ASBESTOS INSPECTION REPORT

IVY TOWER CORPORATION FACILITY
635 S. Lafayette Boulevard and 600 Prairie Avenue
South Bend, Indiana

Project No. 2012-5001

March 21, 2012

Prepared For:

CITY OF SOUTH BEND
Community and Economic Development
227 W. Jefferson Blvd.
South Bend, Indiana 46601

Prepared By:

WIGHTMAN PETRIE, INC.
412 S. Lafayette Blvd.
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WIGHTMAN PETRIE
SURVEYING ENGINEERING ENVIRONMENTAL LANDSCAPE ARCHITECTURE

ASBESTOS INSPECTION PRIOR TO RENOVATION
REPORT OF FINDINGS

March 21, 2012

Report For: City of South Bend
227 W. Jefferson Blvd
South Bend, Indiana 46601

Attention: Mr. Bill Schalliol, Economic Development Planner

Subject Site Address: **600 United Drive/635 S. Lafayette Blvd.**
South Bend, Indiana 46601

Date of Inspection: January 2012 – February 2012

Date of Laboratory Report: January 18, 2012, January 23, 2012, February 6, 2012, & February 10, 2012

SITE DESCRIPTION

The subject site, identified as the Ivy Tower complex, is located at 600 United Drive and 635 S. Lafayette Blvd., in South Bend, Indiana. The subject site consists of three (3) land parcels, two (2) of which have been developed with larger industrial facilities. The third parcel encompasses a thin tract of land located between the existing buildings and the adjacent Penn Central Railroad property (vacant and undeveloped). The facilities together operate as the South Bend Warehousing and Distribution Corporation, a provider of space for the storage of goods and materials for local businesses, as well as an area for vehicle storage during winter months. Excluding the more recent construction of a small office area at the westernmost extent of the property, all existing buildings (referred to as Buildings 84, 112 and 113) date to prior use as part of the former Studebaker Corporation, which ceased operation in 1963. Portions of Building 112 also serve as a base for manufacturing operations of WEDI, Inc., a manufacturer of "backer boards" for bathroom, spas and sauna installations, and McGowan Wire Specialties, Inc., a straightener and cutter of rolled wire to manufacturer specifications. Similarly, Therm-o-Lite Windows operates from the extreme eastern end of Building 113, along S. Lafayette Blvd., as a manufacturer of specialty window systems.

WIGHTMAN PETRIE
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The 600 United Drive facility consists of approximately 56,768 sq. ft. of former manufacturing space. As constructed, the building consists of a large freight warehousing facility, having two (2) main floors and upper deck level. The building is noted as having approximately 28,406 sq. ft of unfinished warehouse space on the ground level, with an additional 1,863 sq. ft. of finished office space. The second level is identified as being approximately 24,200 sq. ft of unfinished warehouse space. The upper, finished deck, consists of approximately 2,299 sq. ft.

The 635 S. Lafayette Blvd. facility consists of several different buildings, which through the years and construction phases have become an interconnected warehousing complex, totaling approximately 763,700 sq. ft. While the current uses of the building(s) are largely dedicated to warehousing space, some portions have been subdivided to support light manufacturing operations (i.e., Therm-o-Lite Windows). Building 84 of the complex consists of six (6) floors and a basement, with the footprint being identified as 810 ft. in length x 100 ft. in width. We note that at least three (3) floors of the structure are dedicated to the storage of automobiles and recreational vehicles. To the south of Building 84 are several sections collectively known as Building 113. Together, these buildings constitute a 2-story facility, having a base footprint of approximately 45,650 sq. ft., being used for a combination of manufacturing (Therm-o-Lite Windows) and warehousing (primarily recreational vehicles on the ground level and motors for international shipment of the second level). Buildings 113 and 84 are joined by a steel frame structure that primarily serves as a loading dock, having previously had rail access, and currently having a concrete base, truck level platform dock. Such a structure historically extended along the entire length of the two (2) buildings; however a storm event resulted in the loss of a portion of the steel roof, and as such only the western portion of the building has been enclosed. The eastern portion of this "Loft Building" serves as an open courtyard (no roofing present) for outside storage for older trucks and busses. The last section of the 635 Lafayette Blvd. complex is commonly identified as Building 112, and consists of a two-story addition to the western extent of Building 84. The facility, approximately 165 ft. in length x 75 ft. in width, serves as a connecting unit between the 635 S. Lafayette Blvd. warehousing complex and the smaller warehousing and manufacturing space of the 600 United Drive (Prairie Avenue) facilities.

Building 113 was constructed in 1945 as a two-story, slab on grade structure with poured concrete columns, floors and roof, with brick curtain walls. The Loft Building was constructed as a steel frame building with poured concrete floor (raised) and steel sheet exterior (ceiling and end caps). The largest and northernmost of the three (3) buildings, Building 84, was constructed in 1923 as a six-story concrete structure with poured concrete columns, floors and roof, and brick curtain walls. The building is constructed atop of a concrete and stone basement. Along the south wall of Building 113 are numerous drive-down loading docks that allow for the loading and unloading of trailers. We note that the average thickness of the concrete floors and ceilings present within the aforementioned structures range from approximately 18-inches to 24-inches, with curtain walls being approximately 12-inches thick. Historical heating systems were steam (boilers on main floor and in basement of Building 84), which have since been taken out of operation, and replaced with a combination of radiant heat units and hanging forced air units (limited heat to offices and lease-occupied production areas only).

It is our understanding that the City of South Bend is assisting a potential purchaser in the evaluation of the existing building and subject site relative to proposed renovation and re-development. Wightman Petrie was subsequently retained by the City of South Bend, Department of Economic Development for the completion of an asbestos-containing material survey, for the purpose of identifying materials subject for which abatement would be necessary as a part of any future renovation/demolition activities.

SUMMARY OF INSPECTION RESULTS

The following materials were deemed by the analytical laboratory to contain asbestos:

Sample No.	ID No.	Homogeneous Area Description, Sample Description	Category (I or II)[1]	Area/Volume[2], % Asbestos, Location
1,1A,1B,1C,1D	Multiple Samples	Friable, White TSI w/ Cloth Wrap	N/A, Friable	**100lnft (Multiple Pipes), 43-72% Chrysotile, 6th Floor**
4E	1200672	Friable, White TSI Paper	N/A, Friable	**5lnft, 3% Chrysotile, 37% Amosite, 6th Floor**
5,5A,5B,5C	Multiple Samples	Friable, White TSI w/ Cloth Wrap	N/A, Friable	**500lnft (Multiple Pipes), 3-63% Chrysotile, 0-62% Amosite, 5th Floor**
8,8A	Multiple Samples	Friable, White TSI Paper	N/A, Friable	**50lnft (Multiple Pipes), 41-42% Chrysotile, 5th Floor**
18,18A,18B,18C	Multiple Samples	Friable, White TSI w/ Cloth Wrap	N/A, Friable	**500lnft (Multiple Pipes), 4-70% Chrysotile, 0-68% Amosite, 4th Floor**
22	12000775	Friable, White TSI Paper	N/A, Friable	**100lnft, 67% Chrysotile, 3rd Floor**
23	1200776	Friable, Brown TSI Pipe Wrap	N/A, Friable	**6lnft, 18% Chrysotile, 3rd Floor**
24,24A,24B	Multiple Samples	Friable, Brown TSI Paper	N/A, Friable	**1600lnft (Multiple Pipes), 18-67% Chrysotile, 0-47% Amosite, 0-5% Crocidalite, 3rd Floor**
31,31A,32,33	Multiple Samples	Friable, TSI Wrap (Total of Brown and White TSI)	N/A, Friable	**3080lnft (Multiple Pipes), 0-46% Chrysotile, 0-41% Amosite, 0-6% Crocidalite, Building 113 2nd Floor**
32A,36,37, 38	Multiple Samples	Friable, TSI Wrap (Total of Brown and White TSI)	N/A, Friable	**900lnft, 0-29% Chrysotile, 0-57% Amosite, Building 84 & 112 2nd Floor**
W-1	1201702	Friable, White TSI Wrap	N/A Friable	**300lnft, 37% Amosite, Loading Dock 1st Floor**
W-2,W-3,W-4,2-5,W-6,W-8,W-9	Multiple Samples	Friable, TSI Wrap (Total of Brown and White TSI)	N/A Friable	**1500lnft, 0-41% Chrysotile, 0-37% Amosite, 0-56% Crocidalite, Building 84 1st Floor**
W-11,W-12,W-13,W-15,W-15A,W-18, W-37	Multiple Samples	Friable, TSI Wrap (Total of Brown and White TSI)	N/A, Friable	**7300lnft, 0-48% Chrysotile, 0-37% Amosite, Building 113 1st Floor**
W-36,W-36A	Multiple Samples	Friable, Tan Boiler Jacket	N/A Friable	**300sqft, 37% Chrysotile, Building 113 1st Floor**
W-28,W-30	Multiple Samples	Friable, TSI Wrap (Total of Brown and White TSI)	N/A Friable	**1300lnft, 15-24% Chrysotile, Building 112 & Abe's Office 1st Floor**

Sample No.	ID No.	Homogeneous Area Description, Sample Description	Category (I or II)[3]	Area/Volume[4], % Asbestos, Location
W-32,W-32A	Multiple Samples	Non-Friable, 9x9 Green Floor Tile	Category I Non-Friable	**2000sqft, 3% Chrysotile, 1st Floor Offices & Wedi Mezzanine**
B-1, B-1A	Multiple Samples	Friable, Boiler Jacket	N/A, Friable	**500sqft, 4-43% Chrysotile, Basement**
B-2, B-3,B-3A,B-3B	Multiple Samples	Friable, White TSI Pipe Wrap	N/A, Friable	**450lnft, 43-46% Chrysotile, Basement**
B-5	1201344	Friable, Tan TSI	N/A, Friable	**20lnft, 67% Chrysotile, Basement**
B-6,B-6A,B-6B,B-6C	Multiple Samples	Friable, White TSI Pipe Wrap	N/A Friable	**1500lnft, 42-59% Chrysotile, 0-15% Amosite, 0-14% Crocidalite, Basement Tunnel. Estimated quantities are based on dimensions of the tunnel provided by building maintenance, and assuming both pipes observed run the entire length of the tunnel**

Wightman Petrie did not sample the roofing materials so as not to void any existing warranties, or create any potential conduit for water infiltration through roof repair following sample collection. The roofing materials should be assumed positive as Category I Non-Friable Asbestos-Containing Material (ACM).

The following materials were deemed by laboratory analysis to be Non-Asbestos Containing Building Materials (Non-Detect):

Sample No.	ID No.	Homogeneous Area Description, Sample Description
2	1200660	Friable, Window Caulk, 6th Floor
2A	1200661	Friable, Window Caulk, 6th Floor
2B	1200662	Friable, Window Caulk, 6th Floor
2C	1200663	Friable, Window Caulk, 6th Floor
3	1200664	Friable, Wall Plaster, 6th Floor
3A	1200665	Friable, Wall Plaster, 6th Floor

[1] Category I material is defined as asbestos-containing resilient floor covering, asphalt roofing products, packings and gaskets. Asbestos-containing mastic is also considered a Category I material (EPA determination - April 9, 1991). Category II material is defined as all remaining types of non-friable ACM not included in Category I that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable asbestos-cement products such as transite are an example of Category II material.

[2] De minimis amounts which trigger the "notification-only" requirements of paragraphs 40 CFR 61.145 (b)(1), (2), (3)(i) and (iv), and (4)(i) through (vii) and (4)(ix) and (xvi) are: RACM Less than 260 linear feet on pipes and less than 160 square feet on other facility components (and less than 35 cubic feet of facility components where the length or area could not be measured previously or there is no asbestos). Indiana requires use of a licensed contractor for removal of friable (or potentially friable) asbestos-containing materials (ACM) when quantities exceed 3.0 linear feet for Thermal System Insulation (TSI)-wrapped duct, or 3.0 square feet of ACM, or 0.75 cubic feet of ACM.

3B	1200666	Friable, Wall Plaster, 6th Floor
4	1200667	Friable, Brown 'Ridged' TSI Paper, 6th Floor
4A	1200668	Friable, Brown 'Ridged' TSI Paper, 6th Floor
4B	1200669	Friable, Brown 'Ridged' TSI Paper, 6th Floor
4C	1200670	Friable, Brown 'Ridged' TSI Paper, 6th Floor
4D	1200671	Friable, Brown 'Ridged' TSI Paper, 6th Floor
6	1200677	Friable, Carpet wrap, 5th Floor
7	1200678	Friable, Brown 'Ridged' TSI Paper, 5th Floor
7A	1200679	Friable, Brown 'Ridged' TSI Paper, 5th Floor
7B	1200680	Friable, Brown 'Ridged' TSI Paper, 5th Floor
7C	1200781	Friable, Brown 'Ridged' TSI Paper, 5th Floor
7D	1200782	Friable, Brown 'Ridged' TSI Paper, 5th Floor
7E	1200783	Friable, Brown 'Ridged' TSI Paper, 5th Floor
9	1200686	Friable, Wall Plaster, 5th Floor
9A	1200687	Friable, Wall Plaster, 5th Floor
9B	1200688	Friable, Wall Plaster, 5th Floor
10	1200689	Friable, Window Caulk, 5th Floor
10A	1200690	Friable, Window Caulk, 5th Floor
10B	1200691	Friable, Window Caulk, 5th Floor
11	1200692	Friable, Orange Fabric Wrap, 5th Floor
12	1200693	Friable, Orange Foam Caulk, 5th Floor
13	1200694	Friable, Sub Floor Tar Paper, 5th Floor
13A	1200695	Friable, Sub Floor Tar Paper, 5th Floor
13B	1200696	Friable, Sub Floor Tar Paper, 5th Floor
13C	1200697	Friable, Sub Floor Tar Paper, 6th Floor
13D	1200698	Friable, Sub Floor Tar Paper, 6th Floor
13E	1200699	Friable, Sub Floor Tar Paper, 6th Floor
14	1200700	Friable, Drywall, 4th Floor
14A	1200701	Friable, Drywall, 4th Floor
14B	1200702	Friable, Drywall, 4th Floor
15	1200703	Friable, Brown 'Ridged' TSI Paper, 4th Floor
15A	1200704	Friable, Brown 'Ridged' TSI Paper, 4th Floor
15B	1200705	Friable, Brown 'Ridged' TSI Paper, 4th Floor
16	1200706	Friable, Orange Foam Caulk, 4th Floor
16A	1200707	Friable, Orange Foam Caulk, 4th Floor
16B	1200708	Friable, Orange Foam Caulk, 4th Floor
17	1200709	Friable, Window Caulk, 4th Floor
17A	1200710	Friable, Window Caulk, 4th Floor
17A2	1200711	Friable, Window Caulk, 4th Floor
17B	1200712	Friable, Window Caulk, 4th Floor
19	1200717	Friable, Wall Plaster, 4th Floor
20	1200718	Friable, Sub Floor Paper, 4th Floor
21	1200773	Friable, Window Caulk, 3rd Floor
21A	1200774	Friable, Window Caulk, 3rd Floor
25	1200780	Friable, Brown 'Ridged' TSI Paper, 3rd Floor
25A	1200781	Friable, Window Caulk, 3rd Floor
26	1200782	Friable, Fiberglass, 3rd Floor
27	1200783	Friable, Wall Plaster, 3rd Floor
30	1200784	Friable, Window Caulk, 2nd Floor
30A	1200785	Friable, Window Caulk, 2nd Floor
30B	1200786	Friable, Window Caulk, 2nd Floor

34	1200792	Friable, Brown 'Ridged' TSI Paper, 2nd Floor
34A	1200793	Friable, Brown 'Ridged' TSI Paper, 2nd Floor
35	1200794	Friable, Drywall, 2nd Floor
W-7	1201708	Friable, Brown 'Ridged' TSI Paper, 1st Floor
W-10	1201715	Friable, Brown 'Ridged' TSI Paper, 1st Floor
W-14	1201718	Friable, White TSI, 1st Floor
W-16	1201718	Friable, Brown 'Ridged' TSI Paper, 1st Floor
W-17	1201719	Friable, Brown 'Ridged' TSI Paper, 1st Floor
W-19	1201721	Friable, 2x4 Ceiling Tile, 1st Floor
W-19A	1201722	Friable, 2x4 Ceiling Tile, 1st Floor
W-20	1201723	Friable, Above Ceiling Tile, 1st Floor
W-20A	1201724	Friable, Above Ceiling Tile, 1st Floor
W-21	1201725	Non-Friable, Tan 12x12 Floor Tile, 1st Floor
W-21	1201725A	Non-Friable, Floor Tile Mastic, 1st Floor
W-22	1201726	Non-Friable, Grey 9x9 Floor Tile, 1st Floor
W-22A	1201727	Non-Friable, Grey 9x9 Floor Tile, 1st Floor
W-23	1201728	Friable, Drywall, 1st Floor
W-23A	11201729	Friable, Drywall, 1st Floor
W-23B	1201730	Friable, Drywall, 1st Floor
W-24	1201731	Friable, Drywall, 1st Floor
W-24A	1201732	Friable, Drywall, 1st Floor
W-25	1201733	Friable, 2x4 Ceiling Tile, 1st Floor
W-25A	1201734	Friable, 2x4 Ceiling Tile, 1st Floor
W-26	1201735	Friable, Drywall, 1st Floor
W-27	1201736	Friable, Drywall, 1st Floor
W-29	1201738	Non-Friable, Brown 12x12 Floor Tile, 1st Floor
W-29A	1201739	Non-Friable, Brown 12x12 Floor Tile, 1st Floor
W-29A	1201739A	Non-Friable, Floor Tile Mastic, 1st Floor
W-31	1201741	Friable, 2x4 Ceiling Tile, 1st Floor
W-33	1201744	Friable, Drywall, 1st Floor
W-33A	1201745	Friable, Drywall, 1st Floor
W-34	1201746	Friable, 2x4 Ceiling Tile, 1st Floor
W-38	1202487	Friable, Brown 'Ridged' TSI Paper, 1st Floor Women's Bathroom
B-2A	1201340	Friable, Brown Fibrous Material, Basement Boiler Room
F-1	1201345	Friable, Brown 'Ridged' TSI Paper, 3rd Floor
F-1A	1201346	Friable, Brown 'Ridged' TSI Paper, 3rd Floor
F-1B	1201347	Friable, Brown 'Ridged' TSI Paper, 3rd Floor

Locations for each sample can be found in the attached Figures.

CONCLUSIONS AND RECOMMENDATIONS

Wightman Petrie was retained by the City of South Bend, Department of Economic Development to perform an asbestos inspection prior to the renovation of the Ivy Tower/South Bend Warehousing facilities, located at 600 United Drive and 635 S. Lafayette Blvd., in South Bend, Indiana. It has been confirmed that Asbestos-Containing Material (ACM) is present, based upon the results of our inspection, and the review of the analytical data for samples collected throughout the building in the form of friable thermal system insulation (TSI) wrap and resilient floor tile. Asbestos is present in these materials in a quantity greater than 1%, the established Action Level by the State of Indiana. Please note that the asphalt roofing materials have been assumed to contain asbestos in a quantity greater than 1%.

By regulation, Category I Non-friable ACM is any asbestos-containing packing, gasket, resilient floor covering or asphalt roofing product which contains more than one percent (1%) asbestos as determined using polarized light microscopy (PLM) according to the method specified in Appendix A, Subpart F, 40 CFR Part 763. (Sec. 61.141). Category I Non-friable ACM must be inspected and tested for friability if it is in poor condition before demolition to determine whether or not it is subject to the Asbestos NESHAP.

A licensed abatement contractor is not required to remove Category 1, Non-friable Materials that will not become friable during the renovation process. Actions involving the sanding, grinding, cutting or abraiding of any material deemed to be Category I, Non-Friable material will in fact result in a condition that will cause the emission of asbestos fibers. As such, the sanding, grinding, cutting, or abraiding of materials identified as Category I Asbestos-Containing Material should be expressly prohibited.

Friable asbestos containing materials (easily crushed by moderate hand pressure), such as TSI wrap, require that a licensed asbestos abatement contractor be retained in order to remove (abate) all asbestos containing building materials that will be disturbed as a result of any renovation activities. Furthermore, even friable materials that are not scheduled for removal/abatement due to proposed renovation activities should be considered for removal/abatement if not in good condition or damaged. Any management in-place of asbestos containing materials requires the generation and adherence to an Asbestos Operations & Maintenance Plan.

Notification is required. Notification to the Indiana Department of Environmental Management (IDEM) is accomplished by submitting Form 44593 (IDEM Notification of Demolition and Renovation Operations). A copy of Form 44593 is included with this report. The report must be filed with the IDEM, Office of Air Quality (OAQ) Compliance Branch:

IDEM, OAQ Compliance Branch
100 N. Senate Ave.
Mail Code 61-53 IGCN 1003
Indianapolis, IN 46204-2251

Form 44593 may be submitted by fax to 317-233-6865. IDEM's contact for these notices is Mr. John Clevenger, Environmental Manager. His telephone number is 317-233-6880. His e-mail address is jcleveng@idem.in.gov.

A licensed contractor is required to remove friable TSI. Licensed contractors must follow the procedures as described in 61.145(c), Procedures for asbestos emission control, beginning with subsection (4):

(4) After a facility component covered with, coated with, or containing RACM[5] has been taken out of the facility as a unit or in sections pursuant to paragraph (c)(2) of this section[6], it shall be stripped or contained in leak-tight wrapping, except as described in paragraph (c)(5) of this section. If stripped, either:

(i) Adequately wet the RACM during stripping; or

(ii) Use a local exhaust ventilation and collection system designed and operated to capture the particulate asbestos material produced by the stripping. The system must exhibit no visible emissions to the outside air or be designed and operated in accordance with the requirements in 61.152.

(5) For large facility components such as reactor vessels, large tanks, and steam generators, but not beams (which must be handled in accordance with paragraphs (c)(2), (3), and (4) of this section), the RACM is not required to be stripped if the following requirements are met:

(i) The component is removed, transported, stored, disposed of, or reused without disturbing or damaging the RACM.

(ii) The component is encased in a leak-tight wrapping.

(iii) The leak-tight wrapping is labeled according to 61.149 (d)(1)(i), (ii), and (iii) during all loading and unloading operations and during storage.

(6) For all RACM, including material that has been removed or stripped:

(i) Adequately wet the material and ensure that it remains wet until collected and contained or treated in preparation for disposal in accordance with 61.150; and

(ii) Carefully lower the material to the ground and floor, not dropping, throwing, sliding, or otherwise damaging or disturbing the material.

(iii) Transport the material to the ground via leak-tight chutes or containers if it has been removed or stripped more than 50 feet above ground level and was not removed as units or in sections.

(iv) RACM contained in leak-tight wrapping that has been removed in accordance with paragraphs (c)(4) and (c)(3)(i)(B)(3) of this section need not be wetted.

(7) When the temperature at the point of wetting is below 0 °C (32 °F):

(i) The owner or operator need not comply with paragraph (c)(2)(i) and the wetting provisions of paragraph (c)(3) of this section.

(ii) The owner or operator shall remove facility components containing, coated with, or covered with RACM as units or in sections to the maximum extent possible.

(iii) During periods when wetting operations are suspended due to freezing temperatures, the owner or operator must record the temperature in the area containing the facility components at the beginning, middle, and end of each workday and keep daily temperature records available for inspection by the Administrator during normal business hours at the demolition or renovation site. The owner or operator shall retain the temperature records for at least 2 years.

(8) Effective 1 year after promulgation of this regulation, no RACM shall be stripped, removed, or otherwise handled or disturbed at a facility regulated by this section unless at least one on-site representative, such as a foreman or management-level person or other authorized representative, trained in the provisions of this regulation and the means of complying with

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[3] ***Regulated asbestos-containing material (RACM)*** means

(a) Friable asbestos material,

(b) Category I non-friable ACM that has become friable,

(c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or

(d) Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this subpart.

4. (c)(2) When a facility component that contains, is covered with, or is coated with RACM is being taken out of the facility as a unit or in sections: (i) Adequately wet all RACM exposed during cutting or disjoining operations; and (ii) Carefully lower each unit or section to the floor and to ground level, not dropping, throwing, sliding, or otherwise damaging or disturbing the RACM.

them, is present. Every 2 years, the trained on-site individual shall receive refresher training in the provisions of this regulation. The required training shall include as a minimum: applicability; notifications; material identification; control procedures for removals including, at least, wetting, local exhaust ventilation, negative pressure enclosures, glove-bag procedures, and High Efficiency Particulate Air (HEPA) filters; waste disposal work practices; reporting and recordkeeping; and asbestos hazards and worker protection. Evidence that the required training has been completed shall be posted and made available for inspection by the Administrator at the demolition or renovation site.

(9) For facilities described in paragraph (a)(3) of this section[7], adequately wet the portion of the facility that contains RACM during the wrecking operation.

Disposal requirements for asbestos. Disposal of asbestos from demolition/renovation sites is regulated by 40 CFR 61.150 (Standard for waste disposal for manufacturing, fabricating, demolition, renovation, and spraying operations). The text of Section 150 follows:

Each owner or operator of any source covered under the provisions of 61.144, 61.145, 61.146, and 61.147 shall comply with the following provisions:

(a) Discharge no visible emissions to the outside air during the collection, processing (including incineration), packaging, or transporting of any asbestos-containing waste material generated by the source, or use one of the emission control and waste treatment methods specified in paragraphs (a)(1) through (4) of this section.

(1) Adequately wet asbestos-containing waste material as follows:

(i) Mix control device asbestos waste to form a slurry; adequately wet other asbestos-containing waste material; and

(ii) Discharge no visible emissions to the outside air from collection, mixing, wetting, and handling operations, or use the methods specified by 61.152 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air; and

(iii) After wetting, seal all asbestos-containing waste material in leak-tight containers while wet; or, for materials that will not fit into containers without additional breaking, put materials into leak-tight wrapping; and

(iv) Label the containers or wrapped materials specified in paragraph (a)(1)(iii) of this section using warning labels specified by Occupational Safety and Health Standards of the Department of Labor, Occupational Safety and Health Administration (OSHA) under 29 CFR 1910.1001 (j)(2) or 1926.58 (k)(2)(iii). The labels shall be printed in letters of sufficient size and contrast so as to be readily visible and legible.

(v) For asbestos-containing waste material to be transported off the facility site, label containers or wrapped materials with the name of the waste generator and the location at which the waste was generated.

(2) Process asbestos-containing waste material into non-friable forms as follows:

(i) Form all asbestos-containing waste material into non-friable pellets or other shapes;

(ii) Discharge no visible emissions to the outside air from collection and processing operations, including incineration, or use the method specified by 61.152 to clean emissions containing particulate asbestos material before they escape to, or is vented to, the outside air.

(3) For facilities demolished where the RACM is not removed prior to demolition according to 61.145 (c)(1) (i), (ii), (iii), and (iv) or for facilities demolished according to 61.145 (c)(9), adequately wet asbestos containing waste material at all times after demolition and keep wet during handling and loading for transport to a disposal site. Asbestos-containing waste materials

[5] (a)(3) refers to emergency demolitions ordered by municipalities.

covered by this paragraph do not have to be sealed in leak-tight containers or wrapping but may be transported and disposed of in bulk.

(4) Use an alternative emission control and waste treatment method that has received prior approval by the Administrator according to the procedure described in 61.149 (c)(2).

(5) As applied to demolition and renovation, the requirements of paragraph (a) of this section do not apply to Category I non-friable ACM waste and Category II non-friable ACM waste that did not become crumbled, pulverized, or reduced to powder.

(b) All asbestos-containing waste material shall be deposited as soon as is practical by the waste generator at:

(1) A waste disposal site operated in accordance with the provisions of 61.154, or

(2) An EPA-approved site that converts RACM and asbestos-containing waste material into non-asbestos (asbestos-free) material according to the provisions of 61.155.

(3) The requirements of paragraph (b) of this section do not apply to Category I non-friable ACM that is not RACM.

(c) Mark vehicles used to transport asbestos-containing waste material during the loading and unloading of waste so that the signs are visible. The markings must conform to the requirements of 61.149 (d)(1) (i), (ii), and (iii).

(d) For all asbestos-containing waste material transported off the facility site:

(1) Maintain waste shipment records, using a form similar to that shown in Figure 4, and include the following information:

(i) The name, address, and telephone number of the waste generator.

(ii) The name and address of the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program.

(iii) The approximate quantity in cubic meters (cubic yards).

(iv) The name and telephone number of the disposal site operator.

(v) The name and physical site location of the disposal site.

(vi) The date transported.

(vii) The name, address, and telephone number of the transporter(s).

(viii) A certification that the contents of this consignment are fully and accurately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

(2) Provide a copy of the waste shipment record, described in paragraph (d)(1) of this section, to the disposal site owners or operators at the same time as the asbestos-containing waste material is delivered to the disposal site.

(3) For waste shipments where a copy of the waste shipment record, signed by the owner or operator of the designated disposal site, is not received by the waste generator within 35 days of the date the waste was accepted by the initial transporter, contact the transporter and/or the owner or operator of the designated disposal site to determine the status of the waste shipment.

(4) Report in writing to the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator if a copy of the waste shipment record, signed by the owner or operator of the designated waste disposal site, is not received by the waste generator within 45 days of the date the waste was accepted by the initial transporter. Include in the report the following information:

(i) A copy of the waste shipment record for which a confirmation of delivery was not received, and

(ii) A cover letter signed by the waste generator explaining the efforts taken to locate the asbestos waste shipment and the results of those efforts.

(5) Retain a copy of all waste shipment records, including a copy of the waste shipment record signed by the owner or operator of the designated waste disposal site, for at least 2 years.

(e) Furnish upon request, and make available for inspection by the Administrator, all records required under this section.

1.0 BACKGROUND

Wightman Petrie was retained by the City of South Bend to perform an asbestos survey within the Ivy Tower/South Bend Warehousing facility as part of a potential renovation of such structures. The buildings are located at 600 United Drive and 635 S. Lafayette Blvd. in South Bend, Indiana.

The 600 United Drive facility consists of approximately 56,768 sq. ft. of former manufacturing space (former Studebaker Complex) that currently operates as a two-story warehouse.

The 635 S. Lafayette Blvd. facility consists of three (3) interconnected buildings, totaling approximately 763,700 sq. ft. While current uses of the building(s) are largely dedicated to warehousing space, some portions have been subdivided to support light manufacturing operations (i.e., Therm-o-Lite Windows). Building 84 of the complex consists of six (6) floors and a basement, with the footprint being identified as 810 ft. in length x 100 ft. in width. To the south of Building 84 are several sections collectively known as Building 113. Together, these buildings constitute a 2-story facility, having a base footprint of approximately 45,650 sq. ft., being used for a combination of manufacturing (Therm-o-Lite Windows) and warehousing (primarily recreational vehicles on the ground level and motors for international shipment of the second level). Buildings 113 and 84 are joined by a steel frame structure that primarily serves as a loading dock, having previously had rail access, and currently having a concrete base, truck level platform dock. The last section of the 635 Lafayette Blvd. complex is commonly identified as Building 112, and consists of a two-story addition to the western extent of Building 84. The facility, approximately 165 ft. in length x 75 ft. in width, serves as a connecting unit between the 635 S. Lafayette Blvd. warehousing complex and 600 United Drive (Prairie Avenue) facilities.

It is our understanding that the complex is being considered for future renovation as part of the overall re-development of the area south of Coveleski Stadium, an area historically associated with the former Studebaker Automotive Corporation.

Wightman Petrie conducted the asbestos survey in various stages throughout January and February 2012. The investigator for this project is Mr. Andrew Soens who holds an Asbestos Inspector license issued by the State of Indiana, Department of Environmental Management.

	CONLEY PHIFER	ANDREW SOENS
License No:	19A002353	19A004060
Profession:	Asbestos	Asbestos
License Type:	Asbestos Inspector	Asbestos Inspector
Obtained By Method:	Application	Application
Issue Date:	August 16, 2011	July 14, 2011
Expiration Date:	August 16, 2012	July 14, 2012
License Status:	Active	Active

2.0 FIELD PROCEDURES AND ANALYSIS METHODOLOGY

Guidelines used for the inspection were based upon those established by the Environmental Protection Agency (EPA) in the Guidance for Controlling Asbestos Containing Materials in Buildings, Office of Pesticides and Toxic Substances, DOC #560/5-85-024 and 40 CFR Part 763, Asbestos Hazard Emergency

Response Act (AHERA), and by 40 CFR, § 61.145 (National Emission Standard for Hazardous Air Pollutants, Asbestos, Standard for Demolition and Renovation).

Field information was organized as per the AHERA concept of Homogeneous Area (HA). An HA is defined as a suspect material of similar age, appearance, function and texture. Each material represents a specific HA, sampled and then assessed for condition. Bulk samples of suspect ACMs were analyzed by Polarized Light Microscopy (PLM) with dispersion staining, as described in 40 CFR Part 763 and the National Emissions Standard for Hazardous Air Pollutants (NESHAP), 40 CFR Part 61, Subpart M.

3.0 SCOPE OF WORK

The entire building including areas both interior and exterior were inspected for ACM. The inspection was characterized by a close visual inspection of all accessible areas.

Materials examined included:

1. Surfacing Materials (ceilings, interior and exterior walls and their backing materials, multiple roofing materials)
2. Insulating Materials
3. Miscellaneous Materials (for friability)

4.0 SUMMARY OF FILE SEARCH

No file search was conducted for this Asbestos Inspection.

5.0 INSPECTION RESULTS

The asbestos inspection involved a thorough visual examination of all areas, and subsequent sampling of suspect materials. ACM Engineering and Environmental Services, certified by the National Voluntary Laboratory Accreditation Program (NVLAP Lab Code 101977), performed analysis of bulk samples collected during the inspection using Polarized Light Microscopy (PLM) and the central stop dispersion testing method. The results are summarized on pages 3 through 6 of this report.

6.0 ASBESTOS QUANTITY SCHEDULE

Results of the survey and subsequent analysis of bulk samples by the laboratory indicate that Asbestos-Containing Material (ACM) is present in the structure to be renovated, and that asbestos is present in the identified materials in a quantity greater than 1%, the established Action Level by the State of Indiana. The materials have been identified as TSI pipe wrap, totaling approximately 18,000 linear feet throughout the facility, approximately 800 sq. ft. of TSI tank wrap, and approximately 2,000 sq. ft of floor tile and mastic in various offices throughout the 1st floor and mezzanine levels (WEDI, Inc. area). In addition, the asphalt roofing materials present at the subject site have also been assumed to be asbestos-containing.

It should be noted that the facilities were in operation at the time of the inspection. Therefore the possibility exists that additional areas that are considered inaccessible due to rack storage, or hidden behind partitions may exist, only to be identified at the time of abatement activity. We also note that there were several smaller rooms that were boarded and/or locked (no key available) to which Wightman Petrie could not assess the presence of asbestos-containing materials. However, given the limited size

and limited number of connecting pipes identified as going into or out of theses specific rooms, it is doubtful that any significant volume of asbestos-containing material is present. Such rooms will be required to be opened and inspected as part of any abatement action.

Some of the materials are considered to be non-friable, with the flooring in relatively good condition, and therefore classified as Category 1, Non-friable, Asbestos Containing Materials. As previously noted, existing roofing materials are also considered to be asbestos-containing, although classified as Category I, Non-friable. Category 1, Non-friable, asbestos-containing material is any asbestos-containing packing, gasket, resilient floor covering or asphalt roofing product which contains more than one percent (1%) asbestos as determined using polarized light microscopy (PLM) according to the method specified in Appendix A, Subpart F, 40 CFR Part 763. (Sec. 61.141). Category I Non-friable ACM must be inspected and tested for friability if it is in poor condition before demolition to determine whether or not it is subject to the Asbestos NESHAP.

A licensed abatement contractor is required to remove all friable asbestos- containing materials identified as Thermal System Insulation (TSI) located throughout the building. A licensed abatement contractor is not required to remove Category 1, Non-friable Materials such as floor tile and asphalt roofing materials that will not become friable during the demolition/renovation process.

Please note that any sanding, grinding or cutting of materials identified as a Category 1 material as part of the renovation/partial demolition activity could result in the emission of asbestos-containing fibers, in violation of the asbestos NESHAP criteria. If sanding, grinding or cutting of such asbestos containing materials is planned, then the identified materials must be removed prior to renovation activities.

7.0 AREAS NOT ACCESSIBLE

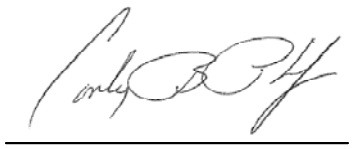
Wightman Petrie inspected and sampled materials which were observable and accessible to the survey team. Suspect ACMs that have not been sampled, tested and found negative for asbestos (if any) must be assumed ACM until, and unless, they are tested.

The term “suspect ACM” would include materials discovered in the course of demolition/renovation which only become visible during the work process. One example is Thermal System Insulation (TSI) which may be found on vertical duct runs through walls, hidden by existing rack storage, concealed by stacked materials, or in smaller rooms that were boarded or locked (no key available). These TSI materials may become visible only after the partitions are removed, warehoused materials are moved, or physical means are undertaken to provide access. If such materials are discovered, renovation should be halted immediately, and we should be contacted so that we may sample the suspect ACM in question.

Wightman Petrie did not sample the roofing materials so as not to void any existing warranties, or create any potential conduit for water infiltration through roof repair following sample collection. The roofing materials should be assumed positive as Category I Non-Friable Asbestos-Containing Material (ACM).

8.0 REPORT CERTIFICATION

Wightman Petrie certifies that the information contained herein is based on the physical and visual inspections conducted by Conley Phifer and Andrew Soens of Wightman Petrie, Inc. and data collected during the inspection survey.



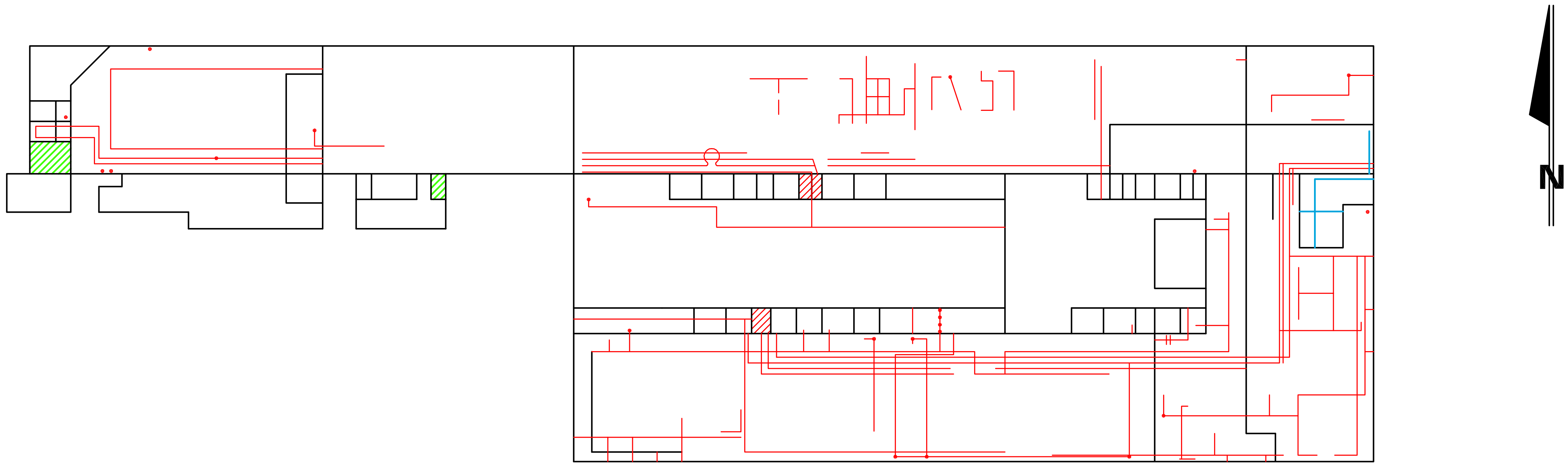
Conley B. Phifer III
Environmental Department Manager
Asbestos License 19A002353

Andrew J. Soens
Asbestos Inspector
Asbestos License 19A004060

LIST OF ATTACHMENTS:

A – Site Drawing, including Sample Locations
B – Analytical Datasheets/Chain of Custody
C – IDEM Form 44593

Figures



FLOOR 1 — ASBESTOS TSI LOCATIONS

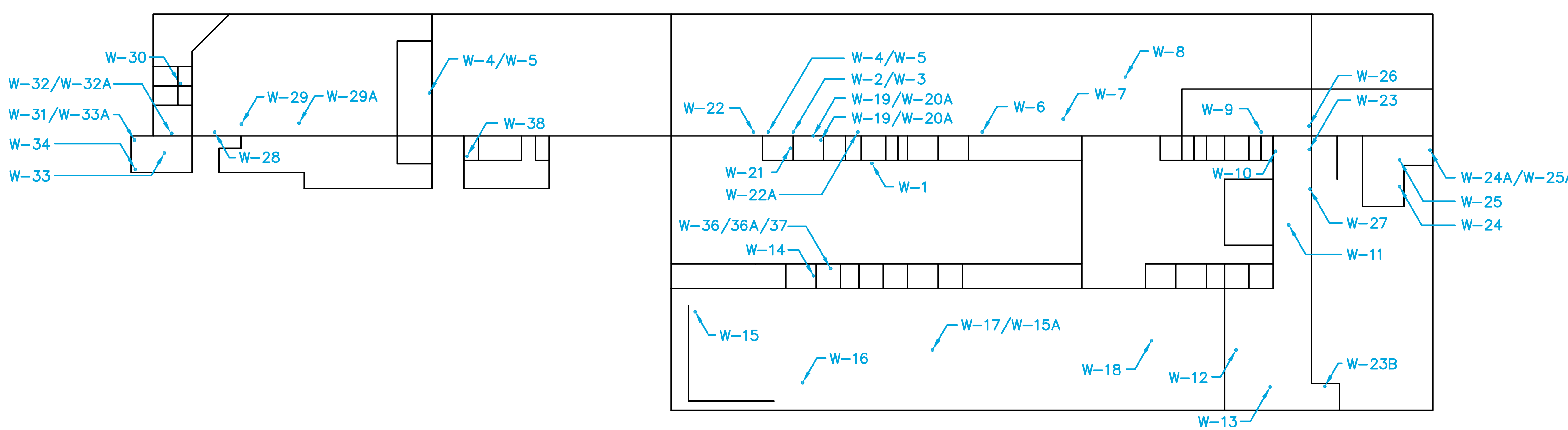
SCALE 1" = 100'

LEGEND

RED = POSITIVE ASBESTOS TSI WRAP

BLUE = POSITIVE TSI WRAP ON THE MEZZANINE LEVEL

GREEN = ASBESTOS CONTAINING GREEN 9X9 RESILIENT FLOOR TILE



FLOOR 1 — ASBESTOS SAMPLE LOCATIONS

SCALE 1" = 100'

REV.	DESCRIPTION	BY	DATE

WIGHTMAN PETRIE
architecture ◦ gis ◦ civil engineering ◦ landscape architecture
environmental ◦ planning ◦ renewable energy ◦ land surveying
4703 Chester Drive
Elkhart, IN 46516
p: 574.293.7762
f: 574.294.3717
412 South Lafayette Blvd
South Bend, IN 46601
p: 574.232.4388
f: 574.232.4333

IVY TOWER

CITY OF SOUTH BEND

SOUTH BEND, INDIANA

FLOOR 1 • POSITIVE LEAD BASED PAINT LOCATIONS

DESIGNED BY: -

REVIEWED BY:

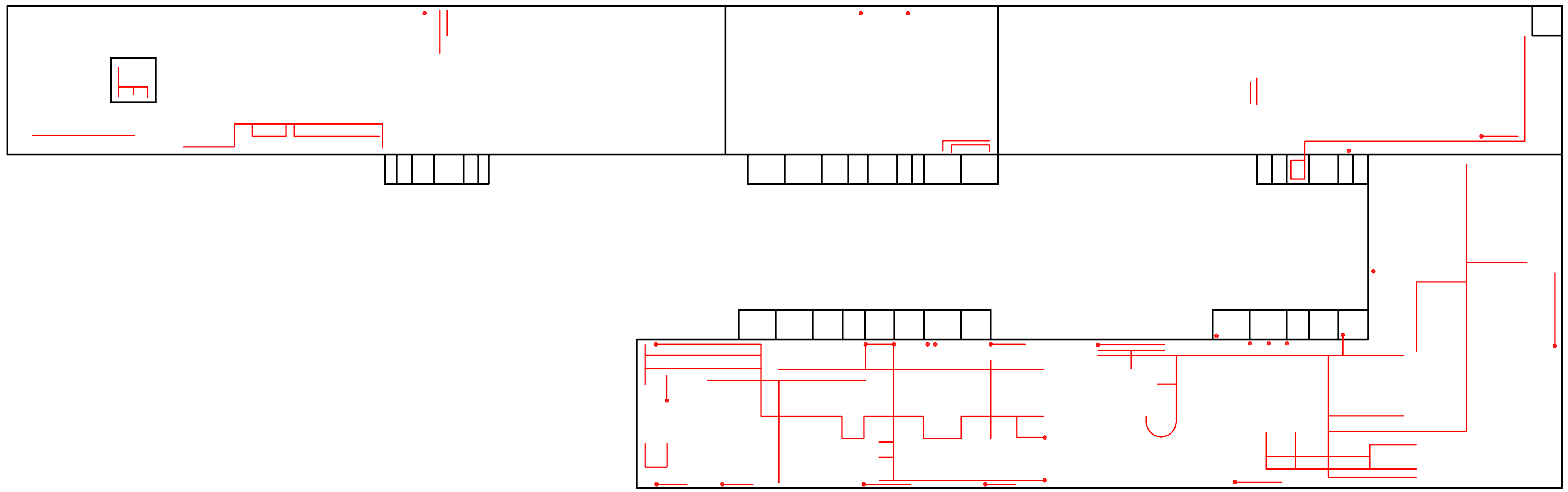
DRAWN BY: MMS

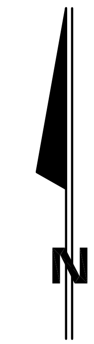
DATE: 02/17/12

JOB NUMBER: 2012-5001

SCALE: 1"=100'

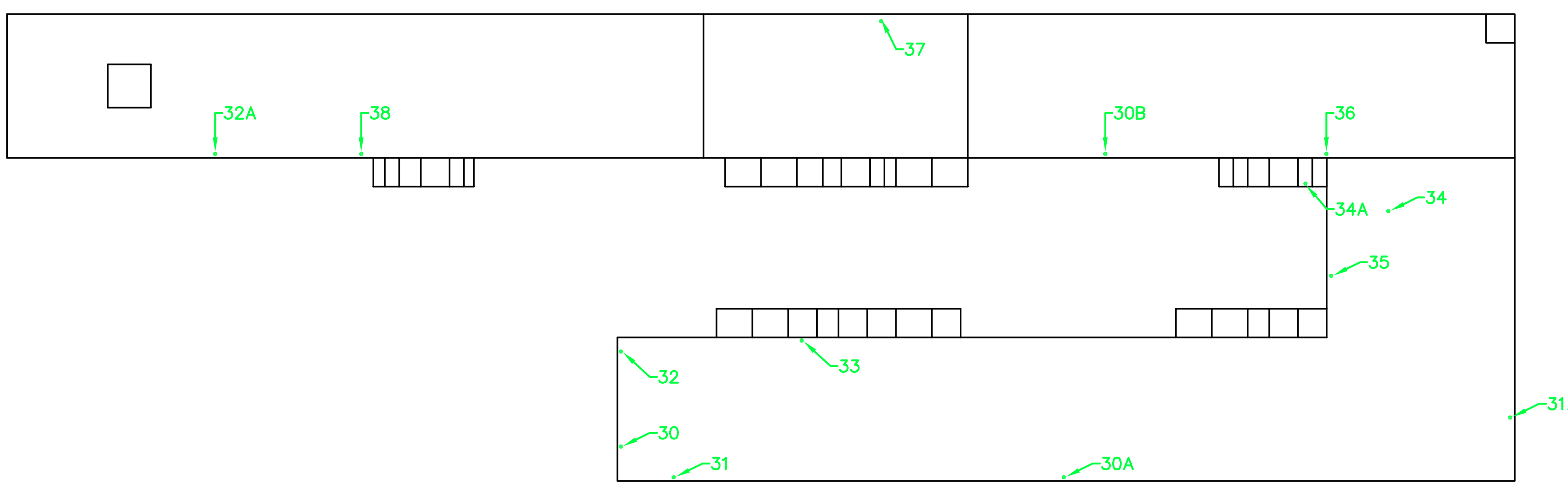
FIGURE 1





FLOOR 2 – ASBESTOS TSI LOCATIONS

NOT TO SCALE



FLOOR 2 – ASBESTOS SAMPLE LOCATIONS

NOT TO SCALE

REV.	DESCRIPTION	BY	DATE

4703 Chester Drive
Elkhart, IN 46516
p: 574.293.7762
f: 574.294.3717

412 South Lafayette Blvd
South Bend, IN 46601
p: 574.232.4388
f: 574.232.4333

WIGHTMAN PETRIE
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environmental ○ planning ○ renewable energy ○ land surveying

IVY TOWER

CITY OF SOUTH BEND

SOUTH BEND, INDIANA

FLOOR 2 ASBESTOS TSI & SAMPLE LOCATIONS

DESIGNED BY:

REVIEWED BY:

DRAWN BY: MMS

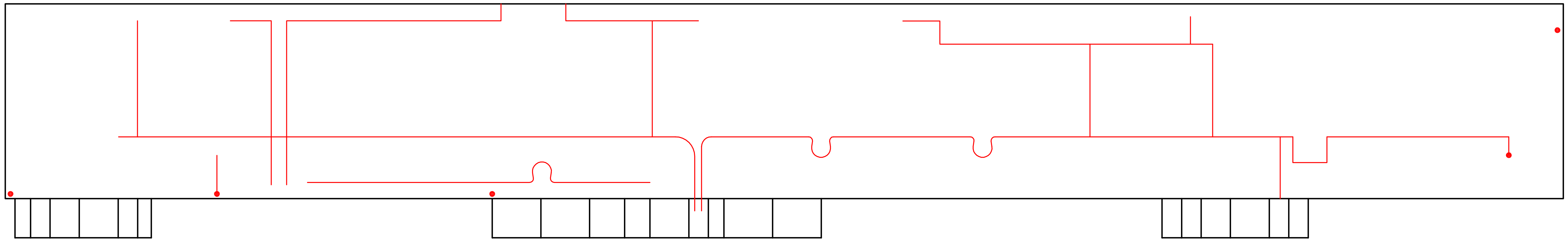
DATE: 02/17/12

JOB NUMBER: 2012-5001

SCALE: 1"=100'

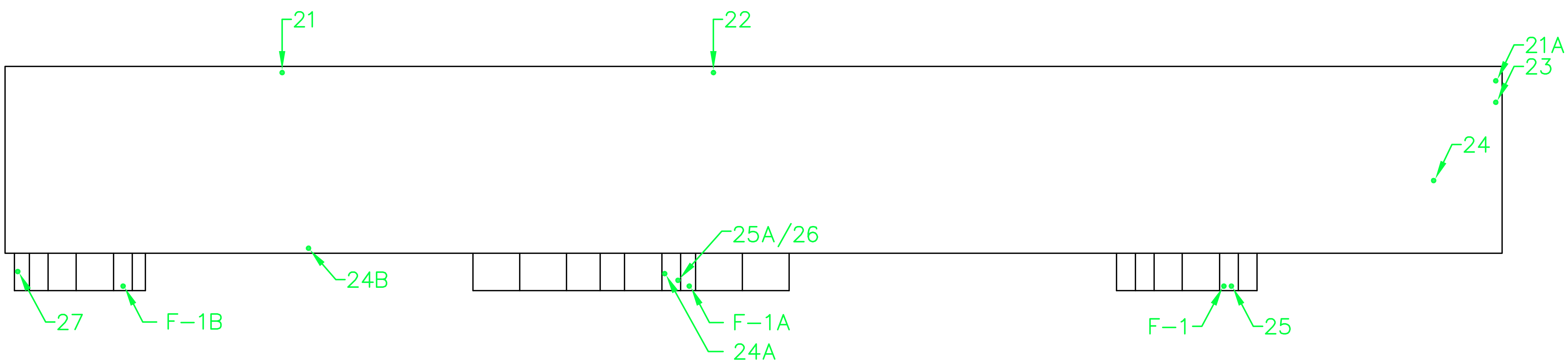
FIGURE 2

G:\2012_Projects\2012-5001\Floor-2.dwg, 3/2/2012 9:06:46 AM



FLOOR 3 – ASBESTOS TSI LOCATIONS

SCALE 1" = 60'



FLOOR 3 – ASBESTOS SAMPLE LOCATIONS

SCALE 1" = 60'

REV.	DESCRIPTION	BY	DATE

4703 Chester Drive
Elkhart, IN 46516
p: 574.293.7762
f: 574.294.3717

412 South Lafayette Blvd
South Bend, IN 46601
p: 574.232.4388
f: 574.232.4333

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environmental ○ planning ○ renewable energy ○ land surveying

IVY TOWER

CITY OF SOUTH BEND

SOUTH BEND, INDIANA

FLOOR 3 ASBESTOS TSI & SAMPLE LOCATIONS

DESIGNED BY:

REVIEWED BY:

DRAWN BY: MMS

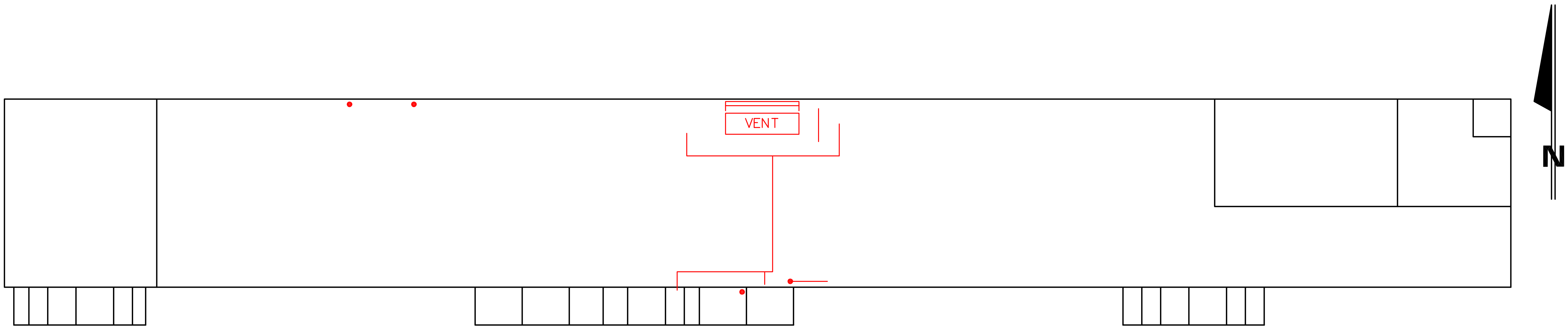
DATE: 02/17/12

JOB NUMBER: 2012-5001

SCALE: 1"=60'

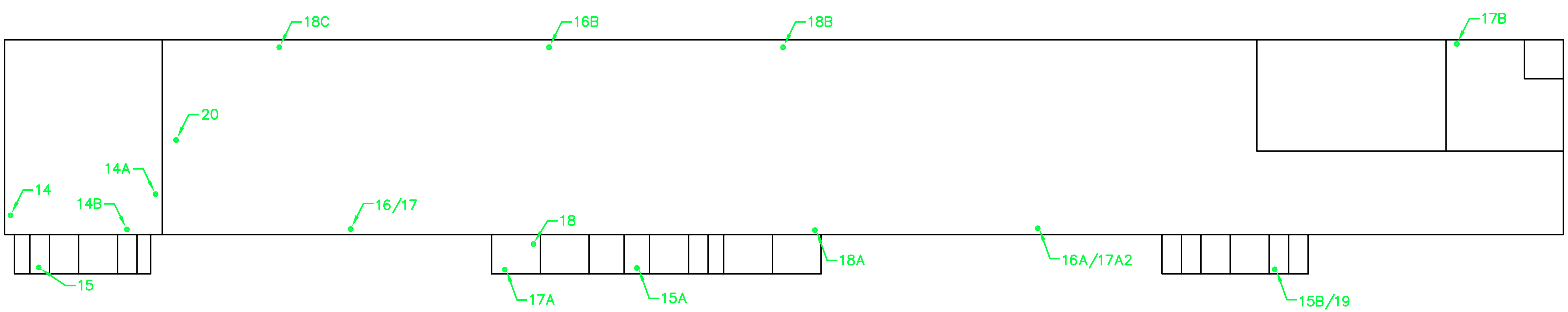
FIGURE 3

G:\2012_Projects\2012-5001\Floor-3.dwg, 3/2/2012 9:06:32 AM



FLOOR 4 – ASBESTOS TSI LOCATIONS

SCALE 1" = 60'



FLOOR 4 – ASBESTOS SAMPLE LOCATIONS

SCALE 1" = 60'

REV.	DESCRIPTION	BY	DATE

4703 Chester Drive
Elkhart, IN 46516
p: 574.293.7762
f: 574.294.3717

412 South Lafayette Blvd
South Bend, IN 46601
p: 574.232.4388
f: 574.232.4333

WIGHTMAN PETRIE
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environmental ○ planning ○ renewable energy ○ land surveying

IVY TOWER

CITY OF SOUTH BEND

SOUTH BEND, INDIANA

FLOOR 4 ASBESTOS TSI & SAMPLE LOCATIONS

DESIGNED BY: -

REVIEWED BY:

DRAWN BY: MMS

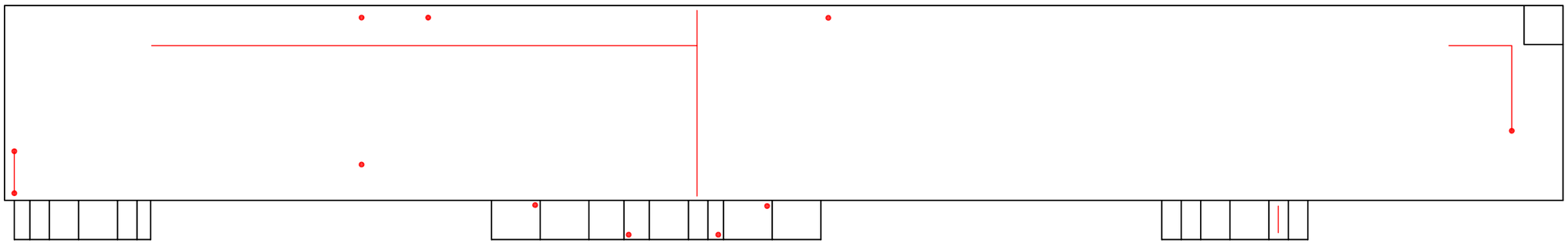
DATE: 02/17/12

JOB NUMBER: 2012-5001

SCALE: 1"=60'

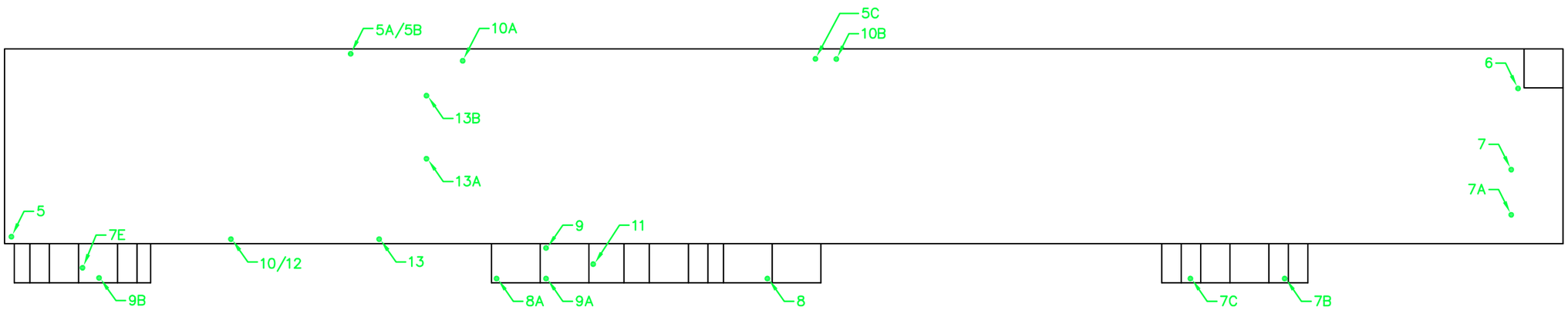
FIGURE 4

G:\2012_Projects\2012-5001\Floor-4.dwg, 3/2/2012 9:06:18 AM



FLOOR 5 – ASBESTOS TSI LOCATIONS

SCALE 1" = 60'



FLOOR 5 – ASBESTOS SAMPLE LOCATIONS

SCALE 1" = 60'

4703 Chester Drive
Elkhart, IN 46516
p: 574.293.7762
f: 574.294.3717

412 South Lafayette Blvd
South Bend, IN 46601
p: 574.232.4388
f: 574.232.4333

WIGHTMAN PETRIE
architecture ◦ gis ◦ civil engineering ◦ landscape architecture
environmental ◦ planning ◦ renewable energy ◦ land surveying

REV.	DESCRIPTION	BY	DATE

IVY TOWER

CITY OF SOUTH BEND

SOUTH BEND, INDIANA

FLOOR 5 ASBESTOS TSI & SAMPLE LOCATIONS

DESIGNED BY: .

REVIEWED BY:

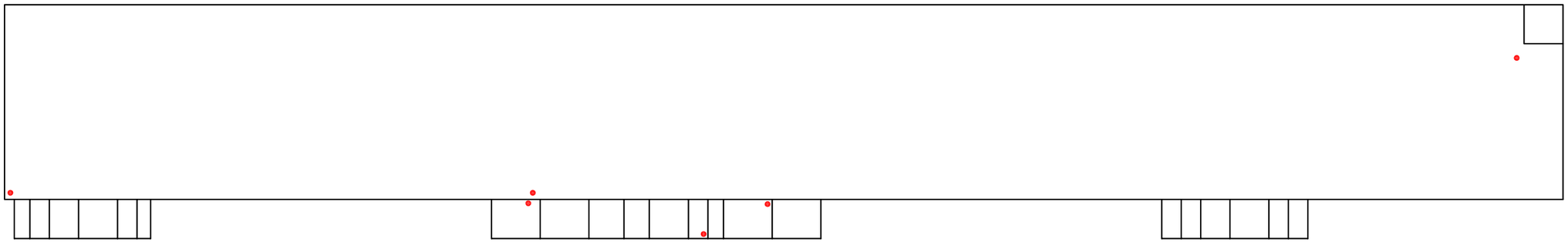
DRAWN BY: MMS

DATE: 02/17/12

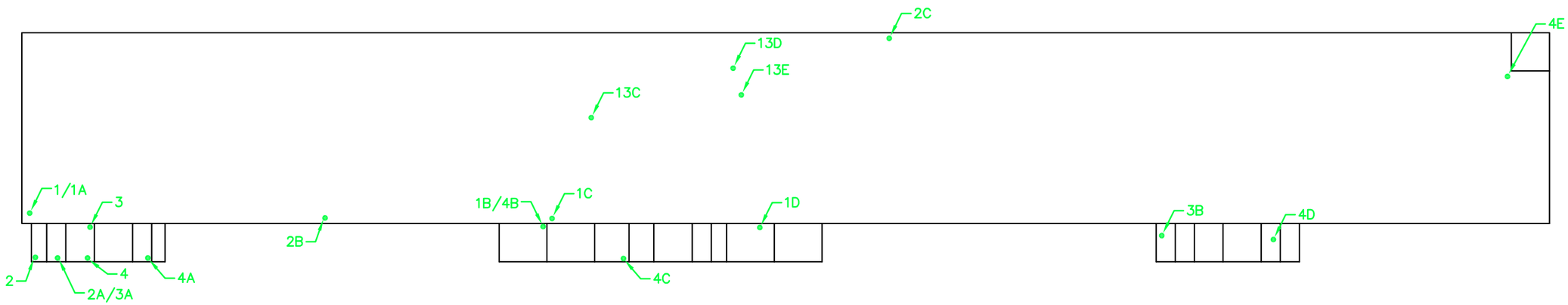
JOB NUMBER: 2012-5001

SCALE: 1"=60'

FIGURE 5



FLOOR 6 – ASBESTOS TSI LOCATIONS
SCALE 1" = 60'



FLOOR 6 – ASBESTOS SAMPLE LOCATIONS
SCALE 1" = 60'

4703 Chester Drive
Elkhart, IN 46516
p: 574.293.7762
f: 574.294.3717

412 South Lafayette Blvd
South Bend, IN 46601
p: 574.232.4388
f: 574.232.4333

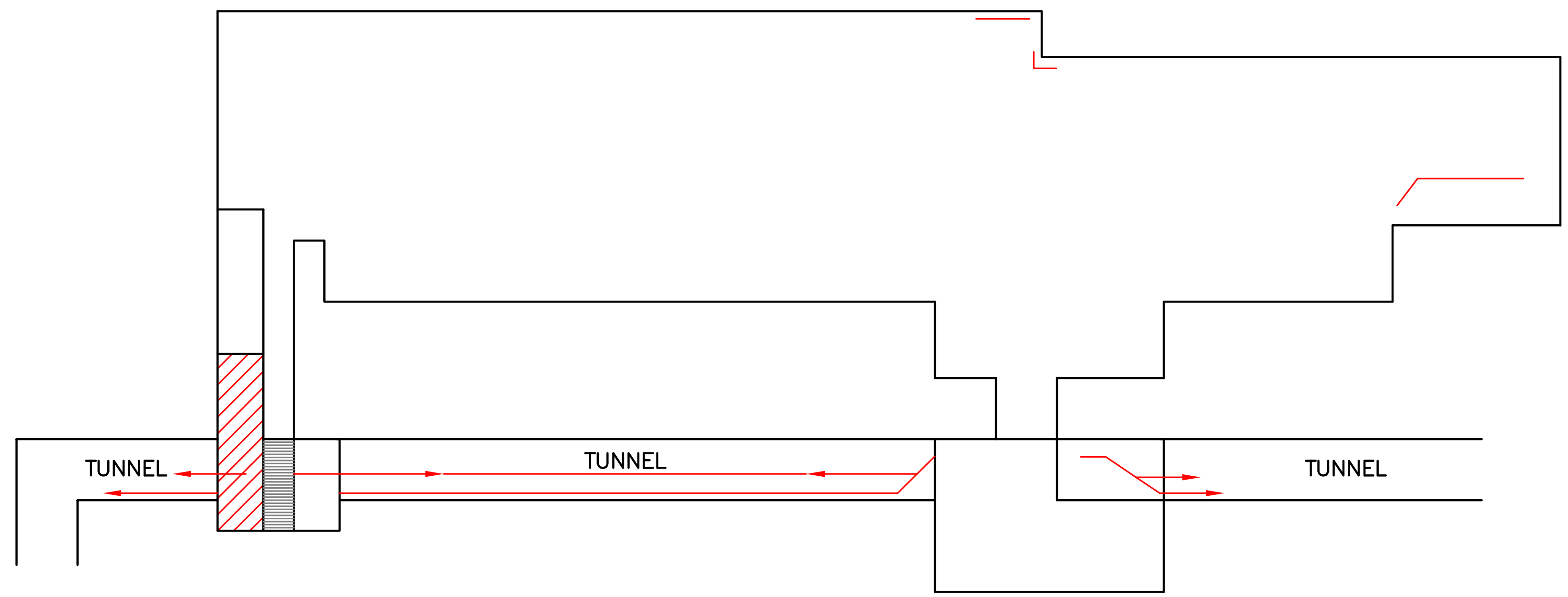
WIGHTMAN PETRIE
architecture ◦ gis ◦ civil engineering ◦ landscape architecture
environmental ◦ planning ◦ renewable energy ◦ land surveying

REV.	DESCRIPTION	BY	DATE

IVY TOWER
CITY OF SOUTH BEND
SOUTH BEND, INDIANA
FLOOR 6 ASBESTOS TSI & SAMPLE LOCATIONS

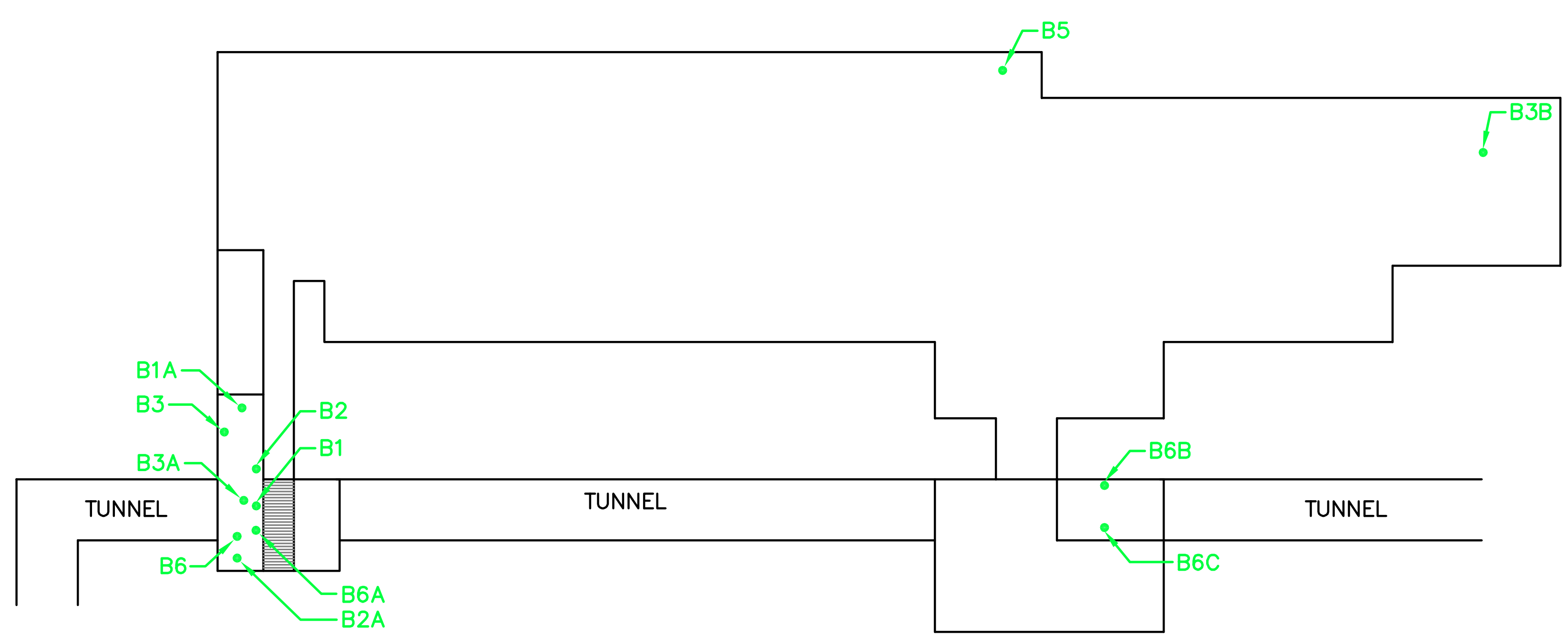
DESIGNED BY: .
REVIEWED BY:
DRAWN BY: MMS
DATE: 02/17/12
JOB NUMBER: 2012-5001
SCALE: 1"=60'

FIGURE 6



BASEMENT – ASBESTOS TSI LOCATIONS

SCALE 1" = 60'



BASEMENT – ASBESTOS SAMPLE LOCATIONS

SCALE 1" = 60'

REV.	DESCRIPTION	BY	DATE

412 S LAFAYETTE BLVD
SOUTH BEND, IN 46601
P: 574.232.4388
F: 574.232.4333

4703 CHESTER DRIVE
ELKHART, IN 46516
P: 574.293.7762
F: 574.294.3717

WIGHTMAN PETRIE

ARCHITECTURE GIS CIVIL ENGINEERING LANDSCAPE ARCHITECTURE
ENVIRONMENTAL PLANNING RENEWABLE ENERGY LAND SURVEYING

IVY TOWER

CITY OF SOUTH BEND

SOUTH BEND, INDIANA

BASEMENT - ASBESTOS TSI & SAMPLE LOCATIONS

DESIGNED BY: -

REVIEWED BY:

DRAWN BY: MMS

DATE: 02/17/12

JOB NUMBER: 2012-5001

SCALE: 1"=60'

FIGURE 7

G:\2012_Projects\2012-5001\Basement.dwg, 3/2/2012 9:05:04 AM

Analytical Data/Chain of Custody

ANALYSIS OF SUSPECT ASBESTOS CONTAINING BUILDING MATERIALS

FOR:

WIGHTMAN PETRIE
412 SOUTH LAFAYETTE
SOUTH BEND, IN 46601

LOCATION:

WAREHOUSE SITE

ACM ENGINEERING & ENVIRONMENTAL SERVICES
PROJECT#: 18410

DATE OF REPORT:

JANUARY 19, 2012

PREPARED BY:

ACM ENGINEERING & ENVIRONMENTAL SERVICES
26598 U.S. 20 WEST
SOUTH BEND, IN 46628

NVLAP LAB CODE: 101977

INTRODUCTION:
In January 2012, ACM Engineering & Environmental Services received bulk samples of suspect asbestos containing building material from American Electric Power. These are to be analyzed by ACM Engineering & Environmental Services for possible asbestos content.

THE REPORT:
The attached report quantifies the fibrous materials found in each sample submitted for analysis. A complete fibrous analysis of samples is given for each sample followed by a breakdown analysis of any sub-samples for heterogeneous material.

The first column is the client sample identification.

The second column is the laboratory sample number. The laboratory number for the overall sample analysis is a digit number. The laboratory number followed by a letter designation (A,B,C. etc.) indicates a sub-sample analysis.

The third column is the sample identification, which indicates whether the sample is homogeneous or heterogeneous, the color of the sample, and the physical description (cementitious, fibrous, cloth, etc.)

The fourth column indicates the types and percentages of asbestos identified in the sample or sub-sample.

The fifth column indicates the types and percentages of non-asbestos identified in the sample or sub-sample.

The sixth column indicates the types and percentages of non-asbestos, non-fibrous material in the sample or sub-sample.

The seventh column indicates the types and percentages of non-asbestos fibrous material in the sample or sub-sample. Fibrous material will not necessarily total 100% of the sample.

There will be dashes (----) in each column when nothing is detected.

METHOD:
All analyses and quantifications are performed in accordance with the U.S. Environmental Protection Agency's "Method for the Determination of Asbestos in Bulk Building Materials", EPA/600/R-93/116.

The method utilizes stereoscopical examination of the bulk samples, as well as utilizing the polarized light microscope and the central stop dispersion staining method.

If applicable, please be advised that the Stereo Scope/PLM methods have limitations regarding floor tile analysis for asbestos content. Historically, the production of floor tile has included the grinding of asbestos into submicroscopic portions. Therefore, this method of analysis may produce incorrect results for tests of floor tile which produce negative finding for asbestos.

Gross samples are examined under a 10X or 20X stereoscope where homogeneity (need for sub-samples), texture and /or any other distinguishing characteristics are determined.

Sub-samples are prepared if needed. Any fibrous material is mounted in high dispersion oil for further microscope examination utilizing polarized light microscopy. Any possible asbestos fibers are analyzed for morphology, color and pleochroism, index of refraction parallel and perpendicular to elongation, birefringence, extinction characteristic and sign of elongation, and any other distinguishing characteristics observed.

To determine the refractive index, the central stop dispersion staining method is used, as well as matching with refractive index oil and using light matching the sodium D line wavelength. Identification of non-asbestos species is less rigorous, as they are of secondary interest.

The percentage of asbestos and other fibrous materials are then determined according to sample area coverage and thickness. The limit of qualification is one percent (1%). The above is recorded on the laboratory analysis sheet and maintained for three years.

The error involved for reported percentages of fibrous is 100% error for 1% to 5%, 50% error for 5% to 20%, and 25% error for 20% to 100%. All percentages will be reported in a range indicating error or a single value, in which case the above error should be applied. When the value 1% or greater is reported this indicates asbestos is present in the sample.

ASBESTOS CHARACTERIZATION:
The features of the various forms of asbestos are as follows:

CHRYSOTILE: Thin fibers and fiber bundles with both straight and wavy sections. The ends of bundles tend to be frayed. Sign of elongation is positive, refractive indices are 1.493-1.560 (alpha) and 1.668-1.717 (gamma), and birefringence of 0.009-0.016. It is commonly referred to as white asbestos.

AMOSITE: Straight thin single fibers and bundles of such fibers usually with cleanly broken ends on individual fibers, positive sign of elongation, refractive indices of 1.653-1.696 (alpha) and 1.655-1.729 (gamma), and birefringence of 0.020-0.033. Fibers exhibit parallel extinction.

CROCIDOLITE: Similar in morphology to amosite, but is distinguished by negative sign of elongation, blue to blue-green pleochroic coloration, refractive indices of 1.654-1.701 (alpha) and 1.668-1.717 (gamma), and birefringence of 0.009-0.016. It is commonly referred to as blue asbestos.

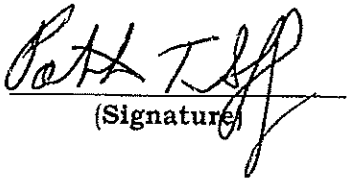
ANTHOPHYLITE: Similar in morphology to amosite, but has refractive indices of 1.596-1.652 (alpha) and 1.615-1.676 (gamma), anthophylite fibers show parallel extinction and positive sign of elongation.

TREMOLITE/ACTINOLITE SERIES:
Transparent, elongated furrowed prisms, usually with uneven, jagged ends and smooth sides, with oblique (0-20 degree) to parallel extinction and positive elongation; refractive indices are 1.599-1.668 (alpha) and 1.622-1.688 (gamma) and birefringence is 0.020-0.028.

SAMPLE RETENTION:
Samples will be retained for 6 months unless otherwise instructed. After this period, the sample(s) will be disposed of appropriately. Upon written request, the samples will be returned by mail or delivery for a nominal fee to cover postage and handling. There would be no charge for samples picked-up at ACM Engineering & Environmental Services.

DISCUSSION AND RECOMMENDATIONS:
In order to reduce the risk of introducing asbestos fibers into the air, care should be taken not to disturb the asbestos containing building materials. If renovation, demolition or other activities might disturb known asbestos containing building materials, a reputable asbestos consultant should be contacted to help effectively design and implement an asbestos management program.

Report prepared by: **Patrick T. Griffin**



(Signature)

ACM Engineering & Environmental Services
President/CEO

Analysis of Suspect Asbestos Containing Building Materials

CLIENT: WIGHTMAN PETRIE
412 SOUTH LAFAYETTE
SOUTH BEND, IN 46601

ANALYTICAL METHOD: EPA/600/R-93/116

NVLAP LAB CODE #: 101977

CLIENT PROJECT: WAREHOUSE

MATRIX: BULK

DATE OF SAMPLE: 1/16-17/12

DATE OF ANALYSIS: 01/18/12

SAMPLE SITE: 4TH-6TH FLOOR

ACM PROJECT #: 18410

CLIENT SAMPLE NUMBER	LAB SAMPLE NUMBER	SAMPLE IDENTIFICATION	ASBEST	CELL	NON FIB NON ACBM	FIB NON ACBM
1	1200655	TSI WITH CLOTH WRAP	43% A	-----	53%	4% CO
1A	1200656	TSI WITH CLOTH WRAP	44% A	-----	53%	3% CO
1B	1200657	TSI WITH CLOTH WRAP	67% C	-----	13%	17% CO
1C	1200658	TSI WITH CLOTH WRAP	68% C	-----	15%	17% CO
1D	1200659	TSI WITH CLOTH WRAP	72% C	-----	11%	17% CO
2	1200660	WINDOWS CAULK	-----	-----	100%	-----
2A	1200661	WINDOWS CAULK	-----	-----	100%	-----
2B	1200662	WINDOWS CAULK	-----	-----	100%	-----
2C	1200663	WINDOWS CAULK	-----	-----	100%	-----
3	1200664	WALL PLASTER	-----	-----	98%	2% H
3A	1200665	WALL PLASTER	-----	-----	98%	2% H
3B	1200666	WALL PLASTER	-----	-----	99%	1% H
4	1200667	TSI PAPER WRAP	-----	47%	39%	14% CO
4A	1200668	TSI PAPER WRAP	-----	46%	39%	15% CO
4B	1200669	TSI PAPER WRAP	-----	96%	4%	-----
4C	1200670	TSI PAPER WRAP	-----	42%	34%	24% CO
4D	1200671	TSI PAPER WRAP	-----	47%	37%	16% CO
4E	1200672	TSI PAPER WRAP	37% A 3% C	-----	58%	2% CO
5	1200673	TSI CLOTH COVER	39% A 4% C	-----	57%	-----

ACM RECOMMENDS POINT COUNTING ANALYSIS ON ALL BULK SAMPLES

WITH LESS THAN 10% (< 10%) ASBESTOS CONTENT

MICROSCOPIST: Larry Malave DATE: 1/20/12

Analysis of Suspect Asbestos Containing Building Materials

CLIENT: WIGHTMAN PETRIE
412 SOUTH LAFAYETTE
SOUTH BEND, IN 46601

ANALYTICAL METHOD: EPA/600/R-93/116

NVLAP LAB CODE #: 101977

CLIENT PROJECT: WAREHOUSE

MATRIX: BULK

DATE OF SAMPLE: 1/16-17/12

DATE OF ANALYSIS: 01/18/12

SAMPLE SITE: 4TH-6TH FLOOR

ACM PROJECT #: 18410

CLIENT SAMPLE NUMBER	LAB SAMPLE NUMBER	SAMPLE IDENTIFICATION	ASBEST	CELL	NON FIB NON ACBM	FIB NON ACBM
5A	1200674	TSI CLOTH COVER	63% C	-----	37%	-----
5B	1200675	TSI CLOTH COVER	57% C	-----	43%	-----
5C	1200676	TSI CLOTH COVER	62% A	-----	26%	12% CO
6	1200677	CARPET WRAP	-----	-----	13%	87% CO
7	1200678	BROWN TSI PAPER WRAP	-----	-----	11%	89% CO
7A	1200679	BROWN TSI PAPER WRAP	-----	94%	6%	-----
7B	1200680	BROWN TSI PAPER WRAP	-----	96%	4%	-----
7C	1200681	BROWN TSI PAPER WRAP	-----	72%	17%	11% CO
7D	1200682	BROWN TSI PAPER WRAP	-----	87%	5%	8% CO
7E	1200683	BROWN TSI PAPER WRAP	-----	77%	7%	16% CO
8	1200684	WHITE TSI PAPER WRAP	41% C	42%	-----	17% CO
8A	1200685	WHITE TSI PAPER WRAP	42% C	40%	-----	18% CO
9	1200686	WALL PLASTER	-----	-----	98%	2% H
9A	1200687	WALL PLASTER	-----	-----	99%	1% H
9B	1200688	WALL PLASTER	3% C	-----	95%	2% H
10	1200689	WINDOW CAULK	-----	-----	100%	-----
10A	1200690	WINDOW CAULK	-----	-----	100%	-----
10B	1200691	WINDOW CAULK	-----	-----	100%	-----
11	1200692	ORANGE FABRIC WRAP	-----	100%	-----	-----
12	1200693	ORANGE FOAM CAULK	-----	-----	100%	-----
13	1200694	SUB FLOOR PAPER	-----	87%	13%	-----

ACM RECOMMENDS POINT COUNTING ANALYSIS ON ALL BULK SAMPLES

WITH LESS THAN 10% (< 10%) ASBESTOS CONTENT

MICROSCOPIST: Tami Malas DATE: 1/20/12

Analysis of Suspect Asbestos Containing Building Materials

CLIENT: WIGHTMAN PETRIE
412 SOUTH LAFAYETTE
SOUTH BEND, IN 46601

ANALYTICAL METHOD: EPA/600/R-93/116

NVLAP LAB CODE #: 101977

CLIENT PROJECT: WAREHOUSE

MATRIX: BULK

DATE OF SAMPLE: 1/16-17/12

DATE OF ANALYSIS: 01/18/12

SAMPLE SITE: 4TH-6TH FLOOR

ACM PROJECT #: 18410

CLIENT SAMPLE NUMBER	LAB SAMPLE NUMBER	SAMPLE IDENTIFICATION	ASBEST	CELL	NON FIB NON ACBM	FIB NON ACBM
13A	1200695	SUB FLOOR PAPER	-----	89%	11%	-----
13B	1200696	SUB FLOOR PAPER	-----	88%	12%	-----
13C	1200697	SUB FLOOR PAPER	-----	87%	13%	-----
13D	1200698	SUB FLOOR PAPER	-----	87%	13%	-----
13E	1200699	SUB FLOOR PAPER	-----	88%	12%	-----
14	1200700	DRYWALL	-----	8%	92%	-----
14A	1200701	DRYWALL	-----	6%	94%	-----
14B	1200702	DRYWALL	-----	4%	96%	-----
15	1200703	BROWN TSI PAPER	-----	59%	27%	14% CO
15A	1200704	BROWN TSI PAPER	-----	57%	28%	15% CO
15B	1200705	BROWN TSI PAPER	-----	78%	10%	12% CO
16	1200706	ORANGE FOAM CAULK	-----	-----	100%	-----
16A	1200707	ORANGE FOAM CAULK	-----	-----	100%	-----
16B	1200708	ORANGE FOAM CAULK	-----	-----	100%	-----
17	1200709	WALL CAULK	-----	-----	100%	-----
17A	1200710	WALL CAULK	-----	-----	100%	-----
17A2	1200711	WALL CAULK	-----	-----	100%	-----
17B	1200712	WALL CAULK	-----	-----	100%	-----
18	1200713	TSI WITH CLOTH COVER	70% C	-----	9%	21% CO
18A	1200714	TSI WITH CLOTH COVER	68% A	-----	18%	14% CO

ACM RECOMMENDS POINT COUNTING ANALYSIS ON ALL BULK SAMPLES

WITH LESS THAN 10% (< 10%) ASBESTOS CONTENT

MICROSCOPIST: Tony Malave DATE: 1/20/12

ACM ENGINEERING & ENVIRONMENTAL SERVICES 26598 US 20 WEST, SOUTH BEND, INDIANA 46628
TELEPHONE (574) 234-8435 FAX (574) 234-6800

Analysis of Suspect Asbestos Containing Building Materials

CLIENT: WIGHTMAN PETRIE
412 SOUTH LAFAYETTE
SOUTH BEND, IN 46601

ANALYTICAL METHOD: EPA/600/R-93/116

NVLAP LAB CODE #: 101977

CLIENT PROJECT: WAREHOUSE

MATRIX: BULK

DATE OF SAMPLE: 1/16-17/12

DATE OF ANALYSIS: 01/18/12

SAMPLE SITE: 4TH-6TH FLOOR

ACM PROJECT #: 18410

CLIENT SAMPLE NUMBER	LAB SAMPLE NUMBER	SAMPLE IDENTIFICATION	ASBEST	CELL	NON FIB NON ACBM	FIB NON ACBM
18B	1200715	TSI WITH CLOTH COVER	43% A 4% C	-----	50%	3% CO
18C	1200716	TSI WITH CLOTH COVER	46% A 12% C	-----	42%	-----
19	1200717	PLASTER	-----	-----	97%	1% H
20	1200718	SUB FLOOR PAPER	-----	89%	11%	-----

ACM RECOMMENDS POINT COUNTING ANALYSIS ON ALL BULK SAMPLES
WITH LESS THAN 10% (< 10%) ASBESTOS CONTENT

MICROSCOPIST: Tammy Malave DATE: 1/20/12

Analysis of Suspect Asbestos Containing Building Materials

CLIENT: WIGHTMAN PETRIE
412 SOUTH LAFAYETTE
SOUTH BEND, IN 46601

ANALYTICAL METHOD: EPA/600/R-93/116

NVLAP LAB CODE #: 101977

CLIENT PROJECT: WAREHOUSE

MATRIX: BULK

DATE OF SAMPLE: 1/16-17/12

DATE OF ANALYSIS: 01/18/12

SAMPLE SITE: 4TH-6TH FLOOR

ACM PROJECT #: 18410

CLIENT SAMPLE NUMBER	LAB SAMPLE NUMBER	SAMPLE IDENTIFICATION	ASBEST	CELL	NON FIB NON ACBM	FIB NON ACBM
1	1200655	TSI WITH CLOTH WRAP	43% A	-----	53%	4% CO
1A	1200656	TSI WITH CLOTH WRAP	44% A	-----	53%	3% CO
1B	1200657	TSI WITH CLOTH WRAP	67% C	-----	13%	17% CO
1C	1200658	TSI WITH CLOTH WRAP	68% C	-----	15%	17% CO
1D	1200659	TSI WITH CLOTH WRAP	72% C	-----	11%	17% CO
2	1200660	WINDOWS CAULK	-----	-----	100%	-----
2A	1200661	WINDOWS CAULK	-----	-----	100%	-----
2B	1200662	WINDOWS CAULK	-----	-----	100%	-----
2C	1200663	WINDOWS CAULK	-----	-----	100%	-----
3	1200664	WALL PLASTER	-----	-----	98%	2% H
3A	1200665	WALL PLASTER	-----	-----	98%	2% H
3B	1200666	WALL PLASTER	-----	-----	99%	1% H
4	1200667	TSI PAPER WRAP	-----	47%	39%	14% CO
4A	1200668	TSI PAPER WRAP	-----	46%	39%	15% CO
4B	1200669	TSI PAPER WRAP	-----	96%	4%	-----
4C	1200670	TSI PAPER WRAP	-----	42%	34%	24% CO
4D	1200671	TSI PAPER WRAP	-----	47%	37%	16% CO
4E	1200672	TSI PAPER WRAP	37% A 3% C	-----	58%	2% CO
5	1200673	TSI CLOTH COVER	39% A 4% C	-----	57%	-----

ACM RECOMMENDS POINT COUNTING ANALYSIS ON ALL BULK SAMPLES

WITH LESS THAN 10% (< 10%) ASBESTOS CONTENT

MICROSCOPIST: Tamy Malan DATE: 1/20/12

Analysis of Suspect Asbestos Containing Building Materials

CLIENT: WIGHTMAN PETRIE
412 SOUTH LAFAYETTE
SOUTH BEND, IN 46601

ANALYTICAL METHOD: EPA/600/R-93/116

NVLAP LAB CODE #: 101977

CLIENT PROJECT: WAREHOUSE

MATRIX: BULK

DATE OF SAMPLE: 1/16-17/12

DATE OF ANALYSIS: 01/18/12

SAMPLE SITE: 4TH-6TH FLOOR

ACM PROJECT #: 18410

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6	1200677	CARPET WRAP	-----	-----	13%	87% CO
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7A	1200679	BROWN TSI PAPER WRAP	-----	94%	6%	-----
7B	1200680	BROWN TSI PAPER WRAP	-----	96%	4%	-----
7C	1200681	BROWN TSI PAPER WRAP	-----	72%	17%	11% CO
7D	1200682	BROWN TSI PAPER WRAP	-----	87%	5%	8% CO
7E	1200683	BROWN TSI PAPER WRAP	-----	77%	7%	16% CO
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8A	1200685	WHITE TSI PAPER WRAP	42% C	40%	-----	18% CO
9	1200686	WALL PLASTER	-----	-----	98%	2% H
9A	1200687	WALL PLASTER	-----	-----	99%	1% H
9B	1200688	WALL PLASTER	3% C	-----	95%	2% H
10	1200689	WINDOW CAULK	-----	-----	100%	-----
10A	1200690	WINDOW CAULK	-----	-----	100%	-----
10B	1200691	WINDOW CAULK	-----	-----	100%	-----
11	1200692	ORANGE FABRIC WRAP	-----	100%	-----	-----
12	1200693	ORANGE FOAM CAULK	-----	-----	100%	-----
13	1200694	SUB FLOOR PAPER	-----	87%	13%	-----

ACM RECOMMENDS POINT COUNTING ANALYSIS ON ALL BULK SAMPLES

WITH LESS THAN 10% (< 10%) ASBESTOS CONTENT

MICROSCOPIST: Larry Malone DATE: 1/20/12

Analysis of Suspect Asbestos Containing Building Materials

CLIENT: WIGHTMAN PETRIE
412 SOUTH LAFAYETTE
SOUTH BEND, IN 46601

ANALYTICAL METHOD: EPA/600/R-93/116

NVLAP LAB CODE #: 101977

CLIENT PROJECT: WAREHOUSE

MATRIX: BULK

DATE OF SAMPLE: 1/16-17/12

DATE OF ANALYSIS: 01/18/12

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ACM PROJECT #: 18410

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13D	1200698	SUB FLOOR PAPER	-----	87%	13%	-----
13E	1200699	SUB FLOOR PAPER	-----	88%	12%	-----
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14A	1200701	DRYWALL	-----	6%	94%	-----
14B	1200702	DRYWALL	-----	4%	96%	-----
15	1200703	BROWN TSI PAPER	-----	59%	27%	14% CO
15A	1200704	BROWN TSI PAPER	-----	57%	28%	15% CO
15B	1200705	BROWN TSI PAPER	-----	78%	10%	12% CO
16	1200706	ORANGE FOAM CAULK	-----	-----	100%	-----
16A	1200707	ORANGE FOAM CAULK	-----	-----	100%	-----
16B	1200708	ORANGE FOAM CAULK	-----	-----	100%	-----
17	1200709	WALL CAULK	-----	-----	100%	-----
17A	1200710	WALL CAULK	-----	-----	100%	-----
17A2	1200711	WALL CAULK	-----	-----	100%	-----
17B	1200712	WALL CAULK	-----	-----	100%	-----
18	1200713	TSI WITH CLOTH COVER	70% C	-----	9%	21% CO
18A	1200714	TSI WITH CLOTH COVER	68% A	-----	18%	14% CO

ACM RECOMMENDS POINT COUNTING ANALYSIS ON ALL BULK SAMPLES

WITH LESS THAN 10% (< 10%) ASBESTOS CONTENT

MICROSCOPIST: Tamy Malone DATE: 1/20/12

Analysis of Suspect Asbestos Containing Building Materials

CLIENT: WIGHTMAN PETRIE
412 SOUTH LAFAYETTE
SOUTH BEND, IN 46601

ANALYTICAL METHOD: EPA/600/R-93/116

NVLAP LAB CODE #: 101977

CLIENT PROJECT: WAREHOUSE

MATRIX: BULK

DATE OF SAMPLE: 1/16-17/12

DATE OF ANALYSIS: 01/18/12

SAMPLE SITE: 4TH-6TH FLOOR

ACM PROJECT #: 18410

CLIENT SAMPLE NUMBER	LAB SAMPLE NUMBER	SAMPLE IDENTIFICATION	ASBEST	CELL	NON FIB NON ACBM	FIB NON ACBM
18B	1200715	TSI WITH CLOTH COVER	43% A 4% C	-----	50%	3% CO
18C	1200716	TSI WITH CLOTH COVER	46% A 12% C	-----	42%	-----
19	1200717	PLASTER	-----	-----	97%	1% H
20	1200718	SUB FLOOR PAPER	-----	89%	11%	-----

ACM RECOMMENDS POINT COUNTING ANALYSIS ON ALL BULK SAMPLES
WITH LESS THAN 10% (< 10%) ASBESTOS CONTENT

MICROSCOPIST: Tammy Malone DATE: 1/20/12

Analysis of Suspect Asbestos Containing Materials

ACM ENGINEERING & ENVIRONMENTAL SERVICES PROJECT NO.: 18410

DESCRIPTION OF ANY PROBLEMS ENCOUNTERED IN THE SAMPLE ANALYSIS: None

COMPONENTS DESCRIPTION:

ASBESTOS MATERIALS

ACBM = ASBESTOS CONTAINING BUILDING MATERIAL
C = CHRYSOTILE
A = AMOSITE
CR = CROCIDOLITE
AN = ANTHOPHYLITE
AC = ACTINOLITE
T = TREMOLITE
---- = NO ASBESTOS DETECTED

NON-ASBESTOS MATERIALS

CELL = CELLULOSE
G = FIBROUS GLASS
M = MINERAL WOOL
S = SYNTHETICS
H = HAIR
CO = COTTON
O = OTHER
CF = CERAMIC FIBERS
V = VERMICULITE
N = NYLON
NON-FIB NON-ACM = NON FIBROUS NON ACBM
FIB NON ACM = FIBROUS NON ACBM

NOTES: FIBROUS QUANTITIES DO NOT NECESSARILY ADD UP TO 100%, REMAINING QUANTITIES ARE COMPOSED OF NON-FIBROUS ROCKS, BINDERS AND MISC. MATERIALS.

THIS REPORT MUST NOT BE USED BY THE CLIENT TO CLAIM PRODUCT ENDORSEMENT BY NVLAP OR ANY AGENCY OF THE U.S. GOVERNMENT.

THIS REPORT RELATES ONLY TO THE ITEMS ABOVE.

ACM ENGINEERING & ENVIRONMENTAL SERVICES DOES NOT DEVIATE FROM THE TEST METHOD DESCRIBED IN THIS REPORT.

ACM Engineering & Environmental Services, Inc.

26598 US 20 West
South Bend, Indiana 46628
Phone (574) 234-8435
Fax (574) 234-6800

ACM Project#: 18410

Suspect Asbestos Containing Building Material
Sampling - Chain-of-Custody - Analysis Request Form

AIHA Environmental Microbiology ACCREDITED LABORATORY
NVLAP

Client: Wightman Petrie
Billing Address: 412 S Lafayette
Billing City, State, Zip: S. Bend, IN 46601
Report Results To: CBP + AJS
Sampling Date: 1/16/12 Sampled By: AJS

Site Location: Warehouse Site - 6th Floor
Address:
Type of Project:
Requested Turn Around Time:
Reference Number:

Sample Identification	Sample Type (Bulk, Wipe, Other)	Sample Description	Sample Location	Requested Analysis; Instructions / Comments
1	Bulk	TSI w/ cloth wrap	6th Floor - SW corner	PLM
1A		"	" SW corner	
1B		"	South addition	
1C		"	South wall	
1D		"	South addition	
2		Window Caulk	SW corner	
2A		"	SW corner	
2B		"	South wall	
2C		"	NE corner	
3		Wall Plaster	SW corner	
3A		"	SW corner	
3B		"	SE addition	

Submitted by: (sign) _____ (print) Andy Soens Date Submitted: 1/17/12
Received by: (sign) _____ (print) PT. GRIFFIN Date and time received: 1/17/12 24
(For lab use only) Samples processed by: _____ Date: 1/18/12 Time: From _____ am/pm to 1524 am/pm

ACM Engineering & Environmental Services, Inc.
26598 US 20 West
South Bend, Indiana 46628
Phone (574) 234-8435
Fax (574) 234-6800

ACM Project # 18410

Suspect Asbestos Containing Building Material
Sampling - Chain-of-Custody - Analysis Request Form

AIHA Environmental Microbiology ACCREDITED LABORATORY
NVLAP

Client: Wightman Petrie
Billing Address: 112 S Lafayette
Billing City, State, Zip: S. Bend IN 46601
Report Results To: CBP & AJS
Sampling Date: 1/16/12 Sampled By: AJS

Site Location: Warehouse Site - 6th Floor
Address:
Type of Project:
Requested Turn Around Time:
Reference Number:

Sample Identification	Sample Type (Bulk, Wipe, Other)	Sample Description	Sample Location	Requested Analysis; Instructions / Comments
4	Bulk	TSI Paper wrap	SW corner	PLM
4A		"	SW addition	
4B		"	South addition	
4C		"	South addition	
4D		"	Southeast addition	
4E		"	NE corner	
13C		Sub wood paper flooring	North Central Area	PLM
13D		"	Central Area	PLM
13E		"	Central Area	PLM

Put in dept P.T.G

Submitted by: (sign) _____ (print) Andy Soens Date Submitted: 1/17/12
Received by: (sign) _____ (print) P.T. GRIFFIN Date and time received: 1/17/12 24
(For lab use only) Samples processed by: _____ Date: 1/18/12 Time: From _____ am/pm to 1524 am/pm

ACM Engineering & Environmental Services, Inc.
26598 US 20 West
South Bend, Indiana 46628
Phone (574) 234-8435
Fax (574) 234-6800

ACM Project # 18410 3

Suspect Asbestos Containing Building Material
Sampling - Chain-of-Custody - Analysis Request Form

AIHA Environmental Microbiology ACCREDITED LABORATORY
NVLAP

Client: Wightman Petrie
Billing Address: 412 S Lafayette
Billing City, State, Zip: S. Bend, IN 46601
Report Results To: CBP & AJS
Sampling Date: 1/17/12 Sampled By: AJS

Site Location: Warehouse Site - 5th Floor
Address:
Type of Project:
Requested Turn Around Time:
Reference Number:

Sample Identification	Sample Type (Bulk, Wipe, Other)	Sample Description	Sample Location	Requested Analysis; Instructions / Comments
5	Bulk	TSI w/ cloth cover	SW Corner	PLM
5A	↓	"	North Wall	↓
5B		"	North Wall	
6		Carpet Wrap	NE Corner	
7		Brown TSI Paper Wrap	East Area	
7A		"	SE Corner	
7B		"	SE addition	
7C		"	SE addition	
7D		"	South Central Addition	
8		White TSI Paper Wrap	South Central Addition	
8A		"	South Central Addition	
9		Wall Plaster	South Central Addition	

Submitted by: (sign) [signature] (print) Andy Soens Date Submitted: 1/17/12
Received by: (sign) Patt T[signature] (print) P. T. GRIFFIN Date and time received:
(For lab use only) Samples processed by: [signature] Date: 1/18/12 Time: From ______ am/pm to 1524 am/pm

ACM Engineering & Environmental Services, Inc.
26598 US 20 West
South Bend, Indiana 46628
Phone (574) 234-8435
Fax (574) 234-6800

ACM Project # 18410

4

Suspect Asbestos Containing Building Material
Sampling - Chain-of-Custody - Analysis Request Form

AIHA Environmental Microbiology ACCREDITED LABORATORY

NVLAP

Client: Wightman Petrie
Billing Address: 412 S Lafayette
Billing City, State, Zip: S. Bend, IN 46601
Report Results To: CBP & AJS
Sampling Date: 1/17/12 Sampled By: AJS

Site Location: Warehouse Site - 5th Floor
Address:
Type of Project:
Requested Turn Around Time:
Reference Number:

Sample Identification	Sample Type (Bulk, Wipe, Other)	Sample Description	Sample Location	Requested Analysis; Instructions / Comments
9A	Bulk	Wall Plaster	South Central Addition	PLM
9B		↓ "	SW Addition	
10		Window Caulk	South Wall	
10A		↓ "	North Wall	
10B		↓ "	North Wall	
11		Orange Fabric Wrap	South Central Addition	
12		Orange Foam Caulk	South Wall	
13		Sub-Wood Floor Paper	South Wall	
13A		"	Central Area	
13B	↓	↓ "	North-Central Area	↓
13C 13D 13E				

Submitted by: (sign) _____ (print) Andy Soens Date Submitted: 1/17/12
Received by: (sign) _____ (print) R.T. GRIFFIN Date and time received:
(For lab use only) Samples processed by: _____ Date: 1/18/12 Time: From _____ am/pm to 1524 am/pm

ACM Engineering & Environmental Services, Inc.

26598 US 20 West
South Bend, Indiana 46628
Phone (574) 234-8435
Fax (574) 234-6800

ACM Project # 18410

5

Suspect Asbestos Containing Building Material
Sampling - Chain-of-Custody - Analysis Request Form

AIHA Environmental Microbiology ACCREDITED LABORATORY
NVLAP

Client: Wightman Petrie
Billing Address: 412 S Lafayette
Billing City, State, Zip: S Bend IN 46601
Report Results To: CBP & AJS
Sampling Date: 1/17/12 Sampled By: AJS

Site Location: Warehouse Side - Floor 4
Address:
Type of Project:
Requested Turn Around Time:
Reference Number:

Sample Identification	Sample Type (Bulk, Wipe, Other)	Sample Description	Sample Location	Requested Analysis; Instructions / Comments
14	Bulk	Drywall	West room - West wall	PLM
14A	"	"	West room - East wall	
14B	"	"	West room - South wall	
15		Brown TSI Paper	SW addition	
15A		"	South Central Addition	
15B		"	East addition	
16		Orange foam caulk	South wall - west	
16A		"	South wall - east	
16B		"	North wall	
17		Wall Caulk	Southwall - west	
17A1		"	South wall - east	
17A2		"	South wall - east	

Submitted by: (sign) _____ (print) Andy Soens Date Submitted: 1/17/12
Received by: (sign) _____ (print) GREG GRIFFIN Date and time received: 1/17/12
(For lab use only) Samples processed by: _____ Date: 1/18/12 Time: From _____ am/pm to 1524 am/pm

ACM Engineering & Environmental Services, Inc.
26598 US 20 West
South Bend, Indiana 46628
Phone (574) 234-8435
Fax (574) 234-6800

ACM Project # 18410

6

Suspect Asbestos Containing Building Material
Sampling - Chain-of-Custody - Analysis Request Form

AIHA Environmental Microbiology ACCREDITED LABORATORY

NVLAP

Client: Wightman Petrie
Billing Address: 412 S Lafayette
Billing City, State, Zip: S. Bend, IN 46601
Report Results To: CBP & AJS
Sampling Date: 1/17/12 Sampled By: AJS

Site Location: Warehouse Side - Floor 4
Address:
Type of Project:
Requested Turn Around Time:
Reference Number:

Sample Identification	Sample Type (Bulk, Wipe, Other)	Sample Description	Sample Location	Requested Analysis; Instructions / Comments
17B	Bulk	Wall Caulk	NE - Corner	PLM
18		TSI w/ cloth cover	South central addition	
18A		" paper	South wall - east	
18B		"	North wall	
18C		"	North wall	
19		plaster	SE addition	
20		Sub-wood for paper	Central Area	
7E	Bulk	Brown TSI paper wrap		

Submitted by: (sign) _____ (print) Andy Soens Date Submitted: 1/17/12

Received by: (sign) _____ (print) P.J. GRIFFIN Date and time received: 1/17/12

(For lab use only) Samples processed by: _____ Date: 1/18/12 Time: From 1/17/12 am/pm to 1524 am/pm

POINT COUNTING ANALYSIS OF SUSPECT ASBESTOS CONTAINING BUILDING MATERIALS

CLIENT: WIGHTMAN PETRIE
412 SOUTH LAFAYETTE
SOUTH BEND, IN 46601

CLIENT PROJECT: WAREHOUSE

DATE OF SAMPLE: 01/19/12

SAMPLE SITE: 2ND AND 3RD FLOORS

ANALYTICAL METHOD: EPA 40CFR61
PT. 763 SUBPART E, APPENDIX E
POLARIZED LIGHT MICROSCOPY - POINT COUNTING

NVLAP LAB CODE #: 101977

DATE OF ANALYSIS: 02/03/12

ACM PROJECT #: 18418

CLIENT SAMPLE NUMBER	LAB SAMPLE NUMBER	# OF SLIDES	ASBESTOS CONCENTRATION BY POINT COUNTING	AVERAGE CONCENTRATION OF ASBESTOS PERCENTAGE
27	1200783	8	0/400	NO ASBESTOS DETECTED
30	1200784	8	1/400	<1% ASBSESTOS

MICROSCOPIST: Larry Malone DATE: 2/3/12

ANALYSIS OF SUSPECT ASBESTOS CONTAINING BUILDING MATERIALS

FOR:

WIGHTMAN PETRIE
412 SOUTH LAFAYETTE
SOUTH BEND, IN 46601

LOCATION:

WAREHOUSE SITE

ACM ENGINEERING & ENVIRONMENTAL SERVICES
PROJECT#: 18418

DATE OF REPORT:

JANUARY 24, 2012

PREPARED BY:

ACM ENGINEERING & ENVIRONMENTAL SERVICES
26598 U.S. 20 WEST
SOUTH BEND, IN 46628

NVLAP LAB CODE: 101977

INTRODUCTION:
In January 2012, ACM Engineering & Environmental Services received bulk samples of suspect asbestos containing building material from Wightman Petrie. These are to be analyzed by ACM Engineering & Environmental Services for possible asbestos content.

THE REPORT:
The attached report quantifies the fibrous materials found in each sample submitted for analysis. A complete fibrous analysis of samples is given for each sample followed by a breakdown analysis of any sub-samples for heterogeneous material.

The first column is the client sample identification.

The second column is the laboratory sample number. The laboratory number for the overall sample analysis is a digit number. The laboratory number followed by a letter designation (A,B,C. etc.) indicates a sub-sample analysis.

The third column is the sample identification, which indicates whether the sample is homogeneous or heterogeneous, the color of the sample, and the physical description (cementitious, fibrous, cloth, etc.)

The fourth column indicates the types and percentages of asbestos identified in the sample or sub-sample.

The fifth column indicates the types and percentages of non-asbestos identified in the sample or sub-sample.

The sixth column indicates the types and percentages of non-asbestos, non-fibrous material in the sample or sub-sample.

The seventh column indicates the types and percentages of non-asbestos fibrous material in the sample or sub-sample. Fibrous material will not necessarily total 100% of the sample.

There will be dashes (----) in each column when nothing is detected.

METHOD:
All analyses and quantifications are performed in accordance with the U.S. Environmental Protection Agency's "Method for the Determination of Asbestos in Bulk Building Materials", EPA/600/R-93/116.

The method utilizes stereoscopical examination of the bulk samples, as well as utilizing the polarized light microscope and the central stop dispersion staining method.

If applicable, please be advised that the Stereo Scope/PLM methods have limitations regarding floor tile analysis for asbestos content. Historically, the production of floor tile has included the grinding of asbestos into submicroscopic portions. Therefore, this method of analysis may produce incorrect results for tests of floor tile which produce negative finding for asbestos.

Gross samples are examined under a 10X or 20X stereoscope where homogeneity (need for sub-samples), texture and /or any other distinguishing characteristics are determined.

Sub-samples are prepared if needed. Any fibrous material is mounted in high dispersion oil for further microscope examination utilizing polarized light microscopy. Any possible asbestos fibers are analyzed for morphology, color and pleochroism, index of refraction parallel and perpendicular to elongation, birefringence, extinction characteristic and sign of elongation, and any other distinguishing characteristics observed.

To determine the refractive index, the central stop dispersion staining method is used, as well as matching with refractive index oil and using light matching the sodium D line wavelength. Identification of non-asbestos species is less rigorous, as they are of secondary interest.

The percentage of asbestos and other fibrous materials are then determined according to sample area coverage and thickness. The limit of qualification is one percent (1%). The above is recorded on the laboratory analysis sheet and maintained for three years.

The error involved for reported percentages of fibrous is 100% error for 1% to 5%, 50% error for 5% to 20%, and 25% error for 20% to 100%. All percentages will be reported in a range indicating error or a single value, in which case the above error should be applied. When the value 1% or greater is reported this indicates asbestos is present in the sample.

ASBESTOS CHARACTERIZATION:
The features of the various forms of asbestos are as follows:

CHRYSOTILE: Thin fibers and fiber bundles with both straight and wavy sections. The ends of bundles tend to be frayed. Sign of elongation is positive, refractive indices are 1.493-1.560 (alpha) and 1.668-1.717 (gamma), and birefringence of 0.009-0.016. It is commonly referred to as white asbestos.

AMOSITE: Straight thin single fibers and bundles of such fibers usually with cleanly broken ends on individual fibers, positive sign of elongation, refractive indices of 1.653-1.696 (alpha) and 1.655-1.729 (gamma), and birefringence of 0.020-0.033. Fibers exhibit parallel extinction.

CROCIDOLITE: Similar in morphology to amosite, but is distinguished by negative sign of elongation, blue to blue-green pleochroic coloration, refractive indices of 1.654-1.701 (alpha) and 1.668-1.717 (gamma), and birefringence of 0.009-0.016. It is commonly referred to as blue asbestos.

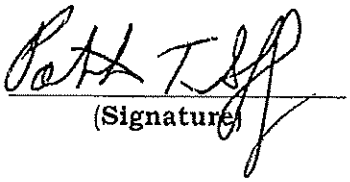
ANTHOPHYLITE: Similar in morphology to amosite, but has refractive indices of 1.596-1.652 (alpha) and 1.615-1.676 (gamma), anthophylite fibers show parallel extinction and positive sign of elongation.

TREMOLITE/ACTINOLITE SERIES:
Transparent, elongated furrowed prisms, usually with uneven, jagged ends and smooth sides, with oblique (0-20 degree) to parallel extinction and positive elongation; refractive indices are 1.599-1.668 (alpha) and 1.622-1.688 (gamma) and birefringence is 0.020-0.028.

SAMPLE RETENTION:
Samples will be retained for 6 months unless otherwise instructed. After this period, the sample(s) will be disposed of appropriately. Upon written request, the samples will be returned by mail or delivery for a nominal fee to cover postage and handling. There would be no charge for samples picked-up at ACM Engineering & Environmental Services.

DISCUSSION AND RECOMMENDATIONS:
In order to reduce the risk of introducing asbestos fibers into the air, care should be taken not to disturb the asbestos containing building materials. If renovation, demolition or other activities might disturb known asbestos containing building materials, a reputable asbestos consultant should be contacted to help effectively design and implement an asbestos management program.

Report prepared by: **Patrick T. Griffin**



(Signature)

ACM Engineering & Environmental Services
President/CEO

Analysis of Suspect Asbestos Containing Building Materials

CLIENT: WIGHTMAN PETRIE
412 SOUTH LAFAYETTE
SOUTH BEND, IN 46601

ANALYTICAL METHOD: EPA/600/R-93/116

NVLAP LAB CODE #: 101977

CLIENT PROJECT: WAREHOUSE

MATRIX: BULK

DATE OF SAMPLE: 01/19/12

DATE OF ANALYSIS: 0/23/12

SAMPLE SITE: SECOND AND THIRD FLOORS

ACM PROJECT #: 18418

CLIENT SAMPLE NUMBER	LAB SAMPLE NUMBER	SAMPLE IDENTIFICATION	ASBEST	CELL	NON FIB NON ACBM	FIB NON ACBM
21	1200773	WINDOWS CAULK (3RD FLOOR)	-----	-----	100%	-----
21A	1200774	WINDOWS CAULK (3RD FLOOR)	-----	-----	100%	-----
22	1200775	WHITE TSI PAPER (3RD FLOOR)	67% C	33%	-----	-----
23	1200776	BROWN TSI PAPER (3RD FLOOR)	18% C	12%	24%	46% CO
24	1200777	BROWN TSI PAPER (3RD FLOOR)	47% A	-----	53%	-----
24A	1200778	BROWN TSI PAPER (3RD FLOOR)	42% A 5% CR	-----	53%	-----
24B	1200779	BROWN TSI PAPER (3RD FLOOR)	43% C	-----	57%	-----
25	1200780	BROWN TSI PAPER (3RD FLOOR)	-----	87%	13%	-----
25A	1200781	WINDOWS CAULK (3RD FLOOR)	-----	32%	16%	52% CO
26	1200782	FIBERGLASS (3RD FLOOR)	-----	-----	-----	76% G 24% CO
27	1200783	PLASTER (3RD FLOOR)	2% C	-----	97%	1% H
30	1200784	WINDOW CAULK (2ND FLOOR)	3% C	-----	97%	-----
30A	1200785	WINDOW CAULK (2ND FLOOR)	3% C	-----	97%	-----
30B	1200786	WINDOW CAULK (2ND FLOOR)	3% C	-----	97%	-----
31	1200787	WHITE TSI WITH CLOTH COVER (2ND FLOOR)	45% C	38%	-----	17% CO
31A	1200788	WHITE TSI WITH CLOTH COVER (2ND FLOOR)	46% C	54%	-----	-----
32	1200789	TSI DENSE WITH CLOTH WRAP (2ND FLOOR)	41% A 6% CR	-----	53%	-----
32A	1200790	TSI DENSE WITH CLOTH WRAP (2ND FLOOR)	29% C 16% A	-----	55%	-----

ACM RECOMMENDS POINT COUNTING ANALYSIS ON ALL BULK SAMPLES WITH LESS THAN 10% (< 10%) ASBESTOS CONTENT

MICROSCOPIST: Larry Walker DATE: 2/28/12

ACM ENGINEERING & ENVIRONMENTAL SERVICES 26598 US 20 WEST, SOUTH BEND, INDIANA 46628
TELEPHONE (574) 234-8435 FAX (574) 234-6800

Analysis of Suspect Asbestos Containing Building Materials

CLIENT: WIGHTMAN PETRIE
412 SOUTH LAFAYETTE
SOUTH BEND, IN 46601

ANALYTICAL METHOD: EPA/600/R-93/116

NVLAP LAB CODE #: 101977

CLIENT PROJECT: WAREHOUSE

MATRIX: BULK

DATE OF SAMPLE: 01/19/12

DATE OF ANALYSIS: 0/23/12

SAMPLE SITE: SECOND AND THIRD FLOORS

ACM PROJECT #: 18418

CLIENT SAMPLE NUMBER	LAB SAMPLE NUMBER	SAMPLE IDENTIFICATION	ASBEST	CELL	NON FIB NON ACBM	FIB NON ACBM
33	1200791	TSI WITH BLUE COVER (2ND FLOOR)	43% C	-----	57%	-----
34	1200792	BROWN TSI PAPER (2ND FLOOR)	-----	89%	11%	-----
34A	1200793	BROWN TSI PAPER (2ND FLOOR)	-----	48%	11%	41% CO
35	1200794	DRYWALL (2ND FLOOR)	-----	74%	26%	-----
36	1200795	RIGID BROWN TSI (2ND FLOOR)	57% A	-----	43%	-----
37	1200796	BROWN TSI (2ND FLOOR)	56% A	-----	44%	-----
38	1200797	BROWN TSI WITH CLOTH COVER (2ND FLOOR)	29% C	44%	-----	27% CO

ACM RECOMMENDS POINT COUNTING ANALYSIS ON ALL BULK SAMPLES

WITH LESS THAN 10% (< 10%) ASBESTOS CONTENT

MICROSCOPIST: Jamy Malone DATE: 2/28/12

Analysis of Suspect Asbestos Containing Materials

ACM ENGINEERING & ENVIRONMENTAL SERVICES PROJECT NO.: 18418

DESCRIPTION OF ANY PROBLEMS ENCOUNTERED IN THE SAMPLE ANALYSIS: None

COMPONENTS DESCRIPTION:

ASBESTOS MATERIALS

ACBM = ASBESTOS CONTAINING BUILDING MATERIAL
C = CHRYSOTILE
A = AMOSITE
CR = CROCIDOLITE
AN = ANTHOPHYLITE
AC = ACTINOLITE
T = TREMOLITE
---- = NO ASBESTOS DETECTED

NON-ASBESTOS MATERIALS

CELL = CELLULOSE
G = FIBROUS GLASS
M = MINERAL WOOL
S = SYNTHETICS
H = HAIR
CO = COTTON
O = OTHER
CF = CERAMIC FIBERS
V = VERMICULITE
N = NYLON
NON-FIB NON-ACM = NON FIBROUS NON ACBM
FIB NON ACM = FIBROUS NON ACBM

NOTES: FIBROUS QUANTITIES DO NOT NECESSARILY ADD UP TO 100%, REMAINING QUANTITIES ARE COMPOSED OF NON-FIBROUS ROCKS, BINDERS AND MISC. MATERIALS.

THIS REPORT MUST NOT BE USED BY THE CLIENT TO CLAIM PRODUCT ENDORSEMENT BY NVLAP OR ANY AGENCY OF THE U.S. GOVERNMENT.

THIS REPORT RELATES ONLY TO THE ITEMS ABOVE.

ACM ENGINEERING & ENVIRONMENTAL SERVICES DOES NOT DEVIATE FROM THE TEST METHOD DESCRIBED IN THIS REPORT.

ACM Engineering & Environmental Services, Inc.

26598 US 20 West
South Bend, Indiana 46628
Phone (574) 234-8435
Fax (574) 234-6800

ACM Project # 18418

Suspect Asbestos Containing Building Material
Sampling - Chain-of-Custody - Analysis Request Form

AIHA Environmental Microbiology ACCREDITED LABORATORY
NVLAP

Client: Wightman Petrie
Billing Address: 412 S Lafayette
Billing City, State, Zip: S. Bend IN 46601
Report Results To: CBP & AJS
Sampling Date: 1/18/12 Sampled By: AJS

Site Location: Warehouse Site - Floor 3
Address:
Type of Project:
Requested Turn Around Time:
Reference Number:

Sample Identification	Sample Type (Bulk, Wipe, Other)	Sample Description	Sample Location	Requested Analysis; Instructions / Comments
21	Bulk	Window Caulk	North Wall - west	PLM
21A		Window Caulk	NE Corner	
22		White TSI Paper	North Wall	
23		Brown TSI paper	NE Corner	
24		TSI w/ cloth wrap	East Area	
24A		TSI w/ cloth wrap	South Central addition	
24B		TSI w/ cloth wrap	South wall - west	
25		Brown TSI paper	SE addition	
25A		Brown TSI Paper	South central addition	
26		Fiberglass	South central addition	
27		Plaster	SW addition	

Submitted by: (sign) _____ (print) Andy Soons Date Submitted: 1/20/12
Received by: (sign) Justina Nifong (print) Justina Nifong Date and time received: 1/20/12
(For lab use only) Samples processed by: Tammy Malone Date: 1/23/12 Time: From _____ am/pm to 4:18 am/pm

ACM Engineering & Environmental Services, Inc.

ACM Project # 18418

26598 US 20 West
South Bend, Indiana 46628
Phone (574) 234-8435
Fax (574) 234-6800

Suspect Asbestos Containing Building Material
Sampling - Chain-of-Custody - Analysis Request Form

AIHA Environmental Microbiology ACCREDITED LABORATORY

NVLAP

Client: Wightman Petrie

Billing Address: 412 S Lafayette

Billing City, State, Zip: S. Bend, IN 46601

Report Results To: CBP & AJS

Sampling Date: 1/18/12 Sampled By: AJS

Site Location: Warehouse Site - Floor 32

Address:

Type of Project:

Requested Turn Around Time:

Reference Number:

Sample Identification	Sample Type (Bulk, Wipe, Other)	Sample Description	Sample Location	Requested Analysis; Instructions / Comments
30	Bulk	Window Caulk		PLM
30A		"		
30B		"		
31		white TSI paper w/ cloth cover		
32		TSI (Dense) w/ cloth wrap		
32A		"		
33		TSI w/ blue cloth		
34		Brown TSI paper		
34A		"		
35		Drywall		
36		'Rigid' Brown TSI		
37		Poor condition Brown TSI		

Submitted by: (sign) _____ (print) Andy Soens Date Submitted: 1/20/12

Received by: (sign) Justina Nifong (print) Justina Difong Date and time received: 1/20/12

(For lab use only) Samples processed by: Kelly Malme Date: 1/23/12 Time: From _____ am/pm to 1418 am/pm

ACM Engineering & Environmental Services, Inc.

ACM Project # 18418

26598 US 20 West
South Bend, Indiana 46628
Phone (574) 234-8435
Fax (574) 234-6800

Suspect Asbestos Containing Building Material Sampling - Chain-of-Custody - Analysis Request Form

AIHA Environmental Microbiology ACCREDITED LABORATORY

NVLAP

Client: Wightman Petrie

Billing Address: 412 S Lafayette

Billing City, State, Zip: S. Bend, IN 46601

Report Results To: CBP + AJS

Sampling Date: 1/19/12 Sampled By: AS

Site Location: Warehouse Site - Floor 2

Address:

Type of Project:

Requested Turn Around Time:

Reference Number:

Sample Identification	Sample Type (Bulk, Wipe, Other)	Sample Description	Sample Location	Requested Analysis; Instructions / Comments
38	Bulk	Brwn TSI paper w/ cloth cover	West of elevator 2	PLM

Submitted by: (sign) _____ (print) Andy Soons Date Submitted: 1/20/12

Received by: (sign) Justina Nifong (print) Justina Nifong Date and time received: 1/20/12

(For lab use only) Samples processed by: Kelly Malone Date: 1/23/12 Time: From _____ am/pm to 1418 am/pm

POINT COUNTING ANALYSIS OF SUSPECT ASBESTOS CONTAINING BUILDING MATERIALS

CLIENT: WIGHTMAN PETRIE
412 SOUTH LAFAYETTE
SOUTH BEND, IN 46601

CLIENT PROJECT: WAREHOUSE

DATE OF SAMPLE: 01/16-17/12

SAMPLE SITE: 4TH & 6TH FLOORS

ANALYTICAL METHOD: EPA 40CFR61
PT. 763 SUBPART E, APPENDIX E
POLARIZED LIGHT MICROSCOPY - POINT COUNTING

NVLAP LAB CODE #: 101977

DATE OF ANALYSIS: 02/03/12

ACM PROJECT #: 18410

CLIENT SAMPLE NUMBER	LAB SAMPLE NUMBER	# OF SLIDES	ASBESTOS CONCENTRATION BY POINT COUNTING	AVERAGE CONCENTRATION OF ASBESTOS PERCENTAGE
9B	1200688	8	1/400	<1% ASBESTOS

MICROSCOPIST: Tammy Malone DATE: 2/3/12

ANALYSIS OF SUSPECT ASBESTOS CONTAINING BUILDING MATERIALS

FOR:

WIGHTMAN PETRIE
412 SOUTH LAFAYETTE
SOUTH BEND, IN 46601

LOCATION:

WAREHOUSE SITE FLOOR 1

ACM ENGINEERING & ENVIRONMENTAL SERVICES
PROJECT#: 18492

DATE OF REPORT:

FEBRUARY 15, 2012

PREPARED BY:

ACM ENGINEERING & ENVIRONMENTAL SERVICES
26598 U.S. 20 WEST
SOUTH BEND, IN 46628

NVLAP LAB CODE: 101977

INTRODUCTION:
In February 2012, ACM Engineering & Environmental Services received bulk samples of suspect asbestos containing building material from Wightman Petrie. These are to be analyzed by ACM Engineering & Environmental Services for possible asbestos content.

THE REPORT:
The attached report quantifies the fibrous materials found in each sample submitted for analysis. A complete fibrous analysis of samples is given for each sample followed by a breakdown analysis of any sub-samples for heterogeneous material.

The first column is the client sample identification.

The second column is the laboratory sample number. The laboratory number for the overall sample analysis is a digit number. The laboratory number followed by a letter designation (A,B,C. etc.) indicates a sub-sample analysis.

The third column is the sample identification, which indicates whether the sample is homogeneous or heterogeneous, the color of the sample, and the physical description (cementitious, fibrous, cloth, etc.)

The fourth column indicates the types and percentages of asbestos identified in the sample or sub-sample.

The fifth column indicates the types and percentages of non-asbestos identified in the sample or sub-sample.

The sixth column indicates the types and percentages of non-asbestos, non-fibrous material in the sample or sub-sample.

The seventh column indicates the types and percentages of non-asbestos fibrous material in the sample or sub-sample. Fibrous material will not necessarily total 100% of the sample.

There will be dashes (----) in each column when nothing is detected.

METHOD:
All analyses and quantifications are performed in accordance with the U.S. Environmental Protection Agency's "Method for the Determination of Asbestos in Bulk Building Materials", EPA/600/R-93/116.

The method utilizes stereoscopical examination of the bulk samples, as well as utilizing the polarized light microscope and the central stop dispersion staining method.

If applicable, please be advised that the Stereo Scope/PLM methods have limitations regarding floor tile analysis for asbestos content. Historically, the production of floor tile has included the grinding of asbestos into submicroscopic portions. Therefore, this method of analysis may produce incorrect results for tests of floor tile which produce negative finding for asbestos.

Gross samples are examined under a 10X or 20X stereoscope where homogeneity (need for sub-samples), texture and /or any other distinguishing characteristics are determined.

Sub-samples are prepared if needed. Any fibrous material is mounted in high dispersion oil for further microscope examination utilizing polarized light microscopy. Any possible asbestos fibers are analyzed for morphology, color and pleochroism, index of refraction parallel and perpendicular to elongation, birefringence, extinction characteristic and sign of elongation, and any other distinguishing characteristics observed.

To determine the refractive index, the central stop dispersion staining method is used, as well as matching with refractive index oil and using light matching the sodium D line wavelength. Identification of non-asbestos species is less rigorous, as they are of secondary interest.

The percentage of asbestos and other fibrous materials are then determined according to sample area coverage and thickness. The limit of qualification is one percent (1%). The above is recorded on the laboratory analysis sheet and maintained for three years.

The error involved for reported percentages of fibrous is 100% error for 1% to 5%, 50% error for 5% to 20%, and 25% error for 20% to 100%. All percentages will be reported in a range indicating error or a single value, in which case the above error should be applied. When the value 1% or greater is reported this indicates asbestos is present in the sample.

ASBESTOS CHARACTERIZATION:
The features of the various forms of asbestos are as follows:

CHRYSOTILE: Thin fibers and fiber bundles with both straight and wavy sections. The ends of bundles tend to be frayed. Sign of elongation is positive, refractive indices are 1.493-1.560 (alpha) and 1.668-1.717 (gamma), and birefringence of 0.009-0.016. It is commonly referred to as white asbestos.

AMOSITE: Straight thin single fibers and bundles of such fibers usually with cleanly broken ends on individual fibers, positive sign of elongation, refractive indices of 1.653-1.696 (alpha) and 1.655-1.729 (gamma), and birefringence of 0.020-0.033. Fibers exhibit parallel extinction.

CROCIDOLITE: Similar in morphology to amosite, but is distinguished by negative sign of elongation, blue to blue-green pleochroic coloration, refractive indices of 1.654-1.701 (alpha) and 1.668-1.717 (gamma), and birefringence of 0.009-0.016. It is commonly referred to as blue asbestos.

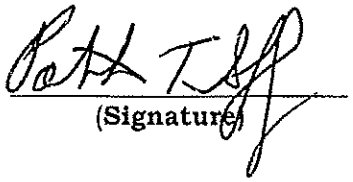
ANTHOPHYLITE: Similar in morphology to amosite, but has refractive indices of 1.596-1.652 (alpha) and 1.615-1.676 (gamma), anthophylite fibers show parallel extinction and positive sign of elongation.

TREMOLITE/ACTINOLITE SERIES:
Transparent, elongated furrowed prisms, usually with uneven, jagged ends and smooth sides, with oblique (0-20 degree) to parallel extinction and positive elongation; refractive indices are 1.599-1.668 (alpha) and 1.622-1.688 (gamma) and birefringence is 0.020-0.028.

SAMPLE RETENTION:
Samples will be retained for 6 months unless otherwise instructed. After this period, the sample(s) will be disposed of appropriately. Upon written request, the samples will be returned by mail or delivery for a nominal fee to cover postage and handling. There would be no charge for samples picked-up at ACM Engineering & Environmental Services.

DISCUSSION AND RECOMMENDATIONS:
In order to reduce the risk of introducing asbestos fibers into the air, care should be taken not to disturb the asbestos containing building materials. If renovation, demolition or other activities might disturb known asbestos containing building materials, a reputable asbestos consultant should be contacted to help effectively design and implement an asbestos management program.

Report prepared by: **Patrick T. Griffin**



(Signature)

ACM Engineering & Environmental Services
President/CEO

Analysis of Suspect Asbestos Containing Building Materials

CLIENT: WIGHTMAN PETRIE
412 SOUTH LAFAYETTE
SOUTH BEND, IN 46601

ANALYTICAL METHOD: EPA/600/R-93/116

NVLAP LAB CODE #: 101977

CLIENT PROJECT: WAREHOUSE SITE FLOOR 1

MATRIX: BULK

DATE OF SAMPLE: 02/10/12

DATE OF ANALYSIS: 02/10/12

SAMPLE SITE: WAREHOUSE SITE FLOOR 1

ACM PROJECT #: 18492

CLIENT SAMPLE NUMBER	LAB SAMPLE NUMBER	SAMPLE IDENTIFICATION	ASBEST	CELL	NON FIB NON ACBM	FIB NON ACBM
W-1	1201702	WHITE TSI	37% A	-----	36%	27% CO
W-2	1201703	WHITE TSI	36% CR	-----	64%	-----
W-3	1201704	BROWN TSI	3% C	76%	-----	21% CO
W-4	1201705	WHITE TSI	31% A	-----	44%	12% G
			13% C			
W-5	1201706	WHITE TSI	17% C	47%	-----	36% CO
W-6	1201707	WHITE TSI	41% C	50%	9%	-----
W-7	1201708	BROWN TSI	-----	59%	-----	41% CO
W-8	1201709	BROWN TSI	12% C	60%	4%	24% CO
W-9	1201710	BROWN TSI	39% C	39%	22%	-----
W-10	1201711	BROWN TSI	-----	51%	-----	49% CO
W-11	1201712	WHITE TSI	12% C	-----	12%	76% CO
W-12	1201713	TAN FIBROUS TSI	36% A	64%	-----	-----
W-13	1201714	TAN TSI	31% A	35%	-----	23% CO
			11% C			
W-14	1201715	WHITE TSI	-----	-----	45%	47% G
						8% CO
W-15	1201716	WHITE TSI	47% C	-----	37%	16% CO
W-15A	1201717	WHITE TSI	48% C	-----	45%	7% CO
W-16	1201718	BROWN TSI	-----	63%	-----	37% CO
W-17	1201719	BROWN RIDGED TSI	-----	63%	-----	37% CO

ACM RECOMMENDS POINT COUNTING ANALYSIS ON ALL BULK SAMPLES

WITH LESS THAN 10% (< 10%) ASBESTOS CONTENT

MICROSCOPIST: Tammy Malone DATE: 2/15/12

ACM ENGINEERING & ENVIRONMENTAL SERVICES 26598 US 20 WEST, SOUTH BEND, INDIANA 46628
TELEPHONE (574) 234-8435 FAX (574) 234-6800

Analysis of Suspect Asbestos Containing Building Materials

CLIENT: WIGHTMAN PETRIE
412 SOUTH LAFAYETTE
SOUTH BEND, IN 46601

ANALYTICAL METHOD: EPA/600/R-93/116

NVLAP LAB CODE #: 101977

CLIENT PROJECT: WAREHOUSE SITE FLOOR 1

MATRIX: BULK

DATE OF SAMPLE: 02/10/12

DATE OF ANALYSIS: 02/10/12

SAMPLE SITE: WAREHOUSE SITE FLOOR 1

ACM PROJECT #: 18492

CLIENT SAMPLE NUMBER	LAB SAMPLE NUMBER	SAMPLE IDENTIFICATION	ASBEST	CELL	NON FIB NON ACBM	FIB NON ACBM
W-18	1201720	TAN TSI	37% A 17% C	-----	46%	-----
W-19	1201721	2X4 CEILING TILE	-----	48%	-----	52% G
W-19A	1201722	2X4 CEILING TILE	-----	49%	-----	51% G
W-20	1201723	ABOVE CEILING TILE	-----	89%	11%	-----
W-20A	1201724	ABOVE CEILING TILE	-----	86%	14%	-----
W-21	1201725	TAN 12X12 FLOOR TILE	-----	-----	100%	-----
W-21	1201725A	MASTIC	-----	-----	100%	-----
W-22	1201726	9X9 GREY TILE	-----	-----	100%	-----
W-22A	1201727	9X9 GREY TILE	-----	-----	100%	-----
W-23	1201728	DRYWALL	-----	6%	94%	-----
W-23A	1201729	DRYWALL	-----	5%	95%	-----
W-23B	1201730	DRYWALL	-----	4%	96%	-----
W-24	1201731	DRYWALL	-----	5%	95%	-----
W-24A	1201732	DRYWALL	-----	3%	97%	-----
W-25	1201733	2X4 CEILING TILE	-----	48%	-----	52% G
W-25A	1201734	2X4 CEILING TILE	-----	49%	-----	51% G
W-26	1201735	DRYWALL	-----	4%	96%	-----
W-27	1201736	DRYWALL	-----	7%	93%	-----
W-28	1201737	BROWN TSI	15% C	11%	4%	70% CO
W-29	1201738	BROWN 12X12 FLOOR TILE	-----	-----	100%	-----

ACM RECOMMENDS POINT COUNTING ANALYSIS ON ALL BULK SAMPLES WITH LESS THAN 10% (< 10%) ASBESTOS CONTENT

MICROSCOPIST: [signature] DATE: 2/15/12

Analysis of Suspect Asbestos Containing Building Materials

CLIENT: WIGHTMAN PETRIE
412 SOUTH LAFAYETTE
SOUTH BEND, IN 46601

ANALYTICAL METHOD: EPA/600/R-93/116

NVLAP LAB CODE #: 101977

CLIENT PROJECT: WAREHOUSE SITE FLOOR 1

MATRIX: BULK

DATE OF SAMPLE: 02/10/12

DATE OF ANALYSIS: 02/10/12

SAMPLE SITE: WAREHOUSE SITE FLOOR 1

ACM PROJECT #: 18492

CLIENT SAMPLE NUMBER	LAB SAMPLE NUMBER	SAMPLE IDENTIFICATION	ASBEST	CELL	NON FIB NON ACBM	FIB NON ACBM
W-29A	1201739	BROWN 12X12 FLOOR TILE	-----	-----	100%	-----
W-29A	1201739A	MASTIC	-----	-----	100%	-----
W-30	1201740	BROWN TSI	24% C	34%	11%	31% CO
W-31	1201741	2X4 CEILING TILE	-----	89%	11%	-----
W-32	1201742	9X9 GREEN FLOOR TILE	3% C	-----	97%	-----
W-32A	1201743	9X9 GREEN FLOOR TILE	3% C	-----	97%	-----
W-33	1201744	DRYWALL	-----	5%	95%	-----
W-33A	1201745	DRYWALL	-----	6%	94%	-----
W-34	1201746	2X4 CEILING TILE	-----	51%	-----	49% G

ACM RECOMMENDS POINT COUNTING ANALYSIS ON ALL BULK SAMPLES

WITH LESS THAN 10% (< 10%) ASBESTOS CONTENT

MICROSCOPIST: Larry Malone DATE: 2/15/12

Analysis of Suspect Asbestos Containing Materials

ACM ENGINEERING & ENVIRONMENTAL SERVICES PROJECT NO.: 18492

DESCRIPTION OF ANY PROBLEMS ENCOUNTERED IN THE SAMPLE ANALYSIS: None

COMPONENTS DESCRIPTION:

ASBESTOS MATERIALS

ACBM = ASBESTOS CONTAINING BUILDING MATERIAL
C = CHRYSOTILE
A = AMOSITE
CR = CROCIDOLITE
AN = ANTHOPHYLITE
AC = ACTINOLITE
T = TREMOLITE
---- = NO ASBESTOS DETECTED

NON-ASBESTOS MATERIALS

CELL = CELLULOSE
G = FIBROUS GLASS
M = MINERAL WOOL
S = SYNTHETICS
H = HAIR
CO = COTTON
O = OTHER
CF = CERAMIC FIBERS
V = VERMICULITE
N = NYLON
NON-FIB NON-ACM = NON FIBROUS NON ACBM
FIB NON ACM = FIBROUS NON ACBM

NOTES: FIBROUS QUANTITIES DO NOT NECESSARILY ADD UP TO 100%, REMAINING QUANTITIES ARE COMPOSED OF NON-FIBROUS ROCKS, BINDERS AND MISC. MATERIALS.

THIS REPORT MUST NOT BE USED BY THE CLIENT TO CLAIM PRODUCT ENDORSEMENT BY NVLAP OR ANY AGENCY OF THE U.S. GOVERNMENT.

THIS REPORT RELATES ONLY TO THE ITEMS ABOVE.

ACM ENGINEERING & ENVIRONMENTAL SERVICES DOES NOT DEVIATE FROM THE TEST METHOD DESCRIBED IN THIS REPORT.

ACM Project # 18492

ACM Engineering & Environmental Services, Inc.

26598 US 20 West
South Bend, Indiana 46628
Phone (574) 234-8435
Fax (574) 234-6800

Suspect Asbestos Containing Building Material
Sampling - Chain-of-Custody - Analysis Request Form

AIHA Environmental Microbiology ACCREDITED LABORATORY
NVLAP

Client: Wightman Petrie
Billing Address: 412 S. Lafayette
Billing City, State, Zip: S. Bend, IN 46601
Report Results To: CBP + AJS
Sampling Date: 2/10/12 Sampled By: AJS

Site Location: Warehouse Site - Fl. 1
Address:
Type of Project:
Requested Turn Around Time:
Reference Number:

Sample Identification	Sample Type (Bulk, Wipe, Other)	Sample Description	Sample Location	Requested Analysis; Instructions / Comments
W-1	Bulk	White TSI	Loading Dock	PLM
W-2	↓	Large White TSI	Fl. 1 Warehouse	↓
W-3		Brown TSI Paper	Fl. 1 Warehouse	
W-4		White TSI	Wedi Crossover	
W-5		White TSI Paper	Wedi crossover	
W-6		White TSI Paper	Fl. 1 Warehouse	
W-7		Brown ridged TSI Paper	"	
W-8		Brown TSI paper w/ green paint	"	
W-9		Brown TSI paper w/ green paint	"	
W-10		Brown ridged TSI paper	Crossover	
W-11		White TSI	Crossover	
W-12		Tan Fibarous TSI	Bld. 113	

Submitted by: (sign) [signature] (print) Andy Soens Date Submitted: 2/10/12
Received by: (sign) Justina Nifong (print) Justina Nifong Date and time received: 2/10/12
(For lab use only) Samples processed by: Tandy Wallace Date: 2/13/12 Time: From ______ am/pm to 1604 am/pm

ACM Engineering & Environmental Services, Inc.
26598 US 20 West
South Bend, Indiana 46628
Phone (574) 234-8435
Fax (574) 234-6800

ACM Project # 1892

Suspect Asbestos Containing Building Material
Sampling - Chain-of-Custody - Analysis Request Form

AIHA Environmental Microbiology ACCREDITED LABORATORY
NVLAP

Client: Wightman Petrie
Billing Address: 412 S. Lafayette
Billing City, State, Zip: S. Bend, IN 46601
Report Results To: CBP & AJS
Sampling Date: 2/10/12 Sampled By: AJS

Site Location: Warehouse Site - Fl. 1
Address:
Type of Project:
Requested Turn Around Time:
Reference Number:

Sample Identification	Sample Type (Bulk, Wipe, Other)	Sample Description	Sample Location	Requested Analysis; Instructions / Comments
W-13	Bulk	Tan TSI	Thermolite	PLM
W-14		White TSI Elbow	Bld. 113	
W-15/15A		White TSI	Bld. 113	
W-16		Brown TSI paper w/ cloth	Bld. 113	
W-17		Brown ridged TSI Paper	Bld. 113	
W-18		Tan TSI	Bld. 113	
W-19/W-19A		2x4 Ceiling Tile	~~Bld. 113~~ Main office	
W-20		Above Ceiling Tile	"	
W-20A		Above Ceiling Tile	"	
W-21		Tan 12x12 Tile & Mastic	"	
W-22		9x9 grey Tile	Outside Main office	
W-22A		9x9 grey Tile	Outside Main office	

Submitted by: (sign) _____ (print) Andy Soens Date Submitted: 2/10/12
Received by: (sign) Justina Nifong (print) Justina Nifong Date and time received: 2/10/12
(For lab use only) Samples processed by: Jenny Malave Date: 2/13/12 Time: From _____ am/pm to 1404 am/pm

ACM Engineering & Environmental Services, Inc.
26598 US 20 West
South Bend, Indiana 46628
Phone (574) 234-8435
Fax (574) 234-6800

ACM Project # 1892

Suspect Asbestos Containing Building Material
Sampling - Chain-of-Custody - Analysis Request Form

AIHA Environmental Microbiology ACCREDITED LABORATORY
NVLAP

Client: Wightman Petrie
Billing Address: 412 S. Lafayette
Billing City, State, Zip: S. Bend, IN 46601
Report Results To: CBP & AJS
Sampling Date: 2/10/12 Sampled By: AJS

Site Location: Warehouse Site - Fl. 1
Address:
Type of Project:
Requested Turn Around Time:
Reference Number:

Sample Identification	Sample Type (Bulk, Wipe, Other)	Sample Description	Sample Location	Requested Analysis; Instructions / Comments
W-23	Bulk	Drywall	Thermolite	PLM
W-23A		"	Thermolite	
W-23B		"	Thermolite	
W-24		"	Thermolite office	
W-24A		"	Thermolite office	
W-25		2x4 Ceiling Tile	"	
W-25A		2x4 Ceiling Tile	"	
W-26		Drywall	Free Geek	
W-27		Drywall	Wedi	
W-28		Brown TSI Paper w/ cloth	Wedi	
W-29		Brown 12x12 Tile + Mastic	Wedi	
W-29A		"	"	

Submitted by: (sign) _____ (print) Andy Soens Date Submitted: 2/10/12
Received by: (sign) Justina Nifong (print) Justina Nifong Date and time received: 2/10/12
(For lab use only) Samples processed by: Tony Malone Date: 2/13/12 Time: From _____ am/pm to 1404 am/pm

ACM Engineering & Environmental Services, Inc.
26598 US 20 West
South Bend, Indiana 46628
Phone (574) 234-8435
Fax (574) 234-6800

ACM Project # 1892

Suspect Asbestos Containing Building Material
Sampling - Chain-of-Custody - Analysis Request Form

AIHA Environmental Microbiology ACCREDITED LABORATORY
NVLAP

Client: Wightman Petrie
Billing Address: 42 S. Lafayette
Billing City, State, Zip: S. Bend, IN 46601
Report Results To: CBP & AJS
Sampling Date: 2/10/12 Sampled By: AJS

Site Location: Warehouse Site - Fl. 1
Address:
Type of Project:
Requested Turn Around Time:
Reference Number:

Sample Identification	Sample Type (Bulk, Wipe, Other)	Sample Description	Sample Location	Requested Analysis; Instructions / Comments
W-30	Bulk	Brown TSI Paper	Wed. Bathroom	PLM
~~W-30A~~				
W-31		2x4 Ceiling Tile	Abe's office - back bathroom	
W-32		Green 9x9 Floor Tile	Abe's office	
W-32A		Green 9x9 Floor Tile	"	
W-33		Drywall	"	
W-33A		Drywall	"	
W-34		2x4 Ceiling Tile	"	

Submitted by: (sign) _____ (print) Andy Soens
Received by: (sign) Justina Nifong (print) Justina Nifong
(For lab use only) Samples processed by: Kelly Mallard Date: 2/13/12

Date Submitted: 2/10/12
Date and time received: 2/10/12
Time: From _____ am/pm to 1401 am/pm

ANALYSIS OF SUSPECT ASBESTOS CONTAINING BUILDING MATERIALS

FOR:

WIGHTMAN PETRIE
412 SOUTH LAFAYETTE
SOUTH BEND, IN 46601

LOCATION:

WAREHOUSE SITE

ACM ENGINEERING & ENVIRONMENTAL SERVICES
PROJECT#: 18465

DATE OF REPORT:

FEBRUARY 7, 2012

PREPARED BY:

ACM ENGINEERING & ENVIRONMENTAL SERVICES
26598 U.S. 20 WEST
SOUTH BEND, IN 46628

NVLAP LAB CODE: 101977

INTRODUCTION:
In February 2012, ACM Engineering & Environmental Services received bulk samples of suspect asbestos containing building material from Wightman Petrie. These are to be analyzed by ACM Engineering & Environmental Services for possible asbestos content.

THE REPORT:
The attached report quantifies the fibrous materials found in each sample submitted for analysis. A complete fibrous analysis of samples is given for each sample followed by a breakdown analysis of any sub-samples for heterogeneous material.

The first column is the client sample identification.

The second column is the laboratory sample number. The laboratory number for the overall sample analysis is a digit number. The laboratory number followed by a letter designation (A,B,C. etc.) indicates a sub-sample analysis.

The third column is the sample identification, which indicates whether the sample is homogeneous or heterogeneous, the color of the sample, and the physical description (cementitious, fibrous, cloth, etc.)

The fourth column indicates the types and percentages of asbestos identified in the sample or sub-sample.

The fifth column indicates the types and percentages of non-asbestos identified in the sample or sub-sample.

The sixth column indicates the types and percentages of non-asbestos, non-fibrous material in the sample or sub-sample.

The seventh column indicates the types and percentages of non-asbestos fibrous material in the sample or sub-sample. Fibrous material will not necessarily total 100% of the sample.

There will be dashes (----) in each column when nothing is detected.

METHOD:
All analyses and quantifications are performed in accordance with the U.S. Environmental Protection Agency's "Method for the Determination of Asbestos in Bulk Building Materials", EPA/600/R-93/116.

The method utilizes stereoscopical examination of the bulk samples, as well as utilizing the polarized light microscope and the central stop dispersion staining method.

If applicable, please be advised that the Stereo Scope/PLM methods have limitations regarding floor tile analysis for asbestos content. Historically, the production of floor tile has included the grinding of asbestos into submicroscopic portions. Therefore, this method of analysis may produce incorrect results for tests of floor tile which produce negative finding for asbestos.

Gross samples are examined under a 10X or 20X stereoscope where homogeneity (need for sub-samples), texture and /or any other distinguishing characteristics are determined.

Sub-samples are prepared if needed. Any fibrous material is mounted in high dispersion oil for further microscope examination utilizing polarized light microscopy. Any possible asbestos fibers are analyzed for morphology, color and pleochroism, index of refraction parallel and perpendicular to elongation, birefringence, extinction characteristic and sign of elongation, and any other distinguishing characteristics observed.

To determine the refractive index, the central stop dispersion staining method is used, as well as matching with refractive index oil and using light matching the sodium D line wavelength. Identification of non-asbestos species is less rigorous, as they are of secondary interest.

The percentage of asbestos and other fibrous materials are then determined according to sample area coverage and thickness. The limit of qualification is one percent (1%). The above is recorded on the laboratory analysis sheet and maintained for three years.

The error involved for reported percentages of fibrous is 100% error for 1% to 5%, 50% error for 5% to 20%, and 25% error for 20% to 100%. All percentages will be reported in a range indicating error or a single value, in which case the above error should be applied. When the value 1% or greater is reported this indicates asbestos is present in the sample.

ASBESTOS CHARACTERIZATION:
The features of the various forms of asbestos are as follows:

CHRYSOTILE: Thin fibers and fiber bundles with both straight and wavy sections. The ends of bundles tend to be frayed. Sign of elongation is positive, refractive indices are 1.493-1.560 (alpha) and 1.668-1.717 (gamma), and birefringence of 0.009-0.016. It is commonly referred to as white asbestos.

AMOSITE: Straight thin single fibers and bundles of such fibers usually with cleanly broken ends on individual fibers, positive sign of elongation, refractive indices of 1.653-1.696 (alpha) and 1.655-1.729 (gamma), and birefringence of 0.020-0.033. Fibers exhibit parallel extinction.

CROCIDOLITE: Similar in morphology to amosite, but is distinguished by negative sign of elongation, blue to blue-green pleochroic coloration, refractive indices of 1.654-1.701 (alpha) and 1.668-1.717 (gamma), and birefringence of 0.009-0.016. It is commonly referred to as blue asbestos.

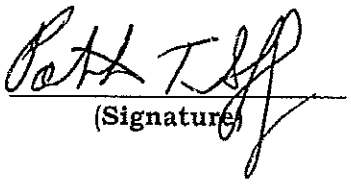
ANTHOPHYLITE: Similar in morphology to amosite, but has refractive indices of 1.596-1.652 (alpha) and 1.615-1.676 (gamma), anthophylite fibers show parallel extinction and positive sign of elongation.

TREMOLITE/ACTINOLITE SERIES:
Transparent, elongated furrowed prisms, usually with uneven, jagged ends and smooth sides, with oblique (0-20 degree) to parallel extinction and positive elongation; refractive indices are 1.599-1.668 (alpha) and 1.622-1.688 (gamma) and birefringence is 0.020-0.028.

SAMPLE RETENTION:
Samples will be retained for 6 months unless otherwise instructed. After this period, the sample(s) will be disposed of appropriately. Upon written request, the samples will be returned by mail or delivery for a nominal fee to cover postage and handling. There would be no charge for samples picked-up at ACM Engineering & Environmental Services.

DISCUSSION AND RECOMMENDATIONS:
In order to reduce the risk of introducing asbestos fibers into the air, care should be taken not to disturb the asbestos containing building materials. If renovation, demolition or other activities might disturb known asbestos containing building materials, a reputable asbestos consultant should be contacted to help effectively design and implement an asbestos management program.

Report prepared by: **Patrick T. Griffin**



(Signature)

ACM Engineering & Environmental Services
President/CEO

Analysis of Suspect Asbestos Containing Building Materials

CLIENT: WIGHTMAN PETRIE
412 SOUTH LAFAYETTE
SOUTH BEND, IN 46601

ANALYTICAL METHOD: EPA/600/R-93/116

NVLAP LAB CODE #: 101977

CLIENT PROJECT: WAREHOUSE SITE

MATRIX: BULK

DATE OF SAMPLE: 02/03/12

DATE OF ANALYSIS: 02/06/12

SAMPLE SITE: WAREHOUSE SITE

ACM PROJECT #: 18465

CLIENT SAMPLE NUMBER	LAB SAMPLE NUMBER	SAMPLE IDENTIFICATION	ASBEST	CELL	NON FIB NON ACBM	FIB NON ACBM
B-1	1201337	BOILER JACKET	43% C	-----	53%	4% CO
B-1A	1201338	BOILER JACKET	4% C	-----	22%	74% CO
B-2	1201339	BROWN TSI	49% C	51%	-----	-----
B-2A	1201340	BROWN FIBROUS MATERIAL	-----	94%	6%	-----
B-3	1201341	WHITE TSI	44% C	-----	52%	4% CO
B-3A	1201342	WHITE TSI	46% C	-----	51%	3% CO
B-3B	1201343	WHITE TSI	43% A	-----	57%	-----
B-5	1201344	TAN TSI PAPER	67% C	33%	-----	-----
F-1	1201345	BROWN RIDGED TSI PAPER	-----	100%	-----	-----
F-1A	1201346	BROWN RIDGED TSI PAPER	-----	100%	-----	-----
F-1B	1201347	BROWN RIDGED TSI PAPER	-----	100%	-----	-----

ACM RECOMMENDS POINT COUNTING ANALYSIS ON ALL BULK SAMPLES
WITH LESS THAN 10% (< 10%) ASBESTOS CONTENT

MICROSCOPIST: Jamie McVane DATE: 2/20/12

Analysis of Suspect Asbestos Containing Materials

ACM ENGINEERING & ENVIRONMENTAL SERVICES PROJECT NO.: 18465

DESCRIPTION OF ANY PROBLEMS ENCOUNTERED IN THE SAMPLE ANALYSIS: None

COMPONENTS DESCRIPTION:

ASBESTOS MATERIALS

ACBM = ASBESTOS CONTAINING BUILDING MATERIAL
C = CHRYSOTILE
A = AMOSITE
CR = CROCIDOLITE
AN = ANTHOPHYLITE
AC = ACTINOLITE
T = TREMOLITE
---- = NO ASBESTOS DETECTED

NON-ASBESTOS MATERIALS

CELL = CELLULOSE
G = FIBROUS GLASS
M = MINERAL WOOL
S = SYNTHETICS
H = HAIR
CO = COTTON
O = OTHER
CF = CERAMIC FIBERS
V = VERMICULITE
N = NYLON
NON-FIB NON-ACM = NON FIBROUS NON ACBM
FIB NON ACM = FIBROUS NON ACBM

NOTES: FIBROUS QUANTITIES DO NOT NECESSARILY ADD UP TO 100%, REMAINING QUANTITIES ARE COMPOSED OF NON-FIBROUS ROCKS, BINDERS AND MISC. MATERIALS.

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THIS REPORT RELATES ONLY TO THE ITEMS ABOVE.

ACM ENGINEERING & ENVIRONMENTAL SERVICES DOES NOT DEVIATE FROM THE TEST METHOD DESCRIBED IN THIS REPORT.

ACM Engineering & Environmental Services, Inc.

ACM Project # 18465

26598 US 20 West
South Bend, Indiana 46628
Phone (574) 234-8435
Fax (574) 234-6800

Suspect Asbestos Containing Building Material Sampling - Chain-of-Custody - Analysis Request Form

AIHA Environmental Microbiology ACCREDITED LABORATORY

NVLAP

Client: Wightman Petrie

Billing Address: 412 S Lafayette

Billing City, State, Zip: S. Bend, IN 46601

Report Results To: CBP + AJS

Sampling Date: 2/3/12 Sampled By: AJS

Site Location: Warehouse Site

Address:

Type of Project:

Requested Turn Around Time:

Reference Number:

Sample Identification	Sample Type (Bulk, Wipe, Other)	Sample Description	Sample Location	Requested Analysis; Instructions / Comments
B-1	Bulk	Boiler Jacket	Basement	PLM
B-1A		"	"	
B-2		Brown TSI Paper w/ cloth cover	"	
B-2A		"	"	
B-3		White TSI w/ cloth cover	"	
B-3A		"	"	
B-3B		"	"	
B-5		Tan TSI paper	"	
F-1		Brown 'Ridged' TSI paper	Floor 6	
F-1A		"	Floor 5	
F-1B		"	Floor 2	

Submitted by: (sign) _____ (print) Andy Soens Date Submitted: 2/3/12

Received by: (sign) _____ (print) Justina Nifus Date and time received: 2/3/12

(For lab use only) Samples processed by: Tammy Malone Date: 2/6/12 Time: From _____ am/pm to 1555 am/pm

ANALYSIS OF SUSPECT ASBESTOS CONTAINING BUILDING MATERIALS

FOR:

WIGHTMAN PETRIE
412 SOUTH LAFAYETTE
SOUTH BEND, IN 46601

LOCATION:

WAREHOUSE SITE

ACM ENGINEERING & ENVIRONMENTAL SERVICES
PROJECT#: 18558

DATE OF REPORT:

MARCH 1, 2012

PREPARED BY:

ACM ENGINEERING & ENVIRONMENTAL SERVICES
26598 U.S. 20 WEST
SOUTH BEND, IN 46628

NVLAP LAB CODE: 101977

INTRODUCTION:
In March 2012, ACM Engineering & Environmental Services received bulk samples of suspect asbestos containing building material from Wightman Petrie. These are to be analyzed by ACM Engineering & Environmental Services for possible asbestos content.

THE REPORT:
The attached report quantifies the fibrous materials found in each sample submitted for analysis. A complete fibrous analysis of samples is given for each sample followed by a breakdown analysis of any sub-samples for heterogeneous material.

The first column is the client sample identification.

The second column is the laboratory sample number. The laboratory number for the overall sample analysis is a digit number. The laboratory number followed by a letter designation (A,B,C. etc.) indicates a sub-sample analysis.

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The fourth column indicates the types and percentages of asbestos identified in the sample or sub-sample.

The fifth column indicates the types and percentages of non-asbestos identified in the sample or sub-sample.

The sixth column indicates the types and percentages of non-asbestos, non-fibrous material in the sample or sub-sample.

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Gross samples are examined under a 10X or 20X stereoscope where homogeneity (need for sub-samples), texture and /or any other distinguishing characteristics are determined.

Sub-samples are prepared if needed. Any fibrous material is mounted in high dispersion oil for further microscope examination utilizing polarized light microscopy. Any possible asbestos fibers are analyzed for morphology, color and pleochroism, index of refraction parallel and perpendicular to elongation, birefringence, extinction characteristic and sign of elongation, and any other distinguishing characteristics observed.

To determine the refractive index, the central stop dispersion staining method is used, as well as matching with refractive index oil and using light matching the sodium D line wavelength. Identification of non-asbestos species is less rigorous, as they are of secondary interest.

The percentage of asbestos and other fibrous materials are then determined according to sample area coverage and thickness. The limit of qualification is one percent (1%). The above is recorded on the laboratory analysis sheet and maintained for three years.

The error involved for reported percentages of fibrous is 100% error for 1% to 5%, 50% error for 5% to 20%, and 25% error for 20% to 100%. All percentages will be reported in a range indicating error or a single value, in which case the above error should be applied. When the value 1% or greater is reported this indicates asbestos is present in the sample.

ASBESTOS CHARACTERIZATION:
The features of the various forms of asbestos are as follows:

CHRYSOTILE: Thin fibers and fiber bundles with both straight and wavy sections. The ends of bundles tend to be frayed. Sign of elongation is positive, refractive indices are 1.493-1.560 (alpha) and 1.668-1.717 (gamma), and birefringence of 0.009-0.016. It is commonly referred to as white asbestos.

AMOSITE: Straight thin single fibers and bundles of such fibers usually with cleanly broken ends on individual fibers, positive sign of elongation, refractive indices of 1.653-1.696 (alpha) and 1.655-1.729 (gamma), and birefringence of 0.020-0.033. Fibers exhibit parallel extinction.

CROCIDOLITE: Similar in morphology to amosite, but is distinguished by negative sign of elongation, blue to blue-green pleochroic coloration, refractive indices of 1.654-1.701 (alpha) and 1.668-1.717 (gamma), and birefringence of 0.009-0.016. It is commonly referred to as blue asbestos.

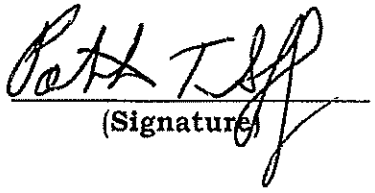
ANTHOPHYLITE: Similar in morphology to amosite, but has refractive indices of 1.596-1.652 (alpha) and 1.615-1.676 (gamma), anthophylite fibers show parallel extinction and positive sign of elongation.

TREMOLITE/ACTINOLITE SERIES:
Transparent, elongated furrowed prisms, usually with uneven, jagged ends and smooth sides, with oblique (0-20 degree) to parallel extinction and positive elongation; refractive indices are 1.599-1.668 (alpha) and 1.622-1.688 (gamma) and birefringence is 0.020-0.028.

SAMPLE RETENTION:
Samples will be retained for 6 months unless otherwise instructed. After this period, the sample(s) will be disposed of appropriately. Upon written request, the samples will be returned by mail or delivery for a nominal fee to cover postage and handling. There would be no charge for samples picked-up at ACM Engineering & Environmental Services.

DISCUSSION AND RECOMMENDATIONS:
In order to reduce the risk of introducing asbestos fibers into the air, care should be taken not to disturb the asbestos containing building materials. If renovation, demolition or other activities might disturb known asbestos containing building materials, a reputable asbestos consultant should be contacted to help effectively design and implement an asbestos management program.

Report prepared by: **Patrick T. Griffin**



(Signature)

ACM Engineering & Environmental Services
President/CEO

Analysis of Suspect Asbestos Containing Building Materials

CLIENT: WIGHTMAN PETRIE
412 SOUTH LAFAYETTE
SOUTH BEND, IN 46601

ANALYTICAL METHOD: EPA/600/R-93/116

NVLAP LAB CODE #: 101977

CLIENT PROJECT: WAREHOUSE SITE

MATRIX: BULK

DATE OF SAMPLE: 02/29/12

DATE OF ANALYSIS: 02/29/12

SAMPLE SITE: WAREHOUSE SITE

ACM PROJECT #: 18558

CLIENT SAMPLE NUMBER	LAB SAMPLE NUMBER	SAMPLE IDENTIFICATION	ASBEST	CELL	NON FIB NON ACBM	FIB NON ACBM
B-6	1202480	TSI	46% C	-----	40%	-----
			14% CR			
B-6A	1202481	TSI	59% C	-----	41%	-----
B-6B	1202482	TSI	44% C	-----	41%	-----
			15% A			
B-6C	1202483	TSI	52% C	-----	48%	-----
W-36	1202484	BOILER JACKET	37% C	-----	33%	28% G
						2% CO
W-36A	1202485	BOILER JACKET	37% C	-----	29%	31% G
						3% CO
W-37	1202486	TSI PAPER	47% C	53%	-----	-----
W-38	1202487	RIDGED TSI PAPER	-----	87%	13%	-----

ACM RECOMMENDS POINT COUNTING ANALYSIS ON ALL BULK SAMPLES
WITH LESS THAN 10% (< 10%) ASBESTOS CONTENT

MICROSCOPIST: Larry Mallard DATE: 3/1/12

Analysis of Suspect Asbestos Containing Materials

ACM ENGINEERING & ENVIRONMENTAL SERVICES PROJECT NO.: 18558

DESCRIPTION OF ANY PROBLEMS ENCOUNTERED IN THE SAMPLE ANALYSIS: None

COMPONENTS DESCRIPTION:

ASBESTOS MATERIALS

ACBM = ASBESTOS CONTAINING BUILDING MATERIAL
C = CHRYSOTILE
A = AMOSITE
CR = CROCIDOLITE
AN = ANTHOPHYLITE
AC = ACTINOLITE
T = TREMOLITE
---- = NO ASBESTOS DETECTED

NON-ASBESTOS MATERIALS

CELL = CELLULOSE
G = FIBROUS GLASS
M = MINERAL WOOL
S = SYNTHETICS
H = HAIR
CO = COTTON
O = OTHER
CF = CERAMIC FIBERS
V = VERMICULITE
N = NYLON
NON-FIB NON-ACM = NON FIBROUS NON ACBM
FIB NON ACM = FIBROUS NON ACBM

NOTES: FIBROUS QUANTITIES DO NOT NECESSARILY ADD UP TO 100%, REMAINING QUANTITIES ARE COMPOSED OF NON-FIBROUS ROCKS, BINDERS AND MISC. MATERIALS.

THIS REPORT MUST NOT BE USED BY THE CLIENT TO CLAIM PRODUCT ENDORSEMENT BY NVLAP OR ANY AGENCY OF THE U.S. GOVERNMENT.

THIS REPORT RELATES ONLY TO THE ITEMS ABOVE.

ACM ENGINEERING & ENVIRONMENTAL SERVICES DOES NOT DEVIATE FROM THE TEST METHOD DESCRIBED IN THIS REPORT.

ACM Engineering & Environmental Services, Inc.

26598 US 20 West
South Bend, Indiana 46628
Phone (574) 234-8435
Fax (574) 234-6800

ACM Project # 18558

Suspect Asbestos Containing Building Material
Sampling - Chain-of-Custody - Analysis Request Form

AIHA Environmental Microbiology ACCREDITED LABORATORY

NVLAP

Client: Wightman Petrie

Billing Address: 412 S Lafayette

Billing City, State, Zip: S. Bend, IN 46601

Report Results To: AJS + CBP

Sampling Date: 2/29 Sampled By: AJS

Site Location: Warehouse Site

Address:

Type of Project:

Requested Turn Around Time:

Reference Number:

Sample Identification	Sample Type (Bulk, Wipe, Other)	Sample Description	Sample Location	Requested Analysis; Instructions / Comments
B-6	Bulk	Tunnel TSI - White	Basement Tunnel - by boiler	PLM
B-6A		"	"	
B-6B		"	Tunnel - by drinking water	
B-6C		"	"	
W-36		Boiler Jacket	Fl. 1 - Bld 113 Boiler	
W-36A		"	"	
W-37		White TSI Paper	"	
W-38		Brown Ridged TSI Paper	Fl. 1 - Womens Bathroom	

Submitted by: (sign) _____ (print) 2/29/12 Date Submitted:

Received by: (sign) Casey Micinski (print) Casey Micinski Date and time received: 2/29/12

(For lab use only) Samples processed by: Sally Malave Date: 2/29/12 Time: From _____ am/pm to 15:44 am/pm

IDEM Form 44593

Indiana Department of Environmental Management
GUIDANCE FOR PREPARING ASBESTOS
DEMOLITION/RENOVATION NOTIFICATIONS

**Per Indiana Rule 326 IAC 14-10-3(1), all notifications to the IDEM must be submitted on State Form Number 44593.

Per 326 IAC 14-10-5, demolition/renovation fees will be assessed quarterly to owners/ Operators submitting notifications during the previous quarter.

I. Type of Notification -326 IAC 14-10-3(4).

A. If this is the original notice, please check the appropriate space on the notification form.

B. If this is a revised notice, please check the appropriate space on the notification form. The revised notice must be postmarked and sent by certified mail, return receipt requested, at least 5 working days or delivered at least 2 working days before the start date of asbestos stripping or removal specified in: (1) the notice being revised **and** (2) the new revised notice. Facsimiles **will** be accepted by the IDEM.

C. All revisions must include a copy of the notice being revised.

D. If this is a canceled notice, please check the appropriate space on the notification form.

E. Courtesy Notification

II. Facility Information - 326 IAC 14-10-3(3)(B) and (R)

A. Either the owner or operator must submit the notice.
B. The owner means the individual(s) who own the property or lease the property.
C. The operator means the asbestos removal contractor or demolition contractor.
D. Specify the name, address, telephone number, Indiana license number and license expiration date, of the:
   1. asbestos removal contractor,
   2. inspector who conducted the assessment prior to demolition or renovation and
   3. project designer required or asbestos projects at schools K-12, or if project designer is used for non-school projects must be licensed.

III. Type of Operation - 326-IAC 14-10-3(3)(C), (O) and (S)

A. Refer to the definitions of demolition, renovation, and emergency renovation Operation in 326-IAC 14-10-2.
B. Ordered demolitions and emergency renovation operations have additional

Notification requirements. Owner/operator must also complete Section XV or XVI of notification form.

C. Demolition by intentional burning must comply with an approved Variance from Opening Burning Regulation 326IAC 4-1.

IV. Is Asbestos Present? - Required by Federal 40 CFR Part 61, Subpart M

A. If asbestos is present, indicate "yes" in the space provided.
B. If asbestos is not present, indicate "no".

V. Procedures, Including Analytical Methods, if appropriate, Used to Detect the Presence and Amount of Asbestos Material - 326 IAC 14-10-3(3)(E).

Describe how the asbestos was detected and, if samples were analyzed, specify the amount of friable asbestos visually during a walk-through inspections using a tape measure, blueprints, or pacing. Analytical methods could include the collection of samples and sample analyses by a polarized light microscope with dispersion staining.

For samples that test under 10% asbestos content: An owner or operator may (1) elect to assume material to be greater than 1% asbestos, or, (2) require verification by point counting in which the point counting result will supercede the visual estimation. Either choice and result should be stated on the notice when a sample is under 10% asbestos.

VI. Approximate Amount of Asbestos to be Removed - 326 IAC 14-10-3(3)(F)

A. Specify the amount of regulated (friable) asbestos-containing material to be removed as follows:
   1. linear feet on pipes,
   2. square feet (surface area) on the facility components, **and**
   3. total cubic feet (volume) on or off all facility components. (All reported regulated amounts must be converted to cubic feet).

B. Estimate the approximate amount of Category I and Category II non-friable asbestos-containing material in the affected part of the facility that will be removed before demolition.

C. Estimate the approximate amount of Category I and Category II non-friable asbestos-containing material in the affected part of the facility that will not be removed before demolition.

VII. Scheduled Dates of Asbestos Stripping/Removal - 326 IAC 14-10-3(3)(H)

This means the actual start and end dates of the asbestos stripping or removal.

VIII. Scheduled Dates of Asbestos Stripping/Removal - 326 IAC 14-10-3(3)(H)

This means the starting and ending dates of the total demolition or renovation operation. For example: A renovation project may be scheduled from February 1 through March 15, 1995, however, the actual asbestos removal will occur from February 15, through 20, 1995. Demolition **must** start on date given in most recent notification.

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IX Facility Description - 326 IAC 14-10-3(3)(D) and (G)

Include the building name, floor and number of the room(s) where the asbestos stripping or removal will take place. Provide enough detail that an unfamiliar inspector can find the asbestos project without asking anyone.

X. Description of planned Demolition or Renovation Work, Methods/Techniques to be Used, and Affected Facility Components - 326 IAC 14-10-3(3)(K)

Briefly describe the methods to be used to conduct the demolition or renovation. For renovations, these methods may include gross removal, glove bag removal, hand stripping or scraping. For demolitions, methods may include a wrecking Ball, bulldozer, dynamite, or unbolting panels or sections and carefully lowering to the ground. Affected facility components may include pipe wrap, floor tile, sprayed-on insulation, transite, etc.

XI. Description of Work Practices and Engineering Controls To Be Used To Prevent Emissions of Asbestos At the Site, Including Asbestos Stripping, Removal, and Waste Handling Procedures and the Procedures to Prevent Non-Friable Asbestos Material from Becoming Friable in the Course of the Project 326 IAC 14-10-3(3)(L)

A. Examples of work practices and engineering controls to prevent asbestos emissions at the site would include: the use of water or wetting agents, containments, and negative air units during removal; placing into leak-tight containers or wrapping with six (6) mil thick polyethylene plastic sheeting which is properly labeled prior to disposal, etc.

B. Examples of removal and waste handling procedures to prevent non-friable material from becoming friable would include: removing by sections or units taking care not to crumble, pulverize, or reduce to power, using water to prevent any emissions, placing into leak-tight containers or wrapping with six (6) mil thick plastic which is properly labeled prior to disposal (including name or waste generator and location at which the waste was generated), etc.

XII.** Description of Procedures to be Followed in the Event that Unexpected Asbestos is Found or Previously Non-Friable Asbestos Material Becomes Crumbled, Pulverized or Reduced to Powder - 326 IAC 18-3 and 326 IAC 14-10-3(3)(M).

A. If the amount of unexpected asbestos or previously non-friable asbestos material is > 3 LnFt on pipes, 3 SqFt on other facility components, or a total of 0.75 CuFt on or off all facility components, then an accredited contractor (unless in-house accredited

personnel) with accredited personnel must implement the asbestos removal project in accordance with the requirements of 326 IAC 14-10.

B. Pursuant to 326 IAC 14-10, a revised demolition/renovation notification must be submitted to the IDEM, which reflects the change in the amount of affected asbestos-containing material. The revised notice must also reflect the new asbestos removal start date, if applicable.

** Required by 40 CFR Part 61, Subpart M

XIII. Waste Transporter - 326 IAC 14-10-3(3)(T)

Provide the name, address and telephone number of only the asbestos waste transporter. This should include the waste transporter's name, street address, city, state, zip code, contact person, and telephone number.

XIV. Waste Disposal site - 326 IAC 14-10-3(3)(N)

Provide the name and location of the sanitary landfill where the asbestos-containing waste material will be deposited. This should include the name, street address, city, state, zip code, waste disposal site contact person, and telephone number.

XV. If Demolition Ordered by a Governmental Agency, Identify the Agency and Attach a Copy of the Order - 326 IAC 14-10-3(3)(O)

A. Provide the name, title and authority of the of the state or local governmental representative who has ordered the demolition .
B. The authority is the applicable state or local regulation under which the demolition order has been issued.
C. Attach a copy of the demolition order to the notice.

XVI. Emergency Renovations - 326 IAC 14-10-3(3)(S)

A. Specify
   1. the date and hour that the emergency occurred,
   2. a description of the sudden unexpected event, and
   3. an explanation of how the event has caused emergency conditions
B. An "emergency renovation operation" is a renovation operation that was not planned but results from a sudden, unexpected event. This term includes operations necessitated by non-routine failures of equipment.

XVII. Certification Statement and Signature by Owner/Operator - 326 IAC 14-10-3(3)(O) and (P)

Self-explanatory.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
NOTIFICATION OF DEMOLITION AND RENOVATION OPERATIONS

State From 44593 (R2 / 8-99)

I. TYPE OF NOTIFICATION (check one): Original _____ Revised *_____ Canceled _____ Courtesy _____
* Must include copy of notification which is being revised

II. FACILITY INFORMATION (identify owner, removal contractor, demolition contractor, inspector, and project designer)

Owner:_____

Address:_____

City:_____ State:_____ Zip:_____

Contact:_____ Telephone #:_____

Removal Contractor:_____

Address:_____

City:_____ State:_____ Zip: _____

Contact:_____ Phone:_____

IN License #:_____ Expiration:_____

Demolition Contractor:_____

Address:_____

City:_____ State:_____ Zip:_____

Contact:_____ Phone:_____

Inspector:_____

Address:_____

City:_____ State:_____ Zip:_____

IN License #:_____ Expiration:_____

Phone:_____

(Required for asbestos projects at schools K – 12)

Project Designer:_____

Address:_____

City:_____ State:_____ Zip:_____

IN License #:_____ Expiration:_____

Phone:_____

III. TYPE OF OPERATION (check one) Renovation: _____ Emergency Renovation: _____
Intentional Burning: _____ Demolition: _____ Ordered Demolition: _____

IV. IS ASBESTOS PRESENT? (check one) YES: _____ NO: _____

V. PROCEDURES, INCLUDING ANALYTICAL METHODS, IF APPROPRIATE. USED TO DETECT THE PRESENCE AND AMOUNT OF ASBESTOS MATERIAL

_____

VI. APPROXIMATE AMOUNT OF ASBESTOS (Including Regulated ACM, Category I non-friable Category II non-friable ACM)

	Regulated ACM to be removed	Non-friable Asbestos Material To be removed		Non-friable Asbestos Material Not to be removed before demolition	
		Category I	Category II	Category I	Category II
Pipes (LnFt)					
Surface Area (SqFt)					
Total Volume (CuFt) on/off Components					

VII. SCHEDULED DATES OF ASBESTOS STRIPPING/REMOVAL: Start:_____ End:_____

VIII. SCHEDULED DATES OF RENOVATION: Start:_____ End:_____ DEMOLITION: Start:_____ End:_____

IX. FACILITY DESCRIPTION (Including building name, floor, and room number)

Building Name:_____

Street Address:_____

City:_____ State:_____ County:_____

Location of removal within building:_____

Building Size (SqFt):_____ # of Floors:_____ Age:_____

Present Use:_____ Prior use:_____

X. DESCRIPTION OF PLANNED DEMOLITION OR RENOVATION WORK, METHODS/TECHNIQUES TO BE USED, AFFECTED FACILITY COMPONENTS AND TYPE OF MATERIALS REMOVED

XI. DESCRIPTION OF WORK PRACTICES AND ENGINEERING CONTROLS TO BE USED TO PREVENT EMISSIONS OF ASBESTOS AT THE SITE; INCLUDING ASBESTOS STRIPPING, REMOVAL AND WASTE HANDLING PROCEDURES TO PREVENT NON-FRIABLE ASBESTOS MATERIAL FROM BECOMING FRIABLE IN THE COURSE OF THE PROJECT:

XII. DESCRIPTION OF PROCEDURES TO BE FOLLOWED IN THE EVENT THAT UNEXPECTED ASBESTOS IS FOUND OR PREVIOUSLY NON-FRIABLE ASBESTOS MATERIAL BECOMES CRUMBLED, PULVERIZED, OR REDUCED POWDER:

XIII. WASTE TRANSPORTER

Name:

Address:

City: State: Zip:

Contact: Phone:

XIV. WASTE DISPOSAL SITE

Name:

Address:

City: State: Zip:

Contact: Phone:

XV. IF DEMOLITION ORDERED BY A GOVERNMENT AGENCY, IDENTIFY THE AGENCY BELOW AND ATTACH A COPY OF THE ORDER TO THIS FORM. IF THE FACILITY IS NOT INSPECTED PRIOR TO DEMOLITION, THE DEBRIS MUST BE KEPT ADEQUATELY WET. THE DEBRIS MUST THEN BE INSPECTED AFTER DEMOLITION OR ASSUME ALL DEBRIS TO BE CONTAMINATED WITH RACM AND DISPOSED OF APPROPRIATELY TO COMPLY WITH 326 IAC 14-10-1(b).

Name: Title: Date ordered to begin:

Authority: Date of Order:

XVI. FOR EMERGENCY RENOVATIONS: Date and time of emergency:

Description of sudden, unexpected event:

Explanation of how the event caused unsafe conditions or would cause equipment damage:

XVII. I HEREBY CERTIFY THAT THE INFORMATION IN THIS NOTIFICATION IS CORRECT AND THAT I WILL ONLY USE INDIANA LICENSED WORKERS AND PROJECT SUPERVISORS, TO IMPLEMENT THIS ASBESTOS PROJECT, WHICH HAVE BEEN TRAINED IN 326IAC 14-10; 40 CFR PART 61, SUBPART M; AND, IF APPLICABLE, INDIANAPOLIS AIR POLLUTION CONTROL BOARD REGULATION 14. THE TRAINED INDIVIDUAL(S) ALONG WITH EVIDENCE THAT THE REQUIRED TRAINING WAS ACCOMPLISHED SHALL BE AVAILABLE AT THE JOB SITE DURING ACTUAL WORKING HOURS.

Owner/operator (signature) date

Owner/operator (printed) affiliation

********** OFFICE USE ONLY **********

POSTMARK:	RECEIVED:	REVIEWED BY:	DEFICIENCIES: