

HAZARDOUS BUILDING MATERIALS INSPECTION REPORT

Correct Mechanical Deficiencies VA Medical Center Omaha, Nebraska

VA Project No: 636-19-301

August 27, 2020

Prepared for:

Veterans Affairs Medical Center
c/o CLH Architects
Elkhorn, Nebraska

Prepared by:



AMI Environmental
8802 South 135th Street, Suite 100
Omaha, Nebraska 68138

AMIE # 19-00285

TABLE OF CONTENTS

1. SURVEY OVERVIEW	1
1.1. Purpose and Scope	1
1.1.1. Inspection Area.....	1
1.1.2. Limitations	1
1.2. Regulatory Reference	2
2. BUILDING INFORMATION.....	2
2.1. General Construction	2
2.2. Pre-Existing Information	2
3. INSPECTION METHODOLOGIES	2
3.1. Asbestos Inspection.....	2
3.1.1. Key Definitions.....	2
3.1.2. Homogenous Material Numbering Convention.....	3
3.1.3. Bulk Sampling	3
3.2. Lead-Based Paint Inspection	5
3.2.1. Key Definitions.....	5
3.2.2. Homogenous Paint Applications Numbering Convention.....	5
3.2.3. Paint Chip Sampling	5
4. SUMMARY OF INSPECTION FINDINGS	6
4.1. Asbestos Inspection Findings.....	6
4.2. Lead Paint Inspection Findings	6
5. RISKS AND HAZARDS	7
5.1. Asbestos	7
5.2. Lead-Based Paint	7
6. RECOMMENDATIONS	7
6.1. General Recommendations	8

6.1.1. Asbestos	8
6.1.2. Lead-Based Paint	8
6.2. Hazardous Conditions Recommendations	9
6.3. Point Count Analysis / TEM Chatfield Analysis Recommendations	8
7. REGULATORY REQUIREMENTS	9
7.1. Asbestos-Containing Materials	9
7.1.1. Notification Requirements	9
7.1.2. Asbestos Removal Requirements	9
7.1.3. OSHA Regulation of <1 Percent Asbestos	9
7.1.4. Asbestos Removal Regulations	9
7.2. Lead-Based Paint.....	10
7.2.1. Disposal Requirements	10
7.2.2. Construction Requirements	10

APPENDIX A: Tables

APPENDIX B: Photo Logs

APPENDIX C: Schematics

APPENDIX D: Analytical Results

APPENDIX E: Inspectors Credentials

HAZARDOUS MATERIALS INSPECTION REPORT

Correct Mechanical Deficiencies Veterans Affairs Medical Center Omaha, Nebraska

1. SURVEY OVERVIEW

On February 24, 25, and 26, 2020, Building 1, Steam Traps located in various mechanical rooms at the Veterans Affairs Medical Center, Omaha, Nebraska, were inspected for asbestos-containing material (ACM) and lead-based paint (LBP) by a representative of AMI Environmental (AMIE). On May 18 and August 14, 2020, Building 2 (Steam Plant) Boilers 1, 2 and 3 and associated piping, equipment, pumps, exterior windows, and connecting pipes were inspected and sampled for asbestos-containing material (ACM) and lead-based paint (LBP) by a representative of AMI Environmental (AMIE). The hazardous building materials inspection was conducted in preparation for replacement or upgrading of materials. The project is hereinafter referred to as The Project. The inspection was initiated at the request of Mr. Gary Gebhard, Architect, from CLH Architects, on behalf of the VA Medical Center.

The inspection was performed by Mr. William Crowe, in accordance with regulatory requirements and generally accepted industry methods. Copies of applicable requisite training certificates for Mr. Crowe are provided in Appendix E.

1.1. Purpose and Scope

The purpose and scope of the inspection was to identify and sample suspect ACMs, LBPs or other lead containing building materials present in the project area that may be impacted by The Project.

1.1.1. Inspection Area

The hazardous building materials inspection of the limited project area included 3 boilers, associated piping and pumps, glycol pipe connections, exterior windows in boiler room, and stair/platform in boiler room located in Building 2, and steam traps located in Building 1. The above described areas are hereinafter referred to collectively as the Inspection Area.

1.1.2. Limitations

Nondestructive sampling protocols prevented inspection and sampling of materials inside walls and other inaccessible areas of the building. Steam traps are located throughout Building 1, including patient rooms and other areas inaccessible for inspection. Examples of suspect materials not sampled, include those which may exist inside finished interior walls, pipe chases, rigid ceilings and in inaccessible rooms.

Gaskets/packings are present in pipe valves, pumps, boilers and equipment within the Inspection area. Gaskets/packings are concealed and unable to be sampled. Gaskets/packings are assumed as ACM unless sampled, analyzed, and found as non-ACM.

It is recommended that prior to or during construction that any new materials discovered in the demolition process be tested or abated as ACM.

Sampling of these materials may not be necessary if, in the case of suspect ACM, the materials are assumed to be ACM or if they are determined by a licensed asbestos inspector to be homogenous to other materials that were sampled.

1.2. Regulatory Reference

The asbestos inspection was conducted in accordance with USEPA National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations (ref.: 40 CFR, Part 61), following criteria established for identifying asbestos-containing building materials that may be impacted by planned renovation activities; applicable protocols established by the Asbestos Hazard Emergency Response Act (AHERA) (ref.: 40 CFR 763). There is also no licensing requirement for lead paint sampling in non-HUD facilities.

The State of Nebraska licenses asbestos inspectors to perform asbestos inspections in the State of Nebraska.

2. BUILDING INFORMATION

2.1. General Construction

This Correct Mechanical Deficiencies project involves the replacement of boilers, valves, piping and other equipment in Buildings 1 and 2.

2.2. Pre-Existing Information

Information on previous surveys or sampling for lead-based paint or asbestos, within the Building's 1 and 2 Inspection Area, was not provided. Some pipes in the Boiler room were marked "A" and are reported to be asbestos containing by boiler plant personnel. These materials are assumed ACM and were not sampled.

3. INSPECTION METHODOLOGIES

3.1. Asbestos Inspection

The inspection and sampling were conducted in accordance with the USEPA National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations (ref.: 40 CFR, Part 61), following criteria established for identifying asbestos-containing building materials that may be impacted by planned renovation. Additional aspects of the inspection methodology are discussed below.

3.1.1. Key Definitions

3.1.1.1. Homogenous Material

Homogenous materials are unique applications of building materials uniform in color and texture. The homogeneity of a material can be further defined by area(s) of application. Bulk sampling is conducted to determine the asbestos content of a homogenous material.

3.1.1.2. Asbestos-Containing Material (ACM)

The Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA) define ACMs as any material that contains greater than one percent asbestos, as determined by visual area estimation (microscopic analysis). The State of Nebraska follows the EPA standard. Some materials contain one percent or less

asbestos. While these materials are not ACMs by definition, they are still regulated by OSHA, for worker exposure.

3.1.1.3. Friable/Non-Friable ACM

Friable ACMs are materials that contain more than one percent asbestos and, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure, thereby releasing fibers into the air more readily. In contrast, non-friable ACMs are ACMs that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACMs are grouped into two categories: Category I and Category II.

3.1.1.4. Regulated Asbestos-Containing Materials (RACM)

Regulated Asbestos-Containing Materials (RACM) include friable ACMs and non-friable ACMs that, depending on their category, have become friable, have been subjected to specific forms of impact damage, have a high probability of becoming friable, and/or may become friable during removal.

3.1.2. Homogenous Material Numbering Convention

All suspect asbestos materials are assigned a unique homogeneous material number. AHERA identifies three basic material types: Surfacing Materials (SM), which include spray and trowel applied materials, such as fireproofing, ceiling texture, plaster, etc.; Thermal System Insulation (TSI), which includes insulating materials applied to mechanical and plumbing components for temperature preservation and condensation prevention purposes; and Miscellaneous Materials (MM), which includes all other materials, such as floor coverings and mastics, roofing materials, asbestos cement products, and many others. When a homogenous material has multiple layers, individual layers are identified and analyzed separately by laboratory analysis.

3.1.3. Bulk Sampling

Bulk sampling must be performed to determine whether suspect building material contains asbestos. Asbestos bulk sampling for the inspection was conducted in accordance with protocols established by the Asbestos Hazard Emergency Response Act (AHERA) (ref.: 40 CFR 763). Friability of the suspect asbestos-containing materials was determined by touching and/or sampling of the material.

3.1.3.1. Bulk Sample Numbering Convention

Bulk samples are given a sequence number when collected.

3.1.3.2. Polarized Light Microscopy Analysis (PLM)

Bulk samples collected during the inspection were submitted to an EPA accredited laboratory, EMSL Analytical, Inc. (EMSL), located at 200 Route 130 North, Cinnaminson, New Jersey. EMSL was instructed to perform Polarized Light Microscopy (PLM) analysis, utilizing dispersion staining techniques (ref: EPA Method 600/M4-82-020). PLM analysis is the least expensive and most commonly used visual estimate method. While PLM analysis is acceptable to EPA, OSHA, and

most states for determining asbestos content, some states now require more sophisticated methods when analyzing certain types of materials.

A total of 31 asbestos bulk samples were collected and submitted for laboratory analysis. PLM Analysis was performed on the 31 samples collected. Some materials were marked as asbestos containing and are assumed as ACM. Concealed materials are assumed as ACM. Table 1 lists all samples collected and analyzed in the current survey in addition to assumed ACM materials.

Some samples and/or heterogeneous applications may not have been analyzed by the lab if a positive result was obtained from a sample that is among a group of samples representing a suspect material. This process, known as stop on first positive, is followed because if a single sample is found to be positive, that material is determined to be ACM, thus making it unnecessary to analyze any additional samples in the sampling group.

Please refer to the Table 1– Asbestos Material Sampling Table in Appendix A for a complete listing of all materials sampled. The laboratory analytical reports may be found in Appendix D for the current inspection.

3.1.3.3. Quantification Method Analysis

EPA regulations allow materials determined to contain less than 10 percent asbestos utilizing a visual estimate quantification method, such as PLM analysis, to be treated as non-asbestos containing if the material is re-analyzed using one of two quantification methods and determined to contain one percent or less of asbestos. The two acceptable quantification methods are point count analysis and TEM Chatfield analysis.

Quantification methods are more time-consuming and more expensive analytical procedures that are occasionally used to more accurately determine the amount of asbestos in certain samples. Because of their higher cost and the acceptable accuracy of the less expensive visual estimation method, laboratories do not typically perform quantification analyses unless specifically requested.

The quantification method known as point count analysis is used for most ACM types, except floor tile. The organic matrix composition of floor tile precludes the use of point count analysis to more accurately determine asbestos amounts within a sample. Therefore, TEM Chatfield analysis—which effectively removes all organic materials, leaving only asbestos behind—is necessary to provide a more precise percentage of asbestos content in floor tile.

Please refer to section 6.0 Recommendations, for recommendations concerning supplemental analysis.

3.2. Lead-Based Paint Inspection

The LBP inspection included visual identification of homogenous paint applications and paint chip sampling of the paint(s). While the U. S. Department of Housing and Urban Development (HUD) promulgates guidelines for LBP inspections in child occupied facilities, there are no formal guidelines for non-HUD regulated inspections. Thus, the LBP inspection was conducted in accordance with generally accepted industry standards and practices. Additional aspects of the inspection methodology are discussed below.

3.2.1. Key Definitions

3.2.1.1. Homogenous Paint Applications

Homogenous paint applications are significant paint applications that are visually distinct by their color and uniformity. Significant paint applications do not include incidental occurrences of paint such as isolated occurrences of accent trim, artistic paints, etc. While visual inspection alone cannot generally identify sub-layers of paint, these applications are often identified in the analytical analysis.

3.2.1.2. Lead-Based Paint (LBP)

Pursuant to Federal Register, Vol. 61, No. 169, LBP is defined as paint or other surface coatings equal to or greater than 0.5 percent lead by weight or equal to or greater than 1 mg/cm².

3.2.2. Homogenous Paint Applications Numbering Convention

Homogenous paints and coatings are assigned a unique homogeneous material number (HM#). The HM# is referenced throughout the report to uniquely identify each paint application.

3.2.3. Lead-based Paint and Lead Containing Materials Sampling

Sampling of suspected lead-based paint or other suspected lead containing materials was conducted using paint chip sampling for the paint applications identified. A total of 39 lead-based paint chip samples were collected to determine the lead content of painted surfaces.

4. SUMMARY OF INSPECTION FINDINGS

Key findings of the hazardous building materials inspection are summarized below. Please refer to the Appendices for complete details of the inspection findings and supporting documentation.

4.1. Asbestos Inspection Findings

Below is a summary of the findings of the asbestos inspection:

- ACM Black caulk on interior of boiler room windows (500 LF)
- ACM Gray caulk on interior of boiler room windows (400 LF)
- ACM Red jacketed TSI of various sizes (280 LF)
- ACM Red jacketed TSI Fittings of various sizes (25 Ea.)
- ACM Yellow jacketed TSI of various sizes (265 LF)

- ACM Yellow jacketed TSI Fittings of various sizes (25 Ea.)
- ACM Green jacketed TSI of various sizes (545 LF)
- ACM Green jacketed TSI Fittings (35 Ea.)
- ACM White jacketed TSI of various sizes (50 LF)
- ACM White jacketed TSI Fittings (5 Ea.)
- ACM Silver Flue Systems (1500 SF)
- ACM Gaskets/Packings (500 Ea.)

Please refer to Table 1 – Asbestos Sampling Table in Appendix A for a complete listing of all asbestos sampling.

4.2. Lead Paint Inspection Findings

Below is a summary of the findings of the lead-based paint inspection:

- LBP, gray, is present is present on Boiler 1 (2000 SF)
- LBP, orange, is present on pipes in Building 2, Boiler Room. (200 LF)
- LBP, blue, is present is present on Boilers 1 and 2 (800 SF)
- LBP, gray, is present is present on End Edge Strip Boilers 1 and 2 (50 LF)
- LBP, gray, is present is present on Seam Strips Boilers 1 and 2 (120 LF)
- LBP, yellow, is present on pipes in Building 2, Basement (below Boiler Room). (500 LF)
- LBP, green, is present on pipes in Building 2, Basement (below Boiler Room). (50 LF)
- LBP, black, is present on valves in Building 2, Basement (below Boiler 3). (5 EA)

Please refer to Table 2 – Lead Paint Sampling Table in Appendix A for a complete listing of all lead-based paint sampling.

5. RISKS AND HAZARDS

5.1. Asbestos

To be a significant health concern, asbestos fibers must be inhaled. When asbestos fibers are inhaled, they become lodged in the lung tissue or alveoli. Here they clog and scar the tissues, causing the walls of the alveoli to lose their elasticity and useful function in respiration. Asbestosis (scarring of the lung), lung cancer, and Mesothelioma (cancer of the lining of the chest or lining of the abdominal wall) are diseases associated with asbestos exposure. Risks and hazards increase with increased exposure. ACM condition, proximity to building occupants, building use, and other factors can influence the potential for asbestos fibers to become airborne, and therefore increase exposure risks.

5.2. Lead-Based Paint

Inhalation and ingestion are the major routes of lead exposure. Once in the body, lead is distributed via the bloodstream to red blood cells, soft-tissue and bone. The kidneys and gastrointestinal (GI) tract eliminate lead in the body very slowly, while minute amounts are lost through perspiration.

Lead in the body can cause serious damage to the central and peripheral nervous system, the cardiovascular system, and the kidneys. Exposure to high concentrations of lead can cause retardation, convulsions, coma, and sometimes death. Children are especially vulnerable and susceptible to lead poisoning. Even low levels of exposure persisting during childhood are known to slow a child's normal development and cause learning and behavioral problems. Exposure to lead can result from deteriorating surfaces and activities mechanically impacting lead surfaces. Preventing exposure requires proper work practices, monitoring, disposal and personal protective equipment during demolition, alteration and friction producing activities.

6. RECOMMENDATIONS

The purpose of this section is to interpret survey findings and provide preliminary recommendations that may be relevant and appropriate at this time. Because this document is a presentation of investigative findings, recommendations related to future construction activities are inherently general in nature. More specific determinations concerning hazardous building materials to be impacted by construction should be made during the abatement project design process.

6.1. General Recommendations

6.1.1. Asbestos

State and/or federal regulations require that ACMs be removed prior to demolition or renovation activities that will impact the ACMs. Depending on the specific renovation work to be performed, certain ACMs may not require removal if they will not be disturbed and do not pose a risk to building occupants or construction trade workers. However, to ensure worker safety and to eliminate future asbestos-related maintenance and management costs and risks, AMIE recommends removal of all identified ACMs in the areas to be renovated. While partial abatement may be technically possible, it is often impractical and not cost-effective.

ACMs not impacted by renovation or demolition activities should be inspected annually and maintained in good condition. ACMs deemed to be in less than good condition (damaged or significantly damaged) should be repaired or removed and replaced. Such repairs should be performed by qualified persons and in accordance with regulatory guidelines.

6.1.2. Lead-Based Paint and Lead Containing Materials

Facility owners are ultimately liable for their lead-containing hazardous waste from cradle to grave. EPA regulations provide two ways to determine whether a waste stream, such as demolition debris containing LBP, must be classified as hazardous waste. Waste generators can either test the waste using an approved testing method (Toxicity Characteristic Leaching Procedure [TCLP]), or they can apply knowledge of the hazardous characteristic of the waste.

Based on the initial lead paint testing results, AMIE recommends TCLP testing be conducted on the existing building materials, painted and unpainted, prior to the start of renovation or demolition activity. In addition, trade contractors who work in the facility should also be notified of the presence of lead so that they can appropriately monitor and protect their workers against lead exposure.

Any lead-based painted building components not removed during renovation should be considered for inclusion in a facility management plan that maintains potential exposure below

OSHA action levels and ensures the material will be handled properly and in accordance with applicable regulations.

6.2. Hazardous Conditions Recommendations

No hazardous conditions, from hazardous materials, were observed in the building during the inspection.

6.3. Point Count Analysis / TEM Chatfield Analysis Recommendations

AMIE does not recommend Point Count or TEM Chatfield analysis of any of the ACMs identified.

7. REGULATORY REQUIREMENTS

7.1. Asbestos-Containing Materials

The removal and disposal of ACMs is regulated at the federal, state, and, sometimes, local level. While some states have developed their own regulatory standards for the various asbestos disciplines, many states have adopted the federal standards but have established licensing requirements and enforcement authority at the state level.

7.1.1. Notification Requirements

EPA's NESHAP regulation, 40 CFR, Subpart M, 61.145, Standard for Demolition and Renovation, stipulates that an owner of a facility submit proper notification with either the EPA's regional office and/or the state and local regulatory agency of intention to demolish or renovate. Notifications must be received by the appropriate regulatory agencies 10 working days prior to commencement of asbestos stripping or removal, or other site work. If the demolition or renovation date changes, or the scope of work is increased, another notification is required.

7.1.2. Asbestos Removal Requirements

Asbestos removal must be performed by a licensed abatement contractor. The contractor should follow all work practices, worker protection, and disposal requirements set forth in the contract specifications and by the Occupational Safety and Health Administration (OSHA) and the EPA. Key federal regulations concerning asbestos include 29 CFR 1910.1001, 29 CFR 1926.1101, 40 CFR Part 61, Subpart M, and 40 CFR 763.

7.1.3. OSHA Regulation of ≤ 1 Percent Asbestos

While EPA and many states do not regulate materials containing one percent or less asbestos, OSHA regulates materials containing any amount of asbestos. (Ref. OSHA Construction Industry Standard, 29 CFR 1926.1101(a)(3))

7.1.4. State of Nebraska Asbestos Removal Regulations

Asbestos Containing Building Material (ACBM) should only be removed by licensed and accredited contractors in the State of Nebraska.

7.2. Lead Waste

7.2.1. Disposal Requirements

The Resource Conservation and Recovery Act (RCRA) classifies lead-containing waste streams as hazardous materials if TCLP levels exceed five parts per million. If TCLP leachable lead levels exceed that threshold, EPA regulations (40 CFR 261) require the waste stream to be handled and disposed of as a hazardous waste. Waste streams containing less the five parts per million of leachable lead are classified as non-hazardous waste and can be disposed of in a construction and demolition landfill.

7.2.2. Construction Requirements

OSHA's 29 CFR 1926.62 regulates worker exposure to lead during construction activities that include demolition or salvage of structures where lead or materials containing lead are present, as well as removal or encapsulation of lead-containing materials. The standard establishes maximum limits of exposure to lead, including a permissible exposure limit and action level, and should be adhered to during construction and demolition activities.

APPENDIX A

Tables

Table 1 – Asbestos Materials Sampling Table

Table 2 – Lead Paint Sampling Table

www.amienvironmental.com

8802 South 135th Street, Suite 100 • Omaha, NE 68138
800.828.8487 • 402.397.5001 • 402.397.3313 (fax)

Table 1 – Asbestos Material Sampling Table

Homogeneous Area	Sample No.	Photo No.	Description	Color	Material Location	Asbestos Content	Estimated Quantity	Comments
8	BC-25 5/18/20	12	Caulk	Brown	Exterior Windows	None Detected		
9	No Sample	13	Thermal System Insulation – 4”	Yellow	Building 2 Boiler Room	Assumed ACM	220 LF	Marked “A”
9	No Sample	14	Thermal System Insulation – 6”	Yellow	Building 2 Below Boiler Room	Assumed ACM	20 LF	Marked “A”
9	No Sample	15	Thermal System Insulation – 8”	Yellow	Building 2 Below Boiler Room	Assumed ACM	25 LF	Marked “A”
9	No Sample	16	Thermal System Insulation Fittings	Yellow	Building 2 Boiler Room	Assumed ACM	25 Each	Marked “A”
10	No Sample	17	Thermal System Insulation – 8”	Green	Building 2 Boiler Room	Assumed ACM	450 LF	Marked “A”
10	No Sample	18	Thermal System Insulation – 6”	Green	Building 2 Boiler Room	Assumed ACM	30 LF	Marked “A”
10	No Sample	19	Thermal System Insulation - 3”	Green	Building 2 Boiler Room	Assumed ACM	30 LF	Marked “A”
10	No Sample	20	Thermal System Insulation Fittings	Green	Building 2 Boiler Room	Assumed ACM	35 Each	Marked “A”
11	No Sample	21	Thermal System Insulation – 8”	White	Building 2 Boiler Room	Assumed ACM	50 LF	Marked “A”
11	No Sample	21	Thermal System Insulation – Fittings	White	Building 2 Boiler Room	Assumed ACM	5 LF	Marked “A”
12	No Sample	22	Thermal System Insulation-Flue System	Silver	Building 2 Boiler Room	Assumed ACM	1500 SF	2 Each
13	No Sample	None	Gaskets/Packings	N/A	Building 1 and 2 Concealed inside valves, boiler and equipment	Assumed ACM	500 Each	Estimate only. Only Defective Steam Traps to be replaced
14	BC-1	23	Caulk	Gray	Building 2 Boiler Room OH Door Boiler 3	None Detected	30 LF	
14	BC-2	23	Caulk	Gray	Building 2 Boiler Room OH Door Boiler 3	None Detected	30 LF	
15	BC-3	24	Gasket	White	Boiler 3 Ends	None Detected	60 LF	
15	BC-4	24	Gasket	White	Boiler 3 Ends	None Detected	60 LF	
16	BC-5	25	End Caulk	White	Caulk on Fiberglass Pipe Boiler 3	None Detected	20 SF	
16	BC-6	25	End Caulk	White	Caulk on Fiberglass Pipe	None Detected	20 SF	

Table 2 – Lead Sampling Table

Table 2. Lead-Based Paint Content

Lead-Based Paint = $\geq 0.05\%$ by weight or $\geq 1 \text{ mg/cm}^2$

Sample No.	Photo No.	Substrate	Description	Location	Color	Lead Content	Condition	Estimated Quantity
B1	1	Metal	Factory Paint on Steam Trap Tag 46	Building 1 - B024 Below Grade Mech. Room	Black	<0.014%	Fair	
B4	2	Metal	Paint on Steam Trap Tag 35	Building 1 - B024 Below Grade Mech. Room	Black	<0.015%	Fair	
B5	3	Metal	Paint on Steam Trap	Building 1 - B024 Below Grade Mech. Room	White	0.025%	Fair	
B7	4	Metal	Paint on Steam Trap Tag 69	Building 1 – Chiller Room (across B024)	Orange/ Green	<0.080%	Fair	
B8	5	Metal	Paint on Steam Trap Tag 71	Building 1 – Chiller Room (across B024)	White	0.0088%	Fair	
B9	6	Metal	Paint on Steam Trap Tag 88	Building 1 Mech Rm. B830	Green	<0.016%	Fair	
B10	7	Metal	Paint on Steam Trap Tag 91	Building 1 Mech Rm. 716	Light Green	<0.013%	Fair	
L1	8	Metal	Paint on Boiler	Building 2 Boiler 1	Gray	0.69%	Poor	2000 SF
L2	9	Metal	Paint on Boiler	Building 2 Boiler 2	Gray	0.021%	Poor	
L3	10	Metal	Paint on Pipes	Building 2 Boiler Room	Orange	5.1%	Poor	200 LF
L4	11	Metal	Paint on Boilers	Building 2 Boilers 1 and 2	Blue	1.30%	Poor	800 SF
L5	12	Metal	Paint on Pipes	Building 2 Boiler Room	Green	0.082%	Poor	
L6	13	Metal	Paint on Pipes	Building 2 Boiler Room	Yellow	0.28%	Poor	
L7	14	Metal	Paint on Pipes 1”	Building 2 Boiler Room	Gray	0.24%	Poor	
L8	15	Metal	Stairs/Platform	Building 2 Boiler Room	Gray	0.44%	Poor	
L9	16	Metal	Boiler End Edge Strip Boilers 1 and 2	Building 2 Boiler Room Boilers 1 and 2	Gray	8.2%	Poor	50 LF
L10	17	Metal	Boiler End Dome Boilers 1 and 2	Building 2 Boiler Room Boilers 1 and 2	Gray	0.26%	Poor	
L11	18	Metal	Pipe and Joints	Building 2 Boiler Room	Silver	0.10%	Poor	
L12	19	Metal	Boiler Seams	Building 2 Boiler Room Boilers 1 and 2	Gray	5.0%	Poor	120 LF

L13	20	Metal	Pipes 1" and 2"	Building 2 Sub Grade Below Boiler Room	Yellow	2.3%	Poor	120 LF
L14	21	Metal	Building 2 Boiler Room – Painted Pipe	Building 2 Sub Grade Below Boiler Room	Green	0.93%	Poor	50 LF
L15	22	Metal	Below Grade Pump Area Fittings	Building 2 Sub Grade Below Boiler Room	Black	0.12%	Poor	
L16	23	Metal	Painted water line above pumps	Building 2 Sub Grade Below Boiler Room	Green	0.2518%	Fair	
L17	24	Metal	White Paint overspray on Glycol Pipes	Building 2 Sub Grade Below Boiler Room	White	0.0592%	Poor	
L1	25	Metal	Painted Frame	Building 2 Boiler 3	Green	<0.014%	Fair	300 SF
L2	26	Metal	Painted Valves and Control Boxes	Building 2 Boiler Room Boiler 3	Blue	<0.026%		100 SF
L3	27	Metal	Painted Boiler Sides, Top, Bottom	Building 2 Boiler 3	Green	<0.011%	Fair	1200 SF
L4	28	Metal	Painted Boiler 3 Ends	Building 2 Boiler 3	Black	<0.014%	Fair	200 SF
L5	29	Metal	Orange/Yellow Painted 1 1/2" Gas Pipes	Building 2 Boiler Room Boiler 3	Yellow/Orange	<0.023%	Fair	100 LF
L6	30	Metal	Orange/Yellow Painted 4" Gas Pipes	Building 2 Boiler Room Boiler 3	Yellow/Orange	<0.021%	Fair	20 LF
L7	31	Metal	Yellow Painted Fuel Lines	Building 2 Subgrade Below Boiler 3	Yellow	<0.012%	Fair	400 LF
L8	32	Metal	Painted Frame Controls	Building 2 Subgrade Below Boiler 3	Light Blue	0.11%	Fair	1 EA
L9	33	Metal	Valves	Building 2 Subgrade Below Boiler 3	Black Red Under	0.056%	Fair	5 EA
L10	34	Metal	Valves	Building 2 Subgrade Below Boiler 3	Black	2.5%	Fair	5 EA
L11	35	Metal	Painted 3" Pipe	Building 2 Subgrade Below Boiler 3	Blue	0.025%	Fair	4 LF
L12	36	Metal	OH Door/Frame	Building 2 Boiler Room Boiler 3	Gray	<0.021%	Good	400 SF
L13	37	Metal	Handrail in front of OH Door	Building 2 Boiler 3	Gray	<0.016%	Fair	1 EA
L14	38	Metal	Floor	Building 2 Boiler 3	Gray	0.054%	Fair	1800 SF
L15	39	Metal	Handrails Above Boiler 3	Building 2 Above Boiler 3	Gray	0.032%	Fair	500 LF

APPENDIX B

Photo Logs

Asbestos Photo Log

Lead-Based Paint Photo Log

www.amienvironmental.com

8802 South 135th Street, Suite 100 • Omaha, NE 68138
800.828.8487 • 402.397.5001 • 402.397.3313 (fax)

Asbestos Photo Log



PHOTO 1 Residual TSI on Drip Leg
Non-ACM



PHOTO 2 Caulk on interior side of windows
Building 2 Boiler Room 6% Chrysotile



PHOTO 3 Caulk on interior side of windows
Building 2 Boiler Room Non-ACM



PHOTO 4 Caulk on interior side of windows
Building 2 Boiler Room 6% Chrysotile



PHOTO 5 Red Jacketed TSI on Pipe
Assumed ACM



PHOTO 6 Red Jacketed TSI on Pipe
Assumed ACM



PHOTO 7 Red Jacketed TSI on Pipe
Assumed ACM



PHOTO 8 Red Jacketed TSI on Pipe
Assumed ACM



PHOTO 9 Red Jacketed TSI Fittings
Assumed ACM



PHOTO 10 Debris on Floor under Glycol Pipes
Non-ACM



PHOTO 11 Gray Window Caulk – Exterior
Non-ACM



PHOTO 12 Brown Window Caulk – Exterior
Non-ACM



PHOTO 13 Yellow Jacketed TSI on Pipe
Assumed ACM



PHOTO 14 Yellow Jacketed TSI on Pipe
Assumed ACM



PHOTO 15 Yellow Jacketed TSI on Pipe
Assumed ACM



PHOTO 16 Yellow Jacketed TSI Fittings
Assumed ACM



PHOTO 17 Green Jacketed TSI on Pipe
Assumed ACM

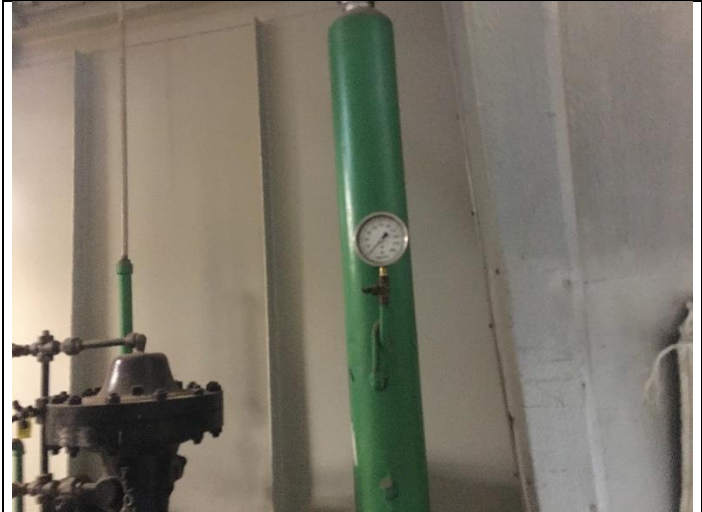


PHOTO 18 Green Jacketed TSI on Pipe
Assumed ACM



PHOTO 19 Green Jacketed TSI on Pipe
Assumed ACM



PHOTO 20 Green Jacketed TSI Fittings
Assumed ACM

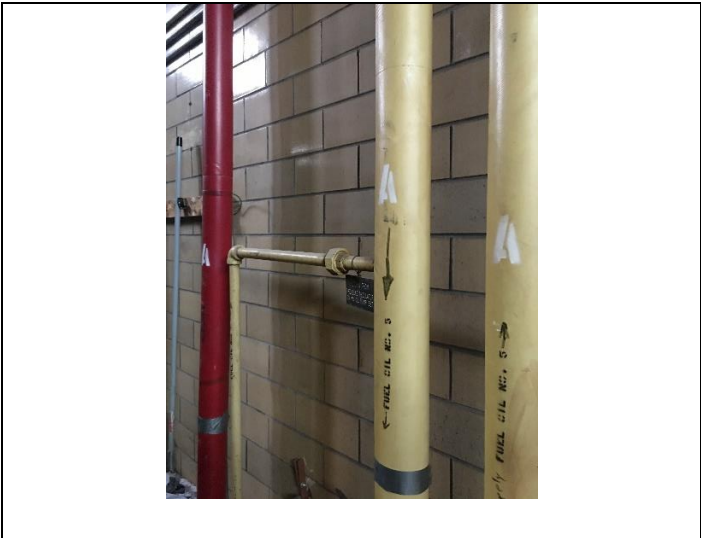


PHOTO 21 White Jacketed TSI Fittings
Assumed ACM



PHOTO 22 Silver Painted Flue
Assumed ACM

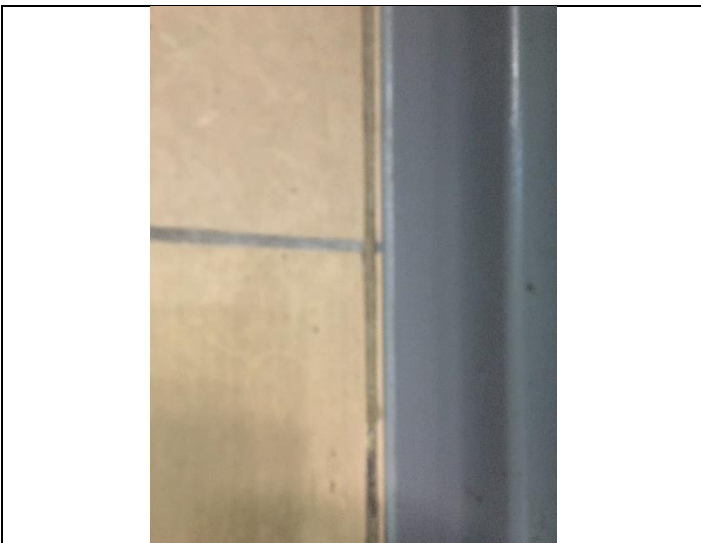


PHOTO 23 Gray Caulk on OH Door
Non-ACM



PHOTO 24 White Gasket on Boiler 3 Ends
Non-ACM



PHOTO 25

White Caulk on ends of Fiberglass TSI Pipe
Building 2 Boiler Room Non-ACM

Lead-Based Paint Photo Log



PHOTO 1 Building 1 – B024 Below Grade Mechanical Room <0.5% lead



PHOTO 2 Building 1 – B024 Below Grade Mechanical Room <0.5% lead



PHOTO 3 Building 1 B024 – Below Grade Mechanical Room <0.5% lead



PHOTO 4 Building 1 Chiller Room Across from Mechanical Room B024 <0.5% lead



PHOTO 5 Building 1 Chiller Room Across from Mechanical Room B024 <0.5% lead

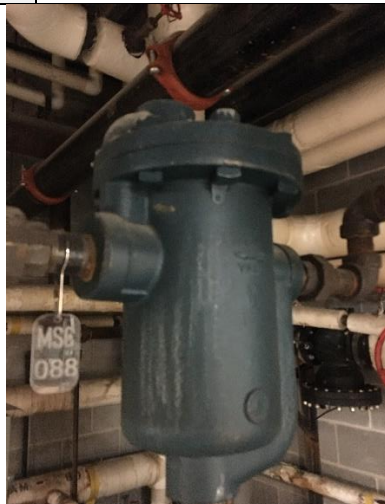


PHOTO 6 Building 1 – Mechanical Room 830 <0.5% lead



PHOTO 7 Building 1- Mechanical Room 716
<0.5% lead



PHOTO 8 Building 2 Boiler Room – Gray Paint (Boiler 1)
>0.5% Lead



PHOTO 9 Building 2 Boiler Room – Gray Paint (Boiler 2)
<0.5% Lead



PHOTO 10 Building 2 Boiler Room Orange Painted Pipe
>0.5% lead



PHOTO 11 Building 2 Boiler Room Blue Paint on Boilers 1&2
>0.5% lead



PHOTO 12 Building 2 Boiler Room Green Painted Pipes
<0.5% Lead



PHOTO 13 Building 2 Boiler Room - Yellow Pipes
<0.5% Lead



PHOTO 14 Building 2 Boiler Room 1" Gray Pipes
<0.5% Lead



PHOTO 15 Building 2 Boiler Room Stairs/Platform
<0.5% Lead



PHOTO 16 Building 2 Boiler Room Edge strip paint 1&2
>0.5% lead



PHOTO 17 Building 2 Boiler Room – Boiler End Dome
<0.5% Lead

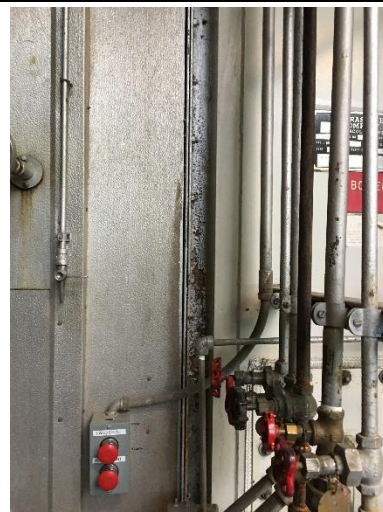


PHOTO 18 Building 2 Boiler Room – Silver Pipes
<0.5% Lead



PHOTO 19

Building 2 Boiler Room – Painted Seams
>0.5% lead



PHOTO 20

Building 2 Sub grade below boiler Room
Yellow Painted Pipes
>0.5% lead



PHOTO 21

Building 2 Sub grade below boiler Room
Green Painted Pipes
>0.5% lead



PHOTO 22

Building 2 Boiler Room – Black Pipe Fittings
<0.5% Lead



PHOTO 25

Building 2 Boiler Room – Green Overhead Water Pipe
<0.5% Lead

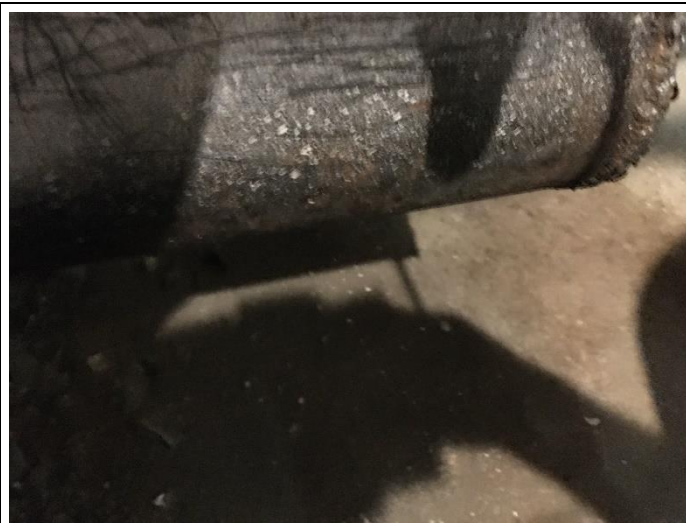


PHOTO 24

Bldg. 2 Sub Grade below boiler
White Overpray Paint on Glycol Line
<0.5% Lead

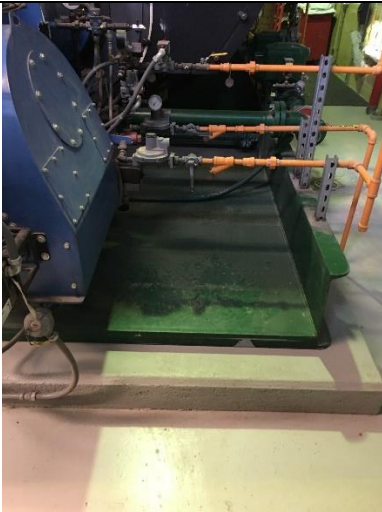


PHOTO 25 Building 2 – Boiler Room Boiler 3
Green Painted Frame Under Boiler 3 <0.5% Lead



PHOTO 26 Building 2 – Boiler Room Boiler 3
Blue Painted Frame/Controls <0.5% Lead



PHOTO 27 Building 2 – Green Painted Boiler 3
<0.5% lead

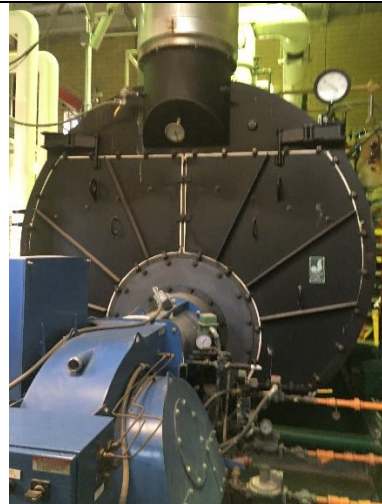


PHOTO 28 Building 2 – Black Painted Boiler 3 Ends
<0.5% lead



PHOTO 29 Building 2 Boiler Room 3 Orange/Yellow 1 1/2”
Gas Lines <0.5% lead

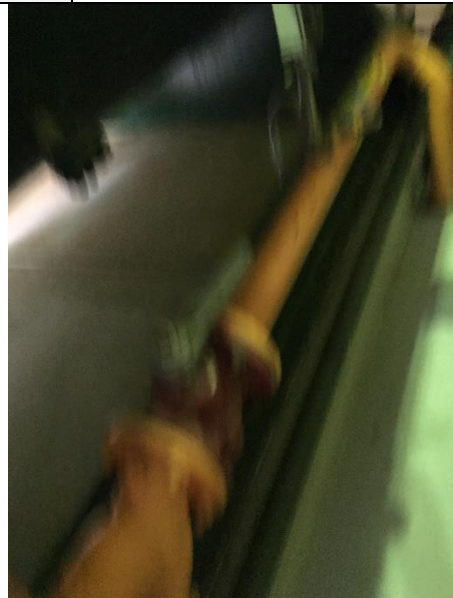


PHOTO 30 Building 2 Boiler Room 3 Orange/Yellow 1 1/2”
Gas Lines <0.5% lead



PHOTO 31 Building 2 Boiler 3-Yellow Fuel Line
<0.5% lead



PHOTO 32 Building 2 Subgrade Below Boiler 3-Blue Control box/valves
<0.5% lead



PHOTO 33 Building 2 Subgrade to Boiler Room 3-Black/Red under painted valves
<0.5% Lead



PHOTO 34 Building 2 Subgrade to Boiler Room 3-Black painted valves >0.5% Lead



PHOTO 35 Building 2 Subgrade to Boiler Room 3-Blue painted <0.5% Lead



PHOTO 36 Building 2 Boiler 3-Gray OH Door/Frame
<0.5% lead



PHOTO 37 Handrail in front of OH Door
<0.5% Lead



PHOTO 38 Building 2-Gray Painted Boiler Room Floor
<0.5% Lead

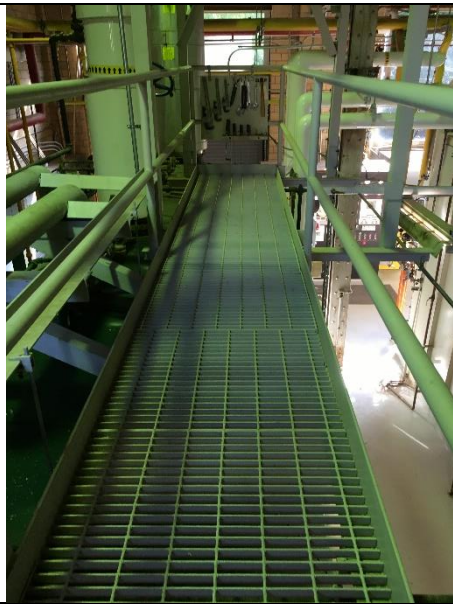


PHOTO 39 Building 2 Boiler Room-Handrail above Boiler 3
<0.5% Lead

APPENDIX C

Schematics

Asbestos Material Locations

Lead-based Paint Material Locations

one eighth inch = one foot
 one quarter inch = one foot
 one half inch = one foot
 one inch = one foot
 one and one half inches = one foot
 two inches = one foot
 three inches = one foot
 three and one half inches = one foot
 four inches = one foot
 four and one half inches = one foot
 five inches = one foot
 five and one half inches = one foot
 six inches = one foot
 six and one half inches = one foot
 seven inches = one foot
 seven and one half inches = one foot
 eight inches = one foot
 eight and one half inches = one foot
 nine inches = one foot
 nine and one half inches = one foot
 ten inches = one foot
 ten and one half inches = one foot
 eleven inches = one foot
 eleven and one half inches = one foot
 twelve inches = one foot

GENERAL NOTES:

- THESE DRAWINGS ARE DIAGRAMMATIC AND FOR GENERAL IDENTIFICATION OF ASBESTOS-CONTAINING MATERIALS (ACM) AND LEAD-BASED PAINT (LBP) SUBJECT TO REMOVAL OR DISTURBANCE. THEIR ACCURACY IS NOT GUARANTEED. LOCATIONS AND QUANTITIES SHOWN OF ACM AND LBP TO BE REMOVED ARE REPRESENTATIVE BASED ON RECENT AND PREEXISTING SITE SURVEY INFORMATION. THE ABATEMENT CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL MATERIAL LOCATIONS AND REMOVAL QUANTITIES, AND EXISTING SITE CONDITIONS.
- ASBESTOS REMOVAL IS BEING PERFORMED PURSUANT TO RENOVATION OF THE PROJECT AREA. REMOVE AND DEPOSE OF ALL ACM IN ACCORDANCE WITH APPLICABLE REGULATIONS, PROJECT SPECIFICATIONS, AND THE APPROVED ASBESTOS HAZARD ABATEMENT PLAN (AHAP). IF SUSPECT ACMs ARE ENCOUNTERED DURING CONSTRUCTION AND DEMOLITION THAT ARE NOT IDENTIFIED ON THE ASBESTOS ABATEMENT DRAWINGS, STOP WORK AND CONTACT THE PROJECT MANAGER AND VPH.
- ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS, PROJECT SPECIFICATIONS, THE APPROVED WORK PLAN, AND ACCEPTED INDUSTRY PRACTICE. WHEN REQUIREMENTS OVERLAP OR CONFLICT, THE MOST STRINGENT REQUIREMENT SHALL APPLY. ALL WORK SHALL BE SUBJECT TO INSPECTION BY THE OWNER, THE OWNER'S CONSULTANTS, AND REGULATORY PERSONNEL.
- DEMOLITION OF NON-ACM BUILDING MATERIALS MAY BE REQUIRED TO ACCESS REGULATED MATERIALS, INCLUDING, BUT NOT LIMITED TO, CABINETS, RAISED FLOORING, GYPSUM WALLBOARD, EXPANDED METAL OR WOOD LATH AND PLASTER WALLS AND CEILING, WALL FRAMING, CABINET CERAMIC AND VINYL FLOOR COVERINGS, WOOD, ETC. THE ABATEMENT CONTRACTOR SHALL BE RESPONSIBLE FOR DEMOLITION OF NON-ACM MATERIALS AS NEEDED TO ACCESS REGULATED MATERIALS FOR ABATEMENT, AND FOR COORDINATING THE LIMITS OF DEMOLITION AND ABATEMENT WITH THE GENERAL CONTRACTOR.
- ALL COSTS ASSOCIATED WITH EXPLORATORY DEMOLITION AND DEMOLITION OF NON-ACM MATERIALS NEEDED TO ACCOMPLISH ABATEMENT SHALL BE INCLUDED IN THE ABATEMENT CONTRACTOR'S LUMP SUM PRICE FOR THE PROJECT. NO ADDITIONAL COMPENSATION SHALL BE CONSIDERED FOR THIS WORK.

ASBESTOS NOTES:

- THE PROJECT AREA WAS RECENTLY SURVEYED FOR ACM. REFER TO THE HAZARDOUS BUILDING MATERIALS INSPECTION REPORT BY AM ENVIRONMENTAL, DATED AUGUST 27, 2020 FOR MORE INFORMATION ABOUT ACMs IDENTIFIED IN THE PROJECT AREA.
- CONCEALED ACM PIPE INSULATION (ITS) MAY EXIST WITHIN WALLS, PIPE CHASES AND ABOVE RIGID CEILING. COORDINATE ACCESS WITH DEMOLITION DRAWINGS AND THE GENERAL CONTRACTOR. SOME EXPLORATORY DEMOLITION MAY BE REQUIRED TO DETERMINE IF CONCEALED ACM IS PRESENT.
- GASKETS AND PACKINGS ARE CONCEALED IN VALVES, EQUIPMENT, STEAM TRAPS, BOILERS AND FLUES AND ARE INACCESSIBLE FOR SAMPLING. GASKETS AND PACKINGS ARE ASSUMED AS ACM UNLESS SAMPLED, ANALYZED, AND DETERMINED TO BE NON-ASBESTOS.
- ESTABLISH REGULATED AREAS (RA) AND NEGATIVE PRESSURE ENCLOSURES (NPE) AND PERFORM REMOVAL IN ACCORDANCE WITH APPLICABLE SPECIFICATION SECTIONS, SEC 02 85 13-13, GOVERNING ASBESTOS ABATEMENT; SEC 02 85 11, TRADITIONAL ASBESTOS ABATEMENT; SEC 02 82 13-19, FINALIZE LIMITS OF REGULATED AREAS; LOCATIONS OF NEGATIVE AIR MACHINES (NAM), PERSONAL DECONTAMINATION FACILITIES (PDF), AND WASTE DECONTAMINATION FACILITIES (WDF) BASED ON SITE CONDITIONS, BEST PRACTICES AND PHASING REQUIREMENTS.
- ASSUME 50% EFFICIENCY WHEN CALCULATING NAM REQUIREMENTS FOR ACHIEVING FOUR (4) AIR CHANGES PER HOUR AND PROVIDED GREATER THAN 40" H2O PRESSURE, CONFIGURE AND PLACE NAMs AS NEEDED TO MAINTAIN AND PREVENT DEAD AIR SPACE. COORDINATE NEGATIVE AIR DISCHARGE LOCATIONS WITH GENERAL CONTRACTOR, OWNER'S REPRESENTATIVE, AND VPH, IF NEEDED.

ASBESTOS ABATEMENT PHASING:

- THE ABATEMENT CONTRACTOR SHALL WORK CLOSELY WITH THE GENERAL CONTRACTOR, CONTRACTING OFFICER, OWNER OR OWNER'S REPRESENTATIVE, AND/OR THE VPH TO COORDINATE REMOVAL OF ACM IN ACCORDANCE WITH PROJECT SCHEDULING, SEQUENCING, AND PHASING REQUIREMENTS. SOME AFTER HOURS AND WEEKEND WORK MAY BE REQUIRED. PHASING IS SUBJECT TO CHANGE TO ACCOMMODATE SITE CONDITIONS AND FACILITY OPERATIONS.

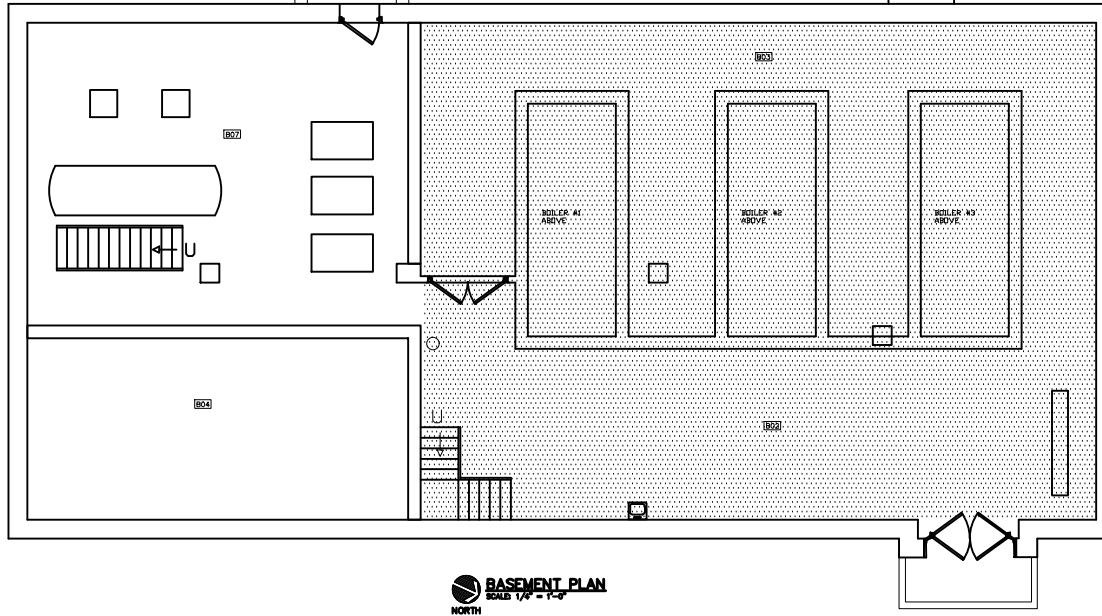
LEAD-BASED PAINT AND PAINT CONTAINING LEAD:

- LEAD-BASED PAINT (LBP) ARE PAINTS THAT CONTAIN LEAD 10.0 mg/lb or 0.5 PERCENT BY WEIGHT. PAINT CONTAINING LEAD (PCL) IS PAINT WITH A DETECTABLE LEVEL OF LEAD. LBP AND PCL ARE KNOWN TO EXIST ON MATERIALS, COMPONENTS, AND SURFACES THAT MAY BE DISBURBED, PENETRATED, REFINISHED, OR DEMOLISHED. PERFORM DEMOLITION OF MATERIALS AND COMPONENTS WITH LBP AND/OR PCL IN ACCORDANCE WITH APPLICABLE REGULATIONS AND THE APPROVED WORK PLAN.
- FLAKING AND PEELING LBP AND/OR PCL ON SURFACES TO REMAIN SHALL BE REMOVED AND STABILIZED USING METHODS IN ACCORDANCE WITH SECTION 02 83 33.13, LEAD-BASED PAINT REMOVAL AND DISPOSAL.
- REFER TO THE HAZARDOUS BUILDING MATERIALS INSPECTION REPORT BY AMI ENVIRONMENTAL, DATED AUGUST 27, 2020, FOR INFORMATION CONCERNING THE PRESENCE OF LBP AND PCL IN THE PROJECT AREAS.

SUMMARY OF ASBESTOS CONTAINING MATERIALS			
DESCRIPTION	LOCATION	EST. QTY.	HATCHING
INTERIOR & EXTERIOR CAULK - COLOR: GRAY & BLACK	BLDG 2 BOILER RM WINDOWS	900 LF	
PIPING THERMAL SYSTEMS INSULATION - COLOR: YELLOW & RED	BLDG 2 BOILER RM	1110 FT ²	
SPRING THERMAL SYSTEMS FITTINGS - COLOR: YELLOW, GREEN & RED	BLDG 2 BOILER RM	85 EACH	
THERMAL SYSTEMS FLUE - COLOR: SILVER	BLDG 2 BOILER RM	1900 SF	
GASKETS / PACKING	BLDG 1 & 2 CONCEALED INSIDE BOILER EQUIPMENT	500 EACH	
DEFECTIVE TRAPS	BUILDING 1	AS NEEDED	

SUMMARY OF LEAD-BASED PAINT MATERIALS			
DESCRIPTION	CONDITION	EST. QTY.	HATCHING OR KEYNOTE
BUILDING 2 - PAINT ON EXTERIOR OF BOILER 1 (GRAY)	POOR	2000 SQ FT	
BUILDING 2 - PAINT ON PIPES OF BOILER ROOM (ORANGE)	POOR	200 LF	
BUILDING 2 - PAINT ON EXTERIOR OF BOILERS 1 AND 2 (BLUE)	POOR	800 SQ FT	
BUILDING 2 - END EDGE STRIP OF BOILERS 1 AND 2 (GRAY)	POOR	50 LF	
BUILDING 2 - BLANK STRIP OF BOILERS 1 AND 2 (GRAY)	POOR	120 LF	
BUILDING 2 - PAINT ON PIPES (YELLOW) SUBGRADE OF BOILER RM	POOR	500 LF	
BUILDING 2 - PAINT ON PIPES (GREEN) SUBGRADE OF BOILER RM	POOR	50 LF	
BUILDING 2 - VALVE UNDER BOILER 3 PAINTED BLACK	POOR	5 EACH	

	CONSULTANTS: AMI ENVIRONMENTAL AMI ENVIRONMENTAL 8802 SOUTH 135TH STREET, SUITE 100 OMAHA, NEBRASKA, 68138 PH: (402) 397-3313	ARCHITECT/ENGINEERS: CLH Calvin L. Hinz 3705 North 200th Street Omaha, Nebraska 68122 (402) 291-6841	Project No. BUILDING 2 HAZARDOUS MATERIALS SUMMARY Approved Project Director	Project No. VAMC OMAHA - CORRECT MECHANICAL DEFICIENCIES Location OMAHA, NE <table border="1" style="font-size: 8px;"> <tr> <td>Date</td> <td>Checked</td> <td>Drawn</td> </tr> <tr> <td>8-27-2020</td> <td>WHC</td> <td>MET</td> </tr> </table>	Date	Checked	Drawn	8-27-2020	WHC	MET	Project Number 636-19-301 Drawing Number HA-100 of	Office of Construction and Facilities Management
Date	Checked	Drawn										
8-27-2020	WHC	MET										



ASBESTOS NOTES:

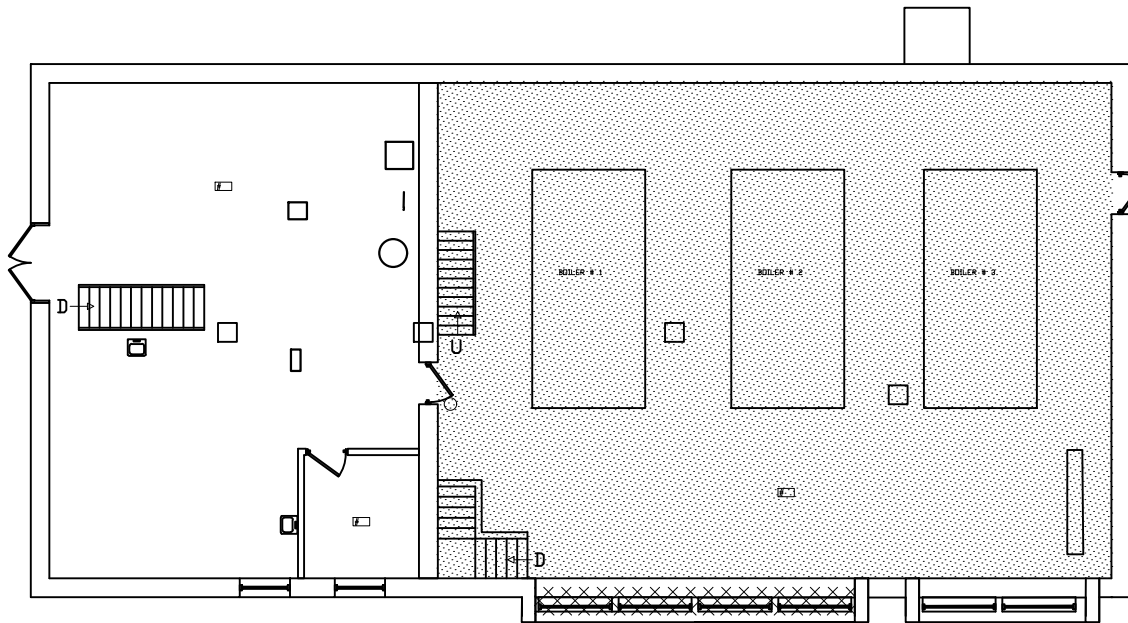
1. THE PROJECT AREA WAS RECENTLY SURVEYED FOR ACM. REFER TO THE HAZARDOUS BUILDING MATERIALS INSPECTION REPORT BY AMI ENVIRONMENTAL, DATED AUGUST 27, 2020 FOR MORE INFORMATION ABOUT ACM IDENTIFIED IN THE PROJECT AREA.
2. CONCEALED ACM PIPE INSULATION (TBI) MAY EXIST WITHIN WALLS, PIPE CHASES AND ABOVE RIGID CEILINGS. COORDINATE ACCESS WITH DEMOLITION DRAWINGS AND THE GENERAL CONTRACTOR. SOME EXPLORATORY DEMOLITION MAY BE REQUIRED TO DETERMINE IF CONCEALED ACM IS PRESENT.
3. GASKETS AND PACKINGS ARE CONCEALED IN VALVES, EQUIPMENT, STEAM TRAPS, BOILERS AND FLUES AND ARE INACCESSIBLE FOR SAMPLING. GASKETS AND PACKINGS ARE ASSUMED AS ACM UNLESS SAMPLED, ANALYZED, AND DETERMINED TO BE NON-ASBESTOS.
4. ESTABLISH REGULATED AREAS (RA) AND NEGATIVE PRESSURE ENCLOSURES (NPE) AND PERFORM REMOVAL IN ACCORDANCE WITH APPLICABLE SPECIFICATION SECTIONS: SEC 02 82 13-13, GLOVES/BA ASBESTOS ABATEMENT; SEC 02 82 11, TRADITIONAL ASBESTOS ABATEMENT; SEC 02 82 13-15, FINALIZE LIMITS OF REGULATED AREAS, LOCATIONS OF NEGATIVE AIR MACHINES (NAM), PERSONAL DECONTAMINATION FACILITIES (PDF), AND WASTE DECONTAMINATION FACILITIES (WDF) BASED ON SITE CONDITIONS, BEST PRACTICES AND PHASING REQUIREMENTS.
5. ASSUME 50% EFFICIENCY WHEN CALCULATING NAM REQUIREMENTS FOR ACHIEVING FOUR (4) AIR CHANGES PER HOUR AND PROVIDED GREATER THAN 0.02" WOG PRESSURE CONTIGUE AND PLACE NAMs AS NEEDED TO MAXIMIZE AIR MOVEMENT AND PRESENT DEAD AIR SPACE. COORDINATE NEGATIVE AIR DISCHARGE LOCATIONS WITH GENERAL CONTRACTOR, OWNERS REPRESENTATIVE, AND VPH, IF NEEDED.

SUMMARY OF ASBESTOS CONTAINING MATERIALS			
DESCRIPTION	LOCATION	EST. QTY	HATCHING
INTERIOR & EXTERIOR CALK - COLOR: GRAY & BLACK	BLDG 2 BOILER RM WINDOWS	900 LF	
PIPING THERMAL SYSTEMS INSULATION - COLOR: YELLOW & RED	BLDG 3 BOILER RM	1110 FT ²	
PIPING THERMAL SYSTEMS FITTINGS - COLOR: YELLOW, GREEN & RED	BLDG 2 BOILER RM	85 EACH	
THERMAL SYSTEMS FLUE - COLOR: SILVER	BLDG 2 BOILER RM	1500 SF	
GASKETS / PACKING	BLDG 2'S CONCEALED INSIDE BOILER & EQUIPMENT	500 EACH	NONE
EFFECTIVE TRAPS	BUILDING 1	AS NEEDED	NONE

1/4" = 1'-0" (multiple times for different wall types)

	CONSULTANTS: AMI ENVIRONMENTAL AMI ENVIRONMENTAL 8802 SOUTH 135TH STREET, SUITE 100 OMAHA, NEBRASKA, 68138 PH: (402) 397-3313	ARCHITECT/ENGINEERS: Calvin L. Hinz CLM PROJECT 3705 NORTH 200th Street NO: 18-013 EBH:Om, Nebraska 68022 (402) 291-6941	Building Title: BUILDING 2 HAZARDOUS MATERIALS ASBESTOS BASEMENT PLAN Approved Project Director:	Project Title: WAMC OMAHA - CORRECT MECHANICAL DEFICIENCIES Location: OMAHA, NE Sub: 8-27-2020 Checked: VHC Drawn: MET	Project Number: 636-19-301 Building Number: Drawing Number: HA-101 Dep. of:	Office of Construction and Facilities Management
--	---	--	--	--	--	---

65% SUBMITTAL



FIRST FLOOR PLAN
SCALE 1/8" = 1'-0"
NORTH

ASBESTOS NOTES:

1. THE PROJECT AREA WAS RECENTLY SURVEYED FOR ACM. REFER TO THE HAZARDOUS BUILDING MATERIALS INSPECTION REPORT BY AMI ENVIRONMENTAL, DATED AUGUST 27, 2020 FOR MORE INFORMATION ABOUT ACM IDENTIFIED IN THE PROJECT AREA.
2. CONCEALED ACM PIPE INSULATION (TSI) MAY EXIST WITHIN WALLS, PIPE CHASES AND ABOVE RIGID CEILING. COORDINATE ACCESS WITH DEMOLITION DRAWINGS AND THE GENERAL CONTRACTOR. SOME EXPLORATORY DEMOLITION MAY BE REQUIRED TO DETERMINE IF CONCEALED ACM IS PRESENT.
3. GASKETS AND PACKINGS ARE CONCEALED IN VALVES, EQUIPMENT, STEAM TRAPS, BOILERS AND FLUES AND ARE INACCESSIBLE FOR SAMPLING. GASKETS AND PACKINGS ARE ASSUMED AS ACM UNLESS SAMPLED, ANALYZED, AND DETERMINED TO BE NON-ASBESTOS.
4. ESTABLISH REGULATED AREAS (RA) AND NEGATIVE PRESSURE ENCLOSURES (NPE) AND PERFORM REMOVAL IN ACCORDANCE WITH APPLICABLE SPECIFICATION SECTIONS: SEC 02 42 13-13, GLOVESM ASBESTOS ABATEMENT; SEC 02 42 11, TRADITIONAL ASBESTOS ABATEMENT; SEC 02 42 13-15, FINALIZE LIMITS OF REGULATED AREAS, LOCATIONS OF NEGATIVE AIR MACHINES (NAM), PERSONAL DECONTAMINATION FACILITIES (PDF), AND WASTE DECONTAMINATION FACILITIES (WDF) BASED ON SITE CONDITIONS, BEST PRACTICES AND PHASING REQUIREMENTS.
5. ASSUME 50% EFFICIENCY WHEN CALCULATING NAM REQUIREMENTS FOR ACHIEVING FOUR (4) AIR CHANGES PER HOUR AND PROVIDED GREATER THAN 0.02" WCG PRESSURE. CONFIGURE AND PLACE NAMS AS NEEDED TO MAXIMIZE AIR MOVEMENT AND PREVENT DEAD AIR SPACE. COORDINATE NEGATIVE AIR DISCHARGE LOCATIONS WITH GENERAL CONTRACTOR, OWNER'S REPRESENTATIVE, AND VPH, IF NEEDED.

SUMMARY OF ASBESTOS CONTAINING MATERIALS

DESCRIPTION	LOCATION	EST. QTY	HATCHING
INTERIOR & EXTERIOR CAULK - COLOR: GRAY & BLACK	BLDG 2 BOILER RM WINDOWS	900 LF	
PIPING THERMAL SYSTEMS INSULATION - COLOR: YELLOW & RED	BLDG 2 BOILER RM	1110 FT ²	
PIPING THERMAL SYSTEMS FITTINGS - COLOR: YELLOW, GREEN & RED	BLDG 2 BOILER RM	85 EACH	
THERMAL SYSTEMS FLUE - COLOR: SILVER	BLDG 2 BOILER RM	1590 SF	
GASKETS / PACKING	BLDG 2 & CONCEALED INSIDE BOILERS & EQUIPMENT	500 EACH	NONE
DEFECTIVE TRAPS	BUILDING 1	AS NEEDED	NONE

CONSULTANTS:
AMI ENVIRONMENTAL
AMI ENVIRONMENTAL
8802 SOUTH 135TH STREET,
SUITE 100
OMAHA, NEBRASKA, 68138
PH: (402) 397-3313

ARCHITECT/ENGINEERS:

CLH
Calvin L. Hinz
AIA, LEED AP, P.E.
3705 North 200th Street
Omaha, Nebraska 68122
(402) 291-6841
CLH PROJECT NO: 18-013

Project No:
BUILDING 2 HAZARDOUS MATERIALS ASBESTOS FIRST FLOOR PLAN

Approved Project Director:

Project No:
AMIC OMAHA - CORRECT MECHANICAL DEFICIENCIES

Building Number:

Location: OMAHA, NE

Date: 8-27-2020

Checked: WHC

Drawn: MET

Project Number: 636-19-301

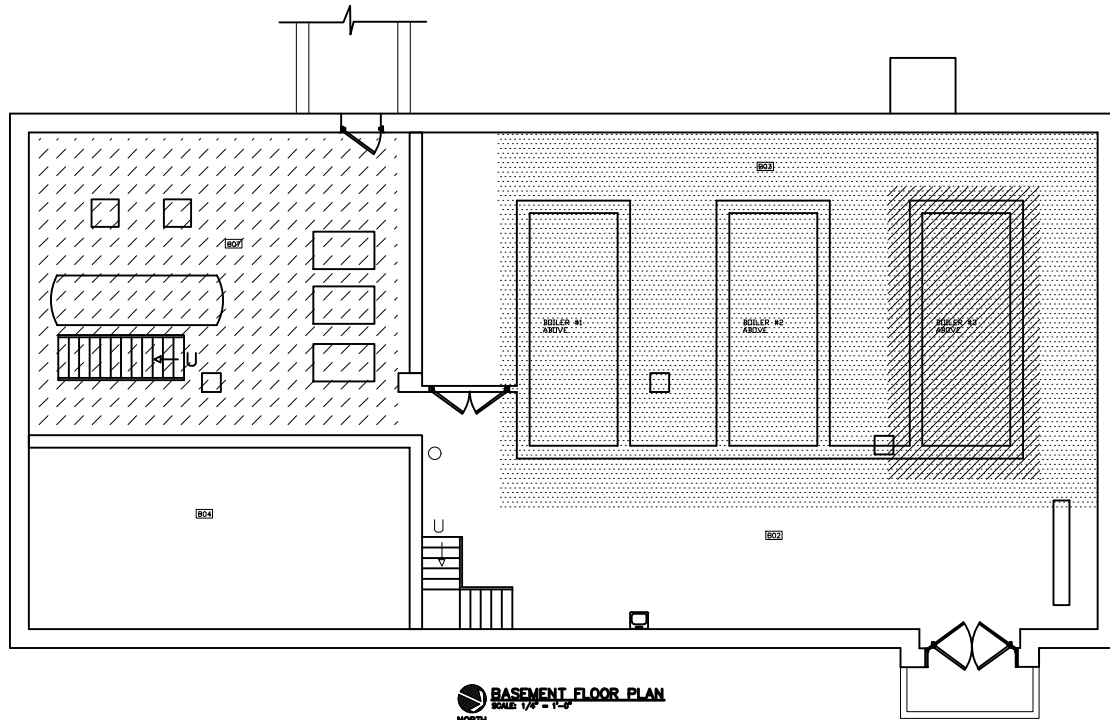
Building Number:

Drawing Number: HA-102

Sheet of:

Office of Construction and Facilities Management

65% SUBMITTAL



BASEMENT FLOOR PLAN
SCALE: 1/8" = 1'-0"
NORTH

- LEAD-BASED PAINT AND PAINT CONTAINING LEAD:**
- LEAD-BASED PAINT (LBP) ARE PAINTS THAT CONTAIN LEAD $\geq 1.0 \text{ mg/ft}^2$ or $\geq 5 \text{ PERCENT}$ BY WEIGHT. PAINT CONTAINING LEAD (PCL) IS PAINT WITH A DETECTABLE LEVEL OF LEAD. LBP AND PCL ARE KNOWN TO EXIST ON MATERIALS, COMPONENTS, AND SURFACES THAT MAY BE DISTURBED, PENETRATED, REFINISHED, OR DEMOLISHED. PERFORM DEMOLITION OF MATERIALS AND COMPONENTS WITH LBP AND/OR PCL IN ACCORDANCE WITH APPLICABLE REGULATIONS AND THE APPROVED WORK PLAN.
 - FLAKING AND PEELING LBP AND/OR PCL ON SURFACES TO REMAIN SHALL BE REMOVED AND STABILIZED USING METHODS IN ACCORDANCE WITH SECTION 02 83 33. LEAD-BASED PAINT REMOVAL AND DISPOSAL.
 - REFER TO THE HAZARDOUS BUILDING MATERIALS INSPECTION REPORT BY AMI ENVIRONMENTAL, DATED AUGUST 27, 2025, FOR INFORMATION CONCERNING THE PRESENCE OF LBP AND PCL IN THE PROJECT AREA.

SUMMARY OF LEAD-BASED PAINT MATERIALS			
DESCRIPTION	CONDITION	EST. QTY.	HATCHING OR KEYNOTE
BUILDING 2 - PAINT ON PIPES (YELLOW) BASEMENT OF BOILER RM	POOR	500 LF	/////
BUILDING 2 - PAINT ON PIPES (GREEN) BASEMENT NEXT TO BOILER RM	POOR	50 LF	////
BUILDING 2 - VALVE UNDER BOILER 3 PAINTED BLACK	POOR	5 EACH	////

CONSULTANTS: AMI ENVIRONMENTAL AMI ENVIRONMENTAL 8802 SOUTH 135TH STREET, SUITE 100 OMAHA, NEBRASKA, 68138 PH: (402) 397-3313		ARCHITECT/ENGINEERS: CLH Calvin L. Hinz CLM PROJECT 3705 North 200th Street EB09m, Nebraska 68022 (402) 291-6841		Drawing No. BUILDING 2 HAZARDOUS MATERIALS LEAD BASED PAINT BASEMENT PLAN	Project No. WAMC OMAHA - CORRECT MECHANICAL DEFICIENCIES	Project Number 636-19-301	Office of Construction and Facilities Management
				Approved Project Director	Location OMAHA, NE	Drawing Number HA-103	
<table border="1"> <tr> <td> Date 8-27-2020 </td> <td> Checked WHC </td> <td> Drawn MET </td> </tr> </table>	Date 8-27-2020	Checked WHC	Drawn MET	Drawn HA-103 Date	Sheet # 4		
Date 8-27-2020	Checked WHC	Drawn MET					

65% SUBMITTAL

APPENDIX D

Analytical Results

Asbestos Lab Report

Lead Results

Paint Chip Lead Analysis Report



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order: 042011658

Customer ID: AMI50

Customer PO: 19-00285

Project ID:

Attention: Dan Taylor
AMI Group, Inc.
8802 South 135th Street
Suite 100
Omaha, NE 68138-6511

Phone: (402) 397-5001

Fax: (402) 397-3313

Received Date: 05/19/2020 9:40 AM

Analysis Date: 05/21/2020 - 05/24/2020

Collected Date: 05/18/2020

Project: 19-00285 - VA Med Center Building

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
BC1 042011658-0001	Black Window Caulk	Black Non-Fibrous Homogeneous		94% Non-fibrous (Other)	6% Chrysotile
BC2 042011658-0002	Black Window Caulk	Black Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
BC3 042011658-0003	Black Window Caulk	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
BC4 042011658-0004	Brown Window Caulk	Brown Non-Fibrous Homogeneous	20% Cellulose	80% Non-fibrous (Other)	None Detected
BC5 042011658-0005	Brown Window Caulk	Gray Non-Fibrous Homogeneous		94% Non-fibrous (Other)	6% Chrysotile
BC6 042011658-0006	Brown Window Caulk	Gray Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
BC7 042011658-0007	20" - Red	Brown/Red Fibrous Homogeneous	15% Cellulose 80% Glass	5% Non-fibrous (Other)	None Detected
BC8 042011658-0008	20" - Red	Brown/Red Fibrous Homogeneous	5% Cellulose 70% Glass	25% Non-fibrous (Other)	None Detected
BC9 042011658-0009	20" - Red	Tan/Silver/Yellow Fibrous Homogeneous	15% Cellulose 55% Glass	30% Non-fibrous (Other)	None Detected
BC10 042011658-0010	24" - Red	Brown/Red Fibrous Homogeneous	20% Cellulose 60% Glass	20% Non-fibrous (Other)	None Detected
BC11 042011658-0011	24" - Red	Brown/Red Fibrous Homogeneous	10% Cellulose 60% Glass	30% Non-fibrous (Other)	None Detected
BC12 042011658-0012	24" - Red	White/Yellow Fibrous Homogeneous	5% Cellulose 80% Glass	15% Non-fibrous (Other)	None Detected
BC13 042011658-0013	4" Red	Red/Yellow Fibrous Homogeneous	15% Cellulose 70% Glass	15% Non-fibrous (Other)	None Detected
BC14 042011658-0014	4" Red	Red/Yellow Fibrous Homogeneous	20% Cellulose 60% Glass	20% Non-fibrous (Other)	None Detected
BC15 042011658-0015	4" Red	Red/Yellow Fibrous Homogeneous	5% Cellulose 50% Glass	45% Non-fibrous (Other)	None Detected
BC16 042011658-0016	3" Red	Red/Yellow Fibrous Homogeneous	20% Cellulose 70% Glass	10% Non-fibrous (Other)	None Detected

Initial report from: 05/26/2020 08:11:35



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042011658
Customer ID: AMI50
Customer PO: 19-00285
Project ID:

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
BC17 <i>042011658-0017</i>	3" Red	Red/Yellow Fibrous Homogeneous	5% Cellulose 70% Glass	25% Non-fibrous (Other)	None Detected
BC18 <i>042011658-0018</i>	Fabric on 24" - Red	White Fibrous Homogeneous	98% Glass	2% Non-fibrous (Other)	None Detected
BC19 <i>042011658-0019</i>	Fabric on 24" - Red	White Fibrous Homogeneous	95% Glass	5% Non-fibrous (Other)	None Detected
BC20 <i>042011658-0020</i>	Debris under Glycol Lines	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
BC21 <i>042011658-0021</i>	Debris under Glycol Lines	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
BC22 <i>042011658-0022</i>	Caulk - Gray	Clear Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
BC23 <i>042011658-0023</i>	Caulk - Gray	Clear Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
BC24 <i>042011658-0024</i>	Caulk - Brown	Brown/Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
BC25 <i>042011658-0025</i>	Caulk - Brown	Brown/Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s) _____

Daniel Blake (11)

Gregory Barry (4)

John Witcraft (10)

Samantha Rundstrom, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition unless otherwise noted. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367, LA #04127

Initial report from: 05/26/2020 08:11:35



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: 162016250
Customer ID: AMI50
Customer PO: 19-285
Project ID:

Attention: Bill Crowe
AMI Group, Inc.
8802 South 135th Street
Suite 100
Omaha, NE 68138-6511
Project: 19-285

Phone: (402) 981-1006
Fax: (402) 397-3313
Received Date: 08/17/2020 9:31 AM
Analysis Date: 08/19/2020
Collected Date: 08/14/2020

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
BC1 <small>162016250-0001</small>	Gray Caulk OH Door	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
BC2 <small>162016250-0002</small>	Gray Caulk OH Door	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
BC3 <small>162016250-0003</small>	White Boiler Gasket (Both End)	White Fibrous Homogeneous	98% Glass	2% Non-fibrous (Other)	None Detected
BC4 <small>162016250-0004</small>	White Boiler Gasket (Both End)	White Fibrous Homogeneous	98% Glass	2% Non-fibrous (Other)	None Detected
BC5 <small>162016250-0005</small>	White End Caulk On Fiberglass	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
BC6 <small>162016250-0006</small>	White End Caulk On Fiberglass	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)
Jadda Moffett (6)


Richard Harding, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Indianapolis, IN NVLAP Lab Code 200188-0, AZ0939, CA 2575, CO AL-15132, TX 300262

Initial report from: 08/19/2020 09:29:32



EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (856) 303-2500 / (856) 786-5974

<http://www.EMSL.com>

cinnaminsonleadlab@emsl.com

EMSL Order:	202004408
CustomerID:	AMI50
CustomerPO:	19-00285
ProjectID:	

Attn: **Bill Crowe**
AMI Group, Inc.
8802 South 135th Street
Suite 100
Omaha, NE 68138-6511

Phone: (402) 397-5001
 Fax: (402) 397-3313
 Received: 05/19/20 11:00 AM
 Collected: 5/18/2020

Project: 19-00285

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)*

Client Sample Description	Lab ID	Collected	Analyzed	Weight	Lead Concentration
L-1 Site: Boiler 1 Gray	202004408-0001	5/18/2020	5/21/2020	0.0773 g	0.69 % wt
L-2 Site: Boiler 2 Gray	202004408-0002	5/18/2020	5/21/2020	0.1417 g	0.021 % wt
L-3 Site: Orange Pipes	202004408-0003	5/18/2020	5/21/2020	0.1363 g	5.1 % wt
L-4 Site: Blue - Boiler 1 + 2	202004408-0004	5/18/2020	5/21/2020	0.1734 g	1.3 % wt
L-5 Site: Green Paint	202004408-0005	5/18/2020	5/21/2020	0.1422 g	0.082 % wt
L-6 Site: Yellow	202004408-0006	5/18/2020	5/21/2020	0.0878 g	0.28 % wt
L-7 Site: Gray 1" Line	202004408-0007	5/18/2020	5/21/2020	0.1005 g	0.24 % wt
L-8 Site: Stairs Gray	202004408-0008	5/18/2020	5/21/2020	0.1085 g	0.44 % wt
L-9 Site: Boiler End Edge	202004408-0009	5/18/2020	5/21/2020	0.2532 g	8.2 % wt
L-10 Site: Boiler End Dome (Gray)	202004408-0010	5/18/2020	5/21/2020	0.0442 g	0.26 % wt
L-11 Site: Pipe + Joints	202004408-0011	5/18/2020	5/21/2020	0.1496 g	0.10 % wt
L-12 Site: Gray - Boiler Seams	202004408-0012	5/18/2020	5/21/2020	0.2218 g	5.0 % wt
L-13 Site: Yellow 2" + 1"	202004408-0013	5/18/2020	5/21/2020	0.1512 g	2.3 % wt
L-14 Site: Green	202004408-0014	5/18/2020	5/21/2020	0.1306 g	0.93 % wt
L-15 Site: Fittings	202004408-0015	5/18/2020	5/21/2020	0.1180 g	0.12 % wt

Phillip Worby, Lead Laboratory Manager
or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008 % wt based on the minimum sample weight per our SOP. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements unless specifically indicated otherwise. Definitions of modifications are available upon request.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NELAP Certifications: NJ 03036, NY 10872, PA 68-00367, AIHA-LAP, LLC ELLAP 100194, A2LA 2845.01

Initial report from 05/22/2020 11:21:51

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (856) 303-2500 / (856) 786-5974

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

EMSL Order:	202004408
CustomerID:	AMI50
CustomerPO:	19-00285
ProjectID:	

Attn: **Bill Crowe**
AMI Group, Inc.
8802 South 135th Street
Suite 100
Omaha, NE 68138-6511

Phone: (402) 397-5001
 Fax: (402) 397-3313
 Received: 05/19/20 11:00 AM
 Collected: 5/18/2020

Project: 19-00285

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)*

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Weight</i>	<i>Lead Concentration</i>
L-16	202004408-0016	5/18/2020	5/21/2020	0.2518 g	0.011 % wt
Site: Green Painted City Water Above Pumps					
L-17	202004408-0017	5/18/2020	5/21/2020	0.0592 g	<0.034 % wt
Site: White Over Spray pt Glycol Line					

Phillip Worby, Lead Laboratory Manager
 or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008 % wt based on the minimum sample weight per our SOP. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements unless specifically indicated otherwise. Definitions of modifications are available upon request.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NELAP Certifications: NJ 03036, NY 10872, PA 68-00367, AIHA-LAP, LLC ELLAP 100194, A2LA 2845.01

Initial report from 05/22/2020 11:21:51



EMSL Analytical, Inc.

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

EMSL Order: 162016236
 CustomerID: AMI50
 CustomerPO: 19-285
 ProjectID:

Attn: **Bill Crowe**
AMI Group, Inc.
8802 South 135th Street
Suite 100
Omaha, NE 68138-6511

Phone: (402) 397-5001
 Fax: (402) 397-3313
 Received: 08/17/20 9:31 AM
 Collected: 8/14/2020

Project: 19-285 / CORR MECH DEF BOILER 3

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)*

Client SampleDescription	Collected	Analyzed	Weight	RDL	Lead Concentration
001-L1 162016236-0001	8/14/2020	8/19/2020	0.1443 g	0.014 % wt	<0.014 % wt
	Site: GREEN BASE FRAME				
002-L2 162016236-0002	8/14/2020	8/19/2020	0.0772 g	0.026 % wt	<0.026 % wt
	Site: BLUE CONTROL BOXES/VALVES				
003-L3 162016236-0003	8/14/2020	8/19/2020	0.1793 g	0.011 % wt	<0.011 % wt
	Site: DK GREEN BOILER SIDES				
004-L4 162016236-0004	8/14/2020	8/19/2020	0.141 g	0.014 % wt	<0.014 % wt
	Site: BLACK BOILER ENDS				
005-L5 162016236-0005	8/14/2020	8/19/2020	0.0879 g	0.023 % wt	<0.023 % wt
	Site: ORANGE/YELLOW GAS 1&2				
006-L6 162016236-0006	8/14/2020	8/19/2020	0.0968 g	0.021 % wt	<0.021 % wt
	Site: ORANGE/YELLOW 4" GAS				
007-L7 162016236-0007	8/14/2020	8/19/2020	0.1723 g	0.012 % wt	<0.012 % wt
	Site: YELLOW FUEL				
008-L8 162016236-0008	8/14/2020	8/19/2020	0.194 g	0.010 % wt	0.11 % wt
	Site: LT BLUE FRAME				
009-L9 162016236-0009	8/14/2020	8/19/2020	0.0815 g	0.025 % wt	0.056 % wt
	Site: BLACK/RED VALVES				
010-L10 162016236-0010	8/14/2020	8/19/2020	0.0885 g	0.56 % wt	2.5 % wt
	Site: BLACK VALVE				
011-L11 162016236-0011	8/14/2020	8/19/2020	0.0906 g	0.022 % wt	0.025 % wt
	Site: BLUE 3" PIPE				

Allison Ford

Allison Ford, Chemistry Lab Supervisor
 or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted.
 Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008% wt based on the minimum sample weight per our SOP. "<" (less than) result signifies the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. Definitions of modifications are available upon request.
 Samples analyzed by EMSL Analytical, Inc. Indianapolis, IN AIHA-LAP, LLC--ELLAP 157245, OH E10040

Initial report from 08/20/2020 07:53:48



EMSL Analytical, Inc.

6340 CastlePlace Dr., Indianapolis, IN 46250

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

<http://www.EMSL.com>

indianapolislab@emsl.com

EMSL Order: 162016236

CustomerID: AMI50

CustomerPO: 19-285

ProjectID:

Attn: **Bill Crowe**
AMI Group, Inc.
8802 South 135th Street
Suite 100
Omaha, NE 68138-6511

Phone: (402) 397-5001
Fax: (402) 397-3313
Received: 08/17/20 9:31 AM
Collected: 8/14/2020

Project: 19-285 / CORR MECH DEF BOILER 3

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)*

<i>Client SampleDescription</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Weight</i>	<i>RDL</i>	<i>Lead Concentration</i>
012-L12 162016236-0012	8/14/2020	8/19/2020 Site: OH DOOR FRAME	0.0941 g	0.021 % wt	<0.021 % wt
013-L13 162016236-0013	8/14/2020	8/19/2020 Site: HAND RAIL - DOOR	0.1282 g	0.016 % wt	<0.016 % wt
014-L14 162016236-0014	8/14/2020	8/19/2020 Site: FLOOR BOILER ROOM	0.254 g	0.0080 % wt	0.054 % wt
015-L15 162016236-0015	8/14/2020	8/19/2020 Site: ROUND GRAY HANDRAIL	0.1517 g	0.013 % wt	0.032 % wt

Allison Ford, Chemistry Lab Supervisor
or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted.

Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008% wt based on the minimum sample weight per our SOP. "<" (less than) result signifies the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. Definitions of modifications are available upon request.

Samples analyzed by EMSL Analytical, Inc. Indianapolis, IN AIHA-LAP, LLC--ELLAP 157245, OH E10040

Initial report from 08/20/2020 07:53:48

APPENDIX E
Inspector's Credentials

State of Nebraska

Department of Health and Human Services
Division of Public Health

William H Crowe
Asbestos Inspector

License #: 1368
Status: Active

Expiration: 01/31/2021

