

**APPENDIX E**  
**HAZMAT STUDY**



ENVIRONMENTAL • GEOTECHNICAL  
BUILDING SCIENCES • MATERIALS TESTING

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December 22, 2016

Ms. Lane Kelly  
Town of Greenfield  
Finance Director/MCPPO  
14 Court Square  
Greenfield, MA 01301

Re: Hazardous Materials Assessment  
141 Davis Street Demolition  
Greenfield, Massachusetts

Dear Ms. Kelly:

ATC Group Services LLC (ATC) was retained by the Town of Greenfield to perform a Hazardous Material Survey at the above referenced site. Specifically, ATC's Scope of Work included the following:

1. Performance of an Asbestos Inspection for suspect asbestos-containing materials (ACM) to determine the type, location and condition of ACM present that will be affected by the forthcoming demolition of the building.
2. Assessment at to the presence of lead-containing paint within the building.
3. Visual Assessment of the location and presence of PCB light ballasts, fluorescent light tubes and other miscellaneous hazardous materials within the building.
4. Provide a written summary of all on-site findings including remediation requirements and cost estimates.

*Limitations:*

- *ATC did not access any electrical boxes, panels, equipment (including wiring) or subsurface vaults manholes or below grade foundations.*
- *ATC's hazmat survey does not include sampling and analysis of materials suspect to contain PCBs.*
- *A Phase I Site Assessment was conducted by ATC and the results of those findings are included under a separate report dated November 30, 2015.*

Outlined below is a summary of ATC's findings:

**I. ASBESTOS SURVEY**

ATC's asbestos inspection included a visual assessment of accessible suspect asbestos-containing materials and subsequent bulk sampling and analysis was performed. The Asbestos inspection and bulk sampling was performed in accordance with the methods outlined in the U.S. EPA guidance document titled, *Guidance for Controlling Asbestos-Containing Materials in Buildings* (Document No. 560/5-85/024). In addition, bulk sampling of asbestos was performed in accordance with 40 CFR Part 763, Asbestos Hazard Emergency Response Act (AHERA) requirements for number of samples and types of asbestos materials to be sampled. According to these requirements, materials are classified as either surfacing (e.g., ceiling plaster, wall plaster, spray-applied fireproofing), thermal system insulation (e.g., pipe insulation, pipe fitting insulation, boiler insulation), or miscellaneous materials (e.g., floor tile, ceiling tile, wallboard).

The number of samples collected from each material varies based on the classification of the material and increases as the potential for a non-uniform mixture of asbestos in the material increases.

All bulk samples were analyzed for asbestos content using Polarized Light Microscopy (PLM) with Dispersion Staining EPA Method 600/R-93/116 per 40 CFR 763. To qualify as asbestos containing, the material must be determined to contain *greater than one percent (>1%)* asbestos from a homogeneous material area set of samples.

Consequently, according to the EPA/AHERA criteria, all bulk samples from a homogeneous area must be found to contain *less than or equal to one percent ( $\leq 1\%$ )* asbestos in order to be classified as non-asbestos-containing.

**Findings:**

- Asbestos-containing materials were detected at the site.
- In accordance with Massachusetts Department of Environmental Protection (DEP) and EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) Regulations, materials found to be asbestos-containing must be abated prior to renovation/demolition activities that disturb such materials.
- All asbestos abatement work shall be performed by a Massachusetts licensed asbestos abatement contractor in accordance with local, state and federal regulations.
- Refer to *Attachment A* (Table 1.0) that summarizes materials **CONFIRMED** to be asbestos-containing at the site.
- Refer to *Attachment B* for the Asbestos Bulk Sample Analysis Laboratory Reports.
- Negative Materials – The following materials were determined to be **NEGATIVE** for asbestos at the site:
  - Wall Plaster
  - Ceiling Plaster
  - Sheetrock
  - Joint Compound
  - 2' x 4' Drop-In Ceiling Tiles
  - 2' x 3' Door Window Glazing Compound
  - Blown-In Attic Insulation
  - Fiberboard on Wall
  - Dark Brown Glue Daub Under Fiberboard
  - White Square Linoleum Flooring and Mastic
  - 4" Black Cove Base and Mastic
  - Blue Marble Backing Material and Mastic
  - Yellow Carpet Mastic
  - Security Door Window Glazing Compound
  - Brown Carpet Mastic
  - Stair Treads and Mastic
  - 4" Beige Cove Base and Mastic
  - Brown Marble Pattern Linoleum/Floor Tile and Mastic
  - Light Brown Glue Daub
  - Brown Floor Paper
  - 4" Grey Cove Base and Mastic
  - Grey Floor Paper

- 4" x 4' Ceramic Wall Tile Grout
- 4" x 4" Ceramic Wall Tile Thin-Set
- Brown Square Ceramic Floor Tile Grout
- Brown Square Ceramic Floor Tile Thin-Set
- Flex Connectors on Ductwork
- Exterior Window Caulking

**II. LEAD PAINT ASSESSMENT**

Based upon the age of construction for the building, lead-containing paint is most likely present on architectural, mechanical and structural components at the site. This is based upon the fact that the Consumer Product Safety Commission (CPSC) did not ban the sale of commercial paint that contained greater than 0.006% lead until 1976.

**Findings:**

- The building is not considered a residence where children under the age of six (6) would reside, therefore abatement of lead-containing components will not be required as per Massachusetts Department of Public Health (DPH) "Child Lead Poisoning and Prevention Regulations.
- However, the Contractor shall comply with OSHA 29 CFR 1926.62 Regulations with regards to protection of employees during demolition activities.
- All demolition debris shall be subject to federal Environmental Protection Agency (EPA) Resource Conservation and Recovery Act (RCRA) and Massachusetts Department of Environmental Protection (DEP) Regulations with regards to disposal.

**III. MISCELLANEOUS HAZARDOUS MATERIALS**

ATC performed a hazardous materials survey which consisted of an inspection of accessible portions of the building. The survey did not include inspection for hazardous materials located behind finished walls/ceilings/floors of the surveyed areas. ATC survey was a visual observation only and physical sampling was not performed.

During the survey inspection, each accessible room/area was inspected for the presence of hazardous materials that will need to be properly disposed or stored prior to demolition of the building. The survey included PCB-containing ballasts and electrical equipment, mercury-containing electrical and building components, and other potential hazardous materials including chemicals, refrigerants, or unlabeled containers that may require special handling and disposal.

**Findings:**

- In general, quantities of electrical equipment, white goods and other hazardous materials were observed to be present in the building, specifically the Basement level. The majority of the equipment and materials observed most likely will be retained during demolition activities and reused in the future. However, if the equipment and/or material is not reused, recommend proper removal and disposal in accordance with local, state and federal regulations. Materials include, but are not limited to:

➤ Florescent Light Fixtures	➤ Light Ballasts
➤ Thermostats	➤ Wall Heating Units (Electric)

➤ Fire Alarm Pull Stations	➤ Door Closers
➤ Fire Alarm Strobes	➤ Batteries
➤ Air Conditioning Units	➤ Drinking Fountain
➤ Computers	➤ Copiers
➤ Televisions	➤ Computers
➤ Paint Cans	➤ Fax Machine
➤ Spray Paint Cans	➤ Degreasers
➤ Motor Oil	➤ Paint Thinner
➤ Store Light Fixtures	➤ Store Light Ballasts
➤ Plumbing Chemicals	➤ Cleaning Supplies
➤ Floor Stripping Chemicals	➤ Gasoline Storage Containers
➤ Roofing Tar	➤ Miscellaneous Storage Containers
➤ Miscellaneous Chemicals	➤ Absorbents

- Caulking and glazing compound was observed to be present around windows, doors and within granite expansion joints at the site that may contain PCB's. The United States Environmental Protection Agency (USEPA) regulations under the Toxic Substances Control Act (TSCA) found at 40 CFR 761 stipulate procedures by which PCB-contaminated materials must be handled and disposed. If it is determined that these materials do contain PCBs above the TSCA regulatory threshold of 50 parts per million (ppm), then they must be managed at a proper disposal facility. ATC recommends appropriate testing be performed to identify PCB containing materials as part of the demolition process.
- Note that ATC performed a Phase I Environmental Site Assessment (ESA) in accordance with Massachusetts General Law (M.G.L.) Chapter 21E effective July 1992, the Massachusetts Contingency Plan (MCP) revised April 25, 2014 and ASTM E 1527-13 Standard Practice for Environmental Site Assessments: Phase I Site Assessment Process. The assessment revealed no evidence of *recognized environmental conditions* in connection with the site with a few exceptions noted. Results of those finding are included under a separate report dated November 30, 2016.

If you have any questions regarding this report or require additional information, please give me a call at (413) 664-6687.

ATC Group Services LLC



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ATC Group Services LLC



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