal and transite wallboard panels, and the interior portions of the site building were segregated with brick, concrete block and sheetrock or plaster walls over frame. The roofing consisted of built-up asphalt roofing materials overtop wood decking.

Reasonable efforts were made to identify suspect ACMs within the site building. Heartland acted on the understanding that the building would be subject to future renovation and/or be demolished. The inspection was performed using a combination of "destructive" and "non-destructive" sampling methods. The manner of the inspection did not compromise the structural integrity of the building or endanger the safety of sampling personnel or other contractors/occupants.

This inspection was limited in that a comprehensive inspection of the entire site building was not feasible due to some areas being restricted by concrete block walls and some areas where uncompromised access was not feasible. As such, areas behind some concrete block walls and areas not accessible by ladder were not fully accessed as part of this inspection. Focus was made to identify ACMs and/or suspect ACMs in all accessible areas of the site building and in common locations throughout the building.

2.0 PREVIOUS REPORTS

Heartland was provided with a copy of ATEC Associates, Inc., *Asbestos Investigation Report* dated December 20, 1995, and conducted for the then Dodge Manufacturing Company facility buildings. Based on the findings of this investigation, significant quantities of both friable and non-friable ACMs were identified within the site building. These included significant quantities of regulated, friable TSI and transite materials, as well as non-friable resilient vinyl flooring and associated mastics.

Further, based on limited documentation reviewed, abatement activities were conducted at the site between the late 1990s and early 2000s. However, based on the limited documentation available for review, the exact volume of ACMs abated from the site is unknown. Based on observations made during these asbestos inspection activities, a significant amount of TSI pipe wrap and pipe fittings were likely abated due to the presence of fiberglass TSI along several pipe chases.

Note no other previous asbestos building inspection reports and/or as-built drawings were provided to Heartland prior to the initiation of this inspection for review.

3.0 METHODOLOGY

On December 9th, 10th and on December 17, 2024, Mr. Ryan M. Orzechowicz, Senior Project Geologist and Mr. Nivas Vijay, Senior Project Manager with Heartland, completed the inspection of the facility building. Mr. Orzechowicz and Mr. Vijay are both accredited asbestos building inspectors in the State of Indiana (License #'s 19A001542 and 197004016). Copies of Mr. Orzechowicz's and Mr. Vijay's Certificate of Asbestos Accreditations are provided for review in Appendix A. Photographs taken during inspection activities are included in Appendix B.

As part of the inspection, Heartland performed the following activities:

- Consulted with City staff about historical site operations;
- Inspected the construction materials of the building;
- Identified presumed ACMs and suspect ACMs for sampling;
- Sampled suspect ACMs; and
- Completed a report documenting Heartland's findings.

Based on Heartland's visual assessment of the facility building, several types of building materials were considered non-suspect ACMs and therefore were not considered in its evaluation. These materials included: concrete floors, brick and block, metal fixtures, glass, wood and plywood materials, fiberglass insulation and newly installed gypsum drywall board with proper labeling. The historical documentation summarized previously, pertaining to previously conducted asbestos inspections and/or abatements, were reviewed prior to inspection activities and was utilized in assisting in identifying suspect materials that may have historically been subject to sampling.

Focus was made to identify ACMs and/or suspect ACMs in all accessible areas of the site building and in common locations throughout the building.

4.0 INSPECTION FINDINGS

4.1 Description of Sample Locations

Heartland personnel obtained one hundred and thirty (130) bulk samples from thirty-eight (38) homogeneous areas of suspect ACMs for laboratory analysis. Sampled homogeneous materials included both suspect friable and non-friable building materials and included resilient vinyl flooring materials and associated mastics, acoustical ceiling tiles, drywall, plaster, insulation, asphalt roofing materials, rubberized roofing materials, roof flashing materials, window glazing, exterior caulking, transite paneling, exterior siding, textured ceiling materials, sprayed-on fireproofing materials, TSI pipe wrap and fittings, glue pods and corrugated debris materials.

Several materials were considered PACMs and were therefore not sampled. These PACMs consisted of TSI pipe wrap and fittings, TSI mudded joints, HVAC duct insulation and some areas of transite paneling.

The suspect materials were assessed based on condition of the material and friability (the ability to be crumbled or turned to dust by hand pressure). Heartland utilized disposable nitrile gloves while obtaining samples. The samples were then placed into pre-labeled sealable bags.

Following collection of the samples, Heartland transported the samples under Heartland chain-of-custody protocol to EMSL Analytical, Inc., a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory, in Indianapolis, Indiana. The suspect ACMs sampled were submitted for Polarized Light Microscopy (PLM) analysis, with the laboratory estimating the percent asbestos by visual inspection. Materials defined as ACM are those that contain greater than 1% asbestos. Materials that are not friable and contain less than 1% asbestos are not considered to be ACM.

4.2 Findings

Based on the results of this inspection, friable RACMs were encountered at the property in the form of TSI pipe wrapping, pipe fittings and textured ceiling materials. RACMs in the form of TSI pipe wrapping and pipe fittings were encountered cladded on exposed pipe chases throughout all floors of the site building. Approximate quantities of RACMs are summarized below in Table 1.

Additionally, non-friable ACMs in the form of resilient vinyl flooring materials and associated mastics, rolled asphalt roofing, rubberized roofing and roof flashing were identified throughout the site building and non-friable ACMs in the form of transite wallboard materials were identified on the exterior and interior of the site building, on the east mezzanine wall of the main foundry and on the ceiling of the 2nd floor, west mezzanine offices within the main foundry.

None of the remaining sampled materials were identified as containing asbestos. Laboratory analytical results are provided in Appendix C. A summary of sampled materials is provided in Table 1 below.

Table 1
Summary of Sampled Building Materials
Former Dodge Manufacturing Company / Former RMG Foundry
500 South Union Street
Mishawaka, Indiana
December 9th, 10th & December 17, 2024

Material/Location	Friable	Category	Asbestos Content	Area (ft^2) *	Sample #
Drywall – 1st Floor Warehouse	Yes	RACM	ND	~2,000	DW – 1 (A-E)
Drywall – Main Foundry Rooms	Yes	RACM	ND	~1,000	DW – 2 (A-C)
Drywall – West Mezzanine Offices in Main Foundry	Yes	RACM	ND	~1,000	DW – 3 (A-C)
Drywall – Northwest Office Area, Interior	Yes	RACM	ND	~1,000	DW – 4 (A-C)
Drywall – Northwest Office Area, Exterior	Yes	RACM	ND	~1,000	DW – 5 (A-C)
Plaster – Ceilings of Warehouse	Yes	RACM	ND	~10,000	PL – 1 (A-G)
Plaster – Walls Throughout Building	Yes	RACM	ND	~3,000	PL – 2 (A-E)
Plaster – 2nd Floor North Office Area Utility Chases	Yes	RACM	ND	~1,000	PL – 3 (A-C)
Plaster – Pattern Shop North Offices	Yes	RACM	ND	~600	PL – 4 (A-C)
Floor Tile/Mastic – 12” x 12” Dark Gray / Tan – 1st Floor Warehouse	No	I (Mastic Only)	**2% Chrysotile (Mastic Only)**	**~1,500**	FT – 1 (A-E)
Floor Tile/Mastic – 9” x 9” Green / Streaks – Main Foundry Rooms	No	I (Mastic Only)	**2% Chrysotile (Tile and Mastic)**	**~1,500**	FT – 2 (A-E)
Floor Tile/Mastic – 12” x 12” Gray / Marble – Southeast Rooms in Main Foundry	No	I (Mastic Only)	ND	~800	FT – 3 (A-C)

Table 1 Summary of Sampled Building Materials Former Dodge Manufacturing Company / Former RMG Foundry 500 South Union Street Mishawaka, Indiana December 9th, 10th & December 17, 2024					
Floor Tile/Mastic – 12" x 12" Cream w/Brown Streaks – 2nd Floor Room in Main Foundry	No	I (Mastic Only)	**2% Chrysotile (Tile and Mastic)**	**~500**	FT – 4 (A-C)
Floor Tile/Mastic – 9" x 9" Green w/ Cream Marble – 2nd Floor North Office Areas in Main Foundry	No	I (Mastic Only)	ND	~6,600	FT – 5 (A-G)
Floor Tile/Mastic – 12" x 12" Mauve w/ Streaks – Northwest Office Entryway, 1st Floor	No	I (Mastic Only)	**3% Chrysotile (Mastic Only)**	**~500**	FT –6 (A-C)
Floor Tile/Mastic – Maroon Vinyl Sheet – Northwest Office Entryway, 2nd Floor	No	I (Mastic Only)	ND	~100	FT – 7 (A)
Floor Tile/Mastic – 12" x 12" Light Green – West Office in South Foundry	No	I (Mastic Only)	**2% Chrysotile (Tile Only)**	**~100**	FT – 8 (A)
Floor Tile/Mastic – 12" x 12" Light Gray w/ Marble – North Offices in Pattern Shop	No	I (Mastic Only)	ND	~100	FT – 9 (A)
Ceiling Tile – 4'x2' White w/ Smooth Gypsum Board – 1st Floor Warehouse	Yes	RACM	ND	~1,200	CT – 1 (A-E)
Ceiling Tile – 4'x2' White w/ Buckshot & Squiggles – Main Foundry Rooms	Yes	RACM	ND	~1,000	CT – 2 (A-C)
Ceiling Tile – 4'x2' White w/ Dots & Grooves – 2nd Floor North Offices & Southeast Room of Main Foundry	Yes	RACM	ND	~2,500	CT – 3 (A-E)
Ceiling Tile – 4'x2' White w/ Smooth Finish – West Office in South Foundry	Yes	RACM	ND	~100	CT – 4 (A)
Glue Pods – Ceilings/Ceiling Tiles, 2nd Floor Above Laboratories	No	I	ND	~100	GP – 1 (A)
Rolled Asphalt Roofing Material, Roof of Building	No	I	**3% Chrysotile**	-	RF – 1 (A-C)
Rubberized Roofing Material, Roof of Building	No	I	**3% Chrysotile**	-	RF – 2 (A-C)
Roofing Flashing, Roof of Building	No	I	**2% Chrysotile**	-	FL – 1 (A-C)

Table 1 Summary of Sampled Building Materials Former Dodge Manufacturing Company / Former RMG Foundry 500 South Union Street Mishawaka, Indiana December 9th, 10th & December 17, 2024					
Corrugated Debris – Scattered As Debris on Floor of Warehouse Basement	No	I	**70% Chrysotile**	**~Strewn About Over ~18,900 Square Feet of Basement Space Note: Area includes 90' x 60' on the North Side of Basement; 90' x 120' centrally in basement; and 90' x 30' on the South Side of Basement**	DB – 1 (A-C)
Corrugated Transite Wallboard – Exterior of Building	No	II	**30% Chrysotile**	**~2,240**	SD – 1 (A-C)
Flat Panel Transite Siding – Exterior of Building	No	II	**20% Chrysotile**	**~21,352 Note area includes side panels and exterior roofing panels**	SD – 2 (A-C)
Siding Coating – Red/Salmon, Exterior of Building	No	II	ND	~1,500	GL – 1 (A)
Siding Coating – Blue, Exterior of Building	No	II	ND	~1,500	GL – 2 (A)
Ceiling Panels – Ceiling of West Mezzanine Office in Main Foundry	No	II	**20% Chrysotile**	**~1,000**	CP – 1 (A-C)
Wallboard – East Mezzanine in Main Foundry	No	II	**20% Chrysotile**	**~40**	WB – 1 (A)
Window Glazing – Gray, Windows of Warehouse	No	I	<1% Chrysotile	-	WG – 1 (A-G)
Window Glazing – Gray, Windows of Building	No	I	<1% Chrysotile	-	WG – 2 (A-G)

Table 1 Summary of Sampled Building Materials Former Dodge Manufacturing Company / Former RMG Foundry 500 South Union Street Mishawaka, Indiana December 9th, 10th & December 17, 2024					
Exterior Caulking – Exterior Doors	No	I	ND	~300 Linear Feet	EC – 1 (A-C)
Sprayed-On Fireproofing – On Interior Walls of Building	Yes	RACM	ND	>5,000	FP – 1 (A-G)
Textured Ceiling Material – North Offices in Pattern Shop	Yes	I	**15% Chrysotile**	**~500**	TC – 1 (A-C)
Thermal Systems Insulation Pipe Wrapping – 2", 3" and 5" Runs in Pattern Shop	Yes	RACM	**PACM**	**~~185 LF + ~8 Mud Joints**	NS
Thermal Systems Insulation Pipe Wrapping – 2", 3" and 5" Runs in South Core Room	Yes	RACM	**PACM**	**~245 LF + ~6 to 8 Mud Joints**	NS
Thermal Systems Insulation Pipe Wrapping – 2", 3" and 5" Runs, West Catwalk / Packing	Yes	RACM	**PACM**	**~355 LF + ~18 to 23 Mud Joints**	NS
Thermal Systems Insulation Pipe Wrapping – 2", 3" and 5" Runs, East Catwalk / Packing	Yes	RACM	**PACM**	**~135 LF + ~2 to 6 Mud Joints**	NS
Thermal Systems Insulation Pipe Wrapping – 3" and 4" Runs in Locker Room	Yes	RACM	**PACM**	**~170 LF + ~2 to 7 Mud Joints**	NS
Thermal Systems Insulation Pipe Wrapping – 2" and 3" Runs, East 1st Floor Packing	Yes	RACM	**PACM**	**~140 LF + ~2 to 4 Mud Joints**	NS
Thermal Systems Insulation Pipe Wrapping – 4" and 5" Runs, Central 1st Floor Packing	Yes	RACM	**PACM**	**~55 LF + ~4 Mud Joints**	NS
Thermal Systems Insulation Pipe Wrapping – 3" and 5" Runs, Basement	Yes	RACM	**PACM**	**~30 LF + ~6 to 8 Mud Joints**	NS
Thermal Systems Insulation Pipe Wrapping – 3" and 5" Runs – Foundry Main NW	Yes	RACM	**PACM**	**~60 to 80 LF + ~6 to 12 Mud Joints**	NS
Thermal Systems Insulation Pipe Wrapping – 12" Runs under tunnel chase, Foundry Main NW	Yes	RACM	**PACM**	**~100 – 200 LF (Could Not Definitively Ascertain Quantity due to chase location)**	NS
Thermal Systems Insulation Pipe Wrapping – 5" Runs – Mid-West North Foundry Room	Yes	RACM	**PACM**	**~12 - 15 Mud Joints**	NS

Table 1
Summary of Sampled Building Materials
Former Dodge Manufacturing Company / Former RMG Foundry
500 South Union Street
Mishawaka, Indiana
December 9th, 10th & December 17, 2024

Thermal Systems Insulation Pipe Wrapping – 2" Runs – Middle North Foundry Room	Yes	-	**PACM**	**~120 LF (~80 LF Encapsulated) + ~20 to 25 Mud Joints**	NS
Thermal Systems Insulation Pipe Wrapping – 5" Runs – Eastern North Foundry Room	Yes	-	**PACM**	**~25 to 30 LF + ~15 to 20 Mud Joints**	NS

Friable: Yes – hand friable, No – non-friable
ND: No asbestos detected
NS: Not Sampled
PACM: Presumed Asbestos Containing Materials
Results in **BOLD** indicate positive results for asbestos
LF: Linear Feet
*Square footage estimates determined from during site inspection activities and take into account reasonable assumptions for locations that were inaccessible.

It should be noted that damaged and/or significantly damaged ACMs and/or friable ACMs were observed which were readily accessible within the site building. Potential exposure to damaged and friable RACMs is a concern, particularly where strewn TSI was observed on the floors in several areas. Further of note, damaged ACMs and friable RACMs were scattered throughout the site building as debris, particularly in the basement of the site building. Therefore, the estimated quantities of ACMs were based on reasonable assumptions of what was visible during the time of inspection.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Heartland conducted an asbestos building inspection of the former Dodge Manufacturing Company / former RMG Foundry facility located at 500 South Union Street in Mishawaka, Indiana. The site is improved with one (1) one to four-story former industrial building encompassing approximately 372,981-square feet. The remaining portions of the site are capped with vegetation, concrete, crushed gravel and asphalt. The purpose of this inspection was to evaluate for the presence and/or absence of ACMs within the inspected site building and the assist in the City in pre-demolition project planning.

Based on the results of this inspection, friable, RACMs were encountered at the building in the form of TSI pipe wrapping, pipe fittings and textured ceiling material. RACMs in the form of TSI pipe wrapping and pipe fittings were encountered cladded on exposed pipe chases throughout all floors of the site building. RACMs in the form of textured ceiling materials were encountered on the ceilings in the north offices in the pattern shop. The TSI pipe wrap and pipe fittings were all PACMs and were therefore not sampled.

The potential exists that some of the TSI pipe fitting materials extend upwards throughout the building; however, due to several of the interior walls being composed of concrete block and due to the dilapidated condition of the site building, a fully comprehensive inspection of potential hidden pipe chases could not be conducted due to safety considerations of the sampling personnel.

RACMs were identified in quantities (260 linear feet/160 square feet/35 cubic feet) greater than the written notification requirements specified in Indiana Administrative Code (326 IAC 14-10). **Therefore, written notification to the IDEM will be required pertaining to asbestos related demolition and/or renovation actions at this property, as RACMs were encountered at the site exceeding written notification requirements. Abatement of these materials will be required to be conducted by an accredited asbestos abatement contractor licensed in the State of Indiana prior to any future planned renovation and/or demolition activities.**

In general, the RACMs were encountered in fair to poor condition, with several sections of TSI pipe wrap and pipe fittings encountered either intact or slightly damaged. However, significant amounts of TSI were observed to be damaged or significantly damaged. Additionally, several sections of TSI were scattered on the floor as debris. This included areas in the basement portion of the site building, where asbestos containing debris was strewn. Potential exposure to damaged and friable RACMs is a concern, particularly in the basement where strewn TSI was observed on the floors in several areas.

Additionally, non-friable ACMs in the form of resilient vinyl floor coverings and associated mastics, rolled asphalt roofing, rubberized roofing and roof flashing were encountered within select areas of the site building. Resilient vinyl flooring materials and associated mastics, rolled asphalt

roofing and roof flashing are considered non-friable ACMs and therefore are not regulated. These materials do not pose an exposure concern to occupants of the site building unless subject to sanding, grinding, abrading or any other mechanical process which would render these materials friable.

Non-friable, unregulated ACMs can be disposed of as construction related demolition debris and will not require special abatement. Future abatement of these materials may be warranted, should these materials be subject to mechanical processes (i.e., sanding, grinding and/or abrading) as part of any future planned demolition activities. Note that, should abatement of these materials be desired, abatement work should be conducted by licensed asbestos abatement workers accredited in the State of Indiana.

Finally, non-friable ACMs in the form of transite wallboard materials were encountered on the exterior and interior of the site building, on the east mezzanine wall of the main foundry and on the ceiling of the 2nd floor, west mezzanine offices within the main foundry. The transite wallboard materials are considered non-friable ACMs and therefore are not regulated. However, these materials will likely become friable RACMs during demolition activities. **Therefore, abatement of these transite wallboard materials will be required to be conducted by an accredited asbestos abatement contractor licensed in the State of Indiana prior to any future planned renovation and/or demolition activities.**

Reasonable efforts were made to identify suspect ACMs within the facility building inspected. This inspection was performed using a combination of “destructive” and “non-destructive” sampling methods. The manner of the inspection did not compromise the structural integrity of the building or endanger the safety of sampling personnel or other contractors/occupants. Furthermore, this inspection was limited in that a comprehensive inspection of the entire site building was not feasible due to some areas being restricted by concrete block walls and general safety considerations due to the dilapidated nature of the site building. As such, areas behind some concrete block walls and areas not accessible by ladder were not fully accessed as part of this inspection. Focus was made to identify ACMs and/or suspect ACMs in all accessible areas of the site building and in common locations throughout the building.

6.0 DISCLAIMER AND SIGNATURE PAGE

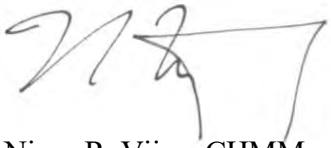
This environmental report was prepared in accordance with generally accepted principles and practices in the environmental consulting field. Conclusions and recommendations expressed herein were developed from site evaluation and limited research, and we are not responsible for unrecorded data pertaining to this site. Heartland makes no warranties, expressed or implied, as to the fitness or merchantability of said property for any particular purpose, and we are not responsible for independent conclusions or opinions made by others based on this report.

Reasonable efforts were made to identify suspect ACMs within the facility building inspected. This inspection was performed using a combination of "destructive" and "non-destructive" sampling methods. The manner of the inspection did not compromise the structural integrity of the building or endanger the safety of sampling personnel or other contractors/occupants. Furthermore, as stated prior, this inspection was limited in that a comprehensive inspection of the entire site building was not feasible due to some areas being restricted by concrete block walls and general safety considerations due to the dilapidated nature of the site building. As such, areas behind some concrete block walls and areas not accessible by ladder were not fully accessed as part of this inspection. Focus was made to identify ACMs and/or suspect ACMs in all accessible areas of the site building and in common locations throughout the building.

If you should have questions regarding this report, please contact Heartland at 574-289-1191.

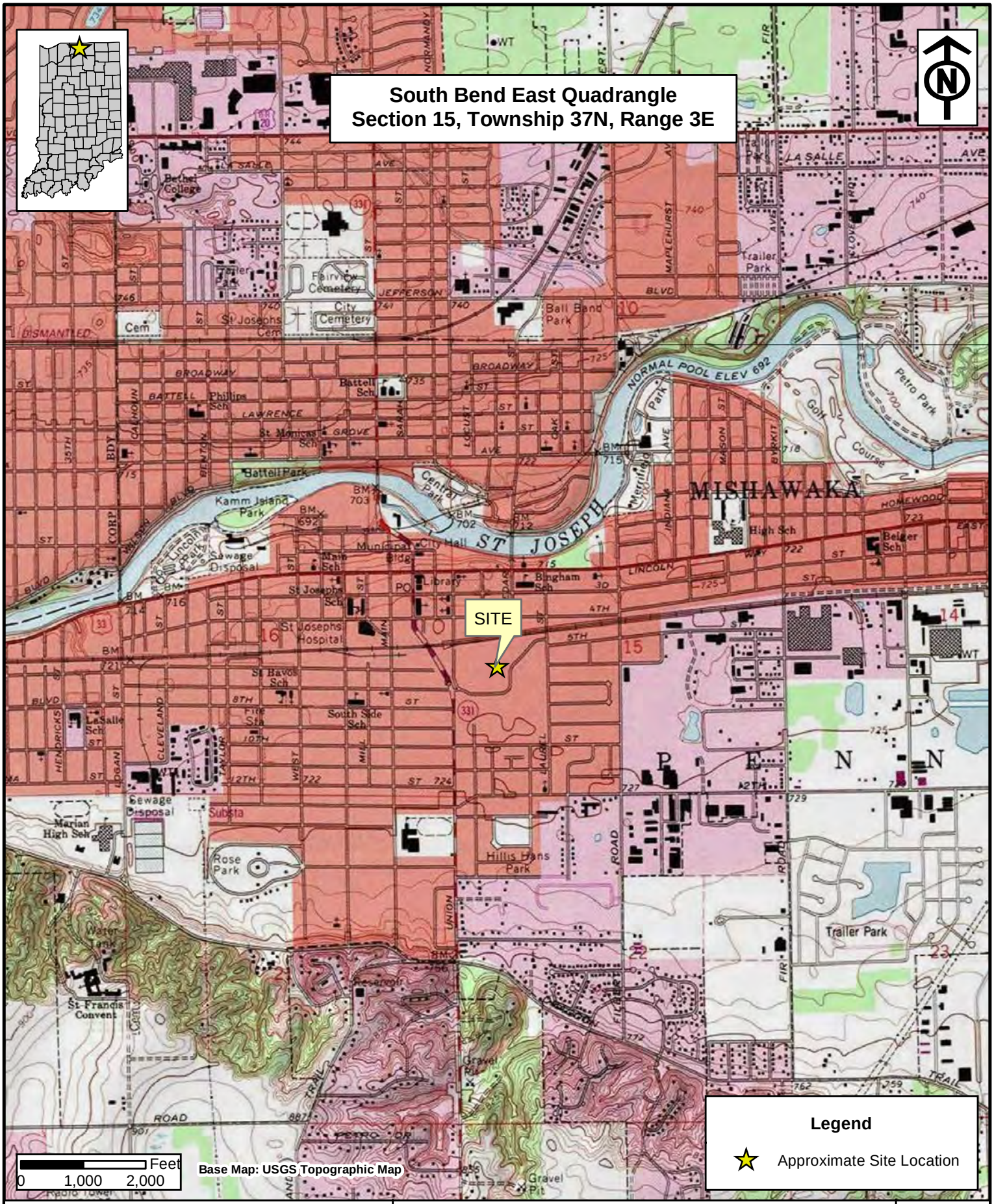
Sincerely,

Ryan Orzechowicz, LPG
Senior Project Geologist
Indiana Asbestos License #19A001542



Nivas R. Vijay, CHMM
Senior Project Manager / Principal
Indiana Asbestos License #197004016

FIGURES



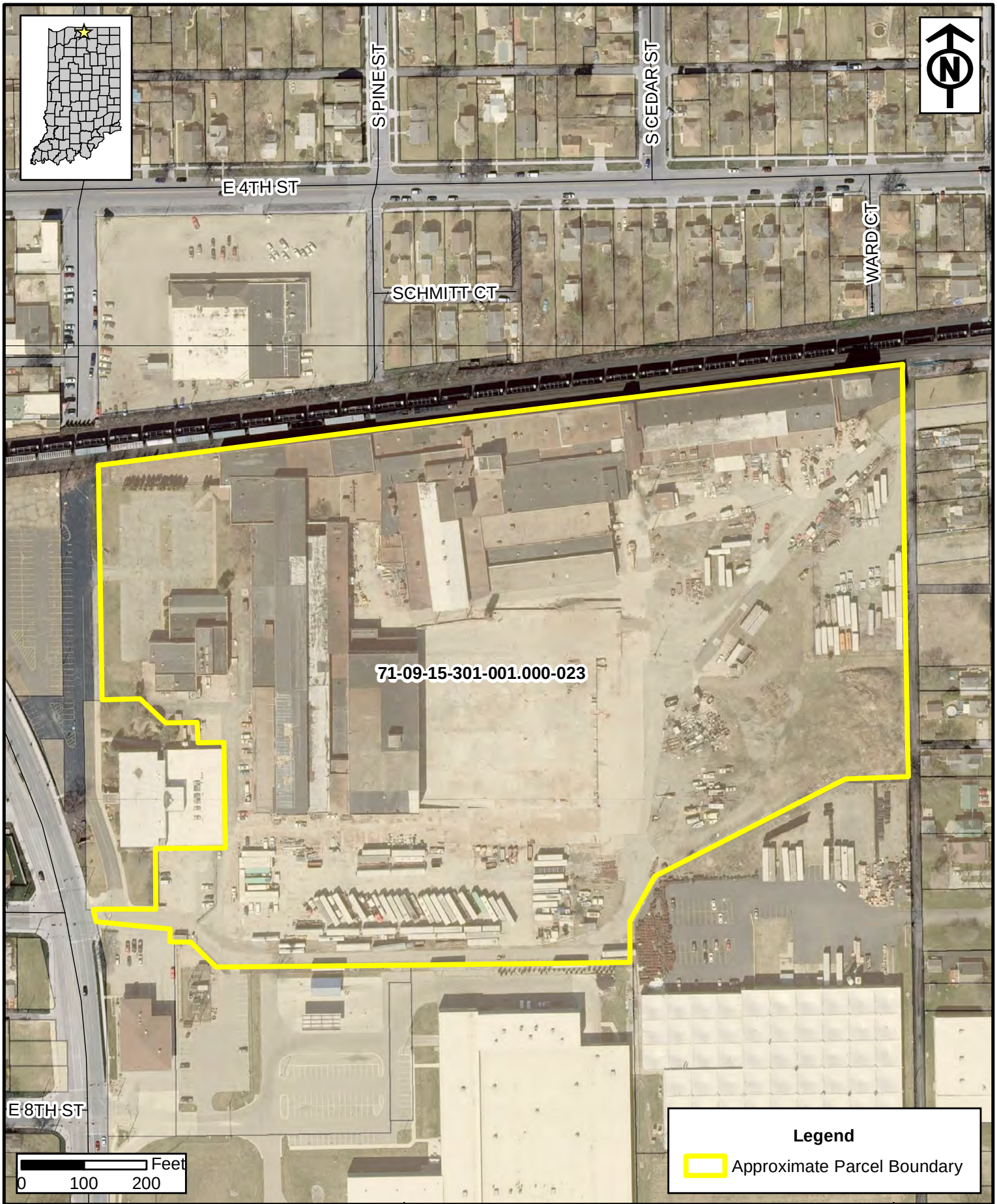
HEA
HEARTLAND ENVIRONMENTAL ASSOCIATES INC.

Heartland Environmental Associates, Inc.
3410 Mishawaka Avenue, South Bend, Indiana 46615
1324 East 16th Street, Indianapolis, Indiana 46202

FIGURE 1
SITE LOCATION MAP

FORMER RMG / DODGE MANUFACTURING COMPANY FOUNDRY
500 UNION STREET
MISHAWAKA, INDIANA 46544-2340

Date: 2/11/2025
Scale: 1"=2,000'
Drawn By: NV



HEA
HEARTLAND ENVIRONMENTAL ASSOCIATES INC.
Heartland Environmental Associates, Inc.
3410 Mishawaka Avenue, South Bend, Indiana 46615
1324 East 16th Street, Indianapolis, Indiana 46202

FIGURE 2
SITE MAP W/PARCEL BOUNDARY

FORMER RMG / DODGE MANUFACTURING COMPANY FOUNDRY
500 UNION STREET
MISHAWAKA, INDIANA 46544-2340

Date: 2/11/2025
Scale: 1"=200'
Drawn By: NV

ATTACHMENT A

ASBESTOS LICENSE DOCUMENTATION

Indiana Dept. of Environmental Management

Ryan M. Orzechowicz

Asbestos Inspector License #: 19A001542

Effective: **04/08/2024**
Birth Date: **07/29/1983**
Height: **5-09**
Weight: **160**

Expiration: **04/08/2025**
Gender: **M**
Eye Color: **GRN**
Hair Color: **BRO**

Indiana Dept. of Environmental Management

Nivas R. Vijayaraghavan

Asbestos Inspector License #: 197004016

Effective: **04/14/2024**
Expiration: **04/14/2025**
Birth Date: **05/29/1979**
Gender: **M**
Height: **5-08**
Eye Color: **BRO**
Weight: **160**
Hair Color: **BLK**

ATTACHMENT B

SITE PHOTOGRAPHIC LOG

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of south face of site building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 1

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of south face of site building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 2

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of central portion of site building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 3

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of eastern portion of south face of site building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 4

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of northern portion of west face of site building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 5

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of west face of site building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 6

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of west face of site building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 7

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of south face of west portion of site building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 8

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of east face of warehouse building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 9

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of south face of central portion of site building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 10

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of interior of site building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 11

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 628 Western Avenue in South Bend, Indian
SUBJECT: View of interior of site building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 12

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of interior of site building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 13

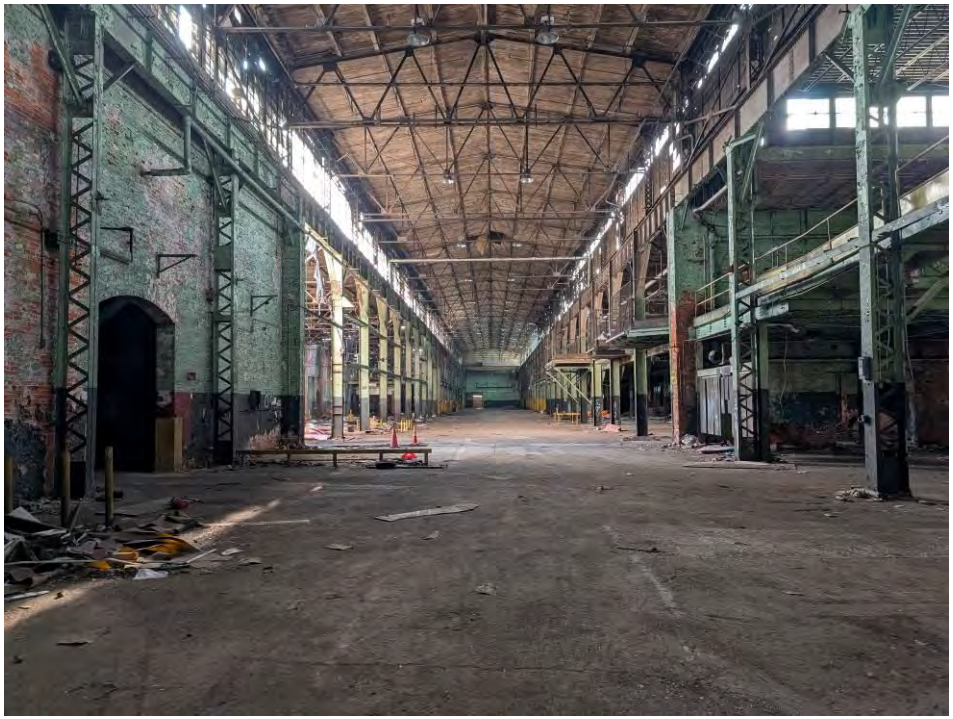
CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of rooftop of site building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 14

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of rooftop of site building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 15



CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of interior of main foundry
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 16

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of basement of warehouse building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 17

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of tunnel underneath former south building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 18

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of 1st floor of warehouse building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 19

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled sprayed-on fireproofing (FP-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 20

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled rolled asphalt roofing (RF-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 21

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled rubberized roofing (RF-2)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 22

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled roof flashing (FL-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 23

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled exterior caulking (EC-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 24

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled corrugated wallboard siding (SD-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 25

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled smooth panel transite siding (SD-2)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 26

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of double paneling structure of smooth panel transite siding
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 27

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled window glazing (WG-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 28

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled window glazing (WG-2)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 29

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled wallboard (WB-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 30

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled ceiling panels (CP-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 31

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled textured ceiling (TC-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 32

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled corrugated debris in basement of warehouse (DB-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 33

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled floor tile (FT-1)

PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 34

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled floor tile (FT-2)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 35

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled floor tile (FT-3)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 36

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled floor tile (FT-4)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 37

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled floor tile (FT-5)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 38

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled floor tile (FT-6)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 39

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled floor tile (FT-7)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 40

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled floor tile (FT-8)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 41

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled floor tile (FT-9)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 42

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled glue pods (GP-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 43

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled ceiling tile (CT-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 44

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled ceiling tile (CT-2)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 45

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled ceiling tile (CT-3)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 46

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled ceiling tile (CT-4)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 47

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled drywall (DW-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 48

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled drywall (DW-2)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 49

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled drywall (DW-3)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 50

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled drywall (DW-4)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 51

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled drywall (DW-5)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 52

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled plaster (PL-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 53

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled plaster (PL-2)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 54

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled plaster (PL-3)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 55

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled plaster (PL-4)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 56

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled TSI pipe wrap (PW-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 57

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of ACM TSI pipe wrap
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 58

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of ACM TSI pipe wrap
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 59

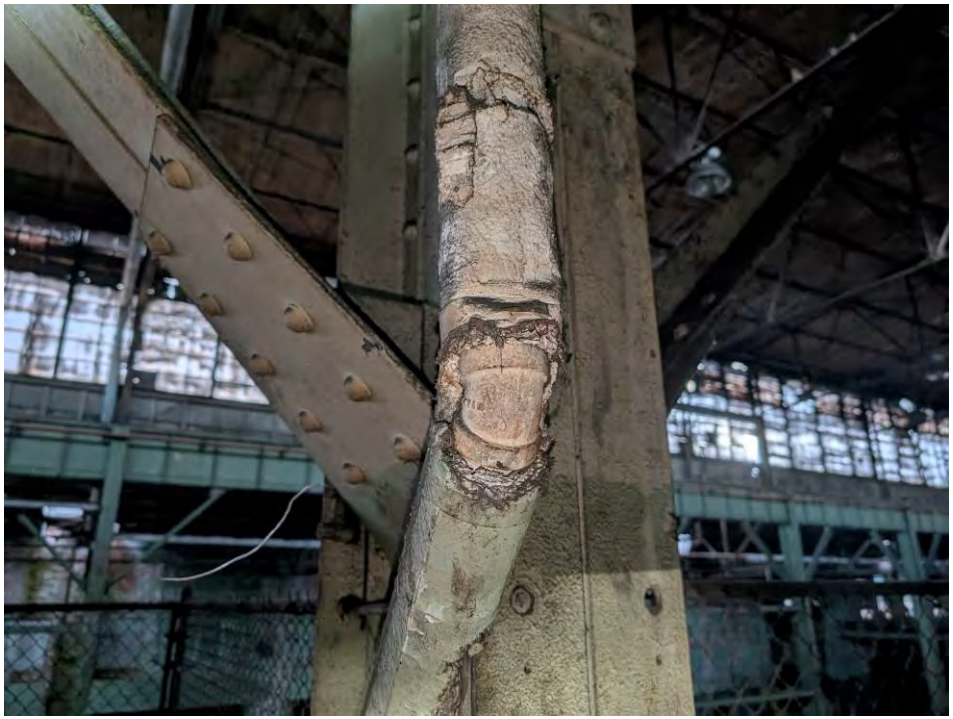
CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of ACM TSI pipe wrap scattered as debris
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 60

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of sampled TSI mudded joint (MJ-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 61



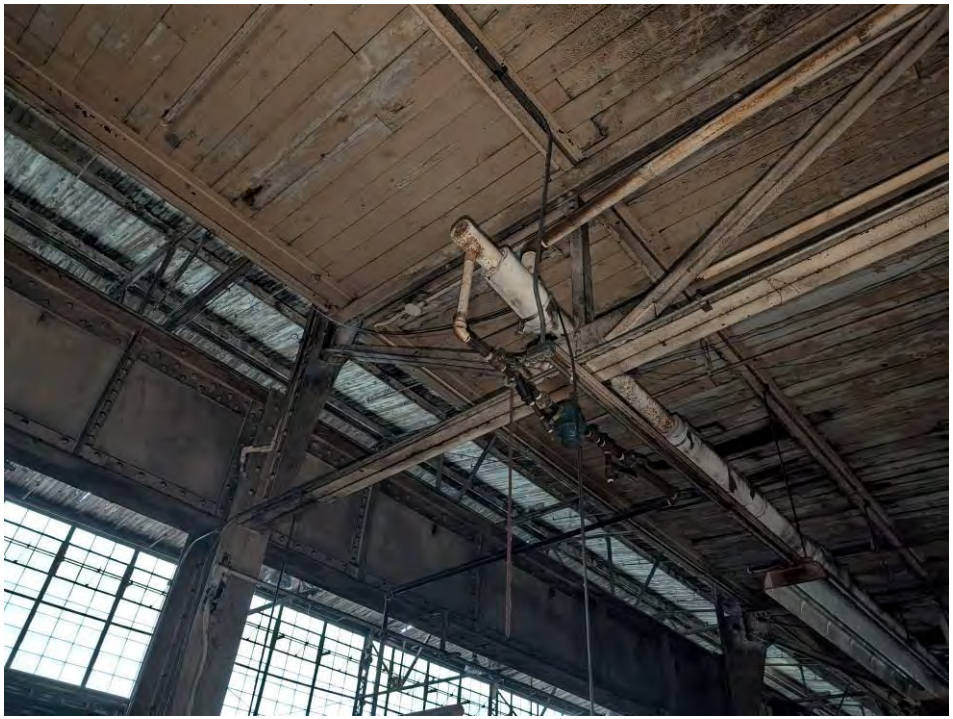
CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of damaged ACM TSI pipe wrap
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 62

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of ACM TSI pipe wrap
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 63



CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of ACM TSI pipe wrap
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 64

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

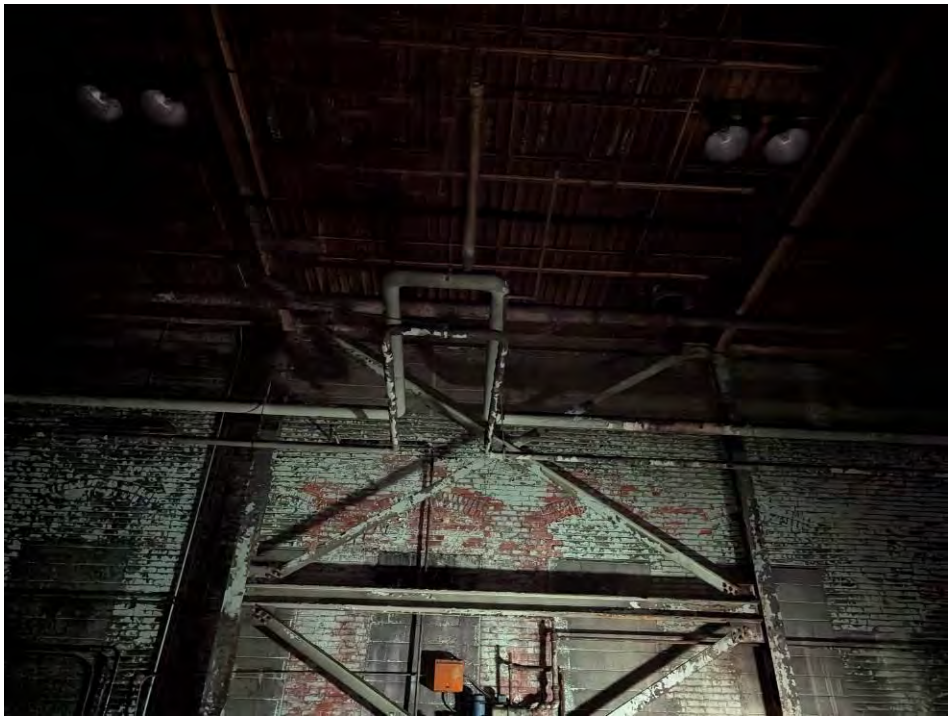
CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of ACM TSI pipe wrap
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 65

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of ACM TSI pipe wrap
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 66

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.



CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of ACM TSI pipe wrap
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 67

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of ACM TSI pipe wrap
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 68

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of ACM TSI pipe wrap
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 69

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of ACM TSI pipe wrap scattered as debris
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 70

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of ACM TSI pipe wrap scattered as debris
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 71

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana
SUBJECT: View of ACM TSI pipe wrap
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 72

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

ATTACHMENT C

LABORATORY ANALYTICAL REPORT

EMSL Analytical, Inc.

6340 CastlePlace Dr. Indianapolis, IN 46250

Tel/Fax: (317) 803-2997 / (317) 803-3047

http://www.EMSL.com / indianapolislab@emsl.com

EMSL Order:	162421098
Customer ID:	HRTL42
Customer PO:	
Project ID:	

Attention:	Ryan Orzechowicz	**Phone:**	(317) 771-2283
	Heartland Environmental	**Fax:**	
	3410 Mishawaka Ave.	**Received Date:**	12/11/2024 1:08 PM
	South Bend, IN 46615	**Analysis Date:**	12/13/2024
		Collected Date:	12/10/2024
Project:	500 S. Union St.		

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**
FT-1A-Floor Tile *162421098-0001*	Floor Tile	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FT-1A-Mastic *162421098-0001A*	Floor Tile	Black Non-Fibrous Homogeneous		98% Non-fibrous (Other)	**2% Chrysotile**
FT-1B-Floor Tile *162421098-0002*	Floor Tile	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FT-1B-Mastic *162421098-0002A*	Floor Tile				**Positive Stop (Not Analyzed)**
FT-1C-Floor Tile *162421098-0003*	Floor Tile	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FT-1C-Mastic *162421098-0003A*	Floor Tile				**Positive Stop (Not Analyzed)**
FT-1D-Floor Tile *162421098-0004*	Floor Tile	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FT-1D-Mastic *162421098-0004A*	Floor Tile				**Positive Stop (Not Analyzed)**
FT-1E-Floor Tile *162421098-0005*	Floor Tile	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FT-1E-Mastic *162421098-0005A*	Floor Tile				**Positive Stop (Not Analyzed)**
FT-2A-Floor Tile *162421098-0006*	Floor Tile	Green Non-Fibrous Homogeneous		98% Non-fibrous (Other)	**2% Chrysotile**
FT-2A-Mastic *162421098-0006A*	Floor Tile	Black Non-Fibrous Homogeneous		98% Non-fibrous (Other)	**2% Chrysotile**
FT-2B *162421098-0007*	Floor Tile				**Positive Stop (Not Analyzed)**
FT-2C *162421098-0008*	Floor Tile				**Positive Stop (Not Analyzed)**
FT-2D *162421098-0009*	Floor Tile				**Positive Stop (Not Analyzed)**
FT-2E *162421098-0010*	Floor Tile				**Positive Stop (Not Analyzed)**

Initial report from: 12/13/2024 13:54:21

EMSL Analytical, Inc.
6340 CastlePlace Dr. Indianapolis, IN 46250
Tel/Fax: (317) 803-2997 / (317) 803-3047
http://www.EMSL.com / indianapolislab@emsl.com

EMSL Order: 162421098
Customer ID: HRTL42
Customer PO:
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**
FT-3A *162421098-0011*	Floor Tile	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FT-3B *162421098-0012*	Floor Tile	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FT-3C-Floor Tile *162421098-0013*	Floor Tile	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FT-3C-Mastic *162421098-0013A*	Floor Tile	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FT-4A-Floor Tile *162421098-0014*	Floor Tile	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FT-4A-Mastic *162421098-0014A*	Floor Tile	Black Non-Fibrous Homogeneous		98% Non-fibrous (Other)	**2% Chrysotile**
FT-4B-Floor Tile *162421098-0015*	Floor Tile	Brown Non-Fibrous Homogeneous		98% Non-fibrous (Other)	**2% Chrysotile**
FT-4B-Mastic *162421098-0015A*	Floor Tile				**Positive Stop (Not Analyzed)**
FT-4C *162421098-0016*	Floor Tile				**Positive Stop (Not Analyzed)**
FT-5A *162421098-0017*	Floor Tile	Green Non-Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
FT-5B *162421098-0018*	Floor Tile	Green Non-Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
FT-5C *162421098-0019*	Floor Tile	Green Non-Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
FT-5D-Floor Tile *162421098-0020*	Floor Tile	Green Non-Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
FT-5D-Mastic *162421098-0020A*	Floor Tile	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FT-5E *162421098-0021*	Floor Tile	Green Non-Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
FT-5F *162421098-0022*	Floor Tile	Green Non-Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
FT-5G *162421098-0023*	Floor Tile	Green Non-Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
FT-6A-Floor Tile *162421098-0024*	Floor Tile	Pink Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FT-6A-Mastic *162421098-0024A*	Floor Tile	Black Non-Fibrous Homogeneous		97% Non-fibrous (Other)	**3% Chrysotile**

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
FT-6B-Floor Tile *162421098-0025*	Floor Tile	Pink Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FT-6B-Mastic *162421098-0025A*	Floor Tile				**Positive Stop (Not Analyzed)**
FT-6C-Floor Tile *162421098-0026*	Floor Tile	Pink Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FT-6C-Mastic *162421098-0026A*	Floor Tile				**Positive Stop (Not Analyzed)**
FT-7A-Floor Tile *162421098-0027*	Floor Tile	Red Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FT-7A-Mastic *162421098-0027A*	Floor Tile	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FT-8A-Floor Tile *162421098-0028*	Floor Tile	Green Non-Fibrous Homogeneous		98% Non-fibrous (Other)	**2% Chrysotile**
FT-8A-Mastic *162421098-0028A*	Floor Tile	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FT-9A-Floor Tile *162421098-0029*	Floor Tile	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FT-9A-Mastic *162421098-0029A*	Floor Tile	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CT-1A *162421098-0030*	Ceiling Tile	Brown/White Fibrous Heterogeneous	20% Cellulose 2% Glass	75% Gypsum 2% Mica 1% Non-fibrous (Other)	None Detected
CT-1B *162421098-0031*	Ceiling Tile	Brown/White Non-Fibrous Heterogeneous	5% Cellulose 2% Glass	90% Gypsum 2% Mica 1% Non-fibrous (Other)	None Detected
CT-1C *162421098-0032*	Ceiling Tile	Brown/White Non-Fibrous Heterogeneous	5% Cellulose 2% Glass	90% Gypsum 2% Mica 1% Non-fibrous (Other)	None Detected
CT-1D *162421098-0033*	Ceiling Tile	Brown/White Non-Fibrous Heterogeneous	5% Cellulose 2% Glass	85% Gypsum 2% Mica 6% Non-fibrous (Other)	None Detected
CT-1E *162421098-0034*	Ceiling Tile	Brown/White Fibrous Heterogeneous	20% Cellulose 2% Glass	70% Gypsum 2% Mica 6% Non-fibrous (Other)	None Detected
CT-2A *162421098-0035*	Ceiling Tile	Gray/White Fibrous Homogeneous	70% Cellulose 10% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
CT-2B *162421098-0036*	Ceiling Tile	Gray/White Fibrous Homogeneous	70% Cellulose 10% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
CT-2C *162421098-0037*	Ceiling Tile	Gray/White Fibrous Homogeneous	70% Cellulose 10% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
CT-3A *162421098-0038*	Ceiling Tile	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CT-3B *162421098-0039*	Ceiling Tile	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
CT-3C *162421098-0040*	Ceiling Tile	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
CT-3D *162421098-0041*	Ceiling Tile	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
CT-3E *162421098-0042*	Ceiling Tile	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
CT-4A *162421098-0043*	Ceiling Tile	Tan/White Fibrous Homogeneous	50% Cellulose 30% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
DW-1A *162421098-0044*	Drywall	Brown/White Fibrous Heterogeneous	10% Cellulose	85% Gypsum 5% Non-fibrous (Other)	None Detected
DW-1B *162421098-0045*	Drywall	Brown/White Fibrous Heterogeneous	10% Cellulose	85% Gypsum 5% Non-fibrous (Other)	None Detected
DW-1C *162421098-0046*	Drywall	Brown/White Fibrous Heterogeneous	10% Cellulose	85% Gypsum 5% Non-fibrous (Other)	None Detected
DW-1D *162421098-0047*	Drywall	Brown/White Fibrous Heterogeneous	10% Cellulose	85% Gypsum 5% Non-fibrous (Other)	None Detected
DW-1E-Drywall *162421098-0048*	Drywall	Brown/Tan Fibrous Heterogeneous	20% Cellulose	70% Gypsum 10% Non-fibrous (Other)	None Detected
DW-1E-Joint Compound *162421098-0048A*	Drywall	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
DW-2A *162421098-0049*	Drywall	Brown/White Fibrous Heterogeneous	10% Cellulose	85% Gypsum 5% Non-fibrous (Other)	None Detected
DW-2B *162421098-0050*	Drywall	White Non-Fibrous Homogeneous		95% Gypsum 5% Non-fibrous (Other)	None Detected
DW-2C *162421098-0051*	Drywall	White/Black Fibrous Heterogeneous	10% Cellulose	80% Gypsum 10% Non-fibrous (Other)	None Detected
DW-3A *162421098-0052*	Drywall	White Non-Fibrous Homogeneous		95% Gypsum 5% Non-fibrous (Other)	None Detected
DW-3B *162421098-0053*	Drywall	Brown/White Fibrous Heterogeneous	10% Cellulose	85% Gypsum 5% Non-fibrous (Other)	None Detected
DW-3C *162421098-0054*	Drywall	White Non-Fibrous Homogeneous		95% Gypsum 5% Non-fibrous (Other)	None Detected
DW-4A *162421098-0055*	Drywall	Brown/White Fibrous Heterogeneous	15% Cellulose	80% Gypsum 5% Non-fibrous (Other)	None Detected
DW-4B *162421098-0056*	Drywall	Brown/White Fibrous Heterogeneous	15% Cellulose	80% Gypsum 5% Non-fibrous (Other)	None Detected

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
DW-4C *162421098-0057*	Drywall	Brown/White Non-Fibrous Homogeneous	3% Cellulose <1% Glass	90% Gypsum 7% Non-fibrous (Other)	None Detected
DW-5A *162421098-0058*	Drywall	White Non-Fibrous Homogeneous		95% Gypsum 5% Non-fibrous (Other)	None Detected
DW-5B *162421098-0059*	Drywall	White Non-Fibrous Homogeneous		95% Gypsum 5% Non-fibrous (Other)	None Detected
DW-5C *162421098-0060*	Drywall	Tan Non-Fibrous Homogeneous		95% Gypsum 5% Non-fibrous (Other)	None Detected
PL-1A *162421098-0061*	Plaster	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
PL-1B-Texture *162421098-0062*	Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
PL-1B-Plaster *162421098-0062A*	Plaster	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
PL-1C-Texture *162421098-0063*	Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
PL-1C-Plaster *162421098-0063A*	Plaster	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
PL-1D-Texture *162421098-0064*	Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
PL-1D-Plaster *162421098-0064A*	Plaster	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
PL-1E-Texture *162421098-0065*	Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
PL-1E-Plaster *162421098-0065A*	Plaster	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
PL-1F-Texture *162421098-0066*	Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
PL-1F-Plaster *162421098-0066A*	Plaster	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
PL-1G-Texture *162421098-0067*	Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
PL-1G-Plaster *162421098-0067A*	Plaster	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
PL-2A *162421098-0068*	Plaster	White Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
PL-2B *162421098-0069*	Plaster	White Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
PL-2C *162421098-0070*	Plaster	White Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
PL-2D *162421098-0071*	Plaster	White Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
PL-2E-Texture *162421098-0072*	Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
PL-2E-Plaster *162421098-0072A*	Plaster	White Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
PL-3A-Finish Coat *162421098-0073*	Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
PL-3A-Base Coat *162421098-0073A*	Plaster	Gray Non-Fibrous Homogeneous		10% Perlite 90% Non-fibrous (Other)	None Detected
PL-3B-Finish Coat *162421098-0074*	Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
PL-3B-Base Coat *162421098-0074A*	Plaster	Gray Non-Fibrous Homogeneous		10% Perlite 90% Non-fibrous (Other)	None Detected
PL-3C-Finish Coat *162421098-0075*	Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
PL-3C-Base Coat *162421098-0075A*	Plaster	Gray Non-Fibrous Homogeneous		10% Perlite 90% Non-fibrous (Other)	None Detected
PL-4A *162421098-0076*	Plaster	Gray/Rust Non-Fibrous Homogeneous		10% Perlite 90% Non-fibrous (Other)	None Detected
PL-4B *162421098-0077*	Plaster	Gray/Rust Non-Fibrous Homogeneous		10% Perlite 90% Non-fibrous (Other)	None Detected
PL-4C *162421098-0078*	Plaster	Gray/Rust Non-Fibrous Homogeneous		10% Perlite 90% Non-fibrous (Other)	None Detected
RF-1A *162421098-0079*	Rolled Asphalt Roofing	Black Fibrous Heterogeneous	15% Cellulose	82% Non-fibrous (Other)	**3% Chrysotile**
RF-1B *162421098-0080*	Rolled Asphalt Roofing				**Positive Stop (Not Analyzed)**
RF-1C *162421098-0081*	Rolled Asphalt Roofing				**Positive Stop (Not Analyzed)**
RF-2A *162421098-0082*	Rubberized Roofing	White/Black Fibrous Heterogeneous	15% Cellulose	82% Non-fibrous (Other)	**3% Chrysotile**
RF-2B *162421098-0083*	Rubberized Roofing				**Positive Stop (Not Analyzed)**
RF-2C *162421098-0084*	Rubberized Roofing				**Positive Stop (Not Analyzed)**

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
FL-1A *162421098-0085*	Roof Flashing	Gray/Black Fibrous Homogeneous	20% Cellulose	5% Quartz 75% Non-fibrous (Other)	None Detected
FL-1B *162421098-0086*	Roof Flashing	Black/Silver Fibrous Homogeneous	20% Cellulose	5% Quartz 73% Non-fibrous (Other)	**2% Chrysotile**
FL-1C *162421098-0087*	Roof Flashing				**Positive Stop (Not Analyzed)**
SD-1A *162421098-0088*	Corrugated Siding	Gray Fibrous Homogeneous		70% Non-fibrous (Other)	**30% Chrysotile**
SD-1B *162421098-0089*	Corrugated Siding				**Positive Stop (Not Analyzed)**
SD-1C *162421098-0090*	Corrugated Siding				**Positive Stop (Not Analyzed)**
SD-2A *162421098-0091*	Flat Panel Siding	Gray Fibrous Homogeneous		80% Non-fibrous (Other)	**20% Chrysotile**
SD-2B *162421098-0092*	Flat Panel Siding				**Positive Stop (Not Analyzed)**
SD-2C *162421098-0093*	Flat Panel Siding				**Positive Stop (Not Analyzed)**
GP-1A *162421098-0094*	Glue Pods	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
GL-1A *162421098-0095*	Siding	Tan/Red Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
GL-2A *162421098-0096*	Siding	Tan/Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
WG-1A *162421098-0097*	Window Glazing	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	**<1% Chrysotile**
WG-1B *162421098-0098*	Window Glazing	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	**<1% Chrysotile**
WG-1C *162421098-0099*	Window Glazing	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	**<1% Chrysotile**
WG-1D *162421098-0100*	Window Glazing	Gray/Red Non-Fibrous Homogeneous		100% Non-fibrous (Other)	**<1% Chrysotile**
WG-1E *162421098-0101*	Window Glazing	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	**<1% Chrysotile**
WG-1F *162421098-0102*	Window Glazing	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	**<1% Chrysotile**
WG-1G *162421098-0103*	Window Glazing	Gray/Red Non-Fibrous Homogeneous		100% Non-fibrous (Other)	**<1% Chrysotile**

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
WG-2A *162421098-0104*	Window Glazing	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	**<1% Chrysotile**
WG-2B *162421098-0105*	Window Glazing	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	**<1% Chrysotile**
WG-2C *162421098-0106*	Window Glazing	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	**<1% Chrysotile**
WG-2D *162421098-0107*	Window Glazing	Tan/Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	**<1% Chrysotile**
WG-2E *162421098-0108*	Window Glazing	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	**<1% Chrysotile**
WG-2F *162421098-0109*	Window Glazing	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	**<1% Chrysotile**
WG-2G *162421098-0110*	Window Glazing	Gray/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	**<1% Chrysotile**
DB-1A *162421098-0111*	Corrugated Debris	White Fibrous Homogeneous		30% Non-fibrous (Other)	**70% Chrysotile**
DB-1B *162421098-0112*	Corrugated Debris				**Positive Stop (Not Analyzed)**
DB-1C *162421098-0113*	Corrugated Debris				**Positive Stop (Not Analyzed)**
FP-1A *162421098-0114*	Sprayed-On Fireproofing	Brown/White Fibrous Homogeneous	80% Cellulose	15% Perlite 5% Non-fibrous (Other)	None Detected
FP-1B *162421098-0115*	Sprayed-On Fireproofing	Brown Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
FP-1C *162421098-0116*	Sprayed-On Fireproofing	Brown Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
FP-1D *162421098-0117*	Sprayed-On Fireproofing	Brown Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
FP-1E *162421098-0118*	Sprayed-On Fireproofing	Brown/Gray/Green Fibrous Homogeneous	90% Cellulose	5% Mica 5% Non-fibrous (Other)	None Detected
FP-1F *162421098-0119*	Sprayed-On Fireproofing	Brown/Gray/Green Fibrous Homogeneous	90% Cellulose	5% Mica 5% Non-fibrous (Other)	None Detected
FP-1G *162421098-0120*	Sprayed-On Fireproofing	Brown/Gray/Green Fibrous Homogeneous	90% Cellulose	5% Mica 5% Non-fibrous (Other)	None Detected
CP-1A *162421098-0121*	Ceiling Panels	Gray Fibrous Homogeneous		80% Non-fibrous (Other)	**20% Chrysotile**
CP-1B *162421098-0122*	Ceiling Panels				**Positive Stop (Not Analyzed)**

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CP-1C *162421098-0123*	Ceiling Panels				**Positive Stop (Not Analyzed)**
WB-1A *162421098-0124*	Wall Board	Gray Fibrous Homogeneous		80% Non-fibrous (Other)	**20% Chrysotile**
EC-1A *162421098-0125*	Exterior Caulking	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
EC-1B *162421098-0126*	Exterior Caulking	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
EC-1C *162421098-0127*	Exterior Caulking	Gray/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
TC-1A *162421098-0128*	Textured Ceiling	Brown/Tan Fibrous Homogeneous		85% Non-fibrous (Other)	**15% Chrysotile**
TC-1B *162421098-0129*	Textured Ceiling				**Positive Stop (Not Analyzed)**
TC-1C *162421098-0130*	Textured Ceiling				**Positive Stop (Not Analyzed)**

Analyst(s)

Alison Pacey (31)
Luke Anderson (27)
Maggie Hayden (62)
Ross Matlock (10)

Melissa Newkirk

Asbestos Laboratory Manager
or Other Approved Signatory

Initial report from: 12/13/2024 13:54:21

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number (*Lab Use Only*): 162421098

EMSL ANALYTICAL, INC.
6340 CASTLEPLACE DR.
INDIANAPOLIS, IN 46250
PHONE: (800) 220-3675
FAX: (317)803-3047

Company Name : HEARTLAND ENVIRONMENTAL ASSOCIATES, INC.		**EMSL Customer ID:**	
Street: 3410 MISHAWAKA AVENUE		**City:** SOUTH BEND	**State/Province:** IN
Zip/Postal Code: 46615	**Country:** USA	**Telephone #:** 574-289-1191	**Fax #:**
Report To (Name): RYAN ORZECHOWICZ		**Please Provide Results:** ☐ Fax ☒ Email	
Email Address: rorzechowicz@heartlandenv.com		**Purchase Order:**	
Project Name/Number: 500 S. UNION ST.		**EMSL Project ID** (*Internal Use Only*):	
U.S. State Samples Taken: IN		**CT Samples:** ☐ Commercial/Taxable ☐ Residential/Tax Exempt	

EMSL-Bill to: ☒ Same ☐ Different - If Bill to is Different note instructions in Comments**
Third Party Billing requires written authorization from third party

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.

PCM - Air ☐ Check if samples are from NY
☐ NIOSH 7400
☐ w/ OSHA 8hr. TWA

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%)
☐ NYS 198.1 (friable in NY)
☐ NYS 198.6 NOB (non-friable-NY)
☐ NYS 198.8 SOF-V
☐ NIOSH 9002 (<1%)

TEM – Air ☐ 4-4.5hr TAT (AHERA only)
☐ AHERA 40 CFR, Part 763
☐ NIOSH 7402
☐ EPA Level II
☐ ISO 10312

TEM - Bulk
☐ TEM EPA NOB
☐ NYS NOB 198.4 (non-friable-NY)
☐ Chatfield SOP
☐ TEM Mass Analysis-EPA 600 sec. 2.5

TEM – Water: EPA 100.2
Fibers >10µm ☐ Waste ☐ Drinking
All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
☐ Microvac - ASTM D 5755
☐ Wipe - ASTM D6480
☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite
☐ PLM EPA 600/R-93/116 with milling prep (<1%)
☐ PLM EPA 600/R-93/116 with milling prep (<0.25%)
☐ TEM EPA 600/R-93/116 with milling prep (<0.1%)
☐ TEM Qualitative via Filtration Prep
☐ TEM Qualitative via Drop Mount Prep
☐ Cincinnati Method EPA 600/R-04/004 – PLM/TEM (BC only)

Other:
☐

☒ **Check For Positive Stop -- Clearly Identify Homogenous Group** | **Filter Pore Size (Air Samples):** ☐ 0.8µm ☐ 0.45µm

Samplers Name: RYAN ORZECHOWICZ | **Samplers Signature:** Ryan Orzechowicz

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
FT-1	FLOOR TILE	A-E	12/10/24
FT-2		A-E	
FT-3		A-C	
FT-4		A-C	
FT-5		A-G	

Client Sample # (s): | **Total # of Samples:**

Relinquished (Client): Ryan Orzechowicz | **Date:** 12/11/24 | **Time:** 1:08PM

Received (Lab): DBingham | **Date:** 12/11/24 | **Time:** 1:08PM WZ

Comments/Special Instructions:

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number *(Lab Use Only)*:

-21098

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FAX: (317)803-3047

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
FT-6	FLOOR TILE	A-C	12/10/24
FT-7		A	
FT-8		A	
FT-9		A	
CT-1	CEILING TILE	A-E	
CT-2		A-C	
CT-3		A-E	
CT-4		A	
DW-1	DRYWALL	A-E	
DW-2		A-C	
DW-3		A-C	
DW-4		A-C	
DW-5		A-C	
PL-1	PLASTER	A-G	
PL-2		A-E	
PL-3		A-C	
PL-4		A-C	
RF-1	ROLLED ASPHALT ROOFING	A-C	
RF-2	RUBBERIZED ROOFING	A-C	
FL-1	ROOF FLASHING	A-C	
SD-1	CORRUGATED SIDING	A-C	
SD-2	FLAT PANEL SIDING	A-C	
GP-1	GLUE PODS	A	

***Comments/Special Instructions:**

Page 2 of 3 pages

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number (*Lab Use Only*): 162421098

EMSL ANALYTICAL, INC.
6340 CASTLEPLACE DR
INDIANAPOLIS, IN46250
PHONE: (800) 220-3675
FAX: (317)803-3047

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
GL-1	SIDING	A	12/10/24
GL-2	〃	A	
WG-1	WINDOW GLAZING	A-G	
WG-2	〃	A-G	
DB-1	CORRUGATED DEBRIS	A-C	
FP-1	SPRAYED-ON FIREPROOFING	A-G	
CP-1	CEILING PANELS	A-C	
WB-1	WALLBOARD	A	
EC-1	EXTERIOR CAULKING	A-C	
TC-1	TEXTURED CEILING	A-C	

***Comments/Special Instructions:**

Page 3 of 3 pages

December 26, 2024

Mr. Kenneth B. Prince, FASLA
Executive Director
City of Mishawaka
Planning and Community Development
100 Lincolnway West
Mishawaka, Indiana 46544
Electronic Mail: kprince@mishawaka.in.gov

Re: Asbestos Building Inspection Report
Former Dodge Manufacturing Company / Former RMG Foundry Facility
Power House Building
500 South Union Street in Mishawaka, Indiana
Heartland Project #5306-24-01

Dear Mr. Prince:

Heartland Environmental Associates, Inc. (Heartland) is pleased to provide the City of Mishawaka (City) with this asbestos building inspection report for the above referenced former industrial facility in Mishawaka, Indiana. This asbestos building inspection was conducted to evaluate for the presence and/or absence of asbestos containing materials (ACMs) at the subject site and was conducted as part of pre-demolition project planning.

Note that, based on information provided to Heartland, it is understood that the site building subject to this inspection will be subject to demolition; therefore, this inspection was conducted utilizing partially "destructive" sampling methods. However, due to the nature of the site building and the unknown nature of utility infrastructure associate with the site building, the manner of inspection did not damage and/or interfere with any utility chases; therefore, some areas of the site building (e.g., areas behind concrete walls or utility chases) were not fully accessed during this inspection so as to not damage these components. The manner of the inspection did not compromise the structural integrity of the building or endanger the safety of sampling personnel or other contractors/occupants.

Further note that this inspection constitutes an inspection of only the Power House Building portion of the facility campus. The main former foundry / manufacturing building located on the campus was also inspected in concert with this inspection. The results of the inspection of the main foundry building are provided under separate cover to this report.

BUILDING INSPECTION

Asbestos Building Inspection

On December 9 and December 10, 2024, Mr. Ryan M. Orzechowicz, Senior Project Geologist, and Mr. Nivas R. Vijay, Senior Project Manager with Heartland, completed the inspection of the site building. Both Mr. Orzechowicz and Mr. Vijay are accredited asbestos building inspectors in the

State of Indiana. A copy of both Mr. Orzechowicz's and Mr. Vijay's certificate of asbestos accreditation has been provided for review in Attachment A. Photographs taken of the property during the time of the inspection are provided in Attachment B.

The site building subject to this inspection was detached from the main former foundry / manufacturing facility and was located on the western portion of the facility campus. This building consisted of a single-story building encompassing approximately 14,973-square feet and constructed of steel and wood frame on concrete foundation with a partial basement area. The exterior walls were finished with a combination of brick and metal panel, and the building's interior was segregated with brick and concrete block. The roofing consisted of built-up asphalt roofing materials overtop wood and metal decking.

The southern portion of the building was minimally improved, typical to that of a boiler / maintenance building. This portion of the building contained several catwalks to access boilers that were staged on elevated platforms. A tunnel system exited this portion of the building and ran south then east into the main site building.

The northern portion of the building contained offices and storage spaces that were segregated with wood frame and concrete block walls. The northern portion of the building contained a mezzanine storage area/room. This portion of the building was in a state of disrepair during the time of this inspection.

Based on Heartland's visual assessment of the property, several types of building materials were considered non-suspect ACMs and therefore were not sampled. These materials included, but were not limited to: concrete floors, brick and block, glass, metal fixtures, wood and plywood materials and fiberglass insulation.

Heartland identified twenty-two (22) homogeneous areas of suspect ACMs within the building. Homogeneous areas identified included five (5) types of acoustical ceiling tile, four (4) types of resilient vinyl flooring materials and associated mastics, one (1) type of sheetrock, one (1) type of plaster material, two (2) types of boiler gasket materials, two (2) types of thermal systems insulation (TSI) mudded joint, one (1) type of insulation (boxed debris), one (1) type of window glazing, one (1) type of transite wallboard material, three (3) types of asphalt roofing materials and one (1) type of roof flashing material. Two (2) types of material, boiler jacketing on a boiler in the mezzanine portion of the site building and TSI on 12"-diameter horizontal and vertical pipe chases in the southern portion of the site building, were identified as presumed asbestos containing materials (PACMs) and not subject to sampling.

The suspect materials were assessed based on condition of the material and friability (the ability to be crumbled or turned to dust by hand pressure). Heartland utilized disposable nitrile gloves while obtaining samples. The samples were then placed into pre-labeled sealable bags. A total of fifty (50) bulk samples from the twenty-two (22) homogeneous areas were collected for laboratory analysis.

Following collection of the samples, Heartland transported the samples under Heartland chain of custody to EMSL Analytical, Inc., a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory, in Indianapolis, Indiana. The suspect ACM materials sampled were submitted for Polarized Light Microscopy (PLM) analysis, with the laboratory estimating the percent asbestos by visual inspection. Materials defined as ACM are those that contain greater than

1% asbestos. Materials that are not friable and contain less than 1% asbestos are not considered to be ACM.

SAMPLE RESULTS

Based on the laboratory analytical results, two (2) types of resilient vinyl flooring materials and associated mastics, along with one (1) type of flooring mastic material, were identified as asbestos containing. Additionally, TSI mud joints in the tunnel of the site building, along with the transite wallboard paneling and asphalt roof flashing materials were identified as asbestos containing.

Note that one (1) type of materials, rolled asphalt roofing tar on the roof of the site building, was determined to contain <1% asbestos. As these materials are considered non-friable materials, these materials are, per definition, non-asbestos containing.

None of the remaining sampled suspect materials were determined to contain asbestos. As stated above, two (2) types of material, boiler jacketing on a boiler in the mezzanine portion of the site building and TSI on 12"-diameter horizontal and vertical pipe chases in the southern portion of the site building, were identified as PACMs and not subject to sampling.

Laboratory analytical results are provided as Attachment C. A summary of sampled materials is provided in Table 1 below.

Table 1
Summary of Sampled Building Materials
Former Dodge Manufacturing Company / Former RMG Foundry – Power House Building
500 South Union Street in Mishawaka, Indiana
December 9 and December 10, 2024

Material/Location	Friable	Category	Asbestos Content	Area (ft^2) *	Sample #
Floor Tile / Mastic – 9" x 9" light grayish beige w/dark brown streaks, northern portion of site building	No	I	**2% Chrysotile (Tile)** **2% Chrysotile (Mastic)**	~1,350	FT – 1 (A-C)
Floor Tile / Mastic – yellow and green pattern vinyl sheet, northern office	No	I	**2% Chrysotile (Tile)** **4% Chrysotile (Mastic)**	~40	FT – 2 (A)
Floor Tile / Mastic – 12" x 12" greenish brown squiggle and marble pattern, northern office hallways	No	I	ND (Tile) **3% Chrysotile (Mastic)**	~30	FT – 3 (A)
Floor Tile / Mastic – 12" x 12" brown w/beige and green squiggle and marble pattern, northern office hallways	No	I	ND	~450	FT – 4 (A-C)
Ceiling Tiles – 2' x 2' white w/squiggles, northern offices	Yes	RACM	ND	~250	CT – 1 (A-C)
Ceiling Tiles – 2' x 4' white ridged pattern w/squiggles and buckshot, northern offices	Yes	RACM	ND	~825	CT – 2 (A-C)

Table 1
Summary of Sampled Building Materials
Former Dodge Manufacturing Company / Former RMG Foundry – Power House Building
500 South Union Street in Mishawaka, Indiana
December 9 and December 10, 2024

Material/Location	Friable	Category	Asbestos Content	Area (ft^2) *	Sample #
Ceiling Tiles – 2' x 4' white w/squiggles and buckshot, northern offices	Yes	RACM	ND	~200	CT – 3 (A-C)
Ceiling Tiles – 2' x 4' white w/squiggles and gouges, northern offices	Yes	RACM	ND	~350	CT – 4 (A-C)
Ceiling Tiles – 2' x 4' white ridged pattern w/squiggles and seams, northern offices	Yes	RACM	ND	~400	CT – 5 (A-C)
Sheetrock – interior walls, northern portion of the site building	Yes	RACM	ND	~1,800	DW – 1 (A-C)
Plaster (Base + Skim Coat), behind drywall, northern portion of the site building	Yes	RACM	ND	~1,200	PL – 1 (A-C)
Insulation – boxed material debris on ground floor in the southern portion of the site building	Yes	RACM	ND	-	INS – 1 (A-C)
Gasket – Brick Boiler, ground floor, southern portion of the site building	No	I	ND	~15	GS – 1 (A)
Gasket – Mezzanine Boiler, southern portion of the site building	No	I	ND	~10	GS – 2 (A)
Transite Wallboard Material – wall panel near mezzanine, southern portion of the site building	No	II	**20% Chrysotile**	~100	TS – 1 (A)
TSI Pipe Wrap – 12"-diameter horizontal and vertical pipe chases, mezzanine, southern portion of the site building	Yes	RACM	**PACM**	~90 - 145 LF	-
Boiler Jacket Material – Clad on 5,000-gallon boiler in mezzanine, southern portion of the site building	Yes	RACM	**PACM**	~600	-
TSI Mud Joints, Tunnel (8" – 12" Diameter)	Yes	RACM	**20% Chrysotile**	~8 – 12 Joints	MJ – 1 (A)
TSI Mud Joints, Upper Mezzanine Area on Repaired Piping, southern portion of the site building	Yes	RACM	ND	~6 – 10 Joints	MJ – 2 (A)
Window Glazing – Interior Accent Windows	No	II	ND	~600	WG – 1 (A-C)
Rubberized Asphalt Roofing Materials – Rooftop	No	I	ND	~6,000	RF – 1 (A-C)

Table 1
Summary of Sampled Building Materials
Former Dodge Manufacturing Company / Former RMG Foundry – Power House Building
500 South Union Street in Mishawaka, Indiana
December 9 and December 10, 2024

Material/Location	Friable	Category	Asbestos Content	Area (ft^2) *	Sample #
Rolled Asphalt Roofing	No	I	ND (Shingles) <1% Chrysotile (Tar)	~6,000	RF – 2 (A-C)
Asphalt Roofing Shingles	No	I	ND	~3,000	RF – 3 (A-C)
Asphalt Roof Flashing	No	I	**2% Chrysotile**	~1,400	FL – 1 (A-C)

Friable: Yes – hand friable, No – non-friable
PACM: Presumed Asbestos Containing Materials
RACM: Regulated Asbestos Containing Materials
ND: No asbestos detected
*Footage estimates determined from site reconnaissance and measurement obtained during site reconnaissance

RECOMMENDATIONS

Based on the results of this asbestos building inspection, two (2) types of resilient vinyl flooring materials and associated mastics, along with one (1) type of flooring mastic material, were identified as asbestos containing. Additionally, TSI mud joints in the tunnel of the site building, along with transite wallboard paneling and asphalt roof flashing materials were identified as asbestos containing.

Note that one (1) type of materials, rolled asphalt roofing tar on the roof of the site building, was determined to contain <1% asbestos. As these materials are considered non-friable materials, these materials are, per definition, non-asbestos containing.

Additionally, two (2) types of material, boiler jacketing on a boiler in the mezzanine portion of the site building and TSI on 12”-diameter horizontal and vertical pipe chases in the southern portion of the site building, were identified as PACMs and not subject to sampling.

TSI pipe wrapping, boiler jacketing and TSI mud joints are considered friable ACMs and are therefore regulated asbestos containing materials (RACMs). Abatement of these materials will be required prior to any future planned demolition of the site building. The transite wallboard materials, the resilient vinyl flooring materials and associated mastics and the roof flashing materials are considered non-friable ACMs and are therefore not regulated.

It is the understanding of Heartland that the building will be subject to demolition, meeting the definition of renovation and demolition, in accordance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) for the State of Indiana. RACMs were identified in quantities (260 linear feet/160 square feet/35 cubic feet) greater than the written notification requirements specified in Indiana Administrative Code (326 IAC 14-10). **Therefore, written notification to the IDEM will be required pertaining to asbestos related demolition actions at this property, as RACMs were encountered at the site exceeding written notification requirements. Abatement**

of these materials will be required to be conducted by an accredited asbestos abatement contractor licensed in the State of Indiana prior to any future planned demolition activities.

In general, the RACMs were encountered in fair to poor condition, with several sections of TSI pipe wrap and pipe fittings encountered either intact or slightly damaged. However, significant amounts of TSI were observed to be damaged or significantly damaged. Potential exposure to damaged and friable RACMs is a concern at this time, and care should be taken to limit entry into the site building until abatement activities can commence.

As non-friable ACMs in the form of resilient vinyl flooring materials and associated mastics and asphalt roof flashing materials encountered are non-friable, these materials are recommended to be removed as part of demolition activities, provided the materials are not subject to sanding, grinding, abrading or any other mechanical operations which may damage the roofing materials and cause them to become friable. The flooring and roofing materials can be disposed of as construction related debris and will not require special abatement.

Although transite wallboard materials are considered non-friable ACMs and are not regulated, these materials will likely become friable RACMs during demolition activities. Therefore, abatement of the transite siding materials will be required to be conducted by an accredited asbestos abatement contractor licensed in the State of Indiana prior to any future planned demolition activities. Proper notification to IDEM will be required prior to the onset of abatement activities of these materials.

Further note that, should non-friable flooring and/or roofing materials be subject to any of the above referenced mechanical processes or any other process which may render the materials friable, then work should be ceased, and the materials should be subject to abatement. Should abatement activities be determined necessary, work completed should be conducted by accredited asbestos abatement contractors licensed in the State of Indiana.

DISCLAIMER

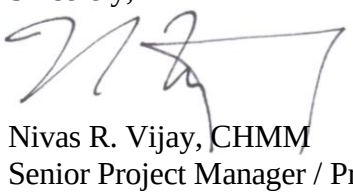
This environmental report was prepared in accordance with generally accepted principles and practices in the environmental consulting field. Conclusions and recommendations expressed herein were developed from site evaluation and limited research, and we are not responsible for unrecorded data pertaining to this site. Heartland makes no warranties, expressed or implied, as to the fitness or merchantability of said property for any particular purpose, and we are not responsible for independent conclusions or opinions made by others based on this report.

Reasonable efforts were made to identify suspect ACMs within the inspected facility. As stated above, based on information provided to Heartland, it is understood that the site building subject to this inspection will be subject to demolition; therefore, this inspection was conducted utilizing partially “destructive” sampling methods. However, due to the nature of the site building and the unknown nature of utility infrastructure associate with the site building, the manner of inspection did not damage and/or interfere with any utility chases; therefore, some areas of the site building (e.g., areas behind concrete walls or utility chases) were not fully accessed during this inspection so as to not damage these components. The manner of the inspection did not compromise the structural integrity of the building or endanger the safety of sampling personnel or other contractors/occupants.

Further note that this inspection constitutes an inspection of only the Power House Building portion of the facility campus. The main former foundry / manufacturing building located on the campus was also inspected in concert with this inspection. The results of the inspection of the main foundry building are provided under separate cover to this report.

If you should have questions regarding this report, please contact Heartland at 574-289-1191.

Sincerely,



Nivas R. Vijay, CHMM
Senior Project Manager / Principal
State of Indiana Asbestos Inspector License #197004016

ATTACHMENT A

ASBESTOS LICENSE DOCUMENTATION

Indiana Dept. of Environmental Management

Ryan M. Orzechowicz

Asbestos Inspector License #: 19A001542

Effective: **04/08/2024**	Expiration: **04/08/2025**
Birth Date: **07/29/1983**	Gender: **M**
Height: **5-09**	Eye Color: **GRN**
Weight: **160**	Hair Color: **BRO**

Indiana Dept. of Environmental Management

Nivas R. Vijayaraghavan

Asbestos Inspector License #: 197004016

Effective: **04/14/2024**	Expiration: **04/14/2025**
Birth Date: **05/29/1979**	Gender: **M**
Height: **5-08**	Eye Color: **BRO**
Weight: **160**	Hair Color: **BLK**

ATTACHMENT B

SITE PHOTOGRAPHIC RECORD

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of north face of power house building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 1

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of northwest side of power house building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 2

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of west face of power house building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 3

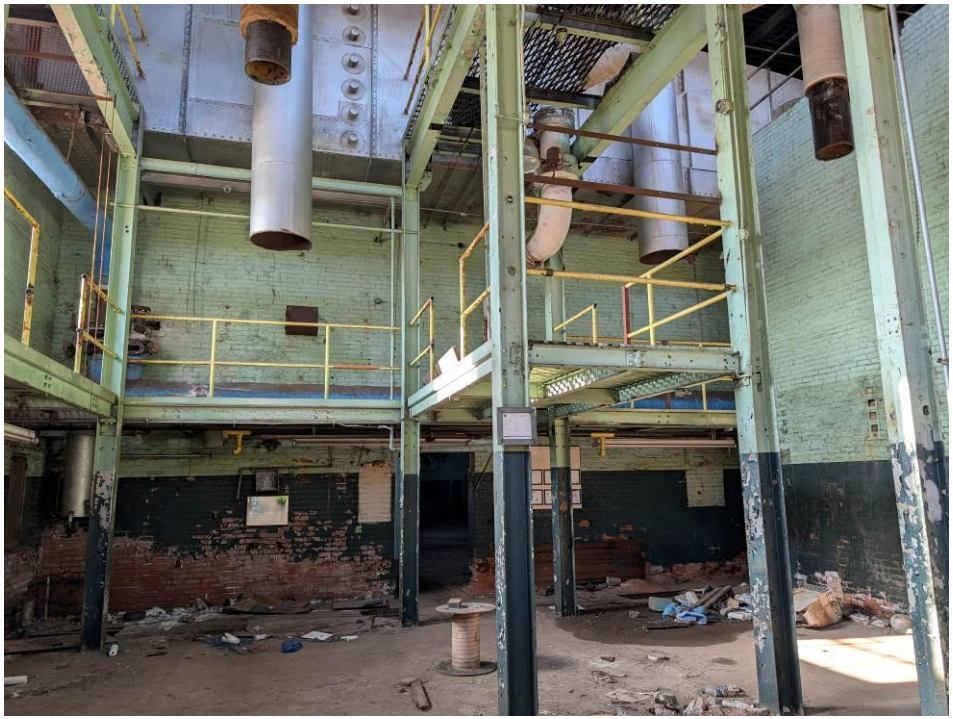
CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of east face of power house building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 4

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

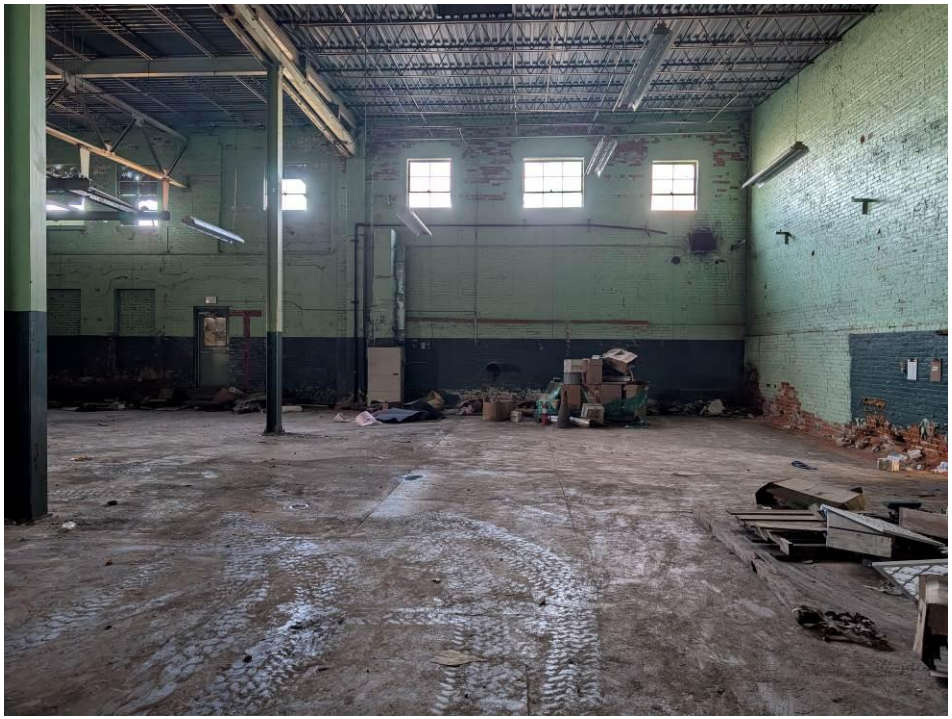
DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of south face of power house building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 5



CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of interior of power house building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 6

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.



CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of interior of power house building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 7

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of interior of office portion of power house building
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 8

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of sampled floor tile (FT-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 9

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of sampled floor tile (FT-2)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 10

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

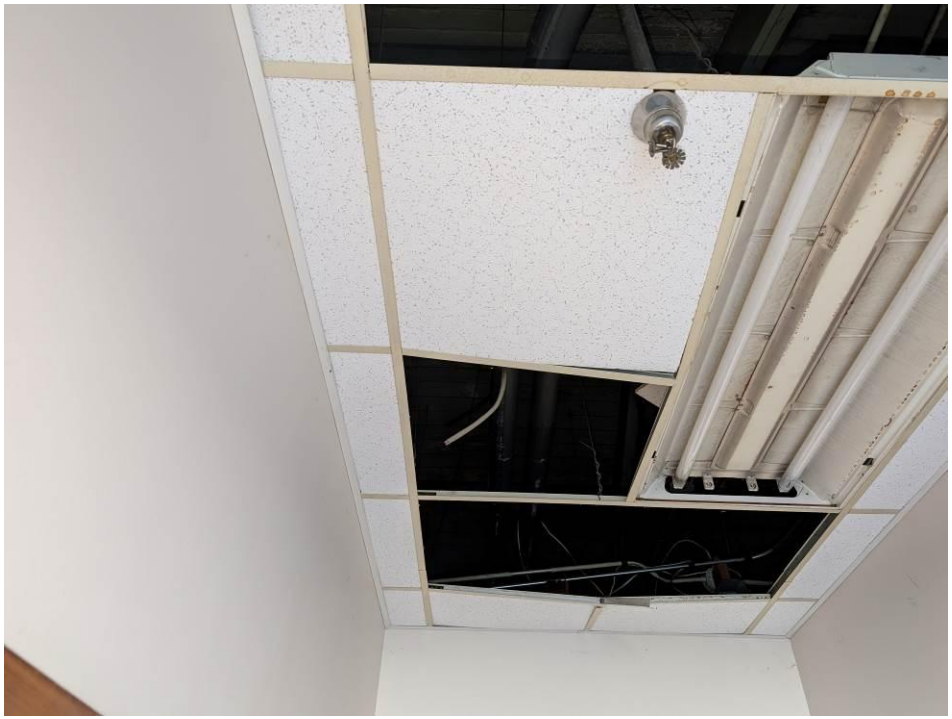
DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of sampled floor tile (FT-3)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 11

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 628 Western Avenue in South Bend, Indian

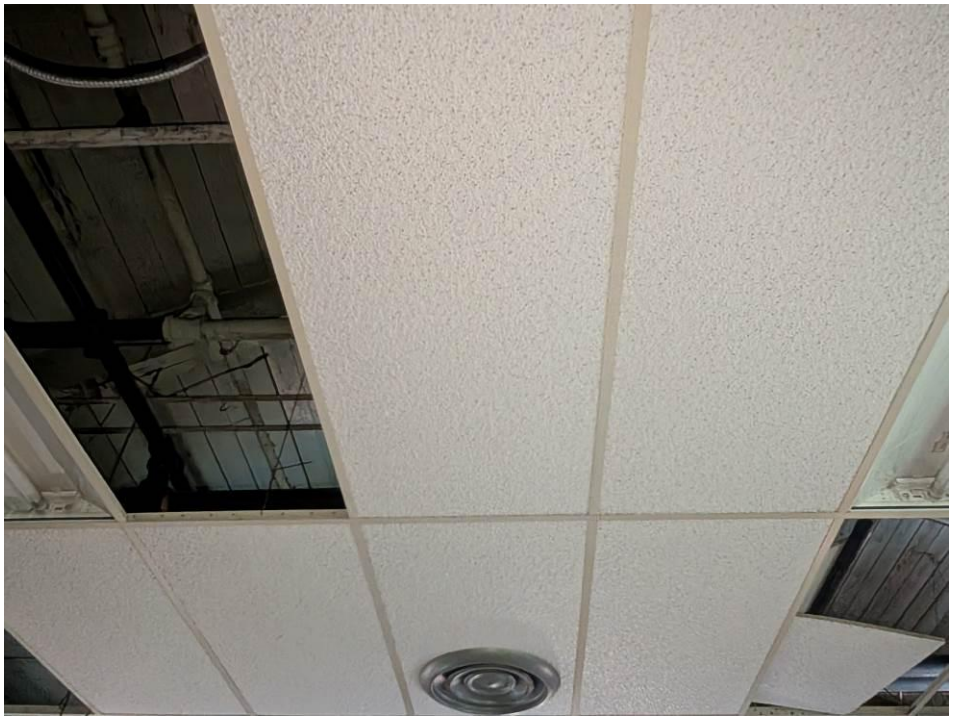
SUBJECT: View of sampled floor tile (FT-4)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 12

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.



CLIENT NAME: City of Mishawaka

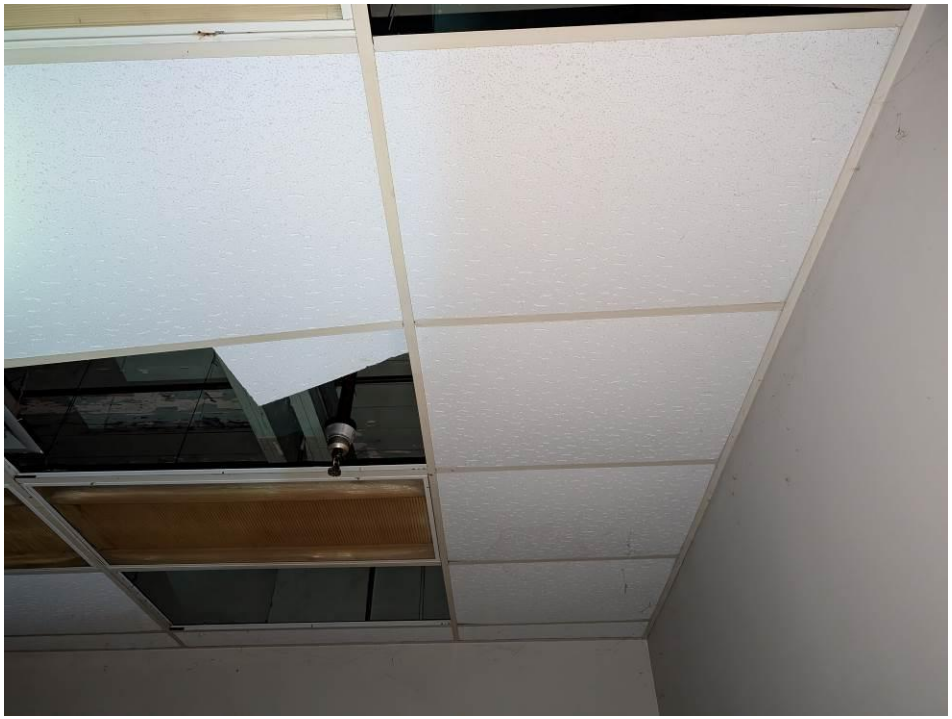
DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of sampled ceiling tile (CT-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 13



CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of sampled ceiling tile (CT-2)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 14

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.



CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of sampled ceiling tile (CT-3)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 15

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of sampled ceiling tile (CT-4)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 16

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of sampled plaster (PL-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 17

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of sampled drywall (DW-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 18

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of sampled boiler gasket (GS-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 19

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of sampled window glazing (WG-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 20

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of sampled wallboard siding (SD-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 21

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of sampled rolled asphalt roofing (RF-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 22

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of sampled rubberized roofing (RF-2)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 23

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of sampled roof flashing (FL-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 24

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of sampled asphalt shingles (RF-3)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 25

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of sampled loose insulation on floor (INS-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 26

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of sampled mudded joint (MJ-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 27

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of sampled TSI pipe wrap (PW-1)
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 28

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of ACM TSI pipe wrap
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 29

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of ACM TSI pipe wrap
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 30

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of ACM TSI pipe wrap
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 31

CLIENT NAME: City of Mishawaka

DATE: December 10, 2024
LOCATION: 500 Union Street in Mishawaka, Indiana (Power House Building)
SUBJECT: View of ACM TSI pipe wrap
PHOTOGRAPHER: Ryan M. Orzechowicz (Heartland)
PHOTO: 32

HEARTLAND
ENVIRONMENTAL ASSOCIATES INC.

ATTACHMENT C

LABORATORY ANALYTICAL REPORT

EMSL Analytical, Inc.

6340 CastlePlace Dr. Indianapolis, IN 46250

Tel/Fax: (317) 803-2997 / (317) 803-3047

http://www.EMSL.com / indianapolislab@emsl.com

EMSL Order:	162421095
Customer ID:	HRTL42
Customer PO:	
Project ID:	

Attention:	Nivas Vijay	**Phone:**	(574) 360-0961
	Heartland Environmental	**Fax:**	
	3410 Mishawaka Ave.	**Received Date:**	12/11/2024 1:08 PM
	South Bend, IN 46615	**Analysis Date:**	12/12/2024 - 12/13/2024
		Collected Date:	

Project: FORMER DODGE FOUNDRY, POWER HOUSE BUILDING, MISHAWAKA

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**
FT-1A-Floor Tile *162421095-0001*	FLOOR TILE / MASTIC	Gray Non-Fibrous Homogeneous		98% Non-fibrous (Other)	**2% Chrysotile**
FT-1A-Mastic *162421095-0001A*	FLOOR TILE / MASTIC	Black Non-Fibrous Homogeneous		98% Non-fibrous (Other)	**2% Chrysotile**
FT-1B-Floor Tile *162421095-0002*	FLOOR TILE / MASTIC				**Positive Stop (Not Analyzed)**
FT-1B-Mastic *162421095-0002A*	FLOOR TILE / MASTIC				**Positive Stop (Not Analyzed)**
FT-1C-Floor Tile *162421095-0003*	FLOOR TILE / MASTIC				**Positive Stop (Not Analyzed)**
FT-1C-Mastic *162421095-0003A*	FLOOR TILE / MASTIC				**Positive Stop (Not Analyzed)**
FT-2A-Floor Tile *162421095-0004*	FLOOR TILE / MASTIC	Brown/Green Non-Fibrous Homogeneous		98% Non-fibrous (Other)	**2% Chrysotile**
FT-2A-Mastic *162421095-0004A*	FLOOR TILE / MASTIC	Black Non-Fibrous Homogeneous		96% Non-fibrous (Other)	**4% Chrysotile**
FT-3A-Floor Tile *162421095-0005*	FLOOR TILE / MASTIC	Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FT-3A-Mastic *162421095-0005A*	FLOOR TILE / MASTIC	Black Non-Fibrous Homogeneous		97% Non-fibrous (Other)	**3% Chrysotile**
FT-4A-Floor Tile *162421095-0006*	FLOOR TILE / MASTIC	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FT-4A-Mastic *162421095-0006A*	FLOOR TILE / MASTIC	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FT-4B-Floor Tile *162421095-0007*	FLOOR TILE / MASTIC	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FT-4B-Mastic *162421095-0007A*	FLOOR TILE / MASTIC	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FT-4C-Floor Tile *162421095-0008*	FLOOR TILE / MASTIC	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
FT-4C-Mastic *162421095-0008A*	FLOOR TILE / MASTIC	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 01/06/2025 15:23:26

EMSL Analytical, Inc.
6340 CastlePlace Dr. Indianapolis, IN 46250
Tel/Fax: (317) 803-2997 / (317) 803-3047
http://www.EMSL.com / indianapolislab@emsl.com

EMSL Order: 162421095
Customer ID: HRTL42
Customer PO:
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**
CT-1A *162421095-0009*	CEILING TILE	Gray/White Fibrous Homogeneous	50% Cellulose 30% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
CT-1B *162421095-0010*	CEILING TILE	Gray/White Fibrous Homogeneous	50% Cellulose 30% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
CT-1C *162421095-0011*	CEILING TILE	Gray/White Fibrous Homogeneous	50% Cellulose 30% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
CT-2A *162421095-0012*	CEILING TILE	Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
CT-2B *162421095-0013*	CEILING TILE	Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
CT-2C *162421095-0014*	CEILING TILE	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
CT-3A *162421095-0015*	CEILING TILE	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
CT-3B *162421095-0016*	CEILING TILE	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
CT-3C *162421095-0017*	CEILING TILE	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
CT-4A *162421095-0018*	CEILING TILE	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
CT-4B *162421095-0019*	CEILING TILE	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
CT-4C *162421095-0020*	CEILING TILE	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
CT-5A *162421095-0021*	CEILING TILE	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
CT-5B *162421095-0022*	CEILING TILE	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
CT-5C *162421095-0023*	CEILING TILE	Gray/White Fibrous Homogeneous	50% Cellulose 30% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
DW-1A-Drywall *162421095-0024*	DRYWALL / JOINT COMPOUND	Brown/White Fibrous Heterogeneous	5% Cellulose	90% Gypsum 5% Non-fibrous (Other)	None Detected
DW-1A-Joint Compound *162421095-0024A*	DRYWALL / JOINT COMPOUND				**Layer Not Present**
DW-1B-Drywall *162421095-0025*	DRYWALL / JOINT COMPOUND	Brown/White Fibrous Heterogeneous	2% Cellulose	90% Gypsum 8% Non-fibrous (Other)	None Detected
DW-1B-Joint Compound *162421095-0025A*	DRYWALL / JOINT COMPOUND				**Layer Not Present**

Initial report from: 01/06/2025 15:23:26

EMSL Analytical, Inc.
6340 CastlePlace Dr. Indianapolis, IN 46250
Tel/Fax: (317) 803-2997 / (317) 803-3047
http://www.EMSL.com / indianapolislab@emsl.com

EMSL Order: 162421095
Customer ID: HRTL42
Customer PO:
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**
DW-1C-Drywall *162421095-0026*	DRYWALL / JOINT COMPOUND	White Non-Fibrous Homogeneous		95% Gypsum 5% Non-fibrous (Other)	None Detected
DW-1C-Joint Compound *162421095-0026A*	DRYWALL / JOINT COMPOUND				**Layer Not Present**
PL-1A-Skim Coat *162421095-0027*	PLASTER (BASE + SKIM)	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
PL-1A-Base Coat *162421095-0027A*	PLASTER (BASE + SKIM)	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
PL-1B-Skim Coat *162421095-0028*	PLASTER (BASE + SKIM)	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
PL-1B-Base Coat *162421095-0028A*	PLASTER (BASE + SKIM)	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
PL-1C-Skim Coat *162421095-0029*	PLASTER (BASE + SKIM)	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
PL-1C-Base Coat *162421095-0029A*	PLASTER (BASE + SKIM)	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
GS-1A *162421095-0030*	LOWER FLOOR BOILER GASKET	Gray Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
GS-2A *162421095-0031*	UPPER LEVEL BOILER GASKET	Brown/Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
MJ-1A *162421095-0032*	TUNNEL MUD JOINT	Brown/Gray Fibrous Homogeneous	10% Cellulose 60% Glass	10% Non-fibrous (Other)	**20% Chrysotile**
MJ-2A *162421095-0033*	12" UPPER LEVEL MUD JOINT	Gray Fibrous Homogeneous	90% Min. Wool	10% Non-fibrous (Other)	None Detected
WG-1A *162421095-0034*	WINDOW GLAZING	Gray/Tan/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
WG-1B *162421095-0035*	WINDOW GLAZING	Gray/Tan/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
WG-1C *162421095-0036*	WINDOW GLAZING	Gray/Tan/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
TS-1A *162421095-0037*	TRANSITE WALLBOARD PANEL	Brown/Gray/Black Fibrous Homogeneous	10% Cellulose	70% Non-fibrous (Other)	**20% Chrysotile**
RF-1A *162421095-0038*	RUBBERIZED ROOFING	Black Fibrous Homogeneous	15% Synthetic	85% Non-fibrous (Other)	None Detected
RF-1B *162421095-0039*	RUBBERIZED ROOFING	Black Fibrous Homogeneous	15% Synthetic	85% Non-fibrous (Other)	None Detected
RF-1C *162421095-0040*	RUBBERIZED ROOFING	Black Fibrous Homogeneous	15% Synthetic	85% Non-fibrous (Other)	None Detected

Initial report from: 01/06/2025 15:23:26

EMSL Analytical, Inc.
6340 CastlePlace Dr. Indianapolis, IN 46250
Tel/Fax: (317) 803-2997 / (317) 803-3047
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EMSL Order: 162421095
Customer ID: HRTL42
Customer PO:
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**
RF-2A-Shingle *162421095-0041*	ROLLED ASPHALT ROOFING	Tan/White/Black Fibrous Heterogeneous	15% Synthetic	85% Non-fibrous (Other)	None Detected
RF-2A-Tar *162421095-0041A*	ROLLED ASPHALT ROOFING	Black/Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	**<1% Chrysotile**
RF-2B-Roof Shingle *162421095-0042*	ROLLED ASPHALT ROOFING	Tan/White/Black Fibrous Heterogeneous	15% Synthetic	85% Non-fibrous (Other)	None Detected
RF-2B-Tar *162421095-0042A*	ROLLED ASPHALT ROOFING	Black/Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	**<1% Chrysotile**
RF-2C-Shingle *162421095-0043*	ROLLED ASPHALT ROOFING	Tan/White/Black Fibrous Heterogeneous	15% Synthetic	85% Non-fibrous (Other)	None Detected
RF-2C-Tar *162421095-0043A*	ROLLED ASPHALT ROOFING	Black/Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	**<1% Chrysotile**
RF-3A *162421095-0044*	ASPHALT ROOFING SHINGLES	Gray/Black Fibrous Heterogeneous	15% Glass	85% Non-fibrous (Other)	None Detected
RF-3B *162421095-0045*	ASPHALT ROOFING SHINGLES	Gray/Black Fibrous Heterogeneous	15% Glass	85% Non-fibrous (Other)	None Detected
RF-3C *162421095-0046*	ASPHALT ROOFING SHINGLES	Gray/Black Fibrous Heterogeneous	15% Glass	85% Non-fibrous (Other)	None Detected
FL-1A *162421095-0047*	FLASHING	Brown/Black/Silver Fibrous Homogeneous	20% Cellulose	78% Non-fibrous (Other)	**2% Chrysotile**
FL-1B *162421095-0048*	FLASHING	Black Fibrous Homogeneous	20% Cellulose	80% Non-fibrous (Other)	None Detected
FL-1C *162421095-0049*	FLASHING	Black Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
INS-1A *162421095-0050*	BOXED INSULATION MATERIAL	Gray Fibrous Homogeneous	20% Glass	80% Non-fibrous (Other)	None Detected

Analyst(s)
Maggie Hayden (16)
Sean O'Donnell (44)

Melissa Newkirk
Asbestos Laboratory Manager
or Other Approved Signatory

Initial report from: 01/06/2025 15:23:26

OrderID: 162421095

EMSL ANALYTICAL, INC.
TESTING LABS • PRODUCTS • TRAINING

Asbestos Chain of Custody (Air, Bulk, Soil)

EMSL Order Number / Lab Use Only: 162421095

EMSL Analytical, Inc.
6340 Castleplace Drive
Indianapolis, Indiana 46250

PHONE: (800) 220-3675
EMAIL: CinnAsblab@EMSL.com

If Bill-To is the same as Report-To leave this section blank. Third-party billing requires written authorization.

Customer Information		Billing Information	
Customer ID		Billing ID:	
Company Name:	Heartland Environmental Associates, Inc.	Company Name:	
Contact Name:	Nivas R. Vijay	Billing Contact:	
Street Address:	3410 Mishawaka Avenue	Street Address:	
City, State, Zip:	South Bend, Indiana 46615	City, State, Zip:	
Country:		Country:	
Phone:	574-360-0961	Phone:	
Email(s) for Report:	nvijay@heartlandenv.com	Email(s) for Invoice:	

Project Information

Project Name/No:	Former Dodge Foundry, Power House Building, Mishawaka	Purchase Order:	
EMSL LIMS Project ID: (If applicable, EMSL will provide)		US State where samples collected:	Indiana
State of Connecticut (CT) must select project location.	☐ Commercial (Taxable) ☐ Residential (Non-Taxable)		
Sampled By Name:	NRV	Sampled By Signature:	
No. of Samples in Shipment	50		

Turn-Around-Time (TAT)

☐ 3 Hour ☐ 4-4.5 Hour AHERA ONLY ☐ 6 Hour ☐ 24 Hour ☐ 32 Hour ☐ 48 Hour ☑ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

TEM Air 3-6 Hour, please call ahead to schedule, 32 Hour TAT available for select tests only; samples must be submitted by 11:30 am.

Test Selection

PCM Air
- ☐ NIOSH 7400
- ☐ NIOSH 7400 w/ 8hr. TWA

PLM - Bulk (reporting limit)
- ☑ PLM EPA 600/R-93/116 (<1%)
- ☐ PLM EPA NOB (<1%)
- ☐ POINT COUNT
  - ☐ 400 (<0.25%) ☐ 1,000 (<0.1%)
- POINT COUNT w/ GRAVIMETRIC
  - ☐ 400 (<0.25%) ☐ 1,000 (<0.1%)
- ☐ NIOSH 9002 (<1%)
- ☐ NYS 198.1 (Friable - NY)
- ☐ NYS 198.6 NOB (Non-Friable - NY)
- ☐ NYS 198.8 (Vermiculite SM-V)

TEM - Air
- ☐ AHERA 40 CFR, Part 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☐ ISO 10312*

TEM - Bulk
- ☐ TEM EPA NOB
- ☐ NYS NOB 198.4 (Non-Friable-NY)
- ☐ TEM EPA 600/R-93/116 w Milling Prep (0.1%)

Other Test (please specify)

TEM - Settled Dust
- ☐ Microvac - ASTM D5755
- ☐ Wipe - ASTM D6480
- ☐ Qualitative via Filtration Prep
- ☐ Qualitative via Drop Mount Prep

Soil - Rock - Vermiculite (reporting limit)*
- ☐ PLM EPA 600/R-93/116 with milling prep (<0.25%)
- ☐ PLM EPA 600/R-93/116 with milling prep (<0.1%)
- ☐ TEM EPA 600/R-93/116 with milling prep (<0.1%)
- ☐ TEM Qualitative via Filtration Prep
- ☐ TEM Qualitative via Drop Mount Prep

*Please call with your project-specific requirements.

☑ Positive Stop - Clearly Identified Homogeneous Areas (HA) | Filter Pore Size (Air Samples) ☐ 0.8um ☐ 0.45um

Sample Number	Sample Location / Description	Volume, Area or Homogeneous Area	Date / Time Sampled (Air Monitoring Only)
FT - 1 (A-C)	Floor Tile / Mastic	A-C	12/9/2024
FT - 2 (A)	Floor Tile / Mastic	A	12/9/2024
FT - 3 (A)	Floor Tile / Mastic	A	12/9/2024
FT - 4 (A-C)	Floor Tile / Mastic	A-C	12/9/2024
CT - 1 (A-C)	Ceiling Tile	A-C	12/9/2024
CT - 2 (A-C)	Ceiling Tile	A-C	12/9/2024
CT - 3 (A-C)	Ceiling Tile	A-C	12/9/2024
CT - 4 (A-C)	Ceiling Tile	A-C	12/9/2024

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

Method of Shipment:		Sample Condition Upon Receipt:	
Relinquished by: Ryan Applebury	Date/Time: 12/11/24 1:07pm	Received by: Bingham	Date/Time: 12/11/24 1:08pm
Relinquished by:	Date/Time:	Received by:	Date/Time:

Controlled Document - COC-05 Asbestos R16 10/26/2021

☐ AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.

EMSL ANALYTICAL, INC.
TESTING LABS • PRODUCTS • TRAINING

Asbestos Chain of Custody (Air, Bulk, Soil)

EMSL Order Number / Lab Use Only

EMSL Analytical, Inc.
6340 Castleplace Drive
Indianapolis, Indiana 46250

PHONE: (800) 220-3675
EMAIL: CinnAsblab@EMSL.com

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

Sample Number	Sample Location / Description	Volume, Area or Homogeneous Area	Date / Time Sampled (Air Monitoring Only)
CT - 5 (A-C)	Ceiling Tile	A-C	12/9/2024
DW - 1 (A-C)	Drywall / Joint Compound	A-C	12/9/2024
PL - 1 (A-C)	Plaster (Base + Skim)	A-C	12/9/2024
GS - 1 (A)	Lower Floor Boiler Gasket	A	12/9/2024
GS - 2 (A)	Upper Level Boiler Gasket	A	12/9/2024
MJ - 1 (A)	Tunnel Mud Joint	A	12/9/2024
MJ - 2 (A)	12" Upper Level Mud Joint	A	12/9/2024
WG - 1(A-C)	Window Glazing	A-C	12/9/2024
TS - 1 (A)	Transite Wallboard Panel	A	12/9/2024
RF - 1 (A-C)	Rubberized Roofing	A-C	12/9/2024
RF - 2 (A-C)	Rolled Asphalt Roofing	A-C	12/9/2024
RF - 3 (A-C)	Asphalt Roofing Shingles	A-C	12/9/2024
FL - 1 (A-C)	Flashing	A-C	12/9/2024
INS - 1 (A)	Boxed Insulation Material	A	12/9/2024

Method of Shipment		Sample Condition Upon Receipt	
Relinquished by: Ryan Coppedge	Date/Time: 12/11/24	Received by	Date/Time
Relinquished by	Date/Time:	Received by:	Date/Time

Controlled Document - COC-05 Asbestos R18 10/28/2021

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