

**APPENDIX A**

**TOWN HALL**

**INSPECTION REPORT & SPECIFICATIONS**



**HAZARDOUS MATERIALS  
INSPECTION REPORT**

**SUFFIELD TOWN HALL  
83 MOUNTAIN ROAD  
SUFFIELD, CONNECTICUT 06078**

*Prepared for:*

**Ms. Julie Oakes  
Facilities Manager  
Town of Suffield  
230C Mountain Road  
Suffield, Connecticut 06078**

*Prepared by:*

**ATC Group Services LLC  
290 Roberts Street, Suite 301  
East Hartford, Connecticut 06108  
(860) 282-9924  
FAX (860) 282-9826**

**ATC PROJECT NUMBER: 05944.16.001 PHASE 1**

**March 25, 2016**

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY .....2

2.0 ASBESTOS-CONTAINING BUILDING MATERIALS SURVEY.....2

2.1 SAMPLING METHODOLOGY .....2

2.2 LIMITATIONS .....2

2.3 BUILDING MATERIALS SUMMARY .....3

2.4 REQUIREMENTS.....18

3.0 LEAD-BASED PAINT INSPECTION .....19

3.1 XRF TESTING METHODOLOGY.....19

3.2 SUMMARY OF XRF TESTING RESULTS .....20

3.3 RECOMMENDATIONS .....20

APPENDIX A.....

ASBESTOS BULK SAMPLE RESULTS AND CHAIN OF CUSTODY .....

APPENDIX B.....

XRF LEAD TESTING RESULTS.....

APPENDIX C.....

HISTORICAL ASBESTOS SAMPLING RESULTS AND CHAIN OF CUSTODY .....

APPENDIX D.....

ASBESTOS LOCATION DRAWING .....

APPENDIX E.....

ASBESTOS ABATEMENT COST ESTIMATE.....

APPENDIX F.....

ATC INSPECTOR CERTIFICATIONS .....

Dear Ms. Oakes,

Please find the attached Hazardous Materials Inspection Report for the Suffield Town Hall located at 83 Mountain Road in Suffield, CT.

If you have any questions regarding this report please do not hesitate to contact the undersigned at 860 282-9924. Thank you for this opportunity to be of service to the Town of Suffield.

Respectfully, submitted this 25<sup>th</sup> day of March, 2016.

**ATC Group Services LLC**



---

Scott J. Johnson  
Operations Manager, Building Sciences  
[Scott.johnson@atcassociates.com](mailto:Scott.johnson@atcassociates.com) ext. 1111



## **1.0 EXECUTIVE SUMMARY**

ATC Group Services LLC (ATC) of East Hartford, Connecticut was retained by the Town of Suffield located at 230C Mountain Road, Suffield, CT to perform a Hazardous Materials Inspection of the Suffield Town Hall located at 83 Mountain Road in Suffield, CT. The inspection and related testing included sampling and assessing the condition of potential asbestos-containing materials (ACM) and lead-based paint (LBP) of the Suffield Town Hall. This report describes the extent of hazardous materials identified within the property. Historical sampling review, visual inspection techniques and bulk sample collection were used for ACM identification. X-Ray Florescence (XRF) screening was used for LBP detection.

## **2.0 ASBESTOS-CONTAINING BUILDING MATERIALS SURVEY**

### **2.1 Sampling Methodology**

ATC representatives, Mr. Scott Johnson, performed an asbestos inspection on March 9, 2016 and March 11, 2016. Mr. Johnson is an accredited licensed Asbestos Inspector (CT DPH license #000297). The survey was performed as a walk-through visual inspection and historical sampling review, combined with the collection and analysis of bulk samples of suspect materials. Concealed areas such as above fixed ceilings or within walls were accessed within limits for inspection. Samples were obtained from suspect ACM throughout the interior of the building. The roof was not included with this survey.

Mr. Johnson collected bulk samples and conducted visual inspection according to the methods outlined in the U.S. Environmental Protection Agency (EPA) guidance document titled, "Guidance for Controlling Asbestos-Containing Materials in Buildings" (Document No. 560/5-85/024) and 40 CFR § 763.86.

The EPA recognizes the following as forms of asbestos: Chrysotile, Crocidolite, Amosite, Tremolite, Actinolite and Anthophyllite. To be classified as ACM, the material must be determined to contain greater than one percent (1%) asbestos. In order to consider a material non-asbestos-containing, all samples of a homogeneous type of material that are collected must be analyzed and all results must indicate less than 1% asbestos.

Asbestos bulk samples were analyzed by EMSL Analytical Inc., Wallingford, CT using Polarized Light Microscopy (PLM) or Transmission Electron Microscopy (TEM) EPA 600/R-93/116 Method. The quantities of each of these substances are estimated based on the procedures defined in the above-cited reference and are reported as a percentage. EMSL Analytical Inc. is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP Accreditation No. 200700-0). Laboratory bulk sample results are included in Appendix A. Table 2-1, presented in Section 2.3 contains the summary of inspection findings.

### **2.2 Limitations**

It is important to note that ATC's intent was to sample all accessible suspect materials associated with the building renovations. ATC accessed concealed spaces within limits, such as in walls or above fixed ceilings to identify concealed suspect materials. Any hidden materials discovered during future pre-demolition/renovation or construction activities not identified within this report should be assumed to be ACM until laboratory analysis proves otherwise.

## 2.3 Building Materials Summary

Table 2-1 summarizes all suspect ACM that were encountered and subsequently submitted for PLM or TEM analysis. A total of 89 bulk samples were collected for analysis. **A material is considered to be ACM if it contains greater than one percent (1%) asbestos by PLM or TEM analysis.** Appendix A contains laboratory bulk sample analysis and chain of custody for samples collected.

<p><b>TABLE 2-1</b>  <b>ASBESTOS BULK SAMPLING</b>  <b>Suffield Town Hall</b>  <b>Suffield, CT</b></p>			
<i>Sample Number</i>	<i>Location</i>	<i>Material</i>	<i>Percent Asbestos</i>
031116-1A	Closet at Hall 300	Plaster Wall Skim Coat – White (On Wire Lath)	NAD
031116-1B	Women’s Bathroom	Plaster Wall Skim Coat – White (On Wire Lath)	NAD
031116-1C	Men’s Bathroom	Plaster Wall Skim Coat – White (On Wire Lath)	NAD
031116-2A	Closet at Hall 300	Plaster Wall Base Coat – Brown (On Wire Lath)	NAD
031116-2B	Women’s Bathroom	Plaster Wall Base Coat – Brown (On Wire Lath)	NAD
031116-2C	Men’s Bathroom	Plaster Wall Base Coat – Brown (On Wire Lath)	NAD
031116-2D	Men’s Bathroom	Plaster Wall Base Coat – Brown (On Wire Lath)	NAD
031116-2E	Finance	Plaster Wall Base Coat – Brown (On Wire Lath)	NAD
031116-3A	City Clerk’s Room	Plaster Wall Skim Coat – White (On Brick)	NAD
031116-3B	City Clerk’s Vault	Plaster Wall Skim Coat – White (On Brick)	NAD
031116-3C	Attic	Plaster Wall Skim Coat – White (On Brick)	NAD

**TABLE 2-1**  
**ASBESTOS BULK SAMPLING**  
**Suffield Town Hall**  
**Suffield, CT**

<i>Sample Number</i>	<i>Location</i>	<i>Material</i>	<i>Percent Asbestos</i>
031116-4A	City Clerk's Room	Plaster Wall Base Coat – Gray (On Brick)	NAD
031116-4B	City Clerk's Vault	Plaster Wall Base Coat – Gray (On Brick)	NAD
031116-5A	Room 306	Gypsum Board	NAD
031116-5B	Room 113	Gypsum Board	NAD
031116-6A	Boiler Room	Joint Compound – White	NAD
031116-6B	Room 113	Joint Compound – White	NAD
031116-7A	Men's Bathroom	Plaster Ceiling Skim Coat – White	NAD
031116-7B	Men's Bathroom	Plaster Ceiling Skim Coat – White	NAD
031116-8A	Men's Bathroom	Plaster Ceiling Base Coat – Brown	NAD
031116-8B	Men's Bathroom	Plaster Ceiling Base Coat – Brown	NAD
031116-9A	Men's Bathroom	Ceramic Wall Tile Grout	NAD
031116-9B	Family Bathroom	Ceramic Wall Tile Grout	NAD
031116-10A	Men's Bathroom	Ceramic Wall Tile Setting Compound – White	NAD
031116-10B	Family Bathroom	Ceramic Wall Tile Setting Compound – White	NAD

**TABLE 2-1**  
**ASBESTOS BULK SAMPLING**  
**Suffield Town Hall**  
**Suffield, CT**

<i>Sample Number</i>	<i>Location</i>	<i>Material</i>	<i>Percent Asbestos</i>
031116-11A	Men's Bathroom	Ceramic Wall Tile Mud Set – Gray	NAD
031116-11B	Family Bathroom	Ceramic Wall Tile Mud Set – Gray	NAD
031116-12A	Men's Bathroom	Wall Paper – Canvas	NAD
031116-12B	Men's Bathroom	Wall Paper – Canvas	NAD
031116-13A	Hall 300	1'x1' Ceiling Tile	NAD
031116-13B	Hall 200	1'x1' Ceiling Tile	NAD
031116-14A	Hall 300	Brown Glue Daubs for 1'x1' Ceiling Tile	NAD
031116-14B	Hall 200	Brown Glue Daubs for 1'x1' Ceiling Tile	NAD
031116-14C	Hall 300	Brown Glue Daubs for 1'x1' Ceiling Tile	NAD
031116-15A	Room 306	2'x4' Suspended Ceiling Tile – Fissured	NAD
031116-15B	City Clerk's Room	2'x4' Suspended Ceiling Tile – Fissured	NAD
031116-16A	Kitchen	2'x2' Suspended Ceiling Tile – Textured w/Pinholes	NAD
031116-16B	Park and Recs Hallway	2'x2' Suspended Ceiling Tile – Textured w/Pinholes	NAD

**TABLE 2-1**  
**ASBESTOS BULK SAMPLING**  
**Suffield Town Hall**  
**Suffield, CT**

<i>Sample Number</i>	<i>Location</i>	<i>Material</i>	<i>Percent Asbestos</i>
031116-17A	Family Bathroom	2'x2' Suspended Ceiling Tile – Heavy Fissured	NAD
031116-17B	Family Bathroom	2'x2' Suspended Ceiling Tile – Heavy Fissured	NAD
031116-18A	Attic	Window Mortar	NAD
031116-18B	Attic	Window Mortar	NAD
031116-19A	Attic	Mortar Debris	NAD
031116-20A	Closet in Hall 300	6" Black Cove Base	NAD
031116-20B	Room 114	6" Blue Cove Base	NAD
031116-21A	Closet in Hall 300	Dark Brown Adhesive for 6" Cove Base	NAD
031116-21B	City Clerk's Room	Dark Brown Adhesive for 6" Cove Base	NAD
031116-22A	Room 114	Tan Adhesive for 6" Cove Base	NAD
031116-22B	City Clerk's Room	Tan Adhesive for 6" Cove Base	NAD
031116-23A	Kitchen	12"x12" Beige Mottled Floor Tile	NAD
031116-23B	Family Bathroom	12"x12" Beige Mottled Floor Tile	NAD
031116-24A	Kitchen	Tan Mastic for 12"x12" Beige Mottled Floor Tile	NAD

**TABLE 2-1**  
**ASBESTOS BULK SAMPLING**  
**Suffield Town Hall**  
**Suffield, CT**

<i>Sample Number</i>	<i>Location</i>	<i>Material</i>	<i>Percent Asbestos</i>
031116-24B	Family Bathroom	Tan Mastic for 12"x12" Beige Mottled Floor Tile	NAD
031116-2A	Kitchen	4" Off White Cove Base	NAD
031116-26A	Kitchen	Clear Adhesive for 4" Cove Base	NAD
031116-27A	Conference Room 112	Carpet Adhesive – Orange	NAD
031116-27B	Conference Room 112	Carpet Adhesive – Orange	NAD
031116-28A	Conference Room 112	Tan Adhesive for Carpet Cove Base	NAD
031116-28B	Conference Room 112	Tan Adhesive for Carpet Cove Base	NAD
031116-29A	Family Bathroom	White Expansion Joint Caulk	NAD
031116-29B	Family Bathroom	White Expansion Joint Caulk	NAD
031116-30A	Boiler Room	White End Cap Sealant	NAD
031116-30B	Hall 122	White End Cap Sealant	NAD
031116-31A	Hall 122	Black Adhesive for Fiberglass Pipe Insulation	NAD
031116-31B	Room 101	Black Adhesive for Fiberglass Pipe Insulation	NAD
<b>031116-32A</b>	<b>Room 101</b>	<b>Mudded Pipe Fittings – 2"</b>	<b>60% CH</b>

**TABLE 2-1**  
**ASBESTOS BULK SAMPLING**  
**Suffield Town Hall**  
**Suffield, CT**

<i>Sample Number</i>	<i>Location</i>	<i>Material</i>	<i>Percent Asbestos</i>
<b>031116-32B</b>	<b>Room 101</b>	<b>Mudded Pipe Fittings – 4”</b>	<b>NA/PS</b>
<b>031116-32C</b>	<b>Room 101</b>	<b>Mudded Pipe Fittings – 1”</b>	<b>NA/PS</b>
<b>031116-32D</b>	<b>Hall 122</b>	<b>Mudded Pipe Fittings – 6”</b>	<b>NA/PS</b>
031116-33A	Room 101	Pipe Dope – White	NAD
031116-33B	Room 101	Pipe Dope – White	NAD
031116-34A	City Clerk’s Room	Brown Paper for Poured Concrete Decking	NAD
031116-34B	Room 208	Brown Paper for Poured Concrete Decking	NAD
<b>031116-35A</b>	<b>Room 310A</b>	<b>Black Tar for Radiator Panels</b>	<b>8% CH</b>
<b>031116-35B</b>	<b>Room 310A</b>	<b>Black Tar for Radiator Panels</b>	<b>NA/PS</b>
031116-36A	Room 310A	Radiator Seam Tar/Gasket	NAD
031116-36B	Room 310A	Radiator Seam Tar/Gasket	NAD
031116-37A	Boiler Room	Black Tar Wrap	NAD
<b>031116-37B</b>	<b>Room 306</b>	<b>Black Tar Wrap</b>	<b>&lt;1% CH</b>
031116-38A	Room 302	Thick Tar Paper in Heating Unit	NAD

**TABLE 2-1**  
**ASBESTOS BULK SAMPLING**  
**Suffield Town Hall**  
**Suffield, CT**

<i>Sample Number</i>	<i>Location</i>	<i>Material</i>	<i>Percent Asbestos</i>
031116-38B	Room 306	Thick Tar Paper in Heating Unit	NAD
031116-39A	Attic	Copper Flashing Paper w/Black Tar	NAD
031116-39B	Attic	Copper Flashing Paper w/Black Tar	NAD
031116-40A	Room 310A	Brown Wall Panel Boards	NAD
031116-41A	Attic	Blown-In Insulation – White	NAD
031116-41B	Attic	Blown-In Insulation – White	NAD
031116-42A	Vestibule 209 – Stair	Door Glazing – Black	NAD
<b>031116-43A</b>	<b>Basement Hall</b>	<b>Door Glazing – Gray (Old)</b>	<b>15% CH</b>
031116-44A	Conference Room 112	Door Glazing – Gray (New)	NAD
<b>PRESUMED</b>	<b>Vaults</b>	<b>Vault Door Insulation</b>	<b>PACM</b>
HISTORICAL 12/2013 – TRC	Meeting Room 112 Ceiling	White Skim Coat	NAD
HISTORICAL 12/2013 – TRC	Meeting Room 112 Ceiling	Gray Plaster	NAD
HISTORICAL 12/2013 – TRC	Social Service Office 107	White Skim Coat	NAD
HISTORICAL 12/2013 – TRC	Social Service Office 107	Gray Plaster	NAD



**TABLE 2-1**  
**ASBESTOS BULK SAMPLING**  
**Suffield Town Hall**  
**Suffield, CT**

<b>Sample Number</b>	<b>Location</b>	<b>Material</b>	<b>Percent Asbestos</b>
HISTORICAL 12/2013 – TRC	Upper Level Closet	White Skim Coat	NAD
HISTORICAL 12/2013 – TRC	Upper Level Closet	Gray Plaster	NAD
HISTORICAL 12/2013 – TRC	Upper Level Hall	1x1 Spline Ceiling Tile	NAD
HISTORICAL 12/2013 – TRC	Main Entrance	1x1 Spline Ceiling Tile	NAD
HISTORICAL 12/2013 – TRC	Emergence Management Room 114	Orange Carpet Glue	NAD
HISTORICAL 12/2013 – TRC	Meeting Room 112	Orange Carpet Glue	NAD
HISTORICAL 12/2013 – TRC	Meeting Room 112	Tan Cove Base Glue	NAD
HISTORICAL 12/2013 – TRC	Meeting Room 112	Tan Cove Base Glue	NAD
HISTORICAL 12/2013 – TRC	Emergence Management Room 114	Tan Cove Base Glue	NAD
HISTORICAL 12/2013 – TRC	Emergence Management Room 113	Tan Cove Base Glue	NAD
HISTORICAL 12/2013 – TRC	Stairwell S-2	Tan Stair Tread Glue	NAD
HISTORICAL 12/2013 – TRC	Stairwell S-2	Tan Stair Tread Glue	NAD

**TABLE 2-1**  
**ASBESTOS BULK SAMPLING**  
**Suffield Town Hall**  
**Suffield, CT**

<i><b>Sample Number</b></i>	<i><b>Location</b></i>	<i><b>Material</b></i>	<i><b>Percent Asbestos</b></i>
HISTORICAL 12/2013 – TRC	Upper Floor Hall	Brown Glue Daubs associated with CT2	NAD
HISTORICAL 12/2013 – TRC	Main Entrance	Brown Glue Daubs associated with CT2	NAD
HISTORICAL 12/2013 – TRC	Main Entrance	White Joint Compound	NAD
HISTORICAL 12/2013 – TRC	Meeting Room 112	White Sheetrock	NAD
HISTORICAL 12/2013 – TRC	Computer Room 313	White Joint Compound	NAD
HISTORICAL 12/2013 – TRC	Computer Room 313	White Sheetrock	NAD
HISTORICAL 12/2013 – TRC	IT Department 311	White Joint Compound	NAD
HISTORICAL 12/2013 – TRC	IT Department 311	White Sheetrock	NAD
HISTORICAL 12/2013 – TRC	Corridor 122	White Joint Compound	NAD
HISTORICAL 12/2013 – TRC	Corridor 122	White Sheetrock	NAD
HISTORICAL 12/2013 – TRC	Economic Development 305	Off-White Sheetrock	NAD
HISTORICAL 12/2013 – TRC	Conference Room 304	Off-White Sheetrock	NAD
<b>HISTORICAL 12/2013 – TRC</b>	<b>Hall lower level o/s Bathrooms</b>	<b>Black Mastic</b>	<b>10% CH</b>

**TABLE 2-1**  
**ASBESTOS BULK SAMPLING**  
**Suffield Town Hall**  
**Suffield, CT**

<i>Sample Number</i>	<i>Location</i>	<i>Material</i>	<i>Percent Asbestos</i>
<b>HISTORICAL 12/2013 – TRC</b>	<b>Hall lower level o/s Bathrooms</b>	<b>Red 9x9 Floor Tile</b>	<b>3% CH</b>
<b>HISTORICAL 12/2013 – TRC</b>	<b>Probate Office 107</b>	<b>Black Mastic</b>	<b>NA/PS</b>
<b>HISTORICAL 12/2013 – TRC</b>	<b>Probate Office 107</b>	<b>Red 9x9 Floor Tile</b>	<b>NA/PS</b>
HISTORICAL 12/2013 – TRC	Probate Office 107	Tan Glue	NAD
HISTORICAL 12/2013 – TRC	Probate Office 107	Gray/White Specks Floor Tile	NAD
HISTORICAL 12/2013 – TRC	Probate Office 107	Tan Glue	NAD
HISTORICAL 12/2013 – TRC	Probate Office 107	Gray/White Specks Floor Tile	NAD
HISTORICAL 12/2013 – TRC	Kitchen Room 116	Tan Glue	NAD
HISTORICAL 12/2013 – TRC	Kitchen Room 116	Off White 12x12 Speckled Floor Tile	NAD
HISTORICAL 12/2013 – TRC	Kitchen Room 116	Tan Glue	NAD
HISTORICAL 12/2013 – TRC	Kitchen Room 116	Off White 12x12 Speckled Floor Tile	NAD
<b>HISTORICAL 12/2013 – TRC</b>	<b>Town Engineer 108</b>	<b>Tan/Black Mastic</b>	<b>3% CH</b>
HISTORICAL 12/2013 – TRC	Town Engineer 108	Blue 12x12 Floor Tile	Trace

**TABLE 2-1**  
**ASBESTOS BULK SAMPLING**  
**Suffield Town Hall**  
**Suffield, CT**

<i>Sample Number</i>	<i>Location</i>	<i>Material</i>	<i>Percent Asbestos</i>
<b>HISTORICAL 12/2013 – TRC</b>	<b>Town Engineer 108</b>	<b>Tan/Black Mastic</b>	<b>NA/PS</b>
HISTORICAL 12/2013 – TRC	Town Engineer 108	Blue 12x12 Floor Tile	NAD
HISTORICAL 12/2013 – TRC	Lower Level Handicapped Bathroom	Brown Mastic	NAD
HISTORICAL 12/2013 – TRC	Lower Level Handicapped Bathroom	White/Tan Flake Floor Tile	NAD
HISTORICAL 12/2013 – TRC	Lower Level Handicapped Bathroom	Brown Mastic	NAD
HISTORICAL 12/2013 – TRC	Lower Level Handicapped Bathroom	White/Tan Flake Floor Tile	NAD
HISTORICAL 12/2013 – TRC	Tax Collector 208	Beige Mastic	NAD
HISTORICAL 12/2013 – TRC	Tax Collector 208	Off-White Pinhole Floor Tile	NAD
HISTORICAL 12/2013 – TRC	Tax Collector 208	Beige Mastic	NAD
HISTORICAL 12/2013 – TRC	Tax Collector 208	Off-White Pinhole Floor Tile	NAD
HISTORICAL 12/2013 – TRC	Town Clerk 201	Tan Mastic	NAD
HISTORICAL 12/2013 – TRC	Town Clerk 201	Blue/Lt. Blue 12x12 Speckled Floor Tile	NAD
HISTORICAL 12/2013 – TRC	Town Clerk 201	Tan Mastic	NAD

**TABLE 2-1**  
**ASBESTOS BULK SAMPLING**  
**Suffield Town Hall**  
**Suffield, CT**

<i>Sample Number</i>	<i>Location</i>	<i>Material</i>	<i>Percent Asbestos</i>
HISTORICAL 12/2013 – TRC	Town Clerk 201	Blue/Lt. Blue 12x12 Speckled Floor Tile	NAD
<b>HISTORICAL 12/2013 – TRC</b>	<b>Hall 300</b>	<b>Black Mastic</b>	<b>20% CH</b>
<b>HISTORICAL 12/2013 – TRC</b>	<b>Hall 300</b>	<b>Tan/Off White Floor Tile w/Streaks</b>	<b>3% CH</b>
<b>HISTORICAL 12/2013 – TRC</b>	<b>Hall 300</b>	<b>Black Mastic</b>	<b>NA/PS</b>
<b>HISTORICAL 12/2013 – TRC</b>	<b>Hall 300</b>	<b>Tan/Off White Floor Tile w/Streaks</b>	<b>NA/PS</b>
HISTORICAL 12/2013 – TRC	Utility Room 101	Tan Duct Flue Packing Cement	NAD
HISTORICAL 12/2013 – TRC	Utility Room 101	Tan Duct Flue Packing Cement	NAD
HISTORICAL 12/2013 – TRC	Boiler Room	Gray Flue Packing Cement	NAD
HISTORICAL 12/2013 – TRC	Boiler Room	Gray Flue Packing Cement	NAD
HISTORICAL 12/2013 – TRC	Boiler Room 102	Black Expansion Joint Material	NAD
HISTORICAL 12/2013 – TRC	Boiler Room 102	Black Expansion Joint Material	NAD
<b>HISTORICAL 12/2013 – TRC</b>	<b>Attic</b>	<b>Gray Flex Connector</b>	<b>90% CH</b>
<b>HISTORICAL 12/2013 – TRC</b>	<b>Attic</b>	<b>Gray Flex Connector</b>	<b>NA/PS</b>

**TABLE 2-1**  
**ASBESTOS BULK SAMPLING**  
**Suffield Town Hall**  
**Suffield, CT**

<i>Sample Number</i>	<i>Location</i>	<i>Material</i>	<i>Percent Asbestos</i>
HISTORICAL 12/2013 – TRC	Main Entrance 209	Black Sticky Door Window Glaze	NAD
HISTORICAL 12/2013 – TRC	Main Entrance 209	Black Sticky Door Window Glaze	NAD
<b>HISTORICAL 12/2013 – TRC</b>	<b>Tax Collector 208</b>	<b>Black Elbow Packing Material</b>	<b>5.11% CH*</b>
HISTORICAL 12/2013 – TRC	Upper Level Main Stair Landing	Black Elbow Packing Material	NAD
HISTORICAL 12/2013 – TRC	First Floor Vault	Black/Aluminum Pipe Insulation	NAD
HISTORICAL 12/2013 – TRC	First Floor Tax Assessor	Black/Aluminum Pipe Insulation	NAD
HISTORICAL 2/2010 – TRC	Emergency Management Room	Plaster Skim and Base Coats	NAD
<b>HISTORICAL 2/2010 – TRC</b>	<b>Emergency Management Room</b>	<b>Mudded Fittings</b>	<b>60% CH</b>
<b>HISTORICAL 2/2010 – TRC</b>	<b>Basement Hallway</b>	<b>Mudded Fittings</b>	<b>NA/PS</b>
HISTORICAL 2/2010 – TRC	Emergency Management Room	2'x4' Worm/Pinhole Ceiling Tile	NAD
HISTORICAL 2/2010 – TRC	Basement Hallway	2'x2' Textured Ceiling Tile	NAD
HISTORICAL 2/2010 – TRC	1 <sup>st</sup> Floor Central Hallway	2'x2' Pinhole Ceiling Tile	NAD
HISTORICAL 2/2010 – TRC	Basement Hallway	Tan Paper wrap with tar on Fiberglass Pipe Insulation	NAD

<b>TABLE 2-1</b> <b>ASBESTOS BULK SAMPLING</b> <b>Suffield Town Hall</b> <b>Suffield, CT</b>			
<i>Sample Number</i>	<i>Location</i>	<i>Material</i>	<i>Percent Asbestos</i>
<b>HISTORICAL 5/2010 – TRC</b>	<b>Ground Floor Hallway</b>	<b>Foil Paper Insulation</b>	<b>10% CH</b>

NAD = No Asbestos Detected

CH = Chrysotile

NA/PS = Not Analyzed/Positive Stop

\*= Analyzed by TEM/NOB Method

Based on laboratory analysis, the following materials sampled as part of this survey were found to be Asbestos Containing:

- 9"x9" Floor Tile
- Black Mastic for 9" Floor Tile
- Pipe Fitting Insulation
- Black Elbow Tar Wrap
- Black Tar for Radiator Panels
- Door Glazing – Gray (Old)
- Vault Door Insulation (PACM)
- Gray Flex Connectors
- Ceramic Floor Tile Setting Compound/Grout (PACM)

Table 2-2 provides a summary of ACM types, locations and estimated quantities.

<b>TABLE 2-2</b> <b>SUMMARY OF ASBESTOS-CONTAINING MATERIALS</b> <b>Suffield Town Hall</b> <b>Suffield, CT</b>		
<i>Material</i>	<i>Locations</i>	<i>Estimated Quantity</i>
9"x9" Floor Tile w/Black Mastic	Room 106, Lower Level Hall 124/126, Hall 200, 201, 202, 203, 207, 208, Hall 300, 301 – 306, 309 – 313, Storage 120, Stair landings	Upper – 3,350 SF Ground – 2,700 SF Lower – 300 SF
Pipe Fitting Insulation	Throughout Lower Level and Ground Level, Wet Walls	300 EA
Black Elbow Tar Wrap	All Radiators	30 LF

**TABLE 2-2**  
**SUMMARY OF ASBESTOS-CONTAINING MATERIALS**  
*Suffield Town Hall*  
*Suffield, CT*

<i>Material</i>	<i>Locations</i>	<i>Estimated Quantity</i>
Black Tar for Radiator Panels	All Radiators	30 EA
Door Glazing – Gray (Old)	Corridor 124	1 EA
Vault Door Insulation	Vault 111, Vault 203	2 EA
Gray Flex Connectors	Attic	2 EA

SF = Square Feet

LF = Linear Feet

EA = Each

**NOTE:** Materials are present in concealed locations (above fixed ceilings, behind plumbing walls, under carpet, etc.).

The remaining materials which were sampled and tested were found to contain no detectable amounts of asbestos. Specifically, the following materials throughout the buildings were determined to be **non-asbestos containing**:

- Plaster Wall Skim Coat – White
- Plaster Wall Base Coat – Gray/Brown
- Plaster Ceiling Skim Coat – White
- Plaster Ceiling Base Coat – Gray/Brown
- Gypsum Board
- Joint Compound – White
- Panel Boards
- 2'x4' Suspended Ceiling Tile
- 2'x2' Suspended Ceiling Tile
- 1'x1' Ceiling Tile
- Brown Glue Daubs for 1'x1' Ceiling Tile
- Cove Base
- Adhesive for Cove Base
- Ceramic Wall Tile Grout
- Ceramic Wall Tile Adhesive/Setting Compound
- Carpet Adhesive
- Carpet Cove Base Adhesive
- Pipe Dope
- Duct Penetration Sealant
- Flue Cement



- End Cap Sealant
- Black Adhesive for Fiberglass Insulation Foil/Paper
- Door Glaze – Black
- Door Glaze – Gray (New)
- Brick Mortar
- Copper Flashing Paper w/Tar
- Blown-In Insulation

Refer to Table 2-1, Bulk Sample Summary of Suspect Materials, for all suspect materials that were identified and sampled.

## 2.4 Requirements

Prior to any activity which may disturb identified ACM, the materials must be abated by an Asbestos Abatement Contractor licensed by the Connecticut Department of Public Health (CT DPH) in accordance with federal and state asbestos abatement regulations.

EPA regulations require the removal of Regulated Asbestos-Containing Materials (RACM) prior to renovation or demolition activities. RACM is defined as: (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 activities. The CT DPH defines "asbestos abatement" as removal, encapsulation, enclosure, renovation, repair, demolition or other disturbance of asbestos-containing materials but does not include activities which are related to (A) the removal or repair of asbestos cement pipe and are performed by employees of a water company as defined in section 25-32a, or (B) the removal of non-friable asbestos-containing material found exterior to a building or structure other than material defined as regulated asbestos-containing material in 40 CFR § 61, the National Emission Standards for Hazardous Air Pollutants. Based upon these definitions, ACM identified may require removal prior to renovation or demolition. The State of Connecticut, Department of Energy and Environmental Protection (CT DEEP) regulations require the proper disposal of all ACM, regardless of categorization.

Asbestos abatement can only be performed by a CT DPH licensed Asbestos Abatement Contractor. The abatement contractor must comply with federal, state, and local laws and regulations, including but not limited to:

- State of Connecticut, Department of Public Health
- OSHA Regulation, 29 CFR § 1926.1101 (Asbestos)
- EPA Regulation, 40 CFR Part 61 (NESHAP)

Materials which contain less than one percent asbestos are not regulated by the CT DPH or EPA Regulation 40 CFR Part 61 (NESHAP), but are subject to the requirements of OSHA Regulation 29 CFR § 1926.1101 (Asbestos). Contractors or personnel who may handle these materials must be notified of the presence and location of these materials.

Demolition and roofing contractors must also comply with the above-referenced OSHA and EPA regulations when conducting demolition or renovation activities of structures with intact exterior ACM.

### **3.0 LEAD-BASED PAINT INSPECTION**

#### **3.1 XRF Testing Methodology**

Lead-in-paint sampling of representative interior and exterior building surfaces was conducted on March 11, 2016 by Mr. Scott Johnson, a CTDPH licensed Lead inspector Risk Assessor (CTDPH License No. 002224). An RMD LPA-1 XRF lead paint analyzer was used to perform lead analysis of representative accessible surfaces quickly, accurately, and non-destructively by measuring the concentration of lead in the surfaces. The XRF was programmed to take measurements with 95% confidence down to levels of 0.3 milligrams per square centimeter ( $\text{mg}/\text{cm}^2$ ). ATC utilized the portable hand-held XRF instrument manufactured by RMD Corporation to determine the presence of lead on representative interior building components associated with the Suffield Town Hall renovations as requested by the client.

The RMD LPA-1 Lead Paint Analyzer XRF is a direct read instrument, which displays results in micrograms of lead per square centimeter of surface area ( $\text{mg}/\text{cm}^2$ ). For the purpose of this report, the building was divided into "testing combinations." Testing combinations are defined as types of painted building components, which appear uniform in paint color and architectural feature. Representative interior and exterior surfaces associated with the building were tested. Upon arrival at the job site, a "validation test" was performed to assure that the instrument was operating properly. The validation test was performed on a lead standard supplied by the manufacturer to determine if the instrument measures the lead content consistently on a day-to-day basis. A series of three tests using the standard measurement (equivalent to a 60-second measurement) were taken on the lead standard. The individual readings were recorded and compared to the factory test data provided with the instrument.

The Environmental Protection Agency (EPA), Housing and Urban Development (HUD), and CTDPH define LBP as paint or other coatings (including glazing) containing a lead concentration of  $1.0 \text{ mg}/\text{cm}^2$  or greater as measured by XRF analysis. The OSHA Lead in Construction Industry Standard 29 CFR § 1926.62 deems paint to be lead-containing when any amount of lead is detected by XRF analysis. The State of Connecticut and EPA lead regulations deem paint to be lead-based when XRF analysis is greater than or equal to  $1.0 \text{ mg}/\text{cm}^2$ , or when found to be equal to or greater than 0.5 percent lead by Atomic Absorption Spectrophotometry (bulk sample). The CT DEEP hazardous waste regulations (RCSA, §§ 22a-209-1; 22a-209-8(c); 22a-449(c)-100 through 110) require building materials found to contain toxic levels of lead to be Toxicity Characteristic Leaching Procedure (TCLP) tested for waste determination prior to disposal. A TCLP reading of greater than or equal to 5.0 milligrams of lead per liters of water ( $\text{mg}/\text{l}$ ) is considered hazardous lead waste. A TCLP reading of less than 5.0  $\text{mg}/\text{l}$  is considered to be general construction debris.

Any demolition or renovation work which may potentially disturb LBP should be conducted using acceptable lead-safe work practices and procedures and be performed in accordance and compliance with all aspects of the OSHA Lead in Construction Industry Standard (29 CFR § 1926.62). In addition, workers involved in renovation activities which may disturb LBP should employ lead-safe work practices and be certified in accordance with the EPA's regulations found at 40 CFR Part 745, Lead; Renovation, Repair and Painting Program (RRP). Unless paint chip samples are collected, all other painted surfaces should also be assumed to contain detectable amounts of lead and be treated as LBP.

### 3.2 Summary of XRF Testing Results

XRF testing indicated the following components in Table 3-1 to be LBP (i.e. XRF readings of 1.0 mg/cm<sup>2</sup> or greater):

<b>TABLE 3-1</b> <b>LEAD-CONTAINING SURFACES/MATERIALS</b> <i>Suffield Town Hall</i> <i>Suffield, CT</i>		
<i>Surface</i>	<i>Color</i>	<i>Locations</i>
Original Wood Doors	White	Corridor 126, Hall 200, Vestibule 212, Hall 300
Black Iron Structural Supports	Black	Throughout
Ceramic Wall Tile	Green, Blue	Lower Level Women's Bathroom, Men's Bathroom, Family Bathroom

Please note that testing is representative; surfaces similar to those identified above and in the XRF tables (Appendix B) as having lead paint should also be considered as having lead paint.

### 3.3 Recommendations

All construction and demolition work that disturbs lead-containing materials will be subject to the OSHA Lead in Construction Standard. Contractors performing construction and demolition work are responsible for compliance with the OSHA Lead in Construction Standard if any of the following activities are performed during renovation, including activities that disturb the lead paint by the use of manual or mechanized techniques. **Regulated activities include abrasive blasting; welding, cutting and burning on structural components; manual or mechanized scraping, sanding and demolition of structures.**

Under OSHA, the employer (i.e. contractor) is responsible for protection of their employees when performing construction and demolition work, which disturbs lead materials. Compliance shall include written health and safety programs, hazard awareness, medical monitoring, exposure assessment testing and engineering controls. During design of the renovation project, building components with lead-containing paint must be carefully considered as to the potential for disturbance and specific construction work practices, which will impact them.

Should materials containing LBP be scheduled for demolition and disposal, ATC recommends collection of composite samples of building components, representative of debris to be generated by renovation activities, and submission to a licensed laboratory for Toxicity Characteristic Leaching Procedure (TCLP) analysis. The result of this test will indicate whether the resulting debris generated from building renovation activities will be characterized as hazardous waste.

## **APPENDIX A**

### Asbestos Bulk Sample Results and Chain of Custody



# EMSL Analytical, Inc.

29 North Plains Highway, Unit # 4 Wallingford, CT 06

Tel/Fax: (203) 284-5948 / (203) 284-5978

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

EMSL Order: 241600918

Customer ID: ATCE54

Customer PO: 16-10133-0001

Project ID:

**Attention:** Scott Johnson  
ATC Group Services LLC  
290 Roberts Street  
East Hartford, CT 06108

**Phone:** (860) 282-9924

**Fax:** (860) 282-9826

**Received Date:** 03/14/2016 8:30 AM

**Analysis Date:** 03/16/2016

**Collected Date:**

**Project:** 05944.16.001/ SUFFIELD TOWN HALL, 83 MOUNTAIN RD. SUFFIELD, CT

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

Sample	Description	Appearance	% Fibrous	Non-Asbestos	Asbestos
				% Non-Fibrous	% Type
031116-1A 241600918-0001	CLOSET 300 - PLASTER WALL SKIM COAT- WHITE (LATH)	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-1B 241600918-0002	W. BATH - PLASTER WALL SKIM COAT- WHITE (LATH)	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-1C 241600918-0003	M. BATH - PLASTER WALL SKIM COAT- WHITE (LATH)	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-2A 241600918-0004	CLOSET 300 - PLASTER WALL BASE COAT- BROWN (LATH)	Gray Non-Fibrous Homogeneous		25% Quartz 75% Non-fibrous (Other)	None Detected
031116-2B 241600918-0005	W. BATH - PLASTER WALL BASE COAT- BROWN (LATH)	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
031116-2C 241600918-0006	M. BATH - PLASTER WALL BASE COAT- BROWN (LATH)	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
031116-2D 241600918-0007	M. BATH - PLASTER WALL BASE COAT- BROWN (LATH)	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
031116-2E 241600918-0008	FINANCE - PLASTER WALL BASE COAT- BROWN (LATH)	Gray Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
031116-3A 241600918-0009	CITY CLERK - PLASTER WALL SKIM COAT- WHITE (BRICK)	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-3B 241600918-0010	CITY CLERK VAULT - PLASTER WALL SKIM COAT- WHITE (BRICK)	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-3C 241600918-0011	ATTIC - PLASTER WALL SKIM COAT- WHITE (BRICK)	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-4A 241600918-0012	CITY CLERK - PLASTER BASE COAT- GRAY (BRICK)	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
031116-4B 241600918-0013	CITY CLERK VAULT - PLASTER BASE COAT- GRAY (BRICK)	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
031116-5A 241600918-0014	ROOM 306 - GYPSUM BOARD	White Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected



# EMSL Analytical, Inc.

29 North Plains Highway, Unit # 4 Wallingford, CT 06

Tel/Fax: (203) 284-5948 / (203) 284-5978

<http://www.EMSL.com> / [wallingfordlab@emsl.com](mailto:wallingfordlab@emsl.com)

EMSL Order: 241600918

Customer ID: ATCE54

Customer PO: 16-10133-0001

Project ID:

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

Sample	Description	Appearance	<u>Non-Asbestos</u>		<u>Asbestos</u>
			% Fibrous	% Non-Fibrous	% Type
031116-5B 241600918-0015	ROOM 113 - GYPSUM BOARD	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-6A 241600918-0016	BOILER ROOM - JOINT COMPOUND- WHITE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-6B 241600918-0017	ROOM 113 - JOINT COMPOUND- WHITE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-7A 241600918-0018	M. BATH - PLASTER CEILING SKIM COAT	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-7B 241600918-0019	M. BATH - PLASTER CEILING SKIM COAT	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-8A 241600918-0020	M. BATH - PLASTER CEILING BASE COAT	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
031116-8B 241600918-0021	M. BATH - PLASTER CEILING BASE COAT	Gray Non-Fibrous Homogeneous		15% Quartz 85% Non-fibrous (Other)	None Detected
031116-9A 241600918-0022	W. BATH - CERAMIC WALL TILE GROUT	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-9B 241600918-0023	FAMILY BATH - CERAMIC WALL TILE GROUT	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-10A 241600918-0024	M. BATH - CERAMIC WALL TILE SETTING COMPOUND- WHITE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-10B 241600918-0025	FAMILY BATH - CERAMIC WALL TILE SETTING COMPOUND- WHITE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-11A 241600918-0026	M. BATH - CERAMIC WALL TILE MUD SET- GRAY	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
031116-11B 241600918-0027	FAMILY BATH - CERAMIC WALL TILE MUD SET- GRAY	Gray Non-Fibrous Homogeneous		15% Quartz 85% Non-fibrous (Other)	None Detected
031116-12A 241600918-0028	M. BATH - WALL PAPER- CANVAS	White Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
031116-12B 241600918-0029	M. BATH - WALL PAPER- CANVAS	White Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
031116-13A 241600918-0030	HALL 300 - 1'X1' CEILING TILE	Tan Fibrous Homogeneous	20% Cellulose 60% Min. Wool	20% Non-fibrous (Other)	None Detected
031116-13B 241600918-0031	HALL 200 - 1'X1' CEILING TILE	Tan Non-Fibrous Homogeneous	10% Cellulose 40% Min. Wool	50% Non-fibrous (Other)	None Detected
031116-14A 241600918-0032	HALL 300 - BROWN GLUE DAUBS FOR 1'X1' CT	Brown Non-Fibrous Homogeneous	3% Fibrous (Other)	97% Non-fibrous (Other)	None Detected
031116-14B 241600918-0033	HALL 200 - BROWN GLUE DAUBS FOR 1'X1' CT	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial Report From: 03/17/2016 10:53:56



# EMSL Analytical, Inc.

29 North Plains Highway, Unit # 4 Wallingford, CT 06

Tel/Fax: (203) 284-5948 / (203) 284-5978

<http://www.EMSL.com> / [wallingfordlab@emsl.com](mailto:wallingfordlab@emsl.com)

EMSL Order: 241600918

Customer ID: ATCE54

Customer PO: 16-10133-0001

Project ID:

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
031116-14C 241600918-0034	HALL 300 - BROWN GLUE DAUBS FOR 1'X1' CT	Brown Non-Fibrous Homogeneous	2% Fibrous (Other)	98% Non-fibrous (Other)	None Detected
031116-15A 241600918-0035	ROOM 306 - 2'X4' SUSPENDED CEILING TILE- FISSURED	Gray Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
031116-15B 241600918-0036	CITY CLERKS - 2'X4' SUSPENDED CEILING TILE- FISSURED	Gray Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
031116-16A 241600918-0037	KITCHEN - 2'X2' SUSPENDED CEILING TILE- TEXTURED W/PINHOLES	Gray Non-Fibrous Homogeneous	50% Cellulose 30% Min. Wool	20% Non-fibrous (Other)	None Detected
031116-16B 241600918-0038	P+R HALLWAY - 2'X2' SUSPENDED CEILING TILE- TEXTURED W/PINHOLES	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	20% Non-fibrous (Other)	None Detected
031116-17A 241600918-0039	FAMILY BATH - 2'X2' SUSPENDED CEILING TILE- HEAVY FISSURED	White Fibrous Homogeneous	90% Min. Wool	10% Non-fibrous (Other)	None Detected
031116-17B 241600918-0040	FAMILY BATH - 2'X2' SUSPENDED CEILING TILE- HEAVY FISSURED	Gray Fibrous Homogeneous	80% Min. Wool	20% Non-fibrous (Other)	None Detected
031116-18A 241600918-0041	ATTIC - WINDOW MORTAR	Gray Non-Fibrous Homogeneous		30% Quartz 70% Non-fibrous (Other)	None Detected
031116-18B 241600918-0042	ATTIC - WINDOW MORTAR	Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-19A 241600918-0043	ATTIC - MORTAR DEBRIS	Gray Non-Fibrous Homogeneous		25% Quartz 75% Non-fibrous (Other)	None Detected
031116-20A 241600918-0044	CLOSET 300 - 6" BLACK COVE BASE	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-20B 241600918-0045	ROOM 114 - 6" BLUE COVE BASE	Gray Non-Fibrous Homogeneous		25% Quartz 75% Non-fibrous (Other)	None Detected
031116-21A 241600918-0046	CLOSET 300 - D. BROWN ADHESIVE FOR 6" COVE BASE	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-21B 241600918-0047	CITY CLERKS - D. BROWN ADHESIVE FOR 6" COVE BASE	Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-22A 241600918-0048	ROOM 114 - TAN ADHESIVE FOR 6" COVE BASE	Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-22B 241600918-0049	CITY CLERKS - TAN ADHESIVE FOR 6" COVE BASE	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-23A 241600918-0050	KITCH - 12"X12" BEIGE MOTTLED FLOOR TILE	Beige Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected





# EMSL Analytical, Inc.

29 North Plains Highway, Unit # 4 Wallingford, CT 06

Tel/Fax: (203) 284-5948 / (203) 284-5978

<http://www.EMSL.com> / [wallingfordlab@emsl.com](mailto:wallingfordlab@emsl.com)

EMSL Order: 241600918

Customer ID: ATCE54

Customer PO: 16-10133-0001

Project ID:

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

Sample	Description	Appearance	% Fibrous	<u>Non-Asbestos</u> % Non-Fibrous	<u>Asbestos</u> % Type
031116-23B 241600918-0051	FAMILY BATH - 12"X12" BEIGE MOTTLED FLOOR TILE	Beige Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
031116-24A 241600918-0052	KITCHEN - TAN MASTIC FOR 12" BEIGE MOTTLED FLOOR TILE	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-24B 241600918-0053	FAMILY BATH - TAN MASTIC FOR 12" BEIGE MOTTLED FLOOR TILE	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-25A 241600918-0054	KITCHEN - 4" OFF WHITE COVE BASE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-26A 241600918-0055	KITCHEN - CLEAR ADHESIVE FOR 4" COVE BASE	Clear Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-27A 241600918-0056	CONFERENCE ROOM 112 - CARPET ADHESIVE- ORANGE	Yellow Non-Fibrous Homogeneous	2% Synthetic	98% Non-fibrous (Other)	None Detected
031116-27B 241600918-0057	CONF. ROOM 112 - CARPET ADHESIVE- ORANGE	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
031116-28A 241600918-0058	CONF. ROOM 112 - TAN ADHESIVE FOR CARPET COVE BASE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-28B 241600918-0059	CONF. ROOM 112 - TAN ADHESIVE FOR CARPET COVE BASE	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-29A 241600918-0060	FAMILY BATH - WHITE EXPANSION JOINT CAULK	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-29B 241600918-0061	FAMILY BATH - WHITE EXPANSION JOINT CAULK	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-30A 241600918-0062	BOILER ROOM - WHITE END CAP SEALANT	White Non-Fibrous Homogeneous	2% Cellulose 5% Glass	93% Non-fibrous (Other)	None Detected
031116-30B 241600918-0063	HALL 122 - WHITE END CAP SEALANT	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-31A 241600918-0064	HALL 122 - BLACK ADHESIVE FOR FIBERGLASS PIPE INSULATION	Black Non-Fibrous Homogeneous	10% Cellulose 5% Glass	85% Non-fibrous (Other)	None Detected
031116-31B 241600918-0065	ROOM 101 - BLACK ADHESIVE FOR FIBERGLASS PIPE INSULATION	Black Non-Fibrous Homogeneous	5% Min. Wool	95% Non-fibrous (Other)	None Detected
031116-32A 241600918-0066	ROOM 101 - MUDDIED PIPE FITTING 2"	Gray Fibrous Homogeneous		40% Non-fibrous (Other)	60% Chrysotile
031116-32B 241600918-0067	ROOM 101 - MUDDIED PIPE FITTING 4"				Stop Positive (Not Analyzed)

Initial Report From: 03/17/2016 10:53:56





# EMSL Analytical, Inc.

29 North Plains Highway, Unit # 4 Wallingford, CT 06

Tel/Fax: (203) 284-5948 / (203) 284-5978

<http://www.EMSL.com> / [wallingfordlab@emsl.com](mailto:wallingfordlab@emsl.com)

EMSL Order: 241600918

Customer ID: ATCE54

Customer PO: 16-10133-0001

Project ID:

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

Sample	Description	Appearance	<u>Non-Asbestos</u>		<u>Asbestos</u>
			% Fibrous	% Non-Fibrous	% Type
031116-32C 241600918-0068	ROOM 101 - MUDDERED PIPE FITTING 1"				Stop Positive (Not Analyzed)
031116-32D 241600918-0069	HALL 122 - MUDDERED PIPE FITTING 6"				Stop Positive (Not Analyzed)
031116-33A 241600918-0070	ROOM 101 - PIPE DOPE- WHITE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-33B 241600918-0071	ROOM 101 - PIPE DOPE- WHITE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-34A 241600918-0072	CITY CLERKS - BROWN PAPER FOR POURED CONCRETE DECKING	Brown Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
031116-34B 241600918-0073	ROOM 208 - BROWN PAPER FOR POURED CONCRETE DECKING	Brown Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
031116-35A 241600918-0074	ROOM 310A - BLACK TAR FOR RADIATOR PANELS	Black Non-Fibrous Homogeneous		92% Non-fibrous (Other)	8% Chrysotile
031116-35B 241600918-0075	ROOM 310A - BLACK TAR FOR RADIATOR PANELS				Stop Positive (Not Analyzed)
031116-36A 241600918-0076	ROOM 310A - RADIATOR SEAM TAR/GASKET	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-36B 241600918-0077	ROOM 310A - RADIATOR SEAM TAR/GASKET	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-37A 241600918-0078	BOILER ROOM - BLACK TAR WRAP	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
031116-37B 241600918-0079	ROOM 306 - BLACK TAR WRAP	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
031116-38A 241600918-0080	ROOM 302 - THICK TAR PAPER IN HEATING UNIT	Black Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
031116-38B 241600918-0081	ROOM 306 - THICK TAR PAPER IN HEATING UNIT	Black Fibrous Homogeneous	65% Cellulose 10% Synthetic	25% Non-fibrous (Other)	None Detected
031116-39A 241600918-0082	ATTIC - COPPER FLASHING PAPER W/BLACK TAR	Yellow Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
031116-39B 241600918-0083	ATTIC - COPPER FLASHING PAPER W/BLACK TAR	White/Black Fibrous Homogeneous	35% Cellulose	65% Non-fibrous (Other)	None Detected
031116-40A 241600918-0084	ROOM 310A - BROWN WALL PANEL BOARDS	Brown Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
031116-41A 241600918-0085	ATTIC - BLOWN-IN INSULATION WHITE	White Fibrous Homogeneous	<1% Cellulose 98% Min. Wool	2% Non-fibrous (Other)	None Detected



# EMSL Analytical, Inc.

29 North Plains Highway, Unit # 4 Wallingford, CT 06

Tel/Fax: (203) 284-5948 / (203) 284-5978

<http://www.EMSL.com> / [wallingfordlab@emsl.com](mailto:wallingfordlab@emsl.com)

EMSL Order: 241600918

Customer ID: ATCE54

Customer PO: 16-10133-0001

Project ID:

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

Sample	Description	Appearance	<u>Non-Asbestos</u>		<u>Asbestos</u>
			% Fibrous	% Non-Fibrous	% Type
031116-41B 241600918-0086	ATTIC - BLOWN-IN INSULATION WHITE	White Fibrous Homogeneous	<1% Cellulose 99% Min. Wool	1% Non-fibrous (Other)	None Detected
031116-42A 241600918-0087	VESTIBULE 209- STAIR - DOOR GLAZING- BLACK	Black Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
031116-43A 241600918-0088	BASEMENT HALL - DOOR GLAZING- GRAY (OLD)	Gray Non-Fibrous Homogeneous		85% Non-fibrous (Other)	15% Chrysotile
031116-44A 241600918-0089	CONF. ROOM 112 - DOOR GLAZING- GRAY (NEW)	Gray Non-Fibrous Homogeneous	<1% Cellulose <1% Fibrous (Other)	100% Non-fibrous (Other)	None Detected

### Analyst(s)

Jeremy Patino (24)

Kristin Lopez (32)

Lauren Brennan (25)

William Shedrawy (4)

Gloria V. Oriol, Laboratory Manager  
or Other Approved Signatory

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

Samples analyzed by EMSL Analytical, Inc. Wallingford, CT NVLAP Lab Code 200700-0,

Initial Report From: 03/17/2016 10:53:56

Carding ATC Inspector: <u>SCOTT JOHNSON</u>		Client Name: <u>Town of Suffield</u>					
Accreditation No.: <u>000297</u>		Project No./Task No.: <u>05944.16.001</u>					
Survey Date: <u>3/9/16 + 3/11/16</u>		Project Manager: <u>SCOTT JOHNSON</u>					
Signature: <u>[Signature]</u>		Requested Completion Date:					
Lab Name: <u>ENSL</u>		Requested turnaround time (circle) 3 HR 6 HR 24 HR 48 HR 3 DY 5 DY					
Building: <u>Suffield Town Hall</u>		Address: <u>83 Main St. Suffield, CT</u>					
Location	Material Description	Type TSI S MISC	Estimated Quantity	Friable Y/N	Condition (SD D ND)	Sample of (homogeneous material)	Field Number
Closet 300	Plaster Wall Skim Coat - White (latex)	S		N		1 3	031116- 1A
W. Bath	"	J		N		2 3	- 1B
M. Bath	"	J		N		3 3	- 1C
Closet 300	Plaster Wall Base Coat - Brown (latex)	S		N		1 5	- 2A
W. Bath	"	J		N		2 5	- 2B
M. Bath	"	J		N		3 5	- 2C
Finance	"	J		N		4 5	- 2D
City Clerk	Plaster Wall Skim Coat - White (Brick)	S		N		5 5	- 2E
City Clerk Vault	"	J		N		1 3	- 3A
Office	"	J		N		2 3	- 3B
City Clerk	Plaster Wall Base Coat - Gray (Brick)	S		N		3 3	- 3C
City Clerk Vault	"	J		N		1 2	- 4A
						2 2	- 4B

Comments: (Analyze by PLM) (Positive Stop)

Notes

Damage Factors:

Disturbance Factors:

Physical (sig dmg-dmg-no dmg)

Proximity (<1ft-1.6ft >6ft)

Ventilation (yes-no; if yes, type)

Water (extensive-moderate-slight-none)

Accessibility (within reach-barely reachable-not reachable)

Air conduits (air plenum - air shaft - elevator shaft - duct)

Deterioration (heavy-moderate-light-none)

Vibration (gym-music rm-auditorium-mechanical rm-elevator-other)

Air movement (high-moderate-low)

Friability (yes-no; hard-mod-soft surface)

Barriers (permeable-impermeable)

Texture (rough-smooth)

Relinquished By/Date:

Relinquished By/Date:

Received By/Date:

Received By/Date:





## 241600918 BULK SAMPLE LOG

Page 2 of 27

290 Roberts Street, Suite 301  
East Hartford, CT 06108  
(860) 282-9924 Fax: (860) 282-9826

ATC Inspector: <u>SCOTT JOHNSON</u> Accreditation No.: <u>000297</u>		Client Name: <u>Town of Suffield</u> Project No./Task No.: <u>059441.16.001</u>					
Survey Date: <u>3/19/16 + 3/11/16</u> Signature: <u>[Signature]</u>		Project Manager: <u>SCOTT JOHNSON</u> Requested Completion Date:					
Lab Name: <u>ENSL</u> Building: <u>Suffield Town Hall</u>		Requested turnaround time (circle): 3 HR 6 HR 24 HR 48 HR 3 DY 5 DY Address: <u>83 Mountain Rd. Suffield, CT</u>					
Location	Material Description	Type TSI S MISC	Estimated Quantity	Friable Y/N	Condition (SD D ND)	Sample of (homogeneous material)	Field Number
Room 306	Gypsum Board	M		N		1 2	031116-5A -5B
Room 113	Joint Compound - White	M		N		1 2	-6A -6B
Boiler Room	Plaster Ceiling Steam Coat	S		N		1 2	-7A -7B
Room 113	Plaster Ceiling Basic Coat	S		N		1 2	-8A -8B
M. Bath	Ceramic Wall Tile Grout	M		N		1 2	-9A -9B
M. Bath	Ceramic Wall Tile Setting Compound-White	M		N		1 2	-10A -10B
M. Bath	Ceramic Wall Tile Mud Set - Gray	M		N		1 2	-11A -11B
Family Bath	Wall paper - Canvas	M		N		1 2	-12A -12B

Comments: (Analyze by PLM) (Positive Step)

Notes

Damage Factors:

Disturbance Factors:

Physical (sig dmg-dmg-no dmg)

Proximity (&lt;1ft-1-6ft-&gt;6ft)

Ventilation (yes-no; if yes, type)

Water (extensive-moderate-slight-none)

Accessibility (within reach-barely reachable-not reachable)

Air conduits (air plenum - air shaft - elevator shaft - duct)

Deterioration (heavy-moderate-light-none)

Vibration (gym-music rm-auditorium-mechanical rm-elevator-other)

Air movement (high-moderate-low)

Friability (yes-no; hard-mod-soft surface)

Barriers (perm airtight-ventilated-rough-pitted-moderate-smooth)

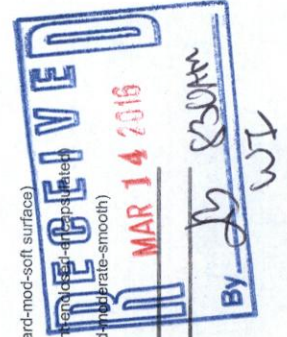
Texture (rough-pitted-moderate-smooth)

Relinquished By/Date:

Relinquished By/Date:

Received By/Date:

Received By/Date:





## BULK SAMPLE LOG

290 Roberts Street, Suite 301  
East Hartford, CT 06108  
(860) 282-9924 Fax: (860) 282-9826

ATC Inspector: <u>SCOTT JOHNSON</u>		Client Name: <u>Town of Suffield</u>					
Accreditation No.: <u>000297</u>		Project No./Task No.: <u>059441.16.001</u>					
Survey Date: <u>3/9/16 + 3/11/16</u>		Project Manager: <u>SCOTT JOHNSON</u>					
Signature: <u>[Signature]</u>		Requested Completion Date: _____					
Lab Name: <u>ENSL</u>		Requested turnaround time (circle) 3 HR 6 HR 24 HR 48 HR 5 DY					
Building: <u>Suffield Town Hall</u>		Address: <u>83 Mountain Rd. Suffield, CT</u>					
Location	Material Description	Type TSI S MISC	Estimated Quantity	Friable Y/N	Condition (SD D ND)	Sample of (homogeneous material)	Field Number
Hall 300	1'x1' Ceiling Tile	M		Y		1	031116-13A
Hall 200						2	-13B
Hall 300	Brwn Glue Dabs for 1'x1' CT	M		N		1	-14A
Hall 200						2	-14B
Hall 300	" " "	M		N		3	-14C
Rm 306	2'x4' Suspended Ceiling Tile - Figured	M		Y		1	-15A
City Clerk's						2	-15B
Kitchen	Textured	M		Y		1	-16A
P+R Hallway	2'x2' Suspended Ceiling Tile - w/pentoles	M		Y		2	-16B
Family Bath	Heavy	M		Y		1	-17A
Family Bath	2'x2' Suspended Ceiling Tile - Figured	M		Y		2	-17B
Attic	Window Mortar	M		N		1	-18A
Attic						2	-18B
Attic	Mortar Debris	M		N		1	-19A

Comments: (Analyze by PLM) (Positive Step)

Notes

Damage Factors:

Disturbance Factors:

Physical (sig dmg-dmg-no dmg)

Proximity (&lt;1ft - 1-6ft - &gt;6ft)

Ventilation (yes-no; if yes, type)

Water (extensive-moderate-slight-none)

Accessibility (within reach-barely reachable-not reachable)

Air conduits (air plenum - air shaft - elevator shaft - duct)

Deterioration (heavy-moderate-light-none)

Vibration (gym-music rm-auditorium-mechanical rm-elevator-other)

Air movement (high-moderate-low)

Friability (yes-no; hard-mod-soft surface)

Barriers (perm airtight-airtight-ventilated)

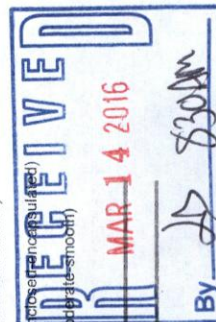
Texture (rough-pitted-mod-plate-smooth)

Relinquished By/Date:

Relinquished By/Date:

Received By/Date:

Received By/Date:





## BULK SAMPLE LOG

290 Roberts Street, Suite 301  
East Hartford, CT 06108  
(860) 282-9924 Fax: (860) 282-9826

ATC Inspector: <u>SCOTT JOHNSON</u>		Client Name: <u>Town of Suffield</u>					
Accreditation No.: <u>000297</u>		Project No./Task No.: <u>05944. K. 001</u>					
Survey Date: <u>3/9/16 + 3/11/16</u>		Project Manager: <u>SCOTT JOHNSON</u>					
Signature: <u>[Signature]</u>		Requested Completion Date: _____					
Lab Name: <u>ENSL</u>		Requested turnaround time (circle) 3 HR 6 HR 24 HR 48 HR <u>3 DY</u> 5 DY					
Building: <u>Suffield Town Hall</u>		Address: <u>83 Main St. Suffield, CT</u>					
Location	Material Description	Type TSI S MISC	Estimated Quantity	Friable Y/N	Condition (SD D ND)	Sample of (homogeneous material)	Field Number
<u>Closet 300</u>	<u>6" Black Cove Base</u>	<u>M</u>		<u>N</u>		<u>1</u>	<u>031116-20A</u>
<u>Rm 114</u>	<u>6" Blue Cove Base</u>	<u>M</u>		<u>N</u>		<u>2</u>	<u>-20B</u>
<u>Closet 300</u>	<u>Dr. Brown Adhesive for 6" Cove Base</u>	<u>M</u>		<u>N</u>		<u>1</u>	<u>-21A</u>
<u>City Clerk's</u>	<u>Tan Adhesive for 6" Cove Base</u>	<u>M</u>		<u>N</u>		<u>2</u>	<u>-21B</u>
<u>Kitchen</u>	<u>12"x12" Beige Mottled Floor Tile</u>	<u>M</u>		<u>N</u>		<u>1</u>	<u>-22A</u>
<u>Family Bath</u>	<u>Tan Mastic for 12" Beige Mottled Floor Tile</u>	<u>M</u>		<u>N</u>		<u>2</u>	<u>-22B</u>
<u>Kitchen</u>	<u>4" Off White Cove Base</u>	<u>M</u>		<u>N</u>		<u>1</u>	<u>-23A</u>
<u>Kitchen</u>	<u>Clear Adhesive for 4" Cove Base</u>	<u>M</u>		<u>N</u>		<u>2</u>	<u>-23B</u>
				<u>N</u>		<u>1</u>	<u>-24A</u>
				<u>N</u>		<u>2</u>	<u>-24B</u>
				<u>N</u>		<u>1</u>	<u>-25A</u>
				<u>N</u>		<u>1</u>	<u>-26A</u>

Comments: (Analyze by PLM) (Positive Step)

## Notes

Damage Factors:

Physical (sig dmg-dmg-no dmg)

Water (extensive-moderate-slight-none)

Deterioration (heavy-moderate-light-none)

RECEIVED  
MAR 14 2016

Friability (yes-no; hard-modest surface)

Vibration (gym-music rm-auditorium-mechanical rm-elevator-other)

Accessibility (within reach-barely reachable-not reachable)

Proximity (<1ft-1-6ft->6ft)

Disturbance Factors:

Ventilation (yes-no; if yes, type)

Air conduits (air plenum - air shaft - elevator shaft - duct)

Barriers (perm airtight-enclosed-encapsulated)

Texture (rough-pitted-modest-smooth)

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16[Signature]

Relinquished By/Date:

Received By/Date:

3/11/16



241600918

## BULK SAMPLE LOG

Page 5 of 87

290 Roberts Street, Suite 301  
East Hartford, CT 06108  
(860) 282-9924 Fax: (860) 282-9826

ATC Inspector: <u>SCOTT JOHNSON</u>		Client Name: <u>Town of Suffield</u>					
Accreditation No.: <u>000297</u>		Project No./Task No.: <u>059441.K.001</u>					
Survey Date: <u>3/9/16 + 3/11/16</u>		Project Manager: <u>SCOTT JOHNSON</u>					
Signature: <u>[Signature]</u>		Requested Completion Date: _____					
Lab Name: <u>EMSL</u>		Requested turnaround time (circle) 3 HR 6 HR 24 HR 48 HR 3 DY 5 DY					
Building: <u>Suffield Town Hall</u>		Address: <u>83 Main St. Suffield, CT</u>					
Location	Material Description	Type TSI S MISC	Estimated Quantity	Friable Y/N	Condition (SD D ND)	Sample of (homogeneous material)	Field Number
Conference Room 112	Carpet Adhesive - Orange	M		N		1	031116-27A
Conf. Room 112						2	-27B
Conf. Room 112	Tan Adhesive for Carpet Core Base	M		N		1	-27A
Conf. Room 112						2	-27B
Family Bath	White Expansion Joint Caulk	M		N		1	-27A
Family Bath						2	-27B
Boiler Room	White End cap Sealant	M		N		1	-30A
Hall 122						2	-30B
Hall 122	Black Adhesive for Fiberglass Pipe Insulation	M		N		1	-31A
Room 101						2	-31B
Room 101	Muddled Pipe Fitting	TSI		Y		1	-32A
Room 101	2"					2	-32B
Room 101	4"					3	-32C
Hall 122	1"	TSI		Y		4	-32D
Room 101	6"					1	-33A
Room 101	Pipe Tape - White	M		N		2	-33B
Room 101							

Comments: (Analyze by PLM) (Positive Step)

## Notes

Damage Factors:

Physical (sig dmg-dmg-no dmg)

Proximity (&lt;1ft-1-6ft-&gt;6ft)

Water (extensive-moderate-slight-none)

Accessibility (within reach-barely-reachable-not-reachable)

Air conduits (air plenum - air shaft - elevator shaft - duct)

Deterioration (heavy-moderate-light-none)

Vibration (gym-music rm-auditorium-mechanical rm-elevator-other)

Air movement (high-moderate-low)

Friability (yes-no; hard-medium-soft-medium-very soft)

Barriers (perm airtight-air-tight-capsulated)

Texture (rough-pitted-moderate-smooth)

Relinquished By/Date:

3/11/16

Received By/Date:

By: [Signature] 3/11/16

Relinquished By/Date:

Received By/Date:

By: [Signature] 3/11/16

RECEIVED  
MAR 14 2016  
By: [Signature] 3/11/16

WY



241600918

## BULK SAMPLE LOG

Page 6 of 47

290 Roberts Street, Suite 301  
East Hartford, CT 06108  
(860) 282-9924 Fax: (860) 282-9826

ATC Inspector: <u>SCOTT JOHNSON</u>		Client Name: <u>Town of Suffield</u>					
Accreditation No.: <u>000297</u>		Project No./Task No.: <u>05944. K. 001</u>					
Survey Date: <u>3/9/16 + 3/11/16</u>		Project Manager: <u>SCOTT JOHNSON</u>					
Signature: <u>[Signature]</u>		Requested Completion Date:					
Lab Name: <u>EMSL</u>		Requested turnaround time (circle) 3 HR 6 HR 24 HR 48 HR 3 DY 5 DY					
Building: <u>Suffield Town Hall</u>		Address: <u>83 Mountain Rd. Suffield, CT</u>					
Location	Material Description	Type TSI S MISC	Estimated Quantity	Friable Y/N	Condition (SD D ND)	Sample of (homogeneous material)	Field Number
City Clerk's Room 208	Brown Paper for Pinned Concrete Decking	M		N		1 2	031116-34A -34B
Room 310A	Black Tar for Radiator Panels	M		N		1 2	-35A -35B
Room 310A	Radiator - Seam Tar / Gasket	M		N		1 2	-36A -36B
Boiler Room	Black Tar wrap	M		N		1 2	-37A -37B
Room 306	Thick Tar Paper in Heating Unit	M		N		1 2	-38A -38B
Room 306	Copper Flashing Paper w/Black Tar	M		N		1 2	-39A -39B
Attic	Brown Wall Panel Boards	M		N		1 2	-40A -40B
Attic	Blown-In Insulation White	M		N		1 2	-41A -41B

Comments: (Analyze by PLM) (Positive Step)

## Notes

Damage Factors:

Disturbance Factors:

Physical (sig dmg-dmg-no dmg)

Proximity (&lt;1ft- 1-6ft- &gt;6ft)

Ventilation (yes-no; if yes, type)

Water (extensive-moderate-slight-none)

Accessibility (within reach-barely-reachable-not reachable)

Air conduits (air plenum - air shaft - elevator shaft - duct)

Deterioration (heavy-moderate-light-none)

Vibration (gym-music rm-auditorium-mechanical rm-elevator-other)

Air movement (high-moderate-low)

Friability (yes-no; hard-mod-soft-very soft)

Barriers (perm airtight-enclosed (encapsulated))

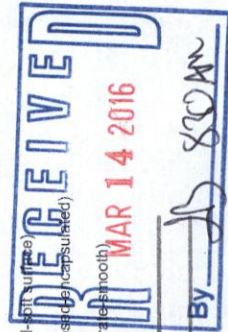
Texture (rough-pitted-mod-very smooth)

Relinquished By/Date:

Relinquished By/Date:

Received By/Date:

Received By/Date:





Received By/Date:  
Received By/Date:

## **APPENDIX B**

### **XRF Lead Testing Results**

Address: Suffield Town Hall 83 Mountain Rd Suffield CTPaint Condition: (I)ntact, (D)amaged, (NC)No Coating Substrate Condition: (G)ood, (F)air, (P)oor  
Substrate = (M)etal, (W)ood, (P)laster, (D)rywall, (B)rick, (C)oncrete

READING #	Side	Surface	XRF Result	Paint Condition	Substrate	Substrate Condition	Color	COMMENTS
1		CALIBRATION	1.0	I D NC	M W P D B C	G F P		
2			1.0	I D NC	M W P D B C	G F P		
3			1.0	I D NC	M W P D B C	G F P		
4		Door	1.0	I D NC	M W P D B C	G F P		Room 101
5	C	Wall	0.0	I D NC	M W P D B C	G F P	Tan	
6	D	Wall	0.0	I D NC	M W P D B C	G F P		
7	A	Wall	0.0	I D NC	M W P D B C	G F P		
8		Ceiling	0.0	I D NC	M W P D B C	G F P	White	
9	B	Wall	0.0	I D NC	M W P D B C	G F P	Tan	
10		Floor	0.1	I D NC	M W P D B C	G F P	Red	Room 111 Vault
11	C	Wall	0.0	I D NC	M W P D B C	G F P	Tan	
12		Floor	0.2	I D NC	M W P D B C	G F P	Red	
13		Ceiling	0.0	I D NC	M W P D B C	G F P	White	
14	A	Wall	0.0	I D NC	M W P D B C	G F P	Tan	
15	C	Vault Door	0.0	I D NC	M W P D B C	G F P	Gray	
16	D	Wall	0.0	I D NC	M W P D B C	G F P	Blue	Room 300
17	C	Window Sill	0.0	I D NC	M W P D B C	G F P	White	
18	B	Door	0.0	I D NC	M W P D B C	G F P	Tan	
19	B	Door Frame	0.0	I D NC	M W P D B C	G F P	Tan	
20	D	Wall	0.0	I D NC	M W P D B C	G F P	Blue	Room 304
21	C	Wall Upper	0.0	I D NC	M W P D B C	G F P	Dark Blue	Hall 300
22	C	Wall Lower	0.0	I D NC	M W P D B C	G F P	Dark Blue	
23	C	Chair Rail	0.0	I D NC	M W P D B C	G F P	White	
24	C	Door Trim	0.0	I D NC	M W P D B C	G F P	White	
25		Beam	0.0	I D NC	M W P D B C	G F P	Yellow	Attic
26	B	Stair Wall	0.0	I D NC	M W P D B C	G F P	White	
27		Column	0.0	I D NC	M W P D B C	G F P	Yellow	
28		Beam	0.0	I D NC	M W P D B C	G F P	Yellow	
29	C	Wall	0.0	I D NC	M W P D B C	G F P	Tan	Room 201 Tan Color
30	C	Vault Door	0.0	I D NC	M W P D B C	G F P	Green/Gray	
31	D	Wall	0.0	I D NC	M W P D B C	G F P	Tan	
32	D	Window Trim	0.0	I D NC	M W P D B C	G F P	White	
33	D	Window Sill	0.0	I D NC	M W P D B C	G F P	White	
34	D	Radiator	0.0	I D NC	M W P D B C	G F P	White	
35	A	Wall	0.0	I D NC	M W P D B C	G F P	Tan	
36		Black Ironbrass	1.0	I D NC	M W P D B C	G F P	Black	
37	B	Door	0.0	I D NC	M W P D B C	G F P	White	
38	B	Door Trim	0.0	I D NC	M W P D B C	G F P	White	
39	C	Wall	0.0	I D NC	M W P D B C	G F P	White/Tan	Room 211 Hall
40	D	Door	0.0	I D NC	M W P D B C	G F P	White	
41	A	Wall	0.0	I D NC	M W P D B C	G F P	White/Tan	
42	A	Wall	0.0	I D NC	M W P D B C	G F P	Tan/Blue Paper	Hall 200
43	A	Radiator	0.0	I D NC	M W P D B C	G F P	Blue	
44		Black Iron	1.0	I D NC	M W P D B C	G F P	Black	Room 211 Main Room
45	C	Wall	0.0	I D NC	M W P D B C	G F P	Tan	
46	B	Wall	0.0	I D NC	M W P D B C	G F P	White	Stair Riser
47	D	Beam	0.0	I D NC	M W P D B C	G F P	White	

1610

SIGNATURE

LICENSE# 002224

DATE 3/9/16



## **APPENDIX C**

### Historical Asbestos Sampling Results and Chain of Custody

<b>TABLE 1</b> <b>BULK SAMPLE SUMMARY OF SUSPECT ASBESTOS-CONTAINING MATERIALS</b> <b>TOWN HALL</b> <b>SUDBURY, CONNECTICUT</b>			
<b>Sample No.</b>	<b>Sample Location</b>	<b>Homogeneous Material</b>	<b>% and Type Asbestos</b>
01	Meeting room 112 ceiling	PL1 - White skim coat	ND<1%
		PL1 - Grey plaster	ND<1%
02	Social services office 107	PL1 - White skim coat	ND<1%
		PL1 - Grey plaster	ND<1%
03	Upper level closet	PL1 - White skim coat	ND<1%
		PL1 - Grey plaster	ND<1%
04	Upper Level hall	CT2 - 1x1 spline ceiling tile	ND<1%
05	Main entrance	CT2 - 1x1 spline ceiling tile	ND<1%
06	Emergency management office 114	G4 - Orange carpet glue	ND<1% <sup>1</sup>
07	Meeting room 112	G4 - Orange carpet glue	ND<1%
08	Meeting room 112	G5 - tan covebase glue	ND<1% <sup>1</sup>

NA/PVA Not analyzed/positive via inseparable association with a confirmed positive ACM

NA/PS Not analyzed/positive stop, homogeneous to sample proven to contain asbestos

ND<1% Non-detected, less than 1%

NAD No asbestos detected

+ Although found to be negative by analysis, material is homogeneous to a determined ACM and therefore must be considered positive

1 NOB material; result confirmed by TEM analyses

\* Quantified by PLM 600 Point Counting with Gravimetric Reduction



<b>TABLE 1</b> <b>BULK SAMPLE SUMMARY OF SUSPECT ASBESTOS CONTAINING MATERIALS</b> <b>TOWN HALL</b> <b>SUFFIELD, CONNECTICUT</b>			
<b>Sample No.</b>	<b>Sample Location</b>	<b>Homogeneous Material</b>	<b>% and Type Asbestos</b>
09	Meeting room 112	G5 – tan covebase glue	ND<1%
10	Emergency management office 114	G6 – tan cove base glue	ND<1% <sup>1</sup>
11	Emergency management office 113	G6 – tan cove base glue	ND<1%
12	Stairwell S-2	G7 – tan stair tread glue	ND<1% <sup>1</sup>
13	Stairwell S-2	G7 – tan stair tread glue	ND<1%
14	Upper floor hall	G8 – brown glue daub associated with CT2	ND<1% <sup>1</sup>
15	Main entrance	G8 – brown glue daub associated with CT2	ND<1%
16	Meeting room 112	SHR1 – white joint compound	ND<1%
		SHR1 – white sheetrock	ND<1%

NA/PVA Not analyzed/positive via inseparable association with a confirmed positive ACM

NA/PS Not analyzed/positive stop, homogeneous to sample proven to contain asbestos

ND<1% Non-detected, less than 1%

NAD No asbestos detected

+ Although found to be negative by analysis, material is homogeneous to a determined ACM and therefore must be considered positive

1 NOB material; result confirmed by TEM analyses

\* Quantified by PLM 600 Point Counting with Gravimetric Reduction

<b>TABLE 1</b> <b>BULK SAMPLE SUMMARY OF SUSPECT ASBESTOS CONTAINING MATERIALS</b> <b>TOWN HALL</b> <b>SUFFIELD, CONNECTICUT</b>			
<b>Sample No.</b>	<b>Sample Location</b>	<b>Homogeneous Material</b>	<b>% and Type Asbestos</b>
17	Computer room 313	SHR1 –white joint compound	ND<1%
		SHR1 – white sheetrock	ND<1%
18	IT department 311	SHR1 –white joint compound	ND<1%
		SHR1 – white sheetrock	ND<1%
19	Corridor 122	SHR1 –white joint compound	ND<1%
		SHR1 – white sheetrock	ND<1%
20	Economic development 305	SHR2 – off-white sheetrock	ND<1%
21	Conference room 304	SHR2 – off-white sheetrock	ND<1%
22	Hall lower level o/s bathrooms	FT1 –black mastic	10% chrysotile
		FT1 – red 9x9 floor tile	3% chrysotile
23	Probate office 107	FT1 –black mastic	NA/PS
		FT1 – red 9x9 floor tile	NA/PS

NA/PVA Not analyzed/positive via inseparable association with a confirmed positive ACM

NA/PS Not analyzed/positive stop, homogeneous to sample proven to contain asbestos

ND<1% Non-detected, less than 1%

NAD No asbestos detected

+ Although found to be negative by analysis, material is homogeneous to a determined ACM and therefore must be considered positive

1 NOB material; result confirmed by TEM analyses

\* Quantified by PLM 600 Point Counting with Gravimetric Reduction



<b>TABLE 1</b> <b>BULK SAMPLE SUMMARY OF SUSPECT ASBESTOS CONTAINING MATERIALS</b> <b>TOWN HALL</b> <b>SURFIELD, CONNECTICUT</b>			
Sample No.	Sample Location	Homogeneous Material	% and Type Asbestos
24	Probate office 107	FT2 –tan glue	ND<1%
		FT2 – grey/white specks floor tile	ND<1% <sup>1</sup>
25	Probate office 107	FT2 –tan glue	ND<1%
		FT2 – grey/white specks floor tile	ND<1%
26	Kitchen room 116	FT3 –tan glue	ND<1% <sup>1</sup>
		FT3 – off white 12x12 speckled floor tile	ND<1% <sup>1</sup>
27	Kitchen room 116	FT3 –tan glue	ND<1%
		FT3 – off white 12x12 speckled floor tile	ND<1%
28	Town engineer 108	FT4 –tan/black mastic	3% chrysotile
		FT4 – blue 12x12 floor tile	Trace chrysotile <sup>1</sup>

NA/PVA Not analyzed/positive via inseparable association with a confirmed positive ACM

NA/PS Not analyzed/positive stop, homogeneous to sample proven to contain asbestos

ND<1% Non-detected, less than 1%

NAD No asbestos detected

+ Although found to be negative by analysis, material is homogeneous to a determined ACM and therefore must be considered positive

1 NOB material; result confirmed by TEM analyses

\* Quantified by PLM 600 Point Counting with Gravimetric Reduction

<b>TABLE 1</b> <b>BULK SAMPLE SUMMARY OF SUSPECT ASBESTOS CONTAINING MATERIALS</b> <b>TOWN HALL</b> <b>SUFFIELD, CONNECTICUT</b>			
Sample No.	Sample Location	Homogeneous Material	% and Type Asbestos
29	Town engineer 108	FT4 –tan/black mastic	NA/PS
		FT4 – blue 12x12 floor tile	ND<1%
30	Lower level handicapped bathroom	FT5 –brown mastic	ND<1% <sup>1</sup>
		FT5 – white/tan flake floor tile	ND<1% <sup>1</sup>
31	Lower level handicapped bathroom	FT5 –brown mastic	ND<1%
		FT5 – white/tan flake floor tile	ND<1%
32	Tax Collector 208	FT6 –beige mastic	ND<1% <sup>1</sup>
		FT6 – off-white pinhole floor tile	ND<1% <sup>1</sup>
33	Tax Collector 208	FT6 –beige mastic	ND<1%
		FT6 – off-white pinhole floor tile	ND<1%
34	Town Clerk 201	FT7 – tan mastic	ND<1% <sup>1</sup>
		FT7 – blue/lt. blue 12x12 speckled floor tile	ND<1% <sup>1</sup>

NA/PVA Not analyzed/positive via inseparable association with a confirmed positive ACM

NA/PS Not analyzed/positive stop, homogeneous to sample proven to contain asbestos

ND<1% Non-detected, less than 1%

NAD No asbestos detected

+ Although found to be negative by analysis, material is homogeneous to a determined ACM and therefore must be considered positive

1 NOB material; result confirmed by TEM analyses

\* Quantified by PLM 600 Point Counting with Gravimetric Reduction

<b>TABLE 1</b> <b>BULK SAMPLE SUMMARY OF SUSPECT ASBESTOS CONTAINING MATERIALS</b> <b>TOWN HALL</b> <b>SUFFIELD, CONNECTICUT</b>			
<b>Sample No.</b>	<b>Sample Location</b>	<b>Homogeneous Material</b>	<b>% and Type Asbestos</b>
35	Town Clerk 201	FT7 – tan mastic	ND<1%
		FT7 – blue/lt. blue 12x12 speckled floor tile	ND<1%
36	Hall 300	FT8 black mastic	20% chrysotile
		FT8 – tan/off white floor tile with streaks	3% chrysotile
37	Hall 300	FT8 black mastic	NA/PS
		FT8 – tan/off white floor tile with streaks	NA/PS
38	Utility Storage Room 101	GR3 – Tan duct flue packing cement	ND<1%
39	Utility Storage Room 101	GR3 – Tan duct flue packing cement	ND<1%
40	Boiler Room	FP1 – Grey flue packing cement	ND<1%
41	Boiler Room	FP1 – Grey flue packing cement	ND<1%
42	Boiler Room 102	EJ1 – black expansion joint material	ND<1%

NA/PVA Not analyzed/positive via inseparable association with a confirmed positive ACM

NA/PS Not analyzed/positive stop, homogeneous to sample proven to contain asbestos

ND<1% Non-detected, less than 1%

NAD No asbestos detected

+ Although found to be negative by analysis, material is homogeneous to a determined ACM and therefore must be considered positive

1 NOB material; result confirmed by TEM analyses

\* Quantified by PLM 600 Point Counting with Gravimetric Reduction

<b>TABLE 1</b> <b>BULK SAMPLE SUMMARY OF SUSPECT ASBESTOS CONTAINING MATERIALS</b> <b>TOWN HALL</b> <b>SUDBURY, CONNECTICUT</b>			
Sample No.	Sample Location	Homogeneous Material	% and Type Asbestos
43	Boiler Room 102	EJ1 – black expansion joint material	ND<1%
44	Attic	FC1 – grey flex connector	90% chrysotile
45	Attic	FC1 – grey flex connector	NA/PS
46	Main Entrance vestibule 209	DWG1 – black sticky door window glaze	ND<1% <sup>1</sup>
47	Main Entrance vestibule 209	DWG1 – black sticky door window glaze	ND<1%
48	Tax Collector 208	MF2 – black elbow packing material	5.11% chrysotile <sup>1</sup>
49	Upper level main stair landing	MF2 – black elbow packing material	ND<1%
01A	First floor vault	PI2 – black/aluminum pipe insulation	ND<1%
02A	First floor tax assessor	PI2 – black/aluminum pipe insulation	ND<1%
<i>Previous Sampling from May 7, 2010</i>			
01	Ground floor - hallway	Foil paper insulation	10% chrysotile
02	Ground floor - hallway	Foil paper insulation	NA/PS

NA/PVA Not analyzed/positive via inseparable association with a confirmed positive ACM

NA/PS Not analyzed/positive stop, homogeneous to sample proven to contain asbestos

ND<1% Non-detected, less than 1%

NAD No asbestos detected

+ Although found to be negative by analysis, material is homogeneous to a determined ACM and therefore must be considered positive

1 NOB material; result confirmed by TEM analyses

\* Quantified by PLM 600 Point Counting with Gravimetric Reduction

<b>TABLE 1</b> <b>BULK SAMPLE SUMMARY OF SUSPECT ASBESTOS CONTAINING MATERIALS</b> <b>TOWN HALL</b> <b>SUFFIELD, CONNECTICUT</b>			
<b>Sample No.</b>	<b>Sample Location</b>	<b>Homogeneous Material</b>	<b>% and Type Asbestos</b>
03	Ground floor - emergency management	Foil paper insulation	NA/PS

NA/PVA Not analyzed/positive via inseparable association with a confirmed positive ACM

NA/PS Not analyzed/positive stop, homogeneous to sample proven to contain asbestos

ND<1% Non-detected, less than 1%

NAD No asbestos detected

+ Although found to be negative by analysis, material is homogeneous to a determined ACM and therefore must be considered positive

1 NOB material; result confirmed by TEM analyses

\* Quantified by PLM 600 Point Counting with Gravimetric Reduction

**TABLE 2  
IDENTIFIED ASBESTOS CONTAINING MATERIALS (>1%)  
TOWN HALL  
SUTFIELD, CONNECTICUT**

Material	Sampled- Assumed (mo/yr)	General Location	NESHAP Category	AHERA Category	Estimated Quantity
FT1 – red 9x9 floor tile and black mastic	Sampled 11/22/13	2 <sup>nd</sup> floor: Finance, server, vestibule, Human Resources 309, IT 310B, IT 311	Category 1 non friable	Miscellaneous	1,218 SF
FT1 – red 9x9 floor tile and black mastic	Sampled 11/22/13	1 <sup>st</sup> floor: Assessor, Tax collector, Town clerk, Registrar, Rear Office, Mail room, Revaluation Room	Category 1 non friable	Miscellaneous	1,218 SF
FT4 – blue 12x12 floor tile with tan/black mastic	Sampled 11/22/13	1 <sup>st</sup> Floor: Office 108	Category 1 non friable	Miscellaneous	198 SF
FT8 – tan/off white floor tile with streaks	Sampled 11/22/13	2 <sup>nd</sup> floor: corridors, closet, stairwell landing, Human resources 306, Economic Development, Conference room, First Selectman 303, Assistant 302  1 <sup>st</sup> Floor: Corridor	Category 1 non friable	Miscellaneous	1,332 SF
FC1 – grey flexible duct connectors	Sampled 11/22/13	Attic	Friable	Miscellaneous	2 EA

**TABLE 2  
IDENTIFIED ASBESTOS CONTAINING MATERIALS (>1%)  
TOWN HALL  
SUFFIELD, CONNECTICUT**

<b>Material</b>	<b>Sampled- Assumed (mo/yr)</b>	<b>General Location</b>	<b>NESHAP Category</b>	<b>AHERA Category</b>	<b>Estimated Quantity</b>
MF1 – mudded pipe fittings	Assumed	Throughout	Friable	Thermal system insulation	~300 EA
MF2 – black elbow packing material	Sampled 11/22/13	At radiators throughout building	Friable	Thermal system insulation	~480 LF
P11 – pipe insulation	Assumed	All levels in inaccessible locations	Friable	Thermal system insulation	Not quantifiable
Foil paper insulation	Sampled 5/7/10	Basement, first floor and second floor – above ceilings	Friable	Miscellaneous	~1,200 SF
Roofing materials	Assumed	All roofs	Category I Non friable	Miscellaneous	Not quantifiable

**TABLE 3  
CONFIRMED NON-ASBESTOS CONTAINING MATERIALS  
TOWN HALL  
SUFFIELD, CONNECTICUT**

<b>Material</b>	<b>General Location</b>
PL1 - Grey plaster and white skim coat	Throughout
CT2 - 1x1 spline ceiling tile	Upper level and main entrance
G4 - Orange carpet glue	Rooms 112 and 114
G5 - tan covebase glue	Room 112
G6 - tan covebase glue	Rooms 113 and 114
G7 - tan stair tread glue	Stairwell S-2
G8 - brown glue daub associated with CT2	Upper floor corridor and main entrance
SHR1 - white sheetrock and white joint compound	Throughout
SHR2 - off-white sheetrock	Rooms 304 and 305
FT2 - grey/white specks floor tile with tan glue	Throughout
FT3 - off white 12x12 speckled floor tile with tan glue	Throughout
FT5 - white/tan flake floortile and brown mastic	Throughout
FT6 - off-white pinhole floortile with beige mastic	Throughout
FT7 - blue/lt. blue 12x12 specks floor tile with tan mastic	Throughout
GR3 - Tan duct flue packing cement	Utility Storage Room 101
FP1 - Grey flue packing cement	Boiler Room



**TABLE 3**  
**CONFIRMED NON-ASBESTOS CONTAINING MATERIALS**  
**TOWN HALL**  
**SUFFIELD, CONNECTICUT**

<b>Material</b>	<b>General Location</b>
EJ1 – black expansion joint material	Boiler Room 102
DWG1 – black sticky door window glaze	Main Entrance vestibule 209
PI2 – black/aluminum pipe insulation	First floor

<b>TABLE 4</b> <b>SUMMARY OF LEAD BASED PAINT XRF MEASUREMENTS</b> <b>TOWN HALL</b> <b>SUFFIELD, CONNECTICUT</b>					
<b>Structure</b>	<b>No. of Measurements</b>	<b>Calibrations</b>	<b>Void</b>	<b>Lead Detected</b>	<b>No Lead Detected</b>
Ground Floor Restroom	94	7	0	32	55

See Lead Based Paint XRF Measurement Table



21 GRIFFIN ROAD NORTH  
WINDSOR, CONNECTICUT 06095  
TELEPHONE (860) 298-9692  
FAX (860) 298-6380

## ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

Edition: October 2009  
Supersede Previous Edition

LAB ID #. 43281

PROJECT NUMBER		PROJECT NAME		PARAMETERS		TURNAROUND TIME									
211266.0010.00001		Suffield Town Hall Suffield, CT		PLM EPA 600/R93/116 (POSITIVE STOP)		PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	PLM:	8hr	24hr	48hr	3day	5day
SIGNATURE		INSPECTOR		SAMPLE LOCATION		MATERIAL									
FIELD SAMPLE NUMBER	DATE	TIME	TYPE	COMP	GRAB										
01	11/21/13	1853	X		X	Meeting room 112 ceiling	X								
02	11/21/13	1945	X		X	Social services office 107	X								
03	11/22/13	1345	X		X	Upper level closet	X								
04	11/22/13	1440	X		X	Upper Level hall	X								
05	11/22/13	1444	X		X	Main entrance	X								
06	11/22/13	1320	X		X	Emergency management office 114	X			X					
07	11/22/13	1825	X		X	Meeting room 112	X								
08	11/22/13	1327	X		X	Meeting room 112	X			X					
09	11/21/13	1822	X		X	Meeting room 112	X								
10	11/22/13	1323	X		X	Emergency management office 114	X			X					

Relinquished by: (Signature)	Date:	Received by: (Signature)	Date:	Relinquished by: (Signature)	Date:	Received by: (Signature)	Date:
	12/2/13		12/3/13				
(Printed)		(Printed)					
Hilton Hernandez	1530	0900					
Remarks: Results to Henry LaLiberte				Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Comments:			



21 GRIFFIN ROAD NORTH  
WINDSOR, CONNECTICUT 06095  
TELEPHONE (860) 298-9692  
FAX (860) 298-6380

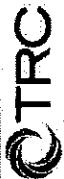
## ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

Edition: October 2009  
Supersedes Previous Edition

LAB ID #. 47281

PROJECT NUMBER		PROJECT NAME		PARAMETERS				TURNAROUND TIME						
211266.0010.00001		Suffield Town Hall Suffield, CT		PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF > 1% & < 10%)	TEM NY NOB 1984 (IF PLM SERIES NEG)	PLM:	8hr	24hr	48hr	3day	
SIGNATURE		INSPECTOR		MATERIAL										
FIELD SAMPLE NUMBER	DATE	TIME	TYPE		SAMPLE LOCATION									
			COMP	GRAB										
11	11/21/13	1930	X		Emergency management office 113	X								G6 - tan cove base glue
12	11/21/13	2040	X		Stairwell S-2	X			X					G7 - tan stair tread glue
13	11/21/13	2038	X		Stairwell S-2	X								G7 - tan stair tread glue
14	11/22/13	1435	X		Upper floor hall	X			X					G8 - brown glue daub associated with CT2
15	11/22/13	1430	X		Main entrance	X								G8 - brown glue daub associated with CT2
16	11/21/13	1904	X		Meeting room 112	X			X					SHR1 - white sheetrock and white joint compound
17	11/22/13	1335	X		Computer room 313	X			X					SHR1 - white sheetrock and white joint compound
18	11/22/13	1338	X		IT department 311	X			X					SHR1 - white sheetrock and white joint compound
19	11/22/13	1550	X		Corridor 122	X			X					SHR1 - white sheetrock and white joint compound
20	11/22/13	1402	X		Economic development 305	X			X					SHR2 - off-white sheetrock
21	11/22/13	1359	X		Conference room 304	X			X					SHR2 - off-white sheetrock

Relinquished by: (Signature) 	Date: 12/2/13	Received by: (Signature) 	Date: 12/3/13	Relinquished by: (Signature)	Date:	Received by: (Signature)
(Printed) Hilton Hernandez	Time: 1530	(Printed) 0900	Time: 0900	(Printed)	Time:	(Printed)
Remarks:				Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Comments:		
				Page 2 of 5		



21 GRIFFIN ROAD NORTH  
WINDSOR, CONNECTICUT 06095  
TELEPHONE (860) 298-9692  
FAX (860) 298-6380

## ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

Edition: October 2009  
Supersede Previous Edition

LAB ID #. 43281

PROJECT NUMBER 211266-0010-00001	PROJECT NAME Suffield Town Hall Suffield, CT	INSPECTOR Hilton Hernandez	PARAMETERS				TURNAROUND TIME								
			PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY N93 198.4 (IF PLM SERIES NEG)	PLM:	TEM:	8hr	24hr	48hr	3day	5day	
FIELD SAMPLE NUMBER	DATE	TIME	TYPE	GRAB	SAMPLE LOCATION	MATERIAL									
22	11/21/13	2015	X	X	Hall lower level o/s bathrooms	X		X		X	FT1 - red 9x9 floortile and black mastic				
23	11/21/13	1938	X	X	Probate office 107	X		X			FT1 - red 9x9 floortile and black mastic				
24	11/21/13	1941	X	X	Probate office 107	X		X		X	FT2 - grey/white specks floortile with tan glue				
25	11/22/13	1550	X	X	Probate office 107	X		X		X	FT2 - grey/white specks floortile with tan glue				
26	11/22/13	1528	X	X	Kitchen room 116	X		X		X	FT3 - offwhite 12x12 specks with tan glue				
27	11/21/13	1952	X	X	Kitchen room 116	X		X			FT3 - offwhite 12x12 specks with tan glue				
28	11/21/13	1955	X	X	Town engineer 108	X		X		X	FT4 - blue 12x12 floor tile with tan/black mastic				
29	11/22/13	1630	X	X	Town engineer 108	X		X			FT4 - blue 12x12 floor tile with tan/black mastic				
30	11/22/13	1330	X	X	Lower level handicapped bathroom	X		X		X	FT5 - white/tan flake floortile and brown mastic				
31	11/21/13	2011	X	X	Lower level handicapped bathroom	X		X			FT5 - white/tan flake floortile and brown mastic				

Relinquished by: (Signature) 	Date: 12/2/13	Received by: (Signature) 	Date: 12/3/13	Relinquished by: (Signature)	Date:	Received by: (Signature)
(Printed) Hilton Hernandez	Time: 1530	(Printed) Hilton Hernandez	Time: 0900	(Printed)	Time:	(Printed)
Remarks:	Condition of Samples: <u>Yes</u> <u>No</u>			Page 3 of 5		



21 GRIFFIN ROAD NORTH  
WINDSOR, CONNECTICUT 06095  
TELEPHONE (860) 298-9692  
FAX (860) 298-6380

## ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

Edition: October 2009  
Supersede Previous Edition

PROJECT NUMBER		PROJECT NAME		PARAMETERS		TURNAROUND TIME				
211266.0010.00001		Suffield Town Hall Suffield, CT		PLM-EPA 600/R3/116 (POSITIVE STOP)	PLM-EPA 600/R3/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	PLM: 8hr X 24hr 48hr 3day	TEM: 24hr 48hr 3day 5day
SIGNATURE		INSPECTOR		SAMPLE LOCATION		MATERIAL				
FIELD SAMPLE NUMBER	DATE	TIME	TYPE	COMP	GRAB					
32	11/21/13	2210	X			Tax Collector 208	X		X	FT6 - off-white pinhole floor tile with beige mastic
33	11/21/13	2212	X			Tax Collector 208	X			FT6 - off-white pinhole floor tile with beige mastic
34	11/21/13	2219	X			Town Clerk 201	X		X	FT7 - blue/lt. blue 12x12 specks floor tile with tan mastic
35	11/21/13	2217	X			Town Clerk 201	X			FT7 - blue/lt. blue 12x12 specks floor tile with tan mastic
36	11/21/13	2117	X			Hall 300	X		X	FT8 - tan/offwhite floor tile with streaks
37	11/21/13	2115	X			Hall 300	X			FT8 - tan/offwhite floor tile with streaks
38	11/21/13	2027	X			Utility Storage Room 101	X			GR3 - Tan duct flue packing cement
39	11/21/13	2029	X			Utility Storage Room 101	X			GR3 - Tan duct flue packing cement
40	11/21/13	2055	X			Boiler Room	X			FP1 - Grey flue packing cement
41	11/21/13	2057	X			Boiler Room	X			FP1 - Grey flue packing cement

Relinquished by: (Signature)		Date:	Received by: (Signature)		Date:	Relinquished by: (Signature)		Date:	Received by: (Signature)	
		12/2/13			12/3/13					
(Printed)		Time:	(Printed)		Time:	(Printed)		Time:	(Printed)	
Hilton Hernandez		1530	0900		0900					
Remarks:						Condition of Samples: <u>Yes</u> <u>No</u>		Page 4 of 5		



22 Cummings Park, Woburn, MA 01801 Ph. 781-935-3212 Fax 781-932-4857  
TEM Bulk Chain of Custody Record

PO#: C211266

Client Job#: 211266.0010.0001

Relinquished by: K. Williamson - KWilliamson@trcsolutions.com

Report to: H. Laliberte- HLaliberte@trcsolutions.com

H. Hernandez

<12 Hour

## 24 Hour

**<48 Hour**

3 Day

## 5 Day

Other:

Analysis Type:	Chatfield	EPA N.O.B	Qualitative
Analysis Type:	Chatfield	EPA N.O.B	Qualitative

[illegible]



NT 14235

## TEM Bulk Chain of Custody Record

Date: 12/04/13

**C211266**

**TRC**

211266.0010.0001

Town of Suffield, Suffield Town Hall, Suffield, CT

K. Williamson - KWilliamson@trcsolutions.com

1915-13 16-18

H. Laliberte- HlLiberte@trcsolutions.com

H. Hernandez

Turn Around Time:

<12 Hour	<24 Hour
----------	----------

**<48 Hour**

3 Day

5 Day

Other:

Client ID #	Lab ID#	Description	Location	Acceptable on Receipt	For Lab Use Only
06	43281	Glue	See COC		
08	43281	Glue			
10	43281	Glue			
12	43281	Glue			
14	43281	Glue Daub			
24	43281	Tile & Glue			
26	43281	Tile & Glue			
28	43281	Tile only			
30	43281	Tile & Mastic			
32	43281	Tile & Mastic			
34	43281	Tile & Mastic			
46	43281	Glaze			
48	43281	Elbow Packing			
For Lab Use Only	# Spies	Total	Client #	Batch #	Results Reported
					Comments



[illegible]

## **APPENDIX B**

### **PLM LABORATORY ANALYSIS DATA**



**BULK ASBESTOS ANALYSIS REPORT**

CLIENT: Town of Suffield

Lab Log #: 0043281  
Project #: 211266.0010.0001  
Date Received: 12/03/2013  
Date Analyzed: 12/04/2013

Site: Suffield Town Hall, Suffield, CT

**POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116**

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
01	White (skim coat)	No	Yes	1		ND<1%	None
01	Grey (base coat)	No	Yes	2		ND<1%	None
02	White (skim coat)	No	Yes	1		ND<1%	None
02	Grey (base coat)	No	Yes	2		ND<1%	None
03	White (skim coat)	No	Yes	1		ND<1%	None
03	Grey (base coat)	No	Yes	2		ND<1%	None
04	Grey	Yes	No		10% cellulose 80% mineral wool	ND<1%	None
05	Grey	Yes	No		10% cellulose 80% mineral wool	ND<1%	None
06	Orange	Yes	No			ND<1%	None
07	Orange	Yes	No			ND<1%	None
08	Tan	Yes	No			ND<1%	None
09	Tan	Yes	No			ND<1%	None
10	Tan	Yes	No			ND<1%	None
11	Tan	Yes	No			ND<1%	None
12	Tan	Yes	No			ND<1%	None
13	Tan	Yes	No			ND<1%	None
14	Brown	Yes	No			ND<1%	None

**TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS**

NVEAP Lab Code 101424-0 AIHA #100122 CT #PH-0426 ME LA-0075, LB-0071 MA #AA000052 NY #10980 WV# LT000356  
RI #AAL-007C3 TX #300354 VT #AL014538 VA #3333 000283 AZ #A20944 HI #L-09-004 NJ #CT004 CA #10275CA



**POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116**

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
15	Brown	Yes	No	--		ND<1%	None
16	White (joint compound)	No	Yes	1		ND<1%	None
16	White (sheetrock)	No	Yes	2	5% cellulose	ND<1%	None
17	White (joint compound)	No	Yes	1		ND<1%	None
17	White (sheetrock)	No	Yes	2	5% cellulose	ND<1%	None
18	White (joint compound)	No	Yes	1		ND<1%	None
18	White (sheetrock)	No	Yes	2	5% cellulose	ND<1%	None
19	White (joint compound)	No	Yes	1		ND<1%	None
19	White (sheetrock)	No	Yes	2	5% cellulose	ND<1%	None
20	Off White	Yes	No	--	1% cellulose	ND<1%	None
21	Off White	Yes	No	--	1% cellulose	ND<1%	None
22	Black (mastic)	No	Yes	1		10%	Chrysotile
22	Red (tile)	No	Yes	2		3%	Chrysotile
23						NA/PS	
23						NA/PS	
24	Tan (glue)	No	Yes	1		ND<1%	None
24	Grey/White (tile)	No	Yes	2		ND<1%	None
25	Tan (glue)	No	Yes	1		ND<1%	None
25	Grey/White (tile)	No	Yes	2		ND<1%	None
26	Tan (glue)	No	Yes	1		ND<1%	None
26	Off White (tile)	No	Yes	2		ND<1%	None
27	Tan (glue)	No	Yes	1		ND<1%	None
27	Off White (tile)	No	Yes	2		ND<1%	None

**TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS**

NVLAP Lab Code 101424-0    AIHA #100122    CT #PH-0426    ME LA-0075, LB-0071    MA #AA000052    NY #10980    WV# 1T000356  
 RI #AAL-007C3    TX #300354    VT #AL014538    VA #3333-000283    AZ #A20944    IL #L-09-004    NJ #CT004    CA #10275CA



**POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116**

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
28	Tan/Black (glue)	No	Yes	1		3%	Chrysotile
28	Blue (tile)	No	Yes	2		ND<1%	None
29						NA/PS	
29	Blue (tile)	No	Yes	2		ND<1%	None
30	Brown (mastic)	No	Yes	1		ND<1%	None
30	White/Tan (tile)	No	Yes	2		ND<1%	None
31	Brown (mastic)	No	Yes	1		ND<1%	None
31	White/Tan (tile)	No	Yes	2		ND<1%	None
32	Beige (mastic)	No	Yes	1		ND<1%	None
32	Off White (tile)	No	Yes	2		ND<1%	None
33	Beige (mastic)	No	Yes	1		ND<1%	None
33	Off White (tile)	No	Yes	2		ND<1%	None
34	Tan (mastic)	No	Yes	1		ND<1%	None
34	Blue/Light Blue (tile)	No	Yes	2		ND<1%	None
35	Tan (mastic)	No	Yes	1		ND<1%	None
35	Blue/Light Blue (tile)	No	Yes	2		ND<1%	None
36	Black (mastic)	No	Yes	1		20%	Chrysotile
36	Tan/Off White (tile)	No	Yes	2		3%	Chrysotile
37						NA/PS	
37						NA/PS	
38	Tan	Yes	No			ND<1%	None
39	Tan	Yes	No			ND<1%	None
40	Grey	Yes	No			ND<1%	None
41	Grey	Yes	No			ND<1%	None

**TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS**

NVLAP Lab Code 101424-0    AIHA #100122    CT #PH-0426    ME LA-0075, LB-0071    MA #AA000052    NY #10980    WV# LT000356  
 RI #AAL-007C3    TX #300354    VT #AL014538    VA #3333-000283    AZ #A20944    IL #L-09-004    NJ #CT004    CA #10275CA



**POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116**

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
42	Black	Yes	No		80% cellulose	ND<1%	None
43	Black	Yes	No		80% cellulose	ND<1%	None
44	Grey	Yes	No			90%	Chrysotile
45						NA/PS	
46	Black	Yes	No			ND<1%	None
47	Black	Yes	No			ND<1%	None
48	Black	Yes	No		10% cellulose	ND<1%	None
49	Black	Yes	No		10% cellulose	ND<1%	None

Reporting limit- asbestos present at 1%

ND<1% - asbestos was not detected.

Trace - asbestos was observed at level of less than 1%

NA/PS - Not Analyzed / Positive Stop

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, negative results must be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation (1982), and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116), July 1993, R.L. Perkins and B.W. Harvey which utilizes polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2014. TRC is an American Industrial Hygiene Association (AIHA) accredited lab for PLM effective through October 1, 2014. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and the QC data related to the samples is available upon written request from the client.

This report shall not be reproduced, except in full, without the written approval of TRC. 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 tested.

Analyzed by: K. Williamson  
Kathleen Williamson, Laboratory Manager

Reviewed by: Aud. Park  
Amanda Parkins, Approved Signatory

Date Issued  
12/04/2013

**TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS**

NVLAP Lab Code 101424-0	AIHA #100122	CT #PH-0426	ME LA-0075, LB-0071	MA #AA000052	NY #10980	WV# LT000356
RI #AAL-007C3	TX #300354	VT #AL014538	VA #3333 000283	AZ #A20944	HI #E-09-004	NJ #CT004
						CA #10275CA



Industrial Hygiene Laboratory  
21 Griffin Road North  
Windsor, CT 06095  
(860) 298-6308



**BULK ASBESTOS ANALYSIS REPORT**

CLIENT: Town of Suffield

Lab Log #: 0043405  
Project #: 211266.0010.0001  
Date Received: 12/24/2013  
Date Analyzed: 12/24/2013

Site: Suffield Town Hall, Suffield, CT

**POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116**

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
01	Black/Silver	Yes	No		60% cellulose	ND<1%	None
02	Black/Silver	Yes	No		60% cellulose	ND<1%	None

Reporting limit- asbestos present at 1%  
ND<1% - asbestos was not detected  
Trace - asbestos was observed at level of less than 1%  
NA/PS - Not Analyzed / Positive Stop

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, negative results must be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation (1982), and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116), July 1993, R.L. Perkins and B.W. Harvey which utilizes polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2014. TRC is an American Industrial Hygiene Association (AIHA) accredited lab for PLM effective through October 1, 2014. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and the QC data related to the samples is available upon written request from the client.

This report shall not be reproduced, except in full, without the written approval of TRC. 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 tested.

Analyzed by:

K. Williamson  
Kathleen Williamson, Laboratory Manager

Reviewed by:

A. Parkins  
Amanda Parkins, Approved Signatory

Date Issued

12/24/2013

**TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS**

NVLAP Lab Code 101424-0	AIHA #100122	CT #PH-0426	NE LA-0075, LB-0071	MA #AA000052	NY #10980	WV# L1000356
RI #AAL-007C3	TX #300354	VT #AL014538	VA #3333 000283	AZ #A20944	IL #L-09-004	NI #CT004
						CA #10275CA



Industrial Hygiene Laboratory  
21 Griffin Road North  
Windsor, CT 06095  
(860) 298-6308

**BULK ASBESTOS ANALYSIS REPORT**

CLIENT: Town of Suffield

Site: Town Hall, Suffield, CT  
Lab Log #: 38296  
Project #: 176676 0000 0000  
Date Received: 05/13/10  
Date Analyzed: 05/14/10

**RESULTS**

Sample No.	Color	Homogeneous	Multi-Layered	Layer No.	Other Matrix Mat'l.	Asbestos %	Asbestos Type
1	Silver/Beige	Yes	No	1	10% cellulose	80%	Chrysotile
2						NA/PS	
3						NA/PS	

NA/PS- Not Analyzed/Positive Stop

Reporting limit: asbestos present at 1%

ND<1%: asbestos was not detected

Trace: asbestos was observed at level of less than 1%

Note: Polarized light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In these cases, negative results must be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation (1982), and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116), July 1993, R.L. Perkins and B.W. Harvey which utilizes polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2010. TRC is an American Industrial Hygiene Association (AIHA) accredited lab for PLM effective through August 1, 2010. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and the QC data related to the samples is available upon written request from the client.

This report shall not be reproduced, except in full, without the written approval of TRC. 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 tested.

Analyst: Kathleen Williamson

QC Analyst: Helen Rimsa

Reviewed by:   
Laboratory Analyst

Approved:   
Signatory: Kathleen Williamson  
Laboratory Manager

Date issued: 5/14/10

**TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS**

NVLAP Lab Code 101424-0  
RI #AAL-007U3

AIHA #200122  
VT #A1014538

CT #P11-0426  
VA #3333 060283

ME 1A-0075, 1B-0071  
AZ #A-20944

MA #AAR00052  
IH #1-09-003

NY #10990  
NJ #C7004

WV #1T000356  
CA #0278CA



## **APPENDIX C**

### **TEM LABORATORY ANALYSIS DATA**



# ProScience Analytical Services, Inc

December 08, 2013

Henry Laliberte  
TRC Environmental Corp. (CT)  
21 Griffin Road North  
Windsor, CT 06095

Dear Henry Laliberte,

Results of samples you described and submitted to ProScience Analytical Services, Inc. are shown on the enclosed data sheets. The analytical results in this report apply to the items tested only. The listed samples were prepared and analyzed in compliance with the New York State Transmission Electron Microscope Method for Identifying and Quantifying Asbestos in Non-Friable Organically Bound Bulk Samples. This method is used for the determination of weight percent of asbestos in non-friable materials. The sample is processed to remove non-asbestos interference. The remaining residue is examined using a Philips 300 transmission electron microscope equipped with selected area electron diffraction (SAED) and an Evex energy dispersive x-ray analyzer.

The following are reported: identification numbers, type of material, color of the sample, initial weight of the sample, weight percent of organic material lost by ashing, weight percent of carbonates lost by acid dissolution, weight percent of non-fibrous/non asbestos inorganic material, total weight percent of asbestos in the original sample, and the type(s) of asbestos, if any.

The EPA recognizes asbestos as the following: actinolite, amosite, anthophyllite, chrysotile, crocidolite, and tremolite. To be considered asbestos containing, a material must be determined to contain greater than one percent asbestos. Samples are retained for a period of 2 months.

The quality control data related to the samples analyzed are available for review upon the written request of the client. ProScience Analytical Services, Inc. and its personnel assume no responsibility for potential sample contamination, misuse, misinformation, or misrepresentation by the client. The enclosed results may not be used under any circumstances as product endorsement by any US government agency including NIST/NVLAP. This report may not be reproduced, except in its entirety, without permission of the ProScience Analytical Services, Inc. Laboratory Director.

Please contact me if you have any questions regarding this report or related information.

Sincerely,

Mark Derosier, Senior Analyst  
Almee Cormier, Laboratory Manager

Enclosure:

BATCH NUMBER : NT 14235 CLIENT PROJECT ID: 211266.0010.0001  
Client Ref: Suffield Town Hall, Suffield, CT  
NVLAP Lab Code 200090-0; CT ID# PH-0209; MA ID# AA000156; ME ID# LB-055; ME ID# LA-056;  
AIHA ID# 102754; VT ID# AL016876; PH ID# 218(TEM,PLM); RI ID# 186.

# ProScience Analytical Services, Inc.

22 Cummings Park, Woburn, Massachusetts 01801  
781-935-3212 ~ Fax 781-932-4857 ~ E-Mail general@proscience.net

## Laboratory Report

Batch: NT 14235  
Method: NOB  
Date Received: 12/5/2013  
Date Analyzed: 12/8/2013  
Date of Report: 12/8/2013

Client Project #: 211266.0010.0001  
Client Reference: Suffield Town Hall, Suffield, CT  
PO #: C211266  
Client #: 297  
Client Name: TRC Environmental Corp. (CT)

LAB ID	Field ID	Description:	Color	Initial Weight	% Asbestos Types					% Other Non-asb.	% Organic	% Carb.	Total % Asbestos	Analyzed / Charged	Prepped / Charged
					CHR	AMO	ACT	CRO	ANT	TRE					
NT107892 06		Orange carpet glue		.1401	.00	.00	.00	.00	.00	.00	37.04	12.56	ND	Yes	No
NT107893 08		Tan covebase glue		.1472	.00	.00	.00	.00	.00	.00	40.08	44.97	ND	Yes	No
NT107894 10		Tan covebase glue		.2662	.00	.00	.00	.00	.00	.00	40.83	14.91	ND	Yes	No
NT107895 12		Tan stair tread glue		.1353	.00	.00	.00	.00	.00	.00	79.75	5.99	ND	Yes	No
NT107896 14		Brown glue daub		.2827	.00	.00	.00	.00	.00	.00	52.39	2.65	ND	Yes	No
NT107898 24		Floor tile		.5004	.00	.00	.00	.00	.00	.00	12.97	82.93	ND	Yes	No
NT107899 26M		Tan glue		.0147	.00	.00	.00	.00	.00	.00	86.39	2.72	ND	Yes	No
NT107900 26		Floor tile		.3460	.00	.00	.00	.00	.00	.00	11.24	87.92	ND	Yes	No
NT107901 28		Tile		.5665	.01	.00	.00	.00	.00	.00	11.84	86.21	TR	Yes	No
NT107902 30M		Brown mastic		.0548	.00	.00	.00	.00	.00	.00	38.14	29.38	ND	Yes	No
NT107903 30		Floor tile		.2562	.00	.00	.00	.00	.00	.00	10.85	86.34	ND	Yes	No
NT107904 32M		Beige mastic		.1067	.00	.00	.00	.00	.00	.00	58.20	6.37	ND	Yes	No
NT107905 32		Floor tile		.5347	.00	.00	.00	.00	.00	.00	17.24	56.16	ND	Yes	No
NT107906 34M		Tan mastic		.0129	.00	.00	.00	.00	.00	.00	70.54	13.95	ND	Yes	No
NT107907 34		Floor tile		.1222	.00	.00	.00	.00	.00	.00	11.78	85.76	ND	Yes	No

# ProScience Analytical Services, Inc.

22 Cummings Park, Woburn, Massachusetts 01801  
781-935-3212 ~ Fax: 781-932-4857 ~ E-Mail: general@proscience.net

## Laboratory Report

Client Project #: 211266.0010.0001  
Client Reference: Suffield Town Hall, Suffield, CT  
PO #: C211266  
Client #: 297  
Client Name: TRC Environmental Corp. (CT)

Batch: NT 14235  
Method: NOB  
Date Received: 12/5/2013  
Date Analyzed: 12/8/2013  
Date of Report: 12/8/2013

LAB ID	Field ID	Description:	Color	Initial Weight	% Asbestos Types					% Other	% Carb. Asbestos			Total %	Analyzed / Charged	Preped / Charged
					CHR	AMO	ACT	CRO	ANT		Non-asb.	Organic	Carb.			
NT107908	46	Black sticky door window glaze		.1943	.00	.00	.00	.00	.00	.00	17.35	76.17	6.48	ND	Yes	No
NT107909	46	Black elbow packing material		.0946	5.11	.00	.00	.00	.00	.00	2.18	88.90	3.81	5.11	Yes	No

Comments: Sample 24 Mastic - Could not be analyzed due to lack of sample.

Key: CHR = Chrysotile AMO = Amosite CRO = Crocidolite ACT = Actinolite TRE = Tremolite ANT = Anthophyllite TR = Trace = < 1% ND = None Detected

  
Mark Derosier, Analyst



Industrial Hygiene Laboratory  
21 Griffin Road North  
Windsor, CT 06095  
(860) 298-6308

**BULK ASBESTOS ANALYSIS REPORT**

CLIENT: Town of Suffield

Site: Town Hall, 83 Mountain Road, Suffield, CT  
Lab Log #: 37982  
Project #: 175368.0000.0000  
Date Received: 02/26/10  
Date Analyzed: 03/01/10

**RESULTS**

Sample No.	Color	Homogeneous	Multi-Layered	Layer No.	Other Matrix Mat'ls	Asbestos %	Asbestos Type
01	White (skim coat)	No	Yes	1	--	ND<1%	None
01	Brown (base coat)	No	Yes	2	--	ND<1%	None
02	White (skim coat)	No	Yes	1	--	ND<1%	None
02	Brown (base coat)	No	Yes	2	--	ND<1%	None
03	White (skim coat)	No	Yes	1	--	ND<1%	None
03	Brown (base coat)	No	Yes	2	--	ND<1%	None
04	Grey	Yes	No	--	--	60%	Chrysotile
05	--	--	--	--	--	NA/PS	--
06	--	--	--	--	--	NA/PS	--
07	White/Grey	Yes	No	--	40% cellulose 40% mineral wool	ND<1%	None
08	White/Grey	Yes	No	--	40% cellulose 40% mineral wool	ND<1%	None
09	Silver/Grey	Yes	No	--	80% mineral wool	ND<1%	None
10	Silver/Grey	Yes	No	--	80% mineral wool	ND<1%	None
11	White/Beige	Yes	No	--	40% cellulose 30% mineral wool	ND<1%	None
12	White/Beige	Yes	No	--	40% cellulose 30% mineral wool	ND<1%	None
13	Tan/Black	Yes	No	--	60% cellulose 30% fiberglass	ND<1%	None
14	Tan/Black	Yes	No	--	60% cellulose 30% fiberglass	ND<1%	None

NA/PS- Not Analyzed/Positive Stop

Reporting limit- asbestos present at 1%  
ND<1% - asbestos was not detected

**TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS**

NVLAP Lab Code 101424-0    AIHA #100122    CT #PH-0426    ME LA-0075, LB-0071    MA #AA000052    NY #10980    WV# LT000356  
RI #AAL-007C3    TX #300354    VT #AL014538    VA #3333 000283    AZ #A20944    HI #L-09-004    NJ #CT004    CA #10275CA

Trace- asbestos was observed at level of less than 1%

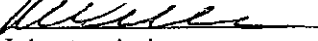
Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, negative results must be confirmed by quantitative transmission electron microscopy.

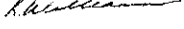
The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation (1982), and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116), July 1993, R.L. Perkins and B.W. Harvey which utilizes polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2010. TRC is an American Industrial Hygiene Association (AIHA) accredited lab for PLM effective through August 1, 2010. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and the QC data related to the samples is available upon written request from the client.

This report shall not be reproduced, except in full, without the written approval of TRC. 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 tested.

Analyst: Kathleen Williamson

QC Analyst: Helen Rimsa

Reviewed by:   
Laboratory Analyst

Approved:   
Kathleen Williamson  
Signatory: Laboratory Manager

Date Issued: 3/2/10

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code 101424-0  
RI #AAL-007C3 TX #300354

AIHA #100122  
VT #AL014538

CT #PH-0426  
VA #3333 000283

ME LA-0075, LB-0071  
AZ #A20944

MA #AA000052  
HI #L-09-004

NY #10980  
NJ #CT004

WV# LT000356  
CA #10275CA





Industrial Hygiene Laboratory  
21 Griffin Road North  
Windsor, CT 06095  
(860) 298-6308

**BULK ASBESTOS ANALYSIS REPORT**

CLIENT: Town of Suffield

Site: Town Hall, 83 Mountain Road, Suffield, CT  
Lab Log #: 37982  
Project #: 175368.0000.0000  
Date Received: 02/26/10  
Date Analyzed: 03/01/10

**RESULTS**

Sample No.	Color	Homogeneous	Multi-Layered	Layer No.	Other Matrix Mat'ls	Asbestos %	Asbestos Type
01	White (skim coat)	No	Yes	1	--	ND<1%	None
01	Brown (base coat)	No	Yes	2	--	ND<1%	None
02	White (skim coat)	No	Yes	1	--	ND<1%	None
02	Brown (base coat)	No	Yes	2	--	ND<1%	None
03	White (skim coat)	No	Yes	1	--	ND<1%	None
03	Brown (base coat)	No	Yes	2	--	ND<1%	None
04	Grey	Yes	No	--	--	60%	Chrysotile
05	--	--	--	--	--	NA/PS	--
06	--	--	--	--	--	NA/PS	--
07	White/Grey	Yes	No	--	40% cellulose 40% mineral wool	ND<1%	None
08	White/Grey	Yes	No	--	40% cellulose 40% mineral wool	ND<1%	None
09	Silver/Grey	Yes	No	--	80% mineral wool	ND<1%	None
10	Silver/Grey	Yes	No	--	80% mineral wool	ND<1%	None
11	White/Beige	Yes	No	--	40% cellulose 30% mineral wool	ND<1%	None
12	White/Beige	Yes	No	--	40% cellulose 30% mineral wool	ND<1%	None
13	Tan/Black	Yes	No	--	60% cellulose 30% fiberglass	ND<1%	None
14	Tan/Black	Yes	No	--	60% cellulose 30% fiberglass	ND<1%	None

NA/PS- Not Analyzed/Positive Stop

Reporting limit- asbestos present at 1%  
ND<1% - asbestos was not detected

**TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS**

NVLAP Lab Code 101424-0    AIHA #100122    CT #PH-0426    ME LA-0075, LB-0071    MA #AA000652    NY #10980  
RI #AAL-007C3    TX #300354    VT #AL014538    VA #3333 000283    AZ #A20944    HI #L-09-004    NJ #CT004

WV# LT000356  
CA #10275CA



21 GRIFFIN ROAD NORTH  
WINDSOR, CONNECTICUT 06095  
TELEPHONE (860) 298-9692  
FAX (860) 298-6380

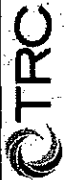
## ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

Edition: October 2009  
Supersedes Previous Edition

LAB ID #. 7982

FIELD SAMPLE NUMBER	DATE	TIME	TYPE		SAMPLE LOCATION	PROJECT NAME Town of Suffield - Town Hall 83 Mountain Rd., Suffield, CT	PARAMETERS				TURNAROUND TIME					
			COMP	GRAB			PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER (IF >1% & <10%)	POINT COUNT (IF >1% & <10%)		TEM NY NOB 198.4 (IF PLM SERIES NEG)				
01	2/26/10	1055	X	X	Emergency Management Room		X				Plaster (skim & base coats) (PL1/SC)	8hr	24hr	48hr	3day	5day
02	2/26/10	1056	X	X	Emergency Management Room		X				Plaster (skim & base coats) (PL1/SC)					
03	2/26/10	1057	X	X	Emergency Management Room		X				Plaster (skim & base coats) (PL1/SC)					
04	2/26/10	1050	X	X	Emergency Management Room		X				Mudded fittings associated with fiberglass pipe insulation (MF1)					
05	2/26/10	1058	X	X	Basement Hallway		X				Mudded fittings associated with fiberglass pipe insulation (MF1)					
06	2/26/10	1115	X	X	Emergency Management Room		X				Mudded fittings associated with fiberglass pipe insulation (MF1)					
07	2/26/10	1052	X	X	Emergency Management Room		X				2'X4' worm/pinhole ceiling tile (CT1)					
08	2/26/10	1053	X	X	Emergency Management Room		X				2'X4' worm/pinhole ceiling tile (CT1)					
09	2/26/10	1120	X	X	Basement Hallway		X				2'X2' textured ceiling tile (CT3)					
10	2/26/10	1122	X	X	Basement Hallway		X				2'X2' textured ceiling tile (CT3)					

Relinquished by: (Signature) 	Date: 2/26/10	Received by: (Signature) 2/26/10 	Relinquished by: (Signature)	Date:	Received by: (Signature)
(Printed) Stephen Arienti	Time: 1320	(Printed) Kathleen Williamson	(Printed)	Time: 1500	(Printed)
Remarks:			Condition of Samples:  No Acceptable: Yes Comments:		



21 GRIFFIN ROAD NORTH  
WINDSOR, CONNECTICUT 06095  
TELEPHONE (860) 298-9692  
FAX (860) 298-6380

## ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

Edition: October 2009  
Supersede Previous Edition

LAB ID #. 37982

PROJECT NUMBER		PROJECT NAME		PARAMETERS		TURNAROUND TIME										
SIGNATURE		INSPECTOR		SAMPLE LOCATION		PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 1984 (IF PLM SERIES NEG)	PLM:	8hr	24hr	48hr	3day	5day
FIELD SAMPLE NUMBER	DATE	TIME	TYPE	GRAB	COMP	MATERIAL										
11	2/26/10	1135	X			X										
12	2/26/10	1136	X			X										
13	2/26/10	1124				X				X						
14	2/26/10	1130				X										

Relinquished by: (Signature)	Date:	Received by: (Signature)	Date:	Relinquished by: (Signature)	Date:	Received by: (Signature)
	2/26/10		2/26/10			
(Printed)	Time:	(Printed)	Time:	(Printed)	Time:	(Printed)
Stephen Arienti	1320	Kathleen Williamson	1500			
Remarks:	Condition of Samples: <u>OK</u>			Page 2 of 2		
	Acceptable: Yes <u>✓</u> No <u>   </u>					
	Comments:					

# ProScience Analytical Services, Inc.

22 Cummings Park, Woburn, Massachusetts 01801  
781-935-3212 ~ Fax 781-932-4857 ~ E-Mail general@proscience.net

**Batch:** NT 11689  
**Method:** NOB  
**Date Received:** 3/3/2010  
**Date Analyzed:** 3/5/2010  
**Date of Report:** 3/4/2010

**Client Project #:** 175368.0000.0000  
**Client Reference:** Town of Suffield - Town Hall, 83 Mountain Road, Suffield, CT  
**PO #:** 13356  
**Client #:** 297  
**Client Name:** TRC Environmental Corp. (CT)

LAB ID	Field ID	Description:	Color	Initial Weight	% Asbestos Types					% Other Non-asb.	% Organic Carb.	Total % Asbestos	Analyzed / Charged	Preped / Charged
					CHR	AMO	ACT	CRO	ANT					
NT90508	13	Tan paper wrap with tar on fiberglass pipe insulation (PW1)		.0672	.11	.00	.00	.00	.00	.00	53.72	23.36	Yes	No

## Comments:

Key: CHR = Chrysotile AMO = Amosite CRO = Crocidolite ACT = Actinolite TRE = Tremolite ANT = Anthophyllite TR = Trace = < 1% ND = None Detected

Roland Holacsek, Analyst

22 Cummings Park, Woburn, MA 01801 Ph. 781-935-3212 Fax 781-932-4857  
TEM Bulk Chain of Custody Record

Analysis Type:	Chatfield	EPA N.O.B	Qualitative
Analysis Type:	Chatfield	EPA N.O.B	Qualitative

175368.0000.0000

Town of Suffield- Town Hall, 83 Mountain Road, Suffield, CT

**K. Williamson- [KWilliamson@trcsolutions.com](mailto:KWilliamson@trcsolutions.com)**

Donna Perry 3/3/10 12:45pm







M. Lewis-MLewis@trcsolutions.com

S. Arienti- SArienti@trcsolutions.com

[illegible][illegible]

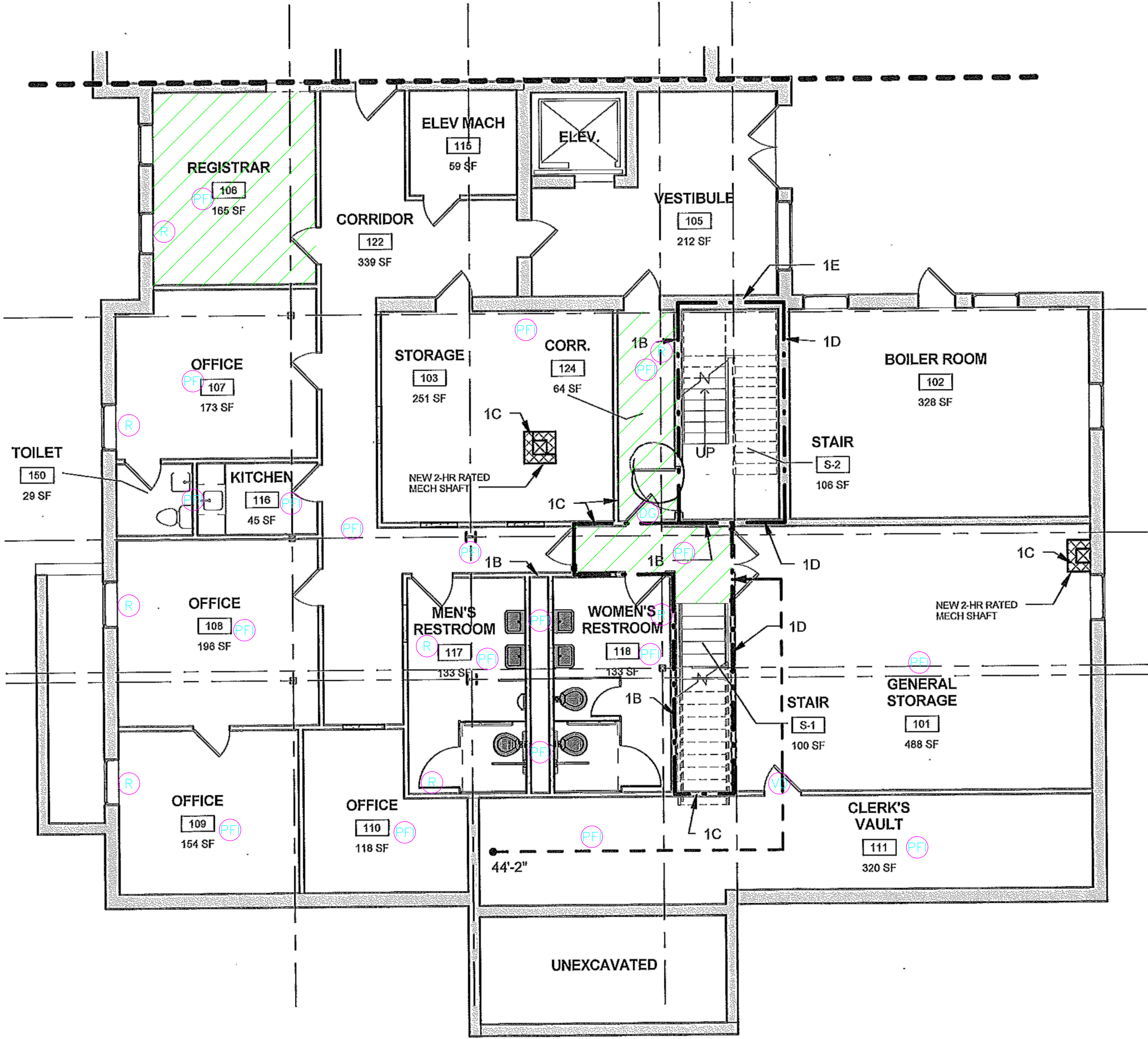
**APPENDIX D**  
Asbestos Location Drawing




SYMBOL	MATERIAL DESCRIPTION
	ACM FLOOR TILE AND MASTIC
	ACM PIPE FITTING INSULATION
	ACM RADIATOR PANEL TAR
	ACM DOOR GLAZE
	ACM FLEX CONNECTOR
	PACM VAULT DOOR

NOTES

PIPE FITTING INSULATION IS ABOVE CEILING.  
ACM FLOOR TILE IS LOCATED UNDER 12" TILE FOR 2000 RENOVATION.  
ACM FLOOR TILE IS LOCATED UNDER CARPET IN VARIOUS AREAS.



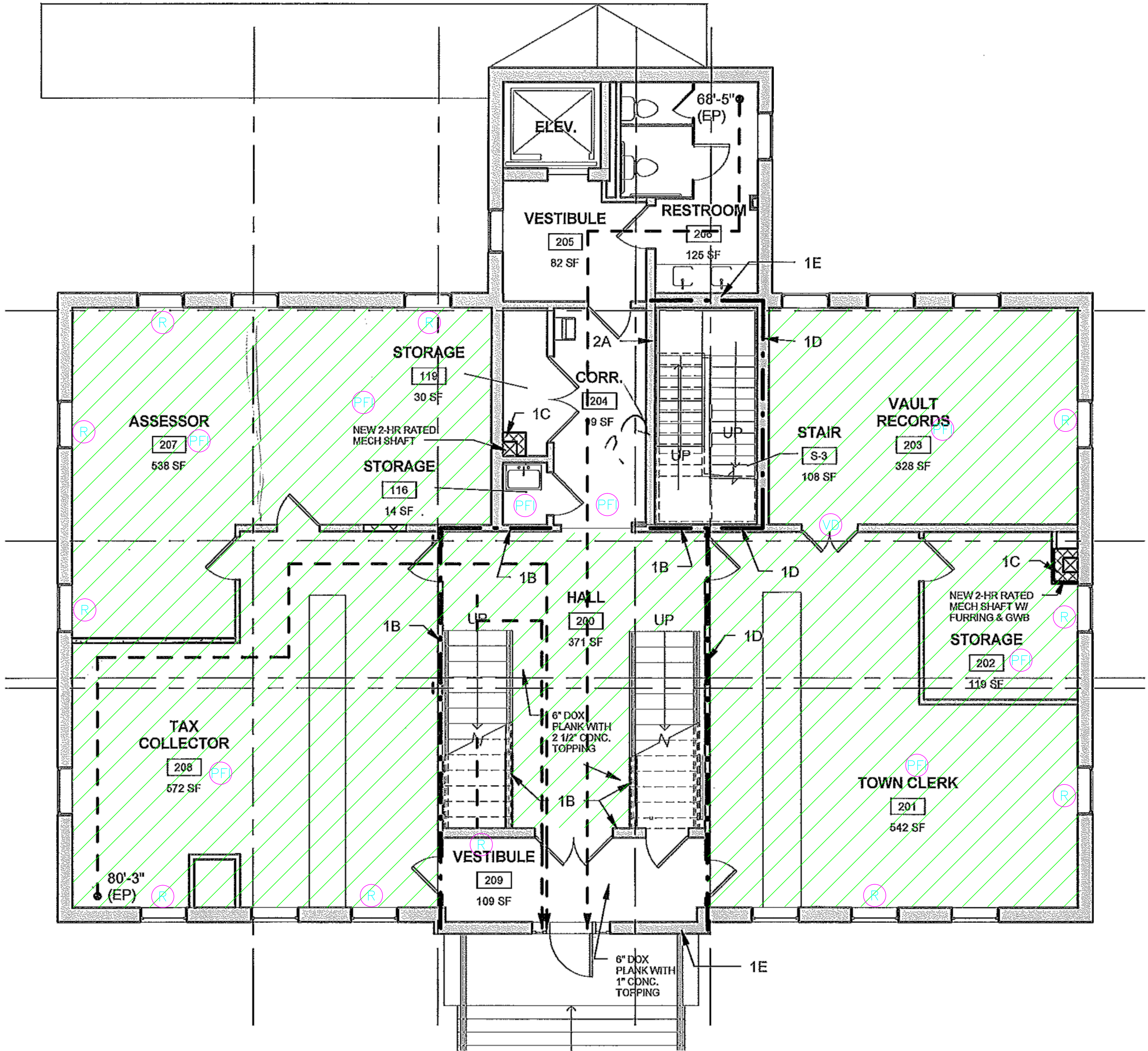
drawing title			LOWER LEVEL			TOWN OF SUFFIELD TOWN HALL		
REVISIONS			DRAWING PREPARED BY			DATE		
mark	date	description	 ATC Group Services LLC 290 Roberts Street, Suite 201 Suffield, CT 06078 Tel: (860) 261-1000 Fax: (860) 261-1001			03/25/16		
						SCALE		
						1/4"=1'		
						DRAWN BY		
project			ASBESTOS LOCATION DRAWING			SUFFIELD TOWN HALL		
						83 MOUNTAIN ROAD		
						SUFFIELD, CONNECTICUT 06078		
						approved by		
						drawing no.		
						ASB-1		
						project no.		
						05944.16.001		
						CAD no.		



SYMBOL	MATERIAL DESCRIPTION
	ACM FLOOR TILE AND MASTIC
	ACM PIPE FITTING INSULATION
	ACM RADIATOR PANEL TAR
	ACM DOOR GLAZE
	ACM FLEX CONNECTOR
	PACM VAULT DOOR







NOTES

PIPE FITTING INSULATION IS ABOVE CEILING.  
ACM FLOOR TILE IS LOCATED UNDER 12" TILE FOR 2000 RENOVATION.  
ACM FLOOR TILE IS LOCATED UNDER CARPET IN VARIOUS AREAS.



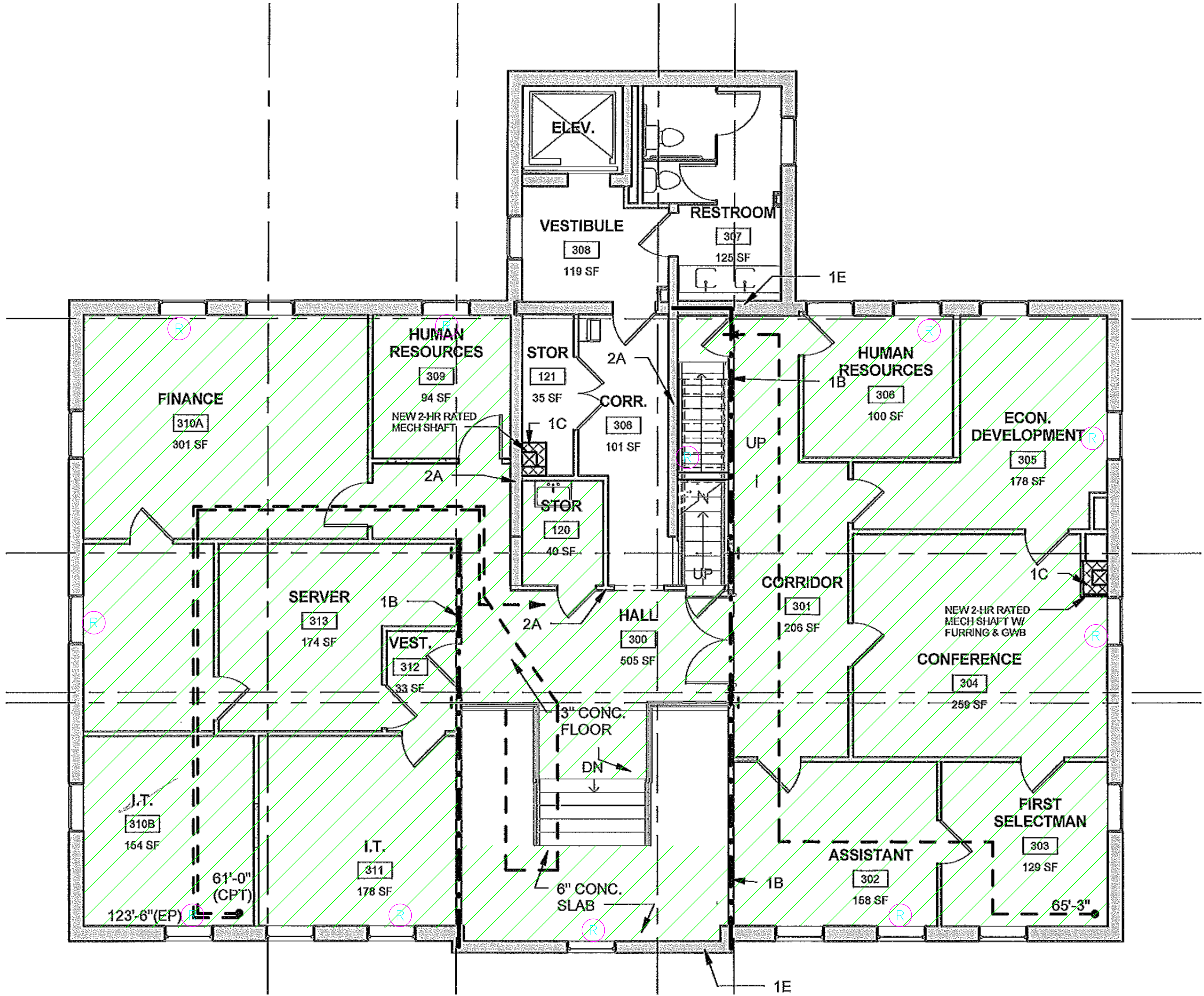
drawing title			TOWN OF SUFFIELD TOWN HALL		
GROUND LEVEL			DRAWING PREPARED BY		
REVISIONS			ATC		
mark	date	description	ATC Group Services LLC 290 Roberts Street, Suite 201 Suffield, CT 06078 Tel: (860) 261-1000 Fax: (860) 261-1001		
			date 03/25/16		
			scale 1/4"=1'		
			drawn by SJJ		
			approved by		
			drawing no. ASB-2		
			CAD no. project no. 05944.16.001		




SYMBOL	MATERIAL DESCRIPTION
	ACM FLOOR TILE AND MASTIC
	ACM PIPE FITTING INSULATION
	ACM RADIATOR PANEL TAR
	ACM DOOR GLAZE
	ACM FLEX CONNECTOR
	PACM VAULT DOOR

NOTES

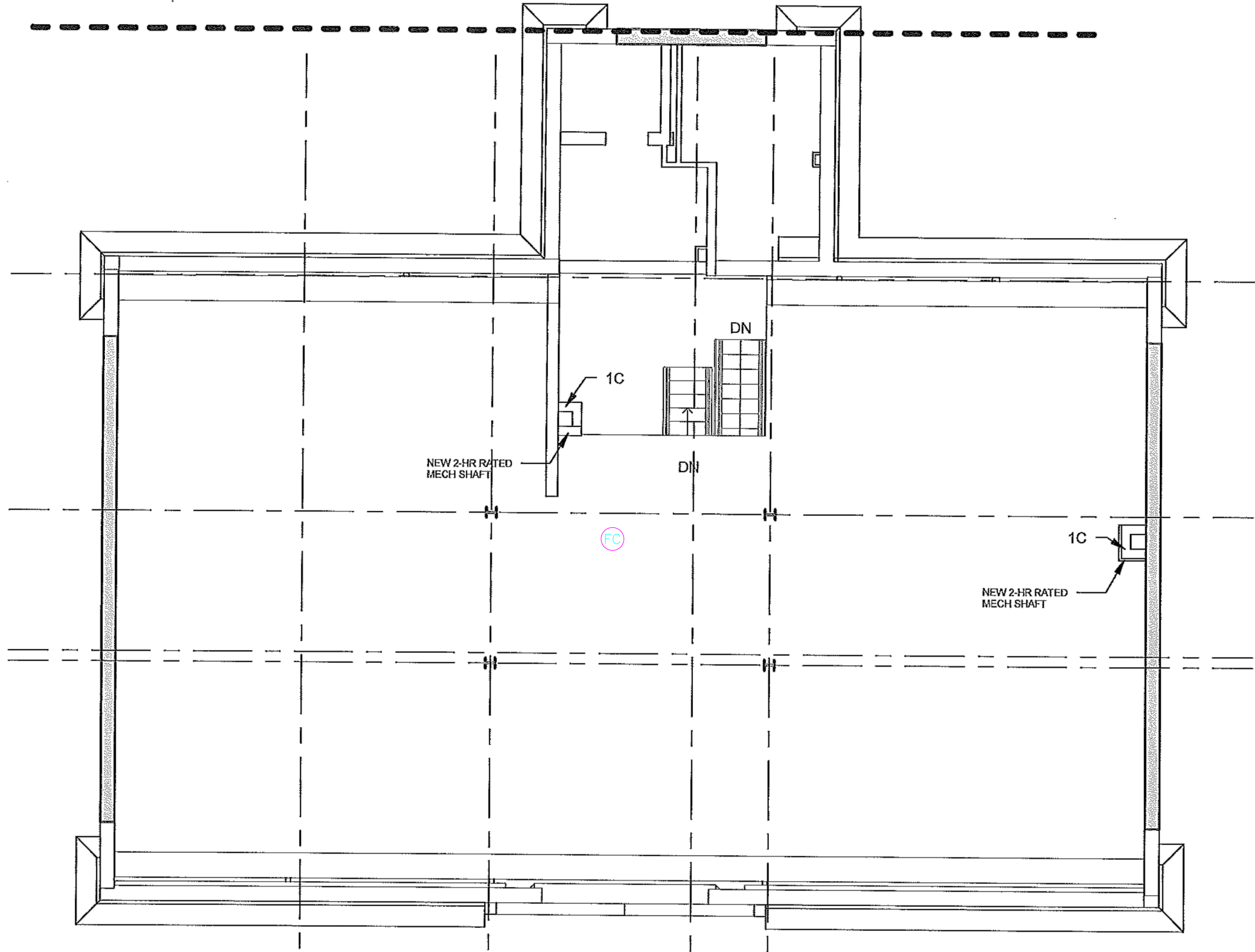
PIPE FITTING INSULATION IS ABOVE CEILING.  
ACM FLOOR TILE IS LOCATED UNDER 12" TILE FOR 2000 RENOVATION.  
ACM FLOOR TILE IS LOCATED UNDER CARPET IN VARIOUS AREAS.



drawing title			TOWN OF SUFFIELD TOWN HALL		
UPPER LEVEL			DRAWING PREPARED BY		
REVISIONS			DATE		
mark	date	description	03/25/16		
 ENVIRONMENTAL • GEOTECHNICAL BUILDING SERVICES • MATERIALS SYSTEMS			drawn by		
			SJJ		
			approved by		
			ASB-3		
project			drawing no.		
ASBESTOS LOCATION DRAWING SUFFIELD TOWN HALL 83 MOUNTAIN ROAD SUFFIELD, CONNECTICUT 06078			project no.		
CAD no.			05944.16.001		



C:\Users\pholubowski\Documents\CT12026 - SuffieldTownHall - Arch - 2012 - CENTRAL\_pholubowski.rvt



SYMBOL	MATERIAL DESCRIPTION
	ACM FLOOR TILE AND MASTIC
	ACM PIPE FITTING INSULATION
	ACM RADIATOR PANEL TAR
	ACM DOOR GLAZE
	ACM FLEX CONNECTOR
	PACM VAULT DOOR

NOTES

PIPE FITTING INSULATION IS ABOVE CEILING.  
ACM FLOOR TILE IS LOCATED UNDER 12" TILE FOR 2000 RENOVATION.  
ACM FLOOR TILE IS LOCATED UNDER CARPET IN VARIOUS AREAS.

drawing title ATTIC			TOWN OF SUFFIELD TOWN HALL		
REVISIONS			DRAWING PREPARED BY		
mark	date	description	ATC Group Services LLC 290 Roberts Street, Suite 201 Suffield, CT 06078 Tel: (860) 260-9800 Fax: (860) 260-9801		date 03/25/16
			project ASBESTOS LOCATION DRAWING SUFFIELD TOWN HALL 83 MOUNTAIN ROAD SUFFIELD, CONNECTICUT 06078		scale 1/4"=1'
			drawn by SJJ		approved by
			drawing no. ASB-4		
			CAD no.	project no. 05944.16.001	

**APPENDIX F**  
ATC Inspector Certifications

Dear SCOTT J JOHNSON,

Attached you will find your validated certificate for the coming year. Should you have any questions about your certificate renewal, please do not hesitate to write or call:

Department of Public Health  
P.O. Box 340308  
M.S.#12MQA  
Hartford, CT 06134-0308

(860) 509-7603  
oplcdph@ct.gov  
www.ct.gov/dph/license

Sincerely,



JEWEL MULLEN, MD, MPH, MPA, COMMISSIONER  
DEPARTMENT OF PUBLIC HEALTH

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS CERTIFIED  
BY THIS DEPARTMENT AS A

ASBESTOS CONSULTANT-INSP/MGMT PLANNER

SCOTT J JOHNSON

CERTIFICATE NO.

000297

CURRENT THROUGH

09/30/16

VALIDATION NO.

03-286881

SIGNATURE

COMMISSIONER

EMPLOYER'S COPY

STATE OF CONNECTICUT  
DEPARTMENT OF PUBLIC HEALTH

NAME

SCOTT J JOHNSON

VALIDATION NO.  
03-286881

CERTIFICATE NO.  
000297

CURRENT THROUGH  
09/30/16

PROFESSION

ASBESTOS CONSULTANT-INSP/MGMT PLANNER

SIGNATURE

COMMISSIONER

INSTRUCTIONS:

1. Detach and sign each of the cards on this form
2. Display the large card in a prominent place in your office or place of business.
3. The wallet card is for you to carry on your person. If you do not wish to carry the wallet card, place it in a secure place.
4. The employer's copy is for persons who must demonstrate current licensure/certification in order to retain employment or privileges. The employer's card is to be presented to the employer and kept by them as a part of your personnel file. Only one copy of this card can be supplied to you.

WALLET CARD

STATE OF CONNECTICUT  
DEPARTMENT OF PUBLIC HEALTH

NAME

SCOTT J JOHNSON

VALIDATION NO.  
03-286881

CERTIFICATE NO.  
000297

CURRENT THROUGH  
09/30/16

PROFESSION

ASBESTOS CONSULTANT-INSP/MGMT PLANNER

SIGNATURE

COMMISSIONER

# CERTIFICATE OF ACHIEVEMENT

*This certifies that*

**Scott Johnson**

*has successfully completed the*  
**Asbestos Site Inspector Refresher Training**  
**Asbestos Accreditation Under TSCA Title II**  
**40 CFR Part 763**

*conducted by*

**Cardno ATC**  
**73 William Franks Drive**  
**West Springfield, MA 01089**  
**(413) 781-0070**

*Thomas Dion*

*Principal Instructor: Thomas Dion*

*October 15, 2015*

*Date of Course*

*October 15, 2016*

*Expiration Date*

*Gregory Morsch*

*Regional Training Manager: Gregory Morsch*

*SLAR-5258*

*Certificate Number*

*October 15, 2015*

*Examination Date*

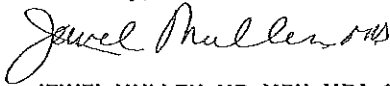
Dear SCOTT J. JOHNSON,

Attached you will find your validated certificate for the coming year. Should you have any questions about your certificate renewal, please do not hesitate to write or call:

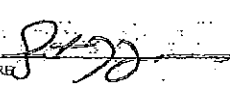
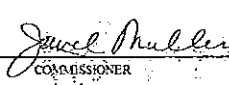
Department of Public Health  
P.O. Box 340308  
M.S.#12MQA  
Hartford, CT 06134-0308


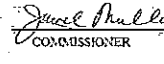
(860) 509-7603  
oplh.dph@ct.gov  
www.ct.gov/dph/license

Sincerely,



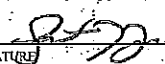

JEWEL MULLEN, MD, MPH, MPA, COMMISSIONER  
DEPARTMENT OF PUBLIC HEALTH

STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH	
PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT	
THE INDIVIDUAL NAMED BELOW IS CERTIFIED BY THIS DEPARTMENT AS A	
LEAD INSPECTOR RISK ASSESSOR	
SCOTT J. JOHNSON	CERTIFICATE NO. 002224
	CURRENT THROUGH 09/30/16
	VALIDATION NO. 03-286591
 SIGNATURE	 COMMISSIONER

EMPLOYER'S COPY STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH		
NAME SCOTT J. JOHNSON		
VALIDATION NO. 03-286591	CERTIFICATE NO. 002224	CURRENT THROUGH 09/30/16
PROFESSION LEAD INSPECTOR RISK ASSESSOR		
 SIGNATURE	 COMMISSIONER	

INSTRUCTIONS:

1. Detach and sign each of the cards on this form
2. Display the large card in a prominent place in your office or place of business.
3. The wallet card is for you to carry on your person. If you do not wish to carry the wallet card, place it in a secure place.
4. The employer's copy is for persons who must demonstrate current licensure/certification in order to retain employment or privileges. The employer's card is to be presented to the employer and kept by them as a part of your personnel file. Only one copy of this card can be supplied to you.

WALLET CARD STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH		
NAME SCOTT J. JOHNSON		
VALIDATION NO. 03-286591	CERTIFICATE NO. 002224	CURRENT THROUGH 09/30/16
PROFESSION LEAD INSPECTOR RISK ASSESSOR		
 SIGNATURE	 COMMISSIONER	



# CERTIFICATE OF ACHIEVEMENT

*This certifies that*

**Scott Johnson**

33 McDonald St, Torrington, CT 06790  
000-00-1463

*has successfully completed the*

## INSPECTOR RISK ASSESSOR REFRESHER

*Training Course  
conducted by  
Cardno ATC*

73 William Franks Drive  
West Springfield, MA 01089  
(413) 781-0070

*Principal Instructor:*

September 30, 2015

Date of Course

CTLIRAR-401

Certificate Number

September 30, 2015

Exam Date

September 30, 2016

Expiration Date

*Nancy Mouch*  
Regional Training Director

*Training received complies with the requirements of the  
Connecticut Department of Public Health pursuant to Section 20-477 of the Connecticut General Statutes.*



290 Roberts Street  
Suite 301  
East Hartford, CT 06108  
Phone: (860) 282-9924  
Fax: (860) 282-9826  
[www.atcassociates.com](http://www.atcassociates.com)

---

## **ABATEMENT SPECIFICATIONS**

**TOWN OF SUFFIELD  
TOWN HALL  
83 MOUNTAIN ROAD  
SUFFIELD, CT 06078**

---

## **PROJECT SPECIFICATION**

---

### **OWNER:**

*Town of Suffield  
230C Mountain Road  
Suffield, CT 06078*

### **OWNER'S ENVIRONMENTAL CONSULTANT:**

*ATC Group Services LLC  
290 Roberts Street, Suite 301  
East Hartford, CT 06108  
(860) 282-9924*

**May – 2016**

## TABLE OF CONTENTS

	Number of Pages
<b><u>TABLE OF CONTENTS</u></b> .....	1
<b><u>SPECIFICATIONS</u></b>	
<b>DIVISION 1 - GENERAL REQUIREMENTS</b>	
Section 010000    DEFINITIONS .....	1
Section 010100 - SUMMARY OF WORK .....	1
Section 010400 - EXISTING CONDITIONS .....	1
Section 010500 - CONDUCT OF THE WORK .....	2
Section 013000 - SUBMITTALS .....	1
Section 015000 - TEMPORARY FACILITIES .....	2
Section 015100 - PROTECTION .....	2
Section 015200 - CLEAN UP .....	1
<b>DIVISION 2 – SITE WORK</b>	
Section 024119 - SELECTIVE DEMOLITION FOR HAZARDOUS MATERIALS .....	2
Section 028213 - ASBESTOS ABATEMENT .....	21
Section 028310 - LEAD PAINT .....	6
Section 028400 - REMOVAL AND HANDLING OF REGULATED MATERIAL .....	6

## **SECTION 010000**

### **DEFINITIONS**

#### **1. DEFINITIONS**

- A. Abatement – Any set of measures designed to eliminate hazards in accordance to State and/or Federal regulations associated with hazardous materials.
- B. Accessible - A space easily accessed, and which can be entered or seen without demolition.
- C. Agency - The authoritative force, usually at the state level, or their representative.
- D. Concealed Space - Space, which is out of sight. Examples of a concealed space include area above hard ceilings; below floors; between double walls; furred-in areas; pipe and duct shafts; and similar spaces which cannot be examined without invasive removal of building components or disturbance of finishes.
- E. Contract – An agreed upon scope of work associated with a scheduled project.
- F. CTDEEP - The Connecticut Department of Energy and Environmental Protection, 79 Elm Street, Hartford, CT 06106.
- G. CTDPH - The Connecticut Department of Public Health, 410 Capitol Avenue, P.O. Box 340308, Hartford, CT 06134-0308.
- H. Demolition - The wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility.
- I. DOT – The Department of Transportation.
- J. EH&S Requirements – Environmental Health & Safety Requirements; standards set by applicable federal, state and local laws, regulations, ordinances and guidelines.
- K. Engineering Controls - Controls to include, but not be limited to, pressure differential equipment, decontamination enclosures, critical barriers and related procedures.
- L. Environmental Consultant - The certified and licensed company contracted or employed by the building owner or contractor to supervise and/or conduct air monitoring, analysis schemes and design of abatement projects.
- M. Equipment Decontamination Enclosure System - The portion of a Decontamination Enclosure System designed for controlled transfer of materials and equipment into or out of the Work Area, typically consisting of a Washroom and a Holding Area.
- N. Equipment Room (change room) – a contaminated room located within the decontamination area that is supplied with impermeable bags or containers for the disposal of contaminated protective clothing and equipment.

- O. Exposed - Open to view.
- P. Finished Space - Space used for habitation or occupancy where rough surfaces are plastered, paneled or otherwise treated to provide a pleasing appearance.
- Q. Fixed Critical Barrier - Barrier constructed of 2" x 4" wood or metal framing 16" O.C., with 1/2" plywood on the occupied side and two layers of six (6) mil polyethylene sheeting on the Work Area side to prevent unauthorized access or air flow.
- R. Fixed Object - A piece of equipment or furniture in the Work Area, which cannot be removed from the Work Area, as, determined by the State.
- S. Hazardous Materials – any State or Federally regulated materials that are considered dangerous to environmental or human health, which include but not limited to; asbestos, lead, and polychlorinated biphenyls.
- T. HEPA Filter Equipment - High-efficiency particulate air (HEPA) filtered vacuum and/or exhaust ventilation equipment with a filter system capable of trapping and retaining asbestos fibers. Filters shall be of 99.97 percent efficiency for retaining fibers of 0.3 microns in diameter or larger.
- U. Inaccessible - A space not accessible, and which cannot be entered or seen without demolition.
- V. Inspection - An activity undertaken in a school building, or a public or commercial building, to determine the presence or location, or to assess the condition of, friable or non-friable Asbestos Materials or suspected Asbestos Materials, whether by visual or physical examination, or by collecting samples of such materials.
- W. Lock-down - The procedure of spraying polyethylene sheeting and building materials with an encapsulant type sealant to seal in non-visible asbestos-containing residue.
- X. Lockout - The placement of a lockout device on an energy isolating device, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.
- Y. Lockout device - A device that utilizes a positive means such as a lock, either key or combination type, to hold an energy isolating device in the safe position and prevent the energizing of a machine or equipment. Included are blank flanges and bolted slip blinds.
- Z. Movable Object - A piece of equipment or furniture in the Work Area, which can be removed from the Work Area, as, determined by the State.
- AA. Negative Initial Exposure Assessment - A demonstration by the employer which complies with the criteria in 29 CFR § 1926.1101(f)(2)(iii) that employee exposure during an operation is expected to be consistently below the PEL.
- BB. Negative Pressure Enclosure (NPE) – a containment constructed of polyethylene sheeting to contain the Work Area and creates a vacuum atmosphere that restricts contaminants from exiting the enclosure.
- CC. OSHA – Occupational Safety and Health Administration

- DD. Owner or Operator of a Demolition or Renovation Activity - Any person who owns, leases, operates, controls or supervises the facility being demolished or renovated or any person who owns, leases, operates, controls or supervises the demolition or renovation, or both.
- EE. Permissible Exposure Limits (PELS) - (1) Time-weighted Average Limit (TWA). The employer shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of 0.1 fibers per cubic centimeter (f/cc) of air as an eight (8) hour time-weighted average (TWA). (2) Excursion Limit. The employer shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of 1.0 fibers per cubic centimeter of air (1 f/cc) as averaged over a sampling period of thirty (30) minutes.
- FF. Pre-Clean - The process of cleaning an area before asbestos abatement activities begin to ensure all dust and debris in the area considered asbestos containing are properly contained and disposed of. This increases the likelihood the area will pass aggressive air sampling clearance requirements after asbestos-containing materials have been removed.
- GG. Renovation - Altering a facility or one or more facility components in any way, including the stripping or removal of Asbestos Materials from a facility component. Operations in which load-supporting members are wrecked or taken out are demolition.
- HH. Repair - Overhauling, rebuilding, reconstructing or reconditioning of structures or substrates where asbestos, tremolite, anthophyllite or actinolite is present.
- II. Response Action (Work) - A method including removal, encapsulation, enclosure, repair and operation and maintenance that protects human health and the environment from Hazardous Material exposure.
- JJ. Shower Room – a contaminated room having facilities for the washing of persons and equipment prior to moving into the clean room.
- KK. Site – A specific area or building where the work will be performed that is owned or managed by the Town of Suffield.
- LL. Tagout.- The placement of a tagout device on an energy isolating device, in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.
- MM. Tagout device - A prominent warning device, such as a tag and a means of attachment, which can be securely fastened to an energy isolating device in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.
- NN. Time Weighted Average (TWA) – The employer shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of 0.1 fibers per cubic centimeter of air as and eight (8) hour TWA.
- OO. Unfinished Space - Space used for storage, utilities or work area where appearance is not a factor. Examples of an unfinished space include crawlspace; pipe tunnel and similar spaces.



- PP. United States Environmental Protection Agency (EPA) - Agency responsible for implementing PCBs Manufacturing, Processing, Distribution in Commerce, And Use Prohibition, 40 CFR 761 ("TSCA") regulations.
- QQ. Visible Emissions - Any emissions, which are visually detectable without the aid of instruments, coming from Asbestos Materials or asbestos-containing waste material or from any asbestos milling, manufacturing, or fabricating operation. This does not include condensed, uncombined water vapor.
- RR. Visible Residue - Any debris or dust on surfaces in areas within the Work Area where asbestos abatement has taken place and which is visible to the unaided eye. All visible residue is assumed to contain asbestos.
- SS. Waste Generator - Any owner or operator of a source whose act or process produces asbestos-containing waste material.
- TT. Waste Shipment Record - The shipping document, required to be originated and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing waste material.
- UU. Wet Cleaning - The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning tools, which have been dampened with water, and afterwards thoroughly decontaminated or disposed of, as asbestos-contaminated waste.
- VV. Work Area - Specific area or location where the actual work is being performed or such other area of a facility, which the Commissioner determines, may be hazardous to public health because of such asbestos abatement.
- WW. Worker Decontamination Enclosure System - The portion of a Decontamination Enclosure System designed for controlled passage of workers and authorized visitors, typically consisting of a Clean Room, a Shower Room and an Equipment Room.
- XX. Work Plans – specific designs created by an architect or abatement designer that identifies limits of a work area and a specific scope of work for a project.

**END OF SECTION**

## **SECTION 010100**

### **SUMMARY OF WORK**

#### **1. GENERAL PROVISIONS**

- A. The conditions of the Contract apply to this section.

#### **2. GENERAL SCOPE OF WORK**

- A. The Work under the Contract consists of hazardous materials abatement
- B. All abatement work shall be performed by a State of Connecticut licensed or certified Contractor depending on the hazardous material of concern.
- C. All costs associated with the above-described Work as well as work described under the Contract shall be borne by the Contractor, unless otherwise specifically provided for in the Contract. Owner shall not be responsible for any costs associated with this work, unless otherwise specifically provided for in the Contract.
- D. In addition, the Work under the Contract includes:
1. Work outside the Site as called for in the Contract and/or Work Plans and as required for the performance of the Work.
  2. The restoration of any items damaged or destroyed by encroaching upon areas outside the Site.
  3. Providing and restoring, where appropriate, all temporary facilities.
  4. Replacement or reinstallation of abated materials as appropriate/required.

#### **3. TIME OF COMPLETION**

- A. In accordance with the Contract, the Work shall take place in accordance with the Schedule and specific Work Plan. Work shall be scheduled with 8 hour shifts between 7:00AM and 7:00PM. Additional hours up to twelve (12) per shift between the hours of 7:00AM and 7:00PM may be scheduled with prior written approval of the Owner based on project scheduling requirements.
- B. No work is to be done on holidays, Saturdays, or Sundays without prior written approval of the Owner.

#### **4. WORK UNDER SEPARATE CONTRACT**

- A. Coordination by Owner

The following items shall be provided by others under a separate agreement with the Owner for which the Owner has coordinating responsibility.

- Environmental Consulting services and Industrial Hygiene services (to be provided by Environmental Consultant).

### **END OF SECTION**

**SECTION 010400**  
**EXISTING CONDITIONS**

**1. GENERAL PROVISIONS**

- A. The conditions of the Contract apply to this section.

**2. EXISTING CONDITIONS**

- A. The Contractor shall make a thorough examination of all conditions at the Site checking the requirements of the Work Plans and Specifications with the existing conditions.
- B. No claim for extra compensation or extension of time will be allowed on account of the Contractor's failure to estimate properly the quantities, locations, conditions and measurements of all items required to complete the Work which could be discerned from visiting the Site.
- C. The Contractor shall report in writing any discrepancies to the Owner's Environmental Consultant and request an interpretation. Any such discrepancies will include, but not be limited to, existing conditions of infrastructure and/or the existence of asbestos-containing materials (ACM/presumed asbestos-containing materials (PACM) and asbestos-contaminated materials (defined below collectively as "Asbestos Materials") and lead-based paint.
- D. A copy of any available report and a work plan which details locations and estimated quantities of Asbestos Materials and Lead will be provided to the Contractor for each project by the Owner or Owner's Environmental Consultant.

**3. EXISTING BUILDING**

Documentation of existing conditions is approximate and is intended for reference purposes only. It is the responsibility of the Contractor to visit the Site and familiarize itself with the spaces to be remediated and abated. Before performing any work or ordering any materials, the Contractor will verify all measurements and existing building conditions and be responsible for the correctness of same. No extra charge or compensation will be allowed on account of differences between actual dimensions and the measurements indicated on the drawings or specifications; any difference which may be found shall be submitted to the Environmental Consultant in writing for consideration before proceeding with the Work.

**END OF SECTION**

**SECTION 010500**  
**CONDUCT OF THE WORK**

**1. GENERAL PROVISIONS**

- A. The Conditions of the Contract apply to this section.

**2. PROJECT MANAGEMENT**

- A. The building may be occupied during construction, subject to limitations identified in individual work plans. The Contractor shall take all necessary precautions to ensure the public's safety and convenience for access to the building and/or entrances during the duration of the project. In addition, these areas shall remain secure and undamaged as a result of the construction and abatement work specified under the Contract.
- B. The Work must be completed in a continuous uninterrupted operation. The Contractor must use sufficient personnel and adequate equipment to complete all the necessary work requirements within a minimum period of time.
- C. Storage of materials, tools, and/or equipment at or within the Site shall be authorized and coordinated through the Owner, Environmental Consultant and General Contractor.
- D. Only materials and/or equipment intended and necessary for immediate use shall be brought onto the Site. At the completion of the abatement work, equipment and leftover or unused materials shall be removed from the Site by the Contractor.
- G. Workers shall refrain from smoking while performing Work at the Site, except in designated areas authorized by the Owner. The Contractor shall remove from the Site workers who violate this provision.
- H. Contractor shall develop a project schedule indicating a time period and sequence for completion of the Work. The schedule upon written approval by the Owner shall be adhered to. Any deviations from the schedule could subject the Contractor to monetary penalties at the discretion of the Owner. Contractor shall pay special attention to the sequence of remediation as follows:
- Pre-Cleaning of all rooms or areas affected by the Work.
  - Performance of Abatement
  - Final Visual Inspection and Clearance Testing conducted by Environmental Consultant.
  - Restoration of the Site as required by the Contract.

The Contractor shall indicate this process in detail in its Plan of Action as required under Section 013300 "Submittals."

### **3. SHUTDOWN OF SERVICES**

- A.** The continuous operation of existing electrical, water and equipment is mandatory during the Work. If these items are required to be terminated at any time during the Work, written approval must be granted from the Owner before proceeding. All Work shall conform to the standards set by applicable federal, state and local laws, regulations, ordinances and guidelines, herein defined as Environmental, Health and Safety Requirements (“EH&S Requirements”).
- B.** Services requiring shut down will be identified within the project Work Plans.

### **4. COORDINATION**

- A.** The Contractor shall submit for written approval to the Owner a detailed operational plan showing the sequence of operations prior to commencement of any work at the Site. Any changes to this operational plan must be approved by the Owner in writing. Refer to Section 013300 Submittals for details.
- B.** The Contractor must retain on the Site during the work’s progress a competent full time representative, satisfactory to the Owner. This representative should not be changed, except with the written consent of the Owner. The representative shall be in full charge of the Work and all instructions given to this person by the Environmental Consultant should be followed.
- C.** The Contractor must supply to the Owner and Environmental Consultant a continuous working telephone number of a responsible person who may be contacted during non-work hours for emergencies on the project.
- D. OWNER’S EMERGENCY CONTACT:** For any building or operational emergencies the Contractor shall immediately notify the Owner’s Facilities Manager, TBD.

**END OF SECTION**

## **SECTION 013300**

### **SUBMITTALS**

#### **1. RELATED DOCUMENTS**

- A. The conditions of the Contract apply to this Section.

#### **2. GENERAL PROCEDURES/REQUIREMENTS FOR SUBMITTALS**

- A. Before commencement of the Work, the Contractor shall provide appropriate submittals required by this Abatement Specification. A total of two (2) copies of each submittal shall be provided to the Owner and Environmental Consultant for review and written approval.
- B. The Contractor shall NOT proceed with the Work unless all submittals have been received and are approved in writing by the Owner or Owner's Environmental Consultant. If the Contractor proceeds with the Work without written approval, it shall do so at its own risk and expense.
- C. The Contractor shall be responsible for all claims and restitution resulting from failure to comply with the submittal requirements. In addition, no claim for extra compensation or extension of time will be allowed on account of the Contractor's failure to comply with this requirement.

#### **3. SUBMITTALS REQUIRED**

- A. Refer to each technical specification section and/or Scope of Work for submittals required under those parts. The following submittals are required for review and approval by the Owner's Environmental Consultant on or before the Pre-Construction Meeting, defined as a scheduled meeting at the Site prior to any work activities to include all parties involved with the Work and under the direction of the Owner:
  - 1. Copy of Connecticut Department of Public Health (CT DPH) Contractor's License, when applicable
  - 2. Copies of certifications, notifications and all applicable licenses.
  - 3. Chain-Of-Command list of all personnel on-site and emergency contact person(s).
  - 4. Written Respirator Program, updated to OSHA's most current version of 29 CFR § 1910.134, which establishes procedures governing the selection and use of respirators, medical examinations, training, fit testing, inspection, evaluation, etc.
  - 5. Written Medical Surveillance Program including the Physicians' written opinion for employees assigned to the project in accordance with OSH Act regulations at 29 CFR § 1926.1101.
  - 6. Written Hazardous Communications Program including SDS sheets for materials to be brought on-site, if any.
  - 7. Abatement Contractor's Project Schedule of Completion.
  - 8. Drawings or written description detailing waste disposal program (including any on-site storage, method of removal from building and the name of the waste disposal site).

In addition the following submittals are required for final payment:

- 1. Copy of Waste Shipment Records within the timeframe specified by the U.S. Environmental Protection Agency (EPA) and State of Connecticut requirements and any other EH&S Requirements.



2. Copy of personal air sample results.
  3. Copy of abatement supervisor's daily log book.
- B. The Abatement Contractor must receive Owner's or Environmental Consultant's written approval of materials or equipment not previously approved prior to delivery of any such materials or equipment to the Site.

**END OF SECTION**

**SECTION 015000**  
**TEMPORARY FACILITIES**

**1. GENERAL PROVISIONS**

- A. The conditions of the Contract apply to this section.

**2. GENERAL REQUIREMENTS**

- A. All temporary facilities shall be maintained until project completion has been achieved unless directed otherwise by the Owner or specifically noted in the specifications and/or work plans.
- B. The Contractor shall be responsible for providing and maintaining all temporary facilities until Substantial Completion, as confirmed by Owner. Removal of such prior to Substantial Completion must be with the concurrence of the Owner. The Contractor bears full responsibility for re-providing any facility removed prior to Substantial Completion at its own cost.
- C. The Contractor must comply with all EH&S Requirements.

**3. FIELD OFFICES**

Not Required. The Contractor may make use of a room within the building as office space as directed by Owner.

**4. TEMPORARY TELEPHONES**

Not Required.

**5. TEMPORARY TOILETS**

- A. The Contractor shall provide temporary toilets for use by the Contractor's employees who will be working at the Site unless temporary toilets are provided by General Contractor and available for use. The location of and placement of such temporary toilets shall be coordinated with the Owner. At no time shall the Contractor make use of the existing toilets within the building without prior written approval by the Owner.

**6. TEMPORARY WATER**

- A. The Contractor may make use of the available water supply at the Site for construction purposes, provided the written permission of the Owner is obtained beforehand and only as long as the water is not used wastefully.
- B. The Contractor shall provide all necessary piping and hoses to utilize the available sources of water.
- C. The Contractor should provide an adequate supply of cool drinking water with individual drinking cups for personnel on the job.
- D. The Contractor's use of the available water supply at the Site shall in no way hamper or affect any existing services relative to fire protection without written approval from the Owner and the Local Fire Marshall.

**7. TEMPORARY ELECTRICITY**

- A. The Contractor may make use of the electricity where available at the Site, metered and paid for

by the Owner, provided that the Contractor shall supply proper adapters, extension cords and ground fault circuit interrupters (GFCI).

- B.** The Contractor shall furnish, install, and maintain lighting required for each Work Area. The Contractor, and each subcontractor, shall furnish their own extension cords with GFCI and additional lamps as may be required for their work. Temporary work of a special nature, not otherwise specified hereunder, shall be provided, maintained, and paid for by the trade requiring same.
- C.** All temporary electrical work shall be provided in conformity with all EH&S Requirements.
- D.** All temporary electrical work required to hook up to the Owner's existing power shall be performed by a licensed electrician retained by the Contractor. All temporary hook-ups shall be coordinated through the Owner.

#### **END OF SECTION**

## **SECTION 015100**

### **PROTECTION**

#### **1. GENERAL PROVISIONS**

- A. The conditions of the Contract apply to this section.

#### **2. PROTECTION OF PERSONS & PROPERTIES**

- A. The building may be occupied during construction, subject to limitations identified in individual work plans. The Contractor shall take all necessary precautions to ensure the public's safety and convenience for access to the building and/or entrances during the duration of the project. In addition, these areas shall remain secure and undamaged as a result of the work specified under this Contract.
- B. Any damage to the building, roads (public and private), bituminous concrete areas, fences, lawn areas, trees, shrubbery, poles, underground utilities, etc. shall be made good by and at the Contractor's own expense, all to the satisfaction of the Owner.

#### **3. TEMPORARY FACILITIES & CONTROL**

- A. The Contractor shall be responsible for means, methods and techniques used to complete the Work under the Contract including all temporary facilities and controls. The Contractor shall:
- (1.) Design and provide temporary enclosures to segregate work areas, control access and protect building occupants.
  - (2.) Provide temporary enclosures appropriate for their intended service and duration.
  - (3.) Remove and dispose of all temporary facilities and controls when they are no longer needed.
  - (4.) Relocate temporary facilities and controls as needed to accommodate the phases of the Work.
  - (5.) Protect excavations, trenches, buildings, and materials at all times from rain water, ground water, backing-up, or leakage of sewers, drains, or other piping, or from water damage of any origin. Provide all pumps, piping, coverings, and other materials and equipment as required by job conditions to accomplish this requirement.
  - (6.) Protect other areas and private property. Any areas damaged by the Contractor shall be restored to the original condition or compensated at the Asbestos Abatement Contractor's expense.
  - (7.) Protect adjacent buildings and/or property from damage resulting from the Work.

#### **4. ACCESS**

- A. The Contractor shall, at all times, leave an unobstructed way along walks and roadways, and shall maintain barriers and lights for the protection of all persons and property in all locations where materials are stored or work is in progress. The Contractor shall coordinate the location of on-Site trailers, equipment storage areas and dumpsters with the Owner.

#### **5. SECURITY**

- A. The Contractor shall be responsible for providing all security precautions necessary to protect the Contractor's and Owner's interests.
- B. The Contractor's employees including all sub-contractor's employees will be restricted to designated areas within the building, as determined by the Owner. Vehicles must be identified by license plate number, make and model and parked in designated areas only, as determined by the Owner. Upon entering the Site, Contractor's employees including all sub-contractor's employees, shall sign in and out at a designated area determined by the Owner.

#### **6. NOISE AND DUST CONTROL**

- A. The Contractor shall take special measures to protect the employees, staff, neighbors, and general public from noise, dust, and other disturbances.

**7. FIRE PROTECTION**

- A. The Contractor shall take necessary precautions to ensure against fire and maintain fire code compliance during construction. The Contractor shall be responsible to ensure that the area within Contract limits is kept orderly and clean and that combustible rubbish and construction debris is promptly removed from the Site. The Contractor shall coordinate with the Owner with respect to the deactivation and reactivation of the existing fire alarm and sprinkler system, as may be necessary in conjunction with the Work, and shall notify the Owner on a daily basis of the need for any such activation and/or deactivation in accordance with applicable EH&S Requirements.

**END OF SECTION**

## **SECTION 015200**

### **CLEANING UP**

#### **1. GENERAL PROVISIONS**

- A.** The conditions of the Contract apply to this section.

#### **2. CONTRACTOR RESPONSIBILITY FOR CLEANING DURING CONSTRUCTION**

- A.** Conduct cleaning and disposal operations to comply with all EH&S Requirements.
- 1.** Do not burn or bury rubbish and waste materials on the Site.
  - 2.** Do not dispose of volatile wastes, such as mineral spirits, oil, and paint thinner, in storm or sanitary drains.
  - 3.** Do not dispose of wastes into streams or waterways.
- B.** Properly wet down dry materials and rubbish to suppress dust and prevent blowing dust.
- C.** Do not allow materials and rubbish to drop free or be thrown from upper floors, but remove by use of a material hoist or rubbish chutes.
- D.** Maintain the Site free from accumulations of waste, debris and rubbish.
- E.** Provide on-site containers for collection of waste materials and rubbish.
- F.** At the end of each day, remove and dispose of waste materials and rubbish from the Site in compliance with all EH&S Requirements.
- E.** Disposal of Hazardous Materials shall be in compliance with all EH&S Requirements. Refer to Section 02080 regarding disposal of Asbestos Materials and Section 020910 regarding Lead-Containing Materials.

#### **3. FINAL CLEANING**

- A.** Prior to submitting a request to the Owner to certify Substantial Completion of the Work, the Contractor shall inspect the Site to verify that all waste materials, rubbish, tools, equipment, machinery and surplus materials have been removed, and that all sight-exposed surfaces are clean.
- B.** Owner's responsibility for cleaning commences at Substantial Completion.
- C.** All existing equipment related to the abatement project shall be removed upon completion of the abatement portion of the Work and notice of final clearance. This shall include removal of all High Efficiency Particulate Air (HEPA) filtered Negative Air Filtration Units (NAFUs) utilized for exhaust in the containment work area.

### **END OF SECTION**

## **PART 1 - GENERAL**

### **1.1 DESCRIPTION OF WORK**

- A. Coordinate selective demolition for Hazardous Materials with work included in other sections.
- B. Work included in this section is to be performed to permit removal of ACM, Lead and Mold or perform other Hazardous Materials removal activities.
- C. Selective demolition work included in this section is to be performed prior to, but as part of hazardous material abatement, and includes the removal of non-hazardous material to access concealed hazardous material scheduled for removal. Work having a high probability of disturbing hazardous materials shall be conducted after engineering controls are in place and have proven to be effective. This work includes, but is not limited to, removal of the following building components or materials:
  - 1. Plaster or gypsum wallboard partition or ceiling.
  - 2. Suspended acoustic ceiling.
  - 3. Concrete masonry unit (CMU) walls.
  - 4. Carpet.
  - 5. Built-in equipment and cabinetry.
  - 6. HVAC system components.
  - 7. Electrical system components.
  - 8. Alarm system components.
- D. Building demolition or removal of building mechanical and electrical systems, except as required to access or permit removal of ACM or Hazardous Materials, is not included in this section.

### **1.2 SUBMITTALS**

- A. Submit for Environmental Consultants' review and information the below listed data not less than five (5) working days prior to start of activity.
  - 1. Proposed selective demolition schedule including removal sequence. Update and resubmit every two weeks showing progress to date, if applicable.
  - 2. Details of methods and procedures proposed for selective demolition.
  - 3. Safety plan for worker protection and protection of adjacent construction.

### **1.3 REGULATORY REQUIREMENTS**

- A. Conform to all applicable federal, state and local laws, regulations, codes and ordinances for demolition of structures, safety of adjacent structures, dust control, runoff control, traffic control; and handling, transporting and disposal of construction demolition and Hazardous Materials in accord with EH&S Requirements.
- B. Lock out /Tag out electrical power, including all receptacles and light fixtures in accordance with the Owner lock out/tag out program. Isolate and remove alarm system components on surfaces to be demolished under this section. Coordinate all power and alarm system isolation with the Owner.



- C. Do not close or obstruct access to or egress from occupied areas of the building.

#### **1.4 SEQUENCING**

- A. Sequence work with asbestos abatement included in Section 028213 in a continuous process. Demolition or removal activities which could disturb ACM shall be performed after establishment of engineering controls specified in Section 028213.

#### **1.5 SALVAGEABLE MATERIALS**

- A. The items identified within the Project Work Plan that are not scheduled for reuse have been identified for salvage. Carefully remove these items to avoid damage, and deliver them to the on-Site location where indicated or directed.

### **PART 2 - PRODUCTS (Not Used)**

### **PART 3 - EXECUTION**

#### **3.1 PREPARATION**

- A. Provide, erect, and maintain temporary barriers, including Work Area containment at locations necessary to protect adjacent construction and eliminate unauthorized entry into the work area. Provide appropriate signage to identify building evacuation routes during construction.

#### **3.2 DEMOLITION REQUIREMENTS**

- A. Perform demolition to the extent specified, indicated or necessary to access concealed ACM and to remove Lead, and other Hazardous Materials specified herein. Conduct demolition and removal activities to minimize interference with adjacent construction building materials scheduled to be retained.
- B. Cease operations immediately if adjacent construction appears to be in danger and notify the Owner and Environmental Consultant. Do not resume operations until directed by the Owner.
- C. Properly wet down building components removed under this section with water to minimize dust. Provide control of associated water runoff.
- D. Remove demolition materials that do not contain asbestos, lead, or any other Hazardous Materials and place in construction debris waste containers. Should the on-Site Environmental Consultant identify contamination from adjacent building materials containing asbestos, lead, or other Hazardous Materials, the materials must be decontaminated or removed as Hazardous Material debris.

Should any Hazardous Material spill occur during selective demolition for the removal of Hazardous Materials, notify the Owner and on-Site Environmental Consultant immediately.

**END OF SECTION 024119**

## **PART 1 - GENERAL**

### **1.1 DEFINITIONS**

- A. Abatement – Any set of measures designed to eliminate an asbestos hazard in accordance to State and/or Federal regulations associated with hazardous materials.
- B. Accessible - A space easily accessed, and which can be entered or seen without demolition.
- C. Agency - The authoritative force, usually at the state level, or their representative.
- D. AHERA - Asbestos Hazard Emergency Response Act - U. S. EPA regulation 40 CFR Part 763 under Section 203 of Title II of the Toxic Substances Control Act (TSCA), 15 U.S.C. § 2643. This rule mandates inspections, accreditation of persons involved with asbestos, and final air clearances following abatement in public and private schools, and public and commercial buildings.
- E. AIHA – American Industrial Hygiene Association
- F. Alternative Work Practice (AWP) - CTDPH approved deviation from Asbestos Standards (Sections 19a-332a-1 to 19a-332a-16 inclusive). AWP methods may be used if pre-approved by CTDPH or with the approval of CTDPH, the Design Consultant and State's Project Monitor when not pre-approved. Approval of AWP procedures shall not relieve the Contractor from any codes, regulations or standards required by this specification.
- G. Asbestos Abatement Site Supervisor – Any individual who is employed or engaged by an asbestos contractor to supervise an asbestos abatement project.
- H. Asbestos-Containing Waste Materials – Mill tailings or any waste that contains commercial asbestos and is generated by a source subject to the provisions of this subpart. This term includes filters from control devices, friable asbestos waste material, and bags or other similar packaging contaminated with commercial asbestos. As applied to demolition and renovations operations, this term also includes regulated asbestos-containing material waste and materials contaminated with asbestos including disposable equipment and clothing.
- I. Asbestos Control Area - An area where asbestos abatement operations are performed which is isolated by physical boundaries, which assist in the prevention of the uncontrolled release of asbestos dust, fibers, or debris. Two examples of an Asbestos Control Area are a "full containment" and a "glove-bag."
- J. Asbestos Materials - Asbestos-containing materials (ACM), presumed asbestos-containing materials (PACM), and asbestos-contaminated materials.
- K. Asbestos Project Designer – Any accredited person who determines how asbestos abatement work should be conducted and who prepares, for purposes of an abatement project, plans, designs, procedures, work scope or other substantive directions or criteria.

- L. Authorized Asbestos Disposal Facility - A location approved by the CTDEEP for handling and disposing of asbestos waste or by an analogous or federal regulatory agency if the material is disposed of outside the State of Connecticut.
- M. Category I Non-Friable Asbestos-Containing Material (ACM) - Asbestos-containing packing, gaskets, resilient floor coverings and asphalt roofing products containing more than 1 percent asbestos as determined using the method specified in Appendix A, subpart F, 40 CFR Part 763, section 1, Polarized Light Microscopy.
- N. Category II Non-Friable Asbestos Materials - Any material, excluding Category I non-friable Asbestos Materials, containing more than 1 percent asbestos as determined using the method specified in Appendix A, subpart F, 40 CFR Part 763, section 1, Polarized Light Microscopy that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.
- O. Class I Asbestos Work - Activities involving the removal of TSI (thermal system insulation) and surfacing Asbestos Materials.
- P. Class II Asbestos Work - Activities involving the removal of Asbestos Materials, which is not TSI or surfacing material. This includes, but is not limited to the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastic.
- Q. Class III Asbestos Work - Repair and maintenance operations, where Asbestos Materials, including TSI and surfacing material, is likely to be disturbed.
- R. Class IV Asbestos Work - Maintenance and custodial activities during which employees contact Asbestos Materials and activities to clean up waste and debris containing Asbestos Materials.
- S. Clean Room – an uncontaminated room having facilities for the storage of employees’ street clothing and uncontaminated materials and equipment.
- T. Competent Person - In addition to the definition in 29 CFR § 1926.32(f), one who is capable of identifying existing asbestos hazards in the work place and selecting the appropriate control strategy for asbestos exposure, who has the authority to take prompt corrective measures to eliminate them, as specified in 29 CFR §1926.32(f): in addition for Class I and Class II work who is specially trained in a training course which meet the criteria of 40 CFR Part 763 (Appendix C to Subpart E - Asbestos Model Accreditation Plan).
- U. Concealed Space - Space, which is out of sight. Examples of a concealed space include area above hard ceilings; below floors; between double walls; furred-in areas; pipe and duct shafts; and similar spaces which cannot be examined without invasive removal of building components or disturbance of finishes.
- V. Critical Barrier - A layer of six (6) mil polyethylene sheeting taped securely over windows, doorways, diffusers, grilles and any other openings between the Work Area and uncontaminated areas outside of the Work Area.
- W. CTDEEP - The Connecticut Department of Energy and Environmental Protection, 79 Elm Street, Hartford, CT 06106.
- X. CTDPH - The Connecticut Department of Public Health, 410 Capitol Avenue, P.O. Box 340308, Hartford, CT 06134-0308.

- Y. Demolition - The wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility.
- Z. Differential Pressure - A difference in the static air pressure between the Work Area and occupied areas, and is developed by the use of HEPA filtered exhaust fans. This differential is generally in the range of 0.02 to 0.04 inches of water column.
- AA. Encapsulation - The treatment of asbestos-containing materials to prevent the release of fibers as the encapsulant creates a membrane over the surface (bridging encapsulant) or penetrates the material and binds its components together (penetrating encapsulant).
- BB. Engineering Controls - Controls to include, but not be limited to, pressure differential equipment, decontamination enclosures, critical barriers and related procedures.
- CC. Environmental Consultant - The certified and licensed company contracted or employed by the building owner or contractor to supervise and/or conduct air monitoring, analysis schemes and design of abatement projects.
- DD. Equipment Decontamination Enclosure System - The portion of a Decontamination Enclosure System designed for controlled transfer of materials and equipment into or out of the Work Area, typically consisting of a Washroom and a Holding Area.
- EE. Equipment Room (change room) – a contaminated room located within the decontamination area that is supplied with impermeable bags or containers for the disposal of contaminated protective clothing and equipment.
- FF. Exposed - Open to view.
- GG. Fiber - A particulate form of asbestos five microns or longer, with a length-to-diameter ratio of at least 3 to 1.
- HH. Finished Space - Space used for habitation or occupancy where rough surfaces are plastered, paneled or otherwise treated to provide a pleasing appearance.
- II. Fixed Critical Barrier - Barrier constructed of 2" x 4" wood or metal framing 16" O.C., with 1/2" plywood on the occupied side and two layers of six (6) mil polyethylene sheeting on the Work Area side to prevent unauthorized access or air flow.
- JJ. Fixed Object - A piece of equipment or furniture in the Work Area, which cannot be removed from the Work Area, as, determined by the State.
- KK. Friable Asbestos-Containing Material (ACM) - Material containing more than one percent asbestos which has been applied on ceilings, walls, structural members, piping, duct work, or any other part of a building, which when dry may be crumbled, pulverized or reduced to powder by hand pressure. The term includes non-friable asbestos-containing material after such previously non-friable material becomes damaged to the extent that when dry it may be crumbled, pulverized or reduced to powder by hand pressure.
- LL. Friable Asbestos-Containing Building Material (ACBM) - Any friable Asbestos Material that is in or on interior structural members or other parts of a school or public or commercial building.

- MM. Glove-Bag Technique - A method with limited applications for removing small amounts of friable Asbestos Material from HVAC ducts, short piping runs, valves, joints, elbows, and other non-planar surfaces in a non-contaminated work area. Information on glove-bag installation, equipment and supplies, and work practices is contained in 29 CFR § 1926.1101. The glove-bag assembly is a manufactured or fabricated device consisting of a glove-bag (typically constructed of six (6) mil polyethylene or polyvinyl chloride plastic), two inward projecting long sleeves, an internal tool pouch, and an attached, labeled receptacle for asbestos waste. The glove-bag is constructed and installed in such a manner that it surrounds the object or material to be removed and contains all asbestos fibers released during the process. This technique requires AWP application and may only be used if pre-approved by CTDPH or with the approval of the Design Consultant, State's Project Monitor and CTDPH when not pre-approved.
- NN. HEPA Filter Equipment - High-efficiency particulate air (HEPA) filtered vacuum and/or exhaust ventilation equipment with a filter system capable of trapping and retaining asbestos fibers. Filters shall be of 99.97 percent efficiency for retaining fibers of 0.3 microns in diameter or larger.
- OO. Inaccessible - A space not accessible, and which cannot be entered or seen without demolition.
- PP. Inspection - An activity undertaken in a school building, or a public or commercial building, to determine the presence or location, or to assess the condition of, friable or non-friable Asbestos Materials or suspected Asbestos Materials, whether by visual or physical examination, or by collecting samples of such materials.
- QQ. Lock-down - The procedure of spraying polyethylene sheeting and building materials with an encapsulant type sealant to seal in non-visible asbestos-containing residue.
- RR. Major Fiber Release Episode - Any uncontrolled or unintentional disturbance of Asbestos Materials, resulting in a visible emission, which involves the falling or dislodging of more than 3 square or 3 linear feet of friable Asbestos Materials.
- SS. Mini-Containment - A procedure using a single layer of polyethylene sheeting to contain the Work Area. Access to the mini-containment is controlled by an air lock, which also serves as a Holding Area. This procedure requires AWP application and may only be used if pre-approved by CTDPH or with the approval of the Design Consultant, State's Project Monitor and CTDPH when not pre-approved.
- TT. Minor Fiber Release Episode - Any uncontrolled or unintentional disturbance of Asbestos Materials, resulting in a visible emission, which involves the falling or dislodging of 3 square or linear feet or less of friable Asbestos Materials.
- UU. Movable Object - A piece of equipment or furniture in the Work Area, which can be removed from the Work Area, as, determined by the State.
- VV. Negative Initial Exposure Assessment - A demonstration by the employer which complies with the criteria in 29 CFR § 1926.1101(f)(2)(iii) that employee exposure during an operation is expected to be consistently below the PEL.
- WW. Negative Pressure Enclosure (NPE) – a containment constructed of polyethylene sheeting to contain the Work Area and creates a vacuum atmosphere that restricts contaminants from exiting the enclosure.

- XX. Non-Friable Asbestos-Containing Material - Material containing more than 1 percent asbestos as determined using the method specified in Appendix A, subpart F, 40 CFR Part 763, section 1, Polarized Light Microscopy that when dry cannot be crumbled, pulverized or reduced to powder by hand pressure.
- YY. OSHA – Occupational Safety and Health Administration
- ZZ. Owner or Operator of a Demolition or Renovation Activity - Any person who owns, leases, operates, controls or supervises the facility being demolished or renovated or any person who owns, leases, operates, controls or supervises the demolition or renovation, or both.
- AAA. Permissible Exposure Limits (PELS) - (1) Time-weighted Average Limit (TWA). The employer shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of 0.1 fibers per cubic centimeter (f/cc) of air as an eight (8) hour time-weighted average (TWA). (2) Excursion Limit. The employer shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of 1.0 fibers per cubic centimeter of air (1 f/cc) as averaged over a sampling period of thirty (30) minutes.
- BBB. Pre-Clean - The process of cleaning an area before asbestos abatement activities begin to ensure all dust and debris in the area considered asbestos containing are properly contained and disposed of. This increases the likelihood the area will pass aggressive air sampling clearance requirements after asbestos-containing materials have been removed.
- CCC. Presumed Asbestos-Containing Material - TSI and surfacing material found in buildings constructed no later than 1980. The designation of PACM may be rebutted pursuant to 29 CFR § 1926.1101 (k)(5).
- DDD. Project Monitor - The certified and licensed individual contracted or employed by the building owner or contractor to supervise and/or conduct air monitoring and analysis schemes. This individual is responsible for recognition of technical deficiencies in procedures during both planning and on-site phases of an abatement project. Requirements for Project Monitor are defined in the Connecticut Department of Public Health Regulations (Sections 20-440-1 to 20-440-9 and 20-441). In addition to these requirements, this person shall be listed in the American Industrial Hygiene Association's Asbestos Analysts Registry.
- EEE. Regulated Area - Area established by the employer to demarcate areas where Class I, II and III work is conducted, and any adjoining area where debris and waste from such asbestos work accumulate; a work area within which airborne concentrations of asbestos exceed or there is a reasonable possibility they may exceed the PEL.
- FFF. Regulated Asbestos-Containing Material (RACM) - (a) Friable asbestos material, (b) Category I non-friable Asbestos Materials that has become friable, (c) Category I non-friable Asbestos Materials that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II non-friable Asbestos Materials 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.
- GGG. Renovation - Altering a facility or one or more facility components in any way, including the stripping or removal of Asbestos Materials from a facility component. Operations in which load-supporting members are wrecked or taken out are demolition.

- HHH. Repair - Overhauling, rebuilding, reconstructing or reconditioning of structures or substrates where asbestos, tremolite, anthophyllite or actinolite is present.
- III. Response Action (Work) - A method including removal, encapsulation, enclosure, repair and operation and maintenance that protects human health and the environment from Hazardous Material exposure.
- JJJ. Shower Room – a contaminated room having facilities for the washing of persons and equipment prior to moving into the clean room.
- KKK. Small-Scale, Short Duration (SSSD) - Tasks such as but not limited to:
1. Removal of small quantities of asbestos containing insulation on pipes.
  2. Removal of small quantities of asbestos-containing insulation on beams or above ceilings.
  3. Replacement of an asbestos-containing gasket on a valve.
  4. Installation or removal of a small section of drywall.
  5. Installation of electrical conduits through or proximate to asbestos-containing materials.
  6. Removal of small quantities of Asbestos Materials only if required in the performance of another maintenance activity not intended as asbestos abatement.
  7. Removal of asbestos containing TSI not to exceed amounts greater than those which can be contained in a single glove-bag.
  8. Minor repairs to damaged TSI, which do not require removal.
  9. Repairs to a piece of asbestos-containing wallboard.
  10. Repairs involving encapsulation, enclosure, or removal, to small amounts of friable Asbestos Materials only if required in the performance of emergency or routine maintenance activity and not intended solely as asbestos abatement. Such work may not exceed amounts greater than those may, which can be contained in a single prefabricated mini-enclosure. Such an enclosure shall conform spatially and geometrically to the localized work area, in order to perform its intended containment function.
- LLL. Spot Repair – Any asbestos abatement performed within a facility involving not more than three (3) linear feet or three (3) square feet of asbestos-containing material.
- MMM. Thermal System Insulation – material in a building applied to pipes, fittings, boilers, breeching, tanks, ducts, or other interior structural components to prevent heat loss or gain, or water condensation, or for other purposes.
- NNN. Time Weighted Average (TWA) – The employer shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of 0.1 fibers per cubic centimeter of air as and eight (8) hour TWA.
- OOO. Unfinished Space - Space used for storage, utilities or work area where appearance is not a factor. Examples of an unfinished space include crawlspace; pipe tunnel and similar spaces.
- PPP. Visible Emissions - Any emissions, which are visually detectable without the aid of instruments, coming from Asbestos Materials or asbestos-containing waste material or from any asbestos milling, manufacturing, or fabricating operation. This does not include condensed, uncombined water vapor.
- QQQ. Visible Residue - Any debris or dust on surfaces in areas within the Work Area where asbestos abatement has taken place and which is visible to the unaided eye. All visible residue is assumed to contain asbestos.



- RRR. Waste Generator - Any owner or operator of a source whose act or process produces asbestos-containing waste material.
- SSS. Waste Shipment Record - The shipping document, required to be originated and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing waste material.
- TTT. Wet Cleaning - The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning tools, which have been dampened with water, and afterwards thoroughly decontaminated or disposed of, as asbestos-contaminated waste.
- UUU. Work Area - Specific area or location where the actual work is being performed or such other area of a facility, which the Commissioner determines, may be hazardous to public health because of such asbestos abatement.
- VVV. Worker Decontamination Enclosure System - The portion of a Decontamination Enclosure System designed for controlled passage of workers and authorized visitors, typically consisting of a Clean Room, a Shower Room and an Equipment Room.

Refer to Definitional Section under Abatement Specification, Section 010100 for additional definitions.

## **1.2 SCOPE**

- A. The work specified herein shall include the abatement of Asbestos Materials by persons who are knowledgeable, qualified, and trained in the removal, treatment, handling, and disposal of Asbestos Materials, and the subsequent cleaning of the affected environment. The Contractor shall have a Competent Person in control on the job site at all times and an Asbestos Abatement Site Supervisor during asbestos abatement work. This person must comply with applicable federal, state and local EH&S Requirements that mandate work practices, and be capable of performing the work of this contract.
- B. The Asbestos Contractor shall be licensed by the State of Connecticut in accordance with State of Connecticut Regulations, Sections 20-440-1 through 9 and 20-441. Should any portion of the work be subcontracted, the subcontractor must also be licensed in accordance with these regulations. Site supervisors and workers shall be certified in accordance with Sections 20-437 and 20-438 of the Connecticut General Statutes and Section 20-440-5 of the Regulations of Connecticut State Agencies. The licensing and certification requirements are available from the Environmental Health Services Division, CTDPH, 410 Capitol Avenue, P.O. Box 340308, Hartford, CT 06134-0308.
- C. The Owner will retain the services of an Environmental Consultant for protection of its interests and those using the building. Abatement monitoring will be conducted throughout asbestos abatement activities.
- D. Restore all Work Areas and auxiliary areas utilized during abatement to conditions equal to or better than original. Any damage caused during the performance of abatement activities shall be repaired by the Contractor (e.g., paint peeled off by barrier tape, nail holes, water damage, removal of ceiling tiles or concrete blocks, broken glass, etc.) at no additional expense to the Owner. The Contractor is responsible for protecting all objects in Work Areas that are permanent fixtures or too large to remove.

- E. The Contractor shall be responsible for the following general requirements:
1. Obtain all approvals and permits, and submit all notifications required.
  2. Provide, erect, and maintain all planking, bracing, shoring, barricades, and warning signs.
  3. Unless otherwise specified, all equipment, fixtures, piping and debris resulting from demolition shall become the property of the Contractor and shall be removed from the premises.
  4. Materials to be reused shall be removed with the utmost care to prevent damage of any kind. All material to be reused shall be stored as directed. The Contractor shall coordinate with the Owner as to the storage location.
  5. Materials not scheduled for reuse shall be removed from the site and disposed of in accordance with all applicable federal, state and local EH&S Requirements.
  6. Provide OSHA required personal monitoring to ensure adequate respiratory protection for each worker.
- F. Protect and preserve in operating condition, all utilities traversing the building and site. Damage to any utility due to work under this Contract shall be repaired to the satisfaction of the Owner at no cost to the Owner.

### **1.3 DESCRIPTION OF WORK**

- A. The Contractor shall supply all labor, materials, equipment, services, insurance, and incidentals which are necessary or required to perform the work in accordance with applicable governmental regulations and these specifications.
- B. Coordinate asbestos abatement work with Owner representatives and Environmental Consultant.
- C. All abatement workers will provide all necessary certifications and photo identification for the record.
- D. The Owner or Environmental Consultant has the authority to order all work to stop if he determines that work is not being performed per state and federal regulations, or the health and safety of workers and building occupants is or may be at risk. There will be no additional fees billed to the Owner because of a stop work order.
- E. The asbestos abatement work shall include the removal of exposed and concealed asbestos-containing materials (ACM) as specified herein. ACM to be abated include the following:

<b>SUMMARY OF ASBESTOS-CONTAINING MATERIALS</b> <i>Suffield Town Hall</i> <i>Suffield, CT</i>		
<i>Material</i>	<i>Locations</i>	<i>Estimated Quantity</i>
9"x9" Floor Tile w/Black Mastic	Room 106, 107, 108, 109, Lower Level Hall 124/126, Hall 200, 201, 202, 203, 204, 207, 208, Hall 300, 301 – 306, 309 – 313, Storage 116, 119, 120, 121, Stair landings	Upper – 3,450 SF Ground – 2,800 SF Lower – 900 SF

<b>SUMMARY OF ASBESTOS-CONTAINING MATERIALS</b> <i>Suffield Town Hall</i> <i>Suffield, CT</i>		
<i>Material</i>	<i>Locations</i>	<i>Estimated Quantity</i>
Pipe Fitting Insulation	Throughout Lower Level and Ground Level, Wet Walls	300 EA
Black Elbow Tar Wrap	Select Radiators	22 LF
Black Tar for Radiator Panels	Select Radiators	22 EA
Door Glazing – Gray (Old)	Corridor 124	1 EA
Vault Door Insulation (PACM)	Vault 111, Vault 203	2 EA
Gray Flex Connectors	Attic	2 EA
Boiler/Boiler Components (PACM)	Boiler Room	1 EA

Location:

**Town of Suffield  
(Town Hall)  
83 Mountain Road  
Suffield, CT 06078**

- F. Building floor plans indicating locations of asbestos containing material is included with this specification. Quantities shall be field verified by Contractor.
- G. A copy of ATC's sampling reports, including a building floor plan indicating affected areas, is available upon request.
- H. A copy of existing surveys, sampling reports, including a building floor plan indicating affected areas, will be available for each project.

#### **1.4 REFERENCES**

- A. The current issue of each document shall govern. Where conflict among requirements or with these specifications exists, the more stringent requirements shall apply.
  - 1. OSHA
    - 29 CFR § 1910.1001 - Asbestos, Tremolite, Anthophyllite, and Actinolite.
    - 29 CFR § 1926.21 - Safety Training and Education.
    - 29 CFR § 1926.32 - Definitions.
    - 29 CFR § 1926.51 - Sanitation.
    - 29 CFR § 1926.55 - Gases, vapors, fumes, dusts, and mists.
    - 29 CFR § 1926.59 - Hazard Communication.

29 CFR § 1926.62 – Lead Exposure in Construction.  
29 CFR § 1926.200 - Accident Prevention Signs and Tags.  
29 CFR § 1926.417 - Lockout and Tagging of Circuits.  
29 CFR § 1926.1101 - Asbestos.

2. EPA  
40 CFR Part 61, Subpart M - National Emission Standards for Hazardous Air Pollutants;  
Asbestos NESHAP Revision; Final Rule.  
40 CFR Part 763, Subpart E - Asbestos School Hazard Emergency Response Act  
(ASHERA).  
40 CFR Part 763, Subpart G - Worker Protection Rule.  
40 CFR Part 763, Appendix C to Subpart E - Asbestos Model Accreditation Plan (MAP).
3. CTDPH  
  
Section 19a-332a-1 through 19a-332a-16 - Standards for Asbestos Abatement.  
Section 19a-332e-1 through 19a-332a-8 – Civil Penalties for Violation of Asbestos  
Abatement Laws.  
Section 20-440-1 through 20-440-9 - Licensure and Training Requirements for Persons  
Engaged in Asbestos Abatement and Asbestos Consultation Services.  
Section 20-441 – Refresher Training.
4. American National Standards Institute (ANSI)  
  
ANSI Z9.2 - Fundamentals Governing the Design and Operation of Local Exhaust Systems.  
ANSI Z88.2 - Respiratory Protection.
5. American Society of Testing and Materials (ASTM)  
  
ASTM E 84 - Surface Burning Characteristics of Building Materials.  
ASTM E 96 - Water Vapor Transmission of Materials.  
ASTM E 119 - Fire Tests of Building and Construction Materials.  
ASTM E 736 - Cohesion/Adhesion of Sprayed Fire-Resistive Materials Applied to Structural  
Members.  
ASTM E 1368 - Visual Inspection of Asbestos Abatement Projects.  
ASTM E 1494 - Encapsulants for Spray- or Trowel- Applied Friable Asbestos-Containing  
Building Materials.
6. Underwriters Laboratories, Inc. (UL)  
  
UL 586 - High-Efficiency, Particulate, Air Filter Units.

## **1.5 DOCUMENTATION**

- A. Submit two copies of the following documentation to the Owner and Environmental Consultant to ensure compliance with the applicable regulations. An up-to-date copy shall be retained at the work site at all times.
- B. Manufacturer's Catalog Data:
  1. Local Exhaust Equipment

2. Vacuum Equipment
3. Respirators
4. Pressure Differential Automatic Recording Instrument
5. Surfactant
6. Chemical Encapsulant
7. Polyethylene Sheeting
8. Airless Sprayers
9. Portable Shower Units
10. Adhesive Removal Chemicals
11. MSDS for All Materials Delivered to the Site
12. Letters of Compatibility for Encapsulants and Over coating Materials

C. Statements:

1. State Notification
2. Worker Medical Certification
3. Worker Training Certification
4. Worker Respirator Fit Testing
5. OSHA Laboratory Certification
6. Landfill Approval
7. Safety Plan
8. Respirator Protection Plan
  - a. Initial Exposure Assessment
  - b. Copies of all required notifications, approvals and permits for the removal, disposal and transport of Asbestos Materials.
  - c. Documentation from a physician certifying that all employees who may be exposed to airborne asbestos in excess of the background level have been provided with an opportunity to be medically monitored to determine whether they are physically capable of working while wearing the respirator required without suffering adverse health affects. In addition, document that personnel have received medical monitoring required in 29 CFR § 1926.1101. They shall also be informed of the specific types of respirators the employee shall be required to wear and the work he/she will be required to perform as well as special work place conditions such as high temperature, high humidity and chemical contaminants which to which he/she may be exposed.
  - d. Documentation certifying that all employees have received training in the proper handling of materials that contain asbestos; understand the health implications and risks involved, including the illnesses possible from exposure to airborne asbestos fibers; understands the use and limits of respiratory equipment to be used; and understands the results of monitoring of airborne quantities of asbestos as related to health and respiratory equipment as indicated in 29 CFR § 1926.1101 on an initial and annual basis.
  - e. Documentation of respiratory fit testing for all employees who must enter the Work Area. This fit testing shall be in accordance with qualitative procedures as detailed in 29 CFR § 1926.1101.
  - f. Establish and supervise in accordance with 29 CFR § 1926.21, a program for the education and training of workers in the recognition, avoidance and prevention of unsafe conditions and the regulations applicable to the work environment to control or eliminate any hazards or other exposure to illness or injury. Include any site-specific information to address health and safety procedures unique to this project.
  - g. Establish a written Respiratory Protection Plan in accordance with 29 CFR § 1910.134. This plan shall establish procedures governing the selection and use of

respirators and shall include such information as training in the proper use of respirators; medical examination of workers to determine whether or not they may be assigned an activity where respiratory protection is required; training in proper use and limitations of respirators; respirator fit testing; regular inspection and evaluation of the continued effectiveness of the program; and other elements included in the standard.

- h. Establish a written Hazard Communication Plan in accordance with 29 CFR § 1910.1200(e) and 29 CFR § 1926.59(e). This plan shall establish procedures describing how the facility will comply with the standard; describe how MSDS's will be obtained and made available for each hazardous chemical used in the work area; describe how information and training will be provided to employees; include a list of all toxic chemicals known to be present in the work place, cross-referenced to the MSDS file; explain how workers will be informed of hazards connected with non-routine tasks such as dealing with accidental spills and leaks; explain how workers will be informed of hazards associated with chemicals contained in unlabeled pipes; and, contain information on how other contract employees will be informed about hazards their employees may encounter while working in the facility.
- i. Demonstrate that employee's exposure will be below the PELs. For Class I asbestos work until the employer conducts exposure monitoring and documents that employees on that job will not be exposed in excess of the PELs, or otherwise makes a negative exposure assessment, the employer shall presume that employees are exposed in excess of the TWA and excursion limit.

**D. Records:**

- 1. Sign-in/out Logs
- 2. Daily Contractor Logs
- 3. Personal Air Sampling Results
- 4. Waste Shipment Records
- 5. Pressure Differential Recording Data
- 6. NPE Inspection and Smoke Test Logs
- 7. Rental Equipment Statements
  - a. When rental equipment is to be used in removal areas or to transport waste materials, submit a copy of written notification provided to the rental company informing them of the nature of use of the rented equipment

**1.6 PERSONNEL PROTECTION**

- A. Respiratory protection shall meet the requirements of OSHA as required in 29 CFR § 1910.134 and 29 CFR § 1926.1101. Provide appropriate respiratory protection for each worker and ensure usage during potential asbestos exposure. Select respirators from among those jointly approved as being acceptable for protection by the Mine Safety and Health Administration (MSHA) and the National Institute for Occupational Safety and Health (NIOSH) under the provisions of 30 CFR Part 11. Provide an adequate supply of filter elements for respirators in use.
- B. Minimum respiratory protection shall be as follows:

Airborne concentration of asbestos,  
or conditions of use.

Required Respirator

Not in excess of 10 f/cc

Any powered air purifying

(100 x PEL)	respirator equipped with high efficiency filters or any supplied-air respirator operated in continuous flow mode.
Not in excess of 100 f/cc (1000 x PEL)	Full face piece supplied air respirator operated in pressure demand mode.
Greater than 100 f/cc (>1000 x PEL) or unknown concentration	Full face piece supplied air respirator operated in pressure demand mode, equipped with an auxiliary positive pressure self-contained breathing apparatus.

- a. Respirators assigned for higher airborne fiber concentrations may be used at lower concentrations, or when required respirator use is independent of concentration.
  - b. A high-efficiency filter means a filter that is at least 99.97 percent efficient against mono-dispersed particles of 0.3 microns in diameter or larger.
- C. Provide and require all workers to wear protective clothing in Work Areas where asbestos fiber concentrations exceed permissible limits established by OSHA. Protective clothing shall include impervious coveralls with elastic wrists and ankles, head covering, gloves and foot coverings. Ensure all contaminated protective clothing remains in the Equipment Room for reuse or disposal of as contaminated waste.
- D. Ensure that all workers and authorized persons enter and leave the Asbestos Control Area through the Worker Decontamination Enclosure System.

## **1.7 EQUIPMENT REMOVAL PROCEDURE**

- A. Clean surfaces of contaminated containers and equipment thoroughly by vacuuming with HEPA filtered equipment and wet wiping before moving such items into the Equipment Decontamination Enclosure System for final cleaning and removal to uncontaminated areas. Ensure that personnel do not leave the Asbestos Control Area through the Equipment Decontamination Enclosure System.

## **1.8 SEQUENCE OF WORK**

- A. Proceed in accordance with the sequence of work as mutually agreed upon with the Owner and Environmental Consultant. Work shall be divided into convenient Work Areas, each of which is to be completed as a separate unit. The following sequence of work shall be used for the asbestos abatement work:
- 1. A visual inspection of the Work Area to determine pre-existing damage to facility components.
  - 2. Release of area to the Contractor.

3. All temporary utilities required for the project shall be onsite and operational prior to the initiation of asbestos work.
4. Selective demo under NPE to access asbestos-containing materials by the Contractor.
5. Abatement of all asbestos-containing materials by the Contractor.
6. Visual inspection and re-occupancy air clearance by the Owner's Project Monitor for completeness.
7. Cleanup by the Contractor.

#### **1.9 DELIVERY, STORAGE AND HANDLING**

- A. Deliver all materials in the original packages, containers, or bundles bearing the name of the manufacturer and the brand name and product technical description. Do not use damaged or deteriorating materials. Material that becomes contaminated with asbestos shall be decontaminated or disposed of as asbestos waste.

#### **1.10 BUILDING OTHERWISE OCCUPIED REQUIREMENTS**

- A. No asbestos removal activities are permitted in occupied areas without the approval of the Owner and the Environmental Consultants Project Designer.
- B. Notification to the faculty, staff and public occupants will be sent out by the Owner, ten (10) days prior to the start of abatement activities notifying them of the asbestos abatement project scheduled. The notice will also be posted at all entries to the building during abatement activities.
- C. Asbestos removal shall be conducted in accordance with applicable EH&S requirements and Project Specifications/Work Plan.
- D. The abatement contractor shall provide the documentation included in paragraph 1.5.C to the Environmental Consultant ten (10) days prior to start of asbestos removal activities in each work area for review. No asbestos removal is permitted in an occupied area.
- E. The Owners Environmental Consultant will conduct air sampling when onsite at prescribed locations throughout the project. Samples will be collected and read via phase contrast microscopy (PCM) twice per shift. All air samples in occupied areas shall be analyzed at the site prior to the end of the shift, by an analyst currently listed on the AIHA Asbestos Analysts registry and the Connecticut DPH Laboratory Certification Program. The results of the analysis of all samples shall be made available prior to return of building occupants on the next day following the date of collection of the samples.
- F. If any air sample analyzed by NIOSH 7400 method is either overloaded with particulate and cannot be analyzed or, if upon analysis the sample fiber concentration exceeds 0.007 f/cc, the area outside the established asbestos work area can be considered contaminated with asbestos. The Project Designer shall conduct an assessment of the potential contamination and the asbestos contractor shall re-establish engineering controls, isolation barriers, abatement work practices, etc. and clean the affected area. An area of the building evacuated due to air sampling data as described above shall not be occupied until: i) the area is cleaned via wet wipe techniques using amended water and HEPA vacuum procedures by the asbestos contractor; and ii) air sampling and analysis of the area satisfies the DPH criteria for re-occupancy.

## **PART 2 - PRODUCTS**



## **2.1 MATERIALS**

- A. Fire retardant polyethylene sheeting in roll size to minimize the frequency of joints shall be delivered to job site with factory label indicating four (4) or six (6) mil.
- B. Polyethylene disposable bags shall be six (6) mil with pre-printed label. Disposable bags shall be black.
- C. Tape shall be capable of sealing joints in adjacent polyethylene sheets and for attachment of polyethylene sheet to finish or unfinished surfaces. Tape must be capable of adhering under both dry and wet conditions.
- D. Surfactant (wetting agent) shall consist of fifty (50) percent polyoxyethylene ether and fifty (50) percent polyoxyethylene ester, or equivalent, and shall be mixed with water to provide a concentration one (1) ounce surfactant to five (5) gallons of water or as directed by the manufacturer.
- E. Containers must be impermeable and shall be both air and watertight. Containers shall be labeled in accordance with OSHA Standard 29 CFR § 1926.1101 and EPA 40 CFR Part 61.152 as appropriate.
- F. Labels and signs shall conform to OSHA Standard 29 CFR § 1926.1101.
- G. Encapsulants shall be of a bridging or penetrating type which has been approved by the Asbestos Project Designer. Usage shall be in accordance with manufacturer's printed technical data. Encapsulant must be compatible with new materials being installed. Encapsulant may be clear or white.
- H. Glove-bag assembly shall be manufactured of six (6) mil transparent polyethylene or PVC with two (2) inward projecting long sleeve gloves, an internal pouch for tools, and an attached labeled receptacle for waste. Glove-bag use must be approved by the CTDPH through an AWP.
- I. Mastic removal chemicals are prohibited.

## **2.2 TOOLS AND EQUIPMENT**

- A. Tools and equipment shall be suitable for asbestos removal.
- B. Protective clothing, respirators, filter cartridges, air filters and sample filter cassettes shall be provided in sufficient quantities for the project.
- C. Electrical equipment, protective devices, emergency generators and power cables shall conform to all applicable codes.
- D. Shower stalls and plumbing shall include sufficient hose length and drain system or an acceptable alternate. Showers shall be equipped with hot and cold or warm running water. One shower stall shall be provided for each eight workers.
- E. Exhaust air filtration units shall be equipped with HEPA filters capable of providing sufficient air exhaust to create a minimum pressure differential of 0.02 inches of water column, and to allow a sufficient flow of air through the area. An automatic warning system shall be incorporated into

the equipment to indicate pressure drop or unit failure. No air movement system or air filtering equipment shall discharge unfiltered air outside the Asbestos Control Area.

- F. All air filtration exhaust tubes shall be exhausted to the exterior of the building.
- G. Pressure differential automatic recording instruments shall be provided to ensure exhaust air filtration devices provide the minimum pressure differential required between the Work Area and occupied areas of the facility.
- H. Spray equipment shall be capable of mixing wetting agent with water and capable of generating sufficient pressure and volume. Hose length shall be sufficient to reach all of the Asbestos Control Area.
- I. Vacuum units, of suitable size and capabilities for the project, shall have HEPA filters capable of trapping and retaining at least 99.97 percent of all monodispersed particles of 0.3 microns in diameter or larger.
- J. Mechanical mastic removal equipment shall be suitable for the application and be used only with HEPA shroud attachments.
- K. Ladders and/or scaffolds shall be of adequate length, strength and sufficient quantity to support the work schedule.
- L. Other materials such as lumber, nails and hardware necessary to construct and dismantle the decontamination enclosures and the barriers that isolate the Work Area shall be provided as appropriate for the work.

### **PART 3 - EXECUTION**

#### **3.1 GENERAL REQUIREMENTS FOR ASBESTOS ABATEMENT**

- A. A Competent Person and Asbestos Abatement Site Supervisor shall be on the job at all times to ensure the establishment and maintenance of the work areas and proper work practices are followed through completion of the project.
- B. Containerize Asbestos Materials removed daily. Do not allow Asbestos Materials to remain on the floor overnight, allowing it to dry out. Fill disposal containers (six (6) mil polyethylene bags or fiber drums) as removal proceeds, seal filled containers, and apply caution labels and clean containers before removal to decontamination system. Bags shall be securely sealed to prevent accidental opening and leakage by taping in gooseneck fashion. Bags may be placed in drums for staging and transportation to the disposal site. Bags shall be decontaminated by Wet Cleaning and HEPA vacuuming before being placed in clean drums and sealed with locking ring tops. Wet clean each container thoroughly before moving to a holding area or to the waste storage container.
- C. If at any time during asbestos removal, should the Project Monitor suspect contamination of areas outside the Work Area, the Contractor shall stop all abatement work, take steps to decontaminate these areas, eliminate causes of such contamination, and notify the Owner. Unprotected individuals shall be prohibited from entering contaminated areas until air sampling and visual inspections determine decontamination.

### **3.2 PREPARATION OF WORK AREA**

- A. Prior to beginning work, the Owner, Consultant and Contractor shall perform a visual survey of each Work Area and list all pre-existing damage to building components. The Contractor shall submit to the Owner and/or General Contractor a list, of pre-existing damaged areas.
- B. Establish Regulated Areas with warning tape and signs meeting the requirements of OSHA 29 CFR § 1910.1001 and 29 CFR § 1926.1101 at each Regulated Area. In addition, signs shall be posted at all approaches to Regulated Areas so that an employee may read the sign and take the necessary protective steps before entering the area. Additional signs may require posting following construction of work place enclosure barriers.
- C. Utilize engineering controls and personnel protective equipment (PPE) while installing enclosures and supports when Asbestos Materials may be disturbed.
- D. When feasible, shut down and lock out electrical power, including all receptacles and light fixtures. Protect receptacles and light fixtures remaining in the Work Area with six (6) mil polyethylene sheeting and seal with tape. Coordinate all power and fire alarm isolation with the General Contractor and/or Owner.
- E. Provide temporary power and lighting and ensure safe installation, including ground fault protection, of temporary power sources and equipment in compliance with applicable electrical code and OSHA requirements. The Contractor is responsible for proper connection and installation of electrical wiring for equipment required to complete asbestos removal.
- F. Shut down and isolate heating, cooling, and ventilating air systems to prevent contamination and fiber dispersal to other areas of the building. Seal all vents.
- G. Pre-clean movable objects within the proposed Work Areas using HEPA filtered vacuum equipment and/or Wet Cleaning methods as appropriate and remove such objects from Work Areas to a temporary location.
- H. Pre-clean fixed objects within the proposed Work Areas, using HEPA filtered vacuum equipment and/or Wet Cleaning methods as appropriate, and enclose with two layers of six (6) mil polyethylene sheeting sealed with tape. Objects which must remain in the Work Area and which require special ventilation or enclosure include electrical equipment, pumps, compressors, control panels and meter equipment.
- I. Clean the proposed Work Areas using HEPA filtered vacuum equipment and/or Wet Cleaning methods as appropriate. Do not use methods that raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters.
- J. Seal off all windows, doorways, skylights, ducts, grilles, diffusers and any other openings between the Work Area and the uncontaminated areas outside of the Work Area with critical barriers. Doorways and corridors, which will not be used for passage during work, must be sealed with fixed critical barriers.
- K. Cover floor and wall surfaces with polyethylene sheeting sealed with tape. Polyethylene shall be applied alternately to floors and walls. Cover floors first, with a layer of six (6) mil polyethylene sheeting, so that polyethylene extends at least twelve (12) inches up on walls. Cover walls with a layer of four (4) -mil polyethylene sheeting to twelve (12) inches beyond the wall floor

intersection, thus overlapping the floor material by a minimum of twenty-four (24) inches. Repeat the process for the second layer of polyethylene. There shall be no seams in the plastic sheet at wall-to-floor joints.

- L. Conspicuously label and maintain emergency and fire exits from the Asbestos Control Area satisfactory to fire officials.

### **3.3 WORKER DECONTAMINATION ENCLOSURE SYSTEM**

- A. Establish contiguous to the Work Area, a Worker Decontamination Enclosure System consisting of an Equipment Room, Shower Room and Clean Room in series. Access to the Work Area shall only be through this enclosure.
- B. Access between rooms in the Worker Decontamination Enclosure System shall be through double flap-curtained openings (air locks). Other effective designs are permissible. The Clean Room, Shower Room and Equipment Room located within the Worker Decontamination Enclosure, shall be completely sealed ensuring sole source of airflow into the Asbestos Control Area originates from the outside-uncontaminated areas.
- C. The Clean Room shall be adequately sized to accommodate workers and shall be equipped with a suitable number of hooks, lockers, shelves, etc., for workers to store personal articles and clothing. Changing areas of the Clean Room shall be suitably screened from areas occupied by the public.
- D. The Shower Room shall be of sufficient capacity to accommodate the number of workers. Supply warm water to showers. Provide one shower for each eight workers. No worker or other person shall leave an Asbestos Control Area without showering.

### **3.4 EQUIPMENT DECONTAMINATION ENCLOSURE SYSTEM**

- A. Establish contiguous to the Work Area, an Equipment Decontamination Enclosure System consisting of two (2) totally enclosed chambers divided by a double flap curtained opening. Other effective designs are permissible. This enclosure must be constructed to ensure that no personnel enter or exit through this unit.

### **3.5 SEPARATION OF WORK AREAS FROM OCCUPIED AREAS**

- A. Occupied areas and/or building space not within the Asbestos Control Area shall be separated from asbestos abatement Work Areas by means of airtight barriers. Barriers at openings with dimensions exceeding two (2) feet in both directions shall be blocked with fixed critical barriers.
- B. Do not impair required building exits from any occupied building area. Where normal exits have been blocked by the asbestos work, provide temporary exit signs directing building occupants to the nearest available exit location.
- C. Before beginning work within the enclosure and at the beginning of each shift, the NPE shall be inspected for leaks, and any leaks sealed.
- D. Create a pressure differential in the range of 0.02 to 0.04 inches of water column between the Work Area and occupied areas by the use of acceptable pressure differential equipment. Provide a sufficient quantity of units to exhaust the volume of air within the Asbestos Control Area a

minimum of four (4) times per hour. Continuously monitor the pressure differential between the Work Area and occupied areas utilizing recording type equipment to ensure exhaust air filtration equipment maintains a minimum pressure differential of 0.02 inches of water column.

### **3.6 REMOVAL OF FRIABLE ASBESTOS MATERIAL**

- A. Remove friable including non-friable Asbestos Materials identified in accordance with the requirements of this Section.
- B. Removal of existing walls, partitions, suspended acoustic ceilings, hard gypsum wallboard and plaster ceilings, fluorescent light fixtures, alarm system components and other ceiling mounted items that interfere with asbestos abatement shall be accomplished after engineering controls have been established.
- C. Spray friable materials with amended water, using airless spray equipment capable of providing a "mist" application to reduce the release of fibers during the removal operation. In order to maintain indoor asbestos concentrations at a minimum, remove the wet asbestos in manageable sections. Materials shall not be allowed to dry out. Material drop shall not exceed 8 feet. For heights up to 15 feet, provide inclined chutes or scaffolding to intercept drop. For heights exceeding 15 feet provide enclosed dust-proof chutes.
- D. After completion of stripping work, all surfaces from which asbestos has been removed shall be wet brushed, using a nylon brush, wet wiped and sponged or cleaned by an equivalent method to remove all visible material (wire brushes are not permitted). During this work, the surfaces being cleaned shall be kept wet.

### **3.7 REMOVAL OF NON-FRIABLE RESILIENT FLOORING AND ASSOCIATED MASTIC**

- A. Resilient flooring shall be removed by approved methods, which minimize the release of asbestos fibers. Mastic may be removed by mechanical means. Chemical removal is prohibited. Mechanical equipment equipped with HEPA shroud attachments may be used to remove flooring mastic. Ensure surfaces have been adequately wetted to prevent dust emissions prior to operation of mechanical mastic removal equipment.

### **3.8 REMOVAL OF NON-FRIABLE MISCELLANEOUS MATERIAL**

- A. Non-friable miscellaneous materials shall be removed by approved methods, which minimize the release of asbestos fibers. Materials shall be wetted with amended water prior to removal. Double wrap Asbestos Materials in 6-mil polyethylene sheeting or bags and remove for disposal.

### **3.9 REMOVAL OF WINDOWS/DOORS FROM BUILDING EXTERIOR**

- A. Cover floor surfaces with polyethylene sheeting sealed with tape. Polyethylene shall extend a sufficient distance from the work to collect loose material which may fall to the floor during the window removal process. Cover roof surfaces with polyethylene sheeting sealed with tape. Polyethylene shall extend a minimum of 10-feet from building exterior. Install polyethylene sheet over the inside of the window opening and seal with tape.
- B. The windows are to be removed from the opening by methods to minimize damage, wrapped in two (2) layers of 6-mil polyethylene sheeting and labeled for proper disposal. After completion of stripping work, all surfaces from which asbestos has been removed shall be wet brushed, using

a nylon brush, wet wiped and sponged or cleaned by an equivalent method to remove all visible residue (wire brushes are not permitted). During this work, the surfaces being cleaned shall be kept wet.

### **3.10 ALTERNATIVE WORK PRACTICE (AWP) PROCEDURES**

- A. The procedures described in this specification are to be utilized at all times. AWP methods may be used if pre-approved by CTDPH. Should the Asbestos Contractor desire to use AWP procedures, which have not been pre-approved by CTDPH, submittal for approval is required.
- B. AWP procedures shall provide equivalent or greater protection than the procedures that they replace. Should the Asbestos Contractor desire to use AWP procedures, a CTDPH licensed asbestos project designer must submit in writing a description of the proposed methods to the Environmental Consultant for review. If the procedure is acceptable to the Environmental Consultant, an AWP application may then be forwarded to CTDPH for approval. Failure to secure AWP acceptance or approval shall not be a basis of a claim for additional compensation.

### **3.11 CLEAN-UP PROCEDURE**

- A. Remove and containerize all visible accumulations of Asbestos Materials which may have been splattered or collected on the polyethylene wall covering. Carefully remove the cleaned outer layer of polyethylene from the walls, fold inward as material is being removed, and place in disposal containers. Any debris, which may have leaked behind the outer layer, shall be removed by HEPA vacuuming and/or Wet Cleaning.
- B. Remove contamination from the exteriors of the negative air machines, scaffolding, ladders, extension cords, hoses and other equipment inside the Work Area. Cleaning may be accomplished by brushing, HEPA vacuuming and/or Wet Cleaning.
- C. The Project Monitor shall conduct a thorough visual inspection utilizing a high-intensity flashlight, with the containment barriers in place, to detect visible accumulations of dust or bulk Asbestos Materials remaining in the Work Area. Should dust, debris or residue be detected, the Contractor shall repeat the cleaning, at the Contractor's expense, until the area is in compliance. The visual inspection will detect incomplete work, damage caused by the abatement activity, and inadequate cleanup of the work site. At the conclusion of the final visual inspection, the Contractor and Project Monitor shall certify that they have visually inspected the Work Area (all surfaces including pipes; beams, ledges, walls, ceiling and floor plastic sheet, decontamination unit, etc.) and have found no dust, debris or residue.
- D. Once the area has been re-cleaned, any equipment, tools or materials not required for completion of the work, shall be removed from the Work Area. Negative air filtration devices shall remain in place and operating for the remainder of the clean-up operation.
- E. Apply a lock-down encapsulant to all surfaces within the Work Area from which asbestos has been removed and the cleaned inner layer of polyethylene.
- F. After clearance air sampling is conducted and fiber concentrations are below 0.01 f/cc or less than 70 structures per cubic centimeter. Remove all remaining polyethylene, including critical barriers, and Decontamination Enclosure System(s) leaving negative air filtration devices in operation. HEPA vacuum and/or wet wipe any visible residue, which is uncovered during this process.

### **3.12 CLEARANCE AIR SAMPLING**

- A. Re-occupancy clearance air sampling will be conducted by the Project Monitor in accordance with the re-occupancy clearance criteria as set forth in the Regulations of Connecticut State Agencies, Section 19a-333-7.
- B. Post-abatement clearance air monitoring requirements are as follows:
  - 1. Air sampling will not begin until at least 2 hours after Wet Cleaning has been completed and no visible water or condensation remain.
  - 2. Sampling equipment will be placed at random around the Work Area. If the Work Area contains the number of rooms equivalent to the number of required samples based on floor area, a sampler shall be placed in each room. When the number of rooms is greater than the number of samples, a representative number of rooms will be selected.
  - 3. The representative samplers placed outside the Work Area but within the building will be located to avoid any air that might escape through the isolation barriers and will be approximately 25 feet from the entrance to the Work Area, and 15 feet from the isolation barriers.
  - 4. The following aggressive air sampling procedures will be used within the Work Area during all air clearance monitoring:
    - a. Before starting the sampling pumps, direct the exhaust from forced air equipment (such as a 1 horsepower leaf blower) against all walls, ceilings, floors, ledges and other surfaces in the Work Area. This should take at least 5 minutes per 1000 SF of floor area.
    - b. Start the sampling pumps and sample for the required time.
    - c. Turn off the pump when sampling is complete.
  - 5. Air volumes taken for clearance sampling shall be sufficient to accurately determine (to a 95 percent probability) fiber concentrations to 0.01 f/cc of air or be less than 70 structures per cubic centimeter as determined by an accredited laboratory.
  - 6. Each homogeneous Work Area, which does not meet the clearance criteria, shall be thoroughly re-cleaned using HEPA vacuuming and/or Wet Cleaning, with the negative pressure ventilation system in operation. New samples shall be collected in the Work Area as described above. The process shall be repeated until the Work Area passes the test, with the cost of repeat sampling being borne entirely by the Contractor.
  - 7. For an asbestos abatement project with more than one homogeneous Work Area, the release criterion shall be applied independently to each Work Area.
- C. Continuous air sampling during construction will be conducted by the Project Monitor. Re-occupancy clearance testing will be in accordance with CTDPH requirements.

### **3.13 CONTRACTOR RESPONSIBILITY**

- A. Conduct air sampling, as necessary, to assure that workers are using appropriate respiratory protection in accordance with OSHA Standard 29 CFR § 1926.1101. Perform monitoring to determine accurately the airborne concentrations of asbestos to which employees may be exposed. Determinations of employee exposure shall be made from breathing zone air samples that are representative of the 8-hour TWA and 30-minute short-term exposures of each employee. Documentation of air sampling results must be recorded at the work site within twenty-four (24) hours of receipt of results, and shall be available for review until the job is complete.

### **3.14 DISPOSAL OF ASBESTOS**

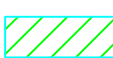





- A. Disposal of Asbestos Materials shall occur at an authorized site and must be in compliance with the requirements of, and authorized by the CTDEEP's Office of Solid Waste Management or other designated agency having jurisdiction over solid waste disposal.
- B. Disposal approval shall be obtained prior to commencement of asbestos removal.
- C. Warning signs must be attached to vehicles used to transport Asbestos Materials. Warning signs shall be posted during loading and unloading of disposal containers. The signs must be posted so that they are plainly visible.
- D. Waste removal dumpsters and cargo areas of transport vehicles shall be lined with a layer of six (6) mil polyethylene sheeting to prevent contamination from leaking or spilled containers. Floor sheeting shall be installed first, and shall be extended up sidewalls 12-inches. Wall sheeting shall overlap floor sheeting 24-inches and tape into place.
- E. A copy of the completed Waste Shipment Record shall be provided to the Owner and Environmental Consultant.

### **3.15 ACTION CRITERIA**

- A. If air samples collected outside of the Work Area during abatement activities indicate airborne fiber concentrations greater than original background levels or greater than 0.010 f/cc, as determined by Phase Contrast Microscopy, whichever is larger, an examination of the Work Area perimeter shall be conducted and the integrity of barriers shall be restored. Cleanup of surfaces outside the Work Area using HEPA vacuum equipment or Wet Cleaning techniques shall be done prior to resuming abatement activities.

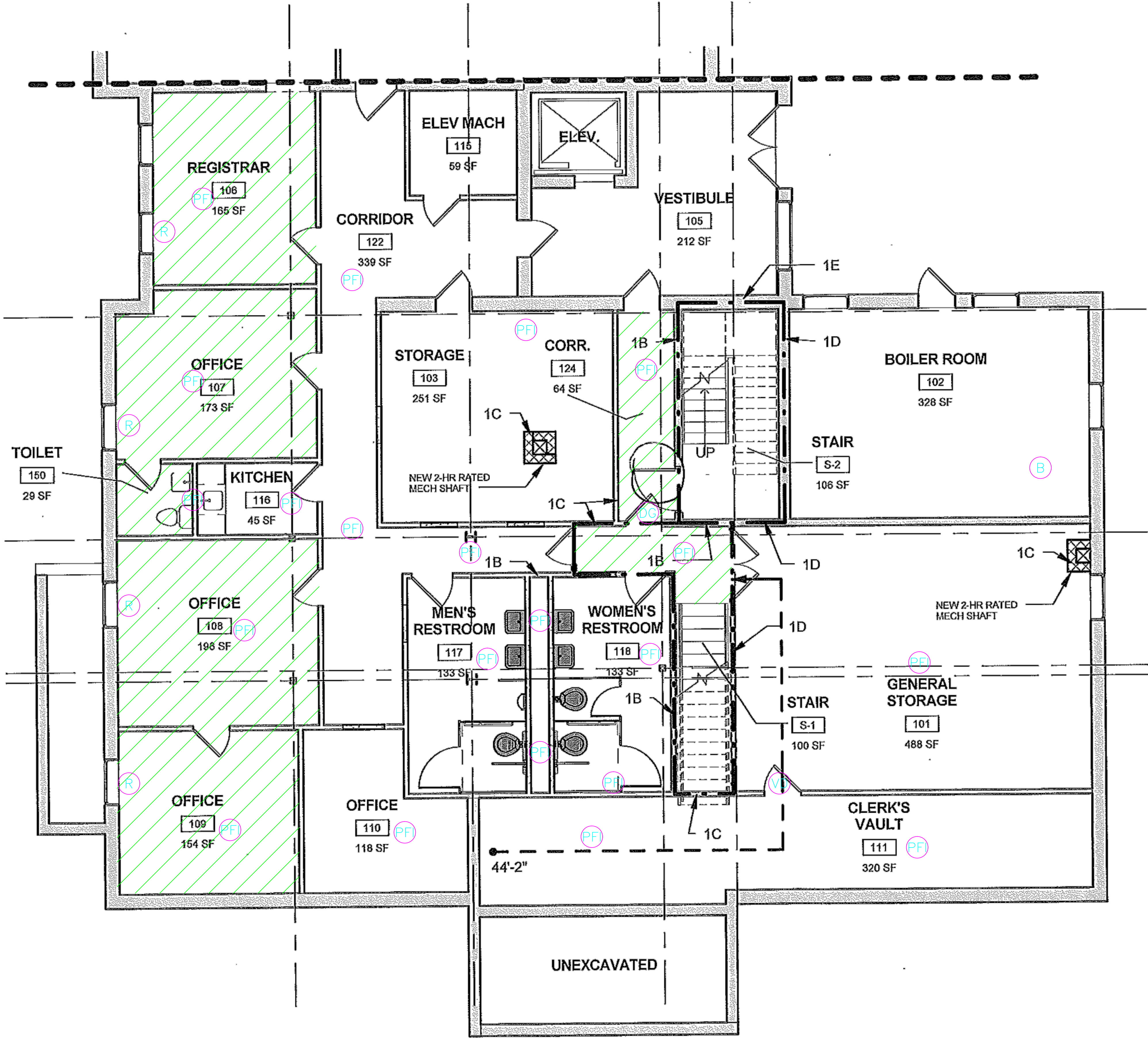
**END OF SECTION 028213**



SYMBOL	MATERIAL DESCRIPTION
	ACM FLOOR TILE AND MASTIC
	ACM PIPE FITTING INSULATION
	ACM RADIATOR PANEL TAR
	ACM DOOR GLAZE
	ACM FLEX CONNECTOR
	PACM VAULT DOOR

NOTES

PIPE FITTING INSULATION IS ABOVE CEILING.  
ACM FLOOR TILE IS LOCATED UNDER 12" TILE FOR 2000 RENOVATION.  
ACM FLOOR TILE IS LOCATED UNDER CARPET IN VARIOUS AREAS.



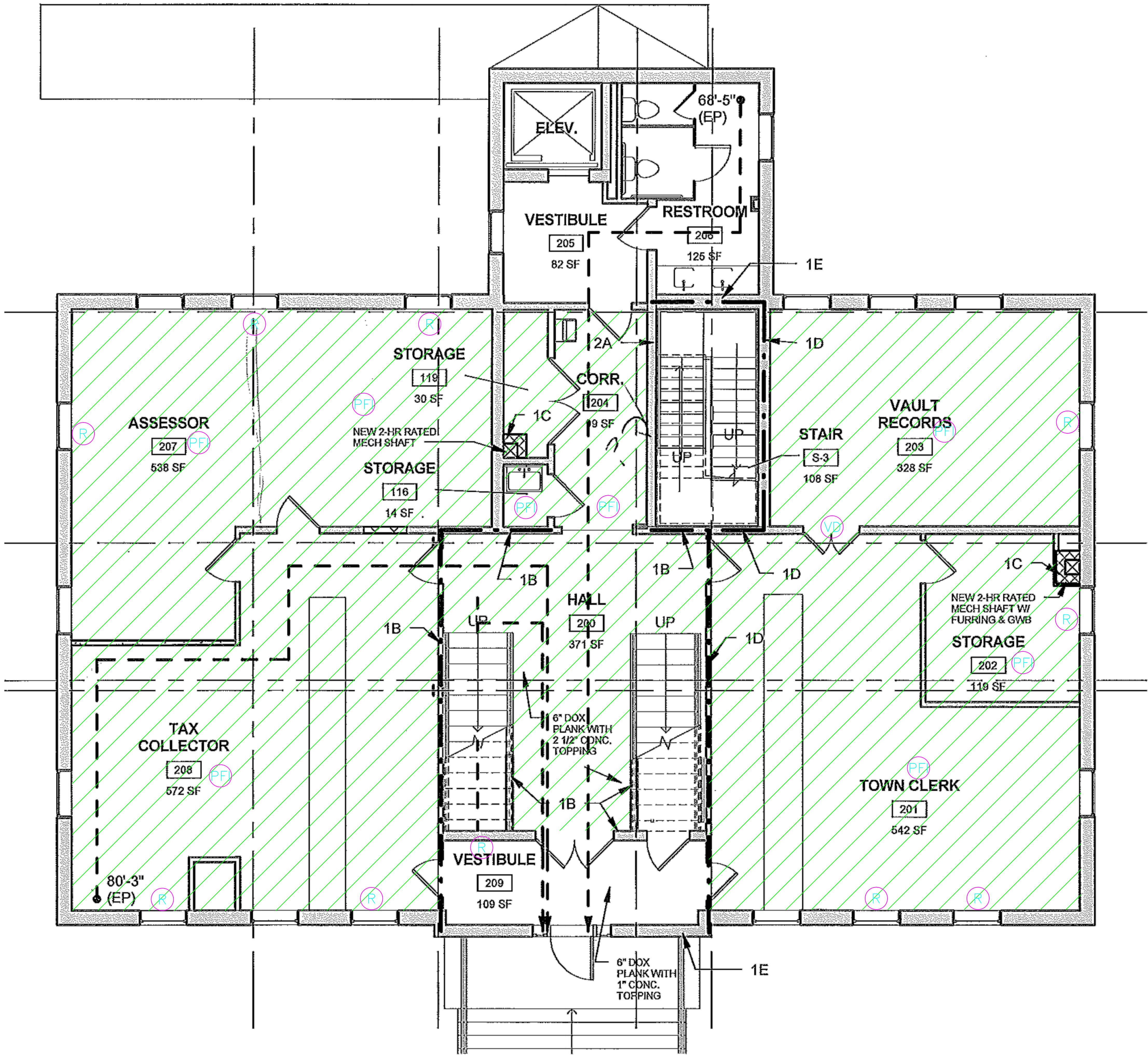
drawing title			TOWN OF SUFFIELD TOWN HALL		
LOWER LEVEL			DRAWING PREPARED BY		
REVISIONS			ATC		
mark	date	description	ATC Group Services LLC 290 Roberts Street, Suite 201 Suffield, CT 06078 TEL: (860) 261-1000 FAX: (860) 261-1001		
			date 03/25/16		
			scale 1/4"=1'		
			drawn by SJJ		
			approved by		
			drawing no. ASB-1		
			project ASBESTOS LOCATION DRAWING SUFFIELD TOWN HALL 83 MOUNTAIN ROAD SUFFIELD, CONNECTICUT 06078		
			CAD no. project no. 05944.16.001		



SYMBOL	MATERIAL DESCRIPTION
	ACM FLOOR TILE AND MASTIC
	ACM PIPE FITTING INSULATION
	ACM RADIATOR PANEL TAR
	ACM DOOR GLAZE
	ACM FLEX CONNECTOR
	PACM VAULT DOOR

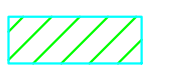





NOTES

PIPE FITTING INSULATION IS ABOVE CEILING.  
ACM FLOOR TILE IS LOCATED UNDER 12" TILE FOR 2000 RENOVATION.  
ACM FLOOR TILE IS LOCATED UNDER CARPET IN VARIOUS AREAS.



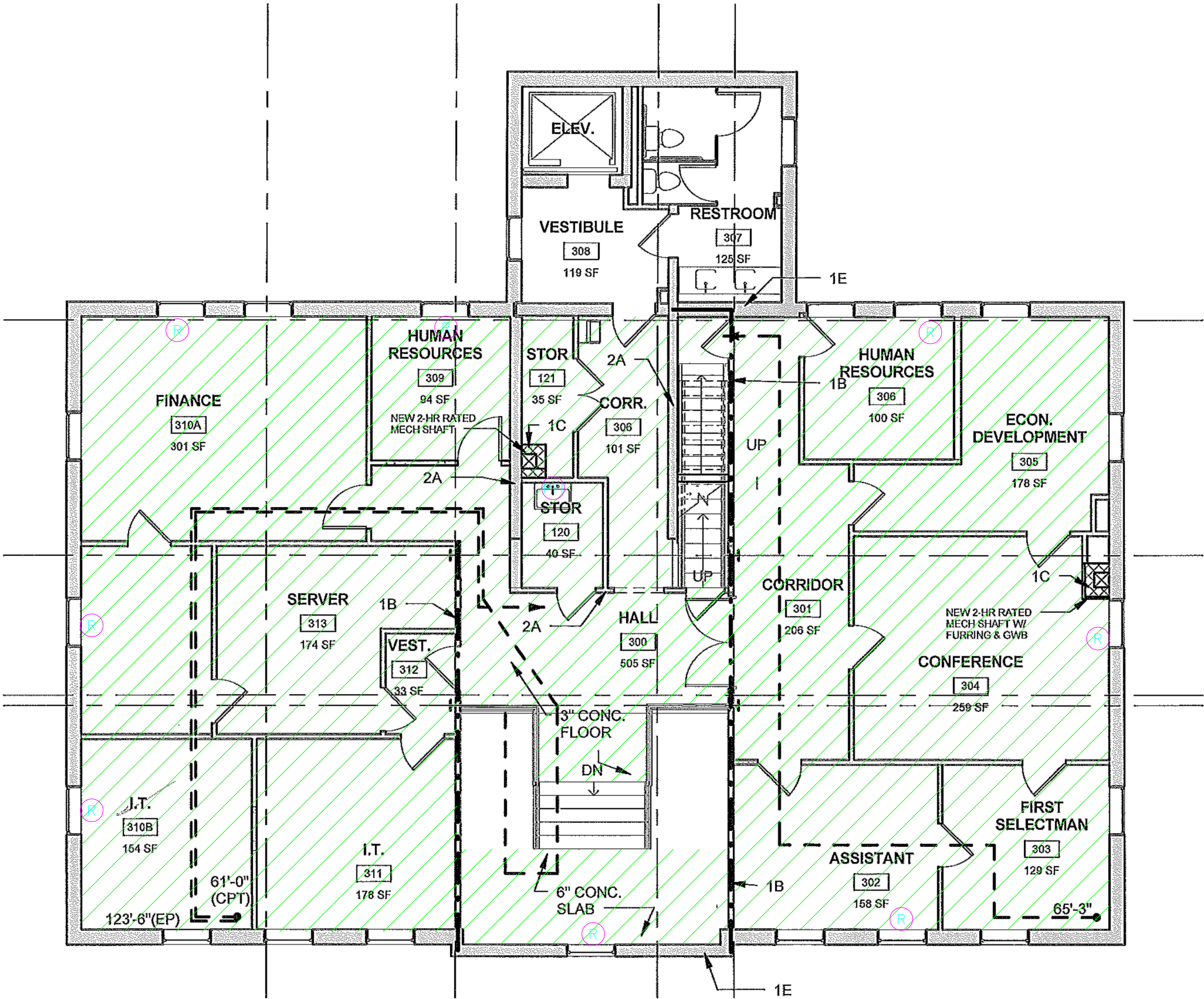
drawing title			TOWN OF SUFFIELD TOWN HALL		
GROUND LEVEL			DRAWING PREPARED BY		
REVISIONS			ATC Group Services LLC 200, Roberts Street, Suite 201 East Hartford, CT 06108 TEL: 860-234-1111 FAX: 860-234-1112		
mark	date	description	date		
			03/25/16		
			scale		
			1/4"=1'		
			drawn by		
			SJU		
			approved by		
			drawing no.		
			ASB-2		
CAD no.			project no.		
			05944.16.001		



SYMBOL	MATERIAL DESCRIPTION
	ACM FLOOR TILE AND MASTIC
	ACM PIPE FITTING INSULATION
	ACM RADIATOR PANEL TAR
	ACM DOOR GLAZE
	ACM FLEX CONNECTOR
	PACM VAULT DOOR

NOTES

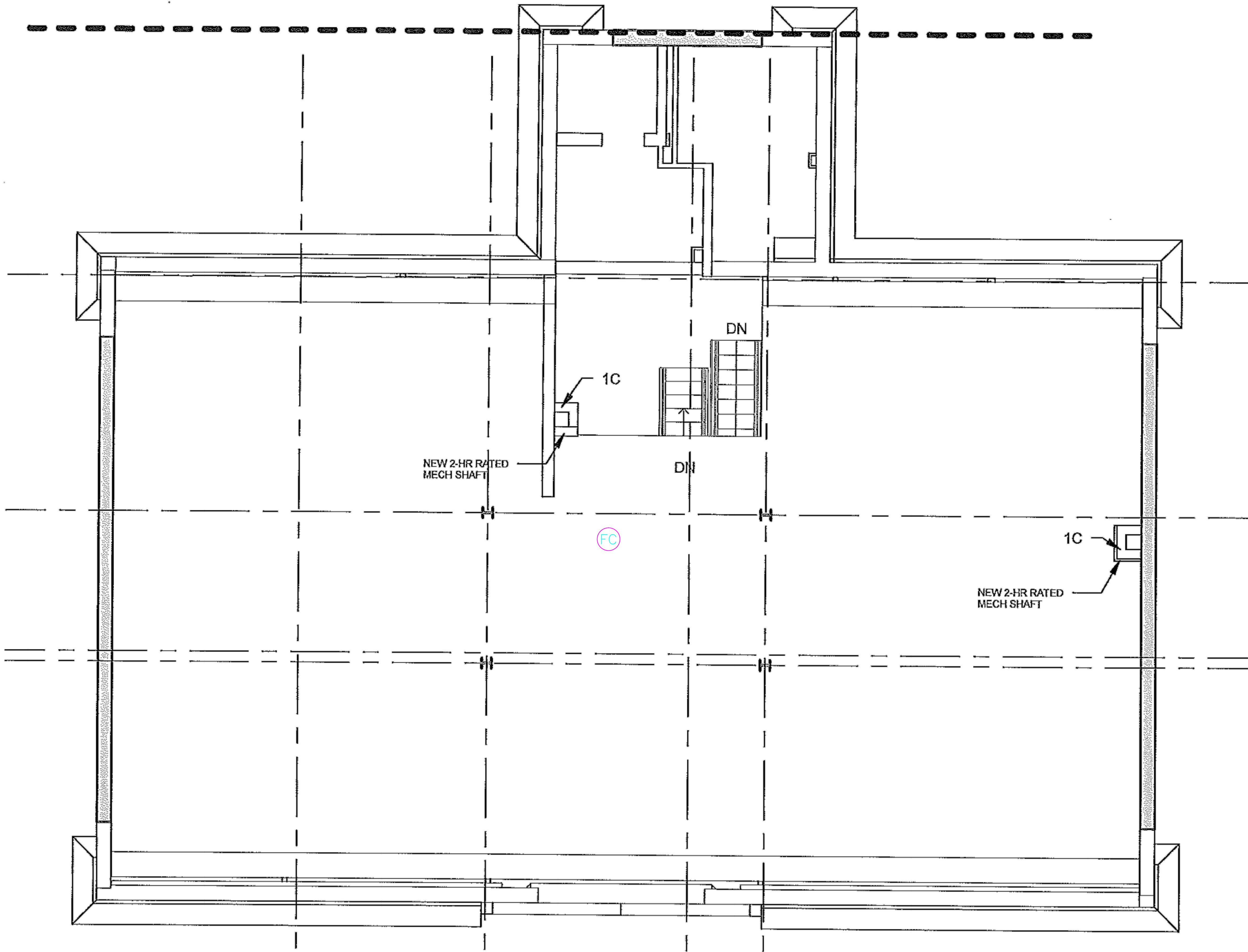
PIPE FITTING INSULATION IS ABOVE CEILING.  
ACM FLOOR TILE IS LOCATED UNDER 12" TILE FOR 2000 RENOVATION.  
ACM FLOOR TILE IS LOCATED UNDER CARPET IN VARIOUS AREAS.



drawing title			TOWN OF SUFFIELD TOWN HALL		
UPPER LEVEL			DRAWING PREPARED BY		
REVISIONS			ATC Group Services LLC 200, Main Street, Suite 301 Suffield, Connecticut 06078 Tel: 860.261.1111 Fax: 860.261.1112 www.atcgroup.com		
mark	date	description	date 03/25/16		
			scale 1/4"=1'		
			drawn by SJU		
			approved by		
			drawing no.		
			ASB-3		
			project no.		
			05944.16.001		
			CAD no.		



C:\Users\pholubowski\Documents\CT12026 - SuffieldTownHall - Arch - 2012 - CENTRAL\_pholubowski.rvt



SYMBOL	MATERIAL DESCRIPTION
	ACM FLOOR TILE AND MASTIC
	ACM PIPE FITTING INSULATION
	ACM RADIATOR PANEL TAR
	ACM DOOR GLAZE
	ACM FLEX CONNECTOR
	PACM VAULT DOOR

NOTES

PIPE FITTING INSULATION IS ABOVE CEILING.  
ACM FLOOR TILE IS LOCATED UNDER 12" TILE FOR 2000 RENOVATION.  
ACM FLOOR TILE IS LOCATED UNDER CARPET IN VARIOUS AREAS.

drawing title ATTIC			TOWN OF SUFFIELD TOWN HALL	
REVISIONS			DRAWING PREPARED BY	
mark	date	description	ATC Group Services LLC 200 Roberts Street - Suite 301 Suffield, CT 06078 TEL: 860.261.1111 FAX: 860.261.1112 WWW.ATCGROUP.COM	date 03/25/16
			PROJECT	
			ASBESTOS LOCATION DRAWING SUFFIELD TOWN HALL 83 MOUNTAIN ROAD SUFFIELD, CONNECTICUT 06078	scale 1/4"=1'
			drawing no. ASB-4	
			project no. 05944.16.001	

## **PART 1 - INTRODUCTION**

### **1.1 DEFINITIONS**

- A. "Abatement" means any set of measures designed to eliminate lead hazards in accordance with standards established pursuant to Sections 20-474 through 20-482 and subsections (e) and (f) of Section 19a-88 of the Connecticut General Statutes and regulations of Connecticut State Agencies sections 19a-111-1 through 19a-111-11 and 20-478-1 and 20-478-2 including, but not limited to, the encapsulation, replacement, removal, enclosure or covering of paint, plaster, soil or other material containing toxic levels of lead and all preparation, clean-up, disposal and reoccupancy clearance testing.
- B. "Abatement area" means a room or area isolated with containment in accordance with subdivision 19a-111-4(c)(2) of the regulations of Connecticut State Agencies where lead abatement is occurring.
- C. "Accessible surface" means any surface which is below five (5) feet in height or is exposed in such a way that a child can come in contact with the surface.
- D. "AIHA" American Industrial Hygiene Association.
- E. "Apparent lead concentration" (ALC) means the average of at least three displayed lead concentration readings taken using a direct reading type x-ray fluorescence analyzer.
- F. "Approved training course" or "approved refresher training course" means a training course or a refresher training course, respectively, approved by the department pursuant to Section 20-477 of the Connecticut General Statutes.
- G. "Atomic absorption spectrophotometer" (AAS) means an instrument which measures the lead content in parts per million (ppm) using a lead source lamp, a flame capable of measuring the absorbed energy and converting it to concentration.
- H. "Biological monitoring" means the analysis of a person's blood and/or urine, to determine the level of lead contamination in the body.
- I. "Certificate" means a document issued by the department indicating successful completion of an approved training course.
- J. "Certified historic property" means any building, structure, or site which has been determined historic by the Connecticut Historical Commission. Historic properties must be included in or eligible for inclusion in the national or state registers of historic places.
- K. "Certified industrial hygienist" means a person possessing a certificate from the American Board of Industrial Hygiene which indicates that they have specific academic credentials, five years professional experience in industrial hygiene, and have passed an examination given by the American Board of Industrial Hygiene.

- L. "Certified lead inspector risk assessor" means any lead consultant who completes an appropriate approved training course and obtains a certificate as a lead inspector risk assessor from the department. A certified lead inspector risk assessor conducts inspections and collects and interprets information to assess the level of risk from lead hazards.
- M. "Certified lead abatement supervisor" means any person who completes an appropriate approved training course and obtains a certificate as a lead abatement supervisor from the department. A lead abatement supervisor oversees lead abatement activities.
- N. "Certified lead abatement worker" means any person who completes an appropriate approved training course and obtains a certificate as a lead abatement worker from the department. A lead abatement worker performs lead abatement activities.
- O. "Certified lead inspector" means any lead consultant who completes an appropriate approved training course and obtains a certificate as a lead inspector from the department. A certified lead inspector conducts inspections to determine the presence of lead in paint, other surface coverings and various environmental media. The terms "lead inspector" and "inspector" mean "certified lead inspector" or "code enforcement official" as defined in subsection (20) of this section unless specifically noted otherwise.
- P. "Certified lead planner-project designer" means any lead consultant who completes an appropriate approved training course and obtains a certificate as a lead planner-project designer from the department. A certified lead planner-project designer designs lead abatement and management activities.
- Q. "Chewable surface" means any projection one half (0.50) inch or greater from an interior or exterior surface up to five (5) feet in height that can be mouthed by a child. The chewable surface includes window sills, door frames, stair rails and stairs, two (2) inches back from any edge, and any other exterior and interior surface that may be readily chewed by children. Baseboards with an exposed horizontal edge may have quarter round molding applied to the top so that only vertical edges forming outside corners, if present, constitute a chewable surface.
- R. "Child" means a person under the age of six (6).
- S. "Child day care services" means a program of supplementary care in accordance with section 19a-77(a) of the Connecticut General Statutes.
- T. "Child day care center" means a program of supplementary care in accordance with section 19a-77(a)(1) of Connecticut General Statutes.
- U. "Code enforcement agency" means the local health department responsible for enforcing the public health code or the local housing agency responsible for enforcing housing code regulations or any other agency designated by the appropriate authority to enforce either the public health code or housing code regulations.

- V. "Code enforcement official" means the director of health or a person authorized by him to act on his behalf, the local housing code official or a person authorized by him to act on his behalf, or an agent of the commissioner.
- W. "Commissioner" means the commissioner of public health.
- X. "Common area" means a room or area that is accessible to all tenants in a building (e.g. hallway, boiler room).
- Y. "Containment" means a process for protecting workers, residents, and the environment by controlling exposures to lead dust and debris created during abatement.
- Z. "Confirmatory testing" means analysis using atomic absorption spectrophotometry (AAS), graphite furnace atomic absorption spectrophotometry (GFAAS), inductively coupled plasma atomic emission spectrophotometry (ICP-AES), or x-ray fluorescence spectrum analysis spectrometry with a 240 second spectrum analyzer test.
- AA. "Corrected lead concentration" (CLC) means the difference between the average displayed lead concentration readings (using a direct reading type x-ray fluorescence analyzer) taken on a painted surface and the average of three readings taken on a bare substrate (substrate contribution).
- BB. "Department" means the department of public health.
- CC. "Defective surface" means peeling, flaking, chalking, scaling or chipping paint; paint over crumbling, cracking or falling plaster, or plaster with holes in it; paint over a defective or deteriorating substrate; or paint that is damaged in any manner such that a child can get paint from the damaged area.
- DD. "Director" means the director of the state program for childhood lead poisoning prevention.
- EE. "Dwelling" means every building or shelter used or intended for human habitation, including exterior surfaces and all common areas thereof, and the exterior of any other structure located within the same lot, even if not used for human habitation.
- FF. "Dwelling unit" means a room or group of rooms within a dwelling arranged for use as a single household by one or more individuals living together who share living and sleeping facilities.
- GG. "Elevated blood lead level" means a blood lead concentration equal to or greater than twenty (20) micrograms per deciliter (ug/dl) or as defined by Connecticut General Statutes section 19a-111.
- HH. "Encapsulation" means resurfacing or covering surfaces, and sealing or caulking with durable materials, so as to prevent or control chalking, flaking substances containing toxic levels of lead from becoming part of house dust or accessible to children.
- II. "Entity" means any person, partnership, firm, association, corporation, sole proprietorship or any other business concern, state or local government agency or

political subdivision or authority thereof, or any religious, social or union organization, whether operated for profit or otherwise.

- JJ. "Epidemiological investigation" means an examination and evaluation to determine the cause of elevated blood lead levels. An epidemiological investigation will include an inspection conducted by a lead inspector to detect lead-based paint and report of findings. This investigation must also include evaluation of other sources such as soil, dust, pottery, gasoline, toys, or occupational exposures, to determine the cause of elevated blood lead levels. The investigation may also include isotopic analysis of lead-containing items.
- KK. "Family day care home" means a program of supplementary care in accordance with section 19a-77(a)(3) of Connecticut General Statutes.
- LL. "Graphite furnace atomic absorption spectrophotometer" (GFAAS) means an instrument that functions the same as an AAS, with one exception, i.e., the flame is replaced by an electrically heated chamber, a graphite tube, into which the sample is deposited.
- MM. "Group day care home" means a program of supplementary care in accordance with section 19a-77(a)(2) of Connecticut General Statutes.
- NN. "High efficiency particulate air" (HEPA) means a type of filtering system capable of filtering out particles of 0.3 microns or greater diameter from a body of air at 99.97% efficiency or greater.
- OO. "High phosphate detergent" is detergent which contains at least five (5%) percent tri-sodium phosphate (TSP).
- PP. "Inductively coupled plasma-atomic emission spectrophotometer" (ICP-AES) is an instrument which measures lead in ppm using a heat source (plasma torch) to dissociate and ionize lead atoms thereby emitting energy. This emission energy is measured and converted to concentration by the detector.
- QQ. "Intact surface" means a defect-free surface with no loose, peeling, chipping or flaking paint. Painted surfaces must be free from crumbling, cracking or falling plaster and must not have holes in them. Intact surfaces must not be damaged in any way such that a child can get paint from the damaged area.
- RR. "Isotopic analysis" means a physicochemical method which differentiates between chemical elements having different atomic weight and electrical charge.
- SS. "Lead-based" refers to paints, glazes, and other surface coverings, containing a toxic level of lead.
- TT. "Lead abatement plan" means a written plan that identifies the location of intact and defective lead-based paint and describes how defective lead-based surfaces will be abated and how the environment, health, and safety will be protected. The plan also identifies the location of soil containing lead and describes sampling protocol used and abatement options.



- UU. "Lead consultant" means any person who performs lead detection, risk assessment, abatement design or related services in disciplines including, but not necessarily limited to, inspector, inspector risk assessor and planner-project designer.
- VV. "Lead management plan" means a written plan that describes how an intact surface with lead-based paint will be monitored to ensure that defective paint surfaces will be identified and abated.
- WW. "Licensed lead abatement contractor" means any entity that contracts to perform lead hazard reduction by means of abatement including, but not limited to, the encapsulation, replacement, removal, enclosure or covering of paint, plaster, soil or other material containing toxic levels of lead and obtains a license from the department to conduct such abatement work. The contractor utilizes certified lead abatement supervisors to oversee such lead abatement activities and certified lead abatement workers to perform such abatement activities. The terms "lead abatement contractor" and "abatement contractor" mean "licensed lead abatement contractor" unless specifically noted otherwise.
- XX. "Licensed lead consultant contractor" means any entity that contracts to perform lead hazard reduction consultation work utilizing an inspector, inspector risk assessor and/or planner-project designer and obtains a license from the department to conduct such consultation work. The terms "lead consultant contractor" and "consultant contractor" mean "licensed lead consultant contractor" unless specifically noted otherwise.
- YY. "(LWP) Lead Work Plan" is a written plan established in accordance with the OSHA Lead Standard for the Construction Industry (29 CFR §1926.62) to protect workers from occupational exposure to lead.
- ZZ. "NIOSH" National Institute for Occupational Safety and Health; NIOSH is part of the U.S. Centers for Disease Control and Prevention, in the U.S. Department of Health and Human Services. It has the mandate to assure "every man and woman in the Nation safe and healthful working conditions and to preserve our human resources."
- AAA. "OSHA Action Level" for lead means an airborne lead concentration equal to or greater than is 30 ug/m<sup>3</sup>. The AL is based on an 8-hour Time-Weighted Average (TWA)
- BBB. "OSHA Permissible Exposure Limit" for lead means an airborne lead concentration equal to or greater than is 50 ug/m<sup>3</sup>. The PEL is based on an 8-hour Time-Weighted Average (TWA)
- CCC. "Owner" means any person, partnership, firm, association, corporation, sole proprietorship or any other business concern, state or local government agency or political subdivision or authority thereof, or any religious, social or union organization, whether operated for profit or otherwise, who, alone or jointly with others owns, holds, or controls the whole or any part of the deed or title to any property. No holder of an easement, mortgagee, bank or lender holding the mortgage, shall be considered an owner except when the holder of an easement, mortgage, banker, or lender takes physical possession of the property.
- DDD. "Paint removal" means a strategy of abatement which entails stripping lead paint from surfaces.

- EEE. "Replacement" means a strategy of abatement which entails the removal of components such as windows, doors and trim that contain toxic levels of lead and installing new components which are lead free.
- FFF. "RRP Rule" is an EPA Standard 40 CFR Part 745, Lead Renovation, Repair and Painting Program.
- GGG. "Secretary of Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings" means the guidelines and methods approved by the state and federal governments for alterations to historic properties (36 CFR section 67).
- HHH. "State laboratory for lead and lead poisoning detection" means the laboratory established by the commissioner, for the purpose of analyzing blood specimens from persons for the presence of lead; and analyzing samples of paint, plaster, soil and other materials, within the laboratory or on site with mobile units, for toxic levels of lead.
- III. "State program" means the childhood lead poisoning prevention program established by the department.
- JJJ. "Substrate" means the underlying surface which remains after paint is removed.
- KKK. "Substrate equivalent lead" (SEL) means the average of at least three displayed lead concentration readings with a direct reading type x-ray fluorescence analyzer after paint is removed from the substrate.
- LLL. "Target housing" means any housing constructed prior to 1978, except any zero-bedroom dwelling unit or any housing for the elderly or persons with disabilities unless a child resides or is expected to reside in such dwelling unit or housing.
- MMM. "Toxic level of lead" means a level of lead that:
- (A) when present in paint offered for sale for use on or in a residential dwelling contains more than 0.06 percent lead by weight as measured by atomic absorption spectrophotometry (AAS), graphite furnace atomic absorption spectrophotometry (GFAAS), or inductively coupled plasma atomic emission spectrophotometry (ICP-AES) or another accurate and precise testing method that has been approved by the commissioner, by a laboratory approved by the department for lead analysis.
  - (B) when present in a dried paint, plaster or other accessible surface on or in a residential dwelling contains equal to or greater than 0.50 percent lead by dry weight as measured by atomic absorption spectrophotometry (AAS), graphite furnace atomic absorption spectrophotometry (GFAAS), inductively coupled plasma-atomic emission spectrophotometry (ICP-AES) or another accurate and precise testing method that has been approved by the commissioner, by a laboratory approved by the department for lead analysis, or equal to or greater than 1.0 milligrams lead per square centimeter of surface as measured on site by an X-ray fluorescence analyzer or another accurate and precise testing method that has been approved by the commissioner.

NNN. "Treatment" means any method, technique or process designed to change the physical chemical, or biological character or composition of any hazardous waste so as to render it non-hazardous, or to recover it, or to make it safer to transport, store or dispose of, or to make it amenable for recovery, storage, or volume reduction.

OOO. "TSP" means tri-sodium phosphate. A TSP solution contains at least 5% TSP or its equivalent.

PPP. "X-ray fluorescence analyzer (XRF)" means an analytical instrument that measures lead concentration of dried paint on surfaces or in a laboratory sample in milligrams per square centimeter (mg/cm<sup>2</sup>) using a radioactive source within the instrument.

Refer to Definitional Section under Abatement Specification, Section 010000 for additional definitions

## **1.2 PURPOSE**

- A. This LWP has been established in accordance with the OSHA Lead Standard for the Construction Industry (29 CFR §1926.62) to protect workers from occupational exposure to lead. Based on survey data, lead paint has been detected on interior and exterior surfaces/components. OSHA requires the initial implementation of all aspects of 29 CFR § 1926.62 for any work which may potentially disturb coatings containing any detectable amount of lead.

## **1.3 APPLICABILITY**

- A. This LWP covers all potential lead work and applies to all workers performing or involved in any presumed lead exposure tasks on the NCCS campus/other property or buildings managed by NCCS. The following work activities shall be considered presumed lead exposure tasks until and unless the results of initial air monitoring (see Part 2) indicate otherwise:
  - 1) Manual scraping of painted surfaces
  - 2) Power tool cleaning of painted surfaces
  - 3) Burning/cutting/welding of painted surfaces
  - 4) Compressed air blasting of painted surfaces
  - 5) Demolition of painted surfaces (e.g. brick, concrete, plaster, or gypsum)
  - 6) Clean-up of paint chips and other potentially lead-containing dust or debris
  - 7) Miscellaneous job tasks which may potentially disturb painted surfaces (e.g. drilling, bolt removal, saw-cutting, etc.)
- B. The above list should not be considered complete. Any other work activity that may potentially disturb painted surfaces must be brought to the attention of the Owner and Construction Manager.

## **1.4 SCOPE**

- A. This LWP is intended to provide a general outline and overview of lead work practices onsite. For detailed and specific information regarding any of the practices or procedures addressed by this LWP, refer to the OSHA Lead Standard for the Construction Industry (29 CFR 1926.62) and USEPA Standard 40 CFR Part 745 (RRP

Rule). Based on survey data, lead paint has been detected on interior and exterior surfaces/components and may include the following (refer to project specific reports for Lead-Based Paint):

1. Window/door components
2. Structural steel
3. Glazed masonry/ceramic components
4. Walls/Ceilings
5. Ceramic/porcelain bath fixtures
6. Exterior building components

## **1.5 DESCRIPTION OF WORK**

- A. The Contractor shall supply all labor, materials, equipment, services, insurance (with specific coverage for work on lead) and incidentals which are necessary or required to perform the Work in accordance with applicable state and federal regulations and these specifications.
- B. The construction work may include the removal of lead paint from interior or exterior surfaces. Damaged lead paint shall be stabilized completely, allowing the substrate to be prepared and repainted by others without further impact to lead paint.
- C. The construction work may include demolition/removal of components which contain lead. Components should be removed intact when feasible. Demolition involving lead-bearing components should be performed so as to minimize dust generation and in compliance with the RRP Rule and OSHA.
- D. A Competent Person shall be on the job at all times to ensure the establishment of proper separation of the Work Area from occupied areas, and proper work practices are followed through project completion.
- E. Post warning signs meeting the requirements of OSHA 29 CFR § 1926.62 at each Work Area. In addition, signs shall be posted at all approaches to areas so that employees and the public may observe the sign and take the necessary protective steps before entering the Work Area.
- F. Where applicable remove loose and deteriorated paint from surfaces by hand scraping and wet sanding. Perform wet scraping by using a spray bottle or sponge attached to a paint scraper. Wet scraping shall be utilized to prepare surfaces prior to re-painting. Scraper blades should be kept sharp. After scraping, wet sand surfaces to smooth any rough areas in compliance with the RRP Rule.
- G. The Contractor shall utilize paint removal methods that do not damage substrate or adjacent materials that are scheduled to remain.
- H. Heat methods for paint removal shall operate at approximately fifteen (15) amps and not exceed 700°F to prevent vaporizing lead paint per CTDPH. Heat methods shall not damage wood substrate or adjacent materials that are scheduled to remain.

## **PART 2 - AIR MONITORING**

## **2.1 EXPOSURE MONITORING**

- A. For destructive lead abatement activities the Contractor is responsible for performing personal air monitoring for lead exposure. The OSHA Action Level (AL) for lead is 30 micrograms per cubic meter of air (ug/m<sup>3</sup>). The OSHA Permissible Exposure Limit (PEL) for lead is 50 ug/m<sup>3</sup>. Both the AL and the PEL are based on an 8-hour Time-Weighted Average (TWA). Workers exposed to airborne concentrations of lead exceeding the AL require training and medical surveillance. Workers exposed to airborne concentrations of lead exceeding the PEL require respiratory protection, protective work clothing and must comply with all other requirements of the OSHA Lead Standard for the Construction Industry (29 CFR § 1926.62).
- B. Initial personal air sampling will be conducted in the breathing zone in order to evaluate worker exposures to airborne lead dust. A minimum of one (1) air sample will be collected for each of the presumed lead exposure tasks listed in Section 1.2 and for any other work activities subsequently classified as presumed lead exposure tasks. Air samples will be collected over 8-hour periods of time in order to allow for a direct comparison to the AL and PEL. The results of this initial exposure monitoring will then be used to determine compliance requirements for each of the presumed lead exposure tasks as follows:

<u>8-Hour TWA Lead Exposure</u>	<u>Job Task Compliance Requirements</u>	<u>Additional Air Sampling</u>
Less than 30 ug/m <sup>3</sup>	None (job task considered non-lead work)	None
Between 30 ug/m <sup>3</sup> and 50 ug/m <sup>3</sup>	Training and medical surveillance	1 per worker every 6 months
Greater than 50 ug/m <sup>3</sup>	All aspects of 29 CFR § 1926.62	1 per worker every 3 months

- C. Air samples will be collected in the workers' breathing zones using portable air sampling pumps operating at flow rates of approximately two (2) to three (3) liters per minute (Lpm). Air sampling pumps will be calibrated both before and after each sampling period. Air samples will be analyzed by an AIHA-accredited laboratory using the NIOSH 7082 Method or equivalent.

## **PART 3 - WORKER PROTECTION**

### **3.1 TRAINING**

- A. All workers initially performing presumed lead exposure tasks will be required to receive OSHA Lead Awareness Training and/or certification associated with the RRP Rule. Once the results of initial air monitoring are received, any other workers who will be performing job tasks where exposures to airborne lead dust have been determined to exceed the AL of 30 ug/m<sup>3</sup> will also be required to receive this training prior to performing those job tasks.

### **3.2 MEDICAL SURVEILLANCE**

- A. All workers initially performing presumed lead exposure tasks will also be required to receive medical surveillance. Medical surveillance includes clearance to wear respiratory protection and blood-testing for blood lead level (BLL). Once the results of initial air monitoring are received, any other workers who will be performing job tasks where exposures to airborne lead dust have been determined to exceed the OSHA Action Level (AL) of 30 ug/m<sup>3</sup> will also be required to receive this medical surveillance prior to performing those job tasks.
- B. The AL for lead in blood is 40 micrograms per deciliter (ug/dL). The OSHA Medical Removal Limit (MRL) for lead in blood is 50 ug/dL. Any worker whose initial BLL exceeds the AL of 40 ug/dL will not be permitted to perform any presumed lead exposure tasks. Once the results of initial air monitoring are received, any workers performing job tasks where exposures to airborne lead dust have been determined to exceed the AL of 30 ug/m<sup>3</sup> will be required to receive additional blood-testing every two months for the first six months and then every six months thereafter, provided their BLL remains below the AL of 40 ug/dL. Any worker whose BLL exceeds the AL of 40 ug/dL must continue to receive blood-testing every two months until two consecutive results indicate a BLL less than the AL of 40 ug/dL. Any worker whose BLL exceeds the MRL of 50 ug/dL must be medically removed from lead work until two consecutive blood-testing results show a BLL below the AL of 40 ug/dL.

### **3.3 ENGINEERING AND WORK PRACTICE CONTROLS**

- A. All feasible engineering and work practice controls will be implemented during projects in an effort to reduce worker exposures to airborne lead dust below the PEL. Job-specific engineering and work practice controls applicable, include the following:

<u>Job Task</u>	<u>Engineering / Work Practice Controls</u>
Burning / Cutting / Welding	Localized Paint Removal/Abatement
Power Tool Cleaning	Local Exhaust Ventilation (i.e. HEPA Vacuum Shrouds)
Manual Scraping / Demolition	Wet Misting
Compressed Air Blasting	Dust Collection / Ventilation
Clean-Up	HEPA Vacuums / Wet Methods

### **3.4 RESPIRATORY PROTECTION**

- A. Respiratory protection will be initially required for all workers performing presumed lead exposure tasks. Workers performing burning, cutting, welding or compressed air blasting will be initially required to wear Powered Air-Purifying Respirators (PAPR). For all other presumed lead exposure tasks, workers will be required to wear either half-face or full-face negative-pressure Air-Purifying Respirators (APR). All workers must receive medical clearance and fit-testing prior to wearing any respiratory protection. Once the results of initial air monitoring are received, appropriate respiratory protection for each job task will be determined based on exposures as follows:

<u>8-Hour TWA Lead Exposure</u>	<u>Respiratory Protection Required</u>
Less than 50 ug/m <sup>3</sup>	None
Between 50 ug/m <sup>3</sup> and 500 ug/m <sup>3</sup> w/HEPA	Half-face/Full-face negative-pressure APR
Between 500 ug/m <sup>3</sup> and 50,000 ug/m <sup>3</sup>	PAPR w/HEPA

- B. Regardless of the results of initial air monitoring, any worker who requests respiratory protection will be provided with a respirator. All respirators will be equipped with High-Efficiency Particulate Air (HEPA) filters, also known as P-100 filters. Workers are responsible for periodic inspection and routine cleaning of their respirators. For additional details and specifics regarding respiratory protection, refer to the OSHA Respiratory Protection Standard (29 CFR § 1910.134).

### **3.5 PROTECTIVE WORK CLOTHING AND PERSONAL PROTECTIVE EQUIPMENT**

- A. All workers performing presumed lead exposure tasks will initially be required to wear an outer layer of protective work clothing. Protective work clothing will consist of either a disposable Tyvek suit or cloth coveralls. Once the results of initial air monitoring are received, protective work clothing will only be required for job tasks where exposures to airborne lead dust have been determined to exceed the PEL of 50 ug/m<sup>3</sup>. Additional personal protective equipment (PPE) such as hard hats, safety glasses, ear plugs, work boots, fall protection, etc. will be issued to workers in accordance with the contractors' general health and safety plans and programs.

### **3.6 HYGIENE PRACTICES AND PROCEDURES**

- A. No food, beverages, tobacco products or cosmetics will be allowed inside any of the regulated Work Areas. Workers performing any presumed lead exposure tasks must remove their outer layer of protective work clothing before leaving the Work Area in order to prevent potential lead contamination from leaving the Work Area. At a minimum, a hand-wash station consisting of clean water, soap and clean towels will be provided for workers to wash their hands and faces prior to eating, drinking, smoking or leaving the job site. If the results of initial air monitoring show any exposures to airborne lead dust exceeding the PEL of 50 ug/m<sup>3</sup>, then a decontamination unit consisting of a clean side and a dirty side separated by a shower area will also be provided to allow workers to shower at the end of the work shift before leaving the job site.

## **PART 4 - ENVIRONMENTAL PROTECTION**

### **4.1 PREPARATION OF WORK AREAS**

- A. Provide drop cloths to catch falling paint chips and chemical removal agents, if approved, at exterior Work Areas.

- B. Cover floor/ground of Work Area following pre-cleaning, with one layer of six (6) mil polyethylene sheeting, duct taped securely at the perimeter.
- C. Stored items or fixed objects within the Work Area which cannot be removed from the area prior to abatement activities shall be covered with one layer of six (6) mil polyethylene sheeting, secured with duct tape.
- D. Remove the lead paint by methods which will provide the least disturbance to the substrate material and the environment.
- E. Building components which have been removed in their entirety shall be recycled where feasible.
- F. For waste generated during exterior abatement place 6-mil polyethylene sheeting on the ground extending out from the foundation at least five (5) feet and an additional three (3) feet for each story to a maximum of twenty (20) feet. Secure at the foundation by placing weights on the plastic.
- G. Cover all shrubs and bushes to prevent damage from lead waste or dust during exterior abatement.
- H. Shut all windows on the face of the building where lead paint removal is occurring. Seal all air conditioner intake grates and vents on the face of the building where lead paint removal is occurring.

#### **4.2 CLEAN-UP AND DECONTAMINATION**

- A. Clean-up of paint chips and other potential lead-containing dust and debris will be accomplished using HEPA vacuums and wet methods. Dry sweeping or shoveling of any such material is prohibited. Equipment used in the performance of any presumed lead exposure tasks will be decontaminated by HEPA vacuuming and/or wet wiping prior to removal from the Work Area.

#### **4.3 WASTE MANAGEMENT**

- A. Waste management activities are the responsibility of the Contractor; waste characterization testing shall be performed by the Environmental Consultant. All potential lead-containing construction waste will be collected, stored and isolated for testing by the Environmental Consultant to determine whether or not the waste is hazardous. Such waste includes paint chips, dust and debris, as well as used polyethylene sheeting, respirator filters and disposable PWC. The Environmental Consultant is responsible for composite sampling and analysis of construction waste via Toxicity Characteristic Leachate Procedure (TCLP) to determine lead concentrations. If the results of the TCLP analysis exceed the EPA regulatory limit of 5.0 parts per million (ppm) for leachable lead content, then the waste will be considered hazardous. All Hazardous Material must be handled, transported, stored and disposed in accordance with all applicable EH&S Requirements., including those of the DOT and the EPA.



- B. All potential lead-containing waste water will be collected, filtered, stored and tested to determine whether or not the waste water is contaminated. Such waste water includes waste water generated during wet removal or clean-up operations (e.g., pressure-washing or wet-misting), as well as waste water from hand-wash stations and decontamination units (i.e. showers). Consult state or local regulatory guidelines for allowable concentrations of lead in wastewater. Regardless of whether the waste water is contaminated or not, the local sewer/water authority should be contacted prior to disposal of the waste water into any Public Owned Treatment Works in order to ensure compliance with any local regulations.

**END OF SECTION 028310**

Address: Suffield Town Hall 83 Main St. Suffield, CTPaint Condition: (I)ntact, (D)amaged, (NC)No Coating Substrate Condition: (G)ood, (F)air, (P)oor  
Substrate = (M)etal, (W)ood, (P)laster, (D)rywall, (B)rick, (C)oncrete

READING #	Side	Surface	XRF Result	Paint Condition	Substrate	Substrate Condition	Color	COMMENTS
1		CALIBRATION	1.0	I D NC	M W P D B C	G F P		
2			1.0	I D NC	M W P D B C	G F P		
3			1.0	I D NC	M W P D B C	G F P		
4		Door	1.0	I D NC	M W P D B C	G F P		Room 101
5	C	Wall	0.0	I D NC	M W P D B C	G F P	Tan	
6	D	Wall	0.0	I D NC	M W P D B C	G F P		
7	A	Wall	0.0	I D NC	M W P D B C	G F P		
8		Ceiling	0.0	I D NC	M W P D B C	G F P	White	
9	B	Wall	0.0	I D NC	M W P D B C	G F P	Tan	
10		Floor	0.1	I D NC	M W P D B C	G F P	Red	Room 111 Vault
11	C	Wall	0.0	I D NC	M W P D B C	G F P	Tan	
12		Floor	0.2	I D NC	M W P D B C	G F P	Red	
13		Ceiling	0.0	I D NC	M W P D B C	G F P	White	
14	A	Wall	0.0	I D NC	M W P D B C	G F P	Tan	
15	C	Vault Door	0.0	I D NC	M W P D B C	G F P	Gray	
16	D	Wall	0.0	I D NC	M W P D B C	G F P	Blue	Room 300
17	C	Window Sill	0.0	I D NC	M W P D B C	G F P	White	
18	B	Door	0.0	I D NC	M W P D B C	G F P	Tan	
19	B	Door Frame	0.0	I D NC	M W P D B C	G F P	Tan	
20	D	Wall	0.0	I D NC	M W P D B C	G F P	Blue	Room 304
21	C	Wall Upper	0.0	I D NC	M W P D B C	G F P	Dark Blue	Hall 300
22	C	Wall Lower	0.0	I D NC	M W P D B C	G F P	Dark Blue	
23	C	Chair Rail	0.0	I D NC	M W P D B C	G F P	White	
24	C	Door Trim	0.0	I D NC	M W P D B C	G F P	White	
25		Beam	0.0	I D NC	M W P D B C	G F P	Yellow	Attic
26	B	Stair Wall	0.0	I D NC	M W P D B C	G F P	White	
27		Column	0.0	I D NC	M W P D B C	G F P	Yellow	
28		Beam	0.0	I D NC	M W P D B C	G F P	Yellow	
29	C	Wall	0.0	I D NC	M W P D B C	G F P	Tan	Room 201 Tan Color
30	C	Vault Door	0.0	I D NC	M W P D B C	G F P	Green/Gray	
31	D	Wall	0.0	I D NC	M W P D B C	G F P	Tan	
32	D	Window Trim	0.0	I D NC	M W P D B C	G F P	White	
33	D	Window Sill	0.0	I D NC	M W P D B C	G F P	White	
34	D	Radiator	0.0	I D NC	M W P D B C	G F P	White	
35	A	Wall	0.0	I D NC	M W P D B C	G F P	Tan	
36		Black Ironwork	1.0	I D NC	M W P D B C	G F P	Black	
37	B	Door	0.0	I D NC	M W P D B C	G F P	White	
38	B	Door Trim	0.0	I D NC	M W P D B C	G F P	White	
39	C	Wall	0.0	I D NC	M W P D B C	G F P	White/Tan	Room 211 Hall
40	D	Door	0.0	I D NC	M W P D B C	G F P	White	
41	A	Wall	0.0	I D NC	M W P D B C	G F P	White/Tan	
42	A	Wall	0.0	I D NC	M W P D B C	G F P	Tan/Blue Paper	Hall 200
43	A	Radiator	0.0	I D NC	M W P D B C	G F P	Blue	
44		Black Iron	1.0	I D NC	M W P D B C	G F P	Black	Room 211 Main Room
45	C	Wall	0.0	I D NC	M W P D B C	G F P	Tan	
46	B	Wall	0.0	I D NC	M W P D B C	G F P	White	Stair Riser
47	D	Beam	0.0	I D NC	M W P D B C	G F P	White	

1610

SIGNATURE

LICENSE# 002224

DATE 3/9/16

8.3 Mountain Rd Suffield, CT

[illegible]

DATE: 3/9/16

## **PART 1 - GENERAL**

### **DEFINITIONS**

- A. Electronic Waste (E-Waste) - Any of the following hazardous wastes that are managed under the universal waste requirements of Connecticut General Statutes §§ 22a-629 thru 22a-640, § 22a-638 and § 22a-630(d)1 of the Regulations of Connecticut State Agencies:
  - 1. Computers
  - 2. Monitors
  - 3. Printers
  - 4. Electronic Ballasts
- B. “RCRA” - or the “Resource Conservation and Recovery Act” is the federal law that sets standards to ensure that hazardous wastes are stored, handled, recycled and disposed of safely.
- C. Regulated Hazardous Materials – any State or Federally regulated materials that are considered dangerous to environmental or human health, which include but not limited to; asbestos, lead, and polychlorinated biphenyls.
- D. Spill – Means intentional or unintentional spills, leaks and other uncontrolled discharges when the release results in any quantity of PCB oil or other hazardous or universal waste, or petroleum product running off or about to run off the external surface of the equipment or other source as well as the contamination resulting from those releases.
- E. Universal Waste – Any of the following hazardous wastes that are managed under the universal waste requirements of 40 CFR Part 273:
  - 1. Batteries
  - 2. Thermostats and Switches
  - 3. Lamps

**Refer to Definitional Section under Abatement Specification, Section 010000 for additional definitions**

### **DESCRIPTION OF WORK**

- F. Coordinate removal and handling of Regulated Hazardous Materials with work included in other sections (e.g. asbestos, lead based paint, Mold).
- G. The removal of various building components containing materials which may be considered hazardous or will require special handling and disposal. This removal work includes the following materials:
  - 1. Materials containing lead
  - 2. Fluorescent and High Intensity Discharge (HID) lamps
  - 3. Lead-acid battery electrolyte
  - 4. Fluorocarbons
  - 5. Equipment coolant
  - 6. Equipment containing petroleum products

7. Mercury
8. PCB and Non-PCB containing ballasts
9. Electronic Components

If applicable; specific materials, locations, and approximate quantities will be identified within the Work Plan.

#### REFERENCES

- H. The current issue of each document shall govern. Where conflict among requirements or with these specifications exists, the more stringent requirements shall apply.
1. EPA
    - 40 CFR Part 260 - Hazardous Waste Management Systems: General.
    - 40 CFR Part 261 - Identification and Listing of Hazardous Waste.
    - 40 CFR Part 262 - Generators of Hazardous Waste.
    - 40 CFR Part 263 - Transporters of Hazardous Waste.
    - 40 CFR Part 264 - Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.
    - 40 CFR Part 265 - Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.
    - 40 CFR 268 - Land Disposal Restrictions.
  2. CTDEEP
    - Section 22a-449(c)-100 through 22a-449(c) 110 and 22a-449(c)-119 of the Regulations of Connecticut State Agencies - Connecticut Hazardous Waste Regulations.
    - Section 22a-629 through Section 22a-640 CGS Connecticut E-Waste Law.
    - Section 22a-638 and Section 22a-630(d)1 RCSA – Standards for the Recycling of Covered. Electronic devices and Annual Registration Renewal Fee for Manufacturers.

#### SUBMITTALS

- I. Submit for Consultants' review and information the below listed data not less than five (5) working days prior to start of activity.
1. Safety plan for worker protection and protection of adjacent construction.
  2. Spill cleanup contingency plan.
  3. Name, location and evidence of current licensing or legal approval of disposal facility to receive construction/demolition waste, special and hazardous wastes. Submit manifests and record documentation of shipments. The following minimum information shall be included:
    - a. Facility name and address.
    - b. Name, title and telephone number of contact person.
    - c. Copies of waste licenses or permits to confirm that they are permitted to accept the waste materials.
    - d. Lists matching each facility with the materials from the project to be sent to each, and specify whether the facility is a recycling, treatment, storage, or disposal facility.
    - e. Confirmation from facility that they will accept the types and quantities of wastes being generated from the Work.
  4. Submit a plan for the removal and disposal of Hazardous Materials to ensure compliance with EH&S Requirements. This removal work includes the following materials:
    - a. Materials containing lead

- b. Fluorescent and HID lamps
- c. PCB and non-PCB containing ballasts
- d. Lead-acid battery electrolyte, NiCad Batteries
- e. Fluorocarbons
- f. Equipment coolant
- g. Equipment containing petroleum products
- h. Mercury-containing thermostats and switches

#### **REGULATORY REQUIREMENTS**

- J. Conform to EH&S Requirements for handling, recycling and disposal of hazardous or universal waste materials.
- K. Lock out /Tag out electrical power, including all devices and light fixtures in accordance with the Owner's lock out/tag out program. Isolate and remove system components as indicated or required. Coordinate all power and alarm system isolation with the Owner and Environmental Consultant.
- L. Do not close or obstruct access to or egress from occupied areas of the building.

#### **SEQUENCING**

- M. Sequence removal and handling of regulated materials with work included in other sections. Removal activities which could disturb Asbestos Materials shall be performed after establishment of engineering controls as specified in Section 028213.

#### **SALVAGEABLE MATERIALS**

- N. Items identified within the Work Plan that are not scheduled for reuse have been identified for salvage. Carefully remove these items to avoid damage, and deliver them to the on-site location indicated or directed.

#### **PROJECT CONDITIONS**

- O. The project areas will be tested for Hazardous Materials by the Environmental Consultant. A copy of the results of previous inspections is available for review.
- P. The results of previous inspections were obtained only for the Owner's use and is offered, in good faith for information only, solely for the purpose of placing the Contractor in receipt of all information known to the Owner at this time. Unless otherwise provided, any inspection results provided are not to be considered a part of the Contract Documents. The Owner does not warrant or represent that the information contained in these results is complete or accurate but only that it constitutes a disclosure of the information known to the Owner at this time regarding these conditions.

### **PART 2 - PRODUCTS (Not Used)**

### **PART 3 - EXECUTION**

**PREPARATION**

- A. Provide, erect, and maintain temporary barriers, including Work Area containment at locations necessary to protect adjacent construction and eliminate unauthorized entry into the Work Area. Provide appropriate signage to identify building evacuation routes during construction.

**REMOVAL REQUIREMENTS**

- B. Perform removals to the extent specified, indicated or necessary to access concealed Regulated Hazardous Materials and to remove other Hazardous Materials specified herein. Conduct demolition and removal activities to minimize interference with adjacent construction scheduled to be retained.
- C. Cease operations immediately if adjacent construction appears to be in danger. Notify the Owner. Do not resume operations until directed by the Owner.
- D. Should any spill occur during the removal of Hazardous Materials, notify the Owner immediately. Cleanup of spills shall be in accordance with the approved spill cleanup contingency plan.

**MATERIALS CONTAINING LEAD**

- E. Exposure levels for lead in the construction industry are regulated by 29 CFR § 1926.62. Construction activities disturbing surfaces containing lead-based paint (LBP) which are likely to be employed, such as sanding, grinding, welding, cutting and burning, have been known to expose workers to levels of lead in excess of the Permissible Exposure Limit (PEL). Conduct demolition and removal work specified in conformance with these regulations. In addition, construction debris/waste may be classified as hazardous waste. Disposal of hazardous waste material shall be in accordance with 40 CFR Parts 260 through 271 and Regulations of Connecticut State Agencies Section 22a-209-1; 22a-209-8(c); 22a-449(c)-11; and 22a-449(c)-100 through 110. The Contractor is encouraged to recycle metals resulting from removal work to the maximum extent possible.
- F. Should materials containing LBP be scheduled for demolition and disposal, collect composite samples of building components, representative of debris to be generated by renovation activities, and submission to a licensed laboratory for Toxicity Characteristic Leaching Procedure (TCLP) analysis. The result of this test will indicate whether the resulting debris generated from building renovation activities will be characterized as hazardous.
- G. Workers involved in renovation activities which may disturb LBP must employ lead-safe work practices.
- H. To the extent, testing for lead-based paint has been conducted at the facility scheduled for renovation, demolition, reconstruction, alteration, remodeling, or repair, results of LBP testing will be made available by Owner or the Environmental Consultant for review for each project. Under no circumstances shall this information be the sole means used by the Contractor for determining the extent of LBP. The Contractor shall be responsible for verification of all field conditions affecting performance of the Work.

**RECYCLING OF FLUORESCENT AND HID LAMPS**

- I. All fluorescent and HID lamps shall be recycled to the maximum extent possible. Lamps shall be removed from fixtures intact.
- J. The Contractor shall manage lamps in the following manner:
  - 1. Do not break or crush lamps.
  - 2. Store lamps in packaging or containers that are designed to minimize breakage during storage and shipping.
  - 3. Broken lamps shall be placed in 55-gallon drums and handled, stored, recycled and/or disposed of as hazardous waste.
  - 4. Use bill of lading that contains the following information when shipping to the recycler:
    - a. Generator Name and Telephone Number
    - b. Recycling Facility Name and Address
    - c. EPA Generator ID No.
    - d. EPA Manifest Doc. No.
    - e. CT Manifest Doc. No.

#### **FLUORESCENT AND HID BALLASTS**

- K. All light fixture ballasts and capacitors shall be removed using appropriate techniques and PPE.
- L. Prior to removal, the Contractor shall uncover and inspect the label on the ballast. All ballasts designated as "NO PCBs" shall be marked with green paint; all other ballasts and capacitors shall be assumed to contain PCBs and shall be marked with red paint. Similar color coding shall be used for the receiving drums. If ballasts containing diethylhexyl phthalate (DEHP) are identified, dispose of them as Hazardous Material. Electronic ballasts shall be removed and properly recycled as e-waste.
- M. Removal shall be performed using approved methods and tools that will minimize damage to the light fixture, and ensure a quick, neat removal with the ballast or capacitor intact and undamaged.
- N. All ballasts designated as "No PCBs" and that do not contain DEHP, shall be segregated and removed for disposal as construction waste.

#### **LEAD-ACID BATTERY ELECTROLYTE**

- O. Remove electrolyte solution from lead-acid batteries. Do not dump electrolyte solution onto the ground or into storm drains or sanitary sewers. Use one of the following alternatives for disposal of waste electrolyte solution:
  - 1. An industrial waste treatment plant approved for neutralizing and disposing of battery acid electrolyte solution.
  - 2. Transport the electrolyte solution to a state approved hazardous waste disposal site. The method of transportation and equipment shall comply with EH&S Requirements.

#### **FLUOROCARBONS**

- P. Removal or relocation of equipment containing fluorocarbons shall be performed in such a way as to prevent release of gases to the atmosphere. Refrigerant materials shall be recycled or removed by approved methods.

#### **EQUIPMENT COOLANT**



- Q. Removal or relocation of equipment containing coolant fluids such as glycol or other anti-freeze agents shall be performed in such a way as to prevent leaks or spills. Coolant fluids shall be recycled or removed by approved methods.

**EQUIPMENT CONTAINING PETROLEUM PRODUCTS**

- R. Carefully drain piping and equipment containing petroleum products. Remove and dispose of oil, hydraulic fluids, and contaminated piping and equipment in accordance with EH&S Requirements.

**MERCURY**

- S. Thermostats, switches, gauges and miscellaneous laboratory equipment shall be checked at the time of removal to determine if these items contain mercury. Removal of laboratory equipment and cabinetry shall be performed in such a way as to prevent fluid leaks or spills. Fluids associated with these items, including associated plumbing piping, shall be evaluated for mercury prior to disposal. Waste generated by this process shall be recycled or disposed of in accordance with EH&S Requirements.

**DISPOSAL**

- T. Contractor is encouraged to salvage material, and equipment for reuse and to recycle solid waste including items such as specified in Section 22a-241b-2 of the Regulations of Connecticut State Agencies.
- U. Construction and demolition waste remaining after salvage and recycling is to be disposed of at a landfill approved by the CTDEEP for the disposal of construction and demolition waste.

**SCHEDULE OF HAZARDOUS MATERIALS**

- V. The schedule of identified Hazardous Materials is included with the project Work Plan. The contractor shall coordinate the removal of all building components containing Hazardous Materials or non-Hazardous Materials requiring special handling and disposal or recycling.
- W. The quantities of Hazardous Materials listed in the Work Plans are provided for informational purposes only. Contractor shall verify onsite quantities themselves. No additional compensation will be provided for quantities in excess of those verified by the Contractor.

**END OF SECTION 028400**