

**BUILDING REMEDIATION / DEMOLITION / REMOVALS AT**

**1 Orchard Terrace  
1 South Main Street  
58 Maple Street  
146 Walnut Street**

**NAUGATUCK, CONNECTICUT**

**Contract No. 14-18**

**Contract Documents**

**PREPARED BY THE  
BOROUGH OF NAUGATUCK  
Department of Public Works**

**April 2014**



**BOROUGH OF NAUGATUCK**

## INVITATION TO BID

### Borough of Naugatuck

Sealed proposals will be received by the Purchasing Office, Borough of Naugatuck, Town Hall, 229 Church Street, Naugatuck, CT 06770 until **Monday, May 12, 2014 at 11:00 A.M.** for supplying the Borough of Naugatuck with the following products and services:

#### **Contract No. 14-18 BUILDING REMEDIATION / DEMOLITION / REMOVALS AT**

1 Orchard Terrace

1 South Main Street

58 Maple Street

146 Walnut Street

Immediately following the above time and date sealed proposals will be publicly opened and read at the Town Hall.

The Proposal document may be examined and obtained at no cost from the Borough of Naugatuck web site <http://www.naugatuck-ct.gov>. All firms obtaining proposal documents must submit contact information by e-mail to [whozer@naugatuck-ct.gov](mailto:whozer@naugatuck-ct.gov). Contact information must be submitted three days in advance of the bid opening to be considered.

Proposal documents may also be obtained at the Office of the Purchasing Agent upon submission of a non-refundable fee in the form of a check or money order payable to the Borough of Naugatuck in the amount of **\$50.00** per set.

Addenda if required shall be posted on the <http://www.naugatuck-ct.gov> web site. It is the bidder's responsibility to check the Town web site in advance of the bid opening to determine if any addenda have been issued.

A pre bid meeting is scheduled for May 1, 2014 10:00 A.M. starting at 58 Maple Street, Naugatuck, CT.

The Borough of Naugatuck reserves the right to waive any informalities or to reject any or all proposals.

The Borough of Naugatuck is an affirmative action/equal opportunity employer. MBE's, WBE's and SBE's are encouraged to apply.

## SECTION A

### INFORMATION FOR BIDDERS

Borough of Naugatuck

#### 1. Engagement of the Demolition Contractor

The Borough of Naugatuck requests that sealed Proposals be submitted to demolish the following buildings in the Borough of Naugatuck, Naugatuck CT 06770:

1 Orchard Terrace  
1 South Main Street  
58 Maple Street  
146 Walnut Street

Please direct any and all questions to: James R. Stewart  
Naugatuck Public Works Dept.  
246 Rubber Avenue, Naugatuck, CT 06770  
Tel: (203) 720-7071

#### 2. STANDARD DOT SPECIFICATIONS:

The material and construction methods for the work specified in this contract shall conform with the applicable provisions of the State of Connecticut, Department of Transportation specifications entitled "*STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION*", Form 816, 2004, as revised by the Supplemental Specifications dated January, 2007 (otherwise referred to collectively as "ConnDOT form 816") unless modified by the Special Provisions contained herein. "ConnDOT form 816" is hereby made part of this contract.

Form 816 may be purchased from: Connecticut Department of Transportation, Manager of Contracts, 2800 Berlin Turnpike, Newington, Connecticut 06111.

All references to Commissioner, Department, Engineer, and State anywhere within the Form 816 shall be interpreted to mean the Borough of Naugatuck or a duly authorized agent of the Borough. Any questions or ambiguity regarding any definitions shall be brought to the immediate attention of the Borough.

#### 3. PREPARATION OF BID:

Each bid must be submitted in duplicate on the prescribed form. All blank spaces for bid prices must be filled in, in ink or typewritten, in both words and figures.

Each bid must be submitted in duplicate (1 original and 1 copy) in a sealed envelope bearing on the outside, the name of the bidder, his address, and the name of the project for which the bid is submitted. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed as specified in the paragraph above.

Only complete bids will be accepted. In order for a bid to be complete, it must include all of the following;

- A. Form of Bid
- B. Bid security (*bid bond*)
- C. Surety Guaranty form
- D. References

**4. SUBCONTRACTS:**

The bidder is specifically advised that any person, firm, or other party to whom it is proposed to award a subcontract under this contract must be acceptable to the Owner.

**5. QUALIFICATIONS OF BIDDER:**

The Municipality may make whatever investigations it deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the Municipality all information and data for this purpose as the Municipality may request. The Municipality reserves the right to reject any bid if the evidence submitted by, or investigation of, the bidder fails to satisfy the Municipality that the bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein. Conditional bids will not be accepted.

**6. BID SECURITY:**

Each bid must be accompanied by a bid bond prepared on the form specified by the Surety duly executed by the bidder as principal and having a surety thereon approved by the Municipality, in the amount of 5% of the bid. Checks or bid bonds shall be returned to all but the three lowest bidders within seven days after the opening of the bids, and the remaining checks or bid bonds will be returned promptly after the Municipality and the accepted bidder have executed the contract, or if no award has been made, within 90 days after the date of the opening of the bids, upon demand of the bidder at any time thereafter, so long as he has not been notified of the acceptance of his bid.

**7. LIQUIDATED DAMAGES FOR FAILURE TO ENTER INTO CONTRACT:**

The successful bidder, upon his failure or refusal to execute and deliver the contract, bonds and certificates of insurance required within 10 days after he has received notice of the acceptance of his bid, shall forfeit to the Municipality, as liquidated damages for such failure or refusal, the security deposited with his bid.

**8. TIME OF COMPLETION AND LIQUIDATED DAMAGES:**

The bidder agrees to commence work on or before a date to be specified in a written "Notice To Proceed" of the Municipality and to fully complete the project within **60** consecutive calendar days thereafter. The bidder agrees also to pay as liquidated damages, the sum of **\$150.00** for each consecutive calendar day thereafter until the project is complete.

**9. CONDITIONS OF WORK:**

Each bidder must inform himself fully of the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful bidder of his obligation to furnish all material and labor necessary to carry out the provisions of his contract. Insofar as possible, the contractor in carrying out his work must employ such methods or means as will cause the least interruption of or interference with the work of any other contractor.

**10. ADDENDA AND INTERPRETATIONS:**

No interpretation of the meaning of the plans, specifications or other pre-bid documents will be made to any bidder orally.

Every request for such interpretation must be in writing and addressed to Mr. James Stewart, P.E., Director of Public Works of the Borough of Naugatuck, 246 Rubber Ave, Naugatuck, CT 06770, and, to be given consideration, must be received at **least five days** prior to the date fixed for the opening of the bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the specifications which, if issued, will be posted on the Town web site not later than three days prior to the date fixed for the opening of the bids. It shall be the bidder to check the Town web site for addenda prior to the bid opening. Failure of any bidder to obtain any such addenda or interpretation shall not relieve such bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the contract documents.

**11. SECURITY FOR FAITHFUL PERFORMANCE:**

Simultaneously with his delivery of the executed contract, the Contractor shall furnish a 100% surety bond or bonds as security of faithful performance of his contract and for the payment of all persons performing labor on the project under this contract and furnishing materials in connection with this contract, as specified in the General Conditions included herein. The surety on such bond or bonds shall be a duly authorized surety company satisfactory to the Municipality, and listed in the Department of Treasury's Listing of Approved Sureties (Circular 570).

**12. POWER OF ATTORNEY:**

Attorneys-in-fact who sign bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

**13. LAWS AND REGULATIONS:**

The bidders' attention is directed to the fact that all applicable State laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over the construction of the project shall apply to the contract throughout, and they are considered included in the contract the same as though they were written out in full.

**14. OBLIGATION OF BIDDER:**

At the time of the opening of the bids, each bidder will be presumed to have inspected the site and to have read and be thoroughly familiar with the plans and the contract documents (*including all addenda*). The failure or omission of a bidder to examine any form, instrument or document shall in no way relieve the bidder from any obligation with respect to his bid.

**15. EXECUTION OF CONTRACT**

The party to whom the Contract is awarded, or his authorized representative, will be required to attend at the office of the Mayor, Borough of Naugatuck, with the sureties offered by him, or them, and a current certificate of Corporate good standing issued by the Office of the Secretary of State in which the corporation is incorporated, and execute the Contract within five (5) days from the date of the award. If the party entering into this contract is a corporation, a Corporate Resolution duly executed by the president and Secretary of the Corporation authorizing the Corporation to enter into this Contract shall be provided. In case of his failure or neglect to do so, the Owner may, at its opinion, determine that the Bidder has abandoned the Contract and thereupon the Proposal and acceptance shall be null and void, and bid security accompanying the Proposal shall be forfeited as liquidated damages to the Owner. If the party entering into this contract is a partnership, a partnership resolution duly executed by a majority of the general partners authorizing the partnership to enter into this contract shall be provided.

**16. Bonds**

The successful Bidder, at the time of the execution of the Contract, shall furnish a Performance Bond in an amount at least equal to one hundred percent (100%) of the Contract prices as security for the faithful performance of this Contract and also a Payment bond in an amount not less than one hundred percent (100%) for the Contract prices as security for the payment of all persons performing labor on the project under this Contract and furnishing materials in connection with this Contract. All Bonds shall be in the forms prescribed by Law or Regulation and be acceptable to the Owner. Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State of Connecticut. Bidder shall provide evidence that Surety Company is licensed to conduct business in the State of Connecticut. All sureties shall be in full force throughout the guarantee period and until the retainage is released.

## 17. RESPONSIBILITY OF THE CONTRACTORS

Attention is hereby particularly directed to the provisions of the Contract and Specifications whereby the Contractor shall be responsible for any loss or damage that may happen in the work, or any part thereof, during its progress and also whereby the Contractor shall make good any defects for faults that may occur within one (1) year after date of final estimate. He shall indemnify and save harmless the Owner and Engineer from any damages or costs to which they may be put by reason of injury to the person or property of another resulting from negligence or carelessness in the performance of the work under this Contract.

## 18. INSURANCE

Before execution of the Contract, the Bidder will be required to file with the Borough of Naugatuck a certificate of insurance. The certificate, executed by an insurance company satisfactory to the Borough of Naugatuck shall name the Borough of Naugatuck and the State as additional insured parties on the form furnished with these specifications. The "Certificate of Insurance" shall state that at a minimum, with respect to the contract, the bidder carries insurance in accordance with the requirements and stipulations listed below.

Unless requested otherwise by the Borough of Naugatuck, the Bidder and its insurer shall not assert the defense of governmental immunity in the adjustment of claims or in the defense of any claim or suit brought against the Borough of Naugatuck and the State. The Bidder shall assume and pay all cost and billing for premiums and audit charges earned and payable under the required insurance.

A. Workmen's Compensation Insurance: With respect to all operations the Bidder performs and all those performed for it by subcontractors, the Bidder shall carry workmen's compensation insurance in accordance with the requirements and the laws of the State.

B. Contractor's Public Liability and Property Damage Insurance: With respect to the Project operations the Bidder performs and also those performed for it by subcontractors, the Bidder shall carry regular Contractor's Public Liability Insurance. The insurance shall provide coverage for each accident or occurrence in the amount of \$1,000,000 for all damages resulting from (1) bodily injury to, or death of, persons and/or (2) injury to or destruction of property. Subject to that limit per accident or occurrence, the policy shall provide a total or aggregate coverage of \$2,000,000 for all damages during the policy period.

C. Automobile Liability Insurance: The operation of all motor vehicles, including those hired or borrowed, used in connection with the project, shall be covered by Automobile Liability Insurance. The insurance shall provide coverage for each accident or occurrence in the amount of \$1,000,000 for all damages resulting from (1) bodily injury to, or death of, persons and/or (2) injury to or destruction of property. If an insurance policy shows an aggregate limit as part of the automobile liability coverage, the aggregate limit must be at least \$2,000,000.

D. With respect to the project operations the Bidder performs and also those performed for it by subcontractors, the Bidder shall carry for and on behalf of the Borough of Naugatuck, and State, insurance which shall provide coverage for each accident or occurrence in the amount of \$1,000,000 for all damages resulting from (1) bodily injury to or death of person and/or (2) injury to or destruction of property. Subject to that limit per accident or occurrence, the policy shall provide a total or aggregate coverage of \$2,000,000 for all damages during the policy period.

E. None

F. Blasting: When explosives are to be used in the prosecution of the work, the insurance required under paragraphs b, d and e above shall also contain provisions for protection, in the

amounts state, against damage claims due to such use of explosives.

G. Termination or change of Insurance: Each insurance policy shall be endorsed to provide that the insurance company shall notify the Borough of Naugatuck by certified mail at least thirty (30) days in advance of termination, or any change in the policy. No such change shall be made without prior written approval of the appropriate Official.

H. Claims: Each insurance policy shall state that the insurance company shall agree to investigate and defend the Borough of Naugatuck and State against all damages, even if groundless.

I. Compensation: There shall be no direct compensation allowed the Bidder on account of any premium or other charge necessary to take out and keep in effect all insurance or bonds, but the cost thereof shall be considered included in the general cost of the work.

## **19. Care and Protection of Property**

The Contractor shall take particular care to avoid damages to all private property and to private improvements within the Boroughs' right of way. He shall make good any damages to the satisfaction of the Inspector. There shall be no additional compensation for the repair or restoration of private property, or private improvements. within the Boroughs' right of way.

## **20. Sales Tax**

Certain materials and supplies incorporated in the work of this project are exempt from Connecticut Sales Tax. The Bidder shall familiarize himself with current regulations of the State Tax Department. The tax on materials or supplies exempted by such regulations shall not be included as part of the bid. The Owner will furnish the successful Bidder a sales tax exemption number.

## **21. Compliance with Federal and State Regulations**

The Contractor shall be responsible for full compliance with any Federal and/or State laws, regulations and standards, as applicable to any project fully or partially funded by State and/or Federal funding agency. This project is funded, in part, by the State and Federal government.

## **22. Permits**

All licenses and permits for complying with any applicable Federal, State, and Municipal laws, codes and regulations in connection with the prosecution of the work shall be obtained by the Contractor, at no additional cost to the Owner.

## **23. Contractor's Right to Terminate Work**

If the work should be stopped under an order of any court or other public authority, for a consecutive period of not less than thirty (30) days, through no act or fault of the Contractor or of anyone employed by him, then the Contractor may terminate this Contract and recover from the Owner payment for all work executed.

## **24. Terms and Conditions**

This document, its terms and conditions and any claims arising there from, shall be governed by Connecticut law. The Demolition Contractor shall comply with all applicable law, ordinances,



and codes of the State of Connecticut and the Borough of Naugatuck and shall commit no trespass on any private property in performing services under this document.

The parties agree that they waive a trial by jury as to any and all claims, cause of action or disputes arising out of this document or services to be provided pursuant to this document.

Notwithstanding any such claim, dispute, or legal action, the Demolition Contractor shall continue to perform services under this document in a timely manner, unless otherwise directed by the Borough of Naugatuck.

## **25. Subcontracting and Assignability**

None of the services covered by this document shall be subcontracted without the prior written approval of the Borough of Naugatuck for the acts and omissions of its Demolition Contractors, and of persons either directly or indirectly employed by Demolition Contractor, as it is for the acts and omissions of persons directly employed by Demolition Contractor. The Borough of Naugatuck may, before making payment on the document require either an affidavit from the Demolition Contractor that all sub Contractors and materials have been paid or may require waiver of mechanics' liens from any and all sub Contractors and material men.

The Demolition Contractor shall not assign any interest in this document, and shall not transfer any interest in the same (whether by assignment or notation) without the prior written approval of the Borough of Naugatuck; provided, however, that claims for money due or to become due the Demolition Contractor from the Borough of Naugatuck under this document may be assigned to a bank, trust company, or other financial institution, or to a Trustee in Bankruptcy, without such approval. Notice of any such assignment or transfer shall be furnished promptly to the Borough of Naugatuck.

## **26. Termination of Contract**

If, through any cause, the Demolition Contractor shall fail to fulfill, in a timely and proper manner, his obligations under this document, or if the Demolition Contractor shall violate any of the covenants, agreements, or stipulations of this document by giving written notice to the Demolition Contractor of termination and specifying the effective date thereof, at least five (5) days before the effective date of such termination. In the event of such termination all records prepared by the Demolition Contractor under this document shall, at the option of the Borough of Naugatuck, become its property.

## **27. Irregular Proposals**

The Borough of Naugatuck reserves the right to reject any proposals if they show any omission, alteration of form, additions not called for, conditional bids, or irregularities of any kind.

## **28. Withdrawal of Proposals**

If a Bidder wishes to withdraw his Proposal, he may do so before the time fixed for the opening of bids by communicating his purpose to the office of the Purchasing Agent. Upon such notice, the Proposal will be handed to him unopened.

### **29. Compliance with Federal and State Regulations**

The Demolition Contractor shall be responsible for full compliance with any Federal and/or State laws, regulations and standards.

### **30. Permits**

All licenses and permits for complying with any applicable Federal, State, and Municipal laws, codes and regulations in connection with the prosecution of the work shall be obtained by the Demolition Contractor, at no additional cost to the Borough.

### **31. Right to Reject**

The Borough reserves the right to reject any or all proposals or to accept any proposal, should it deem it to be in the best interest of the Borough.

**SECTION B-1**

**BID FORM**

Borough of Naugatuck

**Contract No. 14-18 BUILDING REMEDIATION / DEMOLITION / REMOVALS AT  
1 Orchard Terrace**

The undersigned, as Bidder, declares that no person or persons, other than those named herein, are interested in this Proposal; that this Proposal is made without collusion with any person, firm or corporation; that he has carefully examined the location of the proposed work, the proposed Form of Contract, and the Contract Drawings therein referred to; that no person or persons acting in any official capacity for the Borough is directly or indirectly interested therein or in any portion of the profit thereof; and that he proposes and agrees, if this Proposal is accepted, to execute the Form of Contract with the Borough; to provide all necessary equipment, tools, and other means of construction, and to do all work and furnish all materials specified in the Contract, in the manner and time therein prescribed, and according to the requirements of the Borough of Naugatuck Inspector as therein set forth, and that he will take in full payment therefore, the following unit prices and lump sums, to wit:

The Bidder agrees that this proposal shall be good and may not be withdrawn for a period of ninety (90) days after the scheduled closing time for receiving bids.

Successful bidders shall defend, indemnify and hold and save harmless the Borough of Naugatuck against and from any and all liabilities, claims, damages, losses, fees, costs, expenses, etc. Which arise directly or indirectly from successful bidders operations and/or related activities.

The Borough of Naugatuck reserves the right to reject any and all proposals in whole or in part, including low cost proposal, to make partial awards, to waive any irregularities in any quotation, to increase or decrease quantities if quantities are listed in the proposals, and may reject any proposal that shows any omissions not called for, conditions, or alternate proposals, and may make any such award as is considered to be in the best interest of the Borough of Naugatuck.

**SECTION B-1 cont.**

Pursuant to and in compliance with your "Invitation to Bid" relating thereto, the undersigned,

**Company Name:** \_\_\_\_\_

**Street Address:** \_\_\_\_\_

**Town/City:** \_\_\_\_\_

**Telephone:** \_\_\_\_\_

**Email:** \_\_\_\_\_

**Name** \_\_\_\_\_

**Signature** \_\_\_\_\_ **Date** \_\_\_\_\_

having visited the sites and carefully examined the Project Site(s), Contract Documents, Project Manual and Specifications dated April 2014, together with all Addenda issued and received prior to the scheduled closing time for receipt of Bids as prepared by the Owner; hereby offers and agrees as follows: To provide all labor, materials, equipment and whatsoever else necessary according to the requirements and contract documents to install and properly finish all work in connection with the,

**Contract No. 14-18 BUILDING REMEDIATION / DEMOLITION / REMOVALS AT  
1 Orchard Terrace**

to the satisfaction of the Borough of Naugatuck for the Base Bid Lump Sum of:

\_\_\_\_\_ (\$ \_\_\_\_\_ )

**SECTION B-2**

**BID FORM**

Borough of Naugatuck

**Contract No. 14-18 BUILDING REMEDIATION / DEMOLITION / REMOVALS AT  
1 South Main Street**

The undersigned, as Bidder, declares that no person or persons, other than those named herein, are interested in this Proposal; that this Proposal is made without collusion with any person, firm or corporation; that he has carefully examined the location of the proposed work, the proposed Form of Contract, and the Contract Drawings therein referred to; that no person or persons acting in any official capacity for the Borough is directly or indirectly interested therein or in any portion of the profit thereof; and that he proposes and agrees, if this Proposal is accepted, to execute the Form of Contract with the Borough; to provide all necessary equipment, tools, and other means of construction, and to do all work and furnish all materials specified in the Contract, in the manner and time therein prescribed, and according to the requirements of the Borough of Naugatuck Inspector as therein set forth, and that he will take in full payment therefore, the following unit prices and lump sums, to wit:

The Bidder agrees that this proposal shall be good and may not be withdrawn for a period of ninety (90) days after the scheduled closing time for receiving bids.

Successful bidders shall defend, indemnify and hold and save harmless the Borough of Naugatuck against and from any and all liabilities, claims, damages, losses, fees, costs, expenses, etc. Which arise directly or indirectly from successful bidders operations and/or related activities.

The Borough of Naugatuck reserves the right to reject any and all proposals in whole or in part, including low cost proposal, to make partial awards, to waive any irregularities in any quotation, to increase or decrease quantities if quantities are listed in the proposals, and may reject any proposal that shows any omissions not called for, conditions, or alternate proposals, and may make any such award as is considered to be in the best interest of the Borough of Naugatuck.

**SECTION B-2 cont.**

Pursuant to and in compliance with your "Invitation to Bid" relating thereto, the undersigned,

**Company Name:** \_\_\_\_\_

**Street Address:** \_\_\_\_\_

**Town/City:** \_\_\_\_\_

**Telephone:** \_\_\_\_\_

**Email:** \_\_\_\_\_

**Name** \_\_\_\_\_

**Signature** \_\_\_\_\_ **Date** \_\_\_\_\_

having visited the sites and carefully examined the Project Site(s), Contract Documents, Project Manual and Specifications dated April 2014, together with all Addenda issued and received prior to the scheduled closing time for receipt of Bids as prepared by the Owner; hereby offers and agrees as follows: To provide all labor, materials, equipment and whatsoever else necessary according to the requirements and contract documents to install and properly finish all work in connection with the,

**Contract No. 14-18 BUILDING REMEDIATION / DEMOLITION / REMOVALS AT**

1 South Main Street

to the satisfaction of the Borough of Naugatuck for the Base Bid Lump Sum of:

\_\_\_\_\_ (\$ \_\_\_\_\_ )

**SECTION B-3**

**BID FORM**

Borough of Naugatuck

**Contract No. 14-18 BUILDING REMEDIATION / DEMOLITION / REMOVALS AT**

58 Maple Street

The undersigned, as Bidder, declares that no person or persons, other than those named herein, are interested in this Proposal; that this Proposal is made without collusion with any person, firm or corporation; that he has carefully examined the location of the proposed work, the proposed Form of Contract, and the Contract Drawings therein referred to; that no person or persons acting in any official capacity for the Borough is directly or indirectly interested therein or in any portion of the profit thereof; and that he proposes and agrees, if this Proposal is accepted, to execute the Form of Contract with the Borough; to provide all necessary equipment, tools, and other means of construction, and to do all work and furnish all materials specified in the Contract, in the manner and time therein prescribed, and according to the requirements of the Borough of Naugatuck Inspector as therein set forth, and that he will take in full payment therefore, the following unit prices and lump sums, to wit:

The Bidder agrees that this proposal shall be good and may not be withdrawn for a period of ninety (90) days after the scheduled closing time for receiving bids.

Successful bidders shall defend, indemnify and hold and save harmless the Borough of Naugatuck against and from any and all liabilities, claims, damages, losses, fees, costs, expenses, etc. Which arise directly or indirectly from successful bidders operations and/or related activities.

The Borough of Naugatuck reserves the right to reject any and all proposals in whole or in part, including low cost proposal, to make partial awards, to waive any irregularities in any quotation, to increase or decrease quantities if quantities are listed in the proposals, and may reject any proposal that shows any omissions not called for, conditions, or alternate proposals, and may make any such award as is considered to be in the best interest of the Borough of Naugatuck.

**SECTION B-3 cont.**

Pursuant to and in compliance with your "Invitation to Bid" relating thereto, the undersigned,

**Company Name:** \_\_\_\_\_

**Street Address:** \_\_\_\_\_

**Town/City:** \_\_\_\_\_

**Telephone:** \_\_\_\_\_

**Email:** \_\_\_\_\_

**Name** \_\_\_\_\_

**Signature** \_\_\_\_\_ **Date** \_\_\_\_\_

having visited the sites and carefully examined the Project Site(s), Contract Documents, Project Manual and Specifications dated April 2014, together with all Addenda issued and received prior to the scheduled closing time for receipt of Bids as prepared by the Owner; hereby offers and agrees as follows: To provide all labor, materials, equipment and whatsoever else necessary according to the requirements and contract documents to install and properly finish all work in connection with the,

**Contract No. 14-18 BUILDING REMEDIATION / DEMOLITION / REMOVALS AT**

**58 Maple Street**

to the satisfaction of the Borough of Naugatuck for the Base Bid Lump Sum of:

\_\_\_\_\_ (\$ \_\_\_\_\_ )



**SECTION B-4**

**BID FORM**

Borough of Naugatuck

**Contract No. 14-18 BUILDING REMEDIATION / DEMOLITION / REMOVALS AT**

146 Walnut Street

The undersigned, as Bidder, declares that no person or persons, other than those named herein, are interested in this Proposal; that this Proposal is made without collusion with any person, firm or corporation; that he has carefully examined the location of the proposed work, the proposed Form of Contract, and the Contract Drawings therein referred to; that no person or persons acting in any official capacity for the Borough is directly or indirectly interested therein or in any portion of the profit thereof; and that he proposes and agrees, if this Proposal is accepted, to execute the Form of Contract with the Borough; to provide all necessary equipment, tools, and other means of construction, and to do all work and furnish all materials specified in the Contract, in the manner and time therein prescribed, and according to the requirements of the Borough of Naugatuck Inspector as therein set forth, and that he will take in full payment therefore, the following unit prices and lump sums, to wit:

The Bidder agrees that this proposal shall be good and may not be withdrawn for a period of ninety (90) days after the scheduled closing time for receiving bids.

Successful bidders shall defend, indemnify and hold and save harmless the Borough of Naugatuck against and from any and all liabilities, claims, damages, losses, fees, costs, expenses, etc. Which arise directly or indirectly from successful bidders operations and/or related activities.

The Borough of Naugatuck reserves the right to reject any and all proposals in whole or in part, including low cost proposal, to make partial awards, to waive any irregularities in any quotation, to increase or decrease quantities if quantities are listed in the proposals, and may reject any proposal that shows any omissions not called for, conditions, or alternate proposals, and may make any such award as is considered to be in the best interest of the Borough of Naugatuck.

**SECTION B-4 cont.**

Pursuant to and in compliance with your "Invitation to Bid" relating thereto, the undersigned,

**Company Name:** \_\_\_\_\_

**Street Address:** \_\_\_\_\_

**Town/City:** \_\_\_\_\_

**Telephone:** \_\_\_\_\_

**Email:** \_\_\_\_\_

**Name** \_\_\_\_\_

**Signature** \_\_\_\_\_ **Date** \_\_\_\_\_

having visited the sites and carefully examined the Project Site(s), Contract Documents, Project Manual and Specifications dated April 2014, together with all Addenda issued and received prior to the scheduled closing time for receipt of Bids as prepared by the Owner; hereby offers and agrees as follows: To provide all labor, materials, equipment and whatsoever else necessary according to the requirements and contract documents to install and properly finish all work in connection with the,

**Contract No. 14-18 BUILDING REMEDIATION / DEMOLITION / REMOVALS AT**

146 Walnut Street

to the satisfaction of the Borough of Naugatuck for the Base Bid Lump Sum of:

\_\_\_\_\_ (\$ \_\_\_\_\_ )

**SECTION C**

**REFERENCES**

The Bidder is required to fill out the following form to enable the Borough to make inquiries and judge as to the Bidder's experience, skill, available financial resources, credit, and business standing.

1. Number of years the bidder has been in business: \_\_\_\_\_

2. List three (3) references of similar nature to the work described herein that the Bidder has completed, with name, address, and telephone number of a reference for each.

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2. Has the Bidder ever failed complete work awarded; and if so, state where and why:

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3. Does the Bidder plan to sublet any part of this work; and if so, give details:

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\_\_\_\_\_  
Bidder

# **SECTION D**

## **BID BOND /SURETY GUARANTY**

**BID BOND**

KNOW ALL MEN BY THESE PRESENTS, that we the undersigned:

as Principal, and \_\_\_\_\_ as Surety are held and firmly bound unto Borough of Naugatuck hereinafter called the "Owner", in the penal sum of \_\_\_\_\_ Dollars, (\$\_\_\_\_\_) lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION IS SUCH, that whereas the Principal has submitted the accompanying BID, dated \_\_\_\_\_, 20\_\_\_\_, for\_\_\_\_\_

\_\_\_\_\_  
NOW THEREFORE, if the Principal shall not withdraw said Bid within the time period specified therein after the opening of the same, or within any extended time period agreed to by the Principal, Surety and Owner, or, if no period be specified, within ninety (90) days after the said opening, and shall within the period specified thereof, or if no period be specified, within twenty (20) days after the prescribed forms are presented to him for signature, enter into a written Contract with the Owner in accordance with the Bid as accepted, and give bond with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such Contract; then the above obligation shall be null and void and of no effect, otherwise to remain in full force or virtue.

Failure to comply with the aforementioned condition shall result in the forfeiture of this BID BOND as liquidated damages.

IN WITNESS WHEREOF, the above-bounded parties have executed this Instrument under their several seals this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, the name and corporate seal of each corporate party being hereto affixed and these presents signed by its undersigned representative, pursuant to authority of its governing body.

No extension of time or other modification of the BID BOND shall be valid unless agreed to in writing by the parties to this Bond.

**BID BOND**  
(Page 2 of 2)

In presence of:

\_\_\_\_\_

\_\_\_\_\_  
(Individual Principal)

\_\_\_\_\_  
(Business Address)

\_\_\_\_\_

\_\_\_\_\_  
(Individual Principal)

\_\_\_\_\_  
(Business Address)

Attest:

\_\_\_\_\_

\_\_\_\_\_  
(Corporate Principal)

\_\_\_\_\_  
(Business Address)

By:

\_\_\_\_\_  
Affix  
Corporate  
Seal

Attest:

\_\_\_\_\_

\_\_\_\_\_  
(Corporate Surety)

\_\_\_\_\_  
(Business Address)

By:

\_\_\_\_\_  
Affix  
Corporate  
Seal

Countersigned

By: \_\_\_\_\_

\* Attorney-in Fact, State of \_\_\_\_\_

\* Power-of Attorney for person signing for Surety Company must be attached to Bond.

**SURETY GUARANTY FORM**

(To accompany Proposal)

KNOW ALL MEN BY THESE PRESENTS, that for and in consideration of the sum of \$1.00, lawful money of the United States, the receipt whereof is hereby acknowledged, paid the undersigned corporation, and for other valuable consideration, the \_\_\_\_\_  
\_\_\_\_\_ a

(Name of Surety Company)

corporation organized and existing under the laws of the State of \_\_\_\_\_ and licensed to do business in the State of Connecticut, certifies and agrees, that if the Contract for

\_\_\_\_\_ is awarded to \_\_\_\_\_, the undersigned corporation will execute the  
(Name of Bidder)

bond or bonds as required by the Contract Documents and will become Surety in the full amount of the Contract Price for the faithful performance of the Contract and for payment of all persons supplying labor or furnishing materials in connection therewith.

\_\_\_\_\_  
(Surety)

(To be accompanied by the usual proof of authority of officers of Surety Company to execute the same.)

# **SECTION E**

## **CONTRACT AGREEMENT AND CERTIFICATE AS TO CORPORATE PRINCIPAL**

**CONTRACT AND AGREEMENT**



THIS AGREEMENT, made this \_\_\_\_\_ day of \_\_\_\_\_ in the year 2014.,  
Between the Borough of Naugatuck, with its principal office and place of business at 229  
Church Street, Connecticut 06770, acting herein through it's Mayor and  
\_\_\_\_\_, a \_\_\_\_\_, with an office and  
place of business at \_\_\_\_\_, hereinafter called the  
contractor.

WITNESSETH: That the parties to this agreement in consideration of the undertakings,  
promises, and agreements on the part of the other herein contained, hereby undertake, promise,  
and agree as follows:

I Definitions

The word "Owner" as used herein shall mean the Borough of Naugatuck, acting through  
its properly authorized representatives.

The words "as directed", "as required", "as permitted", "as allowed", or phrases of like  
effect or import, used herein shall mean that the direction, requirement, permission, or allowance  
of the Borough of Naugatuck Inspector is intended and similarly the words "approved",  
"reasonable", "suitable", "proper", "satisfactory", or words of like effect or import, unless  
otherwise particular specified herein, shall mean approved, reasonable, suitable, proper, or  
satisfactory in the judgement of the Borough of Naugatuck Inspector.

The word "Contractor" shall mean \_\_\_\_\_ or it's duly authorized  
agents.

II Contract Includes

The indices, headings and subheadings are for convenience only and do not form a part  
of the Contract Documents.

The Contractor shall, at his own sole cost and expense, furnish all labor, materials, and  
other services necessary for the completion of this Contract and shall complete and finish the  
same in the most thorough, workmanlike, and substantial manner, in every respect, to the  
satisfaction and approval of the Borough of Naugatuck Inspector, in the manner and within the  
time hereinafter limited, and in strict accordance with the Advertisement, Information for  
Bidders, Proposal, General Requirements, Detailed Specifications, and Addenda hereto attached,  
and the Contract Drawings herein referred to, (collectively the "contract documents"), which  
contract documents are hereby made a part of this Contract as fully as if the same were repeated  
at length herein.

Addendum No. ____	Dated: _____	Addendum No. ____	Dated: _____
Addendum No. ____	Dated: _____	Addendum No. ____	Dated: _____
Addendum No. ____	Dated: _____	Addendum No. ____	Dated: _____

### III Specifications and Contract Drawings Supplementary

The said Specifications and Contract Drawings are intended to supplement each other, and together constitute one complete set of Specifications and Contract Drawings, so that any work exhibited in the one and not in the other shall be executed just as if it had been set forth in both, in order that the work shall be completed in every respect according to the complete design or designs as decided and determined by the Borough of Naugatuck Inspector. Should anything be omitted from the Specifications and Contract Drawings, the Contractor shall promptly notify the Borough of Naugatuck Inspector. From time to time during the progress of the work, the Borough of Naugatuck Inspector will furnish such supplementary or working drawings as are necessary to show changes or define the work in more detail, and these also shall be considered as Contract Drawings. When discrepancies exist between the Contract Drawings and Specifications, the Specifications shall govern.

### IV Modifications

The Contractor, in entering into this Contract, understands that the Owner reserves the right to modify, to the extent herein provided, the arrangement, character, grade, or size of the work or appurtenances whenever, in the Owner's opinion, it shall be deemed necessary or advisable to do so. Minor changes in the work, not involving extra cost and consistent with the purposes of the work, may be made by verbal order, but no modifications involving extra work or material changes shall be made unless ordered in writing by the Borough of Naugatuck Inspector; and if the modification requires additional cost, a purchase order must be issued prior to work commencing. The Contractor shall and will accept such modifications when ordered in writing by the Owner through the Borough of Naugatuck Inspector, and the same shall not vitiate or void this Contract.

Any such modifications so made shall not, however, subject the Contractor to increased expense without equitable compensation, which shall be determined by the Borough of Naugatuck Inspector. If such modifications result in a decrease in the cost of work involved, and equitable deduction from the Contract price, to be determined by the Borough of Naugatuck Inspector, shall be made. The Borough of Naugatuck Inspector's determination of such additional compensation, or of any such deduction, shall be based upon the unit prices in the Contractor's bid, unless the modification involves work not included in such bids and then in the event, the modification shall be as set forth in Section XXVIII prior to the commencement of additional work. In no event shall any modification in the work shown on the Plans and Specifications be made unless the nature and extent thereof has first been certified by the Borough of Naugatuck Inspector in writing and sent to the Contractor.

### V Correction of Errors and Omissions

The Plans and Specifications forming part of this Contract are intended to be explanatory of each other, but should any discrepancy appear, or misunderstanding arise, as to the import of anything contained in either, the explanation and decision of the Borough of Naugatuck Inspector shall be final and binding on the Contractor; and all directions and explanations required, to complete and make effective any of the provisions of the Contract and Specifications, shall be given by the Borough of Naugatuck Inspector. Corrections of errors and omissions in the Drawings or Specifications may be made by the Borough of Naugatuck Inspector when such corrections are necessary for the proper fulfillment of the Contract Documents as construed by the Borough of Naugatuck Inspector. The effect of such corrections shall date from the time that the Borough of Naugatuck Inspector gives due notice thereof to the Contractor.

## VI Borough of Naugatuck Inspector's Decision

All work under this Contract shall be done to the satisfaction of the Borough of Naugatuck Inspector, who shall determine the amount, quality, acceptability, and fitness of the several items of work and materials which are to be paid for hereunder. He also shall decide all questions which may arise as to the fulfillment of the terms of the Contract, Plans and Specifications. The determination of the Borough of Naugatuck Inspector in all such matters shall be final and binding upon the parties thereto.

## VII Inspection of Work

It is agreed that the Owner may, at its pleasure, appoint and employ, at its own expense, such persons as may be necessary, who are to act as Borough of Naugatuck Inspectors, inspections, or agents, for the purpose of determining, in the Borough's interest, that the materials furnished and the work done, as the work progresses, conforms to the requirements of the Contract Documents. Such persons shall have unrestricted access to all parts of the work and to other places at and where the preparation of the materials and other parts of the work to be done under this Contract are carried on and conducted. They shall be given, by the Contractor, all facilities and assistance required to carry out their work of inspection.

It is not the function of the Borough of Naugatuck Inspector to supervise or direct the manner in which the work to be done under this Contract is carried on or conducted. The Borough of Naugatuck Inspector is not responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the work, and he will not be responsible for the Contractor's failure to carry out the work in accordance with the Contract Documents.

The Borough of Naugatuck Inspector shall have authority to reject and shall reject any work or material, or any part thereof, which does not, in his opinion, conform to the Contract Drawings, working drawings, Specifications, and Contract, and it shall be permissible for him to do so at any time during the progress of the work.

No work shall be done except in the presence of the Borough of Naugatuck Inspector or his assistants. No material of any kind shall be used upon the work until it has been inspected and accepted by the Borough of Naugatuck Inspector. Any materials or workmanship found at any time to be defective, or not of the quality or character required by the Contract Drawings and Specifications, shall be remedied at once regardless of previous inspection.

Such inspection shall not relieve the Contractor from any obligation to perform said work strictly in accordance with the Contract Drawings and Specifications, and work not so constructed shall be removed and made good by the Contractor at this own expense and free of all expense to the Owner, whenever so ordered by the Owner, without reference to any previous oversight or error in inspection.

## VIII Address of Contractor

The address in the Proposal, upon which this Contract is based, shall be the place. The delivering at the above-named place of any such notice, letter, or other communication where notices, letters or other communications to the Contractor may be mailed or delivered, from the Borough to the Contractor, the date of said service shall be the date of such delivery. Nothing herein contained shall be deemed to preclude or render inoperative the service of any notice, letter, or other communication upon the Contractor personally.

## IX Obligation of the Contractor

The Contractor shall, at his own expense, provide any and all manner of supervisor, insurance, taxes, labor, materials, apparatus, scaffolding, appliances, tools, machinery, power, transportation, and whatever else may be required of every description necessary to do and complete the work and shall be solely answerable for the same and for the safe, proper, and lawful construction, maintenance, and use thereof. The Contractor shall cover and protect the work from damage and shall make good all injury to the same occurring before completion of this Contract. The Contractor shall employ only competent workmen and shall provide experienced superintendents and foremen on each part of the work.

The Contractor shall, at its own expense, wherever necessary or required, maintain fences, provide watchmen, maintain lights, place additional timber and braces, and take such other precautions as may be necessary to protect life, property, and structures, vehicles and pedestrians and shall be liable for all damages, occasioned in any way by his act or neglect or that of his agent, employees, or workmen. He shall provide access at all times to private property.

## X Occupational Safety and Health Act

The applicable sections of the Occupational Safety and Health Act of 1970 (Williams-Steiger Act) shall apply and be made a part of this Contract. The Contractor's attention is particularly directed to the record keeping requirements of this Act.

## XI Nondiscrimination in Employment

The Contractor agrees and warrants that, in the performance of this Contract, he will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, sex, religion, or national origin in any manner prohibited by State, Federal, County or Municipal law.

## XII Personal Attention and Competent Workmen

The Contractor shall give his personal attention constantly to the faithful prosecution of the work and shall be present, either in person or by a duly authorized representative, on the site of the work continually during its progress to receive directions or instructions from the Borough of Naugatuck Inspector. The Contractor shall employ at the site, during the performance of the work, a competent superintendent or foreman who shall be satisfactory to the Borough of Naugatuck Inspector and who shall not be changed, except with the consent of the Borough of Naugatuck Inspector, unless he shall cease to be an employee of the Contractor. Such superintendent or foreman shall represent and have full authority to act for the Contractor in his absence, and all directions and instructions given such superintendent or foreman shall be as binding as if given to the Contractor.

The Contractor shall employ only competent, skillful men to do the work, and whenever the Borough of Naugatuck Inspector shall notify the Contractor in writing that any man on the work is, in his opinion, incompetent, unfaithful, disorderly, or otherwise unsatisfactory, such man shall be discharged from the work and shall not again be employed on it, except with the consent of the Borough of Naugatuck Inspector.

## XIII Public Safeguards

The Contractor agrees to conduct the work at all times in such a manner that public travel shall not be inconvenienced needlessly nor shall it be wholly obstructed at any point.

#### XIV Materials and Workmanship

It is the intent of the Specifications to describe fully and definitely the character of materials and workmanship furnished regarding all ordinary features and to require first-class work and materials in all particulars. For any unexpected features arising during the progress of the work and not fully covered herein, the Specifications shall be interpreted by the Borough of Naugatuck Inspector to require first class work and materials in all respects, and such interpretation shall be accepted by the Contractor.

#### XV Materials and Manufactured Articles

All materials and workmanship shall be subject to the approval of the Borough of Naugatuck Inspector and shall be in conformity with approved modern practice.

Unless otherwise specifically provided for in the Specifications, all materials incorporated in the work shall be new, of standard and first-class quality, and of the best workmanship and design. No inferior, or low grade, material will be either approved or accepted, and all work of assembly and construction must be done in a neat, first-class, and workmanlike manner.

#### XVI Unnoticed Defects

The inspection of the work and materials by the Borough of Naugatuck Inspector shall not relieve the Contractor of any of his obligations to fulfill this Contract, as herein described, and defective work shall be made good and unsuitable materials shall be rejected, notwithstanding that such work and materials had been previously overlooked by the Borough of Naugatuck Inspector and accepted or estimated for payment. If the work, or any part thereof, shall be found defective at any time before final acceptance of the whole work, the Contractor shall forthwith make good such defects, in a manner satisfactory to the Borough of Naugatuck Inspector.

#### XVII Care and Protection of Work

From the commencement of the work until the completion of the same, the Contractor shall be solely responsible for the care of the work covered by the Contract and for the materials delivered at the site intended to be used in the work; and all injury, damage, or loss of the same, from whatever cause, shall be made good at his expense before the final estimate is made. He shall provide suitable means of protection for all materials intended to be used in the work and for all work in progress as well as for completed work. He shall take all necessary precautions to prevent injury or damage to the work under construction by flood, freezing or inclement weather at any and all times. The methods used for this purpose shall be subject to the approval of the Borough of Naugatuck Inspector, but shall not relieve the Contractor from liability for inadequate protection of the work or materials.

#### XVIII Assignment of Contract

The Contractor shall have no right or power to assign this Contract, in whole or in part, nor to assign any right arising, or moneys due or to grow due thereunder, without prior written approval of the Owner.

#### XIX Subcontracting

The Contractor may utilize the services of specialty subcontractors on those parts of the work which, under normal contracting practices, are performed by specialty subcontractors. The Contractor shall not award the work to a subcontractor(s) without prior written approval of the Owner. The Contractor shall be fully responsible to the Owner for the acts and omissions of his

subcontractors, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.

#### XIX Subcontracting (continued)

The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the Contractor by the terms of these Contract Documents, insofar as applicable to the work of subcontractors, and to give the Contractor the same power as regards terminating any subcontract that the Owner may exercise over the Contractor under any provisions of these Contract Documents.

Nothing contained in this contract shall create any contractual relation between any subcontractor and the Owner.

#### XX Liability of Contractor for Employees

Each and every employee of the Contractor and each and every of his subcontractors engaged in the said work shall, for all purposes, be deemed and taken to be the exclusive servants of the Contractor and not for any purpose or in any manner in the employment of the Owner. The Contractor shall, in no manner, be relieved from responsibility or liability on account of any fault or delay in the execution of the said work, or any part thereof, by any such employee, or any such subcontractor, or any material men, whatsoever.

#### XXI Coordination With Other Contractors and Utilities

During the progress of the work, existing utilities may be found to be in close proximity to or in conflict with the work being installed. The Contractor shall make every effort to identify and locate these utilities before working in the area. If it is known or found that these utilities exist the Contractor shall contact the appropriate utility and alert them to the situation. Should an existing utility be found to be in close proximity to the work the Contractor shall take all the necessary precautions to protect the utilities and his work. Should existing utilities be found to conflict with the work the Contractor shall arrange with the utility company for their adjustment. No additional compensation will be made for delays, inconvenience or damage sustained by the Contractor due to interference from the above-noted utility appurtenances or the operation of locating, installing or moving them or the inability of others to perform their work in a timely manner.

#### XXII Permits, Laws, Codes, Ordinances and Insurance

The Contractor shall keep himself fully informed of all existing and current codes, ordinances, and regulations and Municipal, County, State or National laws in any way limiting or controlling the actions or operations of those engaged upon the work or affecting the materials supplied to or by them. He shall, at all times, observe and comply with all such valid and legally binding ordinances, laws, and regulations and shall protect and indemnify the Owner and its representatives and agents against any claim or liability arising from, or based on, any violation of the same. He shall obtain and pay for all necessary permits and pay all fees required in connection with the Contract. Contractor shall provide the types and amounts of insurance as set forth in Section 19, Information of Bidders and maintain in effect. He shall take out and carry appropriate employer's liability insurance and public liability insurance.

#### XXIII Patent Rights

The Contractor shall indemnify and save harmless the Owner and its officers, agents, and representatives from all claims for damages arising from the infringements, or alleged infringements, of any Letters Patent or patent rights covering any material, appliance, or device used in or upon the work or any part thereof.

#### XXIII Patent Rights (continued)

All royalties for patents or patent infringement claims, that might be involved in the construction or use of the work, shall be included in the Contract amount; and the Contractor shall satisfy all demands that may be made at any time for such and shall be liable for any damage or claims for patent infringements; and the Contractor shall, at his own expense, defend any and all suits or proceedings that may be instituted against the Owner for infringement, or alleged infringement, of any patent or patents involved, or alleged to be involved, in the work; and in case of any award for damages, the said Contractor shall pay such award.

#### XXIV Defense of Suits

The Contractor shall indemnify and hold harmless the Owner and its consultants, agents and employees from and against all claims, damages, losses, and expenses, including, but not limited to, attorney fees, ("indemnification expense") arising out of or resulting from the performance of the work or arising out of or resulting from the Contract Documents, including, without limitation, all indemnification expense regarding personal injury or death and/or damage to real or personal property or motor vehicles.

In claims against any person or entity indemnified under this section by an employee or the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under this Section shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under worker's or workmen's compensation acts, disability benefit acts or other employee benefit acts.

#### XXV Claims for Labor and Materials

The Contractor shall indemnify and save harmless the Owner from all claims expenses and for judgements regarding labor done or materials furnished under this Contract, or any alterations or modifications thereof, including without limitation, reasonable Attorney's fees. Contractor shall furnish the Owner with a Mechanic's Lien Waiver from all persons who have done work, or furnished materials under this Contract. In case such waiver is not furnished, an amount necessary or sufficient, within the discretion of the Owner, to meet the claims of the persons aforesaid, shall be retained, as herein specified, from the money due the Contractor under this Contract until the liabilities aforesaid shall be fully discharged or satisfactorily secured.

#### XXVI Completion of Work by Owner

If the work to be done under this Contract shall be abandoned by the Contractor; or if this Contract shall be assigned, or the work sublet by him, otherwise than as herein specified; or if at any time the Owner shall be of the opinion that the performance of the Contract is unnecessarily or unreasonably delayed; or if the Contractor is willfully violating any of the conditions or covenants of this Contract, or of the Specifications, or is executing the same in bad faith or not in accordance with the terms thereof; or if the work be not fully completed within the time named in this Contract for its completion, or within the time to which the completion of the Contract may be extended by the Owner, the Owner may notify the Contractor to discontinue all work, or any part thereof under his Contract, by a written notice to be served upon the Contractor as herein provided.

The Contractor shall, within five (5) days of the service of said written notice, discontinue the work, or such part thereof, and the Owner shall thereupon have the power to contract for the completion of the Contract, in the manner prescribed by law; or to place such and so many persons as it may be deemed advisable, by contract or otherwise, to work, and complete the work herein described, or such part thereof; or to take possession of and use any of the materials, plant, tools, equipment, supplies, and property of every kind provided by the Contractor for the purpose of his work; and to procure other materials and equipment for the

completion of the same; and to charge the expense of said labor, materials and equipment to the Contractor.

The expense so charged shall be deducted and paid by the Owner out of such moneys as may be due, or may at any time thereafter grow due to the Contractor under and by virtue of this Contract, or any art thereof; and in case such expense shall exceed the amount which would have

#### XXVI Completion of Work by Owner (continued)

been payable under the Contract, if the same had been completed by the Contractor, the Contractor or his surety shall pay the amount of such excess to the Owner within five (5) days of written demand therefore; and in case such expense shall be less than the amount which would have been payable under this Contract, if the same had been completed by the Contractor, the owner shall pay such difference to the Contractor within five (5) days of written demand.

#### XXVII Partial and Final Estimates

On, or about, the last day of the month, the Borough of Naugatuck Inspector shall make an approximate estimate of the value of the work done and of the materials incorporated into the work.

The Owner will pay the Contractor, within 30 days of receipt of an estimate, ninety-five percent (95%) of the total estimated value of the work done, as estimated by the Borough of Naugatuck Inspector less previous payments. Partial payments will not be made whenever the amounts of the estimate or estimates of work done since the last previous estimate are less than \$2,000.00.

The Borough of Naugatuck Inspector shall, as soon as practicable after the completion of work, make a final certificate of the entire amount of the work done under this Contract, and the value thereof, and the Owner shall, within thirty (30) days after such final estimate is approved, pay the entire sum so found to be due hereunder, after deducting there from all previous payments and also all percentages and deductions to be retained under any of the provisions of this Contract.

Before payment of each estimate, the Contractor shall provide the Owner with a mechanic's lien waiver from the Contractor and all persons who have done work or furnished materials under this Contract.

#### XXVIII Extra Work

The Contractor shall and will do any and all work and furnish any and all materials not herein provided for which, in the opinion of the Borough of Naugatuck Inspector, may be found necessary or advisable for the proper completion of the work or the purposes thereof, or any modifications or alternations thereto.

All extra work and materials shall be ordered in writing by the Borough of Naugatuck Inspector, and in no case will any work or materials in excess of the amount shown in the Plans and Specifications be paid for unless so ordered. Additionally, if the extra work requires additional cost, a purchase order must be issued prior to work commencing. No claim for delay shall be made as a result of this process. No voucher, claim or charge against the Borough shall be paid, nor is the Borough liable for any voucher, claim or charge unless a purchase order is issued. The Contractor further agrees that he shall accept, as full compensation for such extra work and materials, the unit price bid, in the case of Items covered by unit prices in the Proposal, and no more; and for such Items as are not covered by a unit price, he shall accept as full compensation:

1. an agreed on lump sum price, or



2. the reasonable cost, as determined by the Borough of Naugatuck Inspector, of all necessary labor, including insurance and payroll taxes, equipment rental, and materials, plus fifteen percent (15%) which covers supervision, the use of tools and plant, and other overhead expenses and profit.

The equipment rental charge shall be at prevailing rates usually paid locally but shall in no case exceed the amount prorated on the basis of the monthly equipment rental rates compiled by the Associated Equipment Distributors.

When extra work is performed by an approved subcontractor, the Contractor shall be entitled to five percent (5%) of the direct cost of the subcontractor's work to cover his overhead expenses and profit.

The Contractor agrees to prosecute such extra work with all reasonable diligence and to employ thereon competent men. The Contractor shall give the Borough of Naugatuck Inspector access to all accounts, bills, payrolls, and vouchers relating to extra work not covered by unit prices, and he agrees that he shall have no claim for compensation for such extra work in the case of items not covered by unit prices, unless a statement in writing of the actual cost of the same, fully itemized as to labor and materials, is presented to the Borough of Naugatuck Inspector before the fifteenth (15th) day of the month following that during which each specific order was complied with by him.

#### XXIX Payment

The Owner, in consideration of the faithful performance by the Contractor of all and singular his covenants, promises, and agreements contained herein, agrees to pay the Contractor for the full completion by him of the work embraced in this Contract, in the manner and within the time herein specified and limited, and to the satisfaction and approval of the Borough of Naugatuck Inspector, the prices stipulated in the said Proposal hereto attached, such payment to be made at the times and in the manner and upon the conditions herein expressly provided. The Owner also agrees to pay in addition such amounts as may be agreed upon for modifications and for extra work.

#### XXX Guarantee

The Contractor guarantees that the work done under this Contract and the materials furnished by him and used in the construction of the same are free from defects or flaws. The guarantee is for a term of one (1) year from, and after, the date upon which the final estimate of the Borough of Naugatuck Inspector is formally approved by the Owner. It is hereby agreed and understood that this guarantee shall not include making any repairs made necessary by any cause or causes other than defective materials furnished by, or defective work done by, the Contractor.

#### XXXI Repairs for One (1) Year

The said party of the second part further agrees that the said Owner shall be and is hereby authorized to retain, out of the monies payable to the said Contractor under this Agreement, the sum of two percent (2%) of the amount of the Contract and to expend the same, in the manner hereinafter provided for, in making said repairs on the work as may be required by the Contractor's guarantee under Article XXX.

#### XXXI Repairs for One (1) Year (continued)

And it is further agreed that if, at any time during the period of one (1) year from the date

of the final estimate of the work herein contracted for, any part of the work done under this Contract shall be deemed by the Borough of Naugatuck Inspector to require repairing under the aforesaid Contractor's guarantee, then the said Owner shall notify the said Contractor to make the repairs so required at no expense to the Owner.

Such replacements, or repairs, shall be undertaken by the Contractor within twenty-four (24) hours after service of notice. If the Contractor unnecessarily delays or fails to make the ordered replacements or repairs within the time specified, or if any replacements or repairs are of such nature as not to allow for the time delay incident to the service of a notice, then the Owner will have the right to make such replacements or repairs, and the expenses thereof shall be paid by the Contractor.

And the Borough hereby agrees that upon the expiration of the said period of one (1) year, provided that the work at the time shall be in good order, the Contractor shall be entitled to receive the whole or such part of the sum last aforesaid as may remain after the expense of making said repairs, in the manner aforesaid, shall have been paid therefrom, but if the said expense is in excess of the sum of two percent (2%) retained, the Contractor shall pay to the Owner the amount of the excess.

It is, however, agreed that the Borough may apply or keep the sum so retained for payment of other claims arising under the provisions of the contract document.

#### XXXII Rate of Progress and Time of Completion

The Contractor shall commence work within ten (10) calendar days of the date of the Notice to Proceed. The rate of progress shall be such that the whole work shall be performed and the grounds cleared up in accordance with the Contract and Specifications within sixty (60) calendar days unless extensions of time shall be made for the reasons, and in the manner, stated under Article XXXIII, "Extension of Time".

The above calendar days includes time for the Contractor to obtain approval of a Erosion and Sediment Control Plan, as applicable.

#### XXXIII Extension of Time

The Contractor expressly covenants and agrees that, in undertaking to complete the work within the time mentioned, he has taken into consideration, and made allowance for, all of the ordinary delays and hindrances incidental to such work, whether growing out of delays in securing materials or workmen or otherwise. Should the Contractor, however, be substantially delayed in the prosecution and completion of the work by any changes, additions, or omissions therein ordered in writing by the Borough of Naugatuck Inspector, or by fire, lightning, earthquake, tornado, cyclone, riot, insurrection, or war, or by the abandonment of the work by the workman engaged therein through no fault of the Contractor, or by the discharge of all or any material number of workmen in consequence of difficulties arising between the Contractor and such workmen, or by the neglect, delay, or default of any other contractor of the Owner, then the Contractor may, within five (5) days after the occurrence of the delay for which he claims allowance, notify the Borough of Naugatuck Inspector thereof in writing, and thereupon, and not otherwise, the Contractor shall be allowed such additional time for the completion of the work as the Borough of Naugatuck Inspector, in his discretion, shall award in writing, and his decision shall be final and conclusive upon the parties.

#### XXXIV Damages for Failure to Complete on Time

The Contractor shall pay to the Owner for each and every calendar day (including

Saturdays, Sundays, and holidays) that he shall be in default in completing the entire work in the time stipulated in Article XXXII, or within the extension of time he may be granted as provided in Article XXXIII, the sum of one Hundred Fifty Dollars (\$150.00) per day. This sum is hereby agreed upon not as a penalty but as liquidated damages which Owner will suffer by reason of such default, time being of the essence of the Contract and a material consideration thereof. The Owner shall have the right to deduct the amount of any such damages from any monies due the Contractor under this Contract.

#### XXXV No Waiver of Rights

No certificate given or payment made under this Contract, except the final certificate or final payment, shall be evidence of the performance of the Contract either wholly or in part, and no payment shall be construed to be an acceptance of defective work or improper materials. No act of the Owner or of the Borough of Naugatuck Inspector, or of any representatives of either of them in inspecting the work, nor any extension of time for the completion of the work, shall be regarded or taken as an acceptance of such work, or any part thereof, or materials used therein or thereof, either wholly or in part; but such acceptance shall be evidenced only by the final certificate of the Borough of Naugatuck Inspector.

Before any final certification shall be allowed, the Contractor shall be required, and he hereby agrees, to sign and attest on said certificate a statement that he accepts the same in full payment and settlement of all claims on account of work done and material furnished under this Contract, and furthermore, that all claims for materials provided or labor performed have been paid and satisfied in full. No waiver of any breach of this Contract by the Owner or anyone acting for it, or on its behalf, shall be held as a waiver of any other or subsequent breach thereof.

#### XXXVI Mandatory Negotiation

Contractor and the Owner agree that they will attempt to negotiate in good faith any dispute of any nature arising under this contract. The parties shall negotiate in good faith at not less than two negotiation sessions prior to seeking any resolution of any dispute under the provisions of arbitration paragraph of this contract. Each party shall have the right to legal representation at any such negotiation session.

#### XXXVII Arbitration

Any dispute or question arising under the provisions of this contract which has not been resolved under the mandatory negotiation paragraph of this contract shall be determined by arbitration. Arbitration proceedings shall occur at a neutral location in Waterbury, Connecticut, and shall be conducted in accordance with the rules then applicable of the American Arbitration Association. Arbitration shall proceed before a pane of one arbitrator to be selected by American Arbitration Association. The decision of the Arbitrator shall be final and may be entered in any court having jurisdiction thereof. Each party shall pay one-half of all costs and expenses of such arbitration.

#### XXXVIII Owner's Right to Use

The Owner reserves the right to use or occupy any portion of the work considered by the Borough of Naugatuck Inspector as ready for use or occupancy. Such use or occupancy shall not be held, in any way, as final acceptance of the work or any portion thereof, or as a waiver of any portion of this Contract.

#### XXXIX Verification of Data

The quantities of work to be done and the materials to be furnished under this Contract, as given in the accompanying "Information for Bidders" and on the Proposal form, are approximate estimates for the purpose of comparing bids on a uniform basis. Neither the Owner

nor the Borough of Naugatuck Inspector are to be held responsible for the data or information given relative to said quantities or that given on the Plans relative to existing conditions. The Contractor has judged for himself as to such quantities and as to other circumstances affecting the cost of the performance of this Contract, and he shall not at any time assert that there was any misunderstanding in regard to the character or amount of work to be done and materials and labor to be furnished.

#### XXXX Contractor's Wage Certification Form

If applicable the Contractor or his authorized agent will be required to sign the Contractor's Wage Certification Form at the time of Contract execution.

#### XXXXI Verbal Statements Not Binding

It is understood and agreed that the written terms and provisions of this Agreement shall supersede all prior verbal statements of the Borough of Naugatuck Inspector or other representatives of the Owner, and such statements shall not be effective or be construed as entering into or forming a part of, or altering in anyway whatsoever, the written Agreement.

#### XXXXII Final Estimate Constitutes Release

It is agreed that acceptance by the Contractor of the last payment made, under the provisions of Article XXVII, shall operate as and shall be a release to the Owner, and every agent thereof, from all claims and liability to Contractor for anything done or furnished for, or relating to, the work or for any act or neglect of the Owner or of any agent thereof, except any claim against the Owner for the remainder, if any, of the amounts kept or retained by the Owner as percentages or deductions.

No payment, however, final or otherwise, shall operate to release the Contractor or his sureties from any obligations under this Contract.

#### XXXXIII Delays or Termination by Governmental Authorities

Notwithstanding any other provision(s) of this contract, the parties agree that in the event of a stop work order from the State Department of Transportation, Department of Environmental Protection, or any other State or Federal agency, no additional compensation will be made by Owner to Contractor for delays, inconvenience or damage sustained by Contractor due to such order, including, without limitation, damages for loss of use of equipment or idle equipment. Similarly, in the event of a termination of the project by the State DOT, DEP or any other State or Federal agency, no additional compensation will be made by Owner to Contractor for the termination, or for any delay, inconvenience or damage sustained by Contractor due to such termination, including, without limitation, damages for loss of use of equipment or idle equipment. In the event of such termination, the Borough of Naugatuck Inspector shall prepare a final certificate for the entire amount of work done up to the effective date of termination. The provisions of Sections XXX (Guarantee) and XXXI (Repair) shall apply to all work completed as of the effective date of any stop Work order, as if the effective date was the date upon which the final estimate of the Borough of Naugatuck Inspector is formally approved by the Borough.

#### XXXXIV Validity of Agreement

The provision of this Agreement shall be binding upon the Parties and their respective successor or assigns.

IN WITNESS WHEREOF, the said parties hereto have caused this instrument to be signed by their respective duly constituted officers, attested, and sealed pursuant to proper resolutions.

Signed and sealed

in the presence of

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Borough of Naugatuck  
Mayor

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(Duly Authorized)  
Contractor

**CERTIFICATE AS TO CORPORATE PRINCIPAL**

I, \_\_\_\_\_ certify that I am the \_\_\_\_\_ of the Corporation named as Contractor in the within bond; that \_\_\_\_\_, who signed the said bond on behalf of the Contractor was then \_\_\_\_\_ of said corporation; that I know his signature, and his signature thereto is genuine; and that said bond was duly signed, sealed, and attested to for and in behalf of said corporation by authority of this governing body.

(Corporate  
Seal)

\_\_\_\_\_

Title

\_\_\_\_\_

## **SECTION F**

### **PERFORMANCE BOND**

**PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS: that

---

(Name of Contractor)

\_\_\_\_\_

(Address of Contractor)

a \_\_\_\_\_, hereinafter called Principal and  
(Corporation, Partnership, or Individual)

\_\_\_\_\_

(Name of Surety)

\_\_\_\_\_

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

\_\_\_\_\_

(Name of Owner)

\_\_\_\_\_

(Address of Owner)

hereinafter called OWNER, in the penal sum of \_\_\_\_\_ Dollars,  
\$(\_\_\_\_\_) in lawful money of the United States, for the payment of which sum well and  
truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by  
these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a  
certain contract with the OWNER, dated the \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_, a  
copy of which is hereto attached and made a part hereof for the construction of:

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the  
undertakings, covenants, terms, conditions, and agreements of said contract during the original  
term thereof, an any extensions thereof which may be granted by the OWNER, with or without  
notice to the Surety and during the one year guaranty period, and if he shall satisfy all claims and  
demands incurred under such contract, and shall fully indemnify and save harmless the OWNER  
from all costs and damages which may suffer by reason of failure to do so, and shall reimburse  
and repay the OWNER all outlay and expense which the OWNER may incur in making good  
any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees  
that no change, extension of time, alteration or addition to the terms of the contract or to WORK  
to be performed thereunder or the SPECIFICATIONS accompanying the same shall in anyway  
affect its obligation on this BOND, and it does hereby waive notice of any such change,  
extension of time, alteration or addition to the terms of the contract or to the WORK or to the  
SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR  
shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in \_\_\_\_\_ counterparts each one of



Which shall be deemed an original, this the \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_.

ATTEST:

\_\_\_\_\_  
(Principal) Secretary

By \_\_\_\_\_ Principal \_\_\_\_\_(s)

(SEAL)

\_\_\_\_\_  
(Witness as to Principal)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

\_\_\_\_\_

ATTEST:

\_\_\_\_\_  
Surety

\_\_\_\_\_  
(Surety) Secretary

(SEAL)

\_\_\_\_\_  
Witness as to Surety

By \_\_\_\_\_ Attorney-in-Fact \_\_\_\_\_

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

NOTES:      Date of BOND must not be prior to date of Contract.  
              If CONTRACTOR is Partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the PROJECT is located.

**SECTION G**

**PAYMENT BOND**

**PAYMENT BOND**

KNOW ALL MEN BY THESE PRESENTS: that

\_\_\_\_\_  
(Name of Contractor)

\_\_\_\_\_  
(Address of Contractor)

a \_\_\_\_\_, hereinafter called Principal  
and \_\_\_\_\_  
(Corporation, Partnership, or Individual)

\_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_  
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

\_\_\_\_\_  
(Name of Owner)

\_\_\_\_\_  
(Address of Owner)

hereinafter called OWNER, in the penal sum of

\_\_\_\_\_ Dollars, \$(\_\_\_\_\_)

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the \_\_\_\_\_ day of \_\_\_\_\_, 20 , a copy of which is hereto attached and made a part hereof for the construction of:

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, an any extensions thereof which may be granted by the OWNER, with or without notice to the Surety and during the one year guaranty period, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good

any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in anyway affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in \_\_\_\_\_ counterparts each one of which shall be deemed an original, this the \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_.

ATTEST:

\_\_\_\_\_  
(Principal) Secretary

By \_\_\_\_\_ Principal \_\_\_\_\_ (s)

(SEAL)

\_\_\_\_\_  
(Witness as to Principal)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
Surety

ATTEST:

\_\_\_\_\_  
(Surety) Secretary

(SEAL)

\_\_\_\_\_  
Witness as to Surety

By \_\_\_\_\_ Attorney-in-Fact

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

NOTES: Date of BOND must not be prior to date of Contract.  
If CONTRACTOR is Partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the PROJECT is located.

## **NAUGATUCK, CT PRE-DEMOLITION ASBESTOS REMOVAL SPECIFICATIONS**

### PRE-DEMOLITION ASBESTOS REMOVAL SPECIFICATIONS

1 Orchard Terrace  
1 South Main Street  
58 Maple Street  
146 Walnut Street

This specification covers the removal of all asbestos materials and any PCB ballasts and mercury thermostats in Each Borough of Naugatuck buildings prior to demolition.

#### PART 1 ASBESTOS REMOVAL SPECIFICATIONS

1.1 Scope - This specification covers the abatement of exposure to asbestos from the building materials that have previously been determined to contain asbestos.

1.1.1 Asbestos has been classified by the Federal Government as a carcinogenic (cancer producing) material. To comply with governmental requirements and minimize employee exposure, controls are necessary wherever there is a potential for exposure to airborne fibers.

1.1.2 All work and work areas shall be in conformance with the requirements of EPA regulations (40 CFR Part 763), NESHAPS regulations (40 CFR 61 Subpart M) OSHA regulations (29 CFR 1910.1001 and 1926.1101), and Regulations for Connecticut State Agencies Section 19a-332a-1 to Section 19a-332a-13.

1.1.3 Deviations from these specifications require the written approval of the Owner.

1.1.4 The Contractor performing the asbestos removal must be a licensed Asbestos Removal Contractor in the State of Connecticut.

1.1.5 Bidding Contractors must notify the Borough of Naugatuck of any discrepancies or errors that might have been discovered in the specifications for the purpose of making such corrections or adjustments as may be necessary. If it should appear that the work called for is not in accordance with State, local, or Federal laws or ordinances, the Contractor shall immediately notify The Borough of Naugatuck before rendering his bid. No work shall be performed if uncertainties exist.

1.1.6 The Contractor performing the asbestos removal must carry Asbestos Liability Insurance in

accordance with Borough of Naugatuck contract requirements (minimum \$1,000,000 coverage). A copy of a current Insurance Certificate must accompany the bid.

1.1.7 The Contractor shall have a project monitor full time to document the project, run background air samples and perform visual inspections at the completion of the project.

1.2 DESCRIPTION OF WORK

1.2.1 PROJECT: Asbestos Removal Prior to Demolition

This specification covers the removal of asbestos and universal waste prior to renovation as follows:

**1 Orchard Terrace**

**Asbestos Containing Materials**

<b>Sample #s</b>	<b>Material/Location</b>	<b>Estimated Affected Area</b>
002	Flue cement	1 SF
Roof	Black caulk Around chimney and pipe exhaust	8 SF
003	Caulk around pipe at water tank and wall junction	1SF

**Universal Waste Materials**

<b>Sample #</b>	<b>Material</b>	<b>Item</b>
003	Capacitors, CFCS	Refrigerator
	Mercury Containing Item	2 LF Fluorescent Light Tubes

**1 South Main Street**

<b>Sample #s</b>	<b>Material/Location</b>	<b>Estimated Affected Area</b>
Roof	Gray tar at base of HVAC Unit	2 SF
Roof	Top layer pitch pocket tar	2 SF
Roof	Bottom layer pitch pocket tar	2 SF

**Universal Waste Materials**

<b>Room</b>	<b>Material</b>	<b>Quantity</b>
010	Light Tube Disposal	16
003,004,009,013, 020, 021,024,	U-shaped Light Tube Disposal	46
004,013,021	Thermostatic Mercury Bulbs	3
004	Capacitor, CFCS	1
	Led Acid/Nickel Cadmium Batteries	6

**58 Maple Street**

<b>Sample #s</b>	<b>Material/Location</b>	<b>Estimated Affected Area</b>
002,011,016	White magnesium pipe insulation	25 LF
005	White magnesium pipe insulation at top of wall	10 LF
001,002,003	Residual white magnesium pipe insulation on pipe lengths	280 LF
004,005,005A		
009,010,011,012	9"x9" green and tan floor tile	2020 SF
015,016		
010,015	9"x9" dark brown floor tile	115 SF
010,013,015,017	Brown adhesive associated with wood panel	1575 SF
011,002	Gray mud pack fitting cement	3 EA
002	Residual mud pack fitting cement	110 EA
019,021,025,026	9"x9" green line pattern floor tile	75 SF
019,021,025,026	9"x9" dark green floor tile	75 SF
026	9"x9" black and green camouflage floor tile	210 SF
026	9"x9" black floor tile	580 SF
Façades A,B,C,D	Exterior white window caulk	600 LF
Façade A,D	Exterior white door caulk	45 LF
Façade A	White caulk at vent in brick	7 LF
Roof 2, Roof 4	Gray flashing cement at roof/wall junction	75 SF
Roof 3	Gray flashing Cement at parapet wall cap seam	85 LF
Roof 3	Black flashing at parapet wall cap seam	85 LF
Roof 3, Roof 4	Black built up layered roofing	925 SF
Roof 3, Roof 4	Black tar on wood roof deck	925 SF
014	Aircell pipe insulation on heating pipes in soffit	4 LF

**Universal Waste Materials**

<b>Room</b>	<b>Material</b>	<b>Quantity</b>
Building	Light Tube Disposal	2023 LF
001,002,003,005,005A	PCB Ballasts	33 EA
008,009,010,011,012	DEHP Ballasts	192 EA

013,014,015,016,018  
019,021,022,023,024  
026,027

Approximately one hundred sixty (160) Square feet of lead-based paint was identified on brick walls within room 004. The Masonry shall not be salvaged. Paint shall be removed from the brick or the entire brick be removed and disposed of a hazardous lead waste. The painted brick was not included with the composite TCLP Sample

The quantities above are estimates. The contractors must make their own measurements are a mandatory pre-bid meeting. Drawings will be available at the meeting.

All interior asbestos removal work must be done using full containment abatement. The contractor may also use Alternate Work Practices (AWPs) if approved by the State of Connecticut DOH and by Owner.

### **146 Walnut Street**

146 Walnut Street shall use a Alternate Work Practices (AWPs) as approved by the State of Connecticut DOH and the Borough of Naugatuck. The Contractor shall comply with all conditions of the attached application for an alternative work Practices.

### **The abatement schedule must be approved by owner.**

Workers shall use at least half face negative pressure respirators with high efficiency filters and full body "Tyvek" coveralls. The project air monitor must approve the contractor's worker documentation record and notifications prior to starting the removals.

1.2.1.1 The work specified herein shall be the removal, encapsulation and/or enclosure of asbestos containing materials by persons who are knowledgeable, qualified, and trained in the removal, treatment, handling, and disposal of asbestos-containing material, and the subsequent cleaning of the affected environment. These persons must comply with Federal and State regulations which mandate work practices, and be capable of performing the work of this contract.

1.2.1.2 The Contractor shall supply all labor, materials, equipment, services, insurance and incidentals which are necessary or required to perform the work in accordance with the applicable governmental regulations and these specifications.

### **1.3 SUBMITTALS AND NOTICES**

#### **1.3.1 Prior to Commencement of Work:**

1.3.1.1 Submit notification to the following agencies in the stipulated amount of time before work commences on the project: (Please note that any notifications shall be submitted to Borough of Naugatuck for review prior to submittal to any outside agencies).



A. Send written notice of proposed abatement work with project particulars as applicable to Environmental Health Section, Department of Public Health, State of Connecticut, not fewer than ten (10) working days before work commences on the project.

Chief - Environmental Health Services  
Department of Public Health  
Indoor Air Program - Asbestos & Radon  
410 Capitol Avenue MS# 51AIR  
Hartford, CT 06134

For asbestos abatement projects from which asbestos waste will be disposed of in the State of Connecticut.

Connecticut Department of Energy and Environmental Protection  
79 Elm Street  
Hartford, CT 06106-5127

The minimum information required on all of the submittals includes the following:

- (1) The name, address and telephone number of the asbestos Contractor
- (2) The name, address and telephone number of the facility owner;
- (3) The exact location of the facility;
- (4) The nature of the asbestos abatement;
- (5) The type of asbestos abatement activity;
- (6) A description of the facility including the size, age and use of the facility;
- (7) The amount of asbestos-containing material to be removed, enclosed or encapsulated or contained in the facility or part thereof to be demolished;
- (8) The scheduled starting and completion dates;
- (9) A description of the work practices to be followed as per RCSA Section 19a-332a-5 to Section 19a-332a-13;
- (10) The name and the location of the authorized asbestos disposal facility where asbestos containing materials will be disposed.

1.3.1.3 Submit proof satisfactory to the owner that all required permits, site locations, arrangements for transport and disposal of asbestos-containing or contaminated materials, supplies, and the like have been obtained.

1.3.1.4 Submit to the owner, and monitoring professional, plans and shop drawings for construction of decontamination enclosure systems and for isolation of the work areas as may be necessary in compliance with this specification and applicable regulations.

1.3.1.5 The Contractor must submit a written statement regarding whether he/she has ever been found out-of-compliance with pertinent Federal and State asbestos removal regulations. If previously found out-of-compliance, details must be submitted regarding each item of the alleged or proven non-compliance.

1.3.1.6 Submit documentation to the owner indicating that each employee has instruction on the hazards of asbestos exposure, on use and fitting of respirators, on protective dress, on use of showers, on entry and exit from work areas, and on all aspects of work procedures and protective measures and understands this instruction. Also submit verification that all employees have received medical examinations as required by OSHA regulations.

1.3.1.6.1 Please note: Under the EPA federal Model Accreditation Program, ASHARA regulations, and RCSA for licensure and certification; all abatement workers and supervisors are required to have copies of their initial training and current refresher certificates on site at all times.

1.3.1.7 Post signs in and around the Work Area to comply with OSHA standard 29 CFR 1910.1001 and 1926.1101.

1.3.1.8 The owner and Contractor must agree in writing on building and fixture condition prior to commencement of work. A photographic or videotaped record is required, unless waived by the owner.

1.3.1.9 Submit manufacturer's certification that vacuum, negative air pressure equipment, and other local exhaust/ventilation equipment conform to ANSI Z9.2-1979.

1.3.1.10 When rental equipment is to be used in removal areas or to transport waste materials, a copy of the written notification provided to the rental company informing them of the nature of use of the rented equipment shall be submitted to the Owner.

#### 1.4 PERSONAL PROTECTION

1.4.1 Prior to commencement of work, the workers shall be instructed and shall be knowledgeable, in the areas described. On-site training in the use of equipment and facilities unique to this job site shall be performed. Emergency evacuation procedures to be followed in the event of compressor failure shall be included in worker training prior to commencement of work.

1.4.2 Respiratory protection shall meet the requirements of OSHA as presented in 29 CFR 1910.134 titled "Respiratory Protection" and CFR 1910.1001, 1915.1001 and 1926.1101 titled "Asbestos".

1.4.2.1 The employer shall select and provide at no cost to the employee respirators which will provide adequate protection to the employee as specified by section 1910.1001(g) Table D-1 and Section 1926.1101(h) Table D-4.

1.4.2.2 Any feasible combination of engineering controls, work practices, and personal protective equipment and devices, may be used to reduce personnel exposure to asbestos.

1.4.2.3 Proof that the average airborne concentration of asbestos fibers an employee will confront will not exceed the allowable limits shown above for the various types of respiratory devices must be determined by an air sampling professional retained by the Contractor by applying sound scientific and/or engineering principles. An acceptable method would be through measuring exposures under all the various conditions that will be encountered by collecting personal samples of airborne asbestos within the affected employees' breathing zones. Results of such studies shall be maintained at the work site.

1.4.3 All individuals entering the Work Area shall wear prescribed protective clothing and respirators until the asbestos removal areas have passed clearance tests.

1.4.4 Respiratory protection shall be worn by all persons potentially exposed to asbestos from the initiation of the asbestos abatement project until all areas have been given clearance. Clearance shall be obtained by visual inspection and air monitoring conducted by the Air Sampling Professional.

1.4.5 Protective Clothing - Special clothing such as coveralls or whole body clothing, head coverings, gloves, and foot coverings shall be provided and worn by personnel in work areas where concentrations of asbestos fibers in the air exceed the permissible ceiling concentration established by OSHA. The protective clothing and footwear shall be left in the Contaminated Equipment Room until the end of the asbestos abatement work, at which time all such items shall be thoroughly cleaned of all asbestos-containing material. Disposable type protective clothing, when used, shall be disposed of as contaminated waste. Protective clothing required for other types of construction or industrial hazards are required as appropriate for the particular job.

1.4.6 Provide all authorized visitors with respirators, new filters, protective clothing, headgear, eye protection, footwear, and hard hats as in the procedures described herein and afford them the use of all facilities to hold them free of contamination of asbestos fibers.

1.4.7 Provide and post, in the Equipment Room and the Clean Room, the decontamination and work procedures to be followed by workers, as described in Section 1.6.8 of these specifications.

#### 1.4.8 WORKER PROTECTION PROCEDURES

1.4.8.1 Each worker and authorized visitor without exception shall, upon entering the job site: remove street clothes in the Clean Change Room and put on a NIOSH approved respirator with new filters, and clean protective clothing before entering the Equipment Room or the Work Area, except that workers intending to rewear previously worn protective clothing stored in the Equipment Room shall enter the Equipment Room wearing only respirators.

1.4.8.2 Each time he/she leaves the Work Area, each worker and authorized visitor shall: vacuum gross contamination from clothing before leaving the Work Area: proceed to the Equipment Room and remove all clothing except respirator; still wearing the respirator, proceed naked to the showers; clean the outside of the respirator with soap and water while showering;

remove the respirator; thoroughly shampoo and wash themselves; remove filters and wet them and dispose of filters in the container provided for the purpose; and wash and rinse the inside of the respirator. After showering, the individual proceeds to the Clean Room.

1.4.8.3 Following showering and drying off, each worker and authorized visitor shall proceed directly to the Clean Change Room and dress in street clothes at the end of each day's work, or before eating, smoking, or drinking. Before re-entering the Work Area from the Clean Change Room, each worker and authorized visitor shall put on a clean respirator with filters and shall dress in clean protective clothing, except that worker intending to rewear protective clothing stored in the Equipment Room shall enter the Equipment Room wearing only respirators.

1.4.8.4 Contaminated work footwear shall be stored in the equipment room when not in use in the work area. Upon completion of asbestos abatement, dispose of footwear as contaminated waste or clean thoroughly inside and out using soap and water before removing from work area or from equipment and access areas. Store contaminated protective clothing in the equipment room for reuse or place in receptacles for disposal with other asbestos- contaminated materials.

1.4.8.5 Workers removing waste containers from the Equipment Contamination Enclosure shall enter the Holding Area from outside wearing a respirator and dressed in clean disposable coveralls. No worker shall use this system as a means to leave or enter the Washroom or the Work Area.

1.4.8.6 The color of the disposable clothing worn outside the Work Area shall be a different color than the disposable clothing worn inside the Work Area.

1.4.8.7 Workers shall not eat, drink, smoke, or chew gum or tobacco while in the Work Area.

1.4.8.8 Workers shall be fully protected with respirators and protective clothing immediately prior to the first disturbance of asbestos contaminated materials and until final clean-up is completed.

## 1.5 EQUIPMENT REMOVAL PROCEDURES

1.5.1 Clean surfaces of contaminated containers and equipment thoroughly by vacuuming and wet sponging or wiping before moving such items into the decontamination enclosure for final cleaning and removal to uncontaminated areas. Ensure that personnel do not leave Work Area through the Equipment Decontamination Enclosure.

## 2.1 MATERIALS

2.1.1 Deliver all materials in the original packages, containers, or bundles bearing the name of the manufacturer and the brand name.

2.1.1.1 Delivery and storage of materials and equipment shall be under the direct control of the Contractor in areas to be approved by the General Contractor and the Owner. These shall be

stacked, stored, disposed of or otherwise handled on the premises by the Contractor. The Contractor shall post all necessary signs and provide all temporary enclosures and guards as required for the full protection of workmen and the building.

2.1.1.2 Damaged or deteriorating materials shall not be used and shall be removed from the premises. Material that becomes contaminated with asbestos shall be decontaminated or disposed of as asbestos waste.

2.1.2 Use plastic sheet of four (4) mil thickness unless otherwise specified, in sizes to minimize the frequency of joints. Use single layer of six (6) mil polyethylene to create critical barriers where appropriate for size, configuration, and space to critical. A double layer of four (4) mil polyethylene shall be used on the walls. Use at least two layers of six (6) mil polyethylene to construct the de-contamination entry system of multiple chambers as described elsewhere of a minimum of three (3), and up to five (5) or six (6), sections and/or airlocks. A double layer of six (6) mil polyethylene shall be used on floors.

2.1.2.1 Polyethylene bags shall be six (6) mil and of sufficient size for the application.

2.1.3 Tape will be used that is capable of sealing joints in adjacent plastic sheets and for attachment of plastic sheet to finished or unfinished surfaces of dissimilar materials and capable of adhering under both dry and wet conditions, including use of amended water.

2.1.4 Surfactant (wetting agent) - shall consist of fifty (50) percent polyoxyethylene ether and fifty (50) percent polyoxyethylene ester, concentration of one (1) ounce surfactant to five (5) gallons of water or as directed by manufacturer.

2.1.4.1 The Contractor shall have available spray equipment on site capable of mixing wetting agent with water and capable of generating sufficient pressure and volume and having sufficient hose length to reach all areas with asbestos.

2.1.5 Impermeable containers are to be used to receive and retain any asbestos-containing or contaminated materials until disposal at an acceptable disposal site. (The containers shall be labeled in accordance with OSHA standards 29 CFR 1910.1001 and 1926.1101). Containers must be both air and watertight.

2.1.6 Labels and signs required by OSHA standards 29 CFR 1910.1001 and 1926.1101 will be used.

2.1.7 Encapsulants shall be sprayed using airless spray equipment in accordance with the manufacturer's instructions.

2.1.8 Use asbestos-free materials to provide the degree of fire protection required by the applicable Building Code and/or Fire Safety Code.

2.1.9 Thermal or acoustical insulation material used for patching or replacement must provide performance characteristics equivalent to or better than the original.

2.1.10 HEPA filtered local exhaust ventilation shall be utilized during the installation of enclosures and supports where asbestos-containing materials may be disturbed.

## 2.2 TOOLS AND EQUIPMENT

2.2.1 Provide suitable tools for asbestos removal, encapsulation and enclosure.

2.2.1.1 The Contractor shall have available on site air monitoring equipment of type and quantity to monitor operations and conduct personnel exposure surveillance per OSHA requirements.

2.2.1.2 The Contractor shall have available on site sufficient inventory or dated purchase orders for materials necessary for the job including protective clothing, respirators, filter cartridges, plastic sheeting of proper size and thickness, duct tape, air filters and sample filter cassettes.

2.2.1.3 The Contractor shall have available on site power cables or sources such as generators (where required).

2.2.1.4 The Contractor shall have available on site shower stalls and plumbing to support same to include sufficient hose length and drain system or an acceptable alternative.

2.2.1.5 Negative air pressure equipment shall be used. No air movement system or air filtering equipment shall discharge unfiltered air outside the Work Area.

2.2.1.6 Ladders and/or scaffolds are to be of adequate length and sufficient quantity to support work schedule.

2.2.1.7 Other Materials - provide all other materials such as lumber, nails and hardware, which may be required to construct and dismantle the decontamination area and the barriers that isolate the Work Area.

2.2.1.8 Air filtering equipment shall meet HEPA requirement and be of sufficient capacity to cause four (4) air changes per hour within the work area exhausting the filtered air so as to maintain a negative inside (work area) pressure and of sufficient flow through the decontamination chambers so as to prevent escape of airborne fibers.

2.2.1.9 Vehicle Storage - No construction vehicles shall be stored, serviced, washed or flushed out in a location where leaks, spillage, waste materials, cleaners or waters will flow or be otherwise introduced into wetlands, reservoirs or watercourses.

2.2.1.10 Sanitary Accommodations - Sanitary accommodations must be placed where directed; they shall be maintained in a clean, well ventilated and sanitary condition at all times.

2.2.1.11 Temporary Storage of Waste Trailers - The Owner will make available two separate and distinct areas where waste trailers can be stored temporarily on site. One area will be for

asbestos waste dumpsters and one will be for non-asbestos construction debris. At the end of each phase of the work, the Contractor will arrange for all waste containers to be properly removed from the site and the contents properly disposed. The asbestos abatement project monitor will verify the segregation of the waste going to the two storage areas during the work and will record the number of trailers of asbestos waste leaving the site and verify that the amount recorded agrees with the amount listed on the waste disposal manifest at the time of removal from the site.

### 3.1 PREPARATION

#### 3.1.1 WORK AREAS

3.1.1.1 The Contractor shall provide for and furnish Water and Electricity required for the full performance of the work.

3.1.1.1.1 Where necessary shut down electric power, including receptacles and lighting fixtures. Under no circumstances during the decontamination procedures will lighting fixtures be permitted to be operating when the spraying may contact the fixture.

3.1.1.1.2 Where necessary provide temporary power and lighting and ensure safe installation of temporary power sources and equipment per applicable code requirements and provide 24V safety lighting and ground fault interrupter circuits or GFI equipped power cords as power source for electrical equipment.

3.1.1.2 Shut down and isolate heating, cooling, and ventilating air systems to prevent contamination and fiber dispersal to other areas of the structure. During the work, vents within the Work Area shall be sealed with tape and plastic sheeting.

3.1.1.3 Preclean movable objects within the proposed work areas using HEPA vacuum equipment and/or wet cleaning methods as appropriate and remove such objects from work areas to a temporary location. Where carpet-to-remain is scheduled on the drawings, such carpeting shall be thoroughly cleaned using HEPA vacuum equipment.

3.1.1.4 Preclean fixed objects within the work areas, using HEPA vacuum equipment and/or wet cleaning methods as appropriate, and enclose with minimum six (6) mil plastic sheeting sealed with tape.

3.1.1.5 Clean the proposed work areas using HEPA vacuum equipment 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.

3.1.1.6 Seal off all openings, including but not limited to windows, corridors, doorways, skylights, ducts, grills, diffusers, and any other penetration of the work areas, with plastic sheeting (minimum of six (6) mils thick) sealed with tape. Doorways and corridors which will not be used for passage during work must be sealed within barriers as described in 3.1.2.4.

### 3.1.2 DECONTAMINATION ENCLOSURE SYSTEMS:

3.1.2.1 Build suitable Building Code conforming framing as described herein at shop drawing submittal stage. Portable pre-fab units, if utilized, must be submitted for review and approval by the Owner or the Owner's representative before start of construction. Submittal shall include, but not be limited to, a floor plan layout complying to schematic layout bound herein, showing dimensions, materials, sizes, thickness, plumbing, electric outlets, etc.

3.1.2.1.1 In all cases access between contaminated and uncontaminated rooms or areas shall be through a decontamination unit. In all cases access between any two (2) rooms within the decontamination enclosure system shall be through a curtained doorway.

3.1.2.2. Worker Decontamination Enclosure: Construct a workers' decontamination enclosure system contiguous to the work area consisting of five (5) totally enclosed chambers to conform with standard drawings bound herein as follows:

3.1.2.2.1 An Equipment Room with two (2) curtained doorways, one (1) to the work area and one (1) to the airlock.

3.1.2.2.2 A Shower Room with two (2) curtained doorways, one (1) to each airlock. Plastic on Shower Room and adjoining equipment and clean rooms shall be non-transparent. Showers shall be provided and used at all asbestos removal operations.

3.1.2.2.3 The Shower Room shall contain at least one (1) shower with hot and cold or warm water. Careful attention shall be paid to the shower enclosure to ensure against leaking of any kind. Ensure a supply of soap and towels at all times in the shower room.

3.1.2.2.4 A Clean Room with one (1) curtained doorway into the airlock and one (1) entrance or exit to non-contaminated areas of the building. The Clean Room shall have sufficient space for storage of the workers' street clothes, towels, and other non-contaminated items. Joint use of this space for other functions such as offices, storage of equipment, materials, or tools shall be prohibited.

3.1.2.3 Equipment Decontamination Enclosure: Provide or construct an Equipment Decontamination Enclosure system consisting of two (2) totally enclosed chambers as follows:

3.1.2.3.1 A Washroom, constituting an airlock, with a curtained doorway to a designated staging area of the Work Area and a curtained doorway the Holding Area.

3.1.2.3.2 A Holding Area, constituting an airlock, with a curtained doorway to the Washroom and a curtained doorway to an uncontaminated area.

3.1.2.3.3 Shower water must be drained, collected and filtered through a system with at least 5.0 micron particulate size collection capability before disposal in the sanitary system. Contaminated filters are to be disposed of as asbestos waste.



#### 3.1.2.4 SEPARATION OF WORK AREAS FROM OCCUPIED AREAS

#### 3.1.2.5 MAINTENANCE OF ENCLOSURE SYSTEMS

3.1.2.5.1 Visually inspect enclosures at the beginning of each work period.

3.1.2.5.3 Use chemical test smoke methods to test effectiveness of barriers when directed by the air sampling professional.

3.1.2.5.4 Create pressure differential between work areas and occupied areas by the use of negative air pressure equipment. Description: high efficiency particulate (HEPA) filtration systems shall be equipped with filtration equipment in compliance with ANSI Z9.2-1979. The equipment shall be sized to provide four (4) air changes per hour in the Work Area. No air movement system or air filtering equipment shall discharge asbestos fibers or unfiltered air outside the Work Area. Automatic shutdown of system and/or warning lights to indicate improper pressure drop across filters shall be incorporated into equipment to prevent operation of equipment if filters are overloaded or ruptured.

3.1.2.6 Asbestos abatement work shall not commence until approved by the licensed Project Monitor.

3.1.2.6.1 Arrangements have been made for disposal of waste at an acceptable site.

3.1.2.6.2 Work areas and decontaminated enclosure systems and parts of the building required to remain in use are effectively segregated.

3.1.2.6.3 Tools, equipment, and material waste receptors are on hand.

3.1.2.6.4 All other preparatory steps have been taken and applicable notices and signs posted and permits obtained.

3.1.2.6.5 All worker training has been completed and documents reviewed by owner's representative. Training documents (see note in section 1.5.1.6.1) should be made available in the form of clear, legible copies of certificates (fax copies not accepted) five (5) working days in advance of the job's start so appropriate calls and verifications can be accomplished without delay of the work.

3.1.2.6.6 Abatement work will not begin until the owner authorizes work to commence, in writing.

### 3.2 ASBESTOS REMOVAL

3.2.1 PREPARE SITE (see Section 3.1)

3.2.2 Spray asbestos materials with amended water, using airless spray equipment capable of

providing a "mist" application to reduce the release of fibers. The asbestos material shall be sprayed with water mist containing a wetting agent to enhance penetration. A fine spray of the amended water shall be applied to reduce fiber release preceding the removal of the asbestos material.

3.2.3 In order to maintain indoor asbestos concentrations at a minimum, the wet asbestos must be removed 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.

3.2.4 Seal filled containers. Place danger labels on containers in accordance with OSHA standard 29 CFR 1910.1001 (g) (2) if not already pre-printed on containers. Clean external surfaces of containers thoroughly by wet sponging in the designated area. Move containers to Washroom, wet clean each container thoroughly and move to Holding Area by workers who have entered from uncontaminated areas dressed in clean coveralls. Ensure that workers do not enter from uncontaminated areas into the Washroom or the Work Area; ensure that contaminated workers do not exit the Work Area through the Equipment Decontamination Enclosure System.

3.2.5 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.

3.2.6 Apply a thin coat of encapsulant to cleaned surfaces and to plastic barriers after cleaning.

3.2.7 Clean up shall be in accordance with Section 3.5

3.2.8 If at any time during asbestos removal, should the air sampling professional suspect contamination of areas outside the work area, he/she shall stop all abatement work until the Contractor takes steps to decontaminate these areas and eliminate causes of such contamination. Unprotected individuals shall be prohibited from entering contaminated areas until air sampling and visual inspections certify decontamination.

### 3.3 CLEAN-UP AND FINAL INSPECTIONS

3.3.1 Remove visible accumulations of asbestos material and debris. Wet clean or HEPA vacuum all surfaces within the Work Area.

3.3.2 An inspection by the building owner or his designate shall be conducted with the containment barriers in place. If the building owner or his representative finds visible accumulations of dust or bulk asbestos containing materials in the Work Area, the Contractor shall repeat the cleaning until the work area is in compliance, at the Contractor's expense. The visual inspection will detect incomplete work, damage caused by the abatement activity, and inadequate clean-up of the worksite.

3.3.3.2 Areas which do not comply with the Standard for Cleaning for Initial Clearance shall

continue to be cleaned by and at the Contractor's expense until the specified Standard of Cleaning is achieved as evidenced by the licensed Asbestos Project Monitors visual inspection and the results of final air testing.

3.3.3.3 Upon successful compliance with the Standard of Cleaning for Final, mandatory respiratory protection for workers engaged in re-spray or finishing work in the Work Area may be waived at the discretion of the Contractor.

#### 3.4 DISPOSAL OF ASBESTOS-CONTAINING MATERIALS AND ASBESTOS CONTAMINATED WASTE

All asbestos waste shall be managed and disposed in compliance with applicable federal (NESHAPS) regulations and be appropriately handled during transport in compliance with all pertinent DOT, OSHA, DEP, EPA and State requirements.

Any disposal of asbestos materials and asbestos waste must be authorized by the Office of Solid Waste Management pursuant to Section 22a-209-8(1) of the administrative regulations of the Department of Environmental protections, Solid Waste Management Unit, and the Connecticut General Statutes, Section 22a-220 entitled "Municipal Provisions for Solid Waste Disposal. Toxic or Hazardous Waste Disposal." The first step in obtaining authorization is to contact the office in writing with detailed information relating to the quantities, types, sources, generator and hauler of asbestos wastes to; be disposed. The Office of Solid Waste Management will provide assistance by contacting and making arrangements with a landfill owner and/or operator for disposal. Authorization will be given if it can be assured that the asbestos waste will be handled and disposed of in accordance with the following requirements.

##### 3.4.1 GENERATOR AND/OR HAULER REQUIREMENTS

1. The asbestos materials must be packaged in impermeable dust tight containers (i.e. heavy duty six (6) mil plastic bags or sealed fiber pack drums):
2. All containers must be labeled according to current standards for EPA, OSHA, and DOT.
  2. All trailers and/or vehicles used to transport bagged and wrapped waste from the job site,
  3. to a transfer station or approved landfill, themselves need to be lined with a minimum of one layer of six (6) mil polyethylene to ensure the transport and storage vehicle itself is leak proof (airtight and watertight).
4. The landfill accepting the wastes must be notified before shipping for scheduling to insure that adequate personnel and apparatus are available at the time of disposal; and
5. The asbestos materials must be delivered in separate shipments. It must not be transported with any other materials.
6. The Contractor is responsible for all appropriate waste manifest records, including daily

departure of waste from the site to transfer stations or an approved landfill. The requisite three part waste manifest form (per NESHAPS) needs to be kept on site to cover the tracking of the waste from site to transfer station, from generator to hauler, from hauler to landfill operator. No asbestos shall be taken from the site, nor transferred without this waste manifest.

### 3.4.2 FINAL PAYMENT AFTER DISPOSAL OF ASBESTOS WASTE

FINAL PAYMENTS FOR THE WORK WILL NOT BE REMITTED UNTIL A FULLY COMPLETED LIEN WAIVER AND ALL OF THE WASTE MANIFESTS FOR THE SPECIFIC SITE HAVE BEEN SIGNED AND RETURNED TO The Borough of Naugatuck.

### 3.4.3 ADDITIONAL REQUIREMENTS

All applicable rules and regulations are required by the Department of Labor's Occupational Safety and Health standards and the United States Environmental Protection Agency's Regulations on National Emission Standards for Hazardous Air Pollutants and the United States Department of Transportation shall be followed. Only after full compliance with the above requirements, verified in writing by way of the waste manifests, will the Sub-Contractor be released from the project.

## 3.5 AIR MONITORING AND ANALYSIS

3.5.1.1 The contractor shall be responsible for all air sampling during the project in addition to OSHA compliance monitoring: Daily personal air sampling by the Contractor, and daily visuals and area sampling by the Project Air Monitor.

3.5.1.2 Air samples will be analyzed with the appropriate microscopy. In buildings other than schools, per the State of Connecticut regulations, transmission electron microscopy will be used to analyze final air samples for containments in which more than 1500 square feet or 500 linear feet of asbestos-containing materials were abated. In buildings other than schools, per the State of Connecticut regulations, phase contrast microscopy will be used to analyze final air samples for containments in which less than 1500 square feet or 500 linear feet of asbestos-containing materials were abated.

### 3.5.2 Contractor Responsibility.

Air sampling shall be conducted by the Contractor, as necessary, to assure that workers are using appropriate respiratory protection in accordance with OSHA Standard 1910.1001 and 1926.1101.

3.5.3 Documentation of air sampling results must be recorded at the work site within twenty-four (24) hours and be available for review until the job is complete. Upon completion of the job, these are to be forwarded to the owner for inclusion with project records.

3.5.3.1 Documentation of sample analysis must include as a minimum; sample identification; total sample duration; sample flow rate; total air volume; total fibers counted (with work sheets); total fields counted; blank filter analysis; reticule field area; and concentration of fibers per cubic

centimeter. Analytical results must include calculation of detection limits as given in Appendix G of Environmental Protection Agency Publication EPA 560/5-85-024, June 1985 Guidance for Controlling Friable Asbestos-Containing Materials in Building; of any typical environmental conditions. Air sampling analysis must be performed by individuals trained in the National Institute for Occupational Safety and Health (NIOSH) 582 course on Asbestos Air Sampling and Analysis, associated with a laboratory approved and certified by the American Industrial Hygiene Association (AIHA). Documentation of individual air sample analysis qualifications must be provided to the owner or their designated agent.

## **PART 2. LEAD PAINT SAFETY AND HEALTH SPECIFICATIONS**

### **1. Scope of Work**

**All paint must be assumed to contain lead and special precaution are required if disturbing any painted surface.**

1.1 Lead is a serious health hazard to both children and adults. The work may involve the disturbance of surfaces with lead paint. To comply with governmental requirements and minimize employee exposure, the contractor must use appropriate controls wherever there is a potential for exposure to lead dust and fumes. Potential for lead release includes any sanding, grinding, scraping, and burning (welding and cutting) of lead paint surfaces.

1.2 All work must be done in conformance with the OSHA 1926.62 regulations regarding lead exposure. This includes the following:

1.3 All workers at the site must have received a lead hazard awareness class (typically a 4 hour course given by a competent person) within the last year.

1.3.2 Workers using respirators or performing any sanding, grinding, scraping, and burning (welding and cutting) of lead paint surfaces on a regular basis must have current physicals and blood lead tests that meet the OSHA standards.

1.3.3 No eating drinking or smoking will be allowed at the site.

1.3.4 All surfaces to be sanded and/or scraped must be lightly misted prior to sanding or scraping. No welding or torch cutting of lead painted surfaces is allowed until then any paint has been removed by chemicals or HEPA filtered needle-guns.

1.3.5 There will be no dry sweeping, sanding, grinding, and torch cutting of any lead painted surfaces. Only HEPA filtered vacuum cleaners can be used to clean the floor and other surfaces.

1.3.6 Any paint chips, dust and debris must be placed in a labeled waste container and disposed of as lead waste.

1.3.7 The workers must use eye protection and disposable coveralls and gloves during all surface

preparation. The workers will wear a minimum of half face negative pressure respirators with high efficiency filters during the removal process unless the contractor has conducted a negative exposure assessment for similar work. A hand and face wash station will be set up at the site. Workers must wash their hands and face after completion before breaks after any surface preparation. If repeated personal air sampling indicates that exposure levels all well below the OSHA Action Level for Lead (30 ug/M3), the work may be completed without respirators.

1.4 All of the areas will be fully vacated prior to abatement. Warning signs will be placed at all entrances and exits to work area.

1.5 The contractor must supply all labor, materials, equipment, services, insurance and incidentals which are necessary or required to perform the work in accordance with the applicable governmental regulations and these specifications.

## 2.0 SUBMITTALS

2.1 Prior to Commencement of Work the contractor will:

2.2 Submit documentation to the owner indicating that each employee has instruction on the hazards of lead exposure, appropriate medical exams, and a written lead safety plan.

2.3 When rental equipment is to be used in removal areas or to transport waste materials, a copy of the written notification provided to the rental company informing them of the nature of use of the rented equipment will be submitted.

## 3.1 CLEAN-UP

3.2 After any breaks from surface preparations, HEPA vacuum all floors.

3.3 After completion of painting, HEPA vacuum all floors and other surfaces in the work area, and wash all surfaces with a 6% solution of TSP, and HEPA vacuum again. All surfaces must be free of visible dust and debris.

## 4.0 DISPOSAL OF LEAD-CONTAINING MATERIALS AND LEAD-CONTAMINATED WASTE

4.1 Waste disposal - Disposal of lead waste must be in compliance with local, state, and federal regulations. Waste will be segregated during the abatement by type. After the project, dispose all windows, paint chips, dust and debris as lead contaminated waste.

4.2 The contractor will be responsible for preparation of any manifest required by Federal or State regulations to track the movement of hazardous waste. The contractor will use the Building owner's EPA Identification Number for all manifests. Lead contaminated debris will be tested in accordance with 40 CFR 261 for TCLP lead (unless assumed to be lead waste).

## 4.3 GENERATOR AND/OR HAULER REQUIREMENTS

1. The lead waste materials will be packaged in impermeable dust tight containers (i.e. heavy duty six (6) mil plastic bags or sealed fiber pack drums):
2. All containers will be labeled with appropriate hazard warnings.
3. The landfill accepting the wastes will be notified before shipping for scheduling to insure that adequate personnel and apparatus are available at the time of disposal; and
4. The lead materials will be delivered in separate shipments. It will not be transported with any other materials.

#### 5.0 AIR MONITORING AND ANALYSIS

Air sampling will be conducted by the contractor as necessary using the NIOSH 7300 method to assure that workers are using appropriate respiratory protection in accordance with OSHA Standard 1910.1025 and 1926.62.

5.1 Documentation of air sampling results will be recorded at the work site within three days and be available for review until the job is complete. Upon completion of the job, these are to be forwarded to the owner for inclusion with project records.

5.2 Air sample analysis must be performed by an AIHA Certified Lab.

#### 6.0 RECORD KEEPING

Except as otherwise specified, records will be retained for a period of five (5) years from the date of project completion. Entities ceasing to do business, or relocating the principal place of business will so notify the commissioner in writing within thirty (30) days after such event. On receipt of such notification the commissioner may instruct that the records be surrendered to the department, or may specify a repository for such records. The entity or person will comply with the commissioner's instruction within sixty (60) calendar days of receipt of written request from the commissioner. Copies of the waste manifest will be provided to the Contracting Representative.

## SUMMARY OF WORK

### PART 1 – GENERAL

#### 1.1 RELATED DOCUMENTS

A. Information to Bidders, Addenda, Pre Demolition Reports, proposals, are a part of this Section and shall be binding on the Contractor and or Subcontractor who performs this Work.

#### 1.2 PROJECT DESCRIPTION

- A. The Project consists of furnishing all materials, equipment, and labor to perform site remediation, hazardous materials abatement, building demolition / removal, and legal disposal of existing structures located at the following addresses:
1. 1 Orchard Terrace
  2. 1 South Main Street
  3. 58 Maple Street
  4. 146 Walnut Street
- B. An alternative Work Practice (AWP) shall be used for the demolition of The home at 146 Walnut Street.
- B. All facilities will be vacated by the Owner prior to abatement and demolition. The condition of the structures at time of site inspection, Pre-Bid Conference, shall be the conditions that bidders shall anticipate within their bid proposal. **All contents remaining within the structures shall be removed and legally disposed of by the Demolition Contractor.**
- C. The Demolition Contractor shall be responsible for all contract closeout requirements as determined by the Borough prior to issuance of final payment by the Owner.
- D. The Demolition Contractor shall be responsible for the certification and documentation of completed work. It shall be the responsibility of the Demolition Contractor to verify the information herein to its satisfaction for the purpose of pricing. No adjustment to the bid price will be allowed due to discrepancies between the information provided and the actual installation locations.

#### 1.3 ABATEMENT CONTRACTOR QUALIFICATIONS

- A. Prior to the start of abatement, Abatement Contractor shall submit a record of prior experience in asbestos, PCB and lead paint abatement projects, listing no less than two (2) completed jobs in the past year, with all projects of similar size



and scope. The Contractor shall list the experience and training of the site supervisor and all on-site workers. The information that should be included is as follows:

1. Project Name and Address
2. Owner's Name and Address
3. Architect/Consultant/Construction Manager
4. Contract Amount
5. Date of Completion
6. Extras and Change Orders

- B. The selected Abatement Contractor must appear on the approved list of Asbestos and Lead Abatement contractors on file at the State of Connecticut Department of Public Health (CTDPH). The Contractor must also have experience in PCB remediation work in compliance with US EPA requirements.**
- C. Submit a written statement regarding whether the Contractor has ever been found out-of-compliance with federal or state asbestos and/or lead regulations pertaining to worker protection, removal, transport, or disposal.
- D. Award of this Contract may not necessarily be based solely on the submitted lowest Base Bid amount. The Owner, reserves the right to award this Contract to the Bidder who best meets all contractor qualifications.

#### 1.4 WORK SEQUENCE / CONSTRUCTION SCHEDULE

- A. The Work will be conducted in phases to provide the least possible interference to the activities of the site and the operation of surrounding properties.
- B. Proper phasing, project scheduling and work sequencing will be coordinated by the Contractor with the Owner. All contractors are required to adhere to the scheduling and critical path sequencing as determined by the Contractor and approved by the Owner.

#### 1.5 CONSTRUCTION PHASING

- A. The abatement and demolition / removals sequence and schedule shall anticipate the required phasing that is required to complete the scope of work as specified herein.
- B. The work will be conducted in phases to provide the least possible interference to the activities of each property and to complete all assigned tasks in a timely manner.

C. The demolition sequence anticipated is as follows:

**1. 1 Orchard Terrace Naugatuck, CT: (1 structure)**

**Call Before You DIG: Provide all documentation from local utility companies that all utilities (overhead and underground) that are, or formerly, serving existing buildings have been terminated and made safe for demolition.**

**Obtain Demolition Permit: Obtain all necessary permits for all work prior to any construction or demolition**

**Pre work Documentation: Submit to the Borough of Naugatuck copies of all required documentation as specified.**

**Notification: Provide required Notice to adjoining owners, By registered or Certified Mail.**

**Site Preparation: Installation construction entrances.**

**Abatement: Removal / legal disposal of all materials identified as hazardous and identified for abatement and legal disposal.**

**Building Demolition and Disposal: Perform building demolition and disposal operations as indicated herein. Transfer all demolition debris to suitable landfill locations as determined by the demolition contractor.**

**Contract Closeout: Restore site as per specified**

**Closeout Documentation: Submit for record purposes all required manifests, disposal documents, and closeout documents and indicated in Contract Closeout and required by law.**

**2. 1 South Main St. Naugatuck, CT: (1 structure)**

**Provide Required IWC Application Documentation to the Borough and assist the Borough in obtaining a Inland Wetland Permit.**

**Call Before You DIG: Provide all documentation from local utility companies that all utilities (overhead and underground) that are, or formerly, serving existing buildings have been terminated and made safe for demolition.**

**Obtain Demolition Permit: Obtain all necessary permits for all work prior to any construction or demolition**

**Pre work Documentation:** Submit to the Borough of Naugatuck copies of all required documentation as specified including traffic control plan, pedestrian protection plan and Demolition plan.

**Notification:** Provide required Notice to adjoining owners, By registered or Certified Mail.

**Site Preparation:** Installation of construction fencing to establish Contract limit lines/construction entrances install hay bale and silt fence barrier along the Naugatuck River, complete all work required in the wetland and watercourse protection plan, traffic control plan and the pedestrian protection plan.

**Abatement:** Removal / legal disposal of all materials identified as hazardous and identified for abatement and legal disposal.

**Building Demolition and Disposal:** Perform building demolition and disposal operations as indicated herein. Transfer all demolition debris to suitable landfill locations as determined by the demolition contractor.

**Contract Closeout:** Restore site as per specified, submit required documentation.

**Closeout Documentation:** Submit for record purposes all required manifests, disposal documents, and closeout documents and indicated in Contract Closeout and required by law.

**3. 58 Maple Street, CT: (1 structure)**

**Call Before You DIG:** Provide all documentation from local utility companies that all utilities (overhead and underground) that are, or formerly, serving existing buildings have been terminated and made safe for demolition.

**Obtain Demolition Permit:** Obtain all necessary permits for all work prior to any construction or demolition

**Pre work Documentation:** Submit to the Borough of Naugatuck copies of all required documentation as specified.

**Site Preparation:** Installation of construction fencing to establish contract limit lines / construction entrances. Complete all work required in the pedestrian protection plan.

**Abatement:** Removal / legal disposal of all materials identified as hazardous and identified for abatement and legal disposal.

**Building Demolition and Disposal:** Perform building demolition and disposal operations as indicated herein. Transfer all demolition debris to suitable landfill locations as determined by the demolition contractor.

**Contract Closeout: Restore site as per specified**

**Closeout Documentation: Submit for record purposes all required manifests, disposal documents, and closeout documents and indicated in Contract Closeout and required by law.**

**4. 146 Walnut Street, CT: (1 Structure Main Home)**

**Call Before You DIG: Provide all documentation from local utility companies that all utilities (overhead and underground) that are, or formerly, serving existing buildings have been terminated and made safe for demolition.**

**Obtain Demolition Permit: Obtain all necessary permits for all work prior to any construction or demolition**

**Pre work Documentation: Submit to the Borough of Naugatuck copies of all required documentation as specified.**

**Site Preparation: Installation construction entrances Remove Trees and shrubs required to completed work.**

**Building Demolition and Disposal: Perform building demolition (AWP) and disposal operations as indicated herein. Transfer all demolition debris to suitable landfill locations as determined by the demolition contractor.**

**Contract Closeout: Restore site as per specified**

**Closeout Documentation: Submit for record purposes all required manifests, disposal documents, and closeout documents and indicated in Contract Closeout and required by law.**

**1.6 CONSTRUCTION TIME**

A. The Demolition Contractor shall furnish all materials, labor, and equipment to complete the project in a timely manner according to the Construction Phasing Plan above.

**B. The Demolition Contractor shall achieve Substantial Completion of all contracted scope of work Specification Section 1.6 – Construction Phasing) not later than Sixty (60) calendar days from Owner’s Notice to Proceed. Date of commencement shall be established as the date of Notice to Proceed from the Owner.**

C. All punchlist work for the contracted scope of services shall be completed within five (5) working days after the date of Substantial Completion of each property.

D. The term “Contract Time” as used in the contract documents shall mean the time period from the date of commencement until the completion as indicated above. Such period may be extended in accordance with the provisions of the Contract Documents.

#### 1.7 CONTRACTOR’S HOURS OF OPERATION

A. The Demolition Contractor shall limit hours of on-site operations to **7:00 am – 3:30 pm, Monday through Friday.**

B. On-site activities will be allowed on holidays, Saturdays, or Sundays upon prior approval of the Owner.

C. Any on-site activities not conforming to the hours of operation listed above will require the Demolition Contractor’s coordination and prior approval of the Owner.

#### 1.8 CONTRACTOR USE OF PREMISES

A. General: Limit use of the premises to construction activities in areas as identified by the Owner.

1. Confine operations to areas within contract limit lines as established by the Owner and indicated on the drawings. Portions of the site beyond areas in which construction operations are indicated are not to be disturbed without prior authorization from the Owner.

2. Confine the parking of workers, and construction vehicles, and the storage of construction materials to within established contract limit lines.

3. While the premise is **NOT** currently occupied and operational, keep entrances serving the premises clear and available to the Owner and Owner’s employees at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site. Any disturbances to public entryways public egress, Owner’s access, or public access routes require prior approval of the Owner.

B. Assume full responsibility for protection and safekeeping of products under this Contract.

#### 1.9 OWNER OCCUPANCY

A. Completion Requirements: Timely completion of the project is critical. Aggressive construction scheduling and careful monitoring of critical path

milestones cannot be overemphasized.

#### 1.10 INTENT

- A. These Specifications intended to describe and illustrate all material, labor, and equipment necessary to complete the demolition as indicated herein.
- B. For convenience of reference, these Specifications are separated into titled Divisions and Sections. Such separations shall not, however, operate to make the Owner an arbiter to establish limits to Contracts between the Demolition Contractor and Subcontractors. The Divisions of the Specifications do not necessarily define the limits of the Demolition Contractor's subcontracts, the work of any one subcontract may include items specified in several Divisions or Sections. The Demolition Contractor may sublet work as he sees fit, but it is his responsibility to see that all work shown on the Drawings and/or specified is completed in accordance with the Contract.
- C. Furnish all materials and accomplish all work in strict accordance with the grades or standards of materials, standards of workmanship, and manufacturer's specifications listed or mentioned in these documents.
- D. The listing or mention of materials shall be sufficient indication that all such materials shall be furnished by the Demolition Contractor, in accordance with the grades or standards indicated, free from defects impairing strength, durability or appearance and in sufficient quantity for the proper and complete execution of the work, unless specifically stated otherwise.
- E. The listing or mention of any method of installation, erection, fabrication or workmanship shall not operate to make the Demolition Contractor an agent, but shall be for the sole purpose of setting a standard of quality for the finished work. The Demolition Contractor is free to use any alternate method, provided only that, prior to the start of the work, such alternate method is approved in writing by the Owner, as resulting in quality equal to that intended by these documents. Unless an alternate method is approved, all work shall be in strict accordance with all methods if installation, erection, fabrication and workmanship listed or mentioned herein.

#### 1.11 SOCIAL SECURITY TAXES

- A. Demolition Contractors and each Subcontractor shall pay the taxes measured by the wages of all their employees as required by the Federal Social Security Act and all amendments thereto, and accept the exclusive liability for said taxes. The Demolition Contractor shall also indemnify and hold the Owner, and its respective officers, agents and servants harmless on account of any tax measured by the wages aforesaid of employees of the Demolition Contractor and his subcontractors, assessed against the Owner under authority of said law.

#### 1.12 UNEMPLOYMENT INSURANCE

- A. Demolition Contractor and each Subcontractor shall pay unemployment insurance measured by the wages of his employees as required by law and accept the exclusive liability for said contributions. The Demolition Contractor shall also indemnify and hold harmless the Owner on account of any contribution measured by the wages of aforesaid employees of the Demolition Contractor and his Subcontractors, assessed against the Owner under authority of law.

#### 1.13 OCCUPATIONAL SAFETY AND HEALTH ACT

- A. The Demolition Contractor shall comply with the requirements of the Occupational Safety and Health Act of 1970 and the Construction Safety Act of 1969, including all standards and regulations which have been promulgated by the Governmental Authorities which administer such Acts and said requirements, standards and regulations are incorporated herein by reference.
- B. The Demolition Contractor shall comply with said regulations, requirements and standards and require and be directly responsible for compliance therewith on the part of his agents, employees, material men and Subcontractors; and shall directly receive and be responsible for all citations, assessments, fines or penalties which may be incurred by reason of his agents, employees, material men or Subcontractors failing to so comply.
- C. The Demolition Contractor shall indemnify the Owner and save them harmless from any and all losses, costs and expenses, including fines and reasonable attorney's fees incurred by the Owner by reason of the real or alleged violation of such laws, ordinances, regulations and directives, Federal, State, and Local, which are currently in effect or which become effective in the future, by the Demolition Contractor, his Subcontractors or material men.

#### 1.14 CLOSEOUT AND PUNCH LIST

- A. The Contractor shall carefully check his/her own work and that of any Subcontractor as the work is being performed. Unsatisfactory work shall be corrected immediately.
- B. When the Contractor determines that he is substantially complete, that is, has less than one percent of his Contract remaining to be completed, he shall prepare for submission to the Borough of Naugatuck, a list of items to be completed or corrected. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all work in accordance with the Contract Documents. Upon receipt of the Contractor's list of items to be completed or corrected, the Borough of Naugatuck will promptly make a thorough inspection and prepare a "punch list" setting forth in accurate detail any items on the Contractor's list and any

additional items that are not acceptable.

- C. When the “punch list” has been prepared, the Borough of Naugatuck will arrange a meeting with the Contractor to identify and explain all punch list items and answer questions on the work that must be completed before final acceptance.
- D. The Contractor shall correct all “punch list” items or shall cause the correction of the “punch list” items within a time frame to be established when the “punch list” is made. The time frame for the completion of the “punch list” shall not exceed the completion date of the Contract. Should the “punch list” not be completed within the specified time frame, the Owner may invoke the rights given under the General Conditions.
- E. The Borough of Naugatuck shall not be expected to inspect any area more than once for the preparation of the “punch list” items. If, during an inspection, the Borough of Naugatuck discovers five (5) or more deficient conditions, then the area shall be declared “Not Ready” for Inspection.
- F. All inspections and sampling required for hazardous materials abatement compliance will be performed by the Borough of Naugatuck.

#### 1.15 CLEANING

- A. Throughout the construction period, the Contractor shall maintain the buildings and the site free of rubbish, debris, surplus materials, and other items not required for the Work. Remove such material from the site daily to prevent accumulations. Remove all construction debris from work areas, and remove all hazardous waste and asbestos waste as required by the most current federal, state, and local regulations and the requirements of the specifications.

#### 1.16 ADDITIONAL GENERAL REQUIREMENTS

- A. The Hazardous Material Abatement Contractor shall employ a competent and English-speaking Asbestos, PCB and Lead Abatement Supervisor with at least two (2) years experience on projects of similar scope and magnitude. The Supervisor shall be responsible for all work involving hazardous materials abatement as described in the specifications and defined in the applicable regulations, and have full time daily supervision of the same. The Supervisor shall be the “Competent Person” as defined by OSHA regulations.
- B. The workers and the supervisor(s) involved in this project must be certified (licensed) by the State of Connecticut Department of Public Health (DPH) to perform asbestos and lead abatement work in Connecticut. In addition, they must have adequate OSHA training to perform PCB work as required by USEPA in the approved PCB remediation plan.



- C. The Contractor shall allow the work of this contract to be inspected, if required, by local, state, federal, and any other authorities having jurisdiction over such work. The Contractor shall immediately notify the Owner and shall maintain written evidence of such inspection for review by the Owner
- D. The Contractor shall incur the cost of all fines resulting from regulatory noncompliance as issued by federal, state, and local agencies. The Contractor shall incur the cost of all work requirements mandated by federal, state, and local agencies as a result of regulatory non-compliance or negligence.
- E. The Contractor shall immediately notify the Owner of the delivery of all permits, licenses, certificates of inspection, of approval or occupancy, etc., and any other such instruments required under codes by authorities having jurisdiction, regardless of to whom issued, and shall cause them to be displayed to the Owner for verification and recording.

PART 2 - PRODUCTS (Not applicable).

PART 3 - EXECUTION (Not applicable).

## **CONTRACT CLOSEOUT**

### PART 1 – GENERAL

#### 1.1 GENERAL PROVISIONS

A. Instructions to Bidders, “General Conditions of the Contract for Construction”, the Supplementary General Conditions and Division

1, General Requirements, are a part of this Section and shall be binding on the Contractor and or Subcontractor who performs this Work. Note also all Addenda.

#### 1.2 FINAL CLEANING

A. Unless otherwise specified under Sections of this Specification, the Contractor shall perform final cleaning operations as herein specified prior to final inspection.

B. Maintain the project site free from accumulations of waste, debris and rubbish caused by operations. At the completion of the work, remove waste materials, rubbish, tools, equipment, machinery and surplus materials, and clean all sight exposed surfaces; leave the project clean and ready for work of others under separate contract.

C. Cleaning shall include all exterior surfaces in which the Contractor has had access.

D. Demolition area restoration: The Contractor shall fill all excavation to grade, chip or remove all brush or trees removed for the demolition work, install and grade four inches minimum of top soil and seed and mulch the disturbed area.

E. Lawn Restoration: The Contractor shall restore all vegetated areas to their original state prior to on-site activities. Disturbed lawn areas are to be restored to grade with topsoil and seeded with new grass. Protection to trees and vegetation shall be thoroughly removed and discarded from site.

F. Paved Areas: Existing paved areas to remain. Contractor to sweep clean all areas of paving to remain at the conclusion of demolition operations.

G. Erosion Control: The Contractor to remove and discard all erosion control measures at the conclusion of demolition operations. Filter fabric at catch basins to be removed and catch basin sumps to be made clean of all foreign materials.

H. Fence Removal: the Contractor shall remove all safety fencing installed for the project and make repairs as required.

## **BUILDING DEMOLITION**

## PART 1 – GENERAL

### 1.1 RELATED DOCUMENTS

A. Instructions to Bidders, “General Conditions of the Contract for Construction”, the Supplementary General Conditions and Division, General Requirements, are a part of this Section and shall be binding on the Contractor and or Subcontractor who performs this Work.

### 1.2 SUMMARY

A. This Section requires removal and disposal, off site, of the following:

1. Building structures and existing site improvements located within the contract limit lines as indicated on the drawings for complete demolition and removal, including its contents and site related features.
2. Installation/ development of pedestrian safety plans, traffic control plan, demolition plan, installation of sediment and debris control structures.
3. Building foundations, footings, and supporting walls and structure to a depth of bottom of footing elevation shall be removed.
4. Back fill all areas to grade and topsoil, seed and mulch.

B. Removal work specified elsewhere:

1. Asbestos removals: Pre-Demolition Asbestos Abatement Specifications
2. PCB removals: Pre-Demolition Survey
3. Lead removals: Pre-Demolition Survey
4. Universal Waste Reclamation

### 1.3 SUBMITTALS

A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.

B. Proposed schedule of operations coordination for shutoff, capping, and discontinuation of utility services as required.

1. Provide a detailed sequence of demolition and removal work.

C. Permits and notices authorizing demolition from applicable regulatory agencies.

D. Certificates of severance of utility companies.

E. Permit for transport and disposal of demolition debris.

F. All other items required by any agency or regulation having jurisdiction over the demolition work.

**G. For 1 South Main Street the contractor for no additional cost must develop and submit a pedestrian protection plan and a traffic Control plan both being acceptable to the Borough of Naugatuck and the Borough of Naugatuck police Department.**

**H. For 1. South Main Street the Contractor must submit a Wetlands and Watercourse protection plan including drawings and sketches satisfactory to the Inland Wetlands commission. The plan shall have a minimum of an 8 foot chain link fence along the River and hay bale and silt fence barrier.**

#### 1.4 JOB CONDITIONS

A. Occupancy: Structures to be demolished have been vacated and use discontinued prior to start of work.

B. Condition of Structures: Owner assumes no responsibility for actual condition of structures to be demolished.

1. Conditions existing at time of inspection for bidding purpose will be maintained by owner insofar as practicable. However, variations within structure may occur by Owner's removal and salvage operations prior to start of demolition work.

C. Explosives: Use of explosives will not be permitted.

D. Traffic: Conduct demolition operations and removal of debris to ensure minimum interference with roads, streets, drives, walks, and other adjacent occupied and used facilities.

1. Do not close or obstruct streets, walks, or other occupied or used facilities without permission from authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.

E. Protection: Ensure safe passage of persons around area of demolition. Conduct operations to prevent damage to adjacent buildings, structures, existing trees designated by the Owner to remain and other facilities and injury to persons.

F. Damages: Promptly repair damages caused to adjacent facilities by demolition operations.

G. Utility Services: Locate, identify, stub off, and disconnect utilities serving existing structures to be demolished.

1. Contractor shall coordinate shut off of all existing utilities serving structures. Disconnecting and sealing existing utilities before starting demolition operations is part of this work.

H. Utility Services: Do not start demolition work until utility disconnection has been completed and verified by utility companies. The Contractor shall obtain all necessary shut off notifications from all required utilities.

I. Erosion Controls: All existing storm water drainage systems shall remain in use during demolition activities. Provide filter protection at all existing catch basins to prevent contamination of storm water systems with sediment and debris. Proper precautions shall be put in place to prevent any sediment / debris from the site to migrate off site. This shall also pertain to construction entrance locations. Do not commence demolition operations until active erosion control safeguards are in place and approved by the Owner.

## 1.5 QUALITY ASSURANCE

A. Qualifications of Workers: Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section

B. Comply with the requirements of the following

1. Local and State Building Codes and Health Departments
2. U.S. EPA and State of Connecticut Department of Environmental Protection
3. Utility companies having jurisdiction and that may have utilities within the area of the Work.
4. All other applicable local, state, and federal regulations

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

### 3.1 DEMOLITION

A. Pollution Controls: Use water sprinkling, temporary enclosures, and other suitable methods to limit dust and dirt rising and scattering in air. Comply with governing regulations pertaining to environmental protection.

1. Do not use water when it may create hazardous or objectionable conditions such as ice, flooding, and pollution.

B. Clean adjacent structures and improvements of dust, dirt, and debris caused by demolition operations.

C. Building Demolition: Demolish buildings completely and remove from site. Use such methods as required to complete work within limitations of governing regulations.

1. Proceed with demolition in systematic manner, from top of structure to ground. Complete demolition work above each floor or tier before disturbing supporting members on lower levels.

2. Demolish concrete and masonry in small sections.

3. Remove structural framing members and lower to ground by hoists, derricks, or other suitable methods.

4. Break up and remove all concrete slabs-on-grade, all concrete basement floors and all foundation walls

5. Locate demolition equipment throughout structure and remove materials so as to not impose excessive loads to supporting walls, floors, or framing.

D. Below-Grade Construction: Demolish and remove foundation walls, footings, and other below-grade construction, including concrete slabs, to a depth of bottom of existing footings below finish grade elevation. Restore all excavated areas to finished grade elevations through use of on-site fill, or imported fill materials. All imported fill shall be accompanied with documentation that material is environmentally “clean” structural fill meeting the requirements of CTDOT M.02.05

E. For the Demolition 1 South Main Street Building, With minimum 1 week notice the use of the parking lot adjacent to 1 South Main Street will be available for staging of equipment. Equipment shall not be staged on roadways without approval from the Borough of Naugatuck and the Connecticut Department of Transportation.

F. The Contractor shall obtain all necessary shut off notifications from all required utilities.

G. The Contractor Provide required Notice to adjoining owners, By registered or Certified Mail.

### 3.2 DISPOSAL OF DEMOLISHED MATERIALS

A. General: Remove from site accumulated debris, rubbish, and other materials resulting from demolition operations.

1. Burning of combustible materials from demolished structures will not be permitted on site.

B. Removal: Transport materials removed from demolished structures and legally dispose of at an offsite location. Burying demolition debris on site will not be permitted.

### 3.3 TRAFFIC CONTROL (1 South Main Street)

1. The contractor shall develop and implement a traffic control plan and obtain all necessary state permits. The plan shall be acceptable to both the CTDOT and the Borough of Naugatuck Police Department.
2. The plan shall include detours in the event road closures are proposed as well as include all required signage and protective devices.
3. One way travel at a minimum shall be maintained at all time.
4. The Contractor shall be responsible to pay for all traffic control cost including police officers as required for the duration of the project. No additional payment shall be made for this requirement.
5. The plan shall include adequate safety clear zones for traffic while demolition operations are in effect.
6. All lanes of traffic shall be opened following the end of work each day.
7. Traffic Lanes closures shall only be permitted from Monday – Friday from 8:30 AM to 3:30 PM.

### 3.4 PEDESTRIAN PROTECTION (1 South Main Street and 58 Maple Street)

1. The contractor shall develop and implement a pedestrian protection plan and obtain all necessary approvals. The plan shall be acceptable to both the CTDOT and the Borough of Naugatuck Police Department.
2. The plan shall include pedestrian detours and signage in the event sidewalks are closed. The plan shall include all required signage and protective devices.
3. The Contractor shall maintain pedestrian access to the area. This may be accomplished by directing pedestrians to the opposite side of the road.

4. The Contractor shall be responsible to pay for all pedestrian control cost including police officers as required for the duration of the project. No additional payment shall be made for this requirement.
5. The plan shall include adequate safety clear zones for pedestrians while demolition operations are in effect.
6. Sidewalk closures may be maintained throughout the demolition.

### 3.5 WETLAND AND WATERCOURSE. (1 South Main Street)

1. The contractor shall develop and implement a Wetlands and Watercourse protection plan that shall be acceptable to the Borough of Naugatuck Inland Wetlands Commission (IWC).
2. The Borough of Naugatuck shall be responsible to obtain the wetlands permit for the demolition project with assistance of the Contractor. The Contractor shall retain and acceptable engineer to develop Wetlands and Watercourse protection plan and required documentation for presentation to the IWC. The Contractors engineer shall expect to attend at least 2 regular IWC meetings.
3. All Wetland fees shall be the responsibility of the Borough of Naugatuck.
4. The proposed plan shall be sufficient to protect the Naugatuck River and surrounding areas from the Demolition activities as determined by the IWC. The plan at a minimum shall include an 8' chain link fence with chain link fabric along the river for dust and debris control, catch basin silt sacks for the surrounding area and a hay bale and silt fence barriers.

END OF SECTION





**Photo**



**Sketch**



**Primary Construction Details**

<b>Year Built</b>	1900
<b>Stories</b>	
<b>Building Style</b>	Old Style
<b>Building Use</b>	
<b>Building Condition</b>	
<b>Floors</b>	Linoleum
<b>Total Rooms</b>	
<b>Bedrooms</b>	
<b>Bathrooms</b>	1
<b>Bath Style</b>	Average
<b>Half Baths</b>	0

<b>Kitchen Style</b>	Average
<b>Roof Style</b>	Gable
<b>Roof Cover</b>	Asphalt
<b>Exterior Walls</b>	Vinyl Siding
<b>Interior Walls</b>	Plaster
<b>Heating Type</b>	Hot Water
<b>Heating Fuel</b>	Gas
<b>AC Type</b>	None
<b>Gross Bldg Area</b>	
<b>Total Living Area</b>	

**Sub Areas**

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
<b>Total Area</b>		



**EAGLE**  
**Environmental, Inc.**



Hazardous Building Materials > Industrial Hygiene/IAQ > Environmental Assessments > Laboratory Services & Training

March 5, 2014

Mr. James R. Stewart PE & LS  
Director of Public Works  
Borough of Naugatuck  
246 Rubber Avenue  
Naugatuck, Connecticut 06770

**RE: Pre-Demolition Hazardous Building Materials Inspection Report  
1 Orchard Terrace  
Naugatuck, Connecticut  
Eagle Project No. 14-029.10T1**

Dear Mr. Stewart:


Attached is the report for the hazardous building materials inspection conducted at 1 Orchard Terrace in Naugatuck, Connecticut. The scope of services included an asbestos-containing materials inspection, lead-based paint screen, lead waste characterization sampling and analysis and an inspection for universal waste materials.

The inspection was performed to support the demolition of the building.

Please do not hesitate to contact us if you have any questions regarding the contents of this report.

Sincerely,  
**Eagle Environmental, Inc.**

  
Report Prepared By:  
Chris Liberti  
Senior Project Manager

  
Report Reviewed By:  
Ashis Roychowdhury  
Executive Vice President

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Appendix 4	Lead Waste Characterization Laboratory Reports and Computation Table
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## 1. INTRODUCTION

On January 30, 2014, Eagle Environmental, Inc. conducted a hazardous building materials inspection of the structure located at 1 Orchard Terrace in Naugatuck, Connecticut. The scope of the hazardous building material inspection included an asbestos-containing materials inspection, a lead-based paint screen, lead waste characterization sampling and analysis and an inspection for universal waste materials. The inspection was performed to support the demolition of the building.

### 1.1 Building Description

The subject building located at 1 Orchard Terrace in Naugatuck, Connecticut is a single story residential structure of wood frame construction. The structure was built circa 1900. The building is constructed slab on grade. The mechanical equipment consists of an oil fired hot water baseboard system with copper finned tubing. The mechanical distribution system is un-insulated. The interior walls and ceilings are of sheetrock and joint compound construction. The window frames and sashes are of wood construction. The door frames are wood with wood doors. The floors are finished with various resilient flooring finishes. The exterior facades consist of vinyl siding over wood shingles. The roof is sloped and consists of several layers of asphalt shingles.

## 2. SCOPE OF INSPECTION

### 2.1 Asbestos Containing Materials

The asbestos inspection was conducted in order to satisfy the United States Environmental Protection Agency (USEPA) National Emission Standard for Hazardous Air Pollutants Act (NESHAP) as amended November 20, 1990. The USEPA NESHAP final rule requires the identification and removal of all regulated ACM in a building prior to demolition.

The asbestos inspection was performed by Souleymane Doumbia; a State of Connecticut licensed Asbestos Inspector (license #000804). The inspector made a good faith effort to find concealed suspect materials that might exist behind walls and pipe chases.

### 2.2 Lead-based Paint

#### 2.2.1 X-Ray Fluorescence Screen

The lead-based paint (LBP) screen was performed in accordance with the requirements of the State of Connecticut, Department of Energy and Environmental Protection (DEEP), Guidance for the Management and Disposal of Lead Contaminated Materials Generated in the Lead Abatement, Renovation and Demolition Industries. The DEEP regulates the disposal of hazardous lead waste in the State of Connecticut. Lead-contaminated debris, not contaminated with other hazardous materials, is classified either as hazardous lead waste or as non-hazardous solid waste.

Additionally the U.S. Department of Labor Occupational Safety and Health Administration (OSHA) regulates lead dust exposure to workers in the construction industry under 29 CFR 1926.62 Lead in Construction.

The lead-based paint screen was performed by Eltwaun Lawrence a State of Connecticut licensed Lead Inspector/Risk Assessor (license #002250).

## **2.2.2 Lead Waste Characterization**

The State of Connecticut Department of Energy and Environmental Protection (DEEP) regulates the disposal of hazardous waste. The required analytical test to determine a materials waste classification is the Toxicity Characteristic Leachate Procedure, or TCLP (Regulation of State DEP 22a-449© - 101 (a) (1), incorporating 40 CFR 262.24). Eagle Environmental, Inc. collected samples of building materials for lead waste characterization.

## **2.3 Universal Waste Materials and Other Environmental Concerns**

### **2.3.1 Polychlorinated Biphenyls (PCB) and Di-ethylhexlphthalate (DEHP) Containing Items**

PCB and DEHP lighting ballasts and electrical equipment, including capacitors and switches that contain PCBs, are regulated under the Toxic Substances Control Act of 1976 (TSCA) which bans the manufacturing and distribution of PCBs and regulates their storage and disposal.

PCBs and DEHP can be found in a number of items, including lighting ballast and electrical equipment, including capacitors and switches. DEHP and PCB-containing items such as these must be managed and disposed of in accordance with special requirements. A visual inspection for PCB and DEHP containing items was performed at the site building.

### **2.3.2 Mercury Containing Items**

Fluorescent lamps, thermostats, mercury switches, manometers, natural gas meters and other items can contain enough mercury to be classified as a special waste, and therefore may not be disposed of as regular construction debris. The mercury and mercury vapors associated with these products must be reclaimed prior to disposal or recycling of the products. A visual inspection for the presence of fluorescent lamps, thermostats and switches potentially containing mercury was performed at the site building.

### **2.3.3 Used Electronics and Batteries**

Used electronics and batteries may contain enough lead, mercury, cadmium or acid electrolytes to be classified as universal waste. In such cases, they may not be disposed of as regular construction debris. A visual inspection for the presence of used electronic devices was performed at the site building.

### **2.3.4 Chlorofluorocarbons**

Freon gas includes a number of gaseous, colorless chlorofluorocarbons (CFCs) that are commonly used as refrigerants. Freon is listed as a controlled substance by governments around the world. In the United States, the USEPA regulates the emission of Freon gas into the atmosphere due to its ozone depleting capabilities. Through Title VI, Stratospheric Ozone Protection, of the Clean Air Act Amendments of 1990, the USEPA regulates Freon gas and requires mandatory recycling and a ban on the intentional venting or releasing of refrigerants during maintenance, service and or repair. A visual inspection for the presence of building materials potentially containing Freon was performed at the site building.

### **3. INSPECTION PROTOCOLS**

#### **3.1 Asbestos Containing Materials**

##### **3.1.1 Inspection**

The asbestos-containing materials (ACM) inspection included the accessible interior and exterior portions of the building including the roofing systems. Semi-destructive testing techniques were utilized during the inspection process. This included cutting through various layers of flooring and roofing materials to verify and sample individual layers of suspect ACM. Suspect building materials that are inaccessible for inspection and sampling are assumed to be ACM for the purpose of this report. These suspect materials are generally located in operational equipment, behind rigid walls and ceilings, below rubber roof membranes or otherwise concealed areas of the building, including below grade materials.

During the inspection, suspect materials are located, sampled, quantified and the friability of the material is determined. Friable materials are those materials that hand pressure can crumble, pulverize or reduce to powder when dry. An estimated quantity of identified ACM is provided for positive materials only. The materials are quantified in linear or square feet, depending on the nature of the material.

##### **3.1.2 Bulk Sampling**

During the sampling process, suspect ACM is separated into three (3) USEPA categories. These categories are: Thermal System Insulation (TSI), Surfacing Materials (SURF), and Miscellaneous materials (MISC). TSI includes all materials used to prevent heat loss or gain or water condensation on mechanical systems. Examples of TSI are pipe covering, boiler insulation, duct wrap, and mudpack fitting cement. Surfacing ACM includes all ACM that is sprayed, troweled or otherwise applied to an existing surface. These applications are most commonly used in fireproofing, decorative, and acoustical applications. Miscellaneous materials include all ACM not listed in thermal or surfacing, such as linoleum, vinyl asbestos flooring, and ceiling tile.

Bulk sampling was performed in a random method. Bulk sampling methods and number of samples collected meets or exceeds the USEPA requirements.

##### **3.1.3 Bulk Sample Analysis**

The samples of the suspect asbestos containing materials were sent to a State of Connecticut Department of Public Health (DPH) approved laboratory for analysis by Polarized Light Microscopy (PLM). PLM is the USEPA accepted method of analysis for identification of asbestos in bulk matrixes. Samples are collected individually or in sets. When sets of samples are collected, each set is systematically analyzed until one sample is determined to contain asbestos. Upon the determination of the presence of asbestos in one sample in the set, analysis of the remaining samples in the set is discontinued. If no asbestos is observed during analysis of the set of samples, the suspect material is determined to be negative for asbestos content.

Sample analysis results are reported in percentage of asbestos and non-asbestos components. The USEPA defines any material that contains greater than one

percent asbestos, utilizing PLM, as being an asbestos-containing material (ACM). Suspect materials containing greater than one percent (1%) asbestos utilizing the PLM Point Count Method and the NOB TEM method are also considered to be asbestos-containing. Materials determined to contain greater than one percent (1%) asbestos is regulated by the USEPA, the State of Connecticut Department of Public Health and Department of Energy and Environmental Protection and the United States Department of Labor. Sample results indicating "no asbestos detected" (NAD) are specified as non-asbestos containing materials. Samples results indicating "Did Not Analyze" (DNA) are not analyzed due to the stop on first positive request to the laboratory.

### **3.1.3.1 Friable ACM Analysis**

Certain samples of friable materials shown to contain less than 10% asbestos are analyzed further by the "Point Count Method". This procedure is recommended by the United States Environmental Protection Agency to confirm friable bulk samples shown to have less than 10% asbestos by PLM to be definitively negative or positive for asbestos. This method is accepted as providing statistically reliable results when analyzing bulk samples with very low asbestos concentrations. Friable materials containing "Trace" or "less than one percent (1%)" asbestos must be analyzed by the PLM Point Count Method. None of the samples were further analyzed by the PLM Point Count Method for this project.

### **3.1.3.2 Non Friable ACM Analysis**

Certain samples of organically bound non-friable materials shown to contain "less than 1% asbestos", "TRACE" or "NAD" are recommended for analyses by the "NOB TEM ELAP 198.4 Method". This procedure is recommended by the United States Environmental Protection Agency to further evaluate non-friable organically bound materials for asbestos. Suspect materials confirmed by NOB TEM to be "less than 1% asbestos", "TRACE" or "NAD" are considered non-asbestos containing. One (1) sample was further analyzed by the NOB TEM Method for the this project.

## **3.2 Lead-based Paint**

### **3.2.1 X-Ray Fluorescence Screen**

The lead-based paint screen was performed utilizing an X-Ray Fluorescence (XRF) Radiation Monitoring Device (RMD) Lead Paint Analyzer (LPA 1), serial number 1364 within the limits of the inspection area(s). The screen includes only accessible areas within the inspection area(s) and accessible building materials.

The lead-based paint screen includes testing limited components and or surfaces throughout the structure. It is not the intent to test all painted components, but to identify on a broad scale the impact of lead paint as it relates to the disposal of lead paint contaminated debris and potential worker exposure issues. Generally, wall and ceiling surfaces, painted floors, window and door systems are tested. Other components such as baseboards, cabinets, columns, trim, etc. are tested on a limited basis. Component and surface locations are identified by side designations represented by the letters "A", "B", "C", and "D". The "A" side is considered the front of the building with the "B", "C", and "D" sides following in a clockwise order.



The data is presented on computer generated Lead Inspection Reports contained in Appendix 3. The Summary Report provides an inventory of each surface coating that contains lead at or above 1.0 mg/cm<sup>2</sup>. The Detailed Report is an inventory of each tested surface on a room-by-room basis.

For the purpose of this report, the XRF results are separated into two (2) categories; high levels of lead ( $\geq 1.0$  mg/cm<sup>2</sup>) and low levels of lead (<1.0 mg/cm<sup>2</sup>). Building materials containing high levels of lead have a greater probability of creating worker exposures during construction than do building materials with low levels of lead. Additionally, lead waste characterization sampling is required for building materials containing high levels of lead ( $\geq 1.0$  mg/cm<sup>2</sup>) and will become a waste product as a result of demolition or renovation activities.

The U.S. Department of Labor Occupation Safety and Health Administration (OSHA) regulates lead dust exposure to workers in the construction industry under 29 CFR 1926.62 Lead Exposure in Construction; Interim Final Rule. Currently, OSHA does not define a threshold level of lead in paint that may cause worker exposure. Any detectable level of lead in paint ( $>0.0$  mg/cm<sup>2</sup> +/- 0.3 mg/cm<sup>2</sup> by XRF or  $\geq 0.01$  % by AAS) requires task specific exposure monitoring.

### **3.2.2 Lead Waste Characterization**

The State of Connecticut Department of Energy and Environmental Protection regulates the disposal of hazardous waste. The required analytical test to determine a materials waste classification is the Toxicity Characteristic Leachate Procedure, or TCLP (Regulation of State DEEP 22a-449© - 101 (a) (1), incorporating 40 CFR 262.24).

The TCLP test subjects a 100-gram sample of waste material to a simulated landfill leaching condition, and assesses the ability of the sample to leach out lead into the environment. The waste is classified as hazardous lead waste if the TCLP sample result is greater than 5.0 mg/l of lead. The waste is classified as non-hazardous solid waste if the TCLP sample result is less than 5.0 mg/l of lead. Building debris containing equal to or greater than 1.0 mg/cm<sup>2</sup> of lead by XRF requires waste classification analysis.

There are two (2) primary approaches for TCLP sampling. Both methods utilize the data generated during the lead screen to determine which building materials contain lead in paint coatings and what percentage of the waste stream will consist of the leaded materials. The two (2) basic approaches are described below.

#### **Screen, Sample, and Segregate Method**

The Screen, Sample, and Segregate method of TCLP sampling is conducted in accordance with the State of Connecticut Department of Energy and Environmental Protection Guidance for the Management and Disposal of Lead-Contaminated Materials Generated in the Lead Abatement, Renovation, and Demolition Industries. This method entails screening the building components scheduled to be removed with an XRF lead paint analyzer. Components that are determined to be lead containing are sampled and analyzed by TCLP based on their contribution into the waste stream. The waste stream is made up of those building components that will be removed from the structure as part of the renovation or demolition process and will become a waste product.

## **Sample and Demolish Method**

The Composite Sample and Demolish Method of TCLP sampling is conducted in accordance with the State of Connecticut Department of Energy and Environmental Protection Guidance for the Management and Disposal of Lead-Contaminated Materials Generated in the Lead Abatement, Renovation, and Demolition Industries. This method utilizes composite samples to assess the total amount of leachable lead of the entire quantity of debris to be removed. This sampling method is best utilized for whole building demolitions where the quantity of non-lead debris is expected to be much greater than that of the leaded debris. The first step in the sampling process requires the inspector to identify the potential waste stream of the structure to be demolished. The waste stream is made up of those building components that will be disposed of once the structure is demolished. The inspector calculates the mass by weight of each group of building components within the building (i.e. studs, framing, sheathing, siding, doors, windows, etc.). The lead testing results enables the inspector to determine the percentages of components, within each group, that contain lead. With this information, the inspector can then calculate the percent by weight contribution of each components contribution into the waste stream. This takes into account the ratio of leaded components verse non-leaded components within each group.

### **3.3 Universal Waste Materials and Other Environmental Concerns**

#### **3.3.1 PCB and Di-ethylhexlphthalate (DEHP) Containing Items**

A visual inspection for the presence of lighting ballasts and electrical equipment potentially containing PCB's or DEHP was performed within the inspection areas. Lighting ballasts and oil-filled capacitor manufactured after 1979 may have "NO PCB's" stamped on its casing. These are filled with oil which does not contain PCB's but may contain DEHP. Lighting ballasts and Capacitors with date stamps prior to 1979 or no date stamps are assumed to contain PCB's. Lighting ballasts and capacitors labeled as "No PCB's" are assumed to contain DEHP if the date stamp is illegible or non-existent. Electronic ballasts are not assumed to contain PCB's or DEHP.

#### **3.3.2 Mercury Containing Items**

During the visual inspection process, fluorescent, metal halide and sodium lamps are assumed to contain mercury vapors unless the end caps of the tubes are green indicating they are mercury free. Thermostatic controls, switches, manometers, capacitors and other used electronic components are inventoried during the inspection process.

#### **3.3.3 Used Electronics and Batteries**

An inventory of used electronics that may fall under the Universal Waste regulations was developed during the inspection. These materials include but are not limited to lead acid batteries in emergency lighting and exit signs and stored electronic equipment that may contain hazardous or regulated substances. Electronic components such as computers, copy machines, etc that are in use at the time of the inspection are generally not included in the inventory.

### 3.3.4 Chlorofluorocarbons

Eagle Environmental inspected the building for compressor tanks associated with water fountains, portable air conditioning units, the indoor environmental cooling system and walk-in coolers or freezers where applicable. The inspectors also inspected rooftop HVAC units where present. These tanks are all assumed to contain Freon. The size and quantity of tanks are estimated and recorded.

## 4. INSPECTION RESULTS

### 4.1 Asbestos Containing Materials

During the course of the building inspection fifty-two (52) bulk samples of suspect ACM were collected and forty-nine (49) samples were analyzed by PLM based on the "stop on first positive" request to the laboratory. Additionally there was one (1) sample analyzed by the NOB TEM Method.

From the forty-nine (49) samples analyzed, the flue cement in room 002, the black caulk around the chimney and exhaust pipe on the roof and the caulk around the pipe at the water tank and wall junction in room 003 were found to be ACM. The remaining suspect materials were confirmed to be non-ACM.

The summaries of asbestos and non-asbestos materials are presented in Tables I and II respectively. The asbestos analysis laboratory reports are provided in Appendix 2.

The NOB TEM analyses confirmed the 9"x9" grey floor tile to be non-asbestos.

Any suspect material not specifically identified in this report as non-ACM should be assumed to contain asbestos unless sample results prove otherwise.

All regulated friable and regulated non-friable ACM must be removed prior to demolition activities. A State of Connecticut Licensed Asbestos Abatement Contractor must be retained to perform the removal work. Visual inspections and air clearances must be performed within each abatement area at the completion of the abatement work. The visual inspections and air clearances must be performed by a State of Connecticut licensed Asbestos Project Monitor. The abatement areas must meet final visual and air clearance inspection criteria prior to building demolition. Re-occupancy air monitoring is not required if the building will not be re-entered by any person following abatement and prior to demolition. This includes but is not limited to entry for utility disconnects, salvage, equipment removal, etc. Where less than three (3) linear feet or three (3) square feet of ACM will be removed within a single room, spot repair procedures maybe utilized by the Asbestos Abatement Contractor. Visual inspections by the licensed Asbestos Project Monitor will still be required following spot repair removal procedures.

The Asbestos Abatement Contractor must submit a notice of asbestos abatement to the State of Connecticut Department of Public Health post marked or hand delivered ten (10) days prior to the commencement of any asbestos abatement activities involving the abatement of greater than ten (10) linear feet or twenty-five (25) square feet of asbestos-containing materials. The asbestos abatement notification satisfies the DPH regulatory requirements for demolition notification. For asbestos abatement projects involving less

than ten (10) linear feet or twenty-five (25) square feet of asbestos-containing materials or projects where no regulated asbestos-containing materials are identified, the facility owner or any person who will be conducting demolition must submit a demolition notification to the State of Connecticut Department of Public Health post marked or hand delivered ten (10) days prior to the commencement of demolition activities.

## **4.2 Lead-based Paint**

### **4.2.1 X-Ray Fluorescence Screen**

A total of seventy-six (76) XRF readings were collected during the lead-based paints screen of the building. From the seventy-six (76) readings, twenty-two (22) were found to contain high levels of lead.

The general inventory of surfaces containing high levels of lead include the following: exterior wood window components, exterior porch ceiling, interior sheetrock walls and ceilings, wood crown molding and wood chair rails.

Additionally, several building materials were determined to contain low levels of lead in paint. These materials include wood floors, wood baseboards, wood stair components, metal pipes, wood cabinets and wood window components. Although these levels of lead in paint were less than 1.0 mg/cm<sup>2</sup>, the contractor must perform an exposure assessment on employees during tasks that disturb the painted materials.

The remaining components and surfaces that were tested contain no lead in their respective paint coatings.

The U.S. Department of Labor Occupation Safety and Health Administration (OSHA) regulates lead dust exposure to workers in the construction industry under 29 CFR 1926.62 Lead Exposure in Construction; Interim Final Rule. Currently, OSHA does not define a threshold level of lead in paint that may cause worker exposure. Any detectable level of lead in paint (>0.0 mg/cm<sup>2</sup> +/- 0.3 mg/cm<sup>2</sup> by XRF or >0.01 % by AAS) requires task specific exposure monitoring. This "initial exposure assessment" must be conducted by trained workers utilizing appropriate personal protective equipment. Exposure assessments must be conducted for each task where painted surfaces or components are disturbed.

Examples of task subject to initial monitoring when detectable levels of lead are identified include but are not limited to surface preparation for repainting, manual demolition of components with detectable levels of lead paint and the welding, cutting or grinding of steel with detectable levels of lead in paint.

A complete inventory of tested building materials is presented in Detailed Reports contained Appendix 3.

### **4.2.2 Lead Waste Characterization Results**

One (1) composite TCLP sample was collected for waste characterization purposes. The waste stream and associated contribution to be generated during building demolition include: negative wood (78%) positive wood (1%), negative sheetrock (10%), positive sheetrock (6%), negative fiberboard (1%) and negative roofing (4%) that will be land filled as a result of demolition activities.

The result of the composite TCLP sample was 4.04 mg/L characterizing the whole building demolition waste stream as non-hazardous waste.

The TCLP laboratory reports and computation tables are provided in Appendix 4.

The waste characterization sampling and analysis confirmed that no hazardous lead waste will be generated as a result of demolition activities. The waste generated during demolition of the building may be disposed of as non-hazardous solid waste. Metal components may be recycled at an approved recycling facility.

### **4.3 Universal Waste Materials and Other Environmental Concerns**

#### **4.3.1 PCB and Di-ethylhexylphthalate (DEHP) Containing Items**

There were no PCB containing lighting ballasts nor were there DEHP containing lighting ballasts present within the inspection site.

One (1) capacitor potentially containing dielectric fluid was identified within the inspection site. The capacitor associated with the refrigerator must be removed for proper recycling prior to building demolition.

One (1) electronic ballasts was identified. No further action is required for the electronic ballasts.

The associated inspection data is provided in Table III.

#### **4.3.2 Mercury Containing Items**

A total of approximately two (2) linear feet of fluorescent light tubes and one (1) round lamp were present within the inspection site. The fluorescent light tubes must be removed from the building for proper recycling prior to building demolition.

The associated inspection data is provided in Table III.

#### **4.3.3 Used Electronics and Batteries**

There were no emergency lights containing lead-acid batteries present within the inspection site.

The associated inspection data is provided in Table III.

#### **4.3.4 Chlorofluorocarbons**

A total of one (1) refrigerator containing a two (2) gallon Freon tank was identified within the inspection site. The Freon must be reclaimed from the tanks prior to building demolition/renovation.

The associated inspection data is provided in Table III.

## **5. COST ESTIMATES**

This is a budgetary opinion of cost that is expected to be within -15 to + 30 percent of the actual cost. Eagle Environmental, Inc. has no control over the cost of labor, materials, equipment or services furnished by others, or over the Contractor or Contractors' methods of determining prices, or over competitive bidding or market conditions. Eagle Environmental, Inc.'s opinion of probable cost of abatement are made on the basis of Eagle Environmental, Inc.'s experience and qualifications and represent Eagle Environmental, Inc.'s judgment as an experienced and qualified consultant familiar with the abatement industry; but Eagle Environmental, Inc. cannot and does not guarantee that proposals, bids or actual Total Project or Abatement Cost will not vary from opinions of probable cost prepared by Eagle Environmental, Inc. If, prior to the bidding or negotiating phase, the Owner wishes greater assurance as to Total Project or Abatement Cost, the Owner shall employ an independent cost estimator.

The cost estimates are provided in Appendix 5.

**TABLE I**

**ASBESTOS CONTAINING MATERIALS SUMMARY TABLE**

**TABLE I**  
**ASBESTOS CONTAINING MATERIALS**  
**SUMMARY TABLE**  
**1 ORCHARD TERRACE**  
**NAUGATUCK, CONNECTICUT**

LOCATION(S)	MATERIAL TYPE	SAMPLE NUMBER	CATEGORY	BULK SAMPLE ANALYSIS RESULTS				ESTIMATED QUANTITY	F/NF	
				PLM	PLM PC	TEM	NOB			ACM
002	Flue cement	1-30-SD-15	TSI	50% Chrys				YES	1 SF	F
		1-30-SD-16		DNA						
Roof	Black caulk around chimney and pipe exhaust	1-30-SD-47	MISC	10% Chrys				YES	8 SF	NF
		1-30-SD-48		DNA						
003	Caulk around pipe at water tank and wall junction	1-30-SD-49	MISC	3% Chrys				YES	1 SF	NF
		1-30-SD-50		DNA						
<b>KEY</b>										
DNA = DID NOT ANALYZE										
NAD = NO ASBESTOS DETECTED										
F = FRIABLE										
NF = NON-FRIABLE										
TSI = THERMAL SYSTEMS INSULATION										
SURF = SURFACING MATERIAL										
MISC = MISCELLANEOUS MATERIAL										
				<b>ANALYTICAL METHODS</b>						
				PLM PC = EPA 600/R-93/116 QUANTITATION 400 POINT COUNT						
				TEM NOB = NEW YORK ELAP 198.4 METHOD						
				PLM = EPA 600/R-93/116						
				PS = Previously Sampled						
				EA = Each						
<b>BOLD TEXT IN "LOCATION" COLUMN INDICATES SAMPLE LOCATION</b>										



**TABLE II**

**NON-ASBESTOS-CONTAINING MATERIALS SUMMARY TABLE**

**TABLE II**  
**NON - ASBESTOS CONTAINING MATERIALS**  
**SUMMARY TABLE**  
**1 ORCHARD TERRACE**  
**NAUGATUCK, CONNECTICUT**

SAMPLE LOCATION(S)	MATERIAL TYPE	SAMPLE NUMBER	CATEGORY	BULK SAMPLE ANALYSIS RESULTS			
				PLM	PLM PC	TEM NOB	ACM
001, 004	Paper under hard wood floor	1-30-SD-01	MISC	NAD			NO
		1-30-SD-02		NAD			
001, 002	Black mastic under 9"x9" floor tile	1-30-SD-03	MISC	NAD			NO
		1-30-SD-04		NAD			
001, 003	9"x9" Grey floor tile	1-30-SD-05	MISC	NAD			NO
		1-30-SD-06		NAD			
001	Carpet adhesive	1-30-SD-07	MISC	NAD			NO
		1-30-SD-08		NAD			
003, 006	Wall and ceiling sheetrock	1-30-SD-09	MISC	NAD			NO
		1-30-SD-10		NAD			
004, 007	Wall and ceiling joint compound	1-30-SD-11	MISC	NAD			NO
		1-30-SD-12		NAD			
004, 007	Wall and ceiling sheetrock/ joint compound composite	1-30-SD-13	MISC	NAD			NO
		1-30-SD-14		NAD			
002	Adhesive associated with brown cove base	1-30-SD-17	MISC	NAD			NO
		1-30-SD-18		NAD			
002	Brown cove base	1-30-SD-19	MISC	NAD			NO
		1-30-SD-20		NAD			
003	Adhesive associated with wall paper	1-30-SD-21	MISC	NAD			NO
		1-30-SD-22		NAD			
003	Wall paper	1-30-SD-23	MISC	NAD			NO
		1-30-SD-24		NAD			
<b>KEY</b>				<b>ANALYTICAL METHODS</b>			
DNA = DID NOT ANALYZE				PLM PC = EPA 600/R-93/116 QUANTITATION 400 POINT COUNT			
NAD=NO ASBESTOS DETECTED				TEM NOB = NEW YORK ELAP 198.4 METHOD			
F = FRIABLE				PLM = EPA 600/R-93/116			
NF = NON-FRIABLE				PS = Previously Sampled			
TSI = THERMAL SYSTEMS INSULATION				EA = Each			
SURF = SURFACING MATERIAL							
MISC = MISCELLANEOUS MATERIAL							
<b>BOLD TEXT IN "LOCATION" COLUMN INDICATES SAMPLE LOCATION</b>							

**TABLE II**  
**NON - ASBESTOS CONTAINING MATERIALS**  
**SUMMARY TABLE**  
**1 ORCHARD TERRACE**  
**NAUGATUCK, CONNECTICUT**

SAMPLE LOCATION(S)	MATERIAL TYPE	SAMPLE NUMBER	CATEGORY	BULK SAMPLE ANALYSIS RESULTS			
				PLM	PLM PC	TEM NOB	
						ACM	
004	Adhesive associated with wall paper	1-30-SD-25	MISC	NAD			NO
		1-30-SD-26		NAD			
004	Wall paper	1-30-SD-27	MISC	NAD			NO
		1-30-SD-28		NAD			
005	Carpet adhesive	1-30-SD-29	MISC	NAD			NO
		1-30-SD-30		NAD			
005, 002	Adhesive associated with wall panels	1-30-SD-31	MISC	NAD			NO
		1-30-SD-32		NAD			
006, 007	Adhesive associated with linoleum flooring	1-30-SD-33	MISC	NAD			NO
		1-30-SD-34		NAD			
006, 008	Linoleum flooring	1-30-SD-35	MISC	NAD			NO
		1-30-SD-36		NAD			
Façade A	Black paper inside wall wood	1-30-SD-37	MISC	NAD			NO
		1-30-SD-38		NAD			
Façade B, Façade D	Window caulk	1-30-SD-39	MISC	NAD			NO
		1-30-SD-40		NAD			
Façade A, Façade C	Window glazing compound	1-30-SD-41	MISC	NAD			NO
		1-30-SD-42		NAD			
Roof	Black shingle top layer	1-30-SD-43	MISC	NAD			NO
		1-30-SD-44		NAD			
Roof	Red shingle bottom layer	1-30-SD-45	MISC	NAD			NO
		1-30-SD-46		NAD			
002	White caulk behind wood panels	1-30-SD-51	MISC	NAD			NO
		1-30-SD-52		NAD			
<b>KEY</b>				<b>ANALYTICAL METHODS</b>			
DNA = DID NOT ANALYZE				PLM PC = EPA 600/R-93/116 QUANTITATION			400 POINT COUNT
NAD=NO ASBESTOS DETECTED				TEM NOB = NEW YORK ELAP 198.4 METHOD			
F = FRIABLE				PLM = EPA 600/R-93/116			
NF = NON-FRIABLE				PS = Previously Sampled			
TSI = THERMAL SYSTEMS INSULATION				EA = Each			
SURF = SURFACING MATERIAL							
MISC = MISCELLANEOUS MATERIAL							
<b>BOLD TEXT IN "LOCATION" COLUMN INDICATES SAMPLE LOCATION</b>							

**TABLE III**

**UNIVERSAL WASTE MATERIALS SUMMARY TABLE**

TABLE III  
 UNIVERSAL WASTE PRODUCTS  
 SUMMARY TABLE  
 1 ORCHARD TERRACE  
 NAUGATUCK, CONNECTICUT

ROOM	FIXTURE E-TYPE	BALLAST TYPE		ELECTRONICS		THERMO STATS	LAMPS		BATTERIES						
		POB	DEPR	SPENT	CAPACITORS		ORCS	HT	ROUND	U-SHAPE	FA	ES	ELS		
003					Refrigerator			1							
007			1		Refrigerator				2						
<b>TOTAL</b>			<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>NOTES</b>															
<b>KEYS: FA = Fire Alarm / ES = Exit Sign / ELS = Emergency Lighting System</b>															
<b>FIXTURE TYPE</b>															
<b>DESCRIPTION</b>															

**APPENDIX 1**

**FLOOR PLANS AND ROOF PLANS**

# BOROUGH of NAUGATUCK

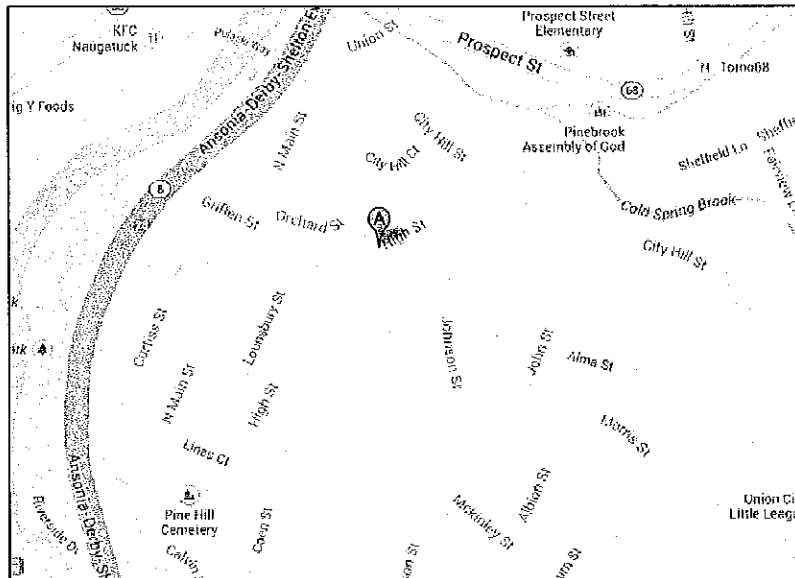
14-029.10T1

1 ORCHARD TERRACE  
NAUGATUCK, CONNECTICUT

## INDEX OF DRAWINGS

FP-1 FIRST FLOOR  
FP-2 ATTIC  
RP-1 ROOF

### LOCATION MAP



MARCH 4, 2014



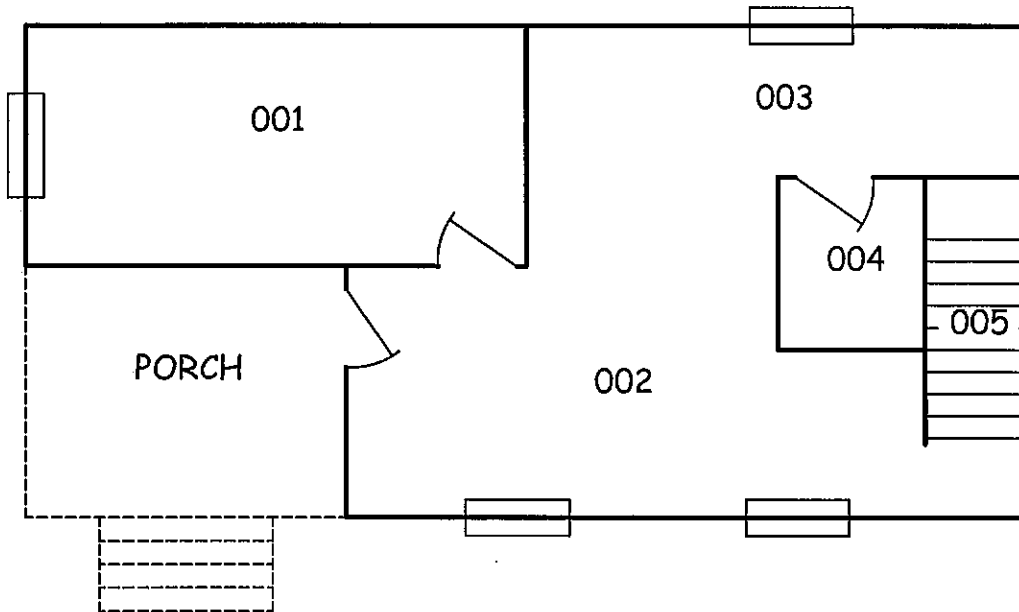
8 SOUTH MAIN STREET, SUITE 3  
TERRYVILLE, CONNECTICUT 06786  
860-589-8257

FIRST FLOOR

SIDE-C

SIDE-B

SIDE-D



SIDE-A (STREET SIDE)

C = CLOSET EVALUATED WITH ADJACENT ROOM  
NOT TO SCALE



**EAGLE**  
Environmental, Inc.

8 SOUTH MAIN STREET, SUITE 3  
TERRYVILLE, CONNECTICUT 06786  
860-589-8257

**HAZARDOUS BUILDING MATERIAL INSPECTION**  
1 ORCHARD TERRACE  
NAUGATUCK, CONNECTICUT  
FIRST FLOOR

SHEET NO.

**FP-1**

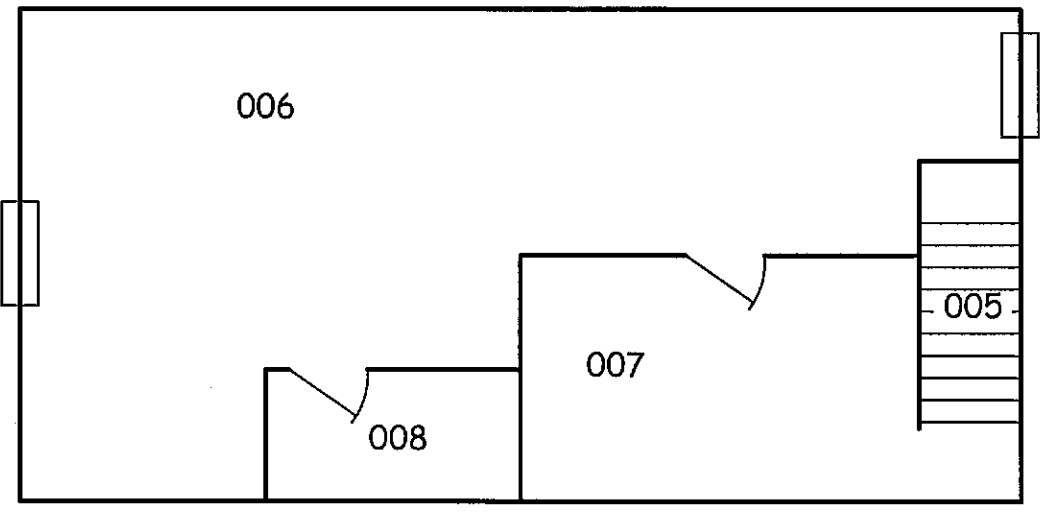
SHEET 1 OF 3

DATE: 03/04/14  
PROJECT NO.: 14-029.10T1  
DRAWN BY: VB  
REVIEWED BY: CL



ATTIC

SIDE-C



C = CLOSET EVALUATED WITH ADJACENT ROOM  
NOT TO SCALE

SIDE-A (STREET SIDE)



**EAGLE**  
Environmental, Inc.

8 SOUTH MAIN STREET, SUITE 3  
TERRYVILLE, CONNECTICUT 06786  
860-589-8257

**HAZARDOUS BUILDING MATERIAL INSPECTION**  
**1 ORCHARD TERRACE**  
**NAUGATUCK, CONNECTICUT**  
**ATTIC**

SHEET NO.

**FP-2**

SHEET 2 OF 3

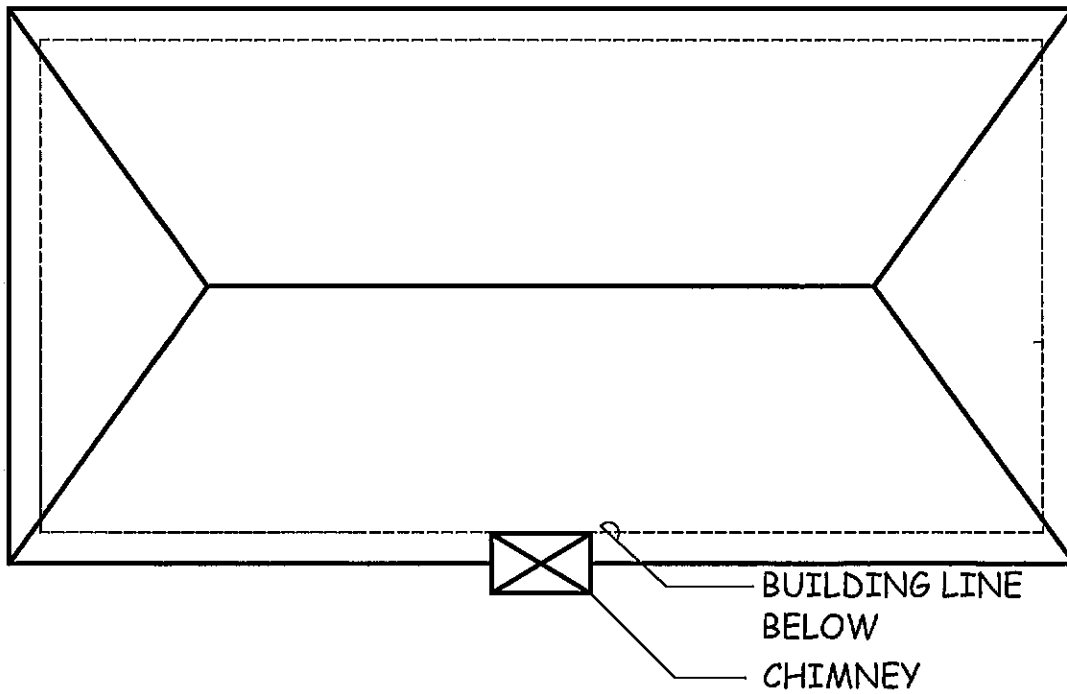
DATE: 03/04/14  
PROJECT NO.: 14-029.10T1  
DRAWN BY: VB  
REVIEWED BY: CL

ROOF

SIDE-C

SIDE-B

SIDE-D



BUILDING LINE  
BELOW  
CHIMNEY

SIDE-A (STREET SIDE)

C = CLOSET EVALUATED  
WITH ADJACENT ROOM  
NOT TO SCALE



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860-589-8257

SHEET NO.

**RP-1**

SHEET 3 OF 3

DATE: 03/04/14  
PROJECT NO.: 14-029.10T1  
DRAWN BY: VB  
REVIEWED BY: CL

**HAZARDOUS BUILDING MATERIAL INSPECTION**  
**1 ORCHARD TERRACE**  
**NAUGATUCK, CONNECTICUT**  
**ROOF**

**APPENDIX 2**

**ASBESTOS BULK SAMPLE LABORATORY REPORTS**



<b>EMSL – MA</b> 7 Constitution Way, Ste 107 Woburn, MA 01801 (781) 933-8411 (781) 933-8412 Fax	<b>EMSL – CT</b> 29 N. Plains Hwy, Unit 4 Wallingford, CT 06492 (203) 284-5948 (203) 284-5978 Fax	<b>EMSL – NY</b> 307 West 38 <sup>th</sup> Street New York, NY 10018 (866) 448-3675 (212) 290-0058 Fax	<b>EMSL – NJ</b> 107 Haddon Avenue Westmont, NJ 08108 (800) 220-3675 (856) 858-4960 Fax
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**Your Name:** Brandy LeBlanc **Project Manager:** CL 031404279  
**Company:** Eagle Environmental, Inc.  
**Street:** 8 South Main Street, Suite 3  
**City/State/Zip:** Terryville, CT 06786  
**Phone:** 860-589-8257 ext. 203 **Fax:** 860-585-7034 **Email:** bleblanc@eagleenviro.com; dwynne@eagleenviro.com; rsloch@eagleenviro.com  
**Project Name:** BOROUGH OF NAUGATUCK **Project #:** 14-029.1071  
**Project Location:** 1 ORCHARD TERRACE, NAUGATUCK **Project State (US):** CT

**TURNAROUND TIME**

3 Hours   
  6 Hours   
  24 Hours   
  48 Hours   
  72 Hours   
  4 Days   
  5 Days   
  6-10 Days

**SAMPLE MATRIX**

Air   
  Bulk   
  Soil   
  Wipe   
  Micro-Vac   
  Drinking Water   
  Wastewater   
  Chips   
  Other

**ASBESTOS ANALYSIS**

**PCM - Air**  
 NIOSH 7400 (A) Issue 2: August 1994  
 OSHA w/TWA  
**TEM AIR**  
 AHERA 40 CFR, Part 763 Subpart E  
 NIOSH 7402 Issue 2  
 EPA Level II  
**PLM - Bulk**  
 EPA 600/R-93/116  
 NY Stratified Point Count  
 California Air Resource Board (CARB) 435  
 NIOSH 9002  
 PLM NOB (Gravimetric) NYS 198.1  
 EPA Point Count (400 Points)  
 EPA Point Count (1,000 Points)  
 Standard Addition Point Count  
**SOILS**  
 EPA Protocol Qualitative  
 EPA Protocol Quantitative  
 EMSL MSD 9000 Method fibers/gram  
 Superfund EPA 540-R097-028 (dust generation)  
**TEM BULK**  
 Drop Mount (Qualitative)  
 Chatfield SOP-1988-02  
 TEM NOB (Gravimetric) NY 198.4  
**TEM MICROVAC**  
 ASTM D 5755-95 (Quantitative)  
**TEM WIPE**  
 ASTM D-6480-99  
 Qualitative  
**TEM WATER**  
 EPA 100.1  
 EPA 100.2  
 NYS 198.2  
 Other:

**LEAD ANALYSIS**

**Flame Atomic Absorption**  
 Wipe, SW846-7420  ASTM  non-ASTM  
 Soil, SW846-7420  
 Air, NIOSH 7082  
 Chips, SW846-7420 or AOAC 5.009 (974.02)  
 Wastewater, SW 846-7420  
 TCLP LEAD SW846-1311/7420  
**Graphite Furnace Atomic Absorption**  
 Air, NIOSH 7105  
 Wastewater, SW846-7421  
 Soil, SW846-7421  
 Drinking Water, EPA 239.2  
**ICP – Inductively Coupled Plasma**  
 Wipe, SW846-6010  ASTM  non-ASTM  
 Soil, SW846-6010  
 Air, NIOSH 7300

**MICROBIAL ANALYSIS**

**Air Samples**  
 Mold & Fungi by Air O Cell  
 Mold & Fungi by Agar Plate count & id  
 Bacterial Count and Gram Stain  
 Bacterial Count and Identification  
**Water Samples**  
 Total Coliforms, Fecal Coliforms  
 Escherichia Coli, Fecal Streptococcus  
 Legionella  
 Salmonella  
 Giardia and Cryptosporidium  
**Wipe and Bulk Samples**  
 Mold & Fungi – Direct Examination  
 Mold & Fungi – (Culture follow up to direct examination if necessary)  
 Mold & Fungi – Culture (Count & ID)  
 Mold & Fungi – Culture (Count only)  
 Bacterial Count & Gram Stain  
 Bacterial Count & Identification (3 most prominent types)  
 Other:

**MATERIALS ANALYSIS**

Full Particle Identification  
 Optical Particle Identification  
 Dust Miles and Insect Fragments  
 Particle Size & Distribution  
 Product Comparison  
 Paint Characterization  
 Failure Analysis  
 Corrosion Analysis  
 Glove Box Containment Study  
 Petrographic Examination of Concrete  
 Portland Cement in Workplace Atmospheres (OSHA ID-143)  
 Man Made Vitreous Fibers – MMVF's  
 Synthetic Fiber Identification  
 Other:

Additional Information/Comments/Instructions: **\*\*PLEASE STOP ON 1<sup>ST</sup> POSITIVE WITHIN SETS**

Client Sample # (S)	1-30-SD-01	1-30-SD-52	TOTAL SAMPLE #	52
Relinquished:	SULEYMANE DOUMBIA	Date: 1-31-14	Time: PM	
Received:	RENEE SIOCH	Date: 1-31-14	Time: PM	
Relinquished:	RENEE SIOCH	Date: 1-31-14	Time: PM	
Received:	<i>[Signature]</i>	Date: 2/1/14	Time: 12:15 PM	

*Early Mgmt 2-5-14 9:45A*



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107 Haddon Avenue  
Westmont, NJ 08108  
(800) 220-3675  
(856) 858-4960 Fax

031404279

SAMPLE NUMBER	SAMPLE DESCRIPTION	ROOM or LOCATION	VOLUME Air (L)	Area (Inches sq.)
1-30-SD-01	Paper under hard wood floor	001		NAD
1-30-SD-02	Paper under hard wood floor	004		↓
1-30-SD-03	Black mastic under 9"x9" floor tile	001		
1-30-SD-04	Black mastic under 9"x9" floor tile	002		
1-30-SD-05	9"x9" Grey floor tile	001		
1-30-SD-06	9"x9" Grey floor tile	003		
1-30-SD-07	Carpet adhesive	001		
1-30-SD-08	Carpet adhesive	001		
1-30-SD-09	Wall and ceiling sheetrock	003		
1-30-SD-10	Wall and ceiling sheetrock	006		
1-30-SD-11	Wall and ceiling joint compound	004		
1-30-SD-12	Wall and ceiling joint compound	007		
1-30-SD-13	Wall and ceiling sheetrock/joint compound composit	004		
1-30-SD-14	Wall and ceiling sheetrock/joint compound composit	007		
1-30-SD-15	Flue cement	002		
1-30-SD-16	Flue cement	002		
1-30-SD-17	Adhesive associated with brown cove base	002		
1-30-SD-18	Adhesive associated with brown cove base	002		
1-30-SD-19	Brown cove base	002		
1-30-SD-20	Brown cove base	002		
1-30-SD-21	Adhesive associated with wall paper	003		
1-30-SD-22	Adhesive associated with wall paper	003		
1-30-SD-23	Wall paper	003		
1-30-SD-24	Wall paper	003		

50% CHWS  
DNA  
NAD

Emily Myer 2-5-19 9:45A

HA 2/4 P. 200



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 7 Constitution Way, Ste 107  
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 107 Haddon Avenue  
 Westmont, NJ 08108  
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 (856) 858-4960 Fax

031404279

SAMPLE NUMBER	SAMPLE DESCRIPTION	ROOM or LOCATION	VOLUME Air (L)	Area (Inches sq.)
1-30-SD-25	Adhesive associated with wall paper	004		NAID
1-30-SD-26	Adhesive associated with wall paper	004		
1-30-SD-27	Wall paper	004		
1-30-SD-28	Wall paper	004		
1-30-SD-29	Carpet adhesive	005		
1-30-SD-30	Carpet adhesive	005		
1-30-SD-31	Adhesive associated with wall panel	005		
1-30-SD-32	Adhesive associated with wall panel	002		
1-30-SD-33	Adhesive associated with linoleum flooring	006		
1-30-SD-34	Adhesive associated with linoleum flooring	007		
1-30-SD-35	Linoleum flooring	006		
1-30-SD-36	Linoleum flooring	008		
1-30-SD-37	Black paper inside wall wood	FacadeA		
1-30-SD-38	Black paper inside wall wood	FacadeA		
1-30-SD-39	Window caulk	FacadeB		
1-30-SD-40	Window caulk	FacadeD		
1-30-SD-41	Window glazing compound	FacadeA		
1-30-SD-42	Window glazing compound	FacadeC		
1-30-SD-43	Black shingle top layer	Roof		
1-30-SD-44	Black shingle top layer	Roof		
1-30-SD-45	Red shingle bottom layer	Roof		
1-30-SD-46	Red shingle bottom layer	Roof		
1-30-SD-47	Black caulk around chimney and pipe exhaust	Roof		
1-30-SD-48	Black caulk around chimney and pipe exhaust	Roof		10% Chys DATA

Early Mgmt 2-5-14 9:45A

HA 2/4  
 12-2000



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EMSL - NJ  
 107 Haddon Avenue  
 Westmont, NJ 08108  
 (800) 220-3675  
 (856) 858-4960 Fax

031404279

SAMPLE NUMBER	SAMPLE DESCRIPTION	ROOM or LOCATION	VOLUME Air (L)	Area (Inches sq.)
1-30-SD-49	Caulk around pipe	003		390 Chms
1-30-SD-50	Caulk around pipe	003		DATA
1-30-SD-51	White caulk behind wood panels	002		DATA
1-30-SD-52	White caulk behind wood panels	002		DATA

Emily Myint 2-5-14 9:45A

**EMSL Analytical, Inc.**

307 West 38th Street, New York, NY 10018  
 Phone/Fax: (212) 290-0051 / (212) 290-0058  
<http://www.EMSL.com> [manhattanlab@emsl.com](mailto:manhattanlab@emsl.com)

EMSL Order: 031404279  
 CustomerID: EEVM50  
 CustomerPO:  
 ProjectID:

Attn: **Brandy LeBlanc**  
**Eagle Environmental, Inc. - CT**  
**8 South Main Street**  
**Suite 3**  
**Terryville, CT 06786**

Phone: (860) 589-8257  
 Fax: (860) 585-7034  
 Received: 02/01/14 12:15 PM  
 Analysis Date: 2/5/2014  
 Collected: 1/31/2014

Project: 14-029.10T1/ BOROUGH OF NAUGATUK/ 1 ORCHARD TERRACE NAUGATUCK

### 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
1-30-SD-01 031404279-0001	PAPER UNDER HARD WOOD FLOOR	Brown Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (other)	None Detected
1-30-SD-02 031404279-0002	PAPER UNDER HARD WOOD FLOOR	Gray Non-Fibrous Heterogeneous	95% Cellulose	5% Non-fibrous (other)	None Detected
1-30-SD-03 031404279-0003	BLACK MASTIC UNDER 9"X9" FLOOR TILE	Black Fibrous Homogeneous	35% Cellulose	65% Non-fibrous (other)	None Detected
1-30-SD-04 031404279-0004	BLACK MASTIC UNDER 9"X9" FLOOR TILE	Black Fibrous Heterogeneous	25% Cellulose	70% Matrix 5% Non-fibrous (other)	None Detected
1-30-SD-05 031404279-0005	9"X9" GREY FLOOR TILE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1-30-SD-06 031404279-0006	9"X9" GREY FLOOR TILE	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Matrix 0% Non-fibrous (other)	None Detected
1-30-SD-07 031404279-0007	CARPET ADHESIVE	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1-30-SD-08 031404279-0008	CARPET ADHESIVE	Brown Non-Fibrous Heterogeneous	30% Cellulose	70% Matrix 0% Non-fibrous (other)	None Detected

Analyst(s)

Emily Myint (23)  
 Henry Akintunde (26)

James Hall, Laboratory Manager  
 or other approved signatory

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 Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC--IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NYS ELAP 11506, NJ NY022, CT PH-0170, MA AA000170

Initial report from 02/05/2014 11:07:45



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EMSL Order: 031404279  
 CustomerID: EEVM50  
 CustomerPO:  
 ProjectID:

Attn: **Brandy LeBlanc**  
**Eagle Environmental, Inc. - CT**  
**8 South Main Street**  
**Suite 3**  
**Terryville, CT 06786**

Phone: (860) 589-8257  
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 Received: 02/01/14 12:15 PM  
 Analysis Date: 2/5/2014  
 Collected: 1/31/2014

Project: 14-029.10T1/ BOROUGH OF NAUGATUK/ 1 ORCHARD TERRACE NAUGATUCK

### 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
1-30-SD-09 <i>031404279-0009</i>	WALL AND CEILING SHEETROCK	Brown/Gray Fibrous Homogeneous	12% Cellulose 2% Glass	65% Gypsum 21% Non-fibrous (other)	None Detected
1-30-SD-10 <i>031404279-0010</i>	WALL AND CEILING SHEETROCK	Brown/Gray Fibrous Heterogeneous	10% Cellulose	55% Gypsum 35% Non-fibrous (other)	None Detected
1-30-SD-11 <i>031404279-0011</i>	WALL AND CEILING JOINT COMPOUND	Brown/Gray Fibrous Homogeneous	12% Cellulose	45% Gypsum 43% Non-fibrous (other)	None Detected
1-30-SD-12 <i>031404279-0012</i>	WALL AND CEILING JOINT COMPOUND	White Non-Fibrous Heterogeneous		60% Ca Carbonate 40% Non-fibrous (other)	None Detected
<i>Inseparable paint / coating layer included in analysis</i>					
1-30-SD-13 <i>031404279-0013</i>	WALL AND CEILING SHEETROCK/ JOINT COMPOUND - COMPOSITE	Brown/Gray Fibrous Homogeneous	12% Cellulose	55% Gypsum 33% Non-fibrous (other)	None Detected
1-30-SD-14 <i>031404279-0014</i>	WALL AND CEILING SHEETROCK/ JOINT COMPOUND - COMPOSITE	Brown/Gray/White Fibrous Heterogeneous	10% Cellulose	55% Gypsum 35% Ca Carbonate 0% Non-fibrous (other)	None Detected
1-30-SD-15 <i>031404279-0015</i>	FLUE CEMENT	Gray Non-Fibrous Homogeneous		50% Non-fibrous (other)	50% Chrysotile

**Analyst(s)**

*Emily Myint (23)*  
*Henry Akintunde (26)*

James Hall, Laboratory Manager  
 or other approved signatory

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 Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC--IHAP Accredited #102581, NVLAP Lab Code 101048-9, NYS ELAP 11506, NJ NY022, CT PH-0170, MA AA000170

Initial report from 02/05/2014 11:07:45

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Attn: **Brandy LeBlanc**  
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Phone: (860) 589-8257  
 Fax: (860) 585-7034  
 Received: 02/01/14 12:15 PM  
 Analysis Date: 2/5/2014  
 Collected: 1/31/2014

Project: 14-029.10T1/ BOROUGH OF NAUGATUK/ 1 ORCHARD TERRACE NAUGATUCK

### 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
1-30-SD-16 031404279-0016	FLUE CEMENT				Stop Positive (Not Analyzed)
1-30-SD-17 031404279-0017	ADHESIVE ASSOCIATED WITH WALL PAPER	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1-30-SD-18 031404279-0018	ADHESIVE ASSOCIATED WITH WALL PAPER	Brown Non-Fibrous Homogeneous		95% Matrix 5% Non-fibrous (other)	None Detected
1-30-SD-19 031404279-0019	WALL PAPER	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1-30-SD-20 031404279-0020	WALL PAPER	Brown Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (other)	None Detected
1-30-SD-21 031404279-0021	ADHESIVE ASSOCIATED WITH WALL PAPER	Green Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (other)	None Detected
1-30-SD-22 031404279-0022	ADHESIVE ASSOCIATED WITH WALL PAPER	Yellow/Green Non-Fibrous Heterogeneous		25% Ca Carbonate 45% Matrix 30% Non-fibrous (other)	None Detected
1-30-SD-23 031404279-0023	WALL PAPER	Various/Green Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

**Analyst(s)**

Emily Myint (23)  
 Henry Akintunde (26)

James Hall, Laboratory Manager  
 or other approved signatory

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 Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC-IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NYS ELAP 11508, NJ NY022, CT PH-0170, MA AAC00170

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EMSL Order: 031404279  
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 ProjectID:

Attn: **Brandy LeBlanc**  
**Eagle Environmental, Inc. - CT**  
**8 South Main Street**  
**Suite 3**  
**Terryville, CT 06786**

Phone: (860) 589-8257  
 Fax: (860) 585-7034  
 Received: 02/01/14 12:15 PM  
 Analysis Date: 2/5/2014  
 Collected: 1/31/2014

Project: 14-029.10T1/ BOROUGH OF NAUGATUK/ 1 ORCHARD TERRACE NAUGATUCK

### 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
1-30-SD-24 <i>031404279-0024</i>	WALL PAPER	Brown/Blue Fibrous Heterogeneous	85% Cellulose	15% Non-fibrous (other)	None Detected
1-30-SD-25 <i>031404279-0025</i>	CARPET ADHESIVE	Various Non-Fibrous Homogeneous	4% Cellulose	96% Non-fibrous (other)	None Detected
1-30-SD-26 <i>031404279-0026</i>	CARPET ADHESIVE	Blue/Yellow Non-Fibrous Homogeneous	5% Cellulose	25% Ca Carbonate 45% Matrix 25% Non-fibrous (other)	None Detected
1-30-SD-27 <i>031404279-0027</i>	WALL PAPER	Various Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1-30-SD-28 <i>031404279-0028</i>	WALL PAPER	White/Blue/Green Fibrous Heterogeneous	85% Cellulose	15% Non-fibrous (other)	None Detected
1-30-SD-29 <i>031404279-0029</i>	CARPET ADHESIVE	Brown Non-Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (other)	None Detected
1-30-SD-30 <i>031404279-0030</i>	CARPET ADHESIVE	Brown/Yellow Non-Fibrous Heterogeneous		65% Matrix 35% Non-fibrous (other)	None Detected
1-30-SD-31 <i>031404279-0031</i>	ADHESIVE ASSOCIATED WITH WALL PANEL	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)

Emily Myint (23)  
 Henry Akintunde (26)

James Hall, Laboratory Manager  
 or other approved signatory

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 Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC-IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NYS ELAP 11506, NJ NY022, CT PH-0170, MA AA000170

Initial report from 02/05/2014 11:07:45

**EMSL Analytical, Inc.**

307 West 38th Street, New York, NY 10018  
 Phone/Fax: (212) 290-0051 / (212) 290-0058  
<http://www.EMSL.com> [manhattanlab@emsl.com](mailto:manhattanlab@emsl.com)

EMSL Order: 031404279  
 CustomerID: EEVM50  
 CustomerPO:  
 ProjectID:

Attn: **Brandy LeBlanc**  
**Eagle Environmental, Inc. - CT**  
**8 South Main Street**  
**Suite 3**  
**Terryville, CT 06786**

Phone: (860) 589-8257  
 Fax: (860) 585-7034  
 Received: 02/01/14 12:15 PM  
 Analysis Date: 2/5/2014  
 Collected: 1/31/2014

Project: 14-029.10T1/ BOROUGH OF NAUGATUK/ 1 ORCHARD TERRACE NAUGATUCK

### 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
1-30-SD-32 031404279-0032	ADHESIVE ASSOCIATED WITH WALL PANEL	Tan Non-Fibrous Homogeneous		85% Matrix 15% Non-fibrous (other)	None Detected
1-30-SD-33 031404279-0033	ADHESIVE ASSOCIATED WITH LINOLEUM FLOORING	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1-30-SD-34 031404279-0034	ADHESIVE ASSOCIATED WITH LINOLEUM FLOORING	Gray Non-Fibrous Homogeneous	12% Cellulose	80% Matrix 8% Non-fibrous (other)	None Detected
1-30-SD-35 031404279-0035	LINOLEUM FLOORING	Black Non-Fibrous Homogeneous	35% Cellulose	65% Non-fibrous (other)	None Detected
1-30-SD-36 031404279-0036	LINOLEUM FLOORING	Gray/Black Fibrous Heterogeneous	45% Cellulose	40% Matrix 15% Non-fibrous (other)	None Detected
1-30-SD-37 031404279-0037	BLACK PAPER INSIDE WALL WOOD	Black Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
1-30-SD-38 031404279-0038	BLACK PAPER INSIDE WALL WOOD	Black Fibrous Heterogeneous	65% Cellulose	35% Non-fibrous (other)	None Detected
1-30-SD-39 031404279-0039	WINDOW CAULK	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (other)	None Detected

**Analyst(s)**

Emily Myint (23)  
 Henry Akintunde (26)

James Hall, Laboratory Manager  
 or other approved signatory

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Project: 14-029.10T1/ BOROUGH OF NAUGATUK/ 1 ORCHARD TERRACE NAUGATUCK

### 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
1-30-SD-40 <i>031404279-0040</i>	WINDOW CAULK	Gray Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (other)	None Detected
1-30-SD-41 <i>031404279-0041</i>	WINDOW GLAZING COMPOUND	Gray Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (other)	None Detected
1-30-SD-42 <i>031404279-0042</i>	WINDOW GLAZING COMPOUND	Gray Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (other)	None Detected
1-30-SD-43 <i>031404279-0043</i>	BLACK SHINGLE TOP LAYER	Black Non-Fibrous Homogeneous		25% Matrix 75% Non-fibrous (other)	None Detected
1-30-SD-44 <i>031404279-0044</i>	BLACK SHINGLE TOP LAYER	Black Fibrous Homogeneous	25% Cellulose	65% Matrix 10% Non-fibrous (other)	None Detected
1-30-SD-45 <i>031404279-0045</i>	RED SHINGLE BOTTOM LAYER	Red/Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1-30-SD-46 <i>031404279-0046</i>	RED SHINGLE BOTTOM LAYER	Black Fibrous Heterogeneous	20% Cellulose	25% Ca Carbonate 30% Matrix 25% Non-fibrous (other)	None Detected
1-30-SD-47 <i>031404279-0047</i>	BLACK CAULK AROUND CHIMNEY AND PIPE EXHAUST	Black Non-Fibrous Homogeneous		90% Non-fibrous (other)	10% Chrysotile

**Analyst(s)**

*Emily Myint (23)*  
*Henry Akintunde (26)*

James Hall, Laboratory Manager  
 or other approved signatory

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Project: 14-029.10T1/ BOROUGH OF NAUGATUK/ 1 ORCHARD TERRACE NAUGATUCK

### 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
1-30-SD-48 031404279-0048	BLACK CAULK AROUND CHIMNEY AND PIPE EXHAUST				Stop Positive (Not Analyzed)
1-30-SD-49 031404279-0049	CAULK AROUND PIPE	Tan/Blue Non-Fibrous Homogeneous		97% Non-fibrous (other)	3% Chrysotile
1-30-SD-50 031404279-0050	CAULK AROUND PIPE				Stop Positive (Not Analyzed)
1-30-SD-51 031404279-0051	WHITE CAULK BEHIND WOOD PANELS	Tan/White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1-30-SD-52 031404279-0052	WHITE CAULK BEHIND WOOD PANELS	Gray Non-Fibrous Homogeneous		15% Quartz 20% Ca Carbonate 65% Non-fibrous (other)	None Detected

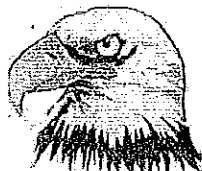
**Analyst(s)**

Emily Myint (23)  
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James Hall, Laboratory Manager  
 or other approved signatory

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 Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC--IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NYS ELAP 11506, NJ NY022, CT PH-0170, MA AA000170

Initial report from 02/05/2014 11:07:45



# EAGLE ENVIRONMENTAL, INC.

EAGLE PROJECT NAME: BOROUGH OF NAUGATUCK – PRE-DEMO HAZ

PROJECT LOCATION: 1 ORCHARD TERRACE, NAUGATUCK, CONNECTICUT

PROJECT NUMBER: 14-029.10T1

LAB REFERENCE NUMBER: 031404279

### TEM NOB Sample Request Form

SAMPLE NO.	LOCATION	MATERIAL TYPE	% ASBESTOS
1-30-SD-05	001	9"x9" Grey floor tile	

TEST METHOD: TEM ELAP 198.4 METHOD

TURNAROUND TIME: 24 HOURS

**Special Instructions:** Stop on first positive for each set of samples. Please do not separate samples. Do not fax chain of custody.

**Special Instructions:** Please e-mail results to: bleblanc@eagleenviro.com; tfoster@eagleenviro.com; dwynne@eagleenviro.com; rsioch@eagleenviro.com

Samples Collected By:	<u>SOULEYMANE DOUMBIA</u>	Date:	<u>1-30-14</u>	Time:	<u>PM</u>
Request Emailed By:	<u>RENEE SIOCH</u>	Date:	<u>2-17-14</u>	Time:	<u>PM</u>
Request Received By:	_____	Date:	_____	Time:	_____

\*\*\*\*Please sign this chain of custody for our records. Thank You!

8 SOUTH MAIN STREET, SUITE 3 • TERRYVILLE, CT 06786  
PHONE (860) 589-8257 • FAX (860) 585-7034

**APPENDIX 3**

**XRF LEAD-BASED PAINT INSPECTION REPORTS**



# LEAD PAINT INSPECTION REPORT

REPORT NUMBER: S#01364 - 01/30/14 09:23

INSPECTION FOR: Mr. James R. Stewart  
Borough of Naugatuck, CT  
246 Rubber Avenue  
Naugatuck, CT 06770

PERFORMED AT: Cottage  
1 Orchard Terrace  
Naugatuck, CT 06770

INSPECTION DATE: 01/30/14

INSTRUMENT TYPE: R M D  
MODEL LPA-1  
XRF TYPE ANALYZER  
Serial Number: 01364

ACTION LEVEL: 1.0 mg/cm<sup>2</sup>

OPERATOR LICENSE: 002250

Lead-based paint screen inspection for Cottage of 1 Orchard  
Terrace Naugatuck, CT 06770.

SIGNED: Eltwaun Lawrence

Date: 1-30-14

Eltwaun Lawrence  
Lead Inspector / Risk Assessor  
Eagle Environmental, Inc.  
8 South Main Street, Suite 3  
Terryville, CT 06786

**SUMMARY REPORT OF LEAD PAINT INSPECTION FOR: Mr. James R. Stewart**

Inspection Date: 01/30/14  
 Report Date: 1/30/2014  
 Abatement Level: 1.0  
 Report No. S#01364 - 01/30/14 09:23  
 Total Readings: 76 Actionable: 22  
 Job Started: 01/30/14 09:23  
 Job Finished: 01/30/14 11:24

Cottage  
 1 Orchard Terrace  
 Naugatuck, CT 06770

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
Exterior Room 002 Porch									
068	-	Ceiling	Ctr		P	Wainscot	white	7.2	QM
Exterior Room 004 Facade A									
071	A	Window	Rgt	Jamb	P	Wood	yellow	2.8	QM
072	A	Window	Rgt	Blind Stop	P	Wood	yellow	6.6	QM
073	A	Window	Rgt	Well	P	Wood	white	8.5	QM
070	A	Window	Rgt	Part. bead	P	Wood	yellow	9.0	QM
Interior Room 001 Bedroom 1									
005	-	Crown Mldg	Ctr		I	Wood	white	5.0	QM
004	-	Ceiling	Ctr		P	Sheetrock	white	7.1	QM
006	A	Wall	Rgt		I	Sheetrock	green	1.6	QM
007	C	Wall	Ctr		P	Sheetrock	green	2.4	QM
Interior Room 002 Living Room									
030	-	Crown Mldg	Ctr		P	Wood	green	2.5	QM
016	-	Ceiling	Ctr		P	Sheetrock	white	2.4	QM
029	-	Ceiling	Ctr	Support	P	Wood	white	3.4	QM
018	A	Chair Rail	Ctr		I	Wood	white	4.7	QM
017	A	Wall	U Ctr		P	Sheetrock	green	2.3	QM
020	D	Chair Rail	Ctr		P	Wood	white	6.4	QM
019	D	Wall	U Ctr		P	Sheetrock	green	4.7	QM
027	D	Window	Rgt	Sash	P	Wood	white	2.2	QM
Interior Room 003 Kitchen									
032	-	Crown Mldg	Ctr		P	Wood	green	2.6	QM
031	-	Ceiling	Ctr		P	Sheetrock	green	2.8	QM
033	A	Wall	Ctr		P	Sheetrock	green	1.8	QM
034	C	Wall	Ctr		P	Sheetrock	green	2.5	QM
Interior Room 004 Bathroom									
043	C	Wall	Ctr		P	Sheetrock	beige	1.6	QM

Calibration Readings

Exterior Room 999

----- End of Readings -----

**DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Mr. James R. Stewart**

Inspection Date: 01/30/14  
 Report Date: 1/30/2014  
 Abatement Level: 1.0  
 Report No. S#01364 - 01/30/14 09:23  
 Total Readings: 76  
 Job Started: 01/30/14 09:23  
 Job Finished: 01/30/14 11:24

Cottage  
 1 Orchard Terrace  
 Naugatuck, CT 06770

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
<b>Exterior Room 001 Facade D</b>									
067	D	Wall	Ctr		I	Clapboard	blue	0.2	QM
<b>Exterior Room 002 Porch</b>									
068	-	Ceiling	Ctr		P	Wainscot	white	7.2	QM
<b>Exterior Room 003 Facade B</b>									
069	B	Wall	F r-L		I	Clapboard	blue	0.2	QM
<b>Exterior Room 004 Facade A</b>									
071	A	Window	Rgt	Jamb	P	Wood	yellow	2.8	QM
072	A	Window	Rgt	Blind Stop	P	Wood	yellow	6.6	QM
073	A	Window	Rgt	Well	P	Wood	white	8.5	QM
070	A	Window	Rgt	Part. bead	P	Wood	yellow	9.0	QM
<b>Interior Room 001 Bedroom 1</b>									
005	-	Crown Mldg	Ctr		I	Wood	white	5.0	QM
015	-	Floor	Ctr		I	Wood	brown	0.4	QM
004	-	Ceiling	Ctr		P	Sheetrock	white	7.1	QM
006	A	Wall	Rgt		I	Sheetrock	green	1.6	QM
011	A	Window	Ctr	Mullin	I	Wood	white	0.1	QM
014	A	Window	Ctr	Stop	I	Wood	white	0.0	QM
013	A	Window	Ctr	Sash	I	Wood	white	0.1	QM
012	A	Window	Ctr	Sill	I	Wood	white	0.0	QM
010	B	Baseboard	Ctr		I	Wood	green	0.3	QM
007	C	Wall	Ctr		P	Sheetrock	green	2.4	QM
008	C	Ceiling	Ctr	Support	P	Wood	white	0.2	QM
009	D	Door	Lft	Casing	P	Wood	white	0.1	QM
<b>Interior Room 002 Living Room</b>									
030	-	Crown Mldg	Ctr		P	Wood	green	2.5	QM
016	-	Ceiling	Ctr		P	Sheetrock	white	2.4	QM
029	-	Ceiling	Ctr	Support	P	Wood	white	3.4	QM
018	A	Chair Rail	Ctr		I	Wood	white	4.7	QM
017	A	Wall	U Ctr		P	Sheetrock	green	2.3	QM
021	A	Door	Rgt	Casing	P	Wood	white	0.0	QM
022	A	Door	Rgt		P	Wood	white	0.1	QM
023	A	Door	Rgt	Jamb	P	Wood	white	0.0	QM
024	A	Door	Rgt	Stop	P	Wood	white	-0.3	QM
020	D	Chair Rail	Ctr		P	Wood	white	6.4	QM
019	D	Wall	U Ctr		P	Sheetrock	green	4.7	QM
025	D	Window	Rgt	Casing	I	Wood	white	0.2	QM

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Mr. James R. Stewart

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
028	D	Window	Rgt	Stop	I	Wood	white	0.2	QM
027	D	Window	Rgt	Sash	P	Wood	white	2.2	QM
026	D	Window	Rgt	Sill	I	Wood	white	0.4	QM
Interior Room 003 Kitchen									
032	-	Crown Mldg	Ctr		P	Wood	green	2.6	QM
031	-	Ceiling	Ctr		P	Sheetrock	green	2.8	QM
033	A	Wall	Ctr		P	Sheetrock	green	1.8	QM
035	B	Upper Cabine	Lft		P	Wood	green	0.3	QM
036	B	Window	Ctr	Casing	I	Wood	white	0.0	QM
040	B	Window	Ctr	Stop	P	Wood	white	0.2	QM
037	B	Window	Ctr	Sash	I	Wood	white	0.3	QM
039	B	Window	Ctr	Apron	P	Wood	white	0.2	QM
038	B	Window	Ctr	Sill	I	Wood	white	0.4	QM
034	C	Wall	Ctr		P	Sheetrock	green	2.5	QM
041	C	Baseboard	Ctr		I	Wood	green	0.3	QM
Interior Room 004 Bathroom									
047	-	Ceiling	Ctr		I	Wood	green	-0.1	QM
046	-	Stairs	Ctr	Stringers	I	Wood	green	-0.1	QM
042	A	Wall	Ctr		I	Fiberboard	green	0.1	QM
043	C	Wall	Ctr		P	Sheetrock	beige	1.6	QM
044	C	Window	Ctr	Casing	I	Wood	green	0.4	QM
045	D	Window	Ctr	Casing	P	Wainscot	green	0.2	QM
Interior Room 005 Stairs									
048	-	Ceiling	Ctr		P	Fiberboard	lt. blue	0.0	QM
053	-	Stairs	Ctr	Stringers	I	Wood	brown	0.4	QM
051	-	Stairs	Ctr	Treads	I	Wood	brown	0.1	QM
052	-	Stairs	Ctr	Risers	I	Wood	brown	0.4	QM
050	A	Wall	Ctr		P	Fiberboard	lt. blue	0.0	QM
049	C	Wall	Ctr		P	Fiberboard	lt. blue	0.1	QM
056	C	Window	Ctr	Casing	P	Wood	lt. blue	0.1	QM
057	C	Window	Ctr	Stop	P	Wood	lt. blue	-0.1	QM
054	C	Window	Ctr	Apron	P	Wood	lt. blue	0.1	QM
055	C	Window	Ctr	Sill	P	Wood	lt. blue	0.3	QM
Interior Room 006 Attic									
058	-	Ceiling	Ctr		P	Fiberboard	lt. blue	0.1	QM
059	A	Wall	Ctr		P	Fiberboard	lt. blue	-0.4	QM
060	A	Window	Ctr	Mullin	P	Wood	white	0.0	QM
062	A	Window	Ctr	Apron	P	Wood	white	0.3	QM
061	A	Window	Ctr	Sill	P	Wood	white	0.2	QM
063	D	Wall	Ctr		P	Fiberboard	lt. blue	0.1	QM
Interior Room 007 Bathtub Rm									
064	A	Wall	Ctr		P	Panel	lt. blue	0.3	QM
066	D	Pipe	Ctr		P	Metal	lt. blue	0.4	QM
065	D	Wall	Ctr		P	Fiberboard	beige	0.2	QM

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Mr. James R. Stewart

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Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
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Calibration Readings

001								1.0	TC
002								1.0	TC
003								1.0	TC
074								1.0	TC
075								0.9	TC
076								0.9	TC
077									

----- End of Readings -----

**APPENDIX 4**

**LEAD WASTE CHARACTERIZATION LABORATORY REPORTS AND  
COMPUTATION TABLE**

**DEMOLITION WASTE CLASSIFICATION  
TCLP FIELD COMPUTATION TABLE  
1 ORCHARD TERRACE  
NAUGATUCK, CONNECTICUT**

Component	Thickness (ft)	Thickness (ft)	Area (SqFt)	Volume (CF)	Density (lbs/CF)	Mass (lbs)	Totals (lbs)	Percent of Total Mass
Negative Wood (solid)	0.50	0.042	177	7.4	35	258.1	20674.8	78%
	0.75	0.063		0.0	35	0.0		
	1.00	0.083	3000	250.0	35	8750.0		
	1.50	0.125		0.0	35	0.0		
	2.00	0.167	2000	333.3	35	11666.7		
	4.00	0.333		0.0	35	0.0		
	0.00	0.000		0.0	35	0.0		
Positive Wood (solid)	0.50	0.042	172	7.2	35	250.8	309.2	1%
	0.75	0.063		0.0	35	0.0		
	1.00	0.083	20	1.7	35	58.3		
	1.50	0.125		0.0	35	0.0		
	2.00	0.167		0.0	35	0.0		
	4.00	0.333		0.0	35	0.0		
	0.00	0.000		0.0	35	0.0		
Negative Sheetrock	0.50	0.042	1120	46.7	52.8	2464.0	2464.0	10%
Positive Sheetrock	0.50	0.042	750	31.3	52.8	1650.0	1650.0	6%
Negative Fiberboard	0.25	0.021	500	10.4	30	312.5	312.5	1%
Positive Fiberboard	0.25	0.021		0.0	30	0.0	0.0	0%
Roofing	0.50	0.042	600	25.0	45	1125.0	1125.0	4%
Total Mass							26535.5	100%



Wednesday, February 19, 2014

Attn: Mr. Chris Liberti  
Eagle Environmental Inc.  
8 South Main Street, Suite 3 ©  
Terryville CT 06786

Project ID: BOROUGH OF NAUGATUCK 1 ORCHARD TERRACE  
Sample ID#s: BG09752

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

A handwritten signature in cursive script that reads "Phyllis Shiller".

Phyllis Shiller  
Laboratory Director

NELAC - #NY11301  
CT Lab Registration #PH-0618  
MA Lab Registration #MA-CT-007  
ME Lab Registration #CT-007  
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003  
NY Lab Registration #11301  
PA Lab Registration #68-03530  
RI Lab Registration #63  
VT Lab Registration #VT11301





Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 February 19, 2014

FOR: Attn: Mr. Chris Liberti  
 Eagle Environmental Inc.  
 8 South Main Street, Suite 3 ©  
 Terryville CT 06786

Sample Information

Matrix: SOLID  
 Location Code: EAGLEENV  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: SW  
 Analyzed by: see "By" below

Date            Time  
 01/30/14        0:00  
 02/17/14        14:59

Laboratory Data

SDG ID: GBG09752  
 Phoenix ID: BG09752

Project ID: BOROUGH OF NAUGATUCK 1 ORCHARD TERRACE  
 Client ID: TCLP COMPOSITE

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
TCLP Lead	4.04	0.10	mg/L	02/18/14	EK	SW6010
TCLP Metals Digestion	Completed			02/18/14	I/I	SW3005
TCLP Extraction for Metals	Completed			02/17/14	I	EPA 1311
TCLP Sample Size Reduction	Completed			02/17/14	SHOP	1311

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.  
 This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

February 19, 2014

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



**Environmental Laboratories, Inc.**  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

**QA/QC Report**

February 19, 2014

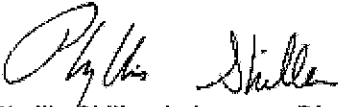
**QA/QC Data**

SDG I.D.: GBG09752

Parameter	Blank	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 266928, QC Sample No: BG09699 (BG09752)												
<b>ICP Metals - TCLP Extraction</b>												
Lead	BRL	38.3	40.7	6.10	106	97.0	8.9	NC	NC	NC	75 - 125	20

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

- RPD - Relative Percent Difference
- LCS - Laboratory Control Sample
- LCSD - Laboratory Control Sample Duplicate
- MS - Matrix Spike
- MS Dup - Matrix Spike Duplicate
- NC - No Criteria
- Intf - Interference

  
 Phyllis Shiller, Laboratory Director  
 February 19, 2014

# Sample Criteria Exceedences Report

GBG09752 - EAGLEENY

Criteria: None

State: CT

SampNo    Acode    Phoenix Analyte

Criteria

Result

RL

Criteria

RL    Analysis  
Criteria    Units

\*\*\* No Data to Display \*\*\*

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Cooler: Yes  No   
 Coolant: IPK  ICE  N   
 Temp 6 °C Pg of

**CHAIN OF CUSTODY RECORD**

587 East Middle Turnpike, Manchester, CT 06040  
 Email: info@phoenixlabs.com Fax (860) 645-0823  
 Client Services (860) 645-8726



Customer: Eagle Environmental, Inc. Project: Borough of Navagatuck Project P.O.: 14-029.10T1  
 Address: 8 South Main St., Suite 3 Report to: Chris Liberty Phone #: 860-589-8257  
Terryville, CT 06786 Invoice to: Brandy LeBlanc Fax #:

Data Delivery:  
 Fax # \_\_\_\_\_  
 Email \_\_\_\_\_

Client Sample - Information - Identification  
 Sampler's Signature: Ethuan Samme Date: 2/14/14  
 Matrix Code: \_\_\_\_\_  
 DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water  
 SE=Sediment SL=Sludge S=Soil/Solid W=Wipe D=Other

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Analysis Request
09752	Negative Wood	S	1/30/14	PM	78
	TCLPA	S	1/30/14	PM	1
	Positive Wood	S	1/30/14	PM	10
	TCLPB	S	1/30/14	PM	6
	Negative Sheetrock	S	1/30/14	PM	1
	TCLPC	S	1/30/14	PM	4
	Positive Sheetrock	S	1/30/14	PM	
	TCLPD	S	1/30/14	PM	
	Negative Fiberglass	S	1/30/14	PM	
	TCLPE	S	1/30/14	PM	
	Negative Roof	S	1/30/14	PM	
	TCLPF	S	1/30/14	PM	

Relinquished by: Ethuan Samme Accepted by: Samme  
 Date: 2/17/14 Time: 11:45 PM  
 Date: 2/17/14 Time: 1459

Turnaround:  
 1 Day\*  
 2 Days\*  
 3 Days\*  
 Standard  
 Other

Comments, Special Requirements or Regulations:  
Please Combine all samples (A-F) to form one Composite

State where samples were collected: CT

\* SURCHARGE APPLIES

Analysis Request  
 \* TCLP  
 v/o CONTAMINATION

Soil (CWA Vials) [Inchrod] 1 HQ  
 GL Soil container ( ) oz  
 40 ml VOA Vial [As Is] 1 HQ  
 GL Amber 100ml [As Is] 1 HQ  
 PL H2SO4 [250ml] 150ml  
 PL HNO3 250ml  
 Bacteria Bottle

Data Format  
 Excel  
 PDF  
 GISKey  
 ECuls  
 Other

Data Package  
 Tier II Checklist  
 Full Data Package\*  
 Phoenix Std Report  
 Other

MA  
 MCP Certification  
 GW-1  
 GW-2  
 GW-3  
 S-1  
 S-2  
 S-3  
 MWRP eSMART  
 Other

CT  
 RCP Cert  
 GW Protection  
 SW Protection  
 GA Mobility  
 GB Mobility  
 Residential DEC  
 I/C DEC  
 Other

RI  
 Direct Exposure (Residential)  
 GW  
 Other

\* SURCHARGE APPLIES

**APPENDIX 5**

**ABATEMENT AND CONSULTING COST ESTIMATES**

**HAZARDOUS MATERIALS ABATEMENT COST ESTIMATES**

**BOROUGH OF NAUGATUCK**

**1 ORCHARD TERRACE**

**NAUGATUCK, CONNECTICUT**

**ASBESTOS ABATEMENT COST ESTIMATE**

MATERIAL	QUANTITY	UNIT COST	TOTAL COST
FLUE CEMENT	1	\$ 250.00 GB	\$ 250.00
INTERIOR CAULK AT PIPE	1	\$ 250.00 GB	\$ 250.00
EXTERIOR CAULK AT ROOF	8	\$ 50.00 SF	\$ 400.00
SUBTOTAL			\$ 900.00
ASBESTOS ABATEMENT CONTINGENCY			\$ 90.00
ASBESTOS TOTAL			\$ 990.00

**LEAD BASED PAINT COST ESTIMATE**

NO LEAD PAINT ABATEMENT OR DISPOSAL IS INVOLVED IN THIS PROJECT. THE CONTRACTOR NEEDS TO PROTECT HIS/HER WORKER FROM EXPOSURE TO LEAD PAINT DURING DEMOLITION.

**UNIVERSAL WASTE ABATEMENT COST ESTIMATE**

MATERIAL	QUANTITY	UNIT COST	TOTAL COST
LIGHT TUBES DISPOSAL	2	\$ 10.00 LF	\$ 20.00
ROUND LIGHT TUBES DISPOSAL	1	\$ 20.00 EACH	\$ 20.00
CAPACITOR	1	\$ 50.00 EACH	\$ 50.00
LABOR	0.5	\$ 500.00 DAY	\$ 250.00
SUBTOTAL			\$ 340.00
UNIVERSAL WASTE ABATEMENT CONTINGENCY			\$ 34.00
UNIVERSAL WASTE TOTAL			\$ 374.00

**CHLOROFLUOROCARBONS ABATEMENT COST ESTIMATE**

MATERIAL	QUANTITY	UNIT COST	TOTAL COST
REFRIGERATOR	1	\$ 100.00 EACH	\$ 100.00
LABOR	0.5	\$ 250.00 EACH	\$ 125.00
SUBTOTAL			\$ 225.00
CHLOROFLUOROCARBONS ABATEMENT CONTINGENCY			\$ 22.50
CHLOROFLUOROCARBONS TOTAL			\$ 247.50

**HAZARDOUS MATERIALS ABATEMENT SUBTOTAL** \$ 1,611.50

**HAZARDOUS MATERIALS CONSULTING COST ESTIMATE**

CONSULTING COST	QUANTITY	UNIT COST	TOTAL COST
ASBESTOS ABATEMENT SPECIFICATION	1	\$400.00 EACH	\$ 400.00
UNIVERSAL WASTE DISPOSAL SPECIFICATION	1	\$250.00 EACH	\$ 250.00
FINAL VISUAL INSPECTIONS	1	\$400.00 DAY	\$ 400.00
PROJECT MANAGEMENT	1	\$130.00 HOUR	\$ 130.00
DOCUMENTATION REPORT	1	\$350.00 EACH	\$ 350.00
SUBTOTAL			\$ 1,530.00
CONSULTING CONTINGENCY			\$ 153.00
CONSULTING TOTAL			\$ 1,683.00

**GRAND TOTAL** \$ 4,658.50

**APPENDIX 6**

**EAGLE ENVIRONMENTAL INC. LICENSES AND LABORATORY  
CERTIFICATES**

# CERTIFICATE OF ACHIEVEMENT

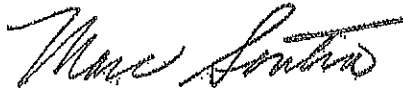
*This certifies that*

**Souleymane Doumbia**

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

*conducted by*

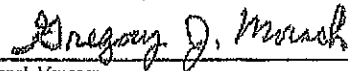
**Cardno ATC**  
**73 William Franks Drive**  
**West Springfield, MA 01089**  
**(413) 781-0070**



Principal Instructor  
September 19, 2013

Date of Course

September 19, 2014  
Expiration Date



Regional Manager  
SLAR-4668

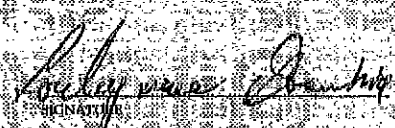
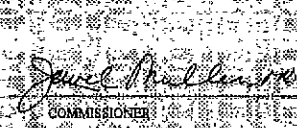
Certificate Number

September 19, 2013  
Examination Date

STATE OF CONNECTICUT  
DEPARTMENT OF PUBLIC HEALTH  
PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT  
THE INDIVIDUAL NAMED BELOW IS LICENSED  
BY THIS DEPARTMENT AS A  
**ASBESTOS CONSULTANT-INSPECTOR**

**SULEYMANE DOUMBIA**

LICENSE NO.  
000804  
CURRENT THROUGH  
09/30/14  
VALIDATION NO.  
09-667162

   
SULEYMANE DOUMBIA COMMISSIONER



CERT# L-500 - 150

**CHEMSCOPE TRAINING DIVISION**

**LEAD INSPECTOR REFRESHER  
8 HOUR TRAINING CERTIFICATE**

**Eltwaun D. Lawrence  
531 North Main Street, Bristol CT**

Has attended an 8 hour course on the subject discipline on  
06/20/2013 and has passed a written examination.

The above individual has successfully completed the above training course approved in accordance with the Department of Public Health Standards established pursuant to Section 20-477 of the Connecticut General Statutes.

Course syllabus includes all required topics of State of Connecticut DPH and EPA.

**Examination Date: 06/20/2013**

**Expiration Date: 06/20/2014**

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (U.S.C. 1001 and 15 U.S.C. 2815), I certify that this training complies with all applicable requirements of Title IV of TSCA, 40 CFR part 745 and any other applicable Federal, State, or local requirements.




Ronald D. Arena or Scott Arena  
Training Director Training Manager


Chem Scope, Inc.  
15 Moulthrop Street  
North Haven CT 06473  
(203) 865-5605

**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**

**ELTWAUN D LAWRENCE**

CERTIFICATION NO.  
002250  
CURRENT THROUGH  
02/28/14  
VALIDATION NO.  
03-636559

  
SIGNATURE

  
COMMISSIONER

# State of Connecticut, Department of Public Health

## Approved Environmental Laboratory

THIS IS TO CERTIFY THAT THE LABORATORY DESCRIBED BELOW HAS BEEN APPROVED BY THE STATE DEPARTMENT OF PUBLIC HEALTH PURSUANT TO APPLICABLE PROVISIONS OF THE PUBLIC HEALTH CODE AND GENERAL STATUTES OF CONNECTICUT FOR MAKING THE EXAMINATIONS, DETERMINATIONS OR TESTS SPECIFIED BELOW WHICH HAVE BEEN AUTHORIZED IN WRITING BY THAT DEPARTMENT.

### EMSL ANALYTICAL, INC. - MANHATTAN, NY

LOCATED AT 307 West 38<sup>th</sup> Street IN New York, NY 10018  
AND REGISTERED IN THE NAME OF Peter Frasca, Ph.D.

THIS CERTIFICATE IS ISSUED IN THE NAME OF James Hall WHO HAS BEEN DESIGNATED BY THE REGISTERED OWNER/AUTHORIZED AGENT TO BE IN CHARGE OF THE LABORATORY WORK COVERED BY THIS CERTIFICATE OF APPROVAL AS FOLLOWS:

#### ASBESTOS

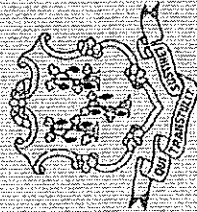
Examination For:  
Bulk - Identification (PLM, TEM)  
Air - Fiber Counting (PCM, TEM)  
Water - TEM

SEE COMPUTER PRINT-OUT FOR SPECIFIC TESTS APPROVED

#### Environmental Health & Housing

Examination For:  
Lead in Paint  
Lead Paint in Soil  
Lead in Dust Wipes

THIS CERTIFICATE EXPIRES September 30, 2014 AND IS REVOCABLE FOR CAUSE BY THE STATE DEPARTMENT OF PUBLIC HEALTH  
DATED AT HARTFORD, CONNECTICUT, THIS 4<sup>th</sup> DAY OF October, 2012



Registration No.

PH-0170

**SUZANNE BLANCAFLO, MS**  
CHIEF, ENVIRONMENTAL HEALTH SECTION

# State of Connecticut, Department of Public Health

## Approved Environmental Laboratory

THIS IS TO CERTIFY THAT THE LABORATORY DESCRIBED BELOW HAS BEEN APPROVED BY THE STATE DEPARTMENT OF PUBLIC HEALTH PURSUANT TO APPLICABLE PROVISIONS OF THE PUBLIC HEALTH CODE AND GENERAL STATUTES OF CONNECTICUT, FOR MAKING THE EXAMINATIONS, DETERMINATIONS OR TESTS SPECIFIED BELOW WHICH HAVE BEEN AUTHORIZED IN WRITING BY THAT DEPARTMENT.

### PHOENIX ENVIRONMENTAL LABORATORIES, INC.

LOCATED AT 587 East Middle Turnpike IN Manchester, Connecticut 06040  
AND REGISTERED IN THE NAME OF Allan E. Caffyn  
THIS CERTIFICATE IS ISSUED IN THE NAME OF Phyllis Shiller (Chemistry) WHO HAS BEEN DESIGNATED  
Kathleen Cressia (Microbiology)

BY THE REGISTERED OWNER AUTHORIZED AGENT TO BE IN CHARGE OF THE LABORATORY WORK COVERED BY THIS CERTIFICATE OF APPROVAL AS FOLLOWS:

DRINKING WATER, NON-POTABLE/WASTEWATER, SOLID WASTE/SOIL

Examination For:

MICROBIOLOGICALS  
INORGANIC CHEMICALS  
ORGANIC CHEMICALS

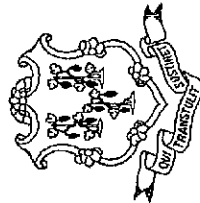
#### ENVIRONMENTAL HEALTH & HOUSING

Examination For:

LEAD in PAINT, LEAD in DUST WIPES, LEAD PAINT in SOIL

SEE COMPUTER PRINT-OUT FOR SPECIFIC TESTS APPROVED

THIS CERTIFICATE EXPIRES June 30, 2014 AND IS REVOCABLE FOR CAUSE BY THE STATE DEPARTMENT OF PUBLIC HEALTH  
DATED AT HARTFORD, CONNECTICUT, THIS 29<sup>th</sup> DAY OF June, 2012



Registration  
No.  
PH - 0618

**SUZANNE BLANCAFLOR, MS**  
CHIEF, ENVIRONMENTAL HEALTH SECTION



**Property Information**

Property Location	1 S MAIN ST
Owner	ONE SOUTH MAIN STREET LLC
Co-Owner	
Mailing Address	27 S MAIN ST NAUGATUCK CT 06770
Land Use	3400 OFFICE BLD
Land Class	C

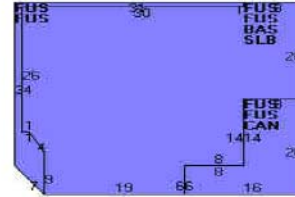
Fire District	
Census Tract	
Neighborhood	B
Zoning Code	R8
Acreage	0.06
Utilities	
Lot Setting/Desc	

**Photo**



056-0500 03/23/2012

**Sketch**



**Primary Construction Details**

Year Built	1956
Stories	3
Building Style	Office Bldg
Building Use	Ind/Comm
Building Condition	C-
Floors	Dirt/None
Total Rooms	

Bedrooms	
Full Bathrooms	0
Half Bathrooms	
Bath Style	
Kitchen Style	
Roof Style	Flat
Roof Cover	T+G/Rubber

Exterior Walls	Stucco
Interior Walls	Drywall
Heating Type	None
Heating Fuel	None
AC Type	None
Gross Bldg Area	5798
Total Living Area	4343



**Valuation Summary** (Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings	16210	11350
Outbuildings	0	0
Improvements	16210	11350
Extras	0	0
Land	108150	75710
<b>Total</b>	<b>124360</b>	<b>87060</b>

**Outbuilding and Extra Items**

Type	Description

**Sub Areas**

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
Canopy	208	0
First Floor	1247	1247
Upper Story, Finished	3096	3096
Slab	1247	0
<b>Total Area</b>		

**Sales History**

Owner of Record	Book/ Page	Sale Date	Sale Price
ONE SOUTH MAIN STREET LLC	885/ 217	3/31/2011	35000
BAYVIEW LOAN SERVICING LLC	837/ 38	10/21/2008	
PECORARO DOMINIC	722/ 506	8/15/2005	460000
ONE SOUTH MAIN LLC	688/ 692	11/29/2004	
CONNELLY JOHN	645/ 475	1/15/2004	100000
RINALDI JOHN L	232/ 542	2/8/1982	0
RINALDI JOHN L	225/ 554	12/31/1980	0



**EAGLE**  
**Environmental, Inc.**



Hazardous Building Materials > Industrial Hygiene/IAQ > Environmental Assessments > Laboratory Services & Training

March 5, 2014

Mr. James R. Stewart PE, LS  
Director of Public Works  
Borough of Naugatuck  
246 Rubber Avenue  
Naugatuck, Connecticut 06770

**RE: Pre-Demolition Hazardous Building Materials Inspection Report  
1 South Main Street  
Naugatuck, Connecticut  
Eagle Project No. 14-029.11T1**

Dear Mr. Stewart:

Attached is the report for the hazardous building materials inspection conducted at 1 South Main Street in Naugatuck, Connecticut. The scope of services included an asbestos-containing materials inspection, lead-based paint screen, lead waste characterization sampling and analysis and an inspection for universal waste materials.

The inspection was performed to support the demolition of the building.

Please do not hesitate to contact Eagle Environmental, Inc. if you have any questions regarding the contents of this report.

Sincerely,  
**Eagle Environmental, Inc.**

Report Prepared By:  
Chris Liberti  
Senior Project Manager

Report Reviewed By:  
Ashis Roychowdhury  
Executive Vice President

\\Eaglesvr\public\2014 Files\2014 Reports\Naugatuck, Borough of\1 South Main Street\1 South Main Street - Haz Insp REPORT.doc

**8 SOUTH MAIN STREET, SUITE 3 • TERRYVILLE, CT 06786**  
**PHONE (860) 589-8257 • FAX (860) 585-7034**

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## **1. INTRODUCTION**

On January 31, 2014, Eagle Environmental, Inc. conducted a hazardous building materials inspection of the structure located at 1 South Main Street in Naugatuck, Connecticut. The scope of the hazardous building material inspection included an asbestos-containing materials inspection, a lead-based paint screen and an inspection for universal waste materials. The inspection was performed to support the demolition of the building.

### **1.1 Building Description**

The subject building located at 1 South Main Street in Naugatuck, Connecticut is a three story commercial structure of block construction. The structure was built in 1956. The building was built slab on grade. The mechanical equipment consists of a combination of a gas fired hot water baseboard system with copper finned tubing, a gas fired forced hot air roof top system and interior ceiling mounted ventilation system with metal and fiberglass wrapped ductwork. The mechanical distribution system is insulated.

The interior walls and ceilings consist of sheetrock and joint compound construction with limited areas of acoustic ceiling tiles. The windows are anodized aluminum casement bay window systems. The interior doors are wood with wood trim components whereas the exterior doors are metal with metal door frames. The floors are finished with various resilient flooring finishes. The exterior facades are concrete with a stucco finish. The roof is flat and consists of a torch down rubber roofing on Polyiso insulation board on a concrete roof deck.

## **2. SCOPE OF INSPECTION**

### **2.1 Asbestos Containing Materials**

The asbestos inspection was conducted in order to satisfy the United States Environmental Protection Agency (USEPA) National Emission Standard for Hazardous Air Pollutants Act (NESHAP) as amended November 20, 1990. The USEPA NESHAP final rule requires the identification and removal of all regulated ACM in a building prior to demolition.

The asbestos inspection was performed by Souleymane Doumbia and Eltwaun Lawrence; both State of Connecticut licensed Asbestos Inspectors (license #000804 and #000845, respectively). The inspectors made a good faith effort to identify concealed suspect materials that might exist behind walls and pipe chases.

### **2.2 Lead-based Paint**

#### **2.2.1 X-Ray Fluorescence Screen**

The lead-based paint (LBP) screen was performed in accordance with the requirements of the State of Connecticut, Department of Energy and Environmental Protection (DEEP), Guidance for the Management and Disposal of Lead Contaminated Materials Generated in the Lead Abatement, Renovation and Demolition Industries. The DEEP regulates the disposal of hazardous lead waste in the State of Connecticut. Lead-contaminated debris, not contaminated with other hazardous materials, is classified either as hazardous lead waste or as non-hazardous solid waste.

Additionally the U.S. Department of Labor Occupational Safety and Health Administration (OSHA) regulates lead dust exposure to workers in the construction industry under 29 CFR 1926.62 Lead in Construction.

The lead-based paint screen was performed by Eltwaun Lawrence; a State of Connecticut licensed Lead Inspector/Risk Assessor (license #002250).

### **2.2.2 Lead Waste Characterization**

The State of Connecticut Department of Energy and Environmental Protection (DEEP) regulates the disposal of hazardous waste. The required analytical test to determine a materials waste classification is the Toxicity Characteristic Leachate Procedure, or TCLP (Regulation of State DEEP 22a-449© - 101 (a) (1), incorporating 40 CFR 262.24). Lead coated surfaces were not identified on the tested components; therefore Eagle Environmental, Inc. did not collect samples of building materials for lead waste characterization.

## **2.3 Universal Waste Materials and Other Environmental Concerns**

### **2.3.1 Polychlorinated Biphenyls (PCB) and Di-ethylhexlphthalate (DEHP) Containing Items**

PCB and DEHP lighting ballasts and electrical equipment, including capacitors and switches that contain PCBs, are regulated under the Toxic Substances Control Act of 1976 (TSCA) which bans the manufacturing and distribution of PCBs and regulates their storage and disposal.

PCBs and DEHP can be found in a number of items, including lighting ballast and electrical equipment, including capacitors and switches. DEHP and PCB-containing items such as these must be managed and disposed of in accordance with special requirements. A visual inspection for PCB and DEHP containing items was performed at the site building.

### **2.3.2 Mercury Containing Items**

Fluorescent lamps, thermostats, mercury switches, manometers, natural gas meters and other items can contain enough mercury to be classified as a special waste, and therefore may not be disposed of as regular construction debris. The mercury and mercury vapors associated with these products must be reclaimed prior to disposal or recycling of the products. A visual inspection for the presence of fluorescent lamps, thermostats and switches potentially containing mercury was performed at the site building.

### **2.3.3 Used Electronics and Batteries**

Used electronics and batteries may contain enough lead, mercury, cadmium or acid electrolytes to be classified as universal waste. In such cases, they may not be disposed of as regular construction debris. A visual inspection for the presence of used electronic devices was performed at the site building.

### **2.3.4 Chlorofluorocarbons**

Freon gas includes a number of gaseous, colorless chlorofluorocarbons (CFCs) that are commonly used as refrigerants. Freon is listed as a controlled substance

by governments around the world. In the United States, the USEPA regulates the emission of Freon gas into the atmosphere due to its ozone depleting capabilities. Through Title VI, Stratospheric Ozone Protection, of the Clean Air Act Amendments of 1990, the USEPA regulates Freon gas and requires mandatory recycling and a ban on the intentional venting or releasing of refrigerants during maintenance, service and or repair. A visual inspection for the presence of building materials potentially containing Freon was performed at the site building.

### **3. INSPECTION PROTOCOLS**

#### **3.1 Asbestos Containing Materials**

##### **3.1.1 Inspection**

The asbestos-containing materials (ACM) inspection included the accessible interior and exterior portions of the building including the roofing systems. Semi-destructive testing techniques were utilized during the inspection process. This included manually removing various layers of flooring and roofing materials utilizing hand tools to verify and sample individual layers of suspect ACM. Suspect building materials that are inaccessible for inspection and sampling are assumed to be ACM for the purpose of this report. Inaccessible suspect materials are generally located in operational equipment, behind rigid walls and ceilings, below rubber roof membranes or otherwise concealed areas of the building, including below grade materials.

During the inspection, suspect materials are located, sampled, quantified and the friability of the material is determined. Friable materials are those materials that hand pressure can crumble, pulverize or reduce to powder when dry. An estimated quantity of identified ACM is provided for positive materials only. The materials are quantified in linear or square feet, depending on the nature of the material.

##### **3.1.2 Bulk Sampling**

During the sampling process, suspect ACM is separated into three (3) USEPA categories. These categories are: Thermal System Insulation (TSI), Surfacing Materials (SURF), and Miscellaneous materials (MISC). TSI includes all materials used to prevent heat loss or gain or water condensation on mechanical systems. Examples of TSI are pipe covering, boiler insulation, duct wrap, and mudpack fitting cement. Surfacing ACM includes all ACM that is sprayed, toweled or otherwise applied to an existing surface. These applications are most commonly used in fireproofing, decorative, and acoustical applications. Miscellaneous materials include all ACM not listed in thermal or surfacing, such as linoleum, vinyl asbestos flooring, and ceiling tile.

Bulk sampling was performed in a random method. Bulk sampling methods and number of samples collected meets or exceeds the USEPA requirements.

##### **3.1.3 Bulk Sample Analysis**

The samples of the suspect asbestos containing materials were sent to a State of Connecticut Department of Public Health (DPH) approved laboratory for analysis by Polarized Light Microscopy (PLM). PLM is the USEPA accepted method of analysis for identification of asbestos in bulk matrixes. Samples are collected

individually or in sets. When sets of samples are collected, each set is systematically analyzed until one sample is determined to contain asbestos. Upon the determination of the presence of asbestos in one sample in the set, analysis of the remaining samples in the set is discontinued. If no asbestos is observed during analysis of the set of samples, the suspect material is determined to be negative for asbestos content.

Sample analysis results are reported in percentage of asbestos and non-asbestos components. The USEPA defines any material that contains greater than one percent asbestos, utilizing PLM, as being an asbestos-containing material (ACM). Suspect materials containing greater than one percent (1%) asbestos utilizing the PLM Point Count Method and the NOB TEM method are also considered to be asbestos-containing. Materials determined to contain greater than one percent (1%) asbestos is regulated by the USEPA, the State of Connecticut Department of Public Health and Department of Energy and Environmental Protection and the United States Department of Labor. Sample results indicating “no asbestos detected” (NAD) are specified as non-asbestos containing materials. Samples results indicating “Did Not Analyze” (DNA) are not analyzed due to the stop on first positive request to the laboratory.

### **3.1.3.1 Friable ACM Analysis**

Certain samples of friable materials shown to contain less than 10% asbestos are analyzed further by the “Point Count Method”. This procedure is recommended by the United States Environmental Protection Agency to confirm friable bulk samples shown to have less than 10% asbestos by PLM to be definitively negative or positive for asbestos. This method is accepted as providing statistically reliable results when analyzing bulk samples with very low asbestos concentrations. Friable materials containing “Trace” or “less than one percent (1%)” asbestos must be analyzed by the PLM Point Count Method. None of the samples were further analyzed by the PLM Point Count Method for this project.

### **3.1.3.2 Non Friable ACM Analysis**

Certain samples of organically bound non-friable materials shown to contain “less than 1% asbestos”, “TRACE” or “NAD” are recommended for analyses by the “NOB TEM ELAP 198.4 Method”. This procedure is recommended by the United States Environmental Protection Agency to further evaluate non-friable organically bound materials for asbestos. Suspect materials confirmed by NOB TEM to be “less than 1% asbestos”, “TRACE” or “NAD” are considered non-asbestos containing. None of the samples were further analyzed by the NOB TEM Method for this project.

## **3.2 Lead-based Paint**

### **3.2.1 X-Ray Fluorescence Screen**

The lead-based paint screen was performed utilizing an X-Ray Fluorescence (XRF) Radiation Monitoring Device (RMD) Lead Paint Analyzer (LPA 1), serial number 1364 within the limits of the inspection area(s). The screen includes only accessible areas within the inspection area(s) and accessible building materials.

The lead-based paint screen includes testing limited components and or surfaces throughout the structure. It is not the intent to test all painted components, but to identify on a broad scale the impact of lead paint as it relates to the disposal of lead paint contaminated debris and potential worker exposure issues. Generally, wall and ceiling surfaces, painted floors, window and door systems are tested. Other components such as baseboards, cabinets, columns, trim, etc. are tested on a limited basis. Component and surface locations are identified by side designations represented by the letters "A", "B", "C", and "D". The "A" side is considered the front of the building with the "B", "C", and "D" sides following in a clockwise order.

The data is presented on computer generated Lead Inspection Reports contained in Appendix 3. The Summary Report provides an inventory of each surface coating that contains lead at or above 1.0 mg/cm<sup>2</sup>. The Detailed Report is an inventory of each tested surface on a room-by-room basis.

For the purpose of this report, the XRF results are separated into two (2) categories; high levels of lead ( $\geq 1.0$  mg/cm<sup>2</sup>) and low levels of lead (<1.0 mg/cm<sup>2</sup>). Building materials containing high levels of lead have a greater probability of creating worker exposures during construction than do building materials with low levels of lead. Additionally, lead waste characterization sampling is required for building materials containing high levels of lead ( $\geq 1.0$  mg/cm<sup>2</sup>) and will become a waste product as a result of demolition or renovation activities.

The U.S. Department of Labor Occupation Safety and Health Administration (OSHA) regulates lead dust exposure to workers in the construction industry under 29 CFR 1926.62 Lead Exposure in Construction; Interim Final Rule. Currently, OSHA does not define a threshold level of lead in paint that may cause worker exposure. Any detectable level of lead in paint ( $> 0.0$  mg/cm<sup>2</sup> +/- 0.3 mg/cm<sup>2</sup> by XRF or  $\geq 0.01$  % by AAS) requires task specific exposure monitoring.

### **3.2.2 Lead Waste Characterization**

The State of Connecticut Department of Energy and Environmental Protection regulates the disposal of hazardous waste. The required analytical test to determine a materials waste classification is the Toxicity Characteristic Leachate Procedure, or TCLP (Regulation of State DEEP 22a-449© - 101 (a) (1), incorporating 40 CFR 262.24). For the purpose of this report waste characterization was not warranted.

The TCLP test subjects a 100-gram sample of waste material to a simulated landfill leaching condition, and assesses the ability of the sample to leach out lead into the environment. The waste is classified as hazardous lead waste if the TCLP sample result is greater than 5.0 mg/l of lead. The waste is classified as non-hazardous solid waste if the TCLP sample result is less than 5.0 mg/l of lead. Building debris containing equal to or greater than 1.0 mg/cm<sup>2</sup> of lead by XRF requires waste classification analysis.

There are two (2) primary approaches for TCLP sampling. Both methods utilize the data generated during the lead screen to determine which building materials contain lead in paint coatings and what percentage of the waste stream will consist of the leaded materials. The two (2) basic approaches are described below.

## **Screen, Sample, and Segregate Method**

The Screen, Sample, and Segregate method of TCLP sampling is conducted in accordance with the State of Connecticut Department of Energy and Environmental Protection Guidance for the Management and Disposal of Lead-Contaminated Materials Generated in the Lead Abatement, Renovation, and Demolition Industries. This method entails screening the building components scheduled to be removed with an XRF lead paint analyzer. Components that are determined to be lead containing are sampled and analyzed by TCLP based on their contribution into the waste stream. The waste stream is made up of those building components that will be removed from the structure as part of the renovation or demolition process and will become a waste product.

## **Sample and Demolish Method**

The Composite Sample and Demolish Method of TCLP sampling is conducted in accordance with the State of Connecticut Department of Energy and Environmental Protection Guidance for the Management and Disposal of Lead-Contaminated Materials Generated in the Lead Abatement, Renovation, and Demolition Industries. This method utilizes composite samples to assess the total amount of leachable lead of the entire quantity of debris to be removed. This sampling method is best utilized for whole building demolitions where the quantity of non-lead debris is expected to be much greater than that of the leaded debris. The first step in the sampling process requires the inspector to identify the potential waste stream of the structure to be demolished. The waste stream is made up of those building components that will be disposed of once the structure is demolished. The inspector calculates the mass by weight of each group of building components within the building (i.e. studs, framing, sheathing, siding, doors, windows, etc.). The lead testing results enables the inspector to determine the percentages of components, within each group, that contain lead. With this information, the inspector can then calculate the percent by weight contribution of each components contribution into the waste stream. This takes into account the ratio of leaded components verse non-leaded components within each group.

### **3.3 Universal Waste Materials and Other Environmental Concerns**

#### **3.3.1 PCB and Di-ethylhexylphthalate (DEHP) Containing Items**

A visual inspection for the presence of lighting ballasts and electrical equipment potentially containing PCB's or DEHP was performed within the inspection areas. Lighting ballasts and oil-filled capacitor manufactured after 1979 may have "NO PCB's" stamped on its casing. These are filled with oil which does not contain PCB's but may contain DEHP. Lighting ballasts and Capacitors with date stamps prior to 1979 or no date stamps are assumed to contain PCB's. Lighting ballasts and capacitors labeled as "No PCB's" are assumed to contain DEHP if the date stamp is illegible or non-existent. Electronic ballasts are assumed to not contain PCB's or DEHP.

#### **3.3.2 Mercury Containing Items**

During the visual inspection process, fluorescent, metal halide and sodium lamps are assumed to contain mercury vapors unless the end caps of the tubes are green indicating they are mercury free. Thermostatic controls, switches, manometers, capacitors and other used electronic components are inventoried during the inspection process.

### 3.3.3 Used Electronics and Batteries

An inventory of used electronics that may fall under the Universal Waste regulations was developed during the inspection. These materials include but are not limited to lead acid batteries in emergency lighting and exit signs and stored electronic equipment that may contain hazardous or regulated substances. Electronic components such as computers, copy machines, etc that are in use at the time of the inspection are generally not included in the inventory.

### 3.3.4 Chlorofluorocarbons

Eagle Environmental inspected the building for compressor tanks associated with water fountains, portable air conditioning units, the indoor environmental cooling system and walk-in coolers or freezers where applicable. The inspectors also inspected rooftop HVAC units where present. These tanks are all assumed to contain Freon. The size and quantity of tanks are estimated and recorded.

## 4. INSPECTION RESULTS

### 4.1 Asbestos Containing Materials

During the course of the building inspection one hundred four (104) bulk samples of suspect ACM were collected and one hundred one (101) samples were analyzed by PLM based on the "stop on first positive" request to the laboratory. Based on the one hundred one (101) samples analyzed, there were three (3) suspect materials on the roof that were confirmed to be ACM. These materials include the following:

- HVAC unit base grey tar
- Top layer roof pitch pocket tar (at HVAC electrical penetration)
- Bottom layer roof pitch pocket tar (at HVAC electrical penetration)

These materials are classified as miscellaneous asbestos containing material and must be removed prior to building demolition, properly packaged and disposed of as asbestos waste. The summaries of asbestos and non-asbestos materials are presented in Tables I and II respectively. The asbestos analysis laboratory reports are provided in Appendix 2.

Any suspect material not specifically identified in this report as non-ACM should be assumed to contain asbestos unless sample results prove otherwise.

The identified materials are non-friable and on the exterior of the building. The tars are non-regulated ACM as long as they remain non-friable during removal. Workers removing the non-friable asbestos containing roofing materials must have a minimum of eight (8) hours awareness training to comply with OSHA Asbestos in Construction Standard 29 CFR 1926.1101. The asbestos containing roofing materials removed during this project must be properly packaged, labeled and disposed of as asbestos-containing waste. An independent third-party consultant needs to perform a visual inspection following the abatement. For asbestos abatement projects involving less than ten (10) linear feet or twenty-five (25) square feet of asbestos-containing materials or projects where no regulated asbestos-containing materials are identified, the facility owner or any person who will be conducting demolition must submit a demolition notification to the State of Connecticut Department of Public Health post marked or hand delivered ten (10) days prior to the commencement of demolition activities.

## **4.2 Lead-based Paint**

### **4.2.1 X-Ray Fluorescence Screen**

A total of one hundred forty-two (142) XRF readings were collected during the lead-based paints screen of the building. From the one hundred forty-two (142) readings, there were no readings equal to or greater than the EPA action level of 1.0 mg/cm<sup>2</sup>.

Throughout the course of the inspection several building materials that were tested were determined to contain low levels of lead in paint in their respective paint coatings. Although these levels of lead in paint were less than 1.0 mg/cm<sup>2</sup>, the contractor must perform an exposure assessment on employees during tasks that disturb the painted materials.

The remaining components and surfaces that were tested contain no lead in their respective paint coatings.

The U.S. Department of Labor Occupation Safety and Health Administration (OSHA) regulates lead dust exposure to workers in the construction industry under 29 CFR 1926.62 Lead Exposure in Construction; Interim Final Rule. Currently, OSHA does not define a threshold level of lead in paint that may cause worker exposure. Any detectable level of lead in paint (>0.0 mg/cm<sup>2</sup> +/- 0.3 mg/cm<sup>2</sup> by XRF or >0.01 % by AAS) requires task specific exposure monitoring. This "initial exposure assessment" must be conducted by trained workers utilizing appropriate personal protective equipment. Exposure assessments must be conducted for each task where painted surfaces or components are disturbed.

Examples of tasks subject to initial monitoring when detectable levels of lead are identified include but are not limited to surface preparation for repainting, manual demolition of components with detectable levels of lead paint and the welding, cutting or grinding of steel with detectable levels of lead in paint.

A complete inventory of tested building materials is presented in Detailed Reports contained Appendix 3.

### **4.2.2 Lead Waste Characterization Results**

For the purpose of this report, lead-based paint was not identified on any of the tested components; therefore, waste characterization was not required.

## **4.3 Universal Waste Materials and Other Environmental Concerns**

### **4.3.1 PCB and Di-ethylhexylphthalate (DEHP) Containing Items**

There were no PCB or DEHP containing lighting ballasts present within the inspection site at the time of inspection.

One (1) capacitor potentially containing dielectric fluid is assumed to be within an air conditioning unit within the inspected building. The capacitor must be removed for proper recycling prior to building demolition.

Twenty-four (24) electronic ballasts were identified. No further action is required for the electronic ballasts.



The associated inspection data is provided in Table III.

#### **4.3.2 Mercury Containing Items**

A total of approximately sixteen (16) linear feet of fluorescent light tubes and forty-six (46) U-shaped lamps were present within the inspection building. The fluorescent light tubes and lamps must be removed from the building for proper recycling prior to building demolition.

A total of three (3) thermostat switches containing mercury bulbs were identified in the inspected building. The mercury bulbs must be removed from the building for proper recycling prior to demolition of the building.

The associated inspection data is provided in Table III.

#### **4.3.3 Used Electronics and Batteries**

There was one (1) emergency light and five (5) exit lights containing lead-acid or nickel cadmium batteries present within the inspection building.

The batteries must be removed from the building for proper recycling prior to demolition of the building.

The associated inspection data is provided in Table III.

#### **4.3.4 Chlorofluorocarbons**

A total of one (1) air conditioner containing a two (2) gallon Freon tank was identified within the inspection building. The Freon must be reclaimed from the tanks prior to building demolition.

The associated inspection data is provided in Table III.

### **5. COST ESTIMATES**

This is a budgetary opinion of cost that is expected to be within -15 to + 30 percent of the actual cost. Eagle Environmental, Inc. has no control over the cost of labor, materials, equipment or services furnished by others, or over the Contractor or Contractors' methods of determining prices, or over competitive bidding or market conditions. Eagle Environmental, Inc.'s opinion of probable cost of abatement are made on the basis of Eagle Environmental, Inc.'s experience and qualifications and represent Eagle Environmental, Inc.'s judgment as an experienced and qualified consultant familiar with the abatement industry; but Eagle Environmental, Inc. cannot and does not guarantee that proposals, bids or actual Total Project or Abatement Cost will not vary from opinions of probable cost prepared by Eagle Environmental, Inc. If, prior to the bidding or negotiating phase, the Owner wishes greater assurance as to Total Project or Abatement Cost, the Owner shall employ an independent cost estimator.

The cost estimates are provided in Appendix 4.

**TABLE I**

**ASBESTOS CONTAINING MATERIALS SUMMARY TABLE**

**TABLE I**  
**ASBESTOS CONTAINING MATERIALS**  
**SUMMARY TABLE**  
**BOROUGH OF NAUGATUCK**  
**1 SOUTH MAIN STREET**  
**NAUGATUCK, CONNECTICUT**

LOCATION(S)	MATERIAL TYPE	SAMPLE NUMBER	CATEGORY	BULK SAMPLE ANALYSIS RESULTS				ESTIMATED QUANTITY	F/NF
				PLM	PLM PC	TEM NOB	ACM		
Roof	Gray tar at base of HVAC unit	1-31-EL-15	MISC	3% Chrys			YES	2 SF	NF
		1-31-EL-16		DNA					
Roof	Top layer pitch pocket tar	1-31-EL-17	MISC	5% Chrys			YES	2 SF	NF
		1-31-EL-18		DNA					
Roof	Bottom layer pitch pocket tar	1-31-EL-19	MISC	13% Chrys			YES	2 SF	NF
		1-31-EL-20		DNA					
<b>KEY</b>									
DNA = DID NOT ANALYZE				ANALYTICAL METHODS					
NAD = NO ASBESTOS DETECTED				PLM PC = EPA 600/R-93/116 QUANTITATION 400 POINT COUNT					
F = FRIABLE				TEM NOB = NEW YORK ELAP 198.4 METHOD					
NF = NON-FRIABLE				PLM = EPA 600/R-93/116					
TSI = THERMAL SYSTEMS INSULATION				PS = Previously Sampled					
SURF = SURFACING MATERIAL				EA = Each					
MISC = MISCELLANEOUS MATERIAL									
<b>BOLD TEXT IN "LOCATION" COLUMN INDICATES SAMPLE LOCATION</b>									

**TABLE II**

**NON-ASBESTOS-CONTAINING MATERIALS SUMMARY TABLE**

**TABLE II**  
**NON - ASBESTOS CONTAINING MATERIALS**  
**SUMMARY TABLE**  
**BOROUGH OF NAUGATUCK**  
**1 SOUTH MAIN STREET**  
**NAUGATUCK, CONNECTICUT**

SAMPLE LOCATION(S)	MATERIAL TYPE	SAMPLE NUMBER	CATEGORY	BULK SAMPLE ANALYSIS RESULTS			
				PLM	PLM/PC	TEM NOB	ACM
001, 024	Gray adhesive on dark blue carpet	1-31-SD-01	MISC	NAD			NO
		1-31-SD-02		NAD			
006, 016	Wall and ceiling sheetrock	1-31-SD-03	MISC	NAD			NO
		1-31-SD-04		NAD			
014, 020	Wall and ceiling joint compound	1-31-SD-05	MISC	NAD			NO
		1-31-SD-06		NAD			
014, 020	Wall & ceiling composite sheetrock/joint compound	1-31-SD-07	MISC	NAD			NO
		1-31-SD-08		NAD			
004, 015	Gray adhesive on blue/white carpet	1-31-SD-09	MISC	NAD			NO
		1-31-SD-10		NAD			
012, 022	2'x2' Small hole ceiling tile	1-31-SD-11	MISC	NAD			NO
		1-31-SD-12		NAD			
005, 007	Gray mastic under 12"x12" floor tile	1-31-SD-13	MISC	NAD			NO
		1-31-SD-14		NAD			
006, 008	12"x12" White floor tile	1-31-SD-15	MISC	NAD			NO
		1-31-SD-16		NAD			
006	Wall panel adhesive	1-31-SD-17	MISC	NAD			NO
		1-31-SD-18		NAD			
007	Wallpaper gray adhesive	1-31-SD-19	MISC	NAD			NO
		1-31-SD-20		NAD			
009	Black mastic under clay floor tile	1-31-SD-21	MISC	NAD			NO
		1-31-SD-22		NAD			
009	Gray adhesive under clay floor tile	1-31-SD-23	MISC	NAD			NO
		1-31-SD-24		NAD			
KEY				ANALYTICAL METHODS			
DNA = DID NOT ANALYZE				PLM/PC = EPA 600/R-93/116 QUANTITATION 400 POINT COUNT			
NAD=NO ASBESTOS DETECTED				TEM NOB = NEW YORK ELAP 198.4 METHOD			
F = FRIABLE				PLM = EPA 600/R-93/116			
NF = NON-FRIABLE				PS = Previously Sampled			
TSI = THERMAL SYSTEMS INSULATION				EA = Each			
SURF = SURFACING MATERIAL							
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<b>BOLD TEXT IN "LOCATION" COLUMN INDICATES SAMPLE LOCATION</b>							

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**SUMMARY TABLE**  
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SAMPLE LOCATION(S)	MATERIAL TYPE	SAMPLE NUMBER	CATEGORY	BULK SAMPLE ANALYSIS RESULTS		
				PLM	PLM PC	TEM NOB
009	Clay floor tile grout	1-31-SD-25	MISC	NAD		
		1-31-SD-26				
011, 012	Dark green stair tread-grey adhesive	1-31-SD-27	MISC	NAD		
		1-31-SD-28				
011, 012	Dark green stair tread	1-31-SD-60	MISC	NAD		
		1-31-SD-61				
016	Blue carpet light brown adhesive	1-31-SD-29	MISC	NAD		
		1-31-SD-30				
017, 026	Gray adhesive under ceramic floor tile	1-31-SD-31	MISC	NAD		
		1-31-SD-32				
017, 026	Ceramic floor tile grout	1-31-SD-33	MISC	NAD		
		1-31-SD-34				
022, 026	Brown adhesive on door casing/wood cove base	1-31-SD-35	MISC	NAD		
		1-31-SD-36				
026	White rubbery caulk around bathtub	1-31-SD-37	MISC	NAD		
		1-31-SD-38				
001, 013	Wooden cove base dark brown adhesive	1-31-SD-39	MISC	NAD		
		1-31-SD-40				
021	Black tar on insulation around exterior walls	1-31-SD-41	MISC	NAD		
		1-31-SD-42				
006, 007	White vinyl cove base gray adhesive	1-31-SD-52	MISC	NAD		
		1-31-SD-53				
006, 007	White vinyl cove base	1-31-SD-54	MISC	NAD		
		1-31-SD-55				
<b>KEY</b>				<b>ANALYTICAL METHODS</b>		
DNA = DID NOT ANALYZE				PLM PC = EPA 600/R-93/116 QUANTITATION 400 POINT COUNT		
NAD=NO ASBESTOS DETECTED				TEM NOB = NEW YORK ELAP 198.4 METHOD		
F = FRIABLE				PLM = EPA 600/R-93/116		
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SAMPLE LOCATION(S)	MATERIAL TYPE	SAMPLE NUMBER	CATEGORY	BULK SAMPLE ANALYSIS RESULTS			
				PLM	PLM PC	TEM NOB	ACM
015	Residual floor ceramic tile grout	1-31-SD-56	MISC	NAD			NO
		1-31-SD-57		NAD			
025	Wall 2 <sup>nd</sup> Layer sheetrock	1-31-SD-58	MISC	NAD			NO
		1-31-SD-59		NAD			
021	Duct work flex connector	1-31-SD-62	MISC	NAD			NO
		1-31-SD-63		NAD			
021	Black tar on sink (undercoating)	1-31-SD-64	MISC	NAD			NO
		1-31-SD-65		NAD			
023	2'x4' fissured ceiling tiles	1-31-SD-66	MISC	NAD			NO
		1-31-SD-67		NAD			
021, 026	Drop ceiling sheetrock	1-31-SD-68	MISC	NAD			NO
		1-31-SD-69		NAD			
021, 026	Drop ceiling joint compound	1-31-SD-70	MISC	NAD			NO
		1-31-SD-71		NAD			
021, 026	Drop ceiling composite sheetrock/joint compound	1-31-SD-72	MISC	NAD			NO
		1-31-SD-73		NAD			
Façade B	Grey caulk around small windows	1-31-SD-45	MISC	NAD			NO
		1-31-SD-46		NAD			
Façade C, Façade D	Hard coat exterior wall plaster	1-31-SD-78	SURF	NAD			NO
		1-31-SD-79		NAD			
		1-31-SD-80		NAD			
		1-31-SD-81		NAD			
		1-31-SD-82		NAD			
<b>KEY</b>				<b>ANALYTICAL METHODS</b>			
DNA = DID NOT ANALYZE				PLM PC = EPA 600/R-93/116 QUANTITATION 400 POINT COUNT			
NAD=NO ASBESTOS DETECTED				TEM NOB = NEW YORK ELAP 198.4 METHOD			
F = FRIABLE				PLM = EPA 600/R-93/116			
NF = NON-FRIABLE				PS = Previously Sampled			
TSI = THERMAL SYSTEMS INSULATION				EA = Each			
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**1 SOUTH MAIN STREET**  
**NAUGATUCK, CONNECTICUT**

SAMPLE LOCATION(S)	MATERIAL TYPE	SAMPLE NUMBER	CATEGORY	BULK SAMPLE ANALYSIS RESULTS		
				PLM	PLM PC	TEM NOB
Façade C, Façade D	Skim coat exterior wall plaster	1-31-SD-49		NAD		
		1-31-SD-50		NAD		
		1-31-SD-51	SURF	NAD		
		1-31-SD-76		NAD		
		1-31-SD-77		NAD		
Façade D	Dark white door caulk	1-31-SD-47	MISC	NAD		
		1-31-SD-48		NAD		
Façade C	Large casement window glazing compound	1-31-SD-74	MISC	NAD		
		1-31-SD-75		NAD		
Façade D	Brown caulk around big windows	1-31-SD-43	MISC	NAD		
		1-31-SD-44		NAD		
Roof	Seam cement on black rolled roofing	1-31-EL-01	MISC	NAD		
Roof	Top layer black rolled roofing	1-31-EL-02		NAD		
		1-31-EL-03		NAD		
Roof	Tar between 1 <sup>st</sup> and 2 <sup>nd</sup> roof layer	1-31-EL-04		NAD		
		1-31-EL-05		NAD		
Roof	2 <sup>nd</sup> Layer rolled roofing felt paper	1-31-EL-06		NAD		
		1-31-EL-07		NAD		
Roof	3 <sup>rd</sup> Layer rolled roofing felt paper	1-31-EL-08		NAD		
		1-31-EL-09		NAD		
		1-31-EL-10		NAD		
<b>KEY</b>				<b>ANALYTICAL METHODS</b>		
DNA = DID NOT ANALYZE				PLM PC = EPA 600/R-93/116 QUANTITATION 400 POINT COUNT		
NAD=NO ASBESTOS DETECTED				TEM NOB = NEW YORK ELAP 198.4 METHOD		
F = FRIABLE				PLM = EPA 600/R-93/116		
NF = NON-FRIABLE				PS = Previously Sampled		
TSI = THERMAL SYSTEMS INSULATION				EA = Each		
SURF = SURFACING MATERIAL						
MISC = MISCELLANEOUS MATERIAL						
<b>BOLD TEXT IN "LOCATION" COLUMN INDICATES SAMPLE LOCATION</b>						



**TABLE II**  
**NON - ASBESTOS CONTAINING MATERIALS**  
**SUMMARY TABLE**  
**BOROUGH OF NAUGATUCK**  
**1 SOUTH MAIN STREET**  
**NAUGATUCK, CONNECTICUT**

SAMPLE LOCATION(S)	MATERIAL TYPE	SAMPLE NUMBER	CATEGORY	BULK SAMPLE ANALYSIS RESULTS			
				PLM	PLM PC	TEM NOB	ACM
Roof	Polyiso board paper	1-31-EL-11	MISC	NAD			NO
		1-31-EL-12		NAD			
Roof	Black tar on top of parapet wall	1-31-EL-13	MISC	NAD			NO
		1-31-EL-14		NAD			
Roof	Gray asphalt shingle on wood hatch	1-31-EL-21	MISC	NAD			NO
		1-31-EL-22		NAD			
<b>KEY</b>				<b>ANALYTICAL METHODS</b>			
DNA = DID NOT ANALYZE				PLM PC = EPA 600/R-93/116 QUANTITATION 400 POINT COUNT			
NAD=NO ASBESTOS DETECTED				TEM NOB = NEW YORK ELAP 198.4 METHOD			
F = FRIABLE				PLM = EPA 600/R-93/116			
NF = NON-FRIABLE				PS = Previously Sampled			
TSI = THERMAL SYSTEMS INSULATION				EA = Each			
SURF = SURFACING MATERIAL							
MISC = MISCELLANEOUS MATERIAL							
<b>BOLD TEXT IN "LOCATION" COLUMN INDICATES SAMPLE LOCATION</b>							

**TABLE III**

**UNIVERSAL WASTE MATERIALS SUMMARY TABLE**

TABLE III  
 UNIVERSAL WASTE PRODUCTS  
 SUMMARY TABLE  
 BOROUGH OF NAUGATUCK  
 1 SOUTH MAIN STREET  
 NAUGATUCK, CONNECTICUT

ROOM	FIXTURE TYPE		BALLAST TYPE		ELECTRONICS		THERMO-STATS	LAMPS		BATTERIES		
	PCB	DEHP	ELEC	SPENT	CAPACITORS	CICS		LF	ROUND	U-SHAPE	FA	ES
003			6							12		
004			6		1 Air Conditioner	1 Air Conditioner	1			12		
009			1							2		
010			2				16 LF					
011												1
013			5							10		
016												1
019												1
020										2		
021			3				1			6		2
024			1							2		
025												1
<b>TOTAL</b>			<b>24</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>16</b>	<b>0</b>	<b>46</b>	<b>0</b>	<b>5</b>

NOTES

KEYS: FA = Fire Alarm / ES = Exit Sign / ELS = Emergency Lighting System  
 Type 1 - 2' x 2' Recessed in grid; Universal 446-L-SLH-TC-P  
 Type 2 - Rectangle Metal Box; Magnetek 446-L-SLH-TC-P

FIXTURE TYPE  
 DESCRIPTION

**APPENDIX 1**  
**FLOOR PLANS**

# BOROUGH of NAUGATUCK

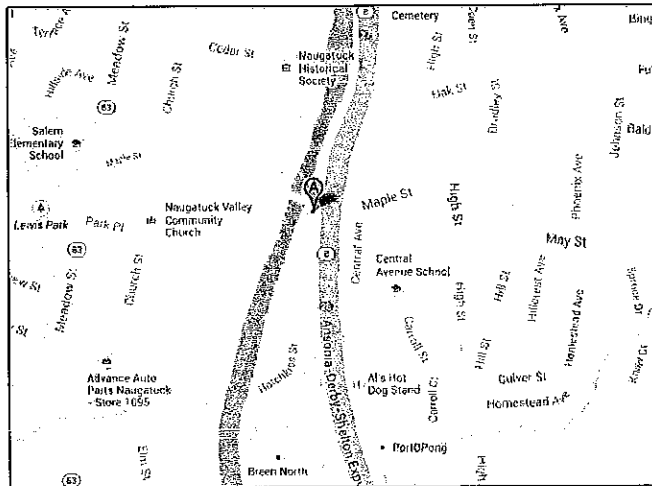
14-029.11T1

1 SOUTH MAIN STREET  
NAUGATUCK, CONNECTICUT

## INDEX OF DRAWINGS

FP-1 FIRST FLOOR PLAN  
FP-2 SECOND FLOOR PLAN  
FP-3 THIRD FLOOR PLAN  
RP-1 ROOF PLAN

## LOCATION MAP



February 4, 2014



**EAGLE**  
Environmental, Inc.

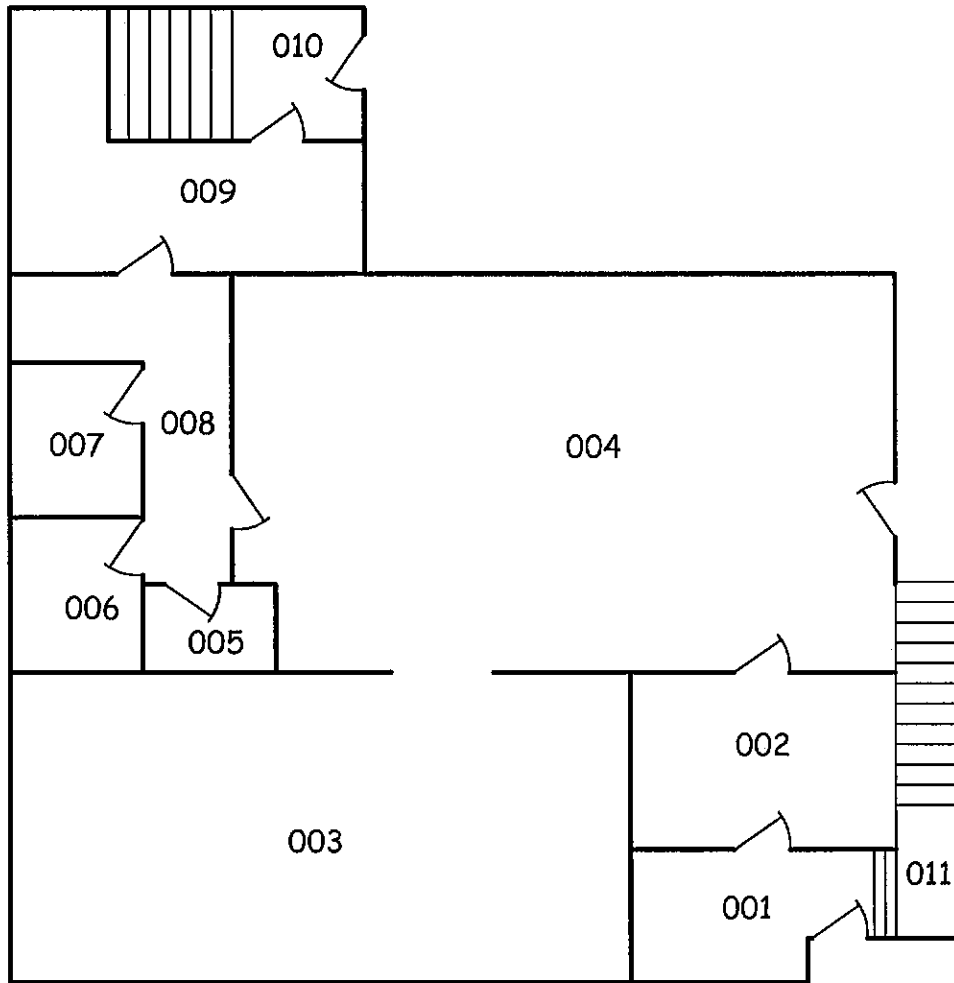
8 SOUTH MAIN STREET, SUITE 3  
TERRYVILLE, CONNECTICUT 06786  
860-589-8257

FIRST FLOOR

SIDE-C

SIDE-B

SIDE-D



SIDE-A (STREET SIDE)

NOT TO SCALE



**EAGLE**  
Environmental, Inc.

8 SOUTH MAIN STREET, SUITE 3  
TERRYVILLE, CONNECTICUT 06786  
860-589-8257

SHEET NO.

**FP-1**

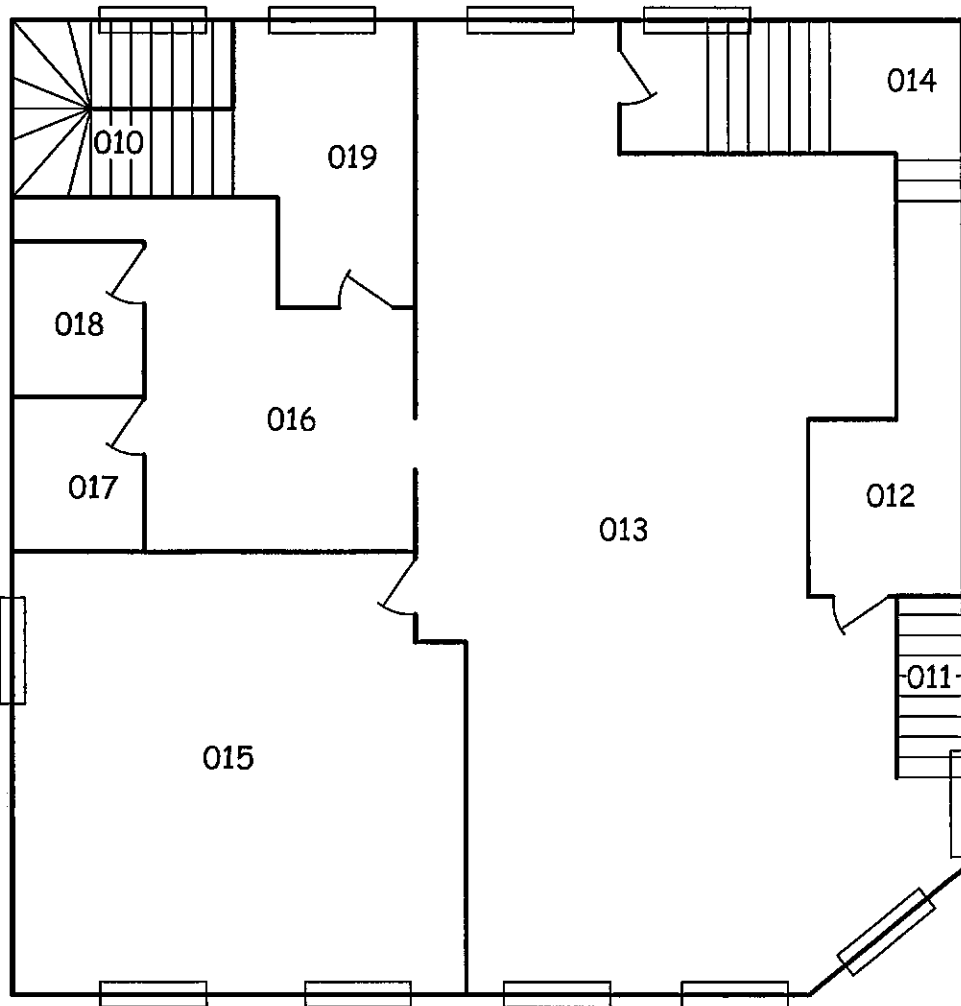
SHEET 1 OF 4

DATE: 02/04/14  
PROJECT NO.: 14-029.11T1  
DRAWN BY: VB  
REVIEWED BY: CL

**HAZARDOUS BUILDING MATERIAL INSPECTION**  
**1 SOUTH MAIN STREET**  
**NAUGATUCK, CONNECTICUT**  
**FIRST FLOOR PLAN**

SECOND FLOOR

SIDE-C



SIDE-A (STREET SIDE)

NOT TO SCALE



**EAGLE**  
Environmental, Inc.

DATE: 02/04/14  
PROJECT NO.: 14-029.11T1  
DRAWN BY: VB  
REVIEWED BY: CL

**HAZARDOUS BUILDING MATERIAL INSPECTION**  
**1 SOUTH MAIN STREET**  
**NAUGATUCK, CONNECTICUT**  
**SECOND FLOOR PLAN**

8 SOUTH MAIN STREET, SUITE 3  
TERRYVILLE, CONNECTICUT 06786  
860-589-8257

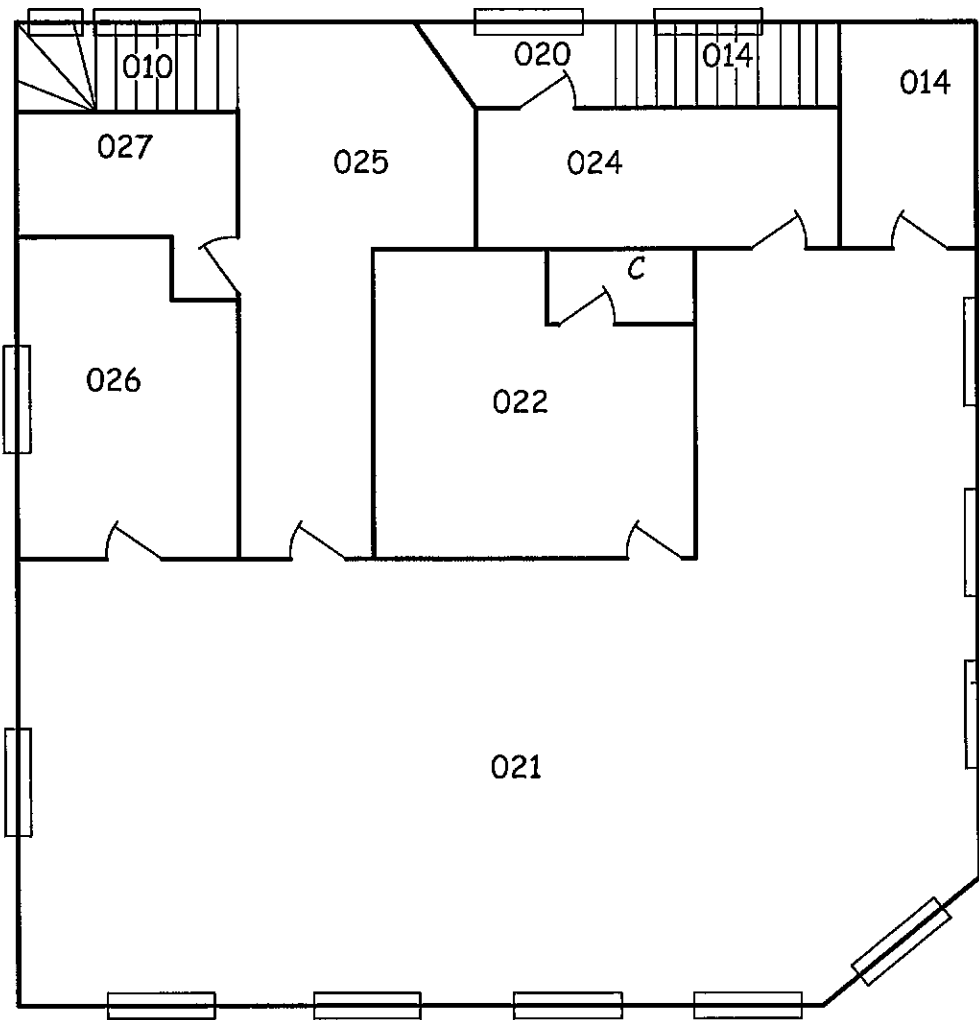
SHEET NO.

**FP-2**

SHEET 2 OF 4

THIRD FLOOR

SIDE-C



SIDE-A (STREET SIDE)

NOT TO SCALE



**EAGLE**  
Environmental, Inc.

8 SOUTH MAIN STREET, SUITE 3  
TERRYVILLE, CONNECTICUT 06786  
860-589-8257

**HAZARDOUS BUILDING MATERIAL INSPECTION**  
**1 SOUTH MAIN STREET**  
**NAUGATUCK, CONNECTICUT**  
**THIRD FLOOR PLAN**

SHEET NO.

**FP-3**

SHEET 3 OF 4

DATE: 02/04/14  
PROJECT NO.: 14-029.11T1  
DRAWN BY: VB  
REVIEWED BY: CL



ROOF

SIDE-C

SIDE-B

SIDE-D

PARAPET

HVAC

HATCH

SIDE-A (STREET SIDE)

NOT TO SCALE



**EAGLE**  
Environmental, Inc.

8 SOUTH MAIN STREET, SUITE 3  
TERRYVILLE, CONNECTICUT 06786  
860-589-8257

SHEET NO.

**RP-1**

SHEET 4 OF 4

DATE: 02/04/14  
PROJECT NO.: 14-029.11T1  
DRAWN BY: VB  
REVIEWED BY: CL

**HAZARDOUS BUILDING MATERIAL INSPECTION**  
**1 SOUTH MAIN STREET**  
**NAUGATUCK, CONNECTICUT**  
**ROOF PLAN**

**APPENDIX 2**

**ASBESTOS BULK SAMPLE LABORATORY REPORTS**

031404763



<b>EMSL - MA</b> 7 Constitution Way, Ste 107 Woburn, MA 01801 (781) 933-8411 (781) 933-8412 Fax	<b>EMSL - CT</b> 29 N. Plains Hwy, Unit 4 Wallingford, CT 06492 (203) 284-5948 (203) 284-5978 Fax	<b>EMSL - NY</b> 307 West 36 <sup>th</sup> Street New York, NY 10018 (866) 448-3675 (212) 290-0058 Fax	<b>EMSL - NJ</b> 107 Haddon Avenue Westmont, NJ 08108 (800) 220-3675 (856) 858-4960 Fax
---	---	--	---

**Your Name:** Brandy LeBlanc **Project Manager:** C.L.  
**Company:** Eagle Environmental, Inc.  
**Street:** 8 South Main Street, Suite 3  
**City/State/Zip:** Terryville, CT 06786  
**Phone:** 860-589-8257 ext. 203 **Fax:** 860-585-7034 **Email:** bleblanc@eagleenviro.com; dwyenne@eagleenviro.com; rsloch@eagleenviro.com  
**Project Name:** Naugatuck Borough of **Project #:** 14-029.11T1  
**Project Location:** 1 South Main Street, Naugatuck **Project State (US):** CT

**TURNAROUND TIME**

3 Hours  
  6 Hours  
  24 Hours  
  48 Hours  
  72 Hours  
 4 Days  
  5 Days  
  6-10 Days

**SAMPLE MATRIX**

Air  
 Bulk  
 Soil  
 Wipe  
 Micro-Vac  
 Drinking Water  
 Wastewater  
 Chips  
 Other

<p><b>ASBESTOS ANALYSIS</b></p> <p><b>PCM - Air</b></p> <input type="checkbox"/> NIOSH 7400 (A) Issue 2: August 1994 <input type="checkbox"/> OSHA w/TWA <p><b>TEM AIR</b></p> <input type="checkbox"/> AHERA 40 CFR, Part 763 Subpart E <input type="checkbox"/> NIOSH 7402 Issue-2 <input type="checkbox"/> EPA Level II <p><b>PLM - Bulk</b></p> <input checked="" type="checkbox"/> EPA 600/R-93/116 <input type="checkbox"/> NY Stratified Point Count <input type="checkbox"/> California Air Resource Board (CARB) 435 <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> PLM NOB (Gravimetric) NYS 198.1 <input type="checkbox"/> EPA Point Count (400 Points) <input type="checkbox"/> EPA Point Count (1,000 Points) <input type="checkbox"/> Standard Addition Point Count <p><b>SOILS</b></p> <input type="checkbox"/> EPA Protocol Qualitative <input type="checkbox"/> EPA Protocol Quantitative <input type="checkbox"/> EMSL MSD 9000 Method fibers/gram <input type="checkbox"/> Supertund EPA 540-R097-028 (dust generation) <p><b>TEM BULK</b></p> <input type="checkbox"/> Drop Mount (Qualitative) <input type="checkbox"/> Chatfield SOP-198B-02 <input type="checkbox"/> TEM NOB (Gravimetric) NY 198.4 <p><b>TEM MICROVAC</b></p> <input type="checkbox"/> ASTM D 5755-95 (Quantitative) <p><b>TEM WIPE</b></p> <input type="checkbox"/> ASTM D-6480-98 <input type="checkbox"/> Qualitative <p><b>TEM WATER</b></p> <input type="checkbox"/> EPA 100.1 <input type="checkbox"/> EPA 100.2 <input type="checkbox"/> NYS 198.2 <input type="checkbox"/> Other:	<p><b>LEAD ANALYSIS</b></p> <p><b>Flame Atomic Absorption</b></p> <input type="checkbox"/> Wipe, SW846-7420 <input type="checkbox"/> ASTM <input type="checkbox"/> non ASTM <input type="checkbox"/> Soil, SW846-7420 <input type="checkbox"/> Air, NIOSH 7082 <input type="checkbox"/> Chips, SW846-7420 or AOAC 5.009 (974.02) <input type="checkbox"/> Wastewater, SW 846-7420 <input type="checkbox"/> TCLP LEAD SW846-1311/7420 <p><b>Graphite Furnace Atomic Absorption</b></p> <input type="checkbox"/> Air, NIOSH 7105 <input type="checkbox"/> Wastewater, SW846-7421 <input type="checkbox"/> Soil, SW846-7421 <input type="checkbox"/> Drinking Water, EPA 239.2 <p><b>ICP - Inductively Coupled Plasma</b></p> <input type="checkbox"/> Wipe, SW846-6010 <input type="checkbox"/> ASTM <input type="checkbox"/> non ASTM <input type="checkbox"/> Soil, SW846-6010 <input type="checkbox"/> Air, NIOSH 7300 <p><b>MATERIALS ANALYSIS</b></p> <input type="checkbox"/> Full Particle Identification <input type="checkbox"/> Optical Particle Identification <input type="checkbox"/> Dust Mites and Insect Fragments <input type="checkbox"/> Particle Size & Distribution <input type="checkbox"/> Product Comparison <input type="checkbox"/> Paint Characterization <input type="checkbox"/> Failure Analysis <input type="checkbox"/> Corrosion Analysis <input type="checkbox"/> Glove Box Containment Study <input type="checkbox"/> Petrographic Examination of Concrete <input type="checkbox"/> Portland Cement in Workplace Atmospheres (OSHA ID-143) <input type="checkbox"/> Man Made Vitreous Fibers - MMVF's <input type="checkbox"/> Synthetic Fiber Identification <input type="checkbox"/> Other:	<p><b>MICROBIAL ANALYSIS</b></p> <p><b>Air Samples</b></p> <input type="checkbox"/> Mold & Fungi by Air O Cell <input type="checkbox"/> Mold & Fungi by Agar Plate count & id <input type="checkbox"/> Bacterial Count and Gram Stain <input type="checkbox"/> Bacterial Count and Identification <p><b>Water Samples</b></p> <input type="checkbox"/> Total Coliforms, Fecal Coliforms <input type="checkbox"/> Escherichia Coli, Fecal Streptococcus <input type="checkbox"/> Legionella <input type="checkbox"/> Salmonella <input type="checkbox"/> Giardia and Cryptosporidium <p><b>Wipe and Bulk Samples</b></p> <input type="checkbox"/> Mold & Fungi - Direct Examination <input type="checkbox"/> Mold & Fungi - (Culture follow up to direct examination if necessary) <input type="checkbox"/> Mold & Fungi - Culture (Count & ID) <input type="checkbox"/> Mold & Fungi - Culture (Count only) <input type="checkbox"/> Bacterial Count & Gram Stain <input type="checkbox"/> Bacterial Count & Identification (3 most prominent types) <input type="checkbox"/> Other: <p><b>IAQ ANALYSIS</b></p> <input type="checkbox"/> Nuisance Dust (NIOSH 0500 & 0600) <input type="checkbox"/> Airborne Dust (PM10, TSP) <input type="checkbox"/> Silica Analysis by XRD <input type="checkbox"/> Niosh 7500 <input type="checkbox"/> HVAC Efficiency <input type="checkbox"/> Carbon Black <input type="checkbox"/> Airborne Oil Mist <input type="checkbox"/> Other:
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Additional Information/Comments/Instructions: **\*\*PLEASE STOP ON 1<sup>ST</sup> POSITIVE WITHIN SETS**

Client Sample # (S)	1-31-SD-01	1-31-SD-82	TOTAL SAMPLE #	82
Relinquished:	SCOLEYMANE DOUMBIA	Date: 2-3-14	Time: PM	
Received:	RENEE SIOCH	Date: 2-3-14	Time: PM	
Relinquished:	RENEE SIOCH	Date: 2-4-14	Time: PM	
Received:		Date: 2/5/14	Time: 3:50 pm	

0314 04763



EMSL - MA  
 7 Constitution Way, Ste 107  
 Woburn, MA 01801  
 (781) 933-8411  
 (781) 933-8412 Fax

EMSL - CT  
 29 N. Plains Hwy, Unit 4  
 Wallingford, CT 06492  
 (203) 284-5948  
 (203) 284-5978 Fax

EMSL - NY  
 307 West 38<sup>th</sup> Street  
 New York, NY 10018  
 (866) 448-3675  
 (212) 290-0058 Fax

EMSL - NJ  
 107 Haddon Avenue  
 Westmont, NJ 08108  
 (800) 220-3675  
 (856) 858-4960 Fax

SAMPLE NUMBER	SAMPLE DESCRIPTION	ROOM or LOCATION	VOLUME Air (L)	Area (Inches sq.)
1-31-SD-01	Gray adhesive on dark blue carpet	001		
1-31-SD-02	Gray adhesive on dark blue carpet	024		
1-31-SD-03	Wall and ceiling sheetrock	006		
1-31-SD-04	Wall and ceiling sheetrock	016		
1-31-SD-05	Wall and ceiling joint compound	014		
1-31-SD-06	Wall and ceiling joint compound	020		
1-31-SD-07	Wall & ceiling composite sheetrock/joint compound	014		
1-31-SD-08	Wall & ceiling composite sheetrock/joint compound	020		
1-31-SD-09	Gray adhesive on blue/white carpet	004		
1-31-SD-10	Gray adhesive on blue/white carpet	015		
1-31-SD-11	2'x2' Small hole ceiling tile	012		
1-31-SD-12	2'x2' Small hole ceiling tile	022		
1-31-SD-13	Gray Mastic Under 12"x12" Floor Tile	005		
1-31-SD-14	Gray Mastic Under 12"x12" Floor Tile	007		
1-31-SD-15	12"x12" White Floor Tile	006		
1-31-SD-16	12"x12" White Floor Tile	008		
1-31-SD-17	Wall Panels Adhesive	006		
1-31-SD-18	Wall Panels Adhesive	006		
1-31-SD-19	Upper Golden Wall Paper Gray Adhesive	007		
1-31-SD-20	Upper Golden Wall Paper Gray Adhesive	007		

Handwritten initials and date: 2/5/14



<b>EMSL – MA</b> 7 Constitution Way, Ste 107 Woburn, MA 01801 (781) 933-8411 (781) 933-8412 Fax	<b>EMSL – CT</b> 29 N. Plains Hwy, Unit 4 Wallingford, CT 06492 (203) 284-5948 (203) 284-5978 Fax	<b>EMSL – NY</b> 307 West 38 <sup>th</sup> Street New York, NY 10018 (866) 448-3675 (212) 290-0058 Fax	<b>EMSL – NJ</b> 107 Haddon Avenue Westmont, NJ 08108 (800) 220-3675 (856) 858-4960 Fax
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SAMPLE NUMBER	SAMPLE DESCRIPTION	ROOM or LOCATION	VOLUME Air (L)	Area (Inches sq.)
1-31-SD-21	Black mastic under clay floor tile	009		
1-31-SD-22	Black mastic under clay floor tile	009		
1-31-SD-23	Gray adhesive under clay floor tile	009		
1-31-SD-24	Gray adhesive under clay floor tile	009		
1-31-SD-25	Clay floor tile grout	009		
1-31-SD-26	Clay floor tile grout	009		
1-31-SD-27	Gray adhesive on dark green stair tread	011		
1-31-SD-28	Gray adhesive on dark green stair tread	012		
1-31-SD-60	Dark green stair tread	011		
1-31-SD-61	Dark green stair tread	012		
1-31-SD-29	Light brown adhesive on blue carpet	016		
1-31-SD-30	Light brown adhesive on blue carpet	016		
1-31-SD-31	Gray adhesive under ceramic floor tile	017		
1-31-SD-32	Gray adhesive under ceramic floor tile	026		
1-31-SD-33	Ceramic floor tile grout	017		
1-31-SD-34	Ceramic floor tile grout	026		
1-31-SD-35	Brown adhesive on door casing/wood cove base	022		
1-31-SD-36	Brown adhesive on door casing/wood cove base	026		
1-31-SD-37	White rubbery caulk around bath tub	026		
1-31-SD-38	White rubbery caulk around bath tub	026		
1-31-SD-39	Dark brown adhesive on wooden cove base	001		
1-31-SD-40	Dark brown adhesive on wooden cove base	013		
1-31-SD-41	Black tar on insulation around exterior walls	021		
1-31-SD-42	Black tar on insulation around exterior walls	021		

Rec'd  
2/15/14

031464763



<b>EMSL – MA</b> 7 Constitution Way, Ste 107 Woburn, MA 01801 (781) 933-8411 (781) 933-8412 Fax	<b>EMSL – CT</b> 29 N. Plains Hwy, Unit 4 Wallingford, CT 06492 (203) 284-5948 (203) 284-5978 Fax	<b>EMSL – NY</b> 307 West 38 <sup>th</sup> Street New York, NY 10018 (866) 448-3675 (212) 290-0058 Fax	<b>EMSL – NJ</b> 107 Haddon Avenue Westmont, NJ 08108 (800) 220-3675 (856) 858-4960 Fax
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SAMPLE NUMBER	SAMPLE DESCRIPTION	ROOM or LOCATION	VOLUME Air (L)	Area (Inches sq.)
1-31-SD-43	Brown caulk around big windows	Façade D		
1-31-SD-44	Brown caulk around big windows	Façade D		
1-31-SD-45	Grey caulk around small windows	Façade B		
1-31-SD-46	Grey caulk around small windows	Façade B		
1-31-SD-47	Dark white door caulk	Façade D		
1-31-SD-48	Dark white door caulk	Façade D		
1-31-SD-78	Hard coat exterior walls plaster	Façade C		
1-31-SD-79	Hard coat exterior walls plaster	Façade C		
1-31-SD-80	Hard coat exterior walls plaster	Façade C		
1-31-SD-81	Hard coat exterior walls plaster	Façade C		
1-31-SD-82	Hard coat exterior walls plaster	Façade C		
1-31-SD-49	Skim coat exterior walls plaster	Façade D		
1-31-SD-50	Skim coat exterior walls plaster	Façade D		
1-31-SD-51	Skim coat exterior walls plaster	Façade D		
1-31-SD-76	Skim coat exterior walls plaster	Façade C		
1-31-SD-77	Skim coat exterior walls plaster	Façade C		
1-31-SD-52	Gray adhesive on white vinyl cove base	006		
1-31-SD-53	Gray adhesive on white vinyl cove base	007		
1-31-SD-54	White vinyl cove base	006		
1-31-SD-55	White vinyl cove base	007		
1-31-SD-56	Residual floor ceramic tile grout	015		
1-31-SD-57	Residual floor ceramic tile grout	015		
1-31-SD-58	2 <sup>nd</sup> Layer wall sheetrock	025		
1-31-SD-59	2 <sup>nd</sup> Layer wall sheetrock	025		

Revised by 2/15/14

031404763



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(212) 290-0058 Fax

EMSL - NJ  
107 Haddon Avenue  
Westmont, NJ 08108  
(800) 220-3675  
(856) 858-4960 Fax

SAMPLE NUMBER	SAMPLE DESCRIPTION	ROOM or LOCATION	VOLUME Air (L)	Area (Inches sq.)
1-31-SD-62	Duct flex connector	021		
1-31-SD-63	Duct flex connector	021		
1-31-SD-64	Black tar on sink (undercoating)	021		
1-31-SD-65	Black tar on sink (undercoating)	021		
1-31-SD-66	2'x4' fissured ceiling tiles	023		
1-31-SD-67	2'x4' fissured ceiling tiles	023		
1-31-SD-68	Drop ceiling sheetrock	021		
1-31-SD-69	Drop ceiling sheetrock	021		
1-31-SD-70	Drop ceiling joint compound	021		
1-31-SD-71	Drop ceiling joint compound	021		
1-31-SD-72	Drop ceiling composite sheetrock/joint compound	026		
1-31-SD-73	Drop ceiling composite sheetrock/joint compound	026		
1-31-SD-74	Big windows glazing compound	Façade C		
1-31-SD-75	Big windows glazing compound	Façade C		

Lead by #15117

**EMSL Analytical, Inc.**

307 West 38th Street, New York, NY 10018  
 Phone/Fax: (212) 290-0051 / (212) 290-0058  
<http://www.EMSL.com> [manhattanlab@emsl.com](mailto:manhattanlab@emsl.com)

EMSL Order: 031404763  
 CustomerID: EEVM50  
 CustomerPO:  
 ProjectID:

Attn: **Chris Liberti**  
**Eagle Environmental, Inc. - CT**  
**8 South Main Street**  
**Suite 3**  
**Terryville, CT 06786**

Phone: (860) 589-8257  
 Fax: (860) 585-7034  
 Received: 02/05/14 3:50 PM  
 Analysis Date: 2/9/2014  
 Collected: 1/31/2014

Project: 14-029.11T1/ NAUGATUCK BOROUGH OF/ 1 SOUTH MAIN STREET, NAUGATUCK, CT

### 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
1-31-SD-01 <i>031404763-0001</i>	001 - GRAY ADHESIVE ON DARK BLUE CARPET	Gray Non-Fibrous Homogeneous		87% Matrix 13% Non-fibrous (other)	None Detected
1-31-SD-02 <i>031404763-0002</i>	024 - GRAY ADHESIVE ON DARK BLUE CARPET	Gray Non-Fibrous Homogeneous		27% Ca Carbonate 73% Non-fibrous (other)	None Detected
1-31-SD-03 <i>031404763-0003</i>	006 - WALL AND CEILING SHEETROCK	Gray/Tan Non-Fibrous Homogeneous	23% Cellulose	55% Gypsum 22% Non-fibrous (other)	None Detected
1-31-SD-04 <i>031404763-0004</i>	016 - WALL AND CEILING SHEETROCK	Gray/Tan Fibrous Homogeneous	27% Cellulose	55% Gypsum 18% Non-fibrous (other)	None Detected
1-31-SD-05 <i>031404763-0005</i>	014 - WALL AND CEILING JOINT COMPOUND	White Non-Fibrous Homogeneous		5% Mica 57% Ca Carbonate 38% Non-fibrous (other)	None Detected
1-31-SD-06 <i>031404763-0006</i>	020 - WALL AND CEILING JOINT COMPOUND	White Non-Fibrous Homogeneous		65% Ca Carbonate 35% Non-fibrous (other)	None Detected
1-31-SD-07 <i>031404763-0007</i>	014 - WALL & CEILING COMPOSITE SHEETROCK/JOINT COMPOUND	Tan/White Fibrous Homogeneous	23% Cellulose	33% Gypsum 27% Ca Carbonate 17% Non-fibrous (other)	None Detected

Analyst(s)

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Project: 14-029.11T1/ NAUGATUCK BOROUGH OF/ 1 SOUTH MAIN STREET, NAUGATUCK, CT

**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
1-31-SD-08 <i>031404763-0008</i>	020 - WALL & CEILING COMPOSITE SHEETROCK/JOINT COMPOUND	Gray/White Non-Fibrous Homogeneous		75% Gypsum 10% Ca Carbonate 15% Non-fibrous (other)	None Detected
1-31-SD-09 <i>031404763-0009</i>	004 - GRAY ADHESIVE ON BLUE/WHITE CARPET	Yellow Non-Fibrous Homogeneous		65% Matrix 35% Non-fibrous (other)	None Detected
1-31-SD-10 <i>031404763-0010</i>	015 - GRAY ADHESIVE ON BLUE/WHITE CARPET	Yellow Non-Fibrous Homogeneous		65% Matrix 35% Non-fibrous (other)	None Detected
1-31-SD-11 <i>031404763-0011</i>	012 - 2'x2 SMALL HOLE CEILING TILE	Gray/White Fibrous Homogeneous	43% Cellulose 13% Min. Wool	27% Perlite 17% Non-fibrous (other)	None Detected
1-31-SD-12 <i>031404763-0012</i>	022 - 2'x2 SMALL HOLE CEILING TILE	Gray/White Fibrous Homogeneous	43% Cellulose 13% Min. Wool	27% Perlite 17% Non-fibrous (other)	None Detected
1-31-SD-13 <i>031404763-0013</i>	005 - GRAY MASTIC UNDER 12"x12" FLOOR TILE	Yellow Non-Fibrous Homogeneous		83% Matrix 17% Non-fibrous (other)	None Detected
1-31-SD-14 <i>031404763-0014</i>	007 - GRAY MASTIC UNDER 12"x12" FLOOR TILE	Gray Non-Fibrous Homogeneous		20% Gypsum 40% Ca Carbonate 40% Non-fibrous (other)	None Detected

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### 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
1-31-SD-15 <i>031404763-0015</i>	006 - 12"x12" WHITE FLOOR TILE	White Non-Fibrous Homogeneous		43% Ca Carbonate 35% Matrix 22% Non-fibrous (other)	None Detected
1-31-SD-16 <i>031404763-0016</i>	008 - 12"x12" WHITE FLOOR TILE	White Non-Fibrous Homogeneous		43% Ca Carbonate 35% Matrix 22% Non-fibrous (other)	None Detected
1-31-SD-17 <i>031404763-0017</i>	006 - WALL PANELS ADHESIVE	Yellow Non-Fibrous Homogeneous		85% Matrix 15% Non-fibrous (other)	None Detected
1-31-SD-18 <i>031404763-0018</i>	006 - WALL PANELS ADHESIVE	Yellow Non-Fibrous Homogeneous		85% Matrix 15% Non-fibrous (other)	None Detected
1-31-SD-19 <i>031404763-0019</i>	007 - UPPER GOLDEN WALL PAPER GRAY ADHESIVE	White Non-Fibrous Homogeneous		5% Mica 53% Ca Carbonate 42% Non-fibrous (other)	None Detected
1-31-SD-20 <i>031404763-0020</i>	007 - UPPER GOLDEN WALL PAPER GRAY ADHESIVE	White Non-Fibrous Homogeneous		5% Mica 53% Ca Carbonate 42% Non-fibrous (other)	None Detected
1-31-SD-21 <i>031404763-0021</i>	009 - BLACK MASTIC UNDER CLAY FLOOR TILE	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

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### 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
1-31-SD-22 031404763-0022	009 - BLACK MASTIC UNDER CLAY FLOOR TILE	Tan Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (other)	None Detected
1-31-SD-23 031404763-0023	009 - GRAY ADHESIVE UNDER CLAY FLOOR TILE	White Non-Fibrous Homogeneous		57% Ca Carbonate 43% Non-fibrous (other)	None Detected
1-31-SD-24 031404763-0024	009 - GRAY ADHESIVE UNDER CLAY FLOOR TILE	White Non-Fibrous Homogeneous		57% Ca Carbonate 43% Non-fibrous (other)	None Detected
1-31-SD-25 031404763-0025	009 - CLAY FLOOR TILE GROUT	Gray Non-Fibrous Homogeneous		45% Quartz 17% Ca Carbonate 38% Non-fibrous (other)	None Detected
1-31-SD-26 031404763-0026	009 - CLAY FLOOR TILE GROUT	Blue Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (other)	None Detected
1-31-SD-27 031404763-0027	011 - GRAY ADHESIVE ON DARK GREEN STAIR TREAD	Brown Non-Fibrous Homogeneous		93% Matrix 7% Non-fibrous (other)	None Detected
1-31-SD-28 031404763-0028	012 - GRAY ADHESIVE ON DARK GREEN STAIR TREAD	Yellow Non-Fibrous Homogeneous		95% Matrix 5% Non-fibrous (other)	None Detected

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### 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
1-31-SD-60 <i>031404763-0029</i>	011 - DARK GREEN STAIR TREAD	Gray Non-Fibrous Homogeneous		65% Matrix 35% Non-fibrous (other)	None Detected
1-31-SD-61 <i>031404763-0030</i>	012 - DARK GREEN STAIR TREAD	Gray Non-Fibrous Homogeneous		65% Matrix 35% Non-fibrous (other)	None Detected
1-31-SD-29 <i>031404763-0031</i>	016 - LIGHT BROWN ADHESIVE ON BLUE CARPET	Yellow Non-Fibrous Homogeneous		85% Matrix 15% Non-fibrous (other)	None Detected
1-31-SD-30 <i>031404763-0032</i>	016 - LIGHT BROWN ADHESIVE ON BLUE CARPET	Yellow Non-Fibrous Homogeneous		40% Matrix 60% Non-fibrous (other)	None Detected
1-31-SD-31 <i>031404763-0033</i>	017 - GRAY ADHESIVE UNDER CERAMIC FLOOR TILE	Brown Non-Fibrous Homogeneous		35% Quartz 15% Ca Carbonate 30% Matrix 20% Non-fibrous (other)	None Detected
1-31-SD-32 <i>031404763-0034</i>	026 - GRAY ADHESIVE UNDER CERAMIC FLOOR TILE	Brown Non-Fibrous Homogeneous		35% Quartz 15% Ca Carbonate 30% Matrix 20% Non-fibrous (other)	None Detected
1-31-SD-33 <i>031404763-0035</i>	017 - CERAMIC FLOOR TILE GROUT	White Non-Fibrous Homogeneous		55% Ca Carbonate 45% Non-fibrous (other)	None Detected

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### 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
1-31-SD-34 <i>031404763-0036</i>	026 - CERAMIC FLOOR TILE GROUT	White Non-Fibrous Homogeneous		55% Ca Carbonate 45% Non-fibrous (other)	None Detected
1-31-SD-35 <i>031404763-0037</i>	022 - BROWN ADHESIVE ON DOOR CASING/WOOD COVE BASE	Tan Non-Fibrous Homogeneous		83% Matrix 17% Non-fibrous (other)	None Detected
1-31-SD-36 <i>031404763-0038</i>	026 - BROWN ADHESIVE ON DOOR CASING/WOOD COVE BASE	Tan Non-Fibrous Homogeneous		45% Matrix 55% Non-fibrous (other)	None Detected
1-31-SD-37 <i>031404763-0039</i>	026 - WHITE RUBBERY CAULK A ROUND BATH TUB	White Non-Fibrous Homogeneous		85% Matrix 15% Non-fibrous (other)	None Detected
1-31-SD-38 <i>031404763-0040</i>	026 - WHITE RUBBERY CAULK A ROUND BATH TUB	White Non-Fibrous Homogeneous		85% Matrix 15% Non-fibrous (other)	None Detected
1-31-SD-39 <i>031404763-0041</i>	001 - DARK BROWN ADHESIVE ON WOODEN COVE BASE	Brown Non-Fibrous Homogeneous		83% Matrix 17% Non-fibrous (other)	None Detected

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### 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
1-31-SD-40 <i>031404763-0042</i>	013 - DARK BROWN ADHESIVE ON WOODEN COVE BASE	Brown Non-Fibrous Homogeneous		85% Matrix 15% Non-fibrous (other)	None Detected
1-31-SD-41 <i>031404763-0043</i>	021 - BLACK TAR ON INSULATION AROUND EXTERIOR WALLS	Black Non-Fibrous Homogeneous		95% Matrix 5% Non-fibrous (other)	None Detected
1-31-SD-42 <i>031404763-0044</i>	021 - BLACK TAR ON INSULATION AROUND EXTERIOR WALLS	Black Non-Fibrous Homogeneous		95% Matrix 5% Non-fibrous (other)	None Detected
1-31-SD-43 <i>031404763-0045</i>	FAÇADE D - BROWN CAULK AROUND BIG WINDOWS	Gray Non-Fibrous Homogeneous		65% Matrix 35% Non-fibrous (other)	None Detected
1-31-SD-44 <i>031404763-0046</i>	FAÇADE D - BROWN CAULK AROUND BIG WINDOWS	Clear Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1-31-SD-45 <i>031404763-0047</i>	FAÇADE B - GREY CAULK AROUND SMALL WINDOWS	Gray Non-Fibrous Homogeneous		83% Matrix 17% Non-fibrous (other)	None Detected

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### 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
1-31-SD-46 <i>031404763-0048</i>	FAÇADE B - GREY CAULK AROUND SMALL WINDOWS	White Non-Fibrous Homogeneous		47% Ca Carbonate 30% Matrix 23% Non-fibrous (other)	None Detected
1-31-SD-47 <i>031404763-0049</i>	FAÇADE D - DARK WHITE DOOR CAULK	Gray Non-Fibrous Homogeneous		65% Matrix 35% Non-fibrous (other)	None Detected
1-31-SD-48 <i>031404763-0050</i>	FAÇADE D - DARK WHITE DOOR CAULK	Gray Non-Fibrous Homogeneous		65% Matrix 35% Non-fibrous (other)	None Detected
1-31-SD-78 <i>031404763-0051</i>	FAÇADE C - HARD COAT EXTERIOR WALLS PLASTER	Gray Non-Fibrous Homogeneous		55% Quartz 23% Ca Carbonate 22% Non-fibrous (other)	None Detected
1-31-SD-79 <i>031404763-0052</i>	FAÇADE C - HARD COAT EXTERIOR WALLS PLASTER	Gray Non-Fibrous Homogeneous		57% Quartz 25% Ca Carbonate 18% Non-fibrous (other)	None Detected
1-31-SD-80 <i>031404763-0053</i>	FAÇADE C - HARD COAT EXTERIOR WALLS PLASTER	Gray Non-Fibrous Homogeneous		55% Quartz 23% Ca Carbonate 22% Non-fibrous (other)	None Detected
1-31-SD-81 <i>031404763-0054</i>	FAÇADE C - HARD COAT EXTERIOR WALLS PLASTER	Gray Non-Fibrous Homogeneous		55% Quartz 23% Ca Carbonate 22% Non-fibrous (other)	None Detected

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 Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC-IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NYS ELAP 11506, NJ NY022, CT PH-0170, MA AA000170

Initial report from 02/09/2014 18:26:33

**EMSL Analytical, Inc.**

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EMSL Order: 031404763  
 CustomerID: EEVM50  
 CustomerPO:  
 ProjectID:

Attn: **Chris Liberti**  
**Eagle Environmental, Inc. - CT**  
**8 South Main Street**  
**Suite 3**  
**Terryville, CT 06786**

Phone: (860) 589-8257  
 Fax: (860) 585-7034  
 Received: 02/05/14 3:50 PM  
 Analysis Date: 2/9/2014  
 Collected: 1/31/2014

Project: 14-029.11T1/ NAUGATUCK BOROUGH OF/ 1 SOUTH MAIN STREET, NAUGATUCK, CT

### 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
1-31-SD-82 031404763-0055	FAÇADE C - HARD COAT EXTERIOR WALLS PLASTER	Gray Non-Fibrous Homogeneous		65% Quartz 35% Non-fibrous (other)	None Detected
1-31-SD-49 031404763-0056	FAÇADE D - SKIM COAT EXTERIOR WALLS PLASTER	Gray Non-Fibrous Homogeneous		27% Quartz 33% Gypsum 23% Ca Carbonate 17% Non-fibrous (other)	None Detected
1-31-SD-50 031404763-0057	FAÇADE D - SKIM COAT EXTERIOR WALLS PLASTER	White Non-Fibrous Homogeneous		55% Ca Carbonate 45% Non-fibrous (other)	None Detected
1-31-SD-51 031404763-0058	FAÇADE D - SKIM COAT EXTERIOR WALLS PLASTER	White Non-Fibrous Homogeneous		3% Mica 55% Ca Carbonate 42% Non-fibrous (other)	None Detected
1-31-SD-76 031404763-0059	FAÇADE C - SKIM COAT EXTERIOR WALLS PLASTER	White Non-Fibrous Homogeneous		7% Mica 55% Ca Carbonate 38% Non-fibrous (other)	None Detected
1-31-SD-77 031404763-0060	FAÇADE C - SKIM COAT EXTERIOR WALLS PLASTER	Gray/White Non-Fibrous Homogeneous		25% Gypsum 40% Ca Carbonate 35% Non-fibrous (other)	None Detected
1-31-SD-52 031404763-0061	006 - GRAY ADHESIVE ON WHITE VINYLE COVE BASE	Yellow Non-Fibrous Homogeneous		85% Matrix 15% Non-fibrous (other)	None Detected

**Analyst(s)**

Albert Grohmann (67)  
 Daena Charles (15)

James Hall, Laboratory Manager  
 or other approved signatory

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### 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
1-31-SD-53 <i>031404763-0062</i>	007 - GRAY ADHESIVE ON WHITE VINYLE COVE BASE	Tan/White Non-Fibrous Homogeneous		45% Matrix 55% Non-fibrous (other)	None Detected
1-31-SD-54 <i>031404763-0063</i>	006 - WHITE VINYL COVE BASE	Yellow Non-Fibrous Homogeneous		87% Matrix 13% Non-fibrous (other)	None Detected
1-31-SD-55 <i>031404763-0064</i>	007 - WHITE VINYL COVE BASE	Yellow Non-Fibrous Homogeneous		87% Matrix 13% Non-fibrous (other)	None Detected
1-31-SD-56 <i>031404763-0065</i>	015 - RESIDUAL FLOOR CERAMIC TILE GROUT	Gray Non-Fibrous Homogeneous		55% Quartz 20% Ca Carbonate 25% Non-fibrous (other)	None Detected
1-31-SD-57 <i>031404763-0066</i>	015 - RESIDUAL FLOOR CERAMIC TILE GROUT	Gray Non-Fibrous Homogeneous		55% Quartz 20% Ca Carbonate 25% Non-fibrous (other)	None Detected
1-31-SD-58 <i>031404763-0067</i>	025 - 2ND LAYER WALL SHEETROCK	Gray Non-Fibrous Homogeneous	9% Cellulose 3% Glass	65% Gypsum 23% Non-fibrous (other)	None Detected
1-31-SD-59 <i>031404763-0068</i>	025 - 2ND LAYER WALL SHEETROCK	Gray Non-Fibrous Homogeneous	3% Glass	63% Gypsum 7% Ca Carbonate 27% Non-fibrous (other)	None Detected
1-31-SD-62 <i>031404763-0069</i>	021 - DUCT FLEX CONNECTOR	Black Fibrous Homogeneous	27% Synthetic	48% Matrix 25% Non-fibrous (other)	None Detected

Analyst(s)

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1-31-SD-63 <i>031404763-0070</i>	021 - DUCT FLEX CONNECTOR	Black Fibrous Homogeneous	15% Glass	30% Matrix 55% Non-fibrous (other)	None Detected
1-31-SD-64 <i>031404763-0071</i>	021 - BLACK TAR ON SINK ( UNDERCOATING)	Brown Non-Fibrous Homogeneous		97% Matrix 3% Non-fibrous (other)	None Detected
1-31-SD-65 <i>031404763-0072</i>	021 - BLACK TAR ON SINK ( UNDERCOATING)	Brown Non-Fibrous Homogeneous		97% Matrix 3% Non-fibrous (other)	None Detected
1-31-SD-66 <i>031404763-0073</i>	023 - 2'x4" FISSURED CEILING TILES	Tan/White Fibrous Homogeneous	33% Cellulose 23% Min. Wool	23% Perlite 21% Non-fibrous (other)	None Detected
1-31-SD-67 <i>031404763-0074</i>	023 - 2'x4" FISSURED CEILING TILES	Gray/White Fibrous Homogeneous	33% Cellulose 23% Min. Wool	23% Perlite 21% Non-fibrous (other)	None Detected
1-31-SD-68 <i>031404763-0075</i>	021 - DROP CEILING SHEETROCK	Gray/Tan Fibrous Homogeneous	9% Cellulose	67% Gypsum 24% Non-fibrous (other)	None Detected
1-31-SD-69 <i>031404763-0076</i>	021 - DROP CEILING SHEETROCK	Gray Fibrous Homogeneous	15% Cellulose	57% Gypsum 28% Non-fibrous (other)	None Detected
1-31-SD-70 <i>031404763-0077</i>	021 - DROP CEILING JOINT COMPOUND	White Non-Fibrous Homogeneous		5% Mica 55% Ca Carbonate 40% Non-fibrous (other)	None Detected

**Analyst(s)**

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*Daena Charles (15)*

James Hall, Laboratory Manager  
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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1-31-SD-71 031404763-0078	021 - DROP CEILING JOINT COMPOUND	Gray/Tan Non-Fibrous Homogeneous	10% Cellulose	65% Gypsum 25% Non-fibrous (other)	None Detected
1-31-SD-72 031404763-0079	026 - DROP CEILING COMPOSITE SHEETROCK/JOINT COMPOUND	Gray/Tan Fibrous Homogeneous	25% Cellulose	57% Gypsum 18% Non-fibrous (other)	None Detected
1-31-SD-73 031404763-0080	026 - DROP CEILING COMPOSITE SHEETROCK/JOINT COMPOUND	Gray Non-Fibrous Homogeneous	5% Cellulose	65% Gypsum 15% Ca Carbonate 15% Non-fibrous (other)	None Detected
1-31-SD-74 031404763-0081	FAÇADE C - BIG WINDOWS GLAZING COMPOUND	White Non-Fibrous Homogeneous		47% Ca Carbonate 53% Non-fibrous (other)	None Detected
1-31-SD-75 031404763-0082	FAÇADE C - BIG WINDOWS GLAZING COMPOUND	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (other)	None Detected

**Analyst(s)**

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 or other approved signatory

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---	---	--	---

**Your Name:** Brandy LeBlanc **Project Manager:** C.L.  
**Company:** Eagle Environmental, Inc.  
**Street:** 8 South Main Street, Suite 3  
**City/State/Zip:** Terryville, CT 06786  
**Phone:** 860-589-8257 ext. 203 **Fax:** 860-585-7034 **Email:** bleblanc@eagleenviro.com;  
 dwynne@eagleenviro.com; rsioch@eagleenviro.com  
**Project Name:** Naugatuck Borough of **Project #:** 14-029.11T1  
**Project Location:** 1 South Main Street, Naugatuck **Project State (US):** Sam CT

**TURNAROUND TIME**

3 Hours   
  6 Hours   
  24 Hours   
  48 Hours   
  72 Hours   
  4 Days   
 5 Days   
  6-10 Days

**SAMPLE MATRIX**

Air   
 Bulk   
 Soil   
 Wipe   
 Micro-Vac   
 Drinking Water   
 Wastewater   
 Chips   
 Other

**ASBESTOS ANALYSIS**

- PCM - Air**  
 NIOSH 7400 (A) Issue 2: August 1994  
 OSHA w/TWA  
**TEM AIR**  
 AHERA 40 CFR, Part 763 Subpart E  
 NIOSH 7402 Issue 2  
 EPA Level II  
**PLM - Bulk**  
 EPA 600/R-93/116  
 NY Stratified Point Count  
 California Air Resource Board (CARB) 435  
 NIOSH 9002  
 PLM NOB (Gravimetric) NYS 198.1  
 EPA Point Count (400 Points)  
 EPA Point Count (1,000 Points)  
 Standard Addition Point Count  
**SOILS**  
 EPA Protocol Qualitative  
 EPA Protocol Quantitative  
 EMSL MSD 9000 Method fibers/gram  
 Superfund EPA 540-R097-028 (dust generation)  
**TEM BULK**  
 Drop Mount (Qualitative)  
 Chatfield SOP-1988-02  
 TEM NOB (Gravimetric) NY 198.4  
**TEM MICROVAC**  
 ASTM D 5755-95 (Quantitative)  
**TEM WIPE**  
 ASTM D-6480-99  
 Qualitative  
**TEM WATER**  
 EPA 100.1  
 EPA 100.2  
 NYS 198.2  
 Other:

**LEAD ANALYSIS**

- Flame Atomic Absorption**  
 Wipe, SW846-7420  ASTM  non ASTM  
 Soil, SW846-7420  
 Air, NIOSH 7082  
 Chips, SW846-7420 or AOAC 5.009 (974.02)  
 Wastewater, SW 846-7420  
 TCLP LEAD SW846-1311/7420  
**Graphite Furnace Atomic Absorption**  
 Air, NIOSH 7105  
 Wastewater, SW846-7421  
 Soil, SW846-7421  
 Drinking Water, EPA 239.2  
**ICP - Inductively Coupled Plasma**  
 Wipe, SW846-6010  ASTM  non ASTM  
 Soil, SW846-6010  
 Air, NIOSH 7300

**MATERIALS ANALYSIS**

- Full Particle Identification  
 Optical Particle Identification  
 Dust Mites and Insect Fragments  
 Particle Size & Distribution  
 Product Comparison  
 Paint Characterization  
 Failure Analysis  
 Corrosion Analysis  
 Glove Box Containment Study  
 Petrographic Examination of Concrete  
 Portland Cement in Workplace Atmospheres (OSHA ID-143)  
 Man Made Vitreous Fibers - MMVP's  
 Synthetic Fiber Identification  
 Other:

**MICROBIAL ANALYSIS**

- Air Samples**  
 Mold & Fungi by Air O Cell  
 Mold & Fungi by Agar Plate count & id  
 Bacterial Count and Gram Stain  
 Bacterial Count and Identification  
**Water Samples**  
 Total Coliforms, Fecal Coliforms  
 Escherichia Coli, Fecal Streptococcus  
 Legionella  
 Salmonella  
 Giardia and Cryptosporidium  
**Wipe and Bulk Samples**  
 Mold & Fungi - Direct Examination  
 Mold & Fungi - (Culture follow up to direct examination if necessary)  
 Mold & Fungi - Culture (Count & ID)  
 Mold & Fungi - Culture (Count only)  
 Bacterial Count & Gram Stain  
 Bacterial Count & Identification (3 most prominent types)  
 Other:

**IAQ ANALYSIS**

- Nuisance Dust (NIOSH 0500 & 0600)  
 Airborne Dust (PM10, TSP)  
 Silica Analysis by XRD  NIOSH 7500  
 HVAC Efficiency  
 Carbon Black  
 Airborne Oil Mist  
 Other:

Additional Information/Comments/Instructions: **\*\*PLEASE STOP ON 1<sup>ST</sup> POSITIVE WITHIN SETS**

Client Sample # (S)	1-31-EL-01	1-31-EL-01	TOTAL SAMPLE #	22
Relinquished:	SOULEYMANE DOUMBIA	Date: 2-3-14	Time: PM	
Received:	RENEE SIOCH	Date: 2-3-14	Time: PM	
Relinquished:	RENEE SIOCH	Date: 2-3-14	Time: PM	
Received:	SM	Date: 2-4-14	Time: 2:16 PM	

SHAKIR MAHMUD 216  
 12/25/14

1/26 303.07



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 Westmont, NJ 08108  
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 (856) 858-4960 Fax

SAMPLE NUMBER	SAMPLE DESCRIPTION	ROOM or LOCATION	VOLUME Air (L)	Area (Inches sq.)
1-31-EL-01	Seam cement assoc w/ top black rolled roofing	Roof		
1-31-EL-02	Seam cement assoc w/ top black rolled roofing	Roof		
1-31-EL-03	Top black rolled roofing	Roof		
1-31-EL-04	Top black rolled roofing	Roof		
1-31-EL-05	Tar between 1 <sup>st</sup> and 2 <sup>nd</sup> roof layer	Roof		
1-31-EL-06	Tar between 1 <sup>st</sup> and 2 <sup>nd</sup> roof layer	Roof		
1-31-EL-07	2 <sup>nd</sup> Layer rolled roofing felt paper	Roof		
1-31-EL-08	2 <sup>nd</sup> Layer rolled roofing felt paper	Roof		
1-31-EL-09	3 <sup>rd</sup> Layer rolled roofing felt paper	Roof		
1-31-EL-10	3 <sup>rd</sup> Layer rolled roofing felt paper	Roof		
1-31-EL-11	Paper associated with foam insulation	Roof		
1-31-EL-12	Paper associated with foam insulation	Roof		
1-31-EL-13	Black tar on top of parapet wall	Roof		
1-31-EL-14	Black tar on top of parapet wall	Roof		
1-31-EL-15	Gray tar at base of HVAC unit	Roof		
1-31-EL-16	Gray tar at base of HVAC unit	Roof		
1-31-EL-17	Top layer pitch pocket tar	Roof		
1-31-EL-18	Top layer pitch pocket tar	Roof		
1-31-EL-19	Bottom layer pitch pocket tar	Roof		
1-31-EL-20	Bottom layer pitch pocket tar	Roof		
1-31-EL-21	Gray asphalt shingle on wood hatch	Roof		
1-31-EL-22	Gray asphalt shingle on wood hatch	Roof		

*[Signature]*  
 2/6 12:25 AM

2/6 3:37 PM

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			% Fibrous	% Non-Fibrous	% Type
1-31-EL-01 <i>031404631-0001</i>	SEAM CEMENT ASSOC. W./ TOP BLACK ROLLED ROOFING - ROOF	Brown/Black Non-Fibrous Homogeneous	20% Cellulose	40% Ca Carbonate 40% Non-fibrous (other)	None Detected
1-31-EL-02 <i>031404631-0002</i>	SEAM CEMENT ASSOC. W./ TOP BLACK ROLLED ROOFING - ROOF	Black Non-Fibrous Homogeneous	2% Cellulose	38% Ca Carbonate 55% Matrix 5% Non-fibrous (other)	None Detected
1-31-EL-03 <i>031404631-0003</i>	TOP BLACK ROLLED ROOFING - ROOF	Brown/Black Non-Fibrous Homogeneous	25% Cellulose	45% Ca Carbonate 30% Non-fibrous (other)	None Detected
1-31-EL-04 <i>031404631-0004</i>	TOP BLACK ROLLED ROOFING - ROOF	Black Non-Fibrous Heterogeneous	4% Synthetic	36% Ca Carbonate 55% Matrix 5% Non-fibrous (other)	None Detected
1-31-EL-05 <i>031404631-0005</i>	TAR BETWEEN 1ST AND 2ND ROOF LAYER - ROOF	Black Fibrous Homogeneous	35% Cellulose	10% Quartz 55% Non-fibrous (other)	None Detected
1-31-EL-06 <i>031404631-0006</i>	TAR BETWEEN 1ST AND 2ND ROOF LAYER - ROOF	Black Non-Fibrous Heterogeneous	3% Cellulose	17% Ca Carbonate 70% Matrix 10% Non-fibrous (other)	None Detected
1-31-EL-07 <i>031404631-0007</i>	2ND LAYER ROLLED ROOFING FELT PAPER - ROOF	Brown/Black Fibrous Homogeneous	20% Fibrous (other)	40% Ca Carbonate 40% Non-fibrous (other)	None Detected

## Analyst(s)

Steve Juszczak (8)

Shahrakur Mahmud (11)

James Hall, Laboratory Manager  
or other approved signatory

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 Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC-IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NYS ELAP 11505, NJ NY022, CT PH-0170, MA AA000170

Initial report from 02/06/2014 14:10:48

**EMSL Analytical, Inc.**

307 West 38th Street, New York, NY 10018

Phone/Fax: (212) 290-0051 / (212) 290-0058

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

EMSL Order: 031404631

CustomerID: EEVM50

CustomerPO:

ProjectID:

Attn: **Chris Liberti**  
**Eagle Environmental, Inc. - CT**  
**8 South Main Street**  
**Suite 3**  
**Terryville, CT 06786**

Phone: (860) 589-8257  
 Fax: (860) 585-7034  
 Received: 02/04/14 2:16 PM  
 Analysis Date: 2/6/2014  
 Collected: 1/31/2014

Project: 14-029.11T1/ NAUGATUCK, BOROUGH OF/ 1 SOUTH MAIN STREET/ NAUGATUCK, CT

### 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
1-31-EL-08 <i>031404631-0008</i>	2ND LAYER ROLLED ROOFING FELT PAPER - ROOF	Black Fibrous Heterogeneous	12% Synthetic	8% Ca Carbonate 75% Matrix 5% Non-fibrous (other)	None Detected
1-31-EL-09 <i>031404631-0009</i>	3RD LAYER ROLLED ROOFING FELT PAPER - ROOF	Brown/Black Fibrous Homogeneous	15% Cellulose 25% Glass	60% Non-fibrous (other)	None Detected
1-31-EL-10 <i>031404631-0010</i>	3RD LAYER ROLLED ROOFING FELT PAPER - ROOF	Black Fibrous Heterogeneous	10% Glass	20% Ca Carbonate 55% Matrix 15% Non-fibrous (other)	None Detected
1-31-EL-11 <i>031404631-0011</i>	PAPER ASSOCIATED WITH FOAM INSULATION - ROOF	Black/Yellow Fibrous Homogeneous	45% Cellulose	55% Non-fibrous (other)	None Detected
1-31-EL-12 <i>031404631-0012</i>	PAPER ASSOCIATED WITH FOAM INSULATION - ROOF	Black Fibrous Homogeneous	5% Glass 75% Cellulose	18% Matrix 2% Non-fibrous (other)	None Detected
			Foam omitted.		
1-31-EL-13 <i>031404631-0013</i>	BLACK TAR ON TOP OF PARAPET WALL - ROOF	Black Fibrous Homogeneous	50% Cellulose 5% Glass	45% Non-fibrous (other)	None Detected

## Analyst(s)

Steve Juszczak (8)

Shahrakur Mahmud (11)

James Hall, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC-IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NYS ELAP 11506, NJ NY022, CT PH-0170, MA AA000170

Initial report from 02/06/2014 14:10:48

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EMSL Order: 031404631  
 CustomerID: EEVM50  
 CustomerPO:  
 ProjectID:

Attn: **Chris Liberti** Phone: (860) 589-8257  
**Eagle Environmental, Inc. - CT** Fax: (860) 585-7034  
**8 South Main Street** Received: 02/04/14 2:16 PM  
**Suite 3** Analysis Date: 2/6/2014  
**Terryville, CT 06786** Collected: 1/31/2014

Project: 14-029.11T1/ NAUGATUCK, BOROUGH OF/ 1 SOUTH MAIN STREET/ NAUGATUCK, CT

### 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
1-31-EL-14 <i>031404631-0014</i>	BLACK TAR ON TOP OF PARAPET WALL - ROOF	Black Fibrous Heterogeneous	10% Glass 10% Cellulose	30% Ca Carbonate 45% Matrix 5% Non-fibrous (other)	None Detected
1-31-EL-15 <i>031404631-0015</i>	GRAY TAR AT BASE OF HVAC UNIT - ROOF	Black Non-Fibrous Homogeneous	35% Cellulose	62% Non-fibrous (other)	3% Chrysotile
1-31-EL-16 <i>031404631-0016</i>	GRAY TAR AT BASE OF HVAC UNIT - ROOF				Stop Positive (Not Analyzed)
1-31-EL-17 <i>031404631-0017</i>	TOP LAYER PITCH POCKET TAR - ROOF	Black Non-Fibrous Homogeneous	15% Cellulose	80% Non-fibrous (other)	5% Chrysotile
1-31-EL-18 <i>031404631-0018</i>	TOP LAYER PITCH POCKET TAR - ROOF				Stop Positive (Not Analyzed)
1-31-EL-19 <i>031404631-0019</i>	BOTTOM LAYER PITCH POCKET TAR - ROOF	Black Fibrous Homogeneous		87% Non-fibrous (other)	13% Chrysotile
1-31-EL-20 <i>031404631-0020</i>	BOTTOM LAYER PITCH POCKET TAR - ROOF				Stop Positive (Not Analyzed)
1-31-EL-21 <i>031404631-0021</i>	GRAY ASPHALT SHINGLE ON WOOD HATCH - ROOF	Gray/Black Non-Fibrous Homogeneous	45% Fibrous (other)	55% Non-fibrous (other)	None Detected

**Analyst(s)**

Steve Jusczyk (8)  
 Shahrakur Mahmud (11)

James Hall, Laboratory Manager  
 or other approved signatory

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 Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC-IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NYS ELAP 11505, NJ NY022, CT PH-0170, MA AA000170

Initial report from 02/06/2014 14:10:48





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Analysis Date: 2/6/2014  
Collected: 1/31/2014

Project: 14-029.11T1/ NAUGATUCK, BOROUGH OF/ 1 SOUTH MAIN STREET/ NAUGATUCK, CT

**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
1-31-EL-22	GRAY ASPHALT SHINGLE ON	White/Black Fibrous	5% Synthetic	20% Ca Carbonate	None Detected
031404631-0022	WOOD HATCH - ROOF	Heterogeneous		60% Matrix 15% Non-fibrous (other)	

Analyst(s)

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Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC--IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NYS ELAP 11508, NJ NY022, CT PH-0170, MA AA000170

Initial report from 02/06/2014 14:10:48

**APPENDIX 3**

**XRF LEAD-BASED PAINT INSPECTION REPORTS**

# LEAD PAINT INSPECTION REPORT

REPORT NUMBER: S#01364 - 01/30/14 13:37

INSPECTION FOR: Mr. James R Stewart  
Borough of Naugatuck, CT  
246 Rubber Avenue  
Naugatuck, CT 06770

PERFORMED AT: 1 South Main Street  
Naugatuck, CT 06770

INSPECTION DATE: 01/30/14

INSTRUMENT TYPE: R M D  
MODEL LPA-1  
XRF TYPE ANALYZER  
Serial Number: 01364

ACTION LEVEL: 1.0 mg/cm<sup>2</sup>

OPERATOR LICENSE: 002250

Lead-based paint screen inspection at 1 South Main Street  
Naugatuck, CT 06770

SIGNED: Eltwaun Lawrence

Date: 1-30-14

Eltwaun Lawrence  
Lead Inspector / Risk Assessor  
Eagle Environmental, Inc.  
8 South Main Street, Suite 3  
Terryville, CT 06786

**SUMMARY REPORT OF LEAD PAINT INSPECTION FOR: Mr. James R Stewart**

Inspection Date: 01/30/14 1 South Main Street  
Report Date: 1/30/2014 Naugatuck, CT 06770  
Abatement Level: 1.0  
Report No. S#01364 - 01/30/14 13:37  
Total Readings: 142 Actionable: 0  
Job Started: 01/30/14 13:37  
Job Finished: 01/30/14 15:45

---

Reading					Paint				Lead
No.	Wall	Structure	Location	Member	Cond	Substrate	Color	(mg/cm <sup>2</sup> )	Mode

---

Calibration Readings

---- End of Readings ----

**DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Mr. James R Stewart**

Inspection Date: 01/30/14  
 Report Date: 1/30/2014  
 Abatement Level: 1.0  
 Report No. S#01364 - 01/30/14 13:37  
 Total Readings: 142  
 Job Started: 01/30/14 13:37  
 Job Finished: 01/30/14 15:45

1 South Main Street  
 Naugatuck, CT 06770

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
<b>Exterior Room 001 Facade A</b>									
132	A	Wall	Ctr		I	Cement	white	0.6	QM
133	A	Door	Rgt		I	Metal	blue	0.0	QM
<b>Exterior Room 002 Facade B</b>									
135	B	Wall	Ctr		I	Cement	white	0.6	QM
134	B	Column	Rgt		P	Metal	white	0.4	QM
<b>Exterior Room 003 Facade D</b>									
139	D	Wall	Ctr		I	Cement	white	0.3	QM
136	D	Door	Far-R		I	Metal	blue	-0.1	QM
138	D	Door	Rgt		I	Metal	blue	-0.1	QM
<b>Exterior Room 004 Facade C</b>									
137	D	Column	Rgt		I	Wood	blue	0.1	QM
<b>Interior Room 001 Number Only</b>									
005	-	Crown Mldg	Ctr		I	Wood	white	0.1	QM
004	-	Ceiling	Ctr		I	Sheetrock	white	0.0	QM
006	A	Wall	Ctr		I	Sheetrock	white	0.0	QM
007	A	Door	Ctr		I	Wood	white	-0.3	QM
009	B	Wall	Ctr		I	Sheetrock	white	-0.1	QM
008	C	Door	Ctr	Casing	I	Wood	white	0.3	QM
<b>Interior Room 002 Number Only</b>									
011	A	Wall	Ctr		I	Sheetrock	white	0.1	QM
012	A	Door	Ctr	Casing	I	Wood	white	0.1	QM
010	C	Wall	Ctr		I	Sheetrock	white	-0.1	QM
013	C	Door	Ctr		I	Wood	white	0.0	QM
014	D	Baseboard	Ctr		I	Wood	white	0.0	QM
<b>Interior Room 003 Number Only</b>									
015	A	Wall	Ctr		I	Sheetrock	white	0.0	QM
017	B	Baseboard	Ctr		I	Wood	white	0.1	QM
016	C	Wall	Ctr		I	Sheetrock	white	-0.3	QM
<b>Interior Room 004 Number Only</b>									
020	-	Ceiling	Ctr		P	Sheetrock	beige	-0.1	QM
018	A	Wall	Ctr		I	Sheetrock	white	0.0	QM
019	C	Wall	Ctr		I	Sheetrock	white	0.1	QM
021	D	Door	Ctr		I	Wood	white	-0.1	QM
022	D	Door	Ctr	Casing	I	Wood	white	0.4	QM

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Mr. James R Stewart

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
023	D	Door	Ctr	Stop	I	Wood	white	0.5	QM
Interior Room 006 Number Only									
028	-	Ceiling	Ctr		P	Sheetrock	beige	0.0	QM
024	A	Wall	Ctr		P	Sheetrock	white	-0.1	QM
025	B	Wall	Ctr		I	Sheetrock	white	-0.2	QM
026	D	Door	Ctr	Casing	I	Wood	white	0.0	QM
027	D	Door	Ctr		I	Wood	white	0.2	QM
Interior Room 007 Number Only									
030	A	Wall	L Ctr		I	Sheetrock	white	0.0	QM
029	A	Wall	U Ctr		I	Sheetrock	Paper	0.1	QM
Paper - Brown Pattern Wall Paper									
031	D	Door	Ctr	Casing	I	Wood	white	0.3	QM
032	D	Door	Ctr		I	Wood	white	-0.2	QM
Interior Room 008 Number Only									
034	B	Wall	Ctr		I	Sheetrock	white	0.0	QM
037	C	Wall	U Ctr		I	Block	lt. blue	0.2	QM
036	C	Door	Ctr	Casing	I	Wood	white	0.3	QM
033	D	Wall	Ctr		I	Sheetrock	white	0.0	QM
035	D	Baseboard	Ctr		I	Wood	white	-0.2	QM
Interior Room 009 Number Only									
038	-	Ceiling	Ctr		I	Sheetrock	white	-0.3	QM
039	A	Wall	Ctr		I	Sheetrock	white	0.0	QM
040	C	Wall	Ctr		I	Sheetrock	white	-0.2	QM
041	C	Baseboard	Ctr		I	Wood	white	-0.1	QM
042	C	Door	Rgt		I	Wood	white	0.2	QM
043	C	Door	Rgt	Casing	I	Wood	white	0.1	QM
Interior Room 010 Number Only									
045	-	Floor	Ctr		P	Concrete	Darkblue	-0.2	QM
049	-	Ceiling	Ctr		I	Sheetrock	white	0.0	QM
044	C	Wall	Ctr		I	Sheetrock	white	0.0	QM
048	C	Stairs	Ctr	Stringers	I	Metal	Darkblue	0.4	QM
046	C	Stairs	Ctr	Treads	P	Metal	Darkblue	-0.3	QM
047	C	Stairs	Ctr	Risers	I	Metal	Darkblue	0.0	QM
Interior Room 011 Number Only									
051	A	Baseboard	Ctr		I	Wood	white	0.0	QM
052	A	Stairs	Ctr	Stringers	I	Metal	blue	0.2	QM
054	B	Wall	Ctr		I	Sheetrock	white	0.2	QM
050	D	Wall	Ctr		I	Sheetrock	white	-0.2	QM
053	D	Window	Ctr	Sill	I	Wood	blue	0.0	QM
Interior Room 012 Number Only									
056	B	Wall	Ctr		I	Sheetrock	white	0.0	QM
057	B	Baseboard	Ctr		I	Wood	white	0.0	QM

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Mr. James R Stewart

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
055	D	Window	Ctr	Sill	I	Wood	Darkblue	0.0	QM
Interior Room 013 Number Only									
061	A	Baseboard	Ctr		I	Wood	white	-0.2	QM
060	A	Window	Ctr	Sill	I	Wood	Darkblue	-0.3	QM
062	A	Column	Lft		I	Metal	white	0.0	QM
058	B	Wall	Ctr		I	Sheetrock	white	-0.4	QM
063	C	Window	Ctr	Sill	I	Wood	Darkblue	-0.1	QM
059	D	Wall	Ctr		I	Sheetrock	white	0.0	QM
Interior Room 014 Number Only									
066	-	Ceiling	Ctr		I	Sheetrock	white	-0.1	QM
065	A	Wall	Ctr		I	Sheetrock	white	-0.3	QM
067	A	Stairs	Ctr	Stringers	I	Metal	Darkblue	0.3	QM
064	C	Wall	Ctr		I	Sheetrock	white	-0.1	QM
068	C	Window	Ctr	Sill	I	Wood	Darkblue	-0.1	QM
Interior Room 015 Number Only									
072	A	Window	Ctr	Sill	I	Wood	Darkblue	0.3	QM
069	B	Wall	Ctr		I	Sheetrock	white	-0.3	QM
070	D	Wall	Ctr		I	Sheetrock	white	0.0	QM
071	D	Baseboard	Ctr		I	Wood	white	-0.2	QM
073	D	Door	Lft	Casing	I	Wood	white	0.4	QM
074	D	Door	Lft		I	Wood	white	-0.2	QM
Interior Room 016 Number Only									
077	-	Ceiling	Ctr		I	Sheetrock	beige	-0.2	QM
076	A	Wall	Ctr		P	Sheetrock	white	-0.1	QM
078	B	Door	Lft	Casing	I	Wood	white	0.2	QM
079	B	Door	Lft		I	Wood	white	0.0	QM
080	C	Baseboard	Ctr		I	Wood	white	0.3	QM
075	C	Door	Ctr	Casing	I	Metal	white	-0.2	QM
Interior Room 017 Number Only									
081	A	Wall	Ctr		I	Sheetrock	white	-0.1	QM
082	C	Wall	Ctr		I	Sheetrock	white	-0.2	QM
083	C	Baseboard	Ctr		I	Wood	white	0.3	QM
084	D	Door	Ctr		I	Wood	white	0.0	QM
Interior Room 018 Number Only									
085	A	Wall	Ctr		I	Sheetrock	white	-0.1	QM
086	B	Baseboard	Ctr		I	Wood	white	-0.2	QM
087	D	Door	Ctr	Casing	I	Wood	white	0.0	QM
088	D	Door	Ctr		I	Wood	white	0.1	QM
Interior Room 019 Number Only									
090	-	Floor	Ctr		I	Wood	Darkblue	0.1	QM
089	B	Wall	Ctr		I	Sheetrock	white	0.0	QM
091	C	Window	Ctr	Sill	I	Wood	Darkblue	-0.3	QM

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Mr. James R Stewart

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
092	D	Wall	Ctr		I	Sheetrock	white	-0.1	QM
Interior Room 020 Number Only									
094	-	Ceiling	Ctr		P	Sheetrock	white	0.1	QM
093	B	Wall	Ctr		I	Sheetrock	white	-0.1	QM
095	C	Window	Ctr	Sill	I	Wood	Darkblue	0.1	QM
Interior Room 021 Number Only									
096	-	Ceiling	Ctr		I	Sheetrock	white	-0.3	QM
097	A	Wall	Ctr		I	Sheetrock	white	0.0	QM
099	A	Window	Ctr	Sill	I	Wood	Darkblue	-0.1	QM
098	B	Wall	Ctr		I	Sheetrock	white	0.1	QM
100	B	Baseboard	Ctr		I	Wood	white	0.0	QM
101	B	Window	Rgt	Casing	I	Wood	white	0.0	QM
Interior Room 022 Number Only									
103	A	Baseboard	Ctr		I	Wood	white	0.2	QM
104	A	Door	Lft		I	Wood	white	-0.3	QM
105	A	Door	Lft	Casing	I	Wood	white	0.1	QM
102	B	Wall	Ctr		I	Sheetrock	white	0.0	QM
106	C	Closet	Ctr	Door	I	Wood	white	0.0	QM
Interior Room 023 Number Only									
109	A	Door	Lft		I	Wood	white	0.0	QM
110	A	Door	Lft	Casing	I	Wood	white	0.1	QM
107	C	Wall	Ctr		I	Sheetrock	red	0.1	QM
108	D	Wall	Ctr		I	Sheetrock	white	0.1	QM
Interior Room 024 Number Only									
115	-	Ceiling	Ctr		I	Sheetrock	white	-0.2	QM
111	A	Wall	Ctr		I	Sheetrock	white	-0.1	QM
112	A	Baseboard	Ctr		I	Wood	white	0.1	QM
113	A	Door	Lft	Casing	I	Wood	white	0.0	QM
114	A	Door	Lft		I	Metal	white	0.0	QM
Interior Room 025 Number Only									
120	-	Floor	Ctr		I	Wood	Darkblue	-0.2	QM
116	-	Ceiling	Ctr		I	Sheetrock	white	-0.4	QM
117	A	Door	Ctr	Casing	I	Wood	white	0.1	QM
118	B	Wall	Ctr		I	Sheetrock	white	0.0	QM
121	C	Baseboard	Ctr		I	Wood	white	-0.3	QM
119	D	Wall	Ctr		I	Sheetrock	white	0.0	QM
Interior Room 026 Number Only									
122	-	Ceiling	Ctr		I	Sheetrock	white	0.1	QM
127	B	Baseboard	Ctr		I	Wood	white	-0.2	QM
123	B	Window	Ctr	Casing	I	Wood	white	-0.1	QM
124	B	Door	Ctr	Casing	I	Wood	white	0.0	QM
125	B	Door	Ctr		I	Wood	white	0.0	QM



DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Mr. James R Stewart

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
126	C	Wall	Ctr		I	Sheetrock	white	-0.2	QM
Interior Room 027									
129	-	Ceiling	Ctr		I	Sheetrock	white	0.1	QM
128	B	Wall	Ctr		I	Sheetrock	white	-0.2	QM
130	D	Door	Rgt	Casing	I	Wood	white	0.2	QM
131	D	Door	Rgt		I	Wood	white	-0.4	QM
Calibration Readings									
001								1.0	TC
002								1.0	TC
003								1.0	TC
140								0.8	TC
141								0.8	TC
142								0.7	TC

----- End of Readings -----

**APPENDIX 4**

**ABATEMENT AND CONSULTING COST ESTIMATES**

**HAZARDOUS MATERIALS ABATEMENT COST ESTIMATES**  
**BOROUGH OF NAUGATUCK**  
**1 SOUTH MAIN STREET**  
**NAUGATUCK, CONNECTICUT**

**ASBESTOS ABATEMENT COST ESTIMATE**

MATERIAL	QUANTITY	UNIT COST	TOTAL COST
HVAC BASE GREY ADHESIVE	2	\$ 200.00 SF	\$ 400.00
ROOF PITCH POCKET TAR	4	\$ 200.00 SF	\$ 800.00
SUBTOTAL			\$ 1,200.00
ASBESTOS ABATEMENT CONTINGENCY			\$ 120.00
ASBESTOS TOTAL			\$ 1,320.00

**LEAD BASED PAINT COST ESTIMATE**

NO LEAD PAINT ABATEMENT OR DISPOSAL IS INVOLVED IN THIS PROJECT. THE CONTRACTOR NEEDS TO PROTECT HIS/HER WORKER FROM EXPOSURE TO LEAD PAINT DURING DEMOLITION.

**UNIVERSAL WASTE ABATEMENT COST ESTIMATE**

MATERIAL	QUANTITY	UNIT COST	TOTAL COST
LIGHT TUBES DISPOSAL	16	\$ 1.00 LF	\$ 16.00
U-SHAPED LIGHT TUBES DISPOSAL	46	\$ 3.00 EACH	\$ 138.00
THERMOSTATIC MERCURY BULBS	3	\$ 25.00 EACH	\$ 75.00
CAPACITOR	1	\$ 15.00 EACH	\$ 15.00
LEAD ACID/NICKEL CADMIUM BATTERIES	6	\$ 10.00 EACH	\$ 60.00
LABOR	1	\$ 500.00 DAY	\$ 500.00
SUBTOTAL			\$ 804.00
UNIVERSAL WASTE ABATEMENT CONTINGENCY			\$ 80.40
UNIVERSAL WASTE TOTAL			\$ 884.40

**CHLOROFLUOROCARBONS ABATEMENT COST ESTIMATE**

MATERIAL	QUANTITY	UNIT COST	TOTAL COST
AIR CONDITIONER UNIT	1	\$ 100.00 EACH	\$ 100.00
LABOR	0.5	\$ 250.00 EACH	\$ 125.00
SUBTOTAL			\$ 225.00
CHLOROFLUOROCARBONS ABATEMENT CONTINGENCY			\$ 22.50
CHLOROFLUOROCARBONS TOTAL			\$ 247.50

**HAZARDOUS MATERIALS ABATEMENT SUBTOTAL** \$ **2,451.90**

**HAZARDOUS MATERIALS CONSULTING COST ESTIMATE**

CONSULTING COST	QUANTITY	UNIT COST	TOTAL COST
ASBESTOS ABATEMENT SPECIFICATION	1	\$500.00 EACH	\$ 500.00
UNIVERSAL WASTE DISPOSAL SPECIFICATION	1	\$350.00 EACH	\$ 350.00
FINAL VISUAL INSPECTION	1	\$400.00 EACH	\$ 400.00
PROJECT MANAGEMENT	1	\$130.00 HOUR	\$ 130.00
DOCUMENTATION REPORT	1	\$400.00 EACH	\$ 400.00
SUBTOTAL			\$ 1,280.00
CONSULTING CONTINGENCY			\$ 128.00
CONSULTING TOTAL			\$ <b>1,408.00</b>

**GRAND TOTAL** \$ **6,064.30**

**APPENDIX 5**

**EAGLE ENVIRONMENTAL INC. LICENSES AND LABORATORY  
CERTIFICATES**

# Certificate of Training

Awarded to

**ELTWAUN LAWRENCE**

For successful completion of a 4 Hour, 1/2 Day  
**Asbestos Building Inspector**  
**Annual Refresher Training**  
**January 2, 2014**

This training was approved and given in accordance with the  
 Regulations for Connecticut State Agencies  
 RCSA 20-440b-1 and RCSA 20-441 and meets the  
 requirements of the EPA Revised MAP under TSCA Title II of 4/4/94.

Presented by

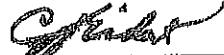
**Mystic Air Quality Consultants, Inc.**  
 1204 North Road, Groton, CT 06340 (800) 247-7746

Certificate Number: ABIRF22727

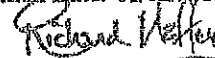
Exam Grade: 80

Expiration Date: 01/02/2015

Exam Date: 01/02/2014



Christopher J. Eident, CIH, CSP, RS



George Williamson, Training Director  
 Richard Haffey, Training Director

Name

Name

ELTWAUN D LAWRENCE

License Information  
 lookup

License Type	License Number	Expiration Date	Granted Date	License Name	License Status	Licensure Actions or Pending Charges
Asbestos Consultant-Inspector	846	02/28/2014	05/09/2013	ELTWAUN D LAWRENCE	ACTIVE	None

# CERTIFICATE OF ACHIEVEMENT

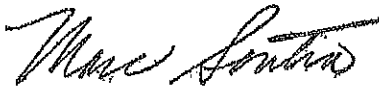
*This certifies that*

**Souleymane Doumbia**

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

*conducted by*

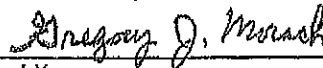
*Cardno ATC*  
73 William Franks Drive  
West Springfield, MA 01089  
(413) 781-0070



Principal Instructor  
September 19, 2013

Date of Course  
September 19, 2014

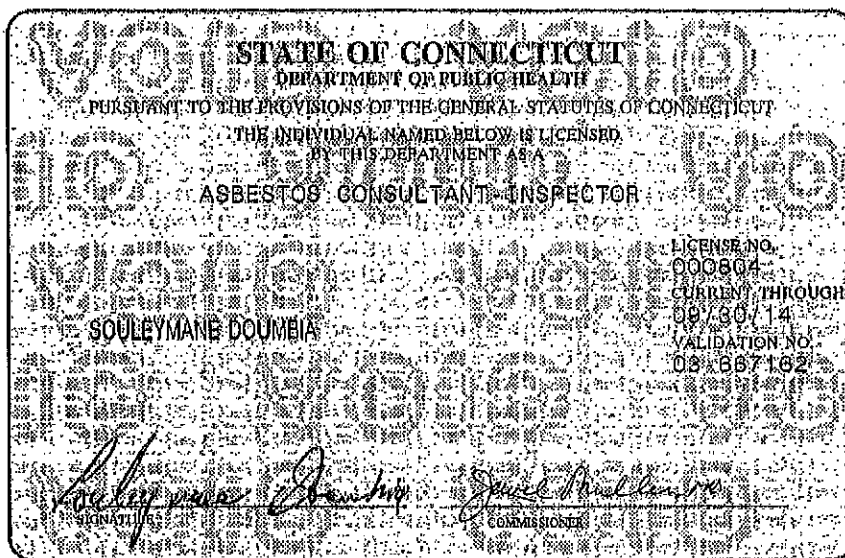
Expiration Date



Regional Manager  
SLAR-4668

Certificate Number  
September 19, 2013

Examination Date



CERT# L-500 - 150

**CHEMSCOPE TRAINING DIVISION**

**LEAD INSPECTOR REFRESHER**

**8 HOUR TRAINING CERTIFICATE**

**Eltwaun D. Lawrence**

**531 North Main Street, Bristol CT**

Has attended an 8 hour course on the subject discipline on

06/20/2013 and has passed a written examination.

The above individual has successfully completed the above training course approved in accordance with the Department of Public Health Standards established pursuant to Section 20-477 of the Connecticut General Statutes.

Course syllabus includes all required topics of State of Connecticut DPH and EPA.

**Examination Date: 06/20/2013**

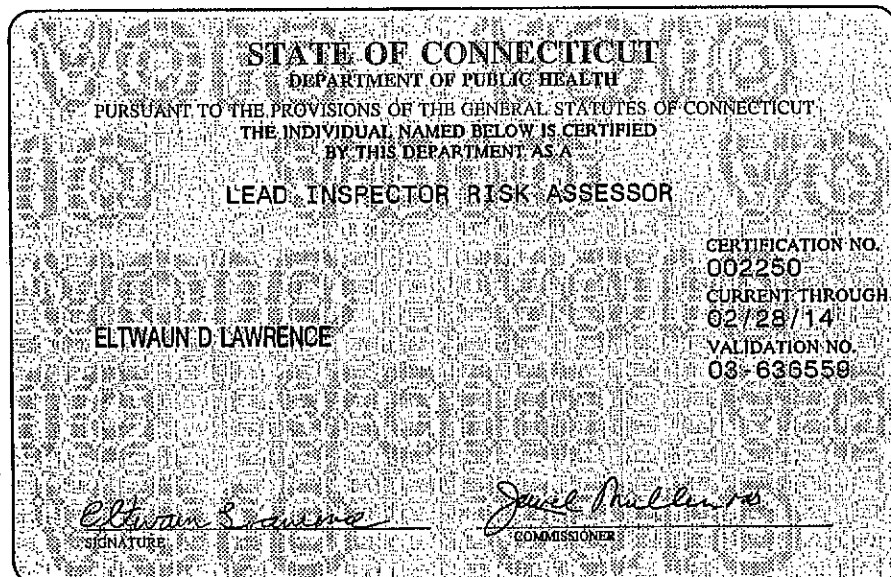
**Expiration Date: 06/20/2014**

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (U.S.C. 1001 and 15 U.S.C. 2815), I certify that this training complies with all applicable requirements of Title IV of TSCA, 40 CFR part 745 and any other applicable Federal, State, or local requirements.



Ronald D. Arena or Scott Arena  
Training Director Training Manager

Chem Scope, Inc.  
15 Mouthrop Street  
North Haven CT 06473  
(203) 865-5605





# State of Connecticut, Department of Public Health Approved Environmental Laboratory

THIS IS TO CERTIFY THAT THE LABORATORY DESCRIBED BELOW HAS BEEN APPROVED BY THE STATE DEPARTMENT OF PUBLIC HEALTH PURSUANT TO APPLICABLE PROVISIONS OF THE PUBLIC HEALTH CODE AND GENERAL STATUTES OF CONNECTICUT, FOR MAKING THE EXAMINATIONS, DETERMINATIONS OR TESTS SPECIFIED BELOW WHICH HAVE BEEN AUTHORIZED IN WRITING BY THAT DEPARTMENT.

## EMSL ANALYTICAL, INC. - MANHATTAN, NY

LOCATED AT 307 West 38th Street IN New York, NY 10018

AND REGISTERED IN THE NAME OF Peter Frasca, Ph.D.

THIS CERTIFICATE IS ISSUED IN THE NAME OF James Hall WHO HAS BEEN DESIGNATED BY THE REGISTERED OWNER/AUTHORIZED AGENT TO BE IN CHARGE OF THE LABORATORY WORK COVERED BY THIS CERTIFICATE OF APPROVAL AS FOLLOWS:

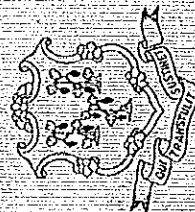
### ASBESTOS

Examination For:  
Bulk - Identification (PLM, TEM)  
Air - Fiber Counting (PCM, TEM)  
Water - TEM

Environmental Health & Housing

Examination For:  
Lead in Paint  
Lead Paint in Soil  
Lead in Dust Wipes  
SEE COMPUTER PRINT-OUT FOR SPECIFIC TESTS APPROVED

THIS CERTIFICATE EXPIRES September 30, 2014 AND IS REVOCABLE FOR CAUSE BY THE STATE DEPARTMENT OF PUBLIC HEALTH DATED AT HARTFORD, CONNECTICUT, THIS 4<sup>th</sup> DAY OF October, 2012



Registration No.

FH-0170

SUZANNE BLANCAFLOR, MS  
CHIEF, ENVIRONMENTAL HEALTH SECTION

# 1 South Main Street

NAUGATUCK, CONNECTICUT

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## Phase I Environmental Site Assessment

AKRF Project Number: 91065



**Prepared for:**

Mayor Robert A. Mezzo  
Borough of Naugatuck  
229 Church Street  
Naugatuck, Connecticut

**Prepared by:**



AKRF, Inc.  
700 Main Street – Suite C  
Willimantic, CT 06226  
(860) 423-7127

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JULY 2012

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## EXECUTIVE SUMMARY

AKRF, Inc. (AKRF) was retained by the Borough of Naugatuck to perform a Phase I Environmental Site Assessment (ESA) of the property located at 1 South Main Street in Naugatuck, Connecticut (site). The approximate 0.07-acre property is currently owned One South Main Street, LLC (One South Main). It contains a three story, approximately 5,800-square foot building, originally constructed in the 1950s as a one story restaurant, with the second and third story additions added circa 1982, for use as office space. The first story is currently used for auto parts storage by the adjacent Rich's Auto facility. The second and third stories are currently vacant office space.

The objective of this ESA was to identify potential environmental concerns associated with the subject site resulting from past or current site usage or the usage of neighboring properties. The property has been identified by the Borough of Naugatuck as requiring demolition for proposed bridge renovations adjacent to the property along Maple Street. The scope of this Phase I ESA was limited to the site building and the associated subject site property consisting of Map AM13, Lot 32E1 on the Borough of Naugatuck Assessor's Map. The lot consists of an approximately 0.07-acre lot containing the site building and a small apron surrounding the building footprint. The building is accessed via entrances from Maple Street and South Main Street.

The Phase I ESA was performed in accordance with customary principles and practices in the environmental consulting industry, and in conformance with the scope and limitations of the American Society for Testing and Materials (ASTM) Standard E1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Practice*. This assessment revealed the following evidence of Recognized Environmental Conditions (RECs) in connection with the property:

- The subject site is located in a historically developed urban area, and has included industrial uses with various undocumented chemical waste handling practices dating back to the 1860s. Contaminated soil associated with fill materials and/or historic releases has been documented in previous site investigation reports.
- Properties located south of the site include several current and automobile repair and gasoline retail facilities. These off-site areas, in addition to the former rubber factory sites to the west and north, could represent potential sources of impact to site soil and/or groundwater quality.
- Based on the age of the building, potential for the presence of asbestos-containing materials (ACM) exist in the site building materials. An ACM survey/inspection will be required prior to any proposed demolition.

There are no outstanding regulatory agency Orders associated with the site. Based on hazardous waste generation records, the site does not appear to qualify as an "Establishment" as defined in the Transfer Act.

A detailed field investigation consisting of soil, groundwater and sediment collection and analysis is recommended to target specific areas of the site. The investigation should be based, in part, on detailed historic site maps and compounds that could be present.

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Appendix F – Municipal File Documentation

**DRAFT**

## 1.0 INTRODUCTION

AKRF, Inc. (AKRF) was retained by the Borough of Naugatuck (Borough) to perform a Phase I Environmental Site Assessment (ESA) of an approximately 0.07-acre parcel located at 1 South Main Street in Naugatuck, Connecticut (site). The legal definition of the site is Map AM13, Lot 32E1 on the Borough Assessor's Map. A Project Site Location map is provided as Figure 1. The lot contains a three story, approximately 5,800-square foot building, originally constructed in the 1960s as a one story restaurant, with the second and third story additions added circa 1982, for use as office space. The first story is currently used for auto parts storage by the adjacent Rich's Auto facility. The second and third stories are currently vacant office space.

The site is located in a mixed residential, commercial and industrial area in downtown Naugatuck. Maple Street abuts the site to the north and South Main Street and Route 8 abut the site to the east. The site is abutted to the south by Rich's Auto, followed by commercial and residential properties along South Main Street. The Naugatuck River abuts the site to the west, followed by train tracks and the General DataComm (GDC) facility.

The objective of the ESA was to identify any potential environmental concerns associated with the site resulting from past or current site usage or the usage of neighboring properties. The property has been identified by the Borough of Naugatuck as requiring demolition for proposed bridge renovations adjacent to the property along Maple Street.

The scope of services for this assessment included the following:

- Visual observations of the project site and surrounding property were made to identify potential sources or indications of chemical contamination. The potential sources of contamination included, but were not limited to, underground storage tanks (USTs), aboveground storage tanks (ASTs), objects that could contain polychlorinated biphenyls (PCBs), and areas where hazardous materials were used, stored, treated, generated and/or disposed. Indications of chemical contamination include stained surfaces and chemical odors. In addition, readily-observable portions of the properties immediately adjacent to the study site were viewed from public rights-of-way to identify or determine the likelihood of any of the aforementioned potential sources of contamination being present.
- Published geological and groundwater information was obtained from available sources to determine the possibility of contamination from off-site sources.
- Historical land use maps/aerial photographs/commercial directories for the site and adjacent properties were reviewed to evaluate previous land use.
- The following federal regulatory databases were reviewed to determine the regulatory status of the site, adjacent properties, and properties within a predetermined study area: National Priority List (NPL); Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS); Emergency Response Notification System (ERNS); Resource Conservation and Recovery Act (RCRA) Treatment Storage and Disposal (TSD); RCRA Generators (GEN); RCRA Corrective Action (COR); Facility Index System (FINDS)/Facility Registry System (FRS); Toxic Release Inventory System (TRIS); Hazardous Materials Incident Response System (HMIRS); National Compliance Data Base System (NCDB); Database of PCB Handlers (PADS); and Permitted Nuclear Facilities.
- The following Connecticut Department of Environmental Protection (CTDEP) state regulatory databases and files were reviewed to determine the regulatory status of the site, adjacent properties, and properties within a predetermined study area: Bureau of Water and Waste Management; Hazardous Waste Sites; Spill reports; PCB files; Solid Waste files; Leachate and Wastewater

Discharge Sources; P-5 Industrial Surveys; Hazardous Waste files for owner(s), past tenant(s) and general town files; UST Registration forms and Leaking UST (LUST) files.

- A review of available Naugatuck Building Department files, Assessors records, Land Records, Fire Marshals records, and the Naugatuck Valley Health District files was conducted to obtain any information pertinent to the assessment of the environmental condition of the subject property. Specifically, records regarding past and present on-site fuel tanks and historical uses were requested and reviewed.

DRAFT

## 2.0 PHYSICAL SITE DESCRIPTION

Visual inspection of the site and adjacent areas was performed on June 27, 2012 by Glen D. Stefaniak, LEP, CPG, of AKRF. Visibility along the building exterior and parking areas was good and the entire property was accessible. The site was inspected for the presence of stained surfaces and soils, storage tanks, drums, leaking pipes, transformers, and any other evidence of hazardous material usage and storage. Photographs documenting the site inspection are included in Appendix A. A Site Plan is provided as Figure 2.

### 2.1 Site and Building Descriptions

The subject site occupied approximately 0.07 acres of land located along the southern side of Maple Street, and southwest of the intersection of Maple Street and South Main Street in downtown Naugatuck, Connecticut. The site was occupied by a three-story, 5,800 square foot building, originally constructed as a one-story restaurant in the 1960s. The second and third story additions added circa 1982, for use as office space. The first story is currently used for auto parts storage by the adjacent Rich's Auto facility. The second and third stories are currently vacant office space.

The first floor of the site building was constructed with slab on grade with wood framing. The second and third floors were constructed steel framing and supporting columns. The exterior walls were covered by an exterior stucco surfacing material. The first floor contained two main rooms, currently utilized for auto parts storage by the adjacent Rich's Auto facility. The rooms consisted of concrete floors with carpeting, wood framing, drywall, and a drop ceiling containing two foot by two foot acoustical tiles. The first floor also contained two bathrooms with ceramic floor tile, and a utility closet.

The second and third floors are accessed by two stairways located in the northeastern and northwestern corners of the building. The second floor contains two main rooms with wood flooring and carpeting, acoustical tile ceiling, metal framed walls with drywall, and two bathrooms with ceramic tile. The third floor contained two main rooms with laminate wood flooring, one bathroom, and a utility closet.

### 2.2 Topography and Hydrogeology

In general, the surface topography at the majority of the site was flat with a steep slope following the western property boundary toward the Naugatuck River. Based on a review of the United States Geological Survey (USGS) Naugatuck Quadrangle, the majority of the property is at an elevation of approximately 193 feet above the National Geodetic Vertical Datum of 1929 (an approximation of mean sea level).

Based on the Surficial Materials Map of Connecticut (Stone, et al, 1992), the site surficial geology consists of sand and gravel overlying sand. The map description indicates that this geologic unit is typically less than 20 feet thick, horizontally bedded, and overlies thicker, inclined layers of sand.

According to the Bedrock Geological Map of Connecticut (Rodgers, 1985), the underlying bedrock at the site consists of a grey to dark grey, fine to medium grained schist and gneiss (Waterbury Gneiss). Bedrock outcroppings were noted along the Naugatuck River, west of the site. Based on local topographic and hydrologic features, groundwater flow at the site is expected to be to the west towards the Naugatuck River.



## 2.3 Storage Tanks

### 2.3.1 Underground Storage Tanks (USTs)

No evidence (e.g. fill pipes, vent pipes) of existing USTs was noted at the time of the site inspection. None of the site contacts had any knowledge of current or historic USTs on the property.

### 2.3.2 Aboveground Storage Tanks (ASTs)

No petroleum ASTs were noted during the site reconnaissance. None of the site contacts had any knowledge of current or historic ASTs on the property.

## 2.4 Polychlorinated Biphenyls (PCBs)

Prior to 1977, PCBs were widely used for their cooling properties in electrical equipment such as transformers, capacitors, switches and voltage regulators. They were also used in hydraulic systems due to their resistance to compression.

No transformers were noted on the property during the site reconnaissance. Fluorescent lighting ballasts and other electrical components that serve the building could, or could have, contained PCBs.

## 2.5 Utilities

The site was serviced by municipal water supply and sewer service. Sanborn Fire Insurance maps depicted underground water service pipes along Maple Street and South Main Street as early as 1887. City water is currently supplied to the building for sanitary and fire suppression uses. Water valves were noted along the southern interior of the building.

It is likely that much of the sanitary and industrial wastes from the site originally were discharged directly to the Naugatuck River. No floor drains or sumps were identified during the site reconnaissance.

The site building is supplied with natural gas. A gas meter was noted on the southeastern corner of the building. Gas valves were noted east of the building, along South Main Street.

Storm drains were noted along Maple Street and South Main Street, north and east of the site.

## 2.6 Waste Management and Chemical Handling

There are no current waste management and chemical handling activities related to site maintenance and mechanical activities and systems, and offices. The site building is currently vacant and only utilized for auto parts storage on the first floor of the site building. No chemical processes are conducted on-site.

No stained flooring or exterior staining was noted during the site reconnaissance; which may be indicative of an historic release.

No trash collection dumpsters were observed on the site; however, two trash collection dumpsters were noted on the Rich's Auto property, immediately south of the site property boundary.

### 3.0 ADJACENT LAND USE

The subject site is located in a historically developed urban area, and has included industrial uses with various undocumented chemical waste handling practices dating back to the 1860s. Contaminated soil associated with fill materials and/or historic releases has been documented in previous site investigation reports.

The surrounding area has a significant industrial use history dating from the 1860s until circa 1985. Primarily, the site manufactured rubber goods including shoes, sneakers, and gloves. Several companies operated adjacent to the site, on the western side of the Naugatuck River, including the Goodyear India Rubber Glove Manufacturing Company, Goodyear Metallic Rubber Shoe Company, United States Rubber, and Uniroyal, Inc. Goodyear/U.S. Rubber/Uniroyal facilities operated in several areas of Naugatuck. Potential contamination of soil and groundwater could have resulted from spillage and/or disposal of contaminants at, or to, these use areas and locations.

Properties located west of the site include several current and historic manufacturing facilities, a bulk fuel facility, and an auto repair and gasoline retail site. These off-site areas, in addition to the former rubber factory sites to the west and north (upgradient of the site), could represent potential sources of impact to site soil and/or groundwater quality.

The site is abutted to the south by Rich's Auto, followed by commercial and residential properties along South Main Street. The Naugatuck River abuts the site to the west, followed by train tracks and the General DataComm (GDC) facility.

## 4.0 USER PROVIDED INFORMATION

Richard and Shellie Hertel, current property owners, completed a Phase I User Questionnaire in accordance with *All Appropriate Inquiry* protocols. The following is a summary of information provided in the questionnaire and the User's responses.

### 4.1 Title Records

No title record information was provided to AKRF for review.

### 4.2 Environmental Liens or Activity and Use Limitations

No information concerning environmental liens or activity and use limitations was provided to AKRF for review. Richard and Shellie Hertel also indicated that he had no knowledge of environmental liens being placed on the property.

### 4.3 Valuation Reduction for Environmental Issues

No information regarding how the value of the property may be impacted by site environmental conditions was indicated.

### 4.4 Specialized Knowledge

The user was not aware of any other commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases (e.g., site history, specific site chemical usages, the occurrence of site spills or releases, and/or environmental clean-ups).

### 4.5 Reason for Performing Phase I

The objective of the ESA was to identify any potential environmental concerns associated with the site resulting from past or current site usage or usage of neighboring properties and to assist in the assessment for the building demolition associated with the planned repairs for the adjacent Maple Street bridge.

## 5.0 SITE HISTORY AND RECORDS REVIEW

### 5.1 Prior Ownership and Usage

#### 5.1.1 Historical Land Use Maps

##### Historic Atlases

An 1868 *Atlas of New Haven County Connecticut*, prepared by F.W. Beers, showed several structures on, and southerly adjacent to the site. The “Goodyear Rubber Shoe Factory” was shown on the southern side of Rubber Avenue, approximately 0.5-miles southwest of the site.

An 1868 *Plan of Naugatuck*, from the Petersen Collection showed one building on the site and six connected structures immediately south of the site. These structures appear to be the theater and commercial buildings depicted on the Sanborn maps. A hotel is shown on the eastern side of South Main Street.

##### Sanborn Fire Insurance Maps

Historical insurance maps were reviewed for indications of industrial usage or other evidence suggesting the use or disposal of hazardous materials on or adjacent to the subject property. Specifically, Sanborn Fire Insurance Maps (Sanborns) from 1887, 1892, 1897, 1904, 1910, 1923, 1960, and 1968 were reviewed and are summarized as follows:

##### 1887

The 1887 Sanborn map depicted one building on the site, connected to six additional buildings running to the south along South Main Street. The site building was shown as a salon, with a fruit stand along Maple Street. The remaining buildings were shown as a tin shop, barber shop, two groceries, and a restaurant. The building complex was labeled collectively as Stage Scenery Footlights. The Naugatuck Hotel was shown on the west side of South Main Street. Commercial and residential buildings were shown to the northeast.

##### 1892 and 1897

The 1892 and 1897 Sanborn maps depicted the site similar to the 1887 map; however, the fruit stand was shown as a cobbler, with a new fruit stand building off the northwest corner of the site building.

##### 1904

The site building and adjoining tin shop were labeled as “fire ruins”. The formerly adjoin buildings to the south were shown similar to the previous maps; however, the rear portions (west side) were also labeled as “tenements”. The building complex was collectively labeled as “Main Street Theater”.

##### 1910

The 1910 Sanborn map depicted three new buildings on the site labeled as “cigars and tobacco, fruit, and salon”. The adjoin building complex to the south was shown similar to the 1904 Sanborn map

1923

The 1923 Sanborn map one site building labeled as a bank. The adjoining buildings to the south were still shown; however, they were not labeled as specific business types. The property on the east side of South Main Street was now shown as boarding houses.

1960

The 1960 Sanborn map showed one building on the site, similar to the current building footprint. The adjacent shop and tenement buildings were no longer shown, and a restaurant was shown further to the south (35 South Main Street). Route 8 was shown on the east side of South Main Street, where the Naugatuck Hotel and boarding house were previously shown.

Copies of the Sanborn Fire Insurance Maps are provided as Appendix B.

**5.1.2 Historical Aerial Photographs**

Historical aerial photographs were reviewed to assess prior land usage. Specifically, aerial photographs from 1934, 1965, 1970, 1980, 1986, and 1990 were reviewed.

1934

Multiple buildings were located southerly adjacent to the site, with one building located on the existing site property. Multiple mill buildings were located throughout the across the Naugatuck River to the west.

1951

The site was similar to the 1934 aerial photograph. Some of the mill buildings on the west side of the Naugatuck River have been removed. Commercial buildings along the western side of Water Street had also been removed.

1965, 1970, 1975 and 1980

The site was similar on the 1965, 1970, 1975 and 1980 aerial photographs as the 1960 Sanborn map. The existing site building was shown and some of the buildings south of the site have been razed.

1986 and 1990

The site was similar on the 1986 and 1990 aerial photographs. The existing site building, with the additions, and the southern parcel containing Rich's Auto appeared similar to the current layout.

Copies of aerial photographs are included as Appendix C.

**5.1.3 Historic Site Maps**

A map entitled, "Property of F.W. Tolles and Others", on file in the Borough Town Clerk's Land Records room, shows the property boundaries of the site. No building or other information was shown.

**5.1.4 Recorded Land Title Records**

Land records at the Naugatuck Town Clerk's office and Assessor's office were reviewed during this ESA for the site and the surrounding properties. A cursory evaluation of site

ownership was conducted based upon readily available land records. The historical ownership for the site is presented below:

- Emma F. Tolles (prior to 1897);
- William McCarthy (1897 to 1912);
- Michael Sullivan (1912 to 1915);
- John F. Sullivan (1915-1944);
- Frank Presto (1944 to 1946);
- Gaetano Sileo and Estate (1946 to 1952);
- Grace S. Romanski and Lucille Sileo (1952-1953);
- Naugatuck R&R Corporation (1953-1975);
- William C. Rado, Sr. and Frank Castanga (1975-1976);
- John L. Rinaldi (1976-1980);
- Helen Rinaldi (1980-1982);
- John L. Rinaldi (1982-2004);
- John Connelly (2004);
- One South Main LLC (2004-2005);
- Dominic Pecoraro (2005-2008);
- Bayview Loan Servicing LLC (2008-2011); and
- One South Main Street LLC (2011-present).

#### **5.1.5 USGS Topographic Maps**

Historical topographic maps were reviewed for evidence of prior land usage. Specifically, maps from 1943, 1947, 1964, 1964 (photorevised 1972), and 1964 (photorevised 1984) were reviewed for the site and vicinity, as shown on the United States Geologic Survey Naugatuck Quadrangle maps.

The 1943 and 1947 maps depicted several buildings along South Main Street. The general configuration was similar to buildings shown on Sanborn maps from 1904 to 1923. The 1964 map and the two photorevised (1972 and 1984) maps showed the current site building.

#### **5.1.6 Site History Summary**

Based on a review of historic maps, site plans, and other documents, it appears that the site was originally developed prior to the 1887 with various commercial buildings. The former buildings appear to have burned down between 1897 and 1904. The existing site building was shown on the 1960 Sanborn map and 1965 aerial photograph.

The existing site building has been used as a restaurant since the 1960s, with the second and third story additions used as office space since circa 1982.

## 6.0 REGULATORY REVIEW

### 6.1 Introduction and Summary

AKRF personnel conducted a review of town and property-specific file information at the CTDEP offices in Hartford, Connecticut on July 5, 2012. Environmental databases at the CTDEP were also reviewed to assess information for the subject property and nearby properties.

In addition, FirstSearch Technology Corporation (FirstSearch) of Norwood, Massachusetts was contracted to conduct an environmental database search to obtain information regarding the regulatory status of the site and the surrounding area. This information included records from databases maintained by the USEPA and CTDEP. AKRF reviewed these records to identify the use, generation, storage, treatment and/or disposal of hazardous materials and chemicals, or releases of such materials that may have affected the project site. A copy of the environmental database report is included as Appendix D. The following table summarizes the results of the database searches.

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<b>Database Search Results</b>		
<b>Database – Date</b>	<b>ASTM/Standard Search Radius</b>	<b>Number Of Sites Within Search Radius</b>
NPL Sites – 05/09/12	1.0 mile	0
NPL Sites – Delisted – 05/09/12	0.5 mile	0
CERCLIS Sites – 04/30/12	0.5 mile	0
NFRAP – 04/30/12	0.5 mile	0
RCRA CORRACTS – 03-13-12	1.0 mile	1
RCRA TSD – 03-13-12	0.5 mile	0
RCRA GEN – 03-13-12	0.25 mile	3
Federal IC/EC – 03-13-12	0.5 mile	0
ERNS - 04/30/12	Site	0
Tribal Lands – 12/01/08	1.0 mile	0
State/Tribal Hazardous Waste Sites–04/23/10	1.0 mile	16
State Spills* - 02/01/12	Site	0
State/Tribal SWL facilities – 03/24/11	0.5 mile	0
State/Tribal Registered UST/AST – 03/16/12	Site and adjoining	4
State/Tribal LUSTs – 02/03/12	0.5 mile	17
State/Tribal EC – NA	0.5 mile	0
State/Tribal IC – 01/01/05	0.25 mile	0
State/Tribal VCP – 04/23/10	0.50 mile	1
State/Tribal Brownfields – 05/01/08	0.50 mile	0
FINDS – 05/29/09	0.25 mile	37
TRIS – 01/04/12	0.25 mile	0
HMIRS – 04/15/12	0.25 mile	1
NCDB – 02/09/12	0.25 mile	7
PADS – 10/21/11	0.25 mile	1
NUCLEAR Permits – 04/30/99	0.25 mile	0
Federal Other – 01/01/10	0.25 mile	0
State Other – 04/23/10	0.25 mile	4
* - Spills file information for individual years up to 1990 were requested from the CTDEP offices. Database spills are for 1990 to 02/01/12.		



In addition to the sites mapped by FirstSearch, 597 non-geocoded sites (electronic database listings without specific addresses/locations) were identified by the electronic database search. That list was reviewed to determine which listings, if any, could be associated with the site.

### 6.1.1 Federal

Federal ASTM standard records reviewed included: National Priorities List (NPL); National Priorities List (NPL) – Delisted; Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS); No Further Remediation Action Required (NFRAP); Resource Conservation and Recovery Act (RCRA) — Treatment, Storage, and Disposal (TSD), Generators (GEN) and Corrective Action (COR ACT), No Longer Regulated (NLR); and Emergency Response Notification System (ERNS).

Federal ASTM supplemental records reviewed included: FINDS (Facility Index System/Facility Identification Program Summary Report); HMIRS (Hazardous Materials Information Reporting System); NUCLEAR; PADS (PCB Activity Database System); TRIS (Toxics Release Inventory System); and NCDB (National Compliance Database) which includes TSCA (Toxic Substances Control Act) and FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) Tracking System.

#### National Priority List (NPL)

The National Priorities List (NPL) is the EPA database of hazardous waste Sites identified for remedial action under the Superfund Program.

No NPL properties were identified for the site and no NPL sites were identified with a one mile radius of the project site.

#### Delisted NPL (National Priority List Deletions)

This database describes former NPL Sites that are removed from the NPL list by the US EPA. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establish the criteria used by the EPA to delist Sites where no further federal response is needed.

No delisted NPL Sites were identified within a ½-mile radius of the study site.

#### Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)

The Comprehensive Environmental Response Compensation and Liability Information System (CERCLA) is a compilation of Sites that EPA has investigated or is investigating

No CERCLIS listings were identified for the site and no CERCLIS sites were identified within a ½-mile radius of the project site.

#### Comprehensive Environmental Response, Compensation, and Liability Information System-No Further Remedial Action Planned (CERCLIS-NFRAP)

NFRAP are CERCLA Sites where no Further Remediation Action Required is required.

The site is not listed on the NFRAP inventory and no CERCLIS-NFRAP listings were identified within a ½-mile radius of the site.

RCRA CORRACTS (Corrective Actions Report)

The CORRACTS database identifies hazardous waste handlers with RCRA corrective action activity.

No CORRACTS listings were identified for the site. One CORRACTS site was identified within a one mile radius of the site. The listed site, Chemtura Corp., is located at 280 Elm Street, approximately 0.6-miles southeast of the subject site. Based on its distance from, and location with respect to, the subject property, it is not expected to represent a potential off-site source of contamination.

RCRA TSD (Treatment, Storage and Disposal)

The Resource Conservation and Recovery Information System includes information on Sites that transport, store, treat and/or dispose of hazardous waste defined by RCRA.

No RCRA TSD listing was identified for the site and no RCRA TSD listing were identified within 0.5-miles of the site.

RCRA GEN (Generators)

The Resource Conservation and Recovery Information System includes information on Sites that generate hazardous waste defined by RCRA.

The Site is not listed as a RCRA GEN property. Two RCRA TSD listing were identified within a 0.5-mile radius of the site. Lewis Engineering Co, is located at 238 Water Street, approximately 0.25-miles northwest of the site. Based on its location and orientation with respect to the subject site, it does not represents a potential off-site source of contamination.

General Data Comm (GDC), is ocated at 6 Rubber Avenue, approximately 0.25-miles southwest of the site. Based upon the distance from, and topographic orientation with respect to, the subject property, along with the hydraulic boundary of the Naugatuck River between the properties this facility is not expected to represent a potential off-site source of contamination.

Emergency Response Notification System (ERNS)

This federal database, compiled by the Emergency Response Notification System, records and stores information on reported releases of petroleum and other potentially hazardous substances.

The subject property was not listed as an ERNS site.

FINDS (Facility Index System/ Facility Identification Initiative Program Summary Report)

The FINDS databases in the First Search report included: PCS (Permit Compliance System); AIRS (Aerometric Information Retrieval System); DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); FURS (Federal Underground Injection Control); C-Docket (Criminal Docket System used to track criminal enforcement actions for all environmental statutes); FFIS (Federal Facilities Information System); STATE (State Environmental Laws and Statutes); and PADS (PCB Activity Data System).

No FINDS listings were identified for the site. Two listings were identified for Salem Chevrolet, located at 125 South Main Street, approximately 0.10-miles southwest of the site. One listing was identified for Central Avenue Schools, located approximately 0.10-miles southeast of the site. These properties may represent potential off-site sources of contamination.

Two listings were identified for GDC. and one listing was identified for Naugatuck Manufacturing Facility. The GDC site is listed in the CTDEP Site Information Management Systems (SIMS), Facility Registration System (FRS), and AIRS programs. In addition, it is listed in the RCRAINFO program as a SQG. The Naugatuck Manufacturing Facility is listed in the SIMS and FRS programs. No additional information was included in the site detail reports.

Thirty-five other FINDS listings were identified within a 0.25-mile radius of the site; however, based on their locations and orientation with respect to the subject site, they do not appear to represent potential off-site sources of contamination.

#### Toxic Chemical Release Inventory System (TRIS)

The TRIS contains information reported to the USEPA and/or CTDEP by a variety of industries on their annual estimated releases of certain chemicals to the environment. The TRIS was mandated by Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986. Available information includes the maximum amount of chemicals stored on-Site; the estimated quantity emitted into the air, discharged into bodies of water, injected underground, or released to land; methods used in waste treatment and their efficiency; and data on the transfer of chemicals off-Site.

No TRIS listing was identified for the site and no TRIS listings were identified within a 0.25-mile radius of the.

#### HMIRS (Hazardous Materials Information Reporting System)

The HMIRS database contains hazardous material spill incidents reported to the US Department of Transportation (DOT).

No HMIRS listing was identified for the site. One HMIR listing was identified for Mystic Tank Lines Corp., located at 240 South Main Street, approximately 0.25-mile southeast of the site. Based upon the distance from, and topographic orientation with respect to, the subject property, it is not expected to represent a potential off-site source of contamination.

#### NUCLEAR

This database includes the Nuclear Regulatory Commission's database of facilities licensed to handle radioactive materials such as laboratories and nuclear generating stations.

No NUCLEAR listings were found for the subject site.

#### National Compliance Database (NCDB)

The NCDB is the EPA's national repository for FTTS INSP: FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) / TSCA (Toxic Substances Control Act) Tracking System.

The site is not listed on the NCDB.

### 6.1.2 Connecticut Department of Environmental Protection

The following report sections provide information regarding the CTDEP databases and file information obtained at the CTDEP file room in Hartford, Connecticut.

#### Bureau of Waste Management

The Bureau of Waste Management maintains site-specific file information for properties that generate, store or transport hazardous materials and/or have been inspected by CTDEP waste personnel. Records may include waste manifests, Notices of Violation (NOVs), inspection forms/reports, and/or compliance statements.

CTDEP Bureau of Waste Management file information was found for the adjacent GDC site, on the west side of the Naugatuck River, and primarily pertained to various past hazardous waste management inspections, violations and compliance issues regarding GDC. GDC was issued a Consent Order by CTDEP on August 18, 1997 regarding compliance with hazardous waste management regulations. This order required the removal and proper disposal of all hazardous, toxic, and industrial waste stored on the property. CTDEP issued a Consent Order Closure Letter on December 8, 1998 indicating the consent order was complied with.

The 1997 Consent Order indicated that GDC had failed to comply with a September 1988 CTDEP Hazardous Waste Order (HM-532), which primarily required that wastes generated on the site be properly characterized, packaged and disposed. Hazardous waste related training, communications and tracking protocols were also identified as lacking at the facility and needed to be properly implemented. The 1997 Consent Order described a CTDEP Waste Engineering and Enforcement Division inspection of the site on February 21, 1995, which enumerated 10 failures and inadequacies regarding hazardous materials handling, shipping, and related protocols. None of the items pointed to a particular area of the GDC property.

Two 1988 CTDEP inspections (resulting from a complaint) of the GDC facility indicated a variety of conditions including: the storage of approximately 60 drums adjacent to the southeastern corner of the building containing Instapak (a liquid foam packing material); a reported "number of drums/containers" remaining from the former Uniroyal occupancy; three drums of Freon used to clean parts; 13 drums of leftover wastes in the basement level near a "truck loading ramp"; and an unlabelled 55-gallon drum near the northeastern exterior of the building. The complaint (May 1988) was regarding the storage of numerous drums in the rear of the building identified as isocyanate and an epoxy resin.

A June 1988 Hazardous Waste Inspection Checklist for GDC indicated that the facility employed 300 people and that on-site processes consisted of assembly, hand soldering, and cleaning, electrical testing, foam packaging, and foam gun cleaning.

Remedial Action Reports were on file for the Parcel C property, north of the site, including an October 1998 Final Remedial Action Report (FRAP) for the northern portion of Parcel C and a Draft Remedial Action Plan (RAP) for "Parcel C-South", adjacent to the north of Maple Street. The FRAP indicated that an approximately 250 by 250-foot area was excavated to a depth of four feet and that an engineered control was installed as part of the remedial action. Groundwater monitoring was held in abeyance pending construction activities on the property.

The Draft RAP for Parcel C South indicated that contaminated fill was placed on the property after the building demolition occurred. Groundwater flow was documented to be in a general north to south direction. Soils at the site were contaminated with lead, arsenic and semi-volatile organic compounds (SVOCs) and groundwater was contaminated with chlorinated solvents. Vinyl chloride in groundwater exceeded the CTDEP Remediation Standard Regulation (RSR) volatilization criteria in the eastern portion of the property. Chemical oxidation was proposed to treat both soil and groundwater contamination, in addition to the removal of some shallow contaminated soil. The deepest soil boring completed on the property (39 feet below ground surface) did not encounter bedrock.

#### Solid Waste Landfills (SWL)

SWL records typically contain an inventory of solid waste disposal facilities or landfills in a particular state.

No SWL Sites were identified within a 0.5-mile radius of the study site.

#### Leaking Underground Storage Tanks (LUST)

LUST records contain an inventory of reported leaking underground storage tank incidents.

No LUST listings were found for the study site. The FirstSearch report listed 17 LUSTs within a 0.5-mile radius of the site.

#### Underground Storage Tanks (UST)

USTs are regulated under Subtitle I RCRA and must be registered with the state department responsible for administering the UST program. The site is not listed as a UST property. Fifteen other UST sites are listed within 0.25-mile radius of the site.

#### Oil & Chemical Spills

Oil and Chemical Spill reports include a list of releases reported to the CTDEP, including those attributed to tank test failures and tank failures. The tank test failures list only pertains to tanks that are below ground, while the tank failures list includes tanks that are either below or above ground. This database also lists spills that occur during the transportation of chemicals to or from unknown or miscellaneous sources. No environmental database spills were reported for the subject site.

#### List of Contaminated or Potentially Contaminated Sites (LCPCS).

The LCPCS list includes a variety of state and federal database information for hazardous waste facilities maintained by the CTDEP and includes the following: Inventory of Hazardous Waste Disposal Sites (SHWS); Hazardous Waste Land Disposal Notifiers (HWLDN); CERCLIS; LUST; Pollution Abatement Orders (PAO); Property Transfer Program (PTP) listings; Voluntary Remediation Program (VRP) listings; and Environmental Land Use Restrictions (ELUR) which include a variety of Engineering Controls (EC) and Institutional Controls (IC) for inaccessible or environmentally isolated contaminated soils.

The site was not listed on the LCPCS.

Bureau of Water Management

The Bureau of Water Management maintains site-specific industrial and remediation files, P-5 Industrial Wastewater Surveys, Discharge Monitoring Reports/Permits, Orders, Property Transfer information and other facility information found in the general town files.

No P-5 inspection reports were found for the site.

Inspection reports for nearby facilities note industrial discharges directly to Long Meadow Brook; which discharges into the west side of the Naugatuck River, located west of the site. A March 1968 CTDEP Interdepartmental Memo regarding the investigation of possible sources of pollution to Long Meadow Brook described a dumping area located to the rear of Parsons Screw Products Company, that reportedly contained oil, metal chips and fuller's earth (absorbent material) from the factory floor. The area was located adjacent to Long Meadow Brook, approximately 0.25-miles west of the site.

Bureau of Water Management complaints were on file regarding releases to Long Meadow Brook and the Naugatuck River dating from July and August of 1999, May of 2001, and December of 2004/January of 2005. The 1999 reports were for a filmy white color on Long Meadow Brook. The Naugatuck Recreation Department was found to be discharging paint wastewater to the brook. The 2001 complaint was for the discharge of sanitary sewer wastes to the river from a pipe at the Maple Street bridge, northeast of the site. An unpermitted, combined sanitary sewer pipe was sealed and two manholes were installed to correct the problem. The 2004/2005 complaint was for the presence of foam in Long Meadow Brook at Rubber Avenue Extension. The foam appeared to be naturally occurring and no evidence of an illegal discharge was noted.

Based upon the location of the discharges in relation to the site, the releases do not appear to have any direct potential for environmental impact to the subject property.

Connecticut Property (Property Transfer Filings)

The Connecticut Property Transfer Filings database lists sites that meet the definition of an "Establishment" including hazardous waste generators (above 100 kilograms in any one month), dry cleaners, furniture strippers, and vehicle body repair facilities. These Sites have been transferred to another owner and are subject to investigation and remediation.

The site is not listed on the CTDEP Property Transfer database.

Connecticut Leachate and Wastewater Discharge Sites (LWDS)

The LWDS database included point locations digitized from Leachate and Wastewater Discharge Source maps compiled by the CTDEP. These maps locate surface and groundwater discharges that have received a wastewater discharge permit from the state, are historic and now defunct waste sites, or are locations of accidental spills, leaks, or discharges of a variety of liquid or solid wastes.

No LWDS listings were shown on the site.

CTDEP file information is provided as Appendix E.

### CTDEP Water Quality Classification Maps

The CTDEP Water Quality Classification map indicates that groundwater beneath the study site and surrounding area is classified GB. The GB classification indicates groundwater within a historically highly urbanized area or an area of intense industrial activity and where public water supply service is available. CTDEP presumes that such groundwater may not be suitable for human consumption without treatment due to waste discharges, spills, or leaks of chemicals or land use impacts.

The closest surface water body is the Naugatuck River, located immediately west of the site. According to the CTDEP Water Quality Classification map, the Naugatuck River is classified as a Class B surface water body. The Class B designation indicates that the water body is known or presumed to meet water quality criteria which support designated uses, which include: habitat for fish and other aquatic life and wildlife; recreation; navigation; and industrial and agricultural water supply.

### **6.1.3 Municipal File Information**

Records maintained in the Naugatuck Building Department, Engineering Department, Naugatuck Valley Health District, Assessor's Office, City Clerk, and Fire Marshal's office were reviewed for information regarding current or former petroleum or hazardous materials usage or handling at the site. The municipal records typically include fuel oil, gasoline and waste oil tank installation applications and permits, records of building permits, site plans, other prior use information and complaints. All available files pertaining to this property were requested and reviewed. AKRF personnel visited the aforementioned offices, or exchanged telephone communications on June 27, 2012. A summary of the records reviewed is presented below.

#### Building Department

Naugatuck Building Department records indicated that building permits were issued in 1988 for the restaurant building addition and the first floor "tenant fit-up". Additional permits were on file for heating and air conditioning installation, awning installation, installation of a gas heating system, and electrical permits for the office space build up.

A 1992 Notice of Violation was issued by the CTDEP Bureau of Water Management, Inland Water Resources Division, to John Rinaldi citing construction materials (bricks and masonry) being dumped along the stream channel encroachment lines for the Naugatuck River.

#### Fire Marshal

The Naugatuck Fire Marshal's office did not contain any information regarding USTs or violations at the site property.

#### Assessor's Office

AKRF reviewed current field cards on file at the Naugatuck Assessor's office. The current owner of the property is listed as One South Main Street, LLC.

#### Town Clerk

Records at the Town Clerk's office were reviewed for site ownership history. A summary of ownership history for the properties is provided in Section 5.1.4.

Health Department

The Naugatuck Valley Health District contained no file information regarding septic systems or complaints for the site.

Engineering Department

Naugatuck Engineering Department personnel provided AKRF with various historic maps depicting utilities and buildings on the site. The site is currently supplied with municipal water and sewer service.

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## 7.0 INTERVIEWS

### 7.1 Interview with Owner and Occupants

One South Main Street, LLC representatives Shellie and Rich Hertel were interviewed regarding current and past activities that occurred on the site. The uses and history processes previously described in this report were indicated.

The on-site GDC assembly processes consist mainly of screwing or sliding together pre-manufactured boards and board systems into “kits” which are then placed into custom-made boxes for shipping. GDC also conducts testing of completed units and component repairs. In some cases “sub-assemblies” are created, shipped out for additional components of manufacturing (soldering, cleaning, etc.) and then received for final assembly, testing and shipping. No chemical processes are conducted by GDC on-site in association with the manufacturing/testing processes. Such activities are outsourced to facilities in Shelton and Windsor, Connecticut.

### 7.2 Interview with Local Government Officials

Interview information obtained from local government officials is provided in Section 6.1.3 of this report.

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## 8.0 PRELIMINARY CONCEPTUAL SITE MODEL

Based on the completed site, historic and regulatory reviews, and an evaluation of previous, available reports, the following preliminary Conceptual Site Model (CSM) regarding the nature of known or potential releases at the site has been developed. The CSM is preliminary, since it is not based on a comprehensive site investigation, but rather Phase I level research and observations whereby Recognized Environmental Conditions/Areas of Environmental Concern have been identified. The CSM should be revised as additional data becomes available.

Recognized Environmental Condition	Potential Release Mechanism	Migration Pathways	Constituents of Concern	Potentially Affected Media
Potential area-wide fill material	Placement of contaminated backfill	Soil infiltration	Metals, VOCs, SVOCs, ETPH, PCBs	Soil and groundwater
Adjacent auto repair facility	Incidental spillage, direct disposal, leaking USTs, direct discharges to the ground surface, seepage through building floors, discharges to subsurface conveyance or leaching systems	Soil infiltration or along piping and subsurface trenches/pits, dry wells	Metals, VOCs, SVOCs, PCBs, ETPH, PCBs	Soil and groundwater

## 9.0 PREVIOUS REPORTS

No previous environmental reports pertaining to the site were provided to AKRF or discovered during the file review process.

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### Limitations

This assessment met the requirements of the American Society for Testing and Materials (ASTM) as established by ASTM Standard E1527-05. ASTM E1527-05 includes compliance with the All Appropriate Inquiry (AAI). The following limitations should be noted:

- Results of this investigation are valid as of the dates on which the investigation was performed.
- No asbestos assessment or sampling of building materials was conducted during the assessment.
- The site owner representatives had limited knowledge regarding the site history, historic operations, or waste management practices.

### 10.0 DEVIATIONS

No deviations from the current ASTM Phase I ESA standard were noted.

### 11.0 DATA GAPS

Based on published materials including aerials photographs, mapping and municipal, state and federal file information a detailed site history was established during the course of this Phase I ESA. No specific information regarding the chemical or petroleum waste storage and handling procedures was available.

## 12.0 CONCLUSIONS AND RECOMMENDATIONS

The Phase I Environmental Site Assessment tasks were performed in accordance with customary principles and practices in the environmental consulting industry, and in conformance with the scope and limitations of American Society for Testing and Materials (ASTM) Standard E1527-05, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Practice. Any exceptions to, or deletions from, this practice are described in Sections 10.0, 11.0, and 12.0 of this report.

This assessment revealed the following evidence of Recognized Environmental Conditions (RECs) in connection with the property:

- The subject site is located in a historically developed urban area, and has included industrial uses with various undocumented chemical waste handling practices dating back to the 1860s. Contaminated soil associated with fill materials and/or historic releases has been documented in previous site investigation reports.
- Properties located south and west of the site include several current and historic manufacturing facilities, a bulk fuel facility, and an auto repair and gasoline retail site. These off-site areas could represent potential sources of impact to site soil and/or groundwater quality.
- Based on the age of the building, potential for the presence of asbestos-containing materials (ACM) exist in the site building materials. An ACM survey/inspection will be required prior to any proposed demolition.

There are no outstanding regulatory agency Orders associated with the site. Based on hazardous waste generation records, the site does not appear to qualify as an “Establishment” as defined in the Transfer Act.

A detailed field investigation consisting of soil and groundwater sample collection and analysis is recommended to target specific areas of the site. The investigation should be based, in part, on detailed historic site maps and compounds that could be present in the identified RECs.

### 13.0 SIGNATURE PAGE

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have performed all the appropriate inquiries in conformance with standards and practices set forth in 40 CFR Part 312.

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Glen D. Stefaniak, LEP, CPG  
Technical Director

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## 14.0 QUALIFICATIONS

The purpose of this assessment was to convey a professional opinion about the potential presence or absence of contamination, or possible sources of contamination on the property, and to identify existing and/or potential environmental problems associated with the property.

The assessment was performed in accordance with customary principles and practices in the environmental consulting industry, and in accordance with ASTM Standard E1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Practice*. It is intended for use as a supplement to the property appraisal, and is only to be used as a guide in determining the possible presence or absence of hazardous materials on the subject property at the time of the inspection. This assessment is based upon the review of readily available records relating to previous use of both the project Site and the surrounding area, as well as a visual inspection of the current condition of the property. Environmental characteristics at this Site and surrounding Sites may be subject to change in the future.

This Phase I Assessment is not, and should not be construed as, a guarantee, warranty, or certification of the presence or absence of hazardous substances, which can be made only with testing, and contains no formal plans or recommendations to rectify or remediate the presence of any hazardous substances which may be subject to regulatory approval. This report is not a regulatory compliance audit.

This report is based on services performed by AKRF, Inc. professional staff and observation of the Site and its surrounding area. We represent that observations made in this assessment are accurate to the best of our knowledge, and that no findings or observations concerning the potential presence of hazardous substances have been withheld or amended. The research and inspections have been carried to a level that meets accepted industry and professional standards. Nevertheless, AKRF and the undersigned shall have no liability or obligation to any party other than the Borough of Naugatuck and its successors or assignees, and AKRF's obligations and liabilities to the above, their successors or assignees is limited to fraudulent statements made, or negligent or willful acts or omissions.

The findings set forth in this report are strictly limited in scope and time to the date of the evaluation described herein. The conclusions and recommendations presented in the report are based solely on the services and any limitations described in this report.

This report may contain conclusions that are based on the analysis of data collected at the time and locations noted in the report through intrusive or non-intrusive sampling. However, further investigation might reveal additional data or variations of the current data, which may differ from our understanding of the conditions presented in this report and require the enclosed recommendations to be reevaluated or modified.

Chemical analyses may have been performed for specific parameters during the course of this investigation, as summarized in the text and tables. It should be noted that additional chemical constituents, not searched for during this investigation, may be present at the Site. Due to the nature of the investigation and the limited data available, no warranty, expressed or implied, shall be construed with respect to undiscovered liabilities. The presence of biological hazards, radioactive materials, lead-based paint and asbestos-containing materials was not investigated, unless specified in the report.

Interpretations of the data, including comparison to regulatory standards, guidelines or background values, are not opinions that these comparisons are legally applicable. Furthermore, any conclusions or recommendations should not be construed as legal advice. For such advice, the client is recommended to seek appropriate legal counsel. Disturbance, handling, transportation, storage and disposal of known or

potentially contaminated materials is subject to all applicable laws, which may or may not be fully described as part of this report.

The analytical data, conclusions, and/or recommendations provided in this report should not be construed in any way as a classification of waste that may be generated during future disturbance of the project Site. Waste(s) generated at the Site including excess fill may be considered regulated solid waste and potentially hazardous waste. Requirements for intended disposal facilities should be determined beforehand as the data provided in this report may be insufficient and could vary following additional sampling.

This report may be based solely or partially on data collected, conducted, and provided by, AKRF and/or others. No warranty is expressed or implied by usage of such data. Such data may be included in other investigation reports or documentation. In addition, these reports may have been based upon available previous reports, historical records, and documentation from federal, state and local government agencies, personal interviews, and geological mapping. This report is subject, at a minimum, to the limitations of the previous reports, historical documents, availability and accuracy of collected documentation, and personal recollection of those persons interviewed. In certain instances, AKRF has been required to assume that the information provided is accurate with limited or no corroboratory evidence.

This report is intended for the use solely by the Borough of Naugatuck. Reliance by third parties on the information and opinions contained herein is strictly prohibited and requires the written consent of AKRF. AKRF accepts no responsibility for damages incurred by third parties for any decisions or actions taken based on this report. This report must be used, interpreted, and presented in its entirety.



## 15.0 REFERENCES

1. State of Connecticut Department of Environmental Protection, *Connecticut Geological and Natural History Survey, Bedrock Geological Map of Connecticut*, John Rodgers, 1985.
2. State of Connecticut Department of Environmental Protection, *Surficial Materials Map of Connecticut*, Janet Radway Stone, et al, 1992.
3. State of Connecticut Department of Environmental Protection; *Environmental Geographical Information Center; Water Quality, Leachate Waste Water and Discharge Sources and Community Water System Supply Map*, 2003.
4. FirstSearch Technology Corporation, Norwood, Massachusetts, *Environmental FirstSearch™ Report*, June 11, 2012.

DRAFT

**DRAFT**

**FIGURES**

**DRAFT**

**APPENDIX A**  
**PHOTOGRAPHIC DOCUMENTATION**

**DRAFT**

**APPENDIX B**  
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**DRAFT**

**APPENDIX C  
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**DRAFT**

**APPENDIX D  
ENVIRONMENTAL DATABASE**

**DRAFT**

**APPENDIX E**  
**CTDEP FILE DOCUMENTATION**

**DRAFT**

**APPENDIX F**  
**MUNICIPAL FILE DOCUMENTATION**





**Property Information**

Property Location	58 MAPLE ST
Owner	BOROUGH OF NAUGATUCK
Co-Owner	
Mailing Address	229 CHURCH ST NAUGATUCK CT 06770
Land Use	9030 MUNICIPAL
Land Class	E

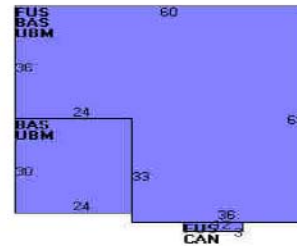
Fire District	
Census Tract	
Neighborhood	B
Zoning Code	RA1
Acreage	2.56
Utilities	
Lot Setting/Desc	

**Photo**



074-9520 03/23/2012

**Sketch**



**Primary Construction Details**

Year Built	1900
Stories	2
Building Style	Office Bldg
Building Use	Comm/Ind
Building Condition	C
Floors	Vinyl
Total Rooms	

Bedrooms	
Full Bathrooms	0
Half Bathrooms	
Bath Style	
Kitchen Style	
Roof Style	Flat
Roof Cover	T+G/Rubber

Exterior Walls	Brick
Interior Walls	Plaster
Heating Type	Forced Hot Air
Heating Fuel	Gas
AC Type	None
Gross Bldg Area	11556
Total Living Area	7452



**Valuation Summary** (Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings	85900	60130
Outbuildings	0	0
Improvements	85900	60130
Extras	0	0
Land	231400	161980
<b>Total</b>	<b>317300</b>	<b>222110</b>

**Outbuilding and Extra Items**

Type	Description

**Sub Areas**

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
First Floor	4068	4068
Canopy	36	0
Upper Story, Finished	3384	3384
Basement, Unfinished	4068	0
<b>Total Area</b>		

**Sales History**

Owner of Record	Book/ Page	Sale Date	Sale Price
BOROUGH OF NAUGATUCK	622/ 667	8/14/2003	0
BOROUGH OF NAUGATUCK	476/ 175	11/24/1998	0



**EAGLE**  
**Environmental, Inc.**



Hazardous Building Materials > Industrial Hygiene/IAQ > Environmental Assessments > Laboratory Services & Training

March 11, 2014

Mr. James R. Stewart PE & LS  
Director of Public Works  
246 Rubber Avenue  
Naugatuck, Connecticut

**RE: Pre-Demolition Hazardous Building Materials Inspection Report**  
**58 Maple Street**  
**Naugatuck, Connecticut**  
**Eagle Project No. 14-029.13T1**

Dear Mr. Stewart:

Attached is the report for the hazardous building materials inspection conducted at 58 Maple Street in Naugatuck, Connecticut. The scope of services included an asbestos-containing materials inspection, lead-based paint screen, lead waste characterization sampling and analysis and an inspection for universal waste materials.

The inspection was performed to support the demolition of the building.

Please do not hesitate to contact us if you have any questions regarding the contents of this report.

Sincerely,  
**Eagle Environmental, Inc.**

Report Prepared By:  
Chris Liberti  
Senior Project Manager

Report Reviewed By:  
Ashis Roychowdhury  
Executive Vice President

\\Eaglesvr\public\2014 Files\2014 Reports\Naugatuck, Borough of\58 Maple Street\58 Maple St - Haz Rept.doc

**8 SOUTH MAIN STREET, SUITE 3 • TERRYVILLE, CT 06786**  
**PHONE (860) 589-8257 • FAX (860) 585-7034**

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## 1. INTRODUCTION

On February 6 and 7, 2014, Eagle Environmental, Inc. conducted a hazardous building material inspection of the structure located at 58 Maple Street in Naugatuck, Connecticut. The scope of the hazardous building materials inspection included an asbestos-containing materials inspection, a lead-based paint screen, lead waste characterization sampling and analysis, and an inspection for universal waste materials. The inspection was performed to support the demolition of the building.

### 1.1 Building Description

The subject building located at 58 Maple Street Naugatuck, Connecticut is a two story structure of brick construction. The structure was built in 1900 and is constructed over a full basement. The mechanical equipment consists of a steam fired radiant heat system with cast iron radiators and an oil fired forced hot air system with metal duct work. The mechanical system distribution system is partially insulated. The basement piping is exposed and all risers are exposed on the floors above. The furnace is located in the basement of the structure. The interior walls and ceilings are a combination of sheetrock and joint compound construction and two coat plaster on lath construction. The window frames and sashes are of wood construction. The door frames are wood with wood doors. The floors are finished with various resilient flooring finishes. The exterior facades are clad with brick. The two (2) flat roofs associated with the building consist of built up roofing systems. A third pitched roof consists of asphalt shingles.

## 2. SCOPE OF INSPECTION

### 2.1 Asbestos Containing Materials

The asbestos inspection was conducted in order to satisfy the United States Environmental Protection Agency (USEPA) National Emission Standard for Hazardous Air Pollutants Act (NESHAP) as amended November 20, 1990. The USEPA NESHAP final rule requires the identification and removal of all regulated ACM in a building prior to demolition.

The asbestos inspection was performed by Eltwaun Lawrence; a State of Connecticut licensed Asbestos Inspector (license #000845).

### 2.2 Lead-based Paint

#### 2.2.1 X-Ray Fluorescence Screen

The lead-based paint (LBP) screen was performed in accordance with the requirements of the State of Connecticut, Department of Energy and Environmental Protection (DEEP), Guidance for the Management and Disposal of Lead Contaminated Materials Generated in the Lead Abatement, Renovation and Demolition Industries. The DEEP regulates the disposal of hazardous lead waste in the State of Connecticut. Lead-contaminated debris, not contaminated with other hazardous materials, is classified either as hazardous lead waste or as non-hazardous solid waste.

Additionally the U.S. Department of Labor Occupational Safety and Health Administration (OSHA) regulates lead dust exposure to workers in the construction industry under 29 CFR 1926.62 Lead in Construction.

The lead-based paint screen was performed by Eltwaun Lawrence; a State of Connecticut licensed Lead Inspector/Risk Assessor (license # 002250).

### **2.2.2 Lead Waste Characterization**

The State of Connecticut Department of Energy and Environmental Protection (DEEP) regulates the disposal of hazardous waste. The required analytical test to determine a materials waste classification is the Toxicity Characteristic Leachate Procedure, or TCLP (Regulation of State DEP 22a-449© - 101 (a) (1), incorporating 40 CFR 262.24). Eagle Environmental, Inc. collected samples of building materials for lead waste characterization.

## **3. INSPECTION PROTOCOLS**

### **3.1 Asbestos Containing Materials**

#### **3.1.1 Inspection**

The asbestos-containing materials (ACM) inspection included the accessible interior and exterior portions of the building including the roofing systems. Semi-destructive testing techniques were utilized during the inspection process. This included cutting through various layers of flooring and roofing materials to verify and sample individual layers of suspect ACM. Suspect building materials that are inaccessible for inspection and sampling are assumed to be ACM for the purpose of this report. These suspect materials are generally located in operational equipment, behind rigid walls and ceilings, below rubber roof membranes or otherwise concealed areas of the building, including below grade materials.

During the inspection, suspect materials are located, sampled, quantified and the friability of the material is determined. Friable materials are those materials that hand pressure can crumble, pulverize or reduce to powder when dry. An estimated quantity of identified ACM is provided for positive materials only. The materials are quantified in linear or square feet, depending on the nature of the material.

#### **3.1.2 Bulk Sampling**

During the sampling process, suspect ACM is separated into three (3) USEPA categories. These categories are: Thermal System Insulation (TSI), Surfacing Materials (SURF), and Miscellaneous materials (MISC). TSI includes all materials used to prevent heat loss or gain or water condensation on mechanical systems. Examples of TSI are pipe covering, boiler insulation, duct wrap, and mudpack fitting cement. Surfacing ACM includes all ACM that is sprayed, towed or otherwise applied to an existing surface. These applications are most commonly used in fireproofing, decorative, and acoustical applications. Miscellaneous materials include all ACM not listed in thermal or surfacing, such as linoleum, vinyl asbestos flooring, and ceiling tile.

Bulk sampling was performed in a random method. Bulk sampling methods and number of samples collected meets or exceeds the USEPA requirements.

### **3.1.3 Bulk Sample Analysis**

The samples of the suspect asbestos containing materials were sent to a State of Connecticut Department of Public Health (DPH) approved laboratory for analysis by Polarized Light Microscopy (PLM). PLM is the USEPA accepted method of analysis for identification of asbestos in bulk matrixes. Samples are collected individually or in sets. When sets of samples are collected, each set is systematically analyzed until one sample is determined to contain asbestos. Upon the determination of the presence of asbestos in one sample in the set, analysis of the remaining samples in the set is discontinued. If no asbestos is observed during analysis of the set of samples, the suspect material is determined to be negative for asbestos content.

Sample analysis results are reported in percentage of asbestos and non-asbestos components. The USEPA defines any material that contains greater than one percent asbestos, utilizing PLM, as being an asbestos-containing material (ACM). Suspect materials containing greater than one percent (1%) asbestos utilizing the PLM Point Count Method and the NOB TEM method are also considered to be asbestos-containing. Materials determined to contain greater than one percent (1%) asbestos is regulated by the USEPA, the State of Connecticut Department of Public Health and Department of Energy and Environmental Protection and the United States Department of Labor. Sample results indicating “no asbestos detected” (NAD) are specified as non-asbestos containing materials. Samples results indicating “Did Not Analyze” (DNA) are not analyzed due to the stop on first positive request to the laboratory.

#### **3.1.3.1 Friable ACM Analysis**

Certain samples of friable materials shown to contain less than 10% asbestos are analyzed further by the “Point Count Method”. This procedure is recommended by the United States Environmental Protection Agency to confirm friable bulk samples shown to have less than 10% asbestos by PLM to be definitively negative or positive for asbestos. This method is accepted as providing statistically reliable results when analyzing bulk samples with very low asbestos concentrations. Friable materials containing “Trace” or “less than one percent (1%)” asbestos must be analyzed by the PLM Point Count Method. None of the samples were further analyzed by the PLM Point Count Method for the 58 Maple Street structure.

#### **3.1.3.2 Non Friable ACM Analysis**

Certain samples of organically bound non-friable materials shown to contain “less than 1% asbestos”, “TRACE” or “NAD” are recommended for analyses by the “NOB TEM ELAP 198.4 Method”. This procedure is recommended by the United States Environmental Protection Agency to further evaluate non-friable organically bound materials for asbestos. Suspect materials confirmed by NOB TEM to be “less than 1% asbestos”, “TRACE” or “NAD” are considered non-asbestos containing. A total of two (2) samples were further analyzed by the NOB TEM Method for the 58 Maple Street structure.



## 3.2 Lead-based Paint

### 3.2.1 X-Ray Fluorescence Screen

The lead-based paint screen was performed utilizing an X-Ray Fluorescence (XRF) Radiation Monitoring Device (RMD) Lead Paint Analyzer (LPA 1), serial number 2753 within the limits of the inspection area(s). The screen includes only accessible areas within the inspection area(s) and accessible building materials.

The lead-based paint screen includes testing limited components and or surfaces throughout the structure. It is not the intent to test all painted components, but to identify on a broad scale the impact of lead paint as it relates to the disposal of lead paint contaminated debris and potential worker exposure issues. Generally, wall and ceiling surfaces, painted floors, window and door systems are tested. Other components such as baseboards, cabinets, columns, trim, etc. are tested on a limited basis. Component and surface locations are identified by side designations represented by the letters "A", "B", "C", and "D". The "A" side is considered the front of the building with the "B", "C", and "D" sides following in a clockwise order.

The data is presented on computer generated Lead Inspection Reports contained in Appendix 3. The Summary Report provides an inventory of each surface coating that contains lead at or above 1.0 mg/cm<sup>2</sup>. The Detailed Report is an inventory of each tested surface on a room-by-room basis.

For the purpose of this report, the XRF results are separated into two (2) categories; high levels of lead ( $\geq 1.0$  mg/cm<sup>2</sup>) and low levels of lead ( $< 1.0$  mg/cm<sup>2</sup>). Building materials containing high levels of lead have a greater probability of creating worker exposures during construction than do building materials with low levels of lead. Additionally, lead waste characterization sampling is required for building materials containing high levels of lead ( $\geq 1.0$  mg/cm<sup>2</sup>) and will become a waste product as a result of demolition or renovation activities.

The U.S. Department of Labor Occupation Safety and Health Administration (OSHA) regulates lead dust exposure to workers in the construction industry under 29 CFR 1926.62 Lead Exposure in Construction; Interim Final Rule. Currently, OSHA does not define a threshold level of lead in paint that may cause worker exposure. Any detectable level of lead in paint ( $> 0.0$  mg/cm<sup>2</sup> +/- 0.3 mg/cm<sup>2</sup> by XRF or  $\geq 0.01$  % by AAS) requires task specific exposure monitoring.

### 3.2.2 Lead Waste Characterization

DEEP regulates the disposal of hazardous waste. The required analytical test to determine a materials waste classification is the Toxicity Characteristic Leachate Procedure, or TCLP (Regulation of State DEEP 22a-449© - 101 (a) (1), incorporating 40 CFR 262.24).

The TCLP test subjects a 100-gram sample of waste material to a simulated landfill leaching condition, and assesses the ability of the sample to leach out lead into the environment. The waste is classified as hazardous lead waste if the TCLP sample result is greater than 5.0 mg/l of lead. The waste is classified as non-hazardous solid waste if the TCLP sample result is less than 5.0 mg/l of lead.

Building debris containing equal to or greater than 1.0 mg/cm<sup>2</sup> of lead by XRF requires waste classification analysis.

There are two (2) primary approaches for TCLP sampling. Both methods utilize the data generated during the lead screen to determine which building materials contain lead in paint coatings and what percentage of the waste stream will consist of the leaded materials. The two (2) basic approaches are described below.

### **Screen, Sample, and Segregate Method**

The Screen, Sample, and Segregate method of TCLP sampling is conducted in accordance with the State of Connecticut Department of Energy and Environmental Protection Guidance for the Management and Disposal of Lead-Contaminated Materials Generated in the Lead Abatement, Renovation, and Demolition Industries. This method entails screening the building components scheduled to be removed with an XRF lead paint analyzer. Components that are determined to be lead containing are sampled and analyzed by TCLP based on their contribution into the waste stream. The waste stream is made up of those building components that will be removed from the structure as part of the renovation or demolition process and will become a waste product.

### **Sample and Demolish Method**

The Composite Sample and Demolish Method of TCLP sampling is conducted in accordance with the State of Connecticut Department of Energy and Environmental Protection Guidance for the Management and Disposal of Lead-Contaminated Materials Generated in the Lead Abatement, Renovation, and Demolition Industries. This method utilizes composite samples to assess the total amount of leachable lead of the entire quantity of debris to be removed. This sampling method is best utilized for whole building demolitions where the quantity of non-lead debris is expected to be much greater than that of the leaded debris. The first step in the sampling process requires the inspector to identify the potential waste stream of the structure to be demolished. The waste stream is made up of those building components that will be disposed of once the structure is demolished. The inspector calculates the mass by weight of each group of building components within the building (i.e. studs, framing, sheathing, siding, doors, windows, etc.). The lead testing results enables the inspector to determine the percentages of components, within each group, that contain lead. With this information, the inspector can then calculate the percent by weight contribution of each components contribution into the waste stream. This takes into account the ratio of leaded components verse non-leaded components within each group.

## **3.3 Universal Waste Materials and Other Environmental Concerns**

### **3.3.1 PCB and Di-ethylhexylphthalate (DEHP) Containing Items**

A visual inspection for the presence of lighting ballasts and electrical equipment potentially containing PCB's or DEHP was performed within the inspection areas. Lighting ballasts and oil-filled capacitor manufactured after 1979 may have "NO PCB's" stamped on its casing. These are filled with oil which does not contain PCB's but may contain DEHP. Lighting ballasts and Capacitors with date stamps prior to 1979 or no date stamps are assumed to contain PCB's. Lighting ballasts and capacitors labeled as "No PCB's" are assumed to contain DEHP if the date

stamp is illegible or non-existent. Electronic ballasts are not assumed to contain PCB's or DEHP.

### **3.3.2 Mercury Containing Items**

During the visual inspection process, fluorescent, metal halide and sodium lamps are assumed to contain mercury vapors unless the end caps of the tubes are green indicating they are mercury free. Thermostatic controls, switches, manometers, capacitors and other used electronic components are inventoried during the inspection process.

### **3.3.3 Used Electronics and Batteries**

An inventory of used electronics that may fall under the Universal Waste regulations was developed during the inspection. These materials include but are not limited to lead acid batteries in emergency lighting and exit signs and stored electronic equipment that may contain hazardous or regulated substances. Electronic components such as computers, copy machines, etc that are in use at the time of the inspection are generally not included in the inventory.

### **3.3.4 Chlorofluorocarbons**

Eagle Environmental inspected the building for compressor tanks associated with water fountains, portable air conditioning units, the indoor environmental cooling system and walk-in coolers or freezers where applicable. The inspectors also inspected rooftop HVAC units where present. These tanks are all assumed to contain Freon. The size and quantity of tanks are estimated and recorded.

## **4. INSPECTION RESULTS**

### **4.1 Asbestos Containing Materials**

During the course of the building inspection one-hundred twelve (112) bulk samples of suspect ACM were collected and ninety-four (94) samples were analyzed by PLM based on the "stop on first positive" request to the laboratory.

From the ninety-four (94) samples analyzed, fifteen (15) types of suspect materials were determined to be asbestos containing. The remaining suspect materials were confirmed to be non-ACM.

The white magnesium pipe insulation and the grey mud pack fitting cement were found to be ACM. Intact insulation and fittings were identified in rooms 002, 011 and 019. Within rooms 001, 002, 003, 004, 005 and 005A, residual insulation and fitting cement were identified on the heating pipe lengths, fittings and at hangers requiring all of the pipes within these rooms to be abated for asbestos.

Seven (7) types of 9" x 9" floor tiles were found to be ACM. The floor tiles are located in various rooms throughout the building. The TEM NOB analyses confirmed the black mastic associated with 9" x 9" floor tile to be non-ACM

Brown adhesive associated with wood panels, exterior window caulk, exterior door caulk, two (2) types of flashing cement, built up layered roofing and black tar on wood roof deck were also found to be ACM.

The summaries of asbestos and non-asbestos materials are presented in Tables I and II respectively. The asbestos analysis laboratory reports are provided in Appendix 2.

The TEM NOB analyses confirmed the brown glue daubs associated with black rectangle wall tiles to be non-asbestos. The PLM analysis of this material identified less than 1 % asbestos in each of the two (2) samples submitted.

Any suspect material not specifically identified in this report as non-ACM should be assumed to contain asbestos unless sample results prove otherwise.

All regulated friable and regulated non-friable ACM must be removed prior to demolition activities. A State of Connecticut Licensed Asbestos Abatement Contractor must be retained to perform the removal work. Visual inspections and air clearances must be performed within each abatement area at the completion of the abatement work. The visual inspections must be performed by a State of Connecticut licensed Asbestos Project Monitor. The abatement areas must meet final visual inspection criteria prior to building demolition. Re-occupancy air monitoring is also required if the building will be re-entered by any person following abatement and prior to demolition. This includes but is not limited to entry for utility disconnects, salvage, equipment removal, etc. Re-occupancy air clearances must be performed by a State of Connecticut licensed Asbestos Project Monitor.

The Asbestos Abatement Contractor must submit a notice of asbestos abatement to the State of Connecticut Department of Public Health post marked or hand delivered ten (10) days prior to the commencement of any asbestos abatement activities involving the abatement of greater than ten (10) linear feet or twenty-five (25) square feet of asbestos-containing materials. The asbestos abatement notification satisfies the DPH regulatory requirements for demolition notification. For asbestos abatement projects involving less than ten (10) linear feet or twenty-five (25) square feet of asbestos-containing materials or projects where no regulated asbestos-containing materials are identified, the facility owner or any person who will be conducting demolition must submit a demolition notification to the State of Connecticut Department of Public Health post marked or hand delivered ten (10) days prior to the commencement of demolition activities.

## **4.2 Lead-based Paint**

### **4.2.1 X-Ray Fluorescence Screen**

A total of one hundred fifteen (115) XRF readings were collected during the lead-based paints screen of the building. From the one hundred and fifteen (115) readings, eighteen (18) were found to contain high levels of lead.

The general inventory of surfaces containing high levels of lead include the following: exterior wood window and metal stairs, interior wood doors, limited plaster walls and limited brick walls.

Additionally, several building materials were determined to contain low levels of lead in paint including plaster walls, wood chair rail, wood wainscoting and wood window components. Although these levels of lead in paint were less than 1.0 mg/cm<sup>2</sup>, the contractor must perform an exposure assessment on employees during tasks that disturb the painted materials.

The remaining components and surfaces that were tested contain no lead in their respective paint coatings.

The U.S. Department of Labor Occupation Safety and Health Administration (OSHA) regulates lead dust exposure to workers in the construction industry under 29 CFR 1926.62 Lead Exposure in Construction; Interim Final Rule. Currently, OSHA does not define a threshold level of lead in paint that may cause worker exposure. Any detectable level of lead in paint ( $>0.0 \text{ mg/cm}^2 \pm 0.3 \text{ mg/cm}^2$  by XRF or  $>0.01 \%$  by AAS) requires task specific exposure monitoring. This "initial exposure assessment" must be conducted by trained workers utilizing appropriate personal protective equipment. Exposure assessments must be conducted for each task where painted surfaces or components are disturbed.

Examples of task subject to initial monitoring when detectable levels of lead are identified include but are not limited to surface preparation for repainting, manual demolition of components with detectable levels of lead paint and the welding, cutting or grinding of steel with detectable levels of lead in paint.

A complete inventory of tested building materials is presented in Detailed Reports contained Appendix 3.

#### **4.2.2 Lead Waste Characterization Results**

One (1) TCLP composite sample was collected for waste characterization purposes. The whole building waste stream that will be land filled as a result of demolition activities includes the following: negative wood (78%), negative plaster (13%), positive plaster (3%) negative sheetrock (4%) and negative roofing materials (2%).

Approximately one hundred sixty (160) square feet of lead-based paint was identified on brick walls within room 004. Masonry products are generally segregated as a salvage material and are not generally landfilled. Since only a small area of painted wall was identified, it is recommended that the paint be removed from the brick or the entire brick be removed and disposed of as hazardous lead waste. The painted brick was not included with the composite TCLP sample.

The result of the whole building TCLP composite sample was  $<0.10 \text{ mg/L}$  characterizing the demolition debris as non-hazardous waste.

The TCLP laboratory reports and computation tables are provided in Appendix 4.

The waste characterization sampling and analysis confirmed that no hazardous lead waste will be generated as a result of demolition activities. Once the painted brick within room 004 is removed from the building, the remaining waste generated during demolition of the building may be disposed of as non-hazardous solid waste. Metal components may be recycled at an approved recycling facility.

## **4.3 Universal Waste Materials and Other Environmental Concerns**

### **4.3.1 PCB and Di-ethylhexylphthalate (DEHP) Containing Items**

There were no DEHP containing lighting ballasts present within the inspection site.

A total of thirty-three (33) PCB containing lighting ballasts and one hundred ninety-two (192) DEHP ballasts were present within the inspection site. The ballasts must be removed for proper recycling/incineration prior to demolition of the building. Light ballasts that have leaked must be segregated from the non-leaking ballasts. Lighting covers or fixtures stained with dielectric fluid must also be removed for proper disposal.

There were no capacitors potentially containing dielectric fluid identified within the inspection site.

The associated inspection data is provided in Table III.

### **4.3.2 Mercury Containing Items**

A total of approximately two thousand twenty-three (2,023) linear feet of fluorescent light tubes are present within the inspection site. The fluorescent light tubes and thermostat must be removed from the building for proper recycling prior to building demolition.

The associated inspection data is provided in Table III.

### **4.3.3 Used Electronics and Batteries**

There were no emergency lights containing lead-acid batteries present within the inspection site.

The associated inspection data is provided in Table III.

### **4.3.4 Chlorofluorocarbons**

There were no Freon tanks present within the inspection site.

The associated inspection data is provided in Table III.

## **5.0 Cost Estimates**

This is a budgetary opinion of cost that is expected to be within -15 to + 30 percent of the actual cost. Eagle Environmental, Inc. has no control over the cost of labor, materials, equipment or services furnished by others, or over the Contractor or Contractors' methods of determining prices, or over competitive bidding or market conditions. Eagle Environmental, Inc.'s opinion of probable cost of abatement are made on the basis of Eagle Environmental, Inc.'s experience and qualifications and represent Eagle Environmental, Inc.'s judgment as an experienced and qualified consultant familiar with the abatement industry; but Eagle Environmental, Inc. cannot and does not guarantee that proposals, bids or actual Total Project or Abatement Cost will not vary from opinions of probable cost prepared by Eagle Environmental, Inc. If, prior to the bidding or

negotiating phase, the Owner wishes greater assurance as to Total Project or Abatement Cost, the Owner shall employ an independent cost estimator.

The cost estimates are provided in Appendix 5.

**TABLE I**

**ASBESTOS CONTAINING MATERIALS SUMMARY TABLE**



**TABLE I**  
**ASBESTOS CONTAINING MATERIALS**  
**SUMMARY TABLE**  
**BOROUGH OF NAUGATUCK**  
**58 MAPLE STREET**  
**NAUGATUCK, CONNECTICUT**

LOCATION(S)	MATERIAL TYPE	SAMPLE NUMBER	CATEGORY	BULK SAMPLE ANALYSIS RESULTS			ESTIMATED QUANTITY	E/NF
				PLM	PCM	PC		
002, 011, 019	White magnesium pipe insulation	2-6-EL-01	TSI	15 % Chrys			25 LF	F
		2-6-EL-02		20% Amos		YES		
		2-6-EL-03		DNA				
005	White magnesium pipe insulation at top of wall	2-6-EL-01	TSI	15 % Chrys			10 LF	F
		2-6-EL-02		20% Amos		YES		
		2-6-EL-03		DNA				
001, 002, 003, 004, 005, 005A	Residual white magnesium pipe insulation on pipe lengths	2-6-EL-01	TSI	15 % Chrys			280 LF	F
		2-6-EL-02		20% Amos		YES		
		2-6-EL-03		DNA				
009, 010, 011, 012, 014, 015, 016	9" x 9" Green floor tile (in pattern)	2-6-EL-33	MISC	4% Chrys			2020 SF	NF
		2-6-EL-34		DNA		YES		
	2-6-EL-35	DNA						
	2-6-EL-36	DNA						
010, 015	9" x 9" Dark brown floor tile	2-6-EL-45	MISC	2% Chrys			115 SF	NF
		2-6-EL-46		DNA		YES		
010, 013, 015, 017	Brown adhesive associated with wood panel	2-6-EL-49	MISC	55% Chrys			1575 SF	NF
		2-6-EL-50		DNA		YES		
<b>KEY</b>								
DNA = DID NOT ANALYZE								
NAD = NO ASBESTOS DETECTED								
F = FRIABLE								
NF = NON-FRIABLE								
TSI = THERMAL SYSTEMS INSULATION								
SURF = SURFACING MATERIAL								
MISC = MISCELLANEOUS MATERIAL								
<b>ANALYTICAL METHODS</b>								
PLM PC = EPA 600/R-93/116 QUANTITATION 400 POINT COUNT								
TEM NOB = NEW YORK ELAP 198.4 METHOD								
PLM = EPA 600/R-93/116								
PS = Previously Sampled								
EA = Each								
<b>BOLD TEXT IN "LOCATION" COLUMN INDICATES SAMPLE LOCATION</b>								

TABLE I  
 ASBESTOS CONTAINING MATERIALS  
 SUMMARY TABLE  
 BOROUGH OF NAUGATUCK  
 58 MAPLE STREET  
 NAUGATUCK, CONNECTICUT

LOCATION(S)	MATERIAL TYPE	SAMPLE NUMBER	CATEGORY	BULK SAMPLE ANALYSIS RESULTS			ESTIMATED QUANTITY	F/NF
				PLM	PLM PC	TEM NOB		
011, 002	Grey mud pack fitting cement	2-6-EL-57	TSI	NAD			3 EA	F
		2-6-EL-58		45% Chrys		YES		
		2-6-EL-59		DNA				
002	Residual mud pack fitting cement	2-6-EL-57	TSI	NAD			110 EA	F
		2-6-EL-58		45% Chrys		YES		
		2-6-EL-59		DNA				
019, 021, 025, 026	9" x 9" Green line pattern floor tile	2-6-EL-70	MISC	14% Chrys			75 SF	NF
		2-6-EL-71		DNA		YES		
019, 021, 025, 026	9" x 9" Dark green floor tile	2-6-EL-74	MISC	13% Chrys			75 SF	NF
		2-6-EL-75		DNA		YES		
026	9" x 9" Black and green camouflage floor tile	2-7-EL-104	MISC	4% Chrys			210 SF	NF
		2-7-EL-105		DNA		YES		
027	9" x 9" Black floor tile	2-7-EL-108	MISC	14% Chrys			580 SF	NF
		2-7-EL-109		NAD		YES		
Façade A, Façade B, Façade C, Façade D	Exterior white window caulk	2-7-EL-114	MISC	14% Chrys			600 LF	NF
		2-7-EL-115		DNA		YES		
Façade A, Façade D	Exterior white door caulk	2-7-EL-116	MISC	2% Anth			45 LF	NF
		2-7-EL-117		DNA		YES		
Façade A	White caulk at vent in brick	2-7-EL-116	MISC	2% Anth			7 LF	NF
				ANALYTICAL METHODS				
DNA = DID NOT ANALYZE		SF = SQUARE FEET		PLM PC = EPA 600/R-93/116 QUANTITATION 400 POINT COUNT				
NAD = NO ASBESTOS DETECTED		LF = LINEAR FEET		TEM NOB = NEW YORK ELAP 198.4 METHOD				
F = FRIABLE		Chrys = Chrysotile		PLM = EPA 600/R-93/116				
NF = NON-FRIABLE		Amos = Amosite		PS = Previously Sampled				
TSI = THERMAL SYSTEMS INSULATION		Anth = Anthophyllite		EA = Each				
SURF = SURFACING MATERIAL		Trem = Tremolite						
MISC = MISCELLANEOUS MATERIAL		Croc = Crocidolite						
BOLD TEXT IN "LOCATION" COLUMN INDICATES SAMPLE LOCATION								

**TABLE I  
ASBESTOS CONTAINING MATERIALS  
SUMMARY TABLE  
BOROUGH OF NAUGATUCK  
58 MAPLE STREET  
NAUGATUCK, CONNECTICUT**

LOCATION(S)	MATERIAL TYPE	SAMPLE NUMBER	CATEGORY	BULK SAMPLE ANALYSIS RESULTS				ESTIMATED QUANTITY	F/NF
				PLM	PLM PC	TEM NOB	ACM		
Roof 2, Roof 4	Gray flashing cement at roof/wall junction	2-7-EL-128	MISC	25% Chrys			YES	75 SF	NF
		2-7-EL-129		45% Chrys					
Roof 3	Gray flashing cement at parapet wall cap seam	2-7-EL-128	MISC	25% Chrys			YES	85 LF	NF
		2-7-EL-129		45% Chrys					
Roof 3	Black flashing at parapet wall cap seams	2-7-EL-130	MISC	4% Chrys			YES	85 LF	NF
		2-7-EL-131		DNA					
Roof 3, Roof 4	Black built up layered roofing	2-7-EL-132	MISC	2% Chrys			YES	925 SF	NF
		2-7-EL-133		DNA					
Roof 3, Roof 4	Black tar on wood roof deck	2-7-EL-134	MISC	2% Chrys			YES	925 SF	NF
		2-7-EL-135		DNA					
014	Aircell pipe insulation on heating pipes in soffit	Assumed	TSI	Assumed			Assumed	4 LF	F
<b>KEY</b>									
DNA = DID NOT ANALYZE									
NAD = NO ASBESTOS DETECTED									
F = FRIABLE									
NF = NON-FRIABLE									
TSI = THERMAL SYSTEMS INSULATION									
SURF = SURFACING MATERIAL									
MISC = MISCELLANEOUS MATERIAL									
<b>ANALYTICAL METHODS</b>									
PLM PC = EPA 600/R-93/116 QUANTITATION 400 POINT COUNT									
TEM NOB = NEW YORK ELAP 198.4 METHOD									
PLM = EPA 600/R-93/116									
PS = Previously Sampled									
EA = Each									
<b>BOLD TEXT IN "LOCATION" COLUMN INDICATES SAMPLE LOCATION</b>									

**TABLE II**

**NON-ASBESTOS-CONTAINING MATERIALS SUMMARY TABLE**

**TABLE II**  
**NON - ASBESTOS CONTAINING MATERIALS**  
**SUMMARY TABLE**  
**BOROUGH OF NAUGATUCK**  
**58 MAPLE STREET**  
**NAUGATUCK, CONNECTICUT**

SAMPLE LOCATION(S)	MATERIAL TYPE	SAMPLE NUMBER	CATEGORY	BULK SAMPLE ANALYSIS RESULTS		
				PLM	PLM/PC	TEM NOB
007, 009, 011, 014, 018	Skim coat plaster	2-6-EL-05	SURF	NAD		
		2-6-EL-06		NAD		
		2-6-EL-07		NAD		
		2-6-EL-08		NAD		
		2-6-EL-09		NAD		
077, 009, 011, 014, 018	Rough coat plaster	2-6-EL-10	SURF	NAD		
		2-6-EL-11		NAD		
		2-6-EL-12		NAD		
		2-6-EL-13		NAD		
		2-6-EL-14		NAD		
008	Grout associated with tan square ceramic wall tile	2-6-EL-17	MISC	NAD		
		2-6-EL-18		NAD		
008	Brown adhesive associated with tan square ceram wall tile	2-6-EL-19	MISC	NAD		
		2-6-EL-20		NAD		
008	Grout associated with small brown-tan ceram floor tile	2-6-EL-23	MISC	NAD		
		2-6-EL-24		NAD		
008	Grey adhesive associated with small brown-tan ceram floor tile	2-6-EL-25	MISC	NAD		
		2-6-EL-26		NAD		
007	Brown stair tread cove base	2-6-EL-27	MISC	NAD		
		2-6-EL-28		NAD		
007	Brown adhesive associated with brown stair tread cove base	2-6-EL-29	MISC	NAD		
		2-6-EL-30		NAD		
<b>KEY</b>				<b>ANALYTICAL METHODS</b>		
DNA = DID NOT ANALYZE		SF = SQUARE FEET		PLM PC = EPA 600/R-93/116 QUANTITATION		400 POINT COUNT
NAD=NO ASBESTOS DETECTED		LF = LINEAR FEET		TEM NOB = NEW YORK ELAP 198.4 METHOD		
F = FRIABLE		Chrys = Chrysotile		PLM = EPA 600/R-93/116		
NF = NON-FRIABLE		Amos = Amosite		PS = Previously Sampled		
TSI = THERMAL SYSTEMS INSULATION		Anth = Anthophyllite		EA = Each		
SURF = SURFACING MATERIAL		Trem = Tremolite				
MISC = MISCELLANEOUS MATERIAL		Croc = Crocidolite				
<b>BOLD TEXT IN "LOCATION" COLUMN INDICATES SAMPLE LOCATION</b>						

**TABLE II**  
**NON - ASBESTOS CONTAINING MATERIALS**  
**SUMMARY TABLE**  
**BOROUGH OF NAUGATUCK**  
**58 MAPLE STREET**  
**NAUGATUCK, CONNECTICUT**

SAMPLE LOCATION(S)	MATERIAL TYPE	SAMPLE NUMBER	CATEGORY	BULK SAMPLE ANALYSIS RESULTS		
				PEM	PLM PC	TEM NOB
007	Brown adhesive associated with brown stair tread cove base	2-6-EL-29	MISC	NAD		
		2-6-EL-30		NAD		NO
009	Yellow adhesive associated with brown carpet	2-6-EL-31	MISC	NAD		
		2-6-EL-32		NAD		NO
009, 011, 023	Black mastic associated with 9" x 9" floor tile	2-6-EL-37	MISC	NAD		NAD
		2-6-EL-38		NAD		
		2-7-EL-96		NAD		
012, 014	Sheetrock	2-6-EL-40	MISC	NAD		
		2-6-EL-41		NAD		NO
012, 014	Joint compound	2-6-EL-43	MISC	NAD		
		2-6-EL-44		NAD		NO
009	Sheetrock/joint compound composite	2-6-EL-44A	MISC	NAD		NO
010	White pinhole fiberboard ceiling	2-6-EL-51	MISC	NAD		
		2-6-EL-52		NAD		NO
010	Brown cove base	2-6-EL-53	MISC	NAD		
		2-6-EL-54		NAD		NO
10	Brown adhesive associated with brown cove base	2-6-EL-55	MISC	NAD		
		2-6-EL-56		NAD		NO
012, 013	White adhesive associated with brown orange carpet	2-6-EL-60	MISC	NAD		
		2-6-EL-61		NAD		NO
013	White acoustic ceiling tile	2-6-EL-62	MISC	NAD		
		2-6-EL-63		NAD		NO
<b>KEY</b>				<b>ANALYTICAL METHODS</b>		
DNA = DID NOT ANALYZE				PLM PC = EPA 600/R-93/116 QUANTITATION 400 POINT COUNT		
NAD=NO ASBESTOS DETECTED				TEM NOB = NEW YORK ELAP 198.4 METHOD		
F = FRIABLE				PLM = EPA 600/R-93/116		
NF = NON-FRIABLE				PS = Previously Sampled		
TSI = THERMAL SYSTEMS INSULATION				EA = Each		
SURF = SURFACING MATERIAL						
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<b>BOLD TEXT IN "LOCATION" COLUMN INDICATES SAMPLE LOCATION</b>						

**TABLE II**  
**NON - ASBESTOS CONTAINING MATERIALS**  
**SUMMARY TABLE**  
**BOROUGH OF NAUGATUCK**  
**58 MAPLE STREET**  
**NAUGATUCK, CONNECTICUT**

SAMPLE LOCATION(S)	MATERIAL TYPE	SAMPLE NUMBER	CATEGORY	BULK SAMPLE ANALYSIS RESULTS			
				PLM	PLM/PC	TEM NOB	
015	Black flex connector at HVAC system	2-6-EL-64	MISC	NAD			NO
		2-6-EL-65		NAD			
018	Yellow adhesive associated with red spotted orange carpet	2-6-EL-68	MISC	NAD			NO
		2-6-EL-69		NAD			
021	Black laminate flooring	2-6-EL-76	MISC	NAD			NO
		2-6-EL-77		NAD			
21	Black mastic associated with black laminate flooring	2-6-EL-78	MISC	NAD			NO
		2-6-EL-79		NAD			
022	Black mastic associated with black rectangle wall tile	2-7-EL-82	MISC	NAD			NO
		2-7-EL-83		NAD			
022	Brown glue daub associated with black rectangle wall tile	2-7-EL-84	MISC	<1% Anth		NAD	YES
		2-7-EL-85		<1% Anth			
022	White caulk on top of black rectangle wall tile	2-7-EL-86	MISC	NAD			NO
		2-7-EL-87		NAD			
023, 027	Black paper underneath wood floor	2-7-EL-98	MISC	NAD			NO
		2-7-EL-99		NAD			
025	Gray stair tread ceramic covering tile	2-7-EL-100	MISC	NAD			NO
		2-7-EL-101		NAD			
025	Brown adhesive associated with gray stair tread ceramic tile	2-7-EL-102	MISC	NAD			NO
		2-7-EL-103		NAD			
026	Grey paper underneath wood flooring	2-7-EL-106	MISC	NAD			YES
		2-7-EL-107		NAD			
<b>KEY</b>				<b>ANALYTICAL METHODS</b>			
DNA = DID NOT ANALYZE				PLM PC = EPA 600/R-93/116 QUANTITATION 400 POINT COUNT			
NAD=NO ASBESTOS DETECTED				TEM NOB = NEW YORK ELAP 198.4 METHOD			
F = FRIABLE				PLM = EPA 600/R-93/116			
NF = NON-FRIABLE				PS = Previously Sampled			
TSI = THERMAL SYSTEMS INSULATION				EA = Each			
SURF = SURFACING MATERIAL							
MISC = MISCELLANEOUS MATERIAL							
<b>BOLD TEXT IN "LOCATION" COLUMN INDICATES SAMPLE LOCATION</b>							

**TABLE II**  
**NON - ASBESTOS CONTAINING MATERIALS**  
**SUMMARY TABLE**  
**BOROUGH OF NAUGATUCK**  
**58 MAPLE STREET**  
**NAUGATUCK, CONNECTICUT**

SAMPLE LOCATION(S)	MATERIAL TYPE	SAMPLE NUMBER	CATEGORY	BULK SAMPLE ANALYSIS RESULTS		
				PLM	PLM PC	ACM
Façade A	Exterior window white glazing compound	2-7-EL-112	MISC	NAD		NO
		2-7-EL-113		NAD		
Roof 1	Grey asphalt shingle	2-7-EL-118	MISC	NAD		NO
		2-7-EL-119		NAD		
Roof 1	Black paper under grey asphalt shingle	2-7-EL-120	MISC	NAD		NO
		2-7-EL-121		NAD		
Roof 2	Gray paper insulation associated with styrofoam insulation	2-7-EL-126	MISC	NAD		NO
		2-7-EL-127		NAD		
<b>KEY</b>						
DNA = DID NOT ANALYZE						
NAD=NO ASBESTOS DETECTED						
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NF = NON-FRIABLE						
TSI = THERMAL SYSTEMS INSULATION						
SURF = SURFACING MATERIAL						
MISC = MISCELLANEOUS MATERIAL						
<b>BOLD TEXT IN "LOCATION" COLUMN INDICATES SAMPLE LOCATION</b>				<b>ANALYTICAL METHODS</b>		
SF = SQUARE FEET				PLM PC = EPA 600/R-93/116 QUANTITATION 400 POINT COUNT		
LF = LINEAR FEET				TEM NOB = NEW YORK ELAP 198.4 METHOD		
Chrys = Chrysofile				PLM = EPA 600/R-93/116		
Amos = Amosite				FS = Previously Sampled		
Anth = Anthophyllite				EA = Each		
Trem = Tremolite						
Croc = Crocidolite						



**TABLE III**

**UNIVERSAL WASTE MATERIALS SUMMARY TABLE**

TABLE III  
 UNIVERSAL WASTE PRODUCTS  
 SUMMARY TABLE  
 53 MAPLE STREET  
 NAUGATUCK, CONNECTICUT

ROOM	FIXTURE TYPE		PALESTROM		ELECTRONICS		THERMO		LAMP		BANDAGES				
	TYPE	QTY	PCB	DEHP	ELEC	SPENT	CAPACITORS	CFCs	STATS	LF	ROUND	U SHAPE	EA	ES	ELS
001	1		1							5					
002	1		15							75					
003	1		1							5					
005	1		6							5					
005A	1		10							48					
008	2			2						20					
009	2			8						80					
010	2			6						60					
011	2			8						80					
012	2			4						20					
013	2			4						30					
014	2			32						320					
015	2			10						100					
016	2			40						400					
018	2			24						240					
019	2			1						5					
021	2			10						100					
022	2			2						20					
023	2			1						10					
024	2			2						20					
026	2			8						80					
027	2			30						300					
<b>TOTAL</b>			<b>53</b>	<b>192</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2023</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

NOTES

<b>KEYS:</b>	FA = Fire Alarm / ES = Exit Sign / ELS = Emergency Lighting System Type 1 - AD LITE Type 2 - ADVANCE CAT NO RQM 2540
<b>FIXTURE TYPE DESCRIPTION</b>	NOTE: 005 - Ballast on ground / 5 LF Bulb on ground near stairs

**APPENDIX 1**  
**FLOOR PLANS AND ROOF PLAN**

# BOROUGH of NAUGATUCK

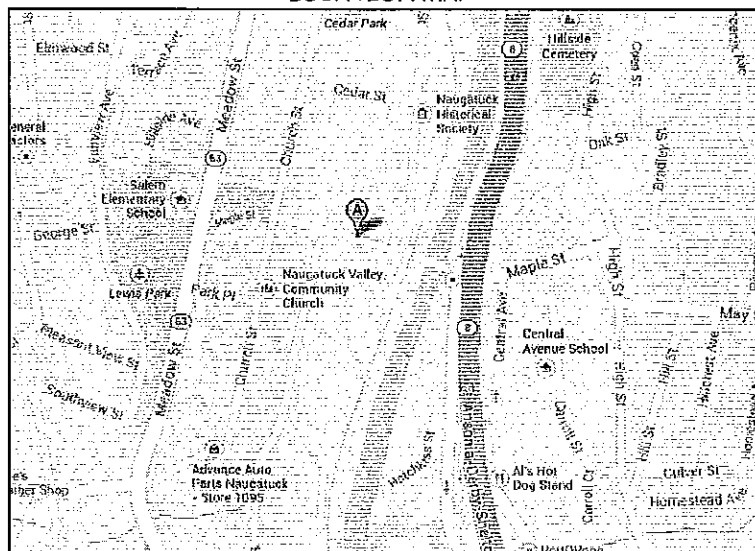
14-029.13T1

58 MAPLE STREET  
NAUGATUCK, CONNECTICUT

## INDEX OF DRAWINGS

FP-1 BASEMENT  
FP-2 FIRST FLOOR PLAN  
FP-3 SECOND FLOOR PLAN  
FP-4 ROOF

### LOCATION MAP



February 11, 2014



8 SOUTH MAIN STREET, SUITE 3  
TERRYVILLE, CONNECTICUT 06786  
860-589-8257

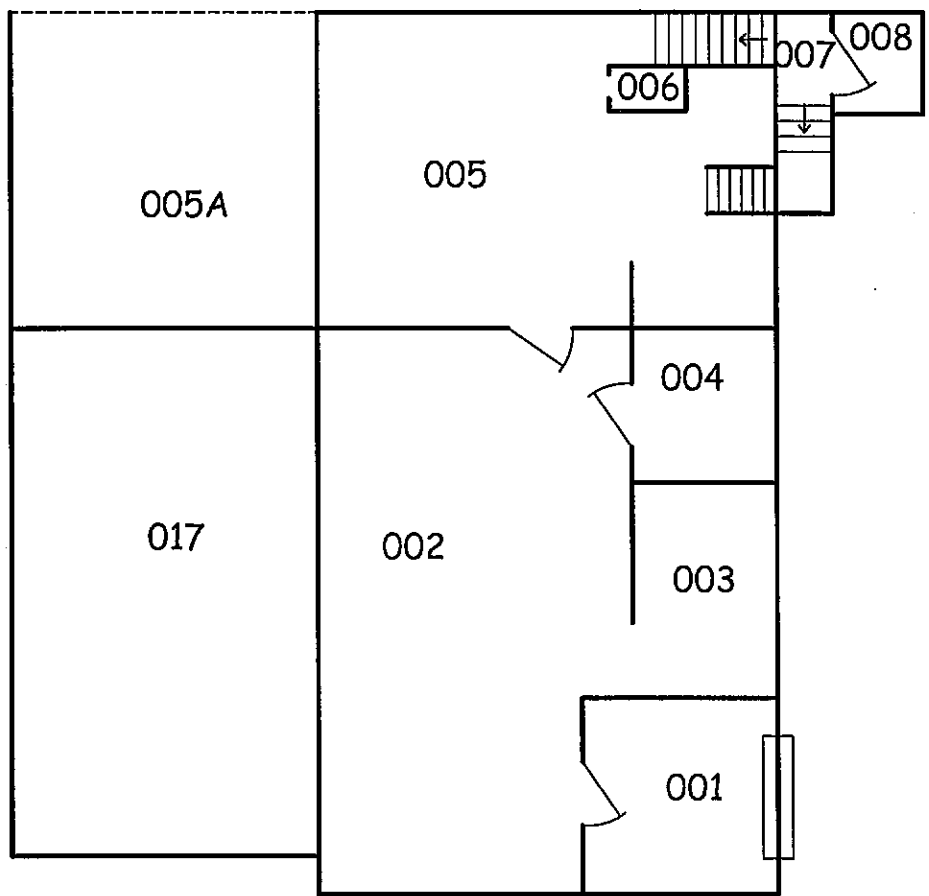
BASEMENT

SIDE-C

SIDE-B

SIDE-D

SIDE-A (STREET SIDE)



C = CLOSET EVALUATED WITH ADJACENT ROOM  
NOT TO SCALE



**EAGLE**  
Environmental, Inc.

8 SOUTH MAIN STREET, SUITE 3  
TERRYVILLE, CONNECTICUT 06786  
860-589-8257

SHEET NO.

**FP-1**

SHEET 1 OF 4

DATE: 02/11/14  
PROJECT NO.: 14-029.13T1  
DRAWN BY: VB  
REVIEWED BY: CL

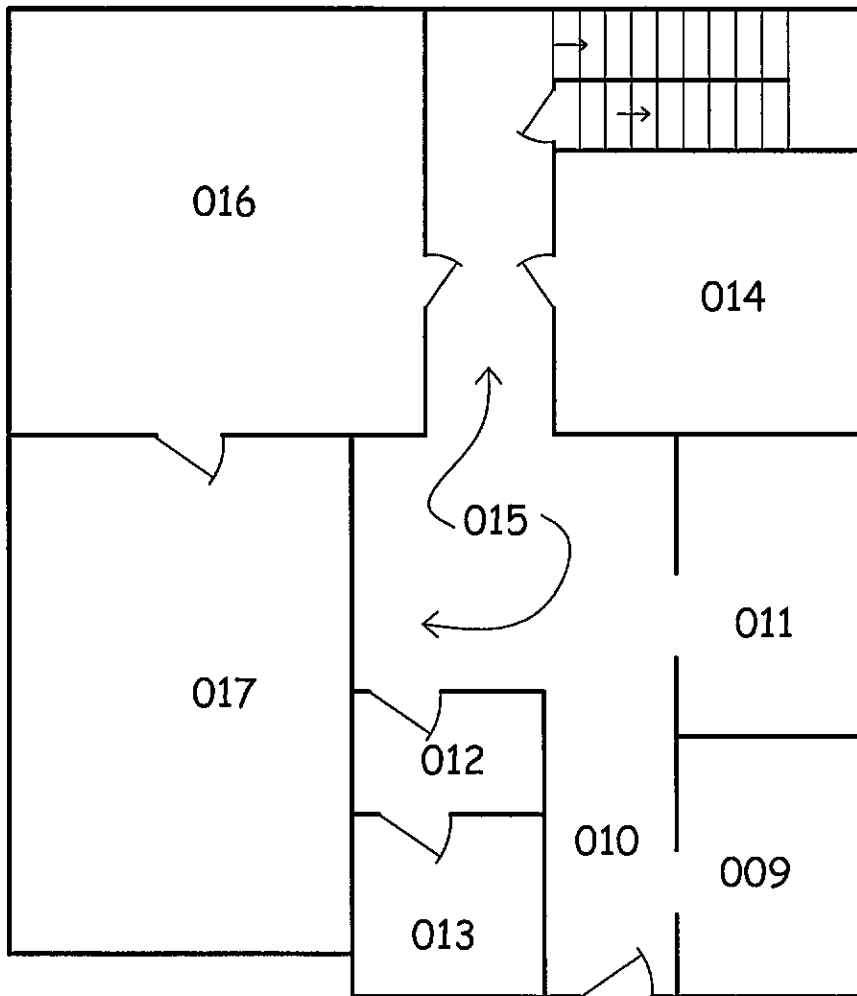
**HAZARDOUS BUILDING MATERIAL INSPECTION**  
58 MAPLE STREET  
NAUGATUCK, CONNECTICUT  
BASEMENT

FIRST FLOOR

SIDE-C

SIDE-B

SIDE-D



SIDE-A (STREET SIDE)

C = CLOSET EVALUATED WITH ADJACENT ROOM  
NOT TO SCALE



**EAGLE**  
Environmental, Inc.

8 SOUTH MAIN STREET, SUITE 3  
TERRYVILLE, CONNECTICUT 06786  
860-589-8257

SHEET NO.

**FP-2**

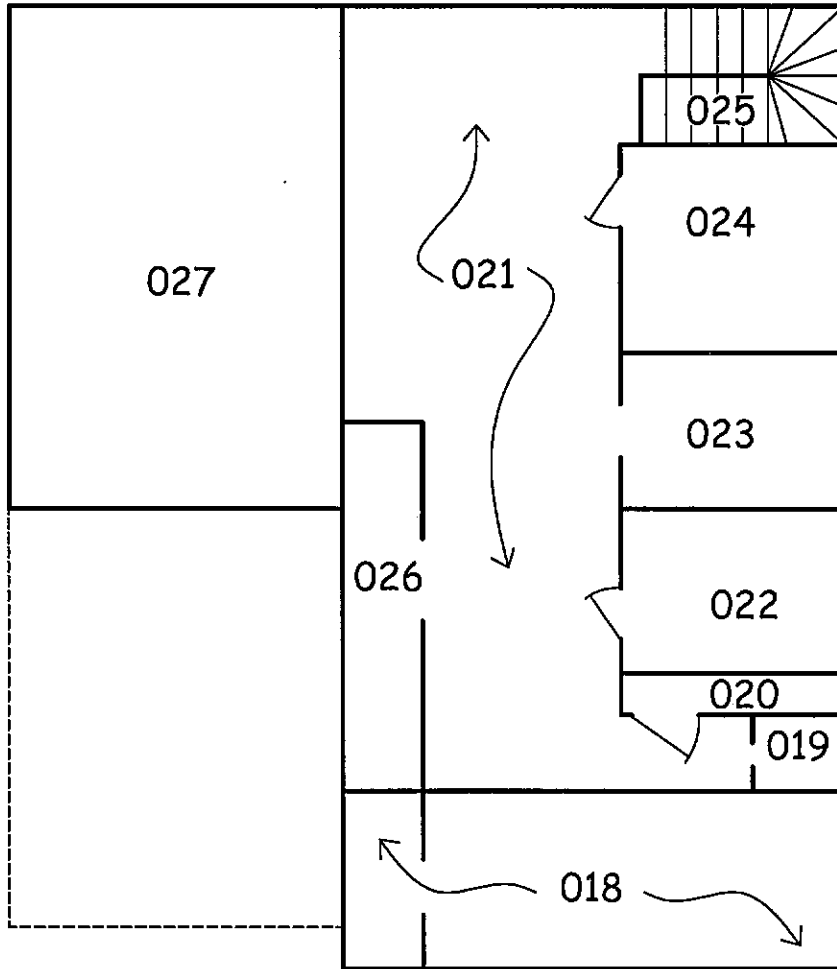
SHEET 2 OF 4

DATE: 02/11/14  
PROJECT NO.: 14-029.13T1  
DRAWN BY: VB  
REVIEWED BY: CL

**HAZARDOUS BUILDING MATERIAL INSPECTION**  
58 MAPLE STREET  
NAUGATUCK, CONNECTICUT  
FIRST FLOOR

SECOND FLOOR

SIDE-C



SIDE-B

SIDE-D

SIDE-A (STREET SIDE)

C = CLOSET EVALUATED WITH ADJACENT ROOM  
NOT TO SCALE



**EAGLE**  
Environmental, Inc.

8 SOUTH MAIN STREET, SUITE 3  
TERRYVILLE, CONNECTICUT 06786  
860-589-8257

SHEET NO.

**FP-3**

SHEET 3 OF 4

DATE: 02/11/14  
PROJECT NO.: 14-029.13T1  
DRAWN BY: VB  
REVIEWED BY: CL

**HAZARDOUS BUILDING MATERIAL INSPECTION**  
**58 MAPLE STREET**  
**NAUGATUCK, CONNECTICUT**  
**SECOND FLOOR**

ROOF

SIDE-C

ROOF 3  
(FLAT)

ROOF 1  
(PITCHED)

ROOF 2  
(FLAT)

SIDE-B

SIDE-D

SIDE-A (STREET SIDE)

C = CLOSET EVALUATED  
WITH ADJACENT ROOM  
NOT TO SCALE



**EAGLE**  
Environmental, Inc.

8 SOUTH MAIN STREET, SUITE 3  
TERRYVILLE, CONNECTICUT 06786  
860-589-8257

SHEET NO.

**FP-4**

SHEET 4 OF 4

DATE: 02/11/14  
PROJECT NO.: 14-029.13T1  
DRAWN BY: VB  
REVIEWED BY: CL

**HAZARDOUS BUILDING MATERIAL INSPECTION**  
**58 MAPLE STREET**  
**NAUGATUCK, CONNECTICUT**  
**ROOF**



**APPENDIX 2**

**ASBESTOS BULK SAMPLE LABORATORY REPORTS**



**EMSL - MA**  
 7 Constitution Way, Ste 107  
 Woburn, MA 01801  
 (781) 933-8411  
 (781) 933-8412 Fax

**EMSL - CT**  
 29 N. Plains Hwy, Unit 4  
 Wallingford, CT 06492  
 (203) 284-5948  
 (203) 284-5978 Fax

**EMSL - NY**  
 307 West 38<sup>th</sup> Street  
 New York, NY 10018  
 (866) 448-3675  
 (212) 290-0058 Fax

**EMSL - NJ**  
 107 Haddon Avenue  
 Westmont, NJ 08108  
 (800) 220-3675  
 (856) 858-4960 Fax

**Your Name:** Brandy LeBlanc **Project Manager:** CL

**Company:** Eagle Environmental, Inc.

**Street:** 8 South Main Street, Suite 3 031405535

**City/State/Zip:** Terryville, CT 06786

**Phone:** 860-589-8257 ext. 203 **Fax:** 860-585-7034 **Email:** bleblanc@eagleenviro.com;  
 dwynne@eagleenviro.com; rsioch@eagleenviro.com

**Project Name:** Borough of Naugatuck **Project #:** 14-029.13T1

**Project Location:** 58 Maple Street, Naugatuck **Project State (US):** CT

**TURNAROUND TIME**

3 Hours  
  6 Hours  
  24 Hours  
  48 Hours  
 72 Hours  
  4 Days  
  5 Days  
  6-10 Days

**SAMPLE MATRIX**

Air  
 Bulk  
 Soil  
 Wipe  
 Micro-Vac  
 Drinking Water  
 Wastewater  
 Chips  
 Other

**ASBESTOS ANALYSIS**

- PCM - Air**
- NIOSH 7400 (A) Issue 2: August 1994
  - OSHA w/TWA
- TEM AIR**
- AHERA 40 CFR, Part 763 Subpart E
  - NIOSH 7402 Issue 2
  - EPA Level II
- PLM - Bulk**
- EPA 600/R-93/116
  - NY Stratified Point Count
  - California Air Resources Board (CARB) 435
  - NIOSH 9002
  - PLM NOB (Gravimetric) NYS 198.1
  - EPA Point Count (400 Points)
  - EPA Point Count (1,000 Points)
  - Standard Addition Point Count
- SOILS**
- EPA Protocol Qualitative
  - EPA Protocol Quantitative
  - EMSL MSD 9000 Method fibers/gram
  - Superfund EPA 540-R097-028 (dust generation)
- TEM BULK**
- Drop Mount (Qualitative)
  - Chatfield SOP-1998-02
  - TEM NOB (Gravimetric) NY 198.4
- TEM MICROVAC**
- ASTM D 5755-95 (Quantitative)
- TEM WIPE**
- ASTM D-6480-99
  - Qualitative
- TEM WATER**
- EPA 100.1
  - EPA 100.2
  - NYS 198.2
  - Other: \_\_\_\_\_

**LEAD ANALYSIS**

- Flame Atomic Absorption**
- Wipe, SW846-7420  ASTM  non ASTM
  - Soil, SW846-7420
  - Air, NIOSH 7082
  - Chips, SW846-7420 or AOAC 5.009 (974.02)
  - Wastewater, SW 846-7420
  - TCLP LEAD SW846-1311/7420
- Graphite Furnace Atomic Absorption**
- Air, NIOSH 7105
  - Wastewater, SW846-7421
  - Soil, SW846-7421
  - Drinking Water, EPA 239.2
- ICP - Inductively Coupled Plasma**
- Wipe, SW846-6010  ASTM  non ASTM
  - Soil, SW846-6010
  - Air, NIOSH 7300

**MATERIALS ANALYSIS**

- Full Particle Identification
- Optical Particle Identification
- Dust Miles and Insect Fragments
- Particle Size & Distribution
- Product Comparison
- Paint Characterization
- Failure Analysis
- Corrosion Analysis
- Glove Box Containment Study
- Petrographic Examination of Concrete
- Portland Cement in Workplace Atmospheres (OSHA 1D-143)
- Man Made Vitreous Fibers - MMVF's
- Synthetic Fiber Identification
- Other: \_\_\_\_\_

**MICROBIAL ANALYSIS**

- Air Samples**
- Mold & Fungi by Air O Cell
  - Mold & Fungi by Agar Plate count & Id
  - Bacterial Count and Gram Stain
  - Bacterial Count and Identification
- Water Samples**
- Total Coliforms, Fecal Coliforms
  - Escherichia Coli, Fecal Streptococcus
  - Legionella
  - Salmonella
  - Giardia and Cryptosporidium
- Wipe and Bulk Samples**
- Mold & Fungi - Direct Examination
  - Mold & Fungi - (Culture follow up to direct examination if necessary)
  - Mold & Fungi - Culture (Count & ID)
  - Mold & Fungi - Culture (Count only)
  - Bacterial Count & Gram Stain
  - Bacterial Count & Identification (3 most prominent types)
  - Other: \_\_\_\_\_

**IAQ ANALYSIS**

- Nuisance Dust (NIOSH 0500 & 0600)
- Airborne Dust (PM10, TSP)
- Silica Analysis by XRD  Niosh 7500
- HVAC Efficiency
- Carbon Black
- Airborne Oil Mist
- Other: \_\_\_\_\_

Additional Information/Comments/Instructions: **\*\*PLEASE STOP ON 1ST POSITIVE WITHIN SETS**

94/112

Client Sample # (S)	2-6-EL-01	2-6-EL-135	TOTAL SAMPLE #	135
Relinquished:	ELTWAUN LAWRENCE	<i>[Signature]</i>	Date:	2-10-14
Received:	RENEE SIOCH	<i>[Signature]</i>	Date:	2-10-14
Relinquished:	RENEE SIOCH	<i>[Signature]</i>	Date:	2-11-14
Received:	<i>[Signature]</i>	<i>[Signature]</i>	Date:	2/12/14
			Time:	PM
			Time:	PM
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			Time:	11:50 AM



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SAMPLE NUMBER	SAMPLE DESCRIPTION	ROOM or LOCATION	VOLUME Air (L)	Area (Inches sq.)
2-6-EL-01	White mag pipe insulation	002		15% OCM 20% AM
2-6-EL-02	White mag pipe insulation	002		DNA
2-6-EL-03	White mag pipe insulation	011		DNA
2-6-EL-04	NOT USED			NAD
2-6-EL-05	Skim coat plaster	007		
2-6-EL-06	Skim coat plaster	009		
2-6-EL-07	Skim coat plaster	011		
2-6-EL-08	Skim coat plaster	014		
2-6-EL-09	Skim coat plaster	018		
2-6-EL-10	Rough coat plaster	007		
2-6-EL-11	Rough coat plaster	009		
2-6-EL-12	Rough coat plaster	011		
2-6-EL-13	Rough coat plaster	014		
2-6-EL-14	Rough coat plaster	018		
2-6-EL-15	NOT USED			
2-6-EL-16	NOT USED			
2-6-EL-17	Grout assoc w/tan sq ceramic wall tile	008		
2-6-EL-18	Grout assoc w/tan sq ceramic wall tile	008		
2-6-EL-19	Brown adhesive assoc w/tan sq ceram wall tile	008		
2-6-EL-20	Brown adhesive assoc w/tan sq ceram wall tile	008		
2-6-EL-21	NOT USED			
2-6-EL-22	NOT USED			
2-6-EL-23	Grout assoc w/sm brown-tan ceram floor tile	008		
2-6-EL-24	Grout assoc w/sm brown-tan ceram floor tile	008		



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SAMPLE NUMBER	SAMPLE DESCRIPTION	ROOM or LOCATION	VOLUME Air (L)	Area (Inches sq.)
2-6-EL-25	Grey adhesive assoc w/sm br-tan ceram FT	008		NOAD
2-6-EL-26	Grey adhesive assoc w/sm br-tan ceram FT	008		
2-6-EL-27	Brown stair tread cove base	007		
2-6-EL-28	Brown stair tread cove base	007		
2-6-EL-29	Brown adhesive assoc w/brown stair tread CB	007		
2-6-EL-30	Brown adhesive assoc w/brown stair tread CB	007		
2-6-EL-31	Yellow adhesive assoc w/brown carpet	009		
2-6-EL-32	Yellow adhesive assoc w/brown carpet	009		
2-6-EL-33	9"x9" Green floor tile	009		4% chrys
2-6-EL-34	9"x9" Green floor tile	011		DNA
2-6-EL-35	9"x9" Tan floor tile	009		
2-6-EL-36	9"x9" Tan floor tile	011		
2-6-EL-37	Black mastic assoc w/ 9"x9" floor tile	009		NOAD
2-6-EL-38	Black mastic assoc w/ 9"x9" floor tile	011		
2-7-EL-96	Black mastic assoc w/9"x9" gray floor tile	023		
2-6-EL-39	NOT USED			
2-6-EL-40	Sheetrock	012		
2-6-EL-41	Sheetrock	014		
2-6-EL-42	NOT USED			
2-6-EL-43	Joint compound	012		
2-6-EL-44	Joint compound	014		
2-6-EL-44A	Sheetrock/joint compound composite	009		
2-6-EL-45	9"x9" Dark brown floor tile	010		2% chrys
2-6-EL-46	9"x9" Dark brown floor tile	010		DNA
2-6-EL-47	NOT USED			
2-6-EL-48	NOT USED			



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SAMPLE NUMBER	SAMPLE DESCRIPTION	ROOM or LOCATION	VOLUME Air (L)	Area (Inches sq.)
2-6-EL-49	Brown adhesive assoc w/ wood panel	010		55% CHRS
2-6-EL-50	Brown adhesive assoc w/ wood panel	010		DNA
2-6-EL-51	White pinhole fiberboard ceiling	010		NAD
2-6-EL-52	White pinhole fiberboard ceiling	010		
2-6-EL-53	Brown cove base	010		
2-6-EL-54	Brown cove base	010		
2-6-EL-55	Brown adhesive assoc w/ brown cove base	010		
2-6-EL-56	Brown adhesive assoc w/ brown cove base	010		
2-6-EL-57	Grey mud pack fitting at elbow	011		45% CHRS
2-6-EL-58	Grey mud pack fitting at elbow	011		DNA
2-6-EL-59	Grey mud pack fitting at elbow	002		NAD
2-6-EL-60	White adhesive assoc w/brown orange carpet	012		
2-6-EL-61	White adhesive assoc w/brown orange carpet	013		
2-6-EL-62	White acoustic ceiling tile	013		
2-6-EL-63	White acoustic ceiling tile	013		
2-6-EL-64	Black flex connector @ HVAC system	015		
2-6-EL-65	Black flex connector @ HVAC system	015		
2-6-EL-66	NOT USED			
2-6-EL-67	NOT USED			
2-6-EL-68	Yellow adhesive assoc w/red spotted orange carpet	018		
2-6-EL-69	Yellow adhesive assoc w/red spotted orange carpet	018		
2-6-EL-70	9"x9" Green line pattern floor tile	019		14% CHRS
2-6-EL-71	9"x9" Green line pattern floor tile	019		DNA
2-6-EL-72	NOT USED			
2-6-EL-73	NOT USED			

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SAMPLE NUMBER	SAMPLE DESCRIPTION	ROOM or LOCATION	VOLUME Air (L)	Area (Inches sq.)
2-6-EL-74	9"x9" Dark green floor tile	019		13% Dig
2-6-EL-75	9"x9" Dark green floor tile	019		DNA
2-6-EL-76	Black laminate flooring	021		NAD
2-6-EL-77	Black laminate flooring	021		
2-6-EL-78	Black mastic assoc w/black laminate flooring	021		
2-6-EL-79	Black mastic assoc w/black laminate flooring	021		
2-7-EL-80	NOT USED			
2-7-EL-81	NOT USED			
2-7-EL-82	Black mastic assoc w/black rectangle wall tile	022		
2-7-EL-83	Black mastic assoc w/black rectangle wall tile	022		
2-7-EL-84	Brown glue daub assoc w/black rectangle wall tile	022		5% Anth
2-7-EL-85	Brown glue daub assoc w/black rectangle wall tile	022		1% Anth
2-7-EL-86	White caulk on top of black rectangle wall tile	022		NAD
2-7-EL-87	White caulk on top of black rectangle wall tile	022		
2-7-EL-88	Interior window white glazing compound	022		
2-7-EL-89	Interior window white glazing compound	023		
2-7-EL-90	25"x25" Black terrazzo flooring	022		
2-7-EL-91	25"x25" Black terrazzo flooring	022		
2-7-EL-92	NOT USED			
2-7-EL-93	NOT USED			
2-7-EL-94	9"x9" Gray floor tile	023		
2-7-EL-95	9"x9" Gray floor tile	023		Not Submitted
2-7-EL-97	NOT USED			
2-7-EL-98	Black paper underneath wood floor	023		NAD
2-7-EL-99	Black paper underneath wood floor	027		

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SAMPLE NUMBER	SAMPLE DESCRIPTION	ROOM or LOCATION	VOLUME Air (L)	Area (Inches sq.)
2-7-EL-100	Gray stair tread ceramic covering tile	025		N/A
2-7-EL-101	Gray stair tread ceramic covering tile	025		
2-7-EL-102	Brown adhesive assoc w/gray stair tread ceram tile	025		
2-7-EL-103	Brown adhesive assoc w/gray stair tread ceram tile	025		
2-7-EL-104	9"x9" Black and green camouflage floor tile	026		47% CHIPS
2-7-EL-105	9"x9" Black and green camouflage floor tile	026		DNA
2-7-EL-106	Grey paper underneath wood flooring	026		N/A
2-7-EL-107	Grey paper underneath wood flooring	026		N/A
2-7-EL-108	9"x9" Black floor tile	027		14% CHIPS
2-7-EL-109	9"x9" Black floor tile	027		DNA
2-7-EL-110	NOT USED			<del>N/A</del>
2-7-EL-111	NOT USED			
2-7-EL-112	Exterior window white glazing compound	FacadeA		N/A
2-7-EL-113	Exterior window white glazing compound	FacadeA		N/A
2-7-EL-114	Exterior window white caulk	FacadeA		14% CHIPS
2-7-EL-115	Exterior window white caulk	FacadeA		DNA
2-7-EL-116	Exterior door white caulk	FacadeA		2% ANTH
2-7-EL-117	Exterior door white caulk	FacadeA		DNA
2-7-EL-118	Grey asphalt shingle	Roof 1		N/A
2-7-EL-119	Grey asphalt shingle	Roof 1		
2-7-EL-120	Black paper under grey asphalt shingle	Roof 1		
2-7-EL-121	Black paper under grey asphalt shingle	Roof 1		
2-7-EL-122	NOT USED			
2-7-EL-123	NOT USED			

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SAMPLE NUMBER	SAMPLE DESCRIPTION	ROOM or LOCATION	VOLUME Air (L)	Area (Inches sq.)
2-7-EL-124	NOT USED			
2-7-EL-125	NOT USED			
2-7-EL-126	Gray paper insulation assoc w/styrofoam insulation	Roof 2		N/A
2-7-EL-127	Gray paper insulation assoc w/styrofoam insulation	Roof 2		N/A
2-7-EL-128	Gray flashing cement near base & lower brick wall	Roof 2		25% CHRS
2-7-EL-129	Gray flashing cement at wall base	Roof 3		45% CHRS
2-7-EL-130	Black flashing @ parapet wall cap	Roof 3		4% CHRS
2-7-EL-131	Black flashing @ parapet wall cap	Roof 3		N/A
2-7-EL-132	Black built up layered roofing	Roof 3		2% CHRS
2-7-EL-133	Black built up layered roofing	Roof 3		N/A
2-7-EL-134	Black tar on wood roof deck	Roof 3		2% CHRS
2-7-EL-135	Black tar on wood roof deck	Roof 3		N/A



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 Analysis Date: 3/6/2014  
 Collected: 2/6/2014

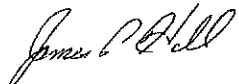
Project: 14-029.13T1/ BOROUGH OF NAUGATUCK/ 58 MAPLE STREET/ NAUGATUCK CT

### 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
2-6-EL-01 031405535-0001	WHITE MAG PIPE INSULATION - 002	White Fibrous Homogeneous	5% Glass	50% Ca Carbonate 10% Non-fibrous (other)	15% Chrysotile 20% Amosite
2-6-EL-02 031405535-0002	WHITE MAG PIPE INSULATION - 002				Stop Positive (Not Analyzed)
2-6-EL-03 031405535-0003	WHITE MAG PIPE INSULATION - 011				Stop Positive (Not Analyzed)
2-6-EL-05 031405535-0005	SKIM COAT PLASTER - 007	White Non-Fibrous Homogeneous		65% Ca Carbonate 35% Non-fibrous (other)	None Detected
2-6-EL-06 031405535-0006	SKIM COAT PLASTER - 009	White Non-Fibrous Homogeneous		55% Ca Carbonate 45% Non-fibrous (other)	None Detected
2-6-EL-07 031405535-0007	SKIM COAT PLASTER - 011	White Non-Fibrous Homogeneous	<1% Cellulose	66% Ca Carbonate 34% Non-fibrous (other)	None Detected
2-6-EL-08 031405535-0008	SKIM COAT PLASTER - 014	White Non-Fibrous Homogeneous		60% Ca Carbonate 40% Non-fibrous (other)	None Detected
2-6-EL-09 031405535-0009	SKIM COAT PLASTER - 018	White Non-Fibrous Homogeneous		55% Ca Carbonate 45% Non-fibrous (other)	None Detected

**Analyst(s)**

Albert Grohmann (1)      Keri-Dean Scarlett (56)  
 Henry Akintunde (37)

  
 James Hall, Laboratory Manager  
 or other approved signatory

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 Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC-IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NYS ELAP 11508, NJ NY022, CT PH-0170, MA AA000170

Report Amended: 03/06/2014 10:13:23 Replaces the Initial Report 02/18/2014 18:47:31. Reason Code: Client-Change to Appearance

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Project: 14-029.13T1/ BOROUGH OF NAUGATUCK/ 58 MAPLE STREET/ NAUGATUCK CT

### 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
2-6-EL-10 <i>031405535-0010</i>	ROUGH COAT PLASTER - 007	Tan Non-Fibrous Homogeneous		47% Quartz 53% Non-fibrous (other)	None Detected
2-6-EL-11 <i>031405535-0011</i>	ROUGH COAT PLASTER - 009	Tan Non-Fibrous Homogeneous	2% Cellulose	55% Quartz 43% Non-fibrous (other)	None Detected
2-6-EL-12 <i>031405535-0012</i>	ROUGH COAT PLASTER - 011	Gray Non-Fibrous Homogeneous	2% Cellulose	60% Quartz 38% Non-fibrous (other)	None Detected
2-6-EL-13 <i>031405535-0013</i>	ROUGH COAT PLASTER - 014	Gray Non-Fibrous Homogeneous	2% Cellulose	55% Quartz 43% Non-fibrous (other)	None Detected
2-6-EL-14 <i>031405535-0014</i>	ROUGH COAT PLASTER - 018	Gray Non-Fibrous Homogeneous	3% Cellulose	35% Quartz 32% Gypsum 30% Non-fibrous (other)	None Detected
2-6-EL-17 <i>031405535-0017</i>	GROUT ASSOC W/ TAN SQ CERAMIC WALL TILE - 008	White Non-Fibrous Homogeneous	2% Cellulose	67% Ca Carbonate 31% Non-fibrous (other)	None Detected
2-6-EL-18 <i>031405535-0018</i>	GROUT ASSOC W/ TAN SQ CERAMIC WALL TILE - 008	Tan Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (other)	None Detected

**Analyst(s)**

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*Henry Akintunde (37)*

James Hall, Laboratory Manager  
 or other approved signatory

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Report Amended: 03/06/2014 10:13:23 Replaces the Initial Report 02/18/2014 18:47:31. Reason Code: Client-Change to Appearance

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### 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
2-6-EL-19 031405535-0019	BROWN ADHESIVE ASSOC W/ TAN SQ CERAM WALL TILE - 008	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-6-EL-20 031405535-0020	BROWN ADHESIVE ASSOC W/ TAN SQ CERAM WALL TILE - 008	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-6-EL-23 031405535-0023	GROUT ASSOC W/ SM BROWN-TAN CERAM FLOOR TILE - 008	Gray Non-Fibrous Homogeneous	2% Cellulose	45% Quartz 30% Ca Carbonate 23% Non-fibrous (other)	None Detected
2-6-EL-24 031405535-0024	GROUT ASSOC W/ SM BROWN-TAN CERAM FLOOR TILE - 008	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-6-EL-25 031405535-0025	GREY ADHESIVE ASSOC W/ SM BR-TAN CERAM FT - 008	Gray Non-Fibrous Homogeneous		55% Quartz 45% Non-fibrous (other)	None Detected
2-6-EL-26 031405535-0026	GREY ADHESIVE ASSOC W/ SM BR-TAN CERAM FT - 008	Gray Non-Fibrous Homogeneous		25% Quartz 75% Non-fibrous (other)	None Detected

**Analyst(s)**

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 Henry Akintunde (37)

James Hall, Laboratory Manager  
 or other approved signatory

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EMSL Order:	031405535
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Project: 14-029.13T1/ BOROUGH OF NAUGATUCK/ 58 MAPLE STREET/ NAUGATUCK CT

### 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
2-6-EL-27 031405535-0027	BROWN STAIR TREAD COVE BASE - 007	Brown Non-Fibrous Homogeneous		28% Ca Carbonate 72% Non-fibrous (other)	None Detected
2-6-EL-28 031405535-0028	BROWN STAIR TREAD COVE BASE - 007	Brown/Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-6-EL-29 031405535-0029	BROWN ADHESIVE ASSOC W/ BROWN STAIR TREAD CB - 007	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-6-EL-30 031405535-0030	BROWN ADHESIVE ASSOC W/ BROWN STAIR TREAD CB - 007	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-6-EL-31 031405535-0031	YELLOW ADHESIVE ASSOC W/ BROWN CARPET - 009	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-6-EL-32 031405535-0032	YELLOW ADHESIVE ASSOC W/ BROWN CARPET - 009	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-6-EL-33 031405535-0033	9" X 9" GREEN FLOOR TILE - 009	Green Non-Fibrous Homogeneous		96% Non-fibrous (other)	4% Chrysotile

**Analyst(s)**

Albert Grohmann (1)

Keri-Dean Scarlett (56)

Henry Akintunde (37)

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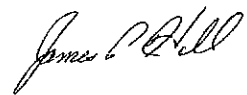
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### Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
2-6-EL-34 031405535-0034	9" X 9" GREEN FLOOR TILE - 011				Stop Positive (Not Analyzed)
2-6-EL-35 031405535-0035	9" X 9" TAN FLOOR TILE - 009				Stop Positive (Not Analyzed)
2-6-EL-36 031405535-0036	9" X 9" TAN FLOOR TILE - 011				Stop Positive (Not Analyzed)
2-6-EL-37 031405535-0037	BLACK MASTIC ASSOC W/ 9" X 9" FLOOR TILE - 009	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-6-EL-38 031405535-0038	BLACK MASTIC ASSOC W/ 9" X 9" FLOOR TILE - 011	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-7-EL-96 031405535-0039	BLACK MASTIC ASSOC W/ 9" X 9" GRAY FLOOR TILE - 023	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-6-EL-40 031405535-0041	SHEETROCK - 012	Brown/Gray Fibrous Homogeneous	10% Cellulose	65% Gypsum 25% Non-fibrous (other)	None Detected
2-6-EL-41 031405535-0042	SHEETROCK - 014	White Non-Fibrous Homogeneous		32% Ca Carbonate 68% Non-fibrous (other)	None Detected

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Project: 14-029.13T1/ BOROUGH OF NAUGATUCK/ 58 MAPLE STREET/ NAUGATUCK CT

### 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
2-6-EL-43 031405535-0044	JOINT COMPOUND - 012	Tan Non-Fibrous Homogeneous		55% Ca Carbonate 45% Non-fibrous (other)	None Detected
2-6-EL-44 031405535-0045	JOINT COMPOUND - 014	Brown/Gray Fibrous Homogeneous	15% Cellulose 3% Glass	65% Gypsum 17% Non-fibrous (other)	None Detected
2-6-EL-44A 031405535-0046	SHEETROCK/ JOINT COMPOUND COMPOSITE - 009	Brown/Gray Fibrous Homogeneous	7% Cellulose	60% Gypsum 20% Ca Carbonate 13% Non-fibrous (other)	None Detected
2-6-EL-45 031405535-0047	9" X 9" DARK BROWN FLOOR TILE - 010	Brown Non-Fibrous Homogeneous	20% Cellulose	78% Non-fibrous (other)	2% Chrysotile
2-6-EL-46 031405535-0048	9" X 9" DARK BROWN FLOOR TILE - 010				Stop Positive (Not Analyzed)
2-6-EL-49 031405535-0051	BROWN ADHESIVE ASSOC W/ WOOD PANEL - 010	Brown Non-Fibrous Homogeneous		45% Non-fibrous (other)	55% Chrysotile
2-6-EL-50 031405535-0052	BROWN ADHESIVE ASSOC W/ WOOD PANEL - 010				Stop Positive (Not Analyzed)

**Analyst(s)**

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### 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
2-6-EL-51 031405535-0053	WHITE PINHOLE FIBERBOARD CEILING - 010	Brown Fibrous Homogeneous	85% Cellulose	15% Non-fibrous (other)	None Detected
2-6-EL-52 031405535-0054	WHITE PINHOLE FIBERBOARD CEILING - 010	Brown Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (other)	None Detected
2-6-EL-53 031405535-0055	BROWN COVE BASE - 010	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-6-EL-54 031405535-0056	BROWN COVE BASE - 010	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-6-EL-55 031405535-0057	BROWN ADHESIVE ASSOC W/ BROWN COVE BASE - 010	Brown Non-Fibrous Homogeneous	10% Wollastonite	90% Non-fibrous (other)	None Detected
2-6-EL-56 031405535-0058	BROWN ADHESIVE ASSOC W/ BROWN COVE BASE - 010	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-6-EL-57 031405535-0059	GREY MUD PACK FITTING AT ELBOW - 011	Tan Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (other)	None Detected
2-6-EL-58 031405535-0060	GREY MUD PACK FITTING AT ELBOW - 011	Gray Fibrous Homogeneous		37% Gypsum 18% Non-fibrous (other)	45% Chrysotile

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### 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
2-6-EL-59 031405535-0061	GREY MUD PACK FITTING AT ELBOW - 002				Stop Positive (Not Analyzed)
2-6-EL-60 031405535-0062	WHITE ADHESIVE ASSOC W/ BROWN ORANGE CARPET - 012	Black Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-6-EL-61 031405535-0063	WHITE ADHESIVE ASSOC W/ BROWN ORANGE CARPET - 013	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-6-EL-62 031405535-0064	WHITE ASOUSTIC CEILING TILE - 013	Tan Fibrous Homogeneous	38% Min. Wool	62% Non-fibrous (other)	None Detected
2-6-EL-63 031405535-0065	WHITE ASOUSTIC CEILING TILE - 013	Gray Fibrous Homogeneous	55% Min. Wool	45% Non-fibrous (other)	None Detected
2-6-EL-64 031405535-0066	BLACK FLEX CONNECTOR @ HVAC SYSTEM - 015	Black Fibrous Homogeneous	70% Glass	30% Non-fibrous (other)	None Detected

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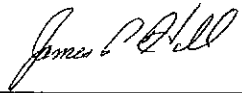
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### Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
2-6-EL-65 031405535-0067	BLACK FLEX CONNECTOR @ HVAC SYSTEM - 015	Black Fibrous Homogeneous	70% Glass	30% Non-fibrous (other)	None Detected
2-6-EL-68 031405535-0070	YELLOW ADHESIVE ASSOC W/ RED SPOTTED ORANGE CARPET - 018	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-6-EL-69 031405535-0071	YELLOW ADHESIVE ASSOC W/ RED SPOTTED ORANGE CARPET - 018	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-6-EL-70 031405535-0072	9" X 9" GREEN LINE PATTERN FLOOR TILE - 019	Green Non-Fibrous Homogeneous		86% Non-fibrous (other)	14% Chrysotile
2-6-EL-71 031405535-0073	9" X 9" GREEN LINE PATTERN FLOOR TILE - 019				Stop Positive (Not Analyzed)
2-6-EL-74 031405535-0076	9" X 9" DARK GREEN FLOOR TILE - 019	Green Non-Fibrous Homogeneous		87% Non-fibrous (other)	13% Chrysotile
2-6-EL-75 031405535-0077	9" X 9" DARK GREEN FLOOR TILE - 019				Stop Positive (Not Analyzed)

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### 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
2-6-EL-76 031405535-0078	BLACK LAMINATE FLOORING - 021	Black Fibrous Homogeneous	30% Glass	70% Non-fibrous (other)	None Detected
2-6-EL-77 031405535-0079	BLACK LAMINATE FLOORING - 021	Black Fibrous Homogeneous	52% Cellulose	48% Non-fibrous (other)	None Detected
2-6-EL-78 031405535-0080	BLACK MASTIC ASSOC W/ BLACK LAMINATE FLOORING - 021	Black Non-Fibrous Homogeneous	25% Cellulose	75% Non-fibrous (other)	None Detected
2-6-EL-79 031405535-0081	BLACK MASTIC ASSOC W/ BLACK LAMINATE FLOORING - 021	Black Fibrous Homogeneous	35% Cellulose	65% Non-fibrous (other)	None Detected
2-6-EL-82 031405535-0084	BLACK ASSOC W/ BLACK RECTANGLE WALL TILE - 022	Black Non-Fibrous Homogeneous		50% Quartz 50% Non-fibrous (other)	None Detected
2-6-EL-83 031405535-0085	BLACK ASSOC W/ BLACK RECTANGLE WALL TILE - 022	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-6-EL-84 031405535-0086	BROWN GLUE DAUB ASSOC W/ BLACK RECTANGLE WALL TILE - 022	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Anthophyllite

TEM RECOMMENDED

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**Suite 3**  
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 Fax: (860) 585-7034  
 Received: 02/12/14 11:59 AM  
 Analysis Date: 3/6/2014  
 Collected: 2/6/2014

Project: 14-029.13T1/ BOROUGH OF NAUGATUCK/ 58 MAPLE STREET/ NAUGATUCK CT

### 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
2-6-EL-85 031405535-0087	BROWN GLUE DAUB ASSOC W/ BLACK RECTANGLE WALL TILE - 022	Gray/Tan/Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Anthophyllite
TEM RECOMMENDED					
2-6-EL-86 031405535-0088	WHITE CAULK ON TOP OF BLACK RECTANGLE WALL TILE - 022	White Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (other)	None Detected
2-6-EL-87 031405535-0089	WHITE CAULK ON TOP OF BLACK RECTANGLE WALL TILE - 022	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (other)	None Detected
2-6-EL-88 031405535-0090	INTERIOR WINDOW WHITE GLAZING COMPOUND - 022	Tan Non-Fibrous Homogeneous		65% Ca Carbonate 35% Non-fibrous (other)	None Detected
2-6-EL-89 031405535-0091	INTERIOR WINDOW WHITE GLAZING COMPOUND - 022	Tan Non-Fibrous Homogeneous		43% Ca Carbonate 57% Non-fibrous (other)	None Detected
2-6-EL-90 031405535-0092	25" X 25" BLACK TERRAZZO FLOORING - 022	Gray Non-Fibrous Homogeneous	3% Cellulose	25% Quartz 32% Ca Carbonate 40% Non-fibrous (other)	None Detected

**Analyst(s)**

Albert Grohmann (1)

Keri-Dean Scarlett (56)

Henry Akintunde (37)

James Hall, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC-IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NYS ELAP 11508, NJ NY022, CT PH-0170, MA AA000170

Report Amended: 03/06/2014 10:13:23 Replaces the Initial Report 02/18/2014 18:47:31. Reason Code: Client-Change to Appearance

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### 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
2-6-EL-91 031405535-0093	25" X 25" BLACK TERRAZZO FLOORING - 022	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-6-EL-94 031405535-0096	9" X 9" GRAY FLOOR TILE - 023	Gray Non-Fibrous Homogeneous		25% Quartz 20% Ca Carbonate 55% Non-fibrous (other)	None Detected
2-6-EL-95 031405535-0097	9" X 9" GRAY FLOOR TILE - 023				Not Submitted
2-6-EL-98 031405535-0099	BLACK PAPER UNDERNEATH WOOD FLOOR - 023	Black Fibrous Homogeneous	40% Cellulose	60% Non-fibrous (other)	None Detected
2-6-EL-99 031405535-0100	BLACK PAPER UNDERNEATH WOOD FLOOR - 027	Black Fibrous Homogeneous	55% Cellulose	45% Non-fibrous (other)	None Detected
2-6-EL-100 031405535-0101	GRAY STAIR TREAD CERAMIC COVERING TILE - 025	Brown Fibrous Homogeneous	36% Cellulose	64% Non-fibrous (other)	None Detected
2-6-EL-101 031405535-0102	GRAY STAIR TREAD CERAMIC COVERING TILE - 025	Brown/Tan Fibrous Homogeneous	25% Cellulose	75% Non-fibrous (other)	None Detected

**Analyst(s)**

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Henry Akintunde (37)

James Hall, Laboratory Manager  
or other approved signatory

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Project: 14-029.13T1/ BOROUGH OF NAUGATUCK/ 58 MAPLE STREET/ NAUGATUCK CT

### 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
2-6-EL-102 031405535-0103	BROWN ADHESIVE ASSOC W/ GRAY STAIR TREAD CERAM - TILE/ 025	Brown Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (other)	None Detected
2-6-EL-103 031405535-0104	BROWN ADHESIVE ASSOC W/ GRAY STAIR TREAD CERAM - TILE/ 025	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-6-EL-104 031405535-0105	9" X 9" BLACK AND GREEN CAMOUFLAGE FLOOR TILE - 026	Black Non-Fibrous Homogeneous		96% Non-fibrous (other)	4% Chrysotile
2-6-EL-105 031405535-0106	9" X 9" BLACK AND GREEN CAMOUFLAGE FLOOR TILE - 026				Stop Positive (Not Analyzed)
2-6-EL-106 031405535-0107	GREY PAPER UNDERNEATH WOOD FLOORING - 026	Gray Fibrous Homogeneous	85% Cellulose	15% Non-fibrous (other)	None Detected
2-6-EL-107 031405535-0108	GREY PAPER UNDERNEATH WOOD FLOORING - 026	Gray Fibrous Homogeneous	15% Synthetic 55% Cellulose	30% Non-fibrous (other)	None Detected

**Analyst(s)**

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 Henry Akintunde (37)

James Hall, Laboratory Manager  
 or other approved signatory

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 Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC-IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NYS ELAP 11506, NJ NY022, CT PH-0170, MA AA000170

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Project: 14-029.13T1/ BOROUGH OF NAUGATUCK/ 58 MAPLE STREET/ NAUGATUCK CT

### 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
2-6-EL-108 031405535-0109	9" X 9" BLACK FLOOR TILE - 027	Black Non-Fibrous Homogeneous		86% Non-fibrous (other)	14% Chrysotile
2-6-EL-109 031405535-0110	9" X 9" BLACK FLOOR TILE - 027				Stop Positive (Not Analyzed)
2-6-EL-112 031405535-0113	EXTERIOR WINDOW WHITE GLAZING COMPOUND - FAÇADE A	White Non-Fibrous Homogeneous		60% Ca Carbonate 40% Non-fibrous (other)	None Detected
2-6-EL-113 031405535-0114	EXTERIOR WINDOW WHITE GLAZING COMPOUND - FAÇADE A	White Non-Fibrous Homogeneous		55% Ca Carbonate 45% Non-fibrous (other)	None Detected
2-6-EL-114 031405535-0115	EXTERIOR WINDOW WHITE CAULK - FAÇADE A	Gray Non-Fibrous Homogeneous		45% Ca Carbonate 41% Non-fibrous (other)	14% Chrysotile
2-6-EL-115 031405535-0116	EXTERIOR WINDOW WHITE CAULK - FAÇADE A				Stop Positive (Not Analyzed)
2-6-EL-116 031405535-0117	EXTERIOR DOOR WHITE CAULK - FAÇADE A	Gray Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Anthophyllite

**Analyst(s)**

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Keri-Dean Scarlett (56)

Henry Akintunde (37)

James Hall, Laboratory Manager  
or other approved signatory

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**Terryville, CT 06786** Collected: 2/6/2014

Project: 14-029.13T1/ BOROUGH OF NAUGATUCK/ 58 MAPLE STREET/ NAUGATUCK CT

### 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
2-6-EL-117 031405535-0118	EXTERIOR DOOR WHITE CAULK - ROOF 1				Stop Positive (Not Analyzed)
2-6-EL-118 031405535-0119	GREY ASPHALT SHINGLE - ROOF 1	Black Fibrous Homogeneous	25% Cellulose	75% Non-fibrous (other)	None Detected
2-6-EL-119 031405535-0120	GREY ASPHALT SHINGLE - ROOF 1	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-6-EL-120 031405535-0121	BLACK PEPPER UNDER GREY ASPHALT SHINGLE - ROOF 1	Black Fibrous Homogeneous	40% Cellulose	60% Non-fibrous (other)	None Detected
2-6-EL-121 031405535-0122	BLACK PEPPER UNDER GREY ASPHALT SHINGLE - ROOF 1	Black Non-Fibrous Homogeneous	25% Cellulose	75% Non-fibrous (other)	None Detected
2-6-EL-126 031405535-0127	GRAY PAPER INSULATION ASSOC W/ STYROFOAM - INSULATION/ ROOF 2	Gray Fibrous Homogeneous	75% Cellulose	25% Non-fibrous (other)	None Detected

**Analyst(s)**

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 Henry Akintunde (37)

James Hall, Laboratory Manager  
 or other approved signatory

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 Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC-JHLAP Accredited #102561, NVLAP Lab Code 101048-9, NYS ELAP 11506, NJ NY022, CT PH-D170, MA AA000170

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### 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
2-6-EL-127 031405535-0128	GRAY PAPER INSULATION ASSOC W/ STYROFOAM - INSULATION/ ROOF 2	Gray Fibrous Homogeneous	35% Cellulose	65% Non-fibrous (other)	None Detected
2-6-EL-128 031405535-0129	GRAY FLASHING CEMENT NEAR BASE & LOWER BRICK WALL - ROOF 2	Brown Non-Fibrous Homogeneous		75% Non-fibrous (other)	25% Chrysotile
2-6-EL-129 031405535-0130	GRAY FLASHING CEMENT AT WALL BASE - ROOF 3	Black Fibrous Homogeneous		55% Non-fibrous (other)	45% Chrysotile
2-6-EL-130 031405535-0131	BLACK FLASHING @ PARAPET WALL CAP - ROOF 3	Black Fibrous Homogeneous	30% Cellulose	66% Non-fibrous (other)	4% Chrysotile
2-6-EL-131 031405535-0132	BLACK FLASHING @ PARAPET WALL CAP - ROOF 3				Stop Positive (Not Analyzed)
2-6-EL-132 031405535-0133	BLACK BUILT UP LAYERED ROOFING - ROOF 3	Black Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile

**Analyst(s)**

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 Henry Akintunde (37)

James Hall, Laboratory Manager  
 or other approved signatory

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### 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
2-6-EL-133 031405535-0134	BLACK BUILT UP LAYERED ROOFING - ROOF 3				Stop Positive (Not Analyzed)
2-6-EL-134 031405535-0135	BLACK TAR ON WOOD ROOF DECK - ROOF 3	Black Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
2-6-EL-135 031405535-0136	BLACK TAR ON WOOD ROOF DECK - ROOF 3				Stop Positive (Not Analyzed)

**Analyst(s)**

Albert Grohmann (1)

Keri-Dean Scarlett (56)

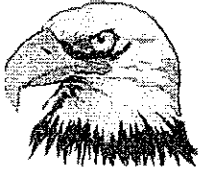
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# EAGLE ENVIRONMENTAL, INC.

EAGLE PROJECT NAME: BOROUGH OF NAUGATUCK – PRE-DEMO HAZ

PROJECT LOCATION: 58 MAPLE STREET, NAUGATUCK, CONNECTICUT

PROJECT NUMBER: 14-029.13T1

LAB REFERENCE NUMBER: 031405535

### TEM NOB Sample Request Form

SAMPLE NO.	LOCATION	MATERIAL TYPE	% ASBESTOS
2-6-EL-37	009	BLACK MASTIC ASSOC WITH 9" X9" FLOOR TILE	NAD
2-6-EL-84	022	BROWN GLUE DAUB ASSOC WITH BLACK RECTANGLE WALL TILE	NAD

TEST METHOD. TEM ELAP 198.4 METHOD

TURNAROUND TIME: 24 HOURS

**Special Instructions:** Stop on first positive for each set of samples. Please do not separate samples. Do not fax chain of custody.

**Special Instructions:** Please e-mail results to: bleblanc@eagleenviro.com; tfoster@eagleenviro.com; dwynne@eagleenviro.com; rsioch@eagleenviro.com

Samples Collected By: ELTWAUN LAWRENCE Date: 2-6-14 Time: PM

Request Emailed By: RENEE SIOCH Date: 2-17-14 Time: PM

Request Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

\*\*\*\*Please sign this chain of custody for our records. Thank You!

8 SOUTH MAIN STREET, SUITE 3 • TERRYVILLE, CT 06786  
PHONE (860) 589-8257 • FAX (860) 585-7034



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**Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM via EPA/600/R-93/116 Section 2.5.5.1**

SAMPLE ID	DESCRIPTION	APPEARANCE	% MATRIX MATERIAL	% NON-ASBESTOS FIBERS	ASBESTOS TYPES
2-6-EL-37 031405535-0037	BLACK MASTIC ASSOC W/ 9" X 9" FLOOR TILE - 009	Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
2-6-EL-84 031405535-0086	BROWN GLUE DAUB ASSOC W/ BLACK RECTANGLE WALL TILE - 022	Brown Non-Fibrous Heterogeneous	100	None	No Asbestos Detected

Analyst(s)

Derrick Young (2)

James Hall, Laboratory Manager  
or other approved signatory

This laboratory is not responsible for % asbestos in total sample when the residue only is submitted for analysis. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.  
Samples analyzed by EMSL Analytical, Inc. New York, NY NYS ELAP 11506

Initial report from 02/15/2014 11:08:39

**APPENDIX 3**

**XRF LEAD-BASED PAINT INSPECTION REPORTS**

# LEAD PAINT INSPECTION REPORT

REPORT NUMBER: S#02753 - 02/07/14 11:16

INSPECTION FOR: Mr. James R. Stewart  
Borough of Naugatuck  
246 Rubber Avenue  
Naugatuck, CT 06770

PERFORMED AT: 58 Maple Street  
Naugatuck, CT 06770

INSPECTION DATE: 02/07/14

INSTRUMENT TYPE: R M D  
MODEL LPA-1  
XRF TYPE ANALYZER  
Serial Number: 02753

ACTION LEVEL: 1.0 mg/cm<sup>2</sup>

OPERATOR LICENSE: 002250

Lead-based paint screen inspection at 58 Maple Street,  
Naugatuck, CT 06770.

SIGNED: Eltwaun Lawrence

Date: 2/7/14

Eltwaun Lawrence  
Lead Inspector / Risk Assessor  
Eagle Environmental, Inc.  
8 South Main Street, Suite 3  
Terryville, CT 06786

**SUMMARY REPORT OF LEAD PAINT INSPECTION FOR: Mr. James R. Stewart**

Inspection Date: 02/07/14 58 Maple Street  
 Report Date: 2/7/2014 Naugatuck, CT 06770  
 Abatement Level: 1.0  
 Report No. S#02753 - 02/07/14 11:16  
 Total Readings: 115 Actionable: 18  
 Job Started: 02/07/14 11:16  
 Job Finished: 02/07/14 13:33

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
Exterior Room 001 Facade A									
111	A	Window	Far-L	Casing	P	Wood	white	>9.9	QM
110	A	Window	Far-L	Sash	P	Wood	white	5.9	QM
109	A	Window	Rgt	Casing	P	Wood	white	>9.9	QM
Exterior Room 002 Facade D									
112	D	Stairs	Far-L	Casing	P	Metal	red	1.7	QM
Interior Room 001 Number Only									
008	B	Door	Ctr		I	Wood	green	>9.9	QM
Interior Room 002 Number Only									
009	-	Column	Ctr		P	Metal	white	3.0	QM
014	C	Door	Rgt		P	Wood	green	7.5	QM
Interior Room 003 Number Only									
018	B	Door	Lft		P	Wood	gray	>9.9	QM
Interior Room 004 Number Only									
020	A	Wall	Ctr		I	Brick	white	>9.9	QM
019	B	Ceiling	Ctr		I	Brick	white	6.2	QM
022	B	Door	Ctr		P	Metal	gray	1.9	QM
021	C	Wall	Ctr		I	Brick	white	>9.9	QM
Interior Room 014 Number Only									
060	C	Column	Ctr		P	Metal	beige	8.0	QM
Interior Room 018 Number Only									
076	B	Wall	U Lft		P	Plaster	beige	7.5	QM
075	C	Wall	U Rgt		P	Plaster	beige	3.3	QM
Interior Room 019 Number Only									
082	A	Wall	U Ctr		P	Plaster	beige	6.8	QM
Interior Room 021 Number Only									
089	A	Wall	U Lft		P	Plaster	beige	8.5	QM
Interior Room 027									
103	D	Wall	U Ctr		P	Plaster	beige	8.4	QM

----- End of Readings -----

**DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Mr. James R. Stewart**

Inspection Date: 02/07/14 58 Maple Street  
 Report Date: 2/7/2014 Naugatuck, CT 06770  
 Abatement Level: 1.0  
 Report No. S#02753 - 02/07/14 11:16  
 Total Readings: 115  
 Job Started: 02/07/14 11:16  
 Job Finished: 02/07/14 13:33

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
<b>Exterior Room 001 Facade A</b>									
111	A	Window	Far-L	Casing	P	Wood	white	>9.9	QM
110	A	Window	Far-L	Sash	P	Wood	white	5.9	QM
109	A	Window	Rgt	Casing	P	Wood	white	>9.9	QM
<b>Exterior Room 002 Facade D</b>									
112	D	Stairs	Far-L	Casing	P	Metal	red	1.7	QM
<b>Interior Room 001 Number Only</b>									
006	-	Ceiling	Ctr		I	Wood	white	0.1	QM
005	A	Wall	Ctr		P	Concrete	white	0.1	QM
008	B	Door	Ctr		I	Wood	green	>9.9	QM
004	C	Wall	Ctr		P	Brick	white	-0.2	QM
007	D	Window	Ctr	Sash	P	Wood	green	0.3	QM
<b>Interior Room 002 Number Only</b>									
010	-	Ceiling	Ctr		I	Wood	white	0.1	QM
011	-	Ceiling	Ctr	Beam	I	Wood	white	-0.1	QM
009	-	Column	Ctr		P	Metal	white	3.0	QM
012	A	Wall	Ctr		P	Concrete	white	0.0	QM
013	B	Wall	Ctr		P	Brick	white	-0.4	QM
014	C	Door	Rgt		P	Wood	green	7.5	QM
<b>Interior Room 003 Number Only</b>									
017	-	Ceiling	Ctr		I	Wood	white	0.0	QM
016	-	Column	Ctr		P	Wood	white	-0.1	QM
015	A	Wall	Ctr		P	Brick	white	-0.2	QM
018	B	Door	Lft		P	Wood	gray	>9.9	QM
<b>Interior Room 004 Number Only</b>									
020	A	Wall	Ctr		I	Brick	white	>9.9	QM
019	B	Ceiling	Ctr		I	Brick	white	6.2	QM
022	B	Door	Ctr		P	Metal	gray	1.9	QM
021	C	Wall	Ctr		I	Brick	white	>9.9	QM
<b>Interior Room 005 Number Only</b>									
026	-	Ceiling	Ctr		P	Wood	white	0.0	QM
027	-	Ceiling	Ctr	Beam	P	Wood	white	-0.1	QM
025	-	Column	Ctr		P	Metal	white	0.1	QM
023	A	Wall	Rgt		P	Concrete	white	-0.1	QM
029	C	Pipe	Ctr		P	Metal	white	0.0	QM
024	C	Wall	Ctr		P	Plaster	white	-0.4	QM

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Mr. James R. Stewart

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
028	D	Door	Ctr		P	Wood	green	0.0	QM
Interior Room 007 Number Only									
031	-	Ceiling	Ctr		P	Plaster	beige	0.0	QM
033	-	Stairs	Ctr	Stringers	P	Wood	green	0.2	QM
032	-	Stairs	Ctr	Risers	P	Wood	green	0.2	QM
034	B	Door	Ctr		P	Wood	green	0.2	QM
035	B	Door	Ctr	Casing	P	Wood	green	0.1	QM
030	C	Wall	Ctr		P	Plaster	beige	0.1	QM
Interior Room 009 Number Only									
036	A	Wall	Ctr		P	Plaster	green	0.1	QM
039	A	Window	Ctr	Casing	P	Wood	green	0.1	QM
038	A	Window	Ctr	Sash	P	Wood	green	-0.3	QM
040	B	Door	Ctr		I	Wood	green	-0.4	QM
041	B	Door	Ctr	Casing	P	Wood	green	0.1	QM
037	C	Wall	Ctr		P	Sheetrock	green	-0.1	QM
042	D	Radiator	Lft		P	Cast Iron	green	-0.2	QM
Interior Room 011 Number Only									
043	A	Wall	Ctr		I	Sheetrock	beige	0.0	QM
044	B	Door	Ctr	Casing	P	Wood	beige	0.1	QM
045	D	Wall	Lft		P	Plaster	beige	0.0	QM
046	D	Window	Lft	Casing	P	Wood	beige	-0.3	QM
047	D	Window	Lft	Sash	P	Wood	white	-0.3	QM
Interior Room 012 Number Only									
048	A	Wall	Ctr		P	Wood	beige	-0.5	QM
052	C	Crown Mldg	Ctr		I	Wood	beige	0.1	QM
049	C	Wall	Ctr		P	Sheetrock	beige	-0.1	QM
050	C	Door	Lft	Casing	P	Wood	beige	-0.3	QM
051	C	Door	Lft		P	Wood	beige	-0.2	QM
Interior Room 013 Number Only									
057	-	Ceiling	Ctr		P	Metal	white	-0.1	QM
053	A	Window	Ctr	Casing	P	Wood	brown	0.0	QM
054	A	Window	Ctr	Sash	P	Wood	white	0.0	QM
055	B	Door	Ctr	Casing	P	Wood	brown	0.2	QM
056	B	Door	Ctr		P	Wood	brown	0.2	QM
Interior Room 014 Number Only									
059	C	Chair Rail	Ctr		I	Wood	beige	-0.1	QM
058	C	Wall	Ctr		P	Plaster	beige	-0.2	QM
060	C	Column	Ctr		P	Metal	beige	8.0	QM
061	D	Wall	Ctr		P	Plaster	beige	-0.2	QM
062	D	Window	Ctr	Casing	P	Wood	beige	0.0	QM
063	D	Window	Ctr	Sash	P	Wood	white	0.1	QM
Interior Room 015 Number Only									



DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Mr. James R. Stewart

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
065	B	Chair Rail	Lft		P	Wood	green	0.1	QM
070	B	Radiator	Rgt		P	Cast Iron	white	0.2	QM
064	B	Wall	Lft		P	Plaster	green	-0.3	QM
066	B	Baseboard	Lft		P	Wood	green	-0.4	QM
067	C	Wall	Ctr		P	Plaster	beige	-0.5	QM
068	C	Door	Ctr	Casing	P	Wood	beige	-0.1	QM
069	D	Door	Lft		P	Wood	white	-0.1	QM
Interior Room 016 Number Only									
072	-	Column	Ctr		P	Metal	beige	-0.1	QM
071	A	Wall	Ctr		P	Plaster	white	-0.1	QM
073	B	Window	Lft	Casing	P	Wood	green	0.0	QM
074	B	Window	Lft	Sash	I	Wood	white	-0.4	QM
Interior Room 018 Number Only									
079	A	Window	Ctr	Casing	P	Wood	beige	0.0	QM
080	A	Window	Ctr	Sash	I	Wood	white	-0.1	QM
078	B	Wall	L Lft		P	Wainscot	beige	0.1	QM
076	B	Wall	U Lft		P	Plaster	beige	7.5	QM
077	C	Wall	L Rgt		P	Wainscot	beige	-0.1	QM
075	C	Wall	U Rgt		P	Plaster	beige	3.3	QM
081	D	Baseboard	Ctr		P	Wood	beige	0.0	QM
Interior Room 019 Number Only									
083	A	Chair Rail	Ctr		P	Wood	beige	0.4	QM
084	A	Wall	L Ctr		P	Wainscot	beige	0.1	QM
082	A	Wall	U Ctr		P	Plaster	beige	6.8	QM
085	D	Door	Ctr	Casing	P	Wood	beige	0.1	QM
086	D	Door	Ctr		P	Wood	beige	0.0	QM
Interior Room 020 Number Only									
088	-	Ceiling	Ctr		P	Plaster	green	-0.1	QM
087	C	Wall	Ctr		I	Plaster	green	-0.2	QM
Interior Room 021 Number Only									
093	-	Ceiling	Ctr		P	Metal	white	0.2	QM
090	A	Wall	L Lft		P	Wainscot	beige	0.1	QM
089	A	Wall	U Lft		P	Plaster	beige	8.5	QM
092	D	Wall	L Ctr		P	Wainscot	beige	0.3	QM
091	D	Wall	U Ctr		P	Plaster	beige	-0.1	QM
Interior Room 022 Number Only									
094	A	Wall	U Ctr		P	Plaster	white	0.5	QM
095	B	Door	Lft	Casing	P	Wood	white	0.1	QM
096	B	Door	Lft		P	Wood	white	0.0	QM
Interior Room 023 Number Only									
098	A	Chair Rail	Ctr		P	Wood	green	0.2	QM
097	A	Wall	Ctr		P	Plaster	white	-0.4	QM

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Mr. James R. Stewart

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
099	C	Wall	Ctr		P	Plaster	green	-0.2	QM
Interior Room 024 Number Only									
100	A	Wall	U Ctr		P	Plaster	beige	0.1	QM
101	B	Door	Lft		P	Wood	white	-0.1	QM
102	B	Door	Lft	Casing	P	Wood	white	-0.1	QM
Interior Room 027									
108	-	Ceiling	Ctr		P	Metal	white	0.0	QM
105	B	Window	Ctr	Casing	P	Wood	beige	-0.3	QM
106	B	Window	Ctr	Sash	I	Wood	white	0.2	QM
104	D	Wall	L Ctr		P	Wainscot	beige	-0.1	QM
103	D	Wall	U Ctr		P	Plaster	beige	8.4	QM
107	D	Door	Rgt		P	Wood	beige	0.0	QM
Calibration Readings									
001								0.9	TC
002								0.8	TC
003								0.8	TC
113								0.9	TC
114								0.9	TC
115								0.9	TC

----- End of Readings -----

**APPENDIX 4**

**LEAD WASTE CHARACTERIZATION LABORATORY REPORTS AND  
COMPUTATION TABLE**

**DEMOLITION WASTE CLASSIFICATION  
TCLP FIELD COMPUTATION TABLE  
58 MAPLE STREET  
NAUGATUCK, CONNECTICUT**

Component	Thickness (in)	Thickness (ft)	Area (SF)	Volume (CF)	Density (lbs/CF)	Mass (lbs)	Totals (lbs)	Percent of Total Mass
Negative Plaster	0.50	0.042	5549	231.2	53	12254.0	12254.0	61%
Positive Plaster	0.50	0.042	1416	59.0	53	3127.0	3127.0	16%
Negative Sheetrock	0.50	0.042	1084	45.2	52.8	2384.8	2384.8	12%
Negative Roofing	0.50	0.042	1200	50.0	45	2250.0	2250.0	11%
Total Mass							20015.8	100%



Wednesday, February 19, 2014

Attn: Mr. Chris Liberti  
Eagle Environmental Inc.  
8 South Main Street, Suite 3 ©  
Terryville CT 06786

Project ID: BOROUGH OF NAUGATUCK 58 MAPLE ST  
Sample ID#s: BG09751

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

A handwritten signature in cursive script that reads "Phyllis Shiller".

Phyllis Shiller  
Laboratory Director

NELAC - #NY11301  
CT Lab Registration #PH-0618  
MA Lab Registration #MA-CT-007  
ME Lab Registration #CT-007  
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003  
NY Lab Registration #11301  
PA Lab Registration #68-03530  
RI Lab Registration #63  
VT Lab Registration #VT11301



Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
February 19, 2014

FOR: Attn: Mr. Chris Liberti  
Eagle Environmental Inc.  
8 South Main Street, Suite 3 ©  
Terryville CT 06786

Sample Information

Matrix: SOLID  
Location Code: EAGLEENV  
Rush Request: 72 Hour  
P.O.#:

Custody Information

Collected by:  
Received by: SW  
Analyzed by: see "By" below

Date            Time  
02/06/14        0:00  
02/17/14        14:59

Laboratory Data

SDG ID: GBG09751  
Phoenix ID: BG09751

Project ID: BOROUGH OF NAUGATUCK 58 MAPLE ST  
Client ID: TCLP COMPOSITE

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
TCLP Lead	< 0.10	0.10	mg/L	02/18/14	EK	SW6010
TCLP Metals Digestion	Completed			02/18/14	I/I	SW3005
TCLP Extraction for Metals	Completed			02/17/14	I	EPA 1311
TCLP Sample Size Reduction	Completed			02/17/14	SHOP	1311

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.  
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

February 19, 2014

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



**Environmental Laboratories, Inc.**  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

**QA/QC Report**  
 February 19, 2014

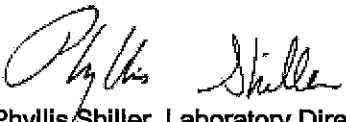
**QA/QC Data**

SDG I.D.: GBG09751

Parameter	Blank	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 266928, QC Sample No: BG09699 (BG09751)												
<b><u>ICP Metals - TCLP Extraction</u></b>												
Lead	BRL	38.3	40.7	6.10	106	97.0	8.9	NC	NC	NC	75 - 125	20

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

- RPD - Relative Percent Difference
- LCS - Laboratory Control Sample
- LCSD - Laboratory Control Sample Duplicate
- MS - Matrix Spike
- MS Dup - Matrix Spike Duplicate
- NC - No Criteria
- Inf - Interference

  
 Phyllis Shiller, Laboratory Director  
 February 19, 2014

# Sample Criteria Exceedences Report

GBG09751 - EAGLEENV

Criteria: None

State: CT

Sample No      Acode      Phoenix Analyte      Criteria

Result

RL

Criteria

RL      Analysis  
Criteria      Units

\*\*\* No Data to Display \*\*\*

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



Cooler: Yes  No   
 Coolant: IPK  ICE  N

Temp. 0 °C Pg of

**CHAIN OF CUSTODY RECORD**

Data Delivery:  
 Fax #:  
 Email:

587 East Middle Turnpike, Manchester, CT 06040  
 Email: info@phoenixlabs.com Fax (860) 645-0823  
 Client Services (860) 645-8726

Customer: Eagle Environmental, Inc. Project: Borough of Naugatuck (58 Maple St) Project P.O.: 14-029.13T1  
 Address: 8 South Main St, Suite 3 Report to: Chris Libert Phone #: \_\_\_\_\_  
Terryville, CT 06786 Invoice to: Brandy LeBlanc Fax #: \_\_\_\_\_

Sampler's Signature: E. Lawrence Date: 2/14/14  
 Client Sample - Information - Identification

Matrix Code: \_\_\_\_\_  
 DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water  
 SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Analysis Request
09751	Negative Wood	S	2/6/14	PM	78
	TCLP A				
	Negative Plaster	S	2/6/14	PM	13
	TCLP B				
	Positive Plaster	S	2/6/14	PM	3
	TCLP C				
	Negative Sheetrock	S	2/6/14	PM	4
	TCLP D				
	Negative Roofing	S	2/6/14	PM	2
	TCLP E				

Relinquished By: E. Lawrence Accepted By: [Signature]  
 Date: 2/17/14 Time: 11:45 AM  
2/17/14 1459

Comments, Special Requirements or Regulations:  
Please combine all samples (A-E) to form one composite

**\* TCLP to Contention**

40 ml VOA Vial (As Is) HCl	
GL Soil Container ( ) oz	
GL Soil Container ( ) oz	
GL VOA Vials ( ) HCl	
GL Amber 1000ml (As Is) HCl	
PR As Is ( 250ml ) H2SO4	
PR H2SO4 ( 250ml ) H2SO4	
PR HNO3 250ml	
PR HNO3 250ml	
PR NECH 250ml	
Generata Bottle	

RI  Direct Exposure (Residential)  GW  Other

CT  RCP Cert  GW Protection  SW Protection  GA Mobility  GB Mobility  Residential DEC  I/C DEC  Other

MA  MCP Certification  GW-1  GW-2  GW-3  S-1  S-2  S-3  MWRA eSMART  Other

Data Format  
 Excel  PDF  GIS/Key  EQUIS  Other

Data Package  
 Tier II Checklist  Full Data Package\*  Phoenix Std Report  Other

State where samples were collected: CT

\* SURCHARGE APPLIES

**APPENDIX 5**

**ABATEMENT AND CONSULTING COST ESTIMATE**

**HAZARDOUS MATERIALS ABATEMENT COST ESTIMATES**

**BOROUGH OF NAUGATUCK**

**58 MAPLE STREET**

**NAUGATUCK, CONNECTICUT**

**ASBESTOS ABATEMENT COST ESTIMATE**

MATERIAL	QUANTITY	UNIT COST	TOTAL COST
PIPE INSULATION	39	\$ 35.00 LF	\$ 1,365.00
RESIDUAL PIPE INSULATION	280	\$ 35.00 LF	\$ 9,800.00
MUD PACK FITTING CEMENT	3	\$ 100.00 EA	\$ 300.00
RESIDUAL MUD PACK FITTING CEMENT	110	\$ 50.00 EA	\$ 5,500.00
FLOOR TILE	4,650	\$ 5.00 SF	\$ 23,250.00
WOOD PANEL ADHESIVE	1,575	\$ 5.00 SF	\$ 7,875.00
EXTERIOR CAULK	652	\$ 8.00 LF	\$ 5,216.00
FLASHING CEMENT	165	\$ 10.00 SF	\$ 1,650.00
BUILT UP ROOFING	925	\$ 5.00 SF	\$ 4,625.00
TAR ON WOOD ROOF DECK	925	\$ 7.00 SF	\$ 6,475.00
SUBTOTAL			\$ 66,056.00
ASBESTOS ABATEMENT CONTINGENCY			\$ 6,605.60
ASBESTOS TOTAL			\$ 72,661.60

**LEAD BASED PAINT COST ESTIMATE**

MATERIAL:PAINTED BRICK REMOVED DURING DEMOLITION

MATERIAL	QUANTITY	UNIT COST	TOTAL COST
LABOR	1	\$ 500.00 DAY	\$ 500.00
DISPOSAL	2	\$ 350.00 CU.YRD.	\$ 700.00
SUBTOTAL			\$ 1,200.00
LEAD DEMOLITION CONTINGENCY			\$ 240.00
LEAD DEMOLITION TOTAL			\$ 1,440.00

**UNIVERSAL WASTE ABATEMENT COST ESTIMATE**

MATERIAL	QUANTITY	UNIT COST	TOTAL COST
LIGHT TUBES DISPOSAL	2023	\$ 1.00 LF	\$ 2,023.00
PCB BALLASTS	33	\$ 5.00 EACH	\$ 165.00
LABOR	1	\$ 500.00 DAY	\$ 500.00
SUBTOTAL			\$ 2,688.00
UNIVERSAL WASTE ABATEMENT CONTINGENCY			\$ 268.80
UNIVERSAL WASTE TOTAL			\$ 2,956.80

**CHLOROFLUOROCARBONS ABATEMENT COST ESTIMATE**

NO CHLOROFLUOROCARBON REMOVAL OR DISPOSAL REQUIRED IN THIS SCOPE OF WORK.,

**HAZARDOUS MATERIALS ABATEMENT SUBTOTAL** \$ 77,058.40

**HAZARDOUS MATERIALS CONSULTING COST ESTIMATE**

CONSULTING COST	QUANTITY	UNIT COST	TOTAL COST
ASBESTOS ABATEMENT SPECIFICATION	1	\$850.00 EACH	\$ 850.00
LEAD ABATEMENT SPECIFICATION	1	\$550.00 EACH	\$ 550.00
UNIVERSAL WASTE DISPOSAL SPECIFICATION	1	\$350.00 EACH	\$ 350.00
FINAL VISUAL INSPECTIONS	4	\$400.00 DAY	\$ 1,600.00
PROJECT MANAGEMENT	4	\$130.00 HOUR	\$ 520.00
DOCUMENTATION REPORT	1	\$500.00 EACH	\$ 500.00
SUBTOTAL			\$ 4,370.00
CONSULTING CONTINGENCY			\$ 437.00
CONSULTING TOTAL			\$ 4,807.00

**GRAND TOTAL** \$ 157,483.80

**APPENDIX 6**

**EAGLE ENVIRONMENTAL INC. LICENSES AND LABORATORY  
CERTIFICATES**

# Certificate of Training

Awarded to

**ELTWAUN LAWRENCE**

For successful completion of a 4 Hour, 1/2 Day  
**Asbestos Building Inspector  
 Annual Refresher Training**  
 January 2, 2014

This training was approved and given in accordance with the  
 Regulations for Connecticut State Agencies  
 RCSA 20 - 440 - 129 and RCSA 20 - 441 and meets the  
 requirements of the EPA Revised MAP under TSCA Title II of 4/4/94.

Presented by

**Mystic Air Quality Consultants, Inc.**  
 1204 North Road, Groton, CT 06340 (800) 247-7746

Certificate Number: ABIRF22727

Exam Grade: 80

Expiration Date: 01/02/2015

Exam Date: 01/02/2014

*Christopher J. Eident*

Christopher J. Eident, CIH, CSP, RS

*Richard Haffey*

George Williamson, Training Director  
 Richard Haffey, Training Director

Name

Name

ELTWAUN D LAWRENCE

License Information  
 lookup

License Type	License Number	Expiration Date	Granted Date	License Name	License Status	Licensure Actions or Pending Charges
Asbestos Consultant -Inspector	845	02/28/2014	05/09/2013	ELTWAUN D LAWRENCE	ACTIVE	None

CERT# L-500 - 150

**CHEMSCOPE TRAINING DIVISION**

**LEAD INSPECTOR REFRESHER**

**8 HOUR TRAINING CERTIFICATE**

**Eltwaun D. Lawrence**

**531 North Main Street, Bristol CT**

Has attended an 8 hour course on the subject discipline on  
06/20/2013 and has passed a written examination.

The above individual has successfully completed the above training course approved in accordance with the Department of Public Health Standards established pursuant to Section 20-477 of the Connecticut General Statutes.

Course syllabus includes all required topics of State of Connecticut DPH and EPA.

**Examination Date: 06/20/2013**

**Expiration Date: 06/20/2014**

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (U.S.C. 1001 and 15 U.S.C. 2615), I certify that this training complies with all applicable requirements of Title IV of TSCA, 40 CFR part 745 and any other applicable Federal, State, or local requirements.



Ronald D. Arena or Scott Arena  
Training Director Training Manager

Chem Scope, Inc.  
15 Moulthrop Street  
North Haven CT 06473  
(203) 865-5605


**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**

**ELTWAUN D. LAWRENCE**

CERTIFICATION NO.  
002250  
CURRENT THROUGH  
02/28/14  
VALIDATION NO.  
03-636559

  
SIGNATURE

  
COMMISSIONER

State of Connecticut, Department of Public Health  
Approved Environmental Laboratory

THIS IS TO CERTIFY THAT THE LABORATORY DESCRIBED BELOW HAS BEEN APPROVED BY THE STATE DEPARTMENT OF PUBLIC HEALTH PURSUANT TO APPLICABLE PROVISIONS OF THE PUBLIC HEALTH CODE AND GENERAL STATUTES OF CONNECTICUT, FOR MAKING THE EXAMINATIONS, DETERMINATIONS OR TESTS SPECIFIED BELOW WHICH HAVE BEEN AUTHORIZED IN WRITING BY THAT DEPARTMENT.

EMSL ANALYTICAL, INC. - MANHATTAN, NY

LOCATED AT 307 West 35th Street IN New York, NY 10018

AND REGISTERED IN THE NAME OF Peter Frasca, Ph.D.  
THIS CERTIFICATE IS ISSUED IN THE NAME OF James Hall WHO HAS BEEN DESIGNATED  
BY THE REGISTERED OWNER/AUTHORIZED AGENT TO BE IN CHARGE OF THE LABORATORY WORK COVERED BY THIS CERTIFICATE OF  
APPROVAL AS FOLLOWS:

ASBESTOS

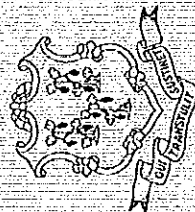
Examination For:  
Bulk - Identification (PLM, TEM)  
Air - Fiber Counting (PCM, TEM)  
Water - TEM

Environmental Health & Housing

Examination For:  
Lead in Paint  
Lead Paint in Soil  
Lead in Dust Wipes

SEE COMPUTER PRINT-OUT FOR SPECIFIC TESTS APPROVED

THIS CERTIFICATE EXPIRES September 30, 2014 AND IS REVOCABLE FOR CAUSE BY THE STATE DEPARTMENT OF PUBLIC HEALTH  
DATED AT HARTFORD, CONNECTICUT, THIS 4th DAY OF October, 2012



Registration No.

PH-0170

SUZANNE BLANCAFLOR, MS  
CHIEF, ENVIRONMENTAL HEALTH SECTION

# State of Connecticut, Department of Public Health

## Approved Environmental Laboratory

THIS IS TO CERTIFY THAT THE LABORATORY DESCRIBED BELOW HAS BEEN APPROVED BY THE STATE DEPARTMENT OF PUBLIC HEALTH PURSUANT TO APPLICABLE PROVISIONS OF THE PUBLIC HEALTH CODE AND GENERAL STATUTES OF CONNECTICUT, FOR MAKING THE EXAMINATIONS, DETERMINATIONS OR TESTS SPECIFIED BELOW WHICH HAVE BEEN AUTHORIZED IN WRITING BY THAT DEPARTMENT.

### PHOENIX ENVIRONMENTAL LABORATORIES, INC.

LOCATED AT 587 East Middle Turnpike IN Manchester, Connecticut 06040  
AND REGISTERED IN THE NAME OF Allan E. Caffyn  
THIS CERTIFICATE IS ISSUED IN THE NAME OF Phyllis Shiller (Chemistry) WHO HAS BEEN DESIGNATED  
Kathleen Cressia (Microbiology)

BY THE REGISTERED OWNER AUTHORIZED AGENT TO BE IN CHARGE OF THE LABORATORY WORK COVERED BY THIS CERTIFICATE OF APPROVAL AS FOLLOWS:

DRINKING WATER, NON-POTABLE/WASTEWATER, SOLID WASTE/SOIL

Examination For:  
MICROBIOLOGICALS  
INORGANIC CHEMICALS  
ORGANIC CHEMICALS

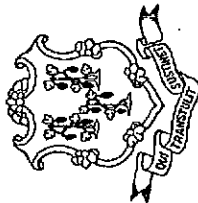
#### ENVIRONMENTAL HEALTH & HOUSING

Examination For:

LEAD in PAINT, LEAD in DUST WIPES, LEAD PAINT in SOIL

SEE COMPUTER PRINT-OUT FOR SPECIFIC TESTS APPROVED

THIS CERTIFICATE EXPIRES June 30, 2014 AND IS REVOCABLE FOR CAUSE BY THE STATE DEPARTMENT OF PUBLIC HEALTH  
DATED AT HARTFORD, CONNECTICUT, THIS 29<sup>th</sup> DAY OF June, 2012



Registration  
No.  
PH - 0618

**SUZANNE BLANCAFLOR, MS**  
CHIEF, ENVIRONMENTAL HEALTH SECTION





# STATE OF CONNECTICUT

## DEPARTMENT OF PUBLIC HEALTH

### APPLICATION FOR ALTERNATIVE WORK PRACTICES

STATE USE ONLY	
Date Received	
Check #	
Trans #	
Entered	

Please provide the following information as required by the Regulations of Connecticut State Agencies, Section 19a-332a-11. Be sure to note if there are any attachments. An incomplete application will result in a delayed response.

#### 1. PROJECT DESIGNER INFORMATION

Date of Application	April 11, 2014		
Name of Project Designer	Chris Liberti		
License #	000261	License Expiration Date	04-30-2014
Phone #	(860) 589-8257		
Address	Eagle Environmental, Inc.		
City, State, Zip Code	8 South Main Street, Suite 3, Terryville CT 06786		
Signature			

#### 2. PROPERTY INFORMATION

Facility Owner	Lois Ann Ackerman		
Address	53 Conrad Street, Naugatuck, CT		
Phone	(203) 720-7070	Contact Person	Mr. James Stewart, Borough of Naugatuck, DPW
Address of Facility	146 Walnut Street		
City, State and Zip Code	Naugatuck, CT 06770		

#### 3. ASBESTOS ABATEMENT CONTRACTOR INFORMATION (IF KNOWN)

Asbestos Abatement Contractor	Not Yet Determined		CT License #	
Address				
City, State Zip Code				
Phone		Contact Person		

#### 4. PROJECT SUMMARY

Nature of Abatement	Renovation	<input checked="" type="checkbox"/>	Demolition	<input type="checkbox"/>	Both	<input type="checkbox"/>
Type of Asbestos Abatement	Removal	<input checked="" type="checkbox"/>	Enclosure	<input type="checkbox"/>	Encapsulation	<input type="checkbox"/>
Spot Repairs	<input type="checkbox"/>					
Start Date (if known)						
Type and Amount of Asbestos Material Pertaining to AWP		(Use additional attachment if necessary) fill in below				
Floor Tile (FT <sup>2</sup> )	Linoleum (FT <sup>2</sup> )	Transite (FT <sup>2</sup> )	Other Non-Friable (specify)			
Window Caulking (LF)	Pipe Insulation (LF)	Pipe Fittings (each)	Other Friable (specify)			
			whole building demolition			

Phone: (860) 509-7367, Fax: (860) 509-7378  
 Telephone Device for the Deaf (860) 509-7191  
 410 Capitol Avenue - MS #51-AIR  
 P.O. Box 340308 Hartford, CT 06134  
 An Equal Opportunity Employer

5. DESCRIPTION OF FACILITY

Building Data	Size	3328 SF	Age	1891	Facility Use	Residential
		<i>Square Feet</i>		<i>Estimate, if unknown</i>		

6. SPECIFIC ALTERNATIVE WORK REQUEST

Section(s) and Subsections of the Standards for Asbestos Abatement regulation for which alternative work practice(s) is/are proposed:

19a-32a-5(b, c, d, e, h), 19a-332a-7(c), 19a-332a-12(a-g)

Description of Alternative Work Practice(s): Please provide additional information such as drawings, photographs, work plans or similar information in order to provide an accurate review. Please identify the specific work area/s of the facility.

Please see attached

DPH STAFF

Application Status

REVIEWED BY	DATE	APPROVED/DENIED/SET ASIDE

MAIL COMPLETED FORM TO:

DEPARTMENT OF PUBLIC HEALTH - EHS  
410 CAPITOL AVE, MS# 51 AIR  
PO BOX 340308  
HARTFORD, CT 06134-0308

ALTERNATE WORK PRACTICE APPLICATION  
146 WALNUT STREET  
NAUGATUCK, CONNECTICUT  
APRIL 11, 2014

The site building located at 146 Walnut Street in Naugatuck, CT is a two family residential building that has been vacant for many years and has fallen into disrepair. As identified in the attached letter from the Borough of Naugatuck Building Department dated August 29, 2007, portions of the building had collapsed, a hole in the roof was present and substantial debris was identified within the interior of the building.

On March 20, 2014, Eagle attempted to perform a pre-demolition asbestos containing materials inspection at the site but found that no improvements had been made to the building, access to building materials on the interior of the structure were extremely limited due to a large volume of stored materials and debris, the roof had not been repaired allowing water to infiltrate the building and cause flooring and some structural members to deteriorate (including the stairs to the second floor). Therefore, a complete and thorough inspection could not be performed safely within the structure.

At the time of the inspection, Town officials also examined the building. On March 28, the Building Department issued the attached letter identifying the building as an unsafe structure.

**Requested Exemption**

In lieu of the requirements of 19a-332a-5 (b, c, d, e and h), 19a-332a-7 (c) and 19a-332a-12 (a-g) of the State of Connecticut Standard for Asbestos Abatement, the designer requests the use of work area preparation in accordance with 19a-332a-5 (a) and (f). The designer requests the use of a visual inspection as building demolition progresses to document that ACM's are removed and the "no visible debris" criteria is met. The entire building, excluding the masonry foundation, metal components, appliances and large structural timbers that can be cleaned, will be disposed of as friable asbestos waste. A State of Connecticut licensed asbestos abatement project monitor will perform all visual inspections.

All abatement work will be in compliance with the Environmental Protection Agency (EPA) 40 CFR 61, Subpart M – National Emission Standard for Hazardous Air Pollutants; Asbestos NESHAP Revision; Final Rule.

**Work Procedures**

In lieu of the requirements of 19a-332a-5(b, c, d, e and h) and 19a-332a-7 (c) the designer requests that the following procedures be utilized for the building:

1. Work Area Preparation

- A. The Demolition Contractor will retain the services of a State of Connecticut licensed Asbestos Abatement Contractor (AAC) to perform asbestos related work associated with this project. An OSHA asbestos competent person shall be on site at all times during demolition, waste loading and final cleaning procedures.
- B. The Asbestos Abatement Contractor (AAC) shall post asbestos abatement warning signs and erect temporary barricades to create a regulated area around the entire building.
- C. The AAC shall establish a remote worker decontamination chamber. Post asbestos abatement warning signs in accordance with OSHA 29 CFR 1926.1101.
- D. The AAC shall create a staging area within the regulated area if segregating construction debris from ACM. The only construction materials that may be segregated are large wood framing timbers, non-porous metal components and concrete. The staging area shall consist of a minimum of sturdy nylon reinforced tarps staked at the corners to keep the tarp from lifting. Any cleaning of metal or large timbers shall be performed in the staging area. The Asbestos Project Monitor shall visually inspect metal components and large timbers for contamination following the cleaning process.
- E. The AAC shall line each waste container with two layers of 6-mil liner provided by waste hauler, or equivalent, and post each waste container with Asbestos Warning signs.
- F. The AAC shall provide and maintain water and hoses sufficient to perform adequate wetting to all portions of the structure.

## 2. Project Monitoring Requirements

- A. Eagle Environmental, Inc. has been retained to provide a State of Connecticut licensed Asbestos Project Monitor (APM) to support the work of this project.
- B. Eagle Environmental, Inc. will collect the following air samples during the demolition of the building.
  - 1. Upwind and downwind locations of the building at the perimeter of the proposed regulated area.
- C. Eagle Environmental, Inc. shall conduct a final visual inspection of the work area at the completion of abatement and decontamination work to determine if all visible debris, residue and or dust were successfully removed. Re-occupancy air monitoring shall not be conducted for this project.

## 3. Abatement and Demolition Procedures

- A. The AAC shall submit an emergency Notification of Asbestos Abatement to the State of Connecticut Department of Public Health no more than twenty-four hours from the commencement of work.
- B. The AAC shall dedicate one (1) person to conduct wetting operations during the demolition and segregation operation. This person shall continually mist the area of demolition to prevent visible emissions during the work. This person shall also be responsible for ensuring the waste is made adequately wet once in the waste container.
- C. The heavy equipment operator shall remove all debris and place directly into appropriate waste containers. All waste shall be disposed of as friable asbestos waste. Work from the perimeter of the building to avoid tracking over contaminated debris.
- D. All debris, except that noted above, shall be disposed of as asbestos contaminated waste.
- E. Following the removal of gross debris, the AAC shall conduct manual cleaning of the basement and surrounding area.
- F. The AAC shall conduct manual cleaning in the area of demolition and segregation once all heavy equipment work is completed. Soil areas surrounding the structure shall be raked clean of all debris and disposed of as asbestos contaminated waste.
- G. The work area shall be subjected to a final visual inspection by Eagle Environmental's licensed Asbestos Project Monitor in lieu of the requirements of and 19a-332a-12.



BOROUGH OF NAUGATUCK  
BUILDING DEPARTMENT

229 Church Street • Naugatuck, CT 06770 • (203) 720-7035

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August 29th, 2007

Lois Ann Ackerman  
146 Walnut Street  
Naugatuck, CT. 06770

RE: 146 Walnut Street Naugatuck, Connecticut  
**ORDER TO REPAIR OR DEMOLISH STRUCTURE**

On August 29, 2007 the Naugatuck Building Department inspected 146 Walnut Street after obtaining an Administrative Search Warrant from the State of Connecticut Superior Court. The inspection revealed a collapsed rear roof and porch, a large hole in the main roof structure, blocked means egress, debris and trash three to four feet tall throughout the entire structure, and mold and the smell of decomposing matter.

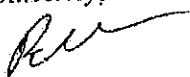
Pursuant to section 116.1 (Imminent danger) of the State of Connecticut Building Code you are hereby ordered to demolish or repair the structure at 146 Walnut Street within 180 days from receipt of this order.

Pursuant to section R105.1 of the State of Connecticut Building Code permits shall be obtained prior to the start of any demolition work or reconstruction activities at the above referenced property.

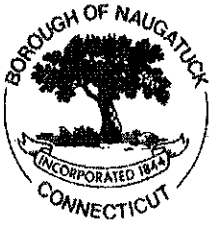
Pursuant to section 112.1.2 of the State of Connecticut Building Code you may appeal this order to the State of Connecticut Building Inspector for review. The appeal shall be received in writing and state the grounds for the appeal. The appeal to the State Building Inspector shall be received within 5 days from the receipt of this order.

Send appeal to:  
Office of the State Building Inspector  
1111 Country Club Road  
Middletown, Ct. 06457

Sincerely,

  
Bill Herzman  
Building Official  
Borough of Naugatuck

C12



**BOROUGH OF NAUGATUCK  
BUILDING DEPARTMENT**

229 Church Street ♦ Naugatuck, CT 06770 ♦ (203) 720-7035

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March 28, 2014

James Stewart  
Public Works Director – Borough of Naugatuck  
246 Rubber Avenue  
Naugatuck, CT. 06770

RE: 146 Walnut Street Naugatuck Connecticut  
Unsafe Structure

Mr. Stewart,

The Naugatuck Building Department deemed 146 Walnut Street Naugatuck Connecticut an unsafe and dangerous building due to partial structural failure and over loaded floor systems due to an abundance of debris pursuant to section 116.1 Imminent Danger portion of the State of Connecticut Building Code.

The structure has been open to the weather with a large hole in the roof for 15+ years. Structural members in the building have rotted and collapsed.

I recommend that you limit access to the building for the safety of the parties who will be working on site.

Sincerely,

Bill Herzman  
Building Department  
Borough of Naugatuck

EAGLE ENVIRONMENTAL, INC  
8 SOUTH MAIN STREET TERRYVILLE, CT 06786

Project No.:14-029.12T1

Project Name: Borough of Naugatuck, 146 Walnut Street



Photo #1:	Front of building
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Photo #2:	Holes in roof
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Photo #3:	Stored items in kitchen
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Photo #4:	Stored items with collapsed ceiling debris
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EAGLE ENVIRONMENTAL, INC  
8 SOUTH MAIN STREET TERRYVILLE, CT 06786

Project No.:14-029.12T1

Project Name: Borough of Naugatuck, 146 Walnut Street



Photo #5:	Collapsed ceiling joists
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Photo #6	Damaged aircell insulation and stored materials in basement
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Photo #7:	Aircell insulation and stored materials in basement
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Photo #8	Damaged aircell insulation and stored materials in basement
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EAGLE ENVIRONMENTAL, INC.  
8 SOUTH MAIN STREET, SUITE 3  
TERRYVILLE, CT. 06786

UNITED BANK  
BRISTOL, CT 06010  
53-7202/2118

10957

4/11/2014

PAY TO THE ORDER OF Treasurer, State of Connecticut

\$ \*\*200.00

Two Hundred and 00/100 \*\*\*\*\* DOLLARS

MEMO

Treasurer, State of Connecticut  
Department of Public Health  
410 Capitol Avenue  
P.O. Box 340308  
Hartford, CT 06134-0308  
AWP - 146 Walnut St., Naugatuck



AUTHORIZED SIGNATURE

⑈010957⑈ ⑆211872027⑆ 205560⑈



**Property Information**

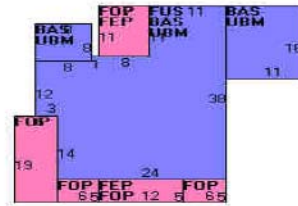
Property Location	146 WALNUT ST
Owner	ACKERMAN LOIS ANN
Co-Owner	
Mailing Address	53 CONRAD ST NAUGATUCK CT 06770
Land Use	1040 Two Family
Land Class	R

Fire District	
Census Tract	
Neighborhood	5
Zoning Code	DD
Acreage	0.58
Utilities	
Lot Setting/Desc	

**Photo**



**Sketch**



**Primary Construction Details**

Year Built	1891
Stories	2
Building Style	Multi Family
Building Use	Residential
Building Condition	C
Floors	Hardwood
Total Rooms	9

Bedrooms	3
Full Bathrooms	2
Half Bathrooms	0
Bath Style	Old Style
Kitchen Style	Below Average
Roof Style	Gable
Roof Cover	Asphalt

Exterior Walls	Wood Shingle
Interior Walls	Plaster
Heating Type	Forced Hot Air
Heating Fuel	Oil
AC Type	None
Gross Bldg Area	3328
Total Living Area	1840



**Valuation Summary** (Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
<b>Buildings</b>	<b>13330</b>	<b>9330</b>
<b>Outbuildings</b>	<b>1060</b>	<b>740</b>
<b>Improvements</b>	<b>14390</b>	<b>10070</b>
<b>Extras</b>	<b>0</b>	<b>0</b>
<b>Land</b>	<b>63030</b>	<b>44120</b>
<b>Total</b>	<b>77420</b>	<b>54190</b>

**Sub Areas**

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
First Floor	1040	1040
Porch, Enclosed	137	0
Porch, Open	311	0
Upper Story, Finished	800	800
Basement, Unfinished	1040	0
<b>Total Area</b>		

**Outbuilding and Extra Items**

Type	Description
Garage Poor	440 S.F.

**Sales History**

Owner of Record	Book/ Page	Sale Date	Sale Price
ACKERMAN LOIS ANN	877/ 491	10/27/2010	
ACKERMAN LOIS ANN	184/ 352	10/28/1974	0
ACKERMAN LOIS ANN	124/ 508	1/2/1959	0