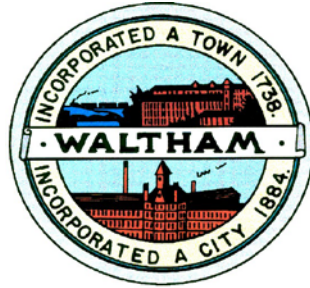


The City of Waltham



**Invites
Interested Parties
To propose the best Proposal
For the service or product herewith described:
DEMOLITION *only* of 380 Lexington Street (Piety Corner)**

Proposal Due: 10.00 AM Thursday July 18, 2019

**Pre-Bid Meeting & Site Inspection: 10.00 AM Wednesday July 10, 2019
(Meet at 380 Lexington Street)**

**Last day for written questions: 12 Noon Thursday July 11, 2019
(via email only to jpedulla@city.waltham.ma.us)**

DIVISION 00

**SECTION 000200
CITY OF WALTHAM
MASSACHUSETTS**

NOTICE TO BIDDERS

DEMOLITION of 380 Lexington Street (Piety Corner)

WALTHAM, MASSACHUSETTS

The City of Waltham, Massachusetts invites sealed bids from Contractors for the **DEMOLITION only of 380 Lexington Street (Piety Corner)**. There are no environmental contaminants found at the 380 Lexington Street location (see attached report at the end of this document). Contractor shall provide all labor, equipment, materials and transportation necessary to complete the work. For a more complete description of the project go to the technical specification section

PLANS, SPECIFICATIONS and other Contract Documents may be obtained by visiting the City's Web Site at www.city.waltham.ma.us/bids

Copies of Addenda will be e- mailed to the registered Bidders without charge. Addenda will also be posted on the web site above

Sealed **GENERAL BIDS** for this project will be accepted from eligible bidders at the Purchasing Department, Waltham City Hall, 610 Main Street, Waltham, MA 02452 until **10:00 AM on July 18, 2019**, at which place and time they shall be publicly opened, read aloud and recorded for presentation to the Awarding Authority.

A **PRE-BID CONFERENCE AND SITE INSPECTION** will be held for all interested parties at **10:00 AM on July 10, 2019** at the site of the **380 Lexington Street Waltham MA 02453** Attendance at this pre-bid conference is strongly recommended but not mandatory for parties submitting a bid. It will be the only opportunity to visit the site prior to the bid opening.

LAST DAY FOR WRITTEN QUESTIONS is at 12 noon July 11, 2019. Questions are to be sent via e-mail only to jpedulla@city.waltham.ma.us

Each general bid shall be accompanied by a bid deposit in the form of a bid bond, certified check, or a treasurer's or cashier's check issued by a responsible bank or trust company, payable to the City of Waltham in the amount of five percent (5%) of the value of the bid

Bids shall be made on the basis of the Minimum Wage Rates as determined by the Commissioner of Labor and Industries, Pursuant to the Provisions of Chapter 149, Sections 26 to 27D inclusive of Massachusetts General Laws, a copy of which is found in the City's Web site at www.city.waltham.ma.us/bids .

Bidders' selection procedures and contract award shall be in conformity with the rules of Commonwealth of Massachusetts statute Chapter 149

Performance and Labor and Materials payment bonds each in the full amount of the contract price will be required from the successful bidder.

The Awarding Authority reserves the right to reject any or all general bids, if it be in the public interest to do so, and to reject any sub-bid on any sub-trade if it determines that such sub-bid does not represent the sub-bid of a person competent to perform the work as specified or that less than three such sub-bids were received and that the prices are not reasonable for acceptance without further competition.

The successful bidder will be required to furnish a Certificate of Insurance, naming the City of Waltham as an Additional Named Insured with a waiver of subrogation, for General Liability and Vehicle Liability in the amount of \$1,000,000 per occurrence and \$1,000,000 in the aggregate and Worker's Compensation Insurance as prescribed by law.

In accordance with the laws of the Commonwealth of Massachusetts the undersigned certifies that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by OSHA that is at least 10 hours in duration at the time the employee begins work and shall furnish documentation of successful completion of said course with the first certified payroll report for each employee.

CITY ORDINANCE. APPROVAL OF CONTRACTS BY MAYOR, SEC. 3-12 OF THE CITY ORDINANCES.

All contract made by any department, board or commission where the amount involved is two thousand dollars (\$2,000) or more shall be in writing, and no such contract shall be deemed to have been made or executed until the approval of the Mayor is affixed thereto. Any construction contract shall, and all other contracts may, where the contract exceed five thousand dollars (\$5,000) be required to be accompanied by a bond with sureties satisfactory to the Mayor.

CITY OF WALTHAM

Joseph Pedulla, CPO
Purchasing Department
City Hall, 610 Main Street
Waltham, MA 02452

SECTION 00 10 00 - INSTRUCTION TO BIDDERS**PART 1 - GENERAL****1.01 SCHEDULE OF DATES**

- A. Advertisement appears in Central Register, Plans and Specifications ready for Bidders at the Offices of the Waltham Purchasing Agent after 4:30 P.M. on January 14, 2015.
- B. **Pre-bid walkthrough and site inspection: 10:00 AM July 10, 2019, Meet at 380 Lexington Street, Waltham, MA 02543**
- C. **Questions** and requests for interpretations may be submitted in writing via e-mail ONLY to Jpedulla@city.waltham.ma.us up to **12:00 noon July 11, 2019.**
- D. Addenda will be issued with interpretations as determined by the Purchasing Department only via e-mail and posting on the web site.
- E. **General Bids Deadline: 10:00 A.M. on July 18, 2019,** in the Purchasing Department, City Hall, 610 Main Street, Waltham, MA 02452, Attn: J. Pedulla, CPO, where the bids will be publicly open and read.

1.02 BIDDING PROCEDURE

- A. Bids for the work are subject to the provisions of General Laws, Chapter 149, as amended. Regulations governing the bidding procedures as set forth in the above mentioned amended General Laws must be followed.
- B. In the event of any inconsistencies between any of the provisions of these Contract Documents and of the cited statute, anything herein to the contrary notwithstanding, the provisions of the said statute shall control.
- C. No General Bid received by the Awarding Authority after the time respectively established herein for the opening of General Bids will be considered, regardless of the cause for the delay in the receipt of any such bid.

1.03 WITHDRAWAL OF BIDS

- A. Bids may be withdrawn prior to the time respectively established for the opening of General Bids only on written request to the Awarding Authority.

1.04 INTERPRETATION OF CONTRACT DOCUMENTS

- A. No oral interpretation will be made to any bidder. All questions or requests for interpretations must be made in writing to the Architect.

INSTRUCTIONS TO BIDDERS**BID****00 10 00 - 1**

- B. Every interpretation made to a bidder will be in the form of an Addendum to the drawings and/or specifications, which will be made available to all persons to whom Contract Documents have been issued.
- C. Failure of the Awarding Authority to send or of any bidder to receive any such Addendum shall not relieve any bidder from obligation under his bid as submitted.
- D. All such Addenda shall become a part of the Contract Documents.

1.05 EXAMINATION OF SITE AND CONTRACT DOCUMENTS

- A. Each bidder may visit the site of the proposed work and fully acquaint himself with conditions as they exist, and may also thoroughly examine the Contract Documents. Failure of any bidder to visit the site and acquaint himself with the Contract Documents shall not relieve any bidder from any obligation with respect to his bid.
- B. By submitting a bid, the bidder agrees that the Contract Documents are adequate and that the required result for a full and complete installation can be produced. The successful bidder shall furnish any and all labor, materials, insurance, permits and all other items needed to produce the required result to the satisfaction of the Awarding Authority.

1.06 BID SECURITY

- A. The General Contractor's bid must be accompanied by bid security in the amount of five percent (5%) of the bid.
- B. At the option of the bidder, the security may be bid bond, certified, treasurer's or cashier's check issued by a responsible bank or trust company. No other type of bid security is acceptable.

Bid Bonds shall be issued by a Surety Company qualified to do business under the laws of the Commonwealth of Massachusetts.

- C. Certified, Treasurer's or Cashier's check shall be made payable to the City of Waltham, Massachusetts.
- D. The bid security shall secure the execution of the Contract and the furnishing of a Performance and Payment Bond by the successful General Bidder for 100% of the contract value.
- E. Should any General Bidder to whom an award is made fail to enter into a contract therefore within five (5) days, Saturdays, Sundays and Legal Holidays, excluded, after notice of award has been mailed to him or fail within such time to furnish a Performance Bond and also a Labor and Materials or Payment Bond as required, the amount so received from such General Bidder through his Bid Bond, Certified, Treasurer's or Cashier's check as bid deposit shall become the property of the City of

INSTRUCTIONS TO BIDDERS

BID

Waltham, Massachusetts as liquidated damages; provided that the amount of the bid deposit, which becomes the property of the City of Waltham, Massachusetts, shall not in any event exceed the difference between his bid price and the bid price of the next lowest responsible and eligible bidder; and provided further that, in case of death, disability, bona fide clerical error or mechanical error of a substantial nature, or other unforeseen circumstances affecting the General Bidder, his deposit shall be returned to him.

1.07 BID FORM

- A. General Bids shall be submitted on the "FORM FOR GENERAL BID" enclosed. Erasures or other changes must be explained or noted over the signature of the bidder.
- B. Bid forms must be completely filled in. Bids which are incomplete, conditional, or obscure, or which contain additions not called for will be rejected.
- C. General Bidders shall submit one set of executed bid forms to the Awarding Authority.

1.08 SUBMISSION OF BIDS AND BID SECURITIES

- A. Each bid submitted by a General Contractor shall be enclosed in a sealed envelope that shall be placed with the bid security in an outer envelope. The outer envelope shall be sealed and clearly marked as follows:

(Firm Name): _____
General Bid and Bid Security for:
Demolition of 380 Lexington Street

1.09 AWARD OF CONTRACT

- A. The Contract shall be awarded to the lowest responsible and eligible General Bidder on the basis of competitive bids in accordance with the procedure set forth in the provision of Chapter 149 of the General Laws of the Commonwealth of Massachusetts.
- B. If the bidder selected as the General Contractor fails to perform his agreement to execute a contract in accordance with the terms of his General Bid, and furnish a Performance Bond and also a Labor and Materials or Payment Bond, as stated in his General Bid an award shall be made to the next lowest responsible and eligible bidder.
- C. The words "lowest responsible and eligible bidder" shall be the bidder whose name is the lowest of those bidders possessing the skill, ability and integrity necessary for the faithful performance of the work and who shall certify that he is able to furnish labor that can work in harmony with all other elements of labor employed, or to be employed, on the work. Essential information in regard to such qualifications shall be submitted in such form as the Awarding Authority may require.

INSTRUCTIONS TO BIDDERS

BID

- D. Action on the award will be taken within sixty (60) days, Saturdays, Sundays and Legal Holidays excluded after the opening of the bids.

1.10 SECURITY FOR FAITHFUL PERFORMANCE

- A. The successful bidder must deliver to the Awarding Authority simultaneously with his delivery of the executed contract, an executed Performance Bond, and also a Labor and materials or Payment Bond, each issued by a surety company qualified to do business under the laws of the Commonwealth and satisfactory to the Awarding Authority and each in the sum of One Hundred Percent (100%) of the Contract Price, as surety for the faithful performance of his contract, and for the payment of all persons performing labor or furnishing materials in connection therewith. Said bonds shall provide that, if the General Contractor fails or refuses to complete the Contract, the Surety Company will be obligated to do so.
- B. Premiums are to be paid by the General Contractor, and are to be included in the Contract Price.

1.11 EQUAL OPPORTUNITY

- A. The City of Waltham is an Equal Opportunity employer and will require compliance with the minority business enterprise plan (MBE) on file in the Purchasing Department

1.12 PRE-BID WALK-THRU

- A. A pre-bid conference will be held at the site on **July 10, 2019 at 10:00 AM.** at the **380 Lexington Street Waltham, MA. (Piety Corner).** Interested parties are encouraged to attend given that this will be the only time the site is available prior to the submission of bids. Further, prior to the bid opening, potential bidders may not go onto the site any time other than the aforementioned pre-bid conference.

1.13 SITE VISITS

- A. Prospective bidders are prohibited from going onto the site prior to the Bid Opening or any time other than the pre-bid walk-thru, as set forth in Section 1.12 above, unless authorized by the Architect in an Addendum to the bid documents.

1.14 CONTRACT DOCUMENTS

- A. The Awarding Authority shall make available the bid documents and addenda in the City Web site at www.city.waltham.ma.us/bids. No plans will be mailed.

1.15 EQUALITY

- A. Except where otherwise specifically provided to the contrary, the words "or approved equal" are hereby inserted immediately following the name or description of each article, assembly, system, or any component part thereof in the Contract Documents. It

INSTRUCTIONS TO BIDDERS

BID

00 10 00 - 4

is the Contractor's responsibility to provide all the research and documentation that would prove a product or assembly is "equal". Failure to provide research or documentation does not alleviate the Contractor's responsibility to meet the schedule.

1.16 TAX FREE NUMBER

- A. The City of Waltham has a tax-free number.

1.17 SCHEDULE

- A. The work of the Contract shall be **Substantially Complete** in **100 calendar days** after the date of the Notice-to-Proceed. **Final** completion is to be achieved **120 calendar days** after the date of the Notice-to-Proceed.

1.18 GENERAL CONDITIONS CHARGES.

General Condition charged to the Payment application for AIA 702 shall be spread over a period of 7 months or 7 Payment application cycles whichever is later

1.19 WEEKLY JOB MEETINGS

- A. There will be a weekly job meeting at the site on the same agreed-upon day and time. Time will be provided to discuss and view the progress of the work and to answer questions. The Contractor's job Superintendent and Project Manager shall attend each meeting. The City reserves the right to have job meetings conducted in the location of its choosing.

1.20 PROJECT SUPERINTENDENT

- A. The Contractor shall provide the same person as Superintendent for the entire duration of the project. Failure to maintain the same person in this position shall result in a One Thousand Dollar (\$1,000.00) penalty per incident which shall cover the Architect's time to re-orient new personnel.

1.21 AWARD

- A. The Awarding Authority reserves the right to reject any or all bids if it be in the public interest to do so, and to act upon the bids and make its award in any lawful manner.

1.22 PREVAILING WAGE SCHEDULE

- A. Bids shall be made on the basis of the Prevailing Wage Schedule, as determined by the Federal Government and the Commissioner of Labor and Industries, pursuant to the provision of the Massachusetts General Laws. The Prevailing Wage Schedules for this project can be found in the City's web Site at www.city.waltham.ma.us/bids

INSTRUCTIONS TO BIDDERS

BID

00 10 00 - 5

1.23 CONFLICT OF INTEREST

- A. A bidder filing a proposal thereby certifies that the proposal is made in good faith, without fraud, collusion, or connection of any kind with any other bidder for the same work, and that the bidder is competing solely on its own behalf without connection with, or obligation to, any undisclosed person or firm.

1.24 PROCEED ORDERS

- A. No bidder is to proceed without a proceed order as set out in the contract.

1.25 INTENTIONALLY LEFT BLANK**1.26 COMPLIANCE WITH MASSACHUSETTS GENERAL LAWS**

- A. Pursuant to Massachusetts General Laws, Chapter 62C, Section 49A, I certify under the penalty of perjury that I, to the best of my knowledge and belief have filed all state tax returns and paid all the state taxes required under law.

1.27 CONSTRUCTION BARRICADES

- A. The General Contractor shall provide all barricades to enclose the work area to prevent unauthorized access to the site.
1. The barricades shall provide enough room for all construction activities to be performed while separated from pedestrians, students, and staff on site.
 2. Safety is the sole responsibility of the Contractor and any barricades necessary to protect the work and the public shall be provided.
 3. Provide entrance protection.

1.28 INSURANCE

- A. The contractor shall purchase and maintain, at his expense all insurance required by the Contract. Documents and all insurance required by the applicable laws of Massachusetts, including but not limited to, General Laws, Chapter 146, in connection with all hoisting equipment.
- B. The Contractor shall purchase and maintain such insurance as will protect him from claims under workmen's compensation acts and from claims for damages because of bodily injury, including death and all property damage including, without limitation, damage to buildings and adjoining the site of construction which might arise from and during operations under this contract, whether such operations be by himself or by any subcontractor or anyone directly or indirectly employed by either of them including:
1. Statutory Worker's Compensation and Employer's Liability

INSTRUCTIONS TO BIDDERS**BID**

The contractor shall provide insurance for the payment of compensation and the furnishing of other benefits under Chapter 152 of the General Laws (so-called Worker's Compensation Act) to all persons to be employed under this contract and shall continue in force such insurance as aforesaid shall be deemed a material breach of this Contract and shall operate as an immediate termination thereof. The contractor shall, without limiting the generality of the foregoing, conform to the provisions of Section 34A of Chapter 149 of the General Laws, which Section is incorporated herein by reference and made a part of hereof.

2. Comprehensive General Liability Insurance

Minimum bodily injury limits of \$ 1,000,000 per person and \$ 1,000,000 per accident, and property damage limits of \$ 500,000 per accident and \$ 1,000,000 aggregate during any 12-month period, shall include the following:

- a. Public liability (bodily injury and property damage)
- b. X.C.U. (explosion, collapse, and underground utilities)
- c. Independent contractor's protective liability.
- d. Products and completed operations.
- e. Save harmless agreement for Owner and Architects set forth in ARTICLE 10.11 of the GENERAL CONDITIONS.

3. Comprehensive All Risk Motor Vehicle Liability Insurance

Minimum bodily injury limits of \$ 500,000 per person, \$ 1,000,000 per accident, and property damage limit of \$ 1,000,000 per accident.

4. All Risk Insurance

Covering all Contractors' equipment with a provision for Waiver of Subrogation against the Owner.

5. Excess Liability Insurance in Umbrella Form with combined Bodily Injury and Property Damage Limit of \$ 1,000,000.

6. **City of Waltham shall be a Named Additional Insured for General Liability only with a Waiver of Subrogation on the insurance policy for this project.**

1.29 SITE ACCESS

A. The General Contractor shall gain access to the site via routes approved by the Owner.

1. The General Contractor as part of the bid price will restore all roads, curbs, driveways, walks and grassed or landscaped areas damaged during construction.

INSTRUCTIONS TO BIDDERS

BID

00 10 00 - 7

1.30 CONSTRUCTION TRAILER

- A. The General Contractor shall locate the construction trailer at locations approved by the Owner.
- B. The General Contractor shall locate all on site stored or staged materials within the enclosed area designated by the Owner.

1.31 INTENTIONALLY LEFT BLANK

1.32 COMPLETE BID FORMS

- A. Please Note: Each bidder must fill in all the blanks on all the bid forms, even if the information is "zero dollars" or "not applicable". Also, please acknowledge all Addenda issued by the Awarding Authority

2.00 FUNDS APPROPRIATION and LOAN AUTHORIZATION.

- A THE CONTRACT OBLIGATION ON BEHALF OF THE CITY IS SUBJECT TO PRIOR APPROPRIATION OF MONIES FROM THE GOVERNMENTAL BODY AND AUTHORIZATION BY THE MAYOR.

3.0 CITY ORDINANCE. APPROVAL OF CONTRACTS BY MAYOR, SEC. 3-12 OF THE CITY ORDINANCES.

- A All contract made by any department, board or commission where the amount involved is two thousand dollars (\$2,000) or more shall be in writing, and no such contract shall be deemed to have been made or executed until the approval of the Mayor is affixed thereto. Any construction contract shall, and all other contracts may, where the contract exceed five thousand dollars (\$5,000) be required to be accompanied by a bond with sureties satisfactory to the Mayor

Signature of Individual or Corporate Name

By:

(Signature of Corporate Officer if applicable)

Title: _____

Social Security Number or Federal Identification Number: _____

END OF SECTION

INSTRUCTIONS TO BIDDERS

BID

00 10 00 - 8

SECTION 00310

BID FORM

TO THE PURCHASING AGENT
WALTHAM, MASSACHUSETTS 02453

The undersigned, as bidder, hereby declares that he/she has carefully examined the specifications and provisions attached hereto, and that he/she proposes and agrees, if this bid is accepted, that he/she will contract with the CITY OF WALTHAM in the form prescribed for the **DEMOLITION of 380 Lexington Street (Piety Corner)**, as herein specified and will provide therefore all necessary labor, machinery and equipment, and will perform all work in the manner prescribed and according to the requirements of the Contract Documents.

Accompanying this bid is case, a certified or treasurer’s check payable to the CITY OF WALTHAM, or a bid bond in the amount of FIVE PERCENT (5%) OF THE CONTRACTOR’S BID PRICE.

If this bid shall be accepted and the undersigned shall fail to execute the required contract, in accordance with the terms herein set forth, within five days from the date of mailing a notice to the undersigned at the address given below that the contract is ready for signature, the CITY OF WALTHAM may, at its option, determine that this bid shall be null and void, and the aforesaid cash or checks shall become the property of the CITY OF WALTHAM; otherwise the said cash or checks shall be returned to the undersigned.

Bidder acknowledges receipt of the following addenda(s): _____, _____, _____, _____, _____, _____.

Time for completion of the work is **120 days from the actual project start date, weather depending.**

The proposed contract price for the **DEMOLITION, 685 Lexington St. (Piety Corner)** \$_____

ALLOWANCE, Police Details \$10,000.00

GRAND TOTAL \$_____

Authorized Signature: _____, Title: _____

Name of Firm: _____

Business Address: _____

Email: _____

_____, _____ Telephone
Date

PROOF OF CONTRACTOR'S RESPONSIBILITY

Before a contract will be awarded to any bidder, he/she will be required to furnish evidence satisfactory to the City that he/she has all of the following qualifications:

- A. Ability, equipment, organization, and financial resources sufficient or enable him/her to construct and complete the work successfully within the time required.
- B. Experience during the past three (3) years in the successful completion of similar projects, the magnitude of which shall be not less than one-half (1/2) the work herein specified. In this connection, the attention of the bidder is directed to the "Bidder's Experience" attached hereto, which shall be used in determining the responsibility of the bidder. The City may require additional information is necessary to determine the responsibility of the bidder.

In the event the bidder fails, refuses, or neglects to submit and require information within the reasonable time stated in any request or fails to qualify as a responsible bidder, his/her bid guaranty shall be forfeited to the use of the owner, not as a penalty, but as liquidated damages.

The determination of whether a bidder is responsible shall rest solely with the City.

BIDDER'S EXPERIENCE

Complete the following Statement of Bidders Qualifications for Sports Field Contractors. List projects of a similar character and scope to the work specified under this contract, which have successfully been completed by during the past three years. Projects must have included the renovation, refurbishment, reconstruction or construction (new) of public, private or institutional sports playing fields and parks/open space facilities.

This information must be furnished by each bidder. A completed project is one that has been accepted and the final payment received from the City or authorized representative.

Statement of Bidders Qualifications
Abatement and Demolition of Buildings

If necessary, questions may be answered on separate attached sheets. The Bidder may submit any additional information he desires.

1.0 Name of Bidder _____

2.0 Permanent Main Office Address _____

3.0 When organized _____

5.0 How many years have you been engaged in the contracting business under your present firm or trade name? _____

6.0 Contracts on hand: (Schedule these showing gross amount of each contract and the appropriate anticipated dates of completion. Include name and address of client and name of person supervising for client.) _____

6.0 General character of work performed by your company _____

7.0 Have you ever failed to complete any work awarded to you? If so, why? _____

8.0 Have you ever defaulted on a contract? If so, where and why? _____

9.0 List the more important contracts awarded to you and contracts for work similar to this project, stating approximate cost for each and the month and year completed. (Give name and address of client and name of person supervising for client.) _____

10.0 List your major equipment available for this contract: _____

11.0 Experience in abatement and demolition work similar to this project _____

12.0 Background and experience of the principal members of your organization including the officers _

13.0 Projects you have been low bidder on in last 120 days _____

14.0 Credit available: \$ _____

15.0 Bank Reference: _____

16.0 The undersigned hereby authorizes and requests any person, firm or corporation to furnish any information requested by the City of Waltham in verification of the recitals comprising this statement of Bidder's Qualifications.

Dated this _____ day of _____, 2010

Name of Bidder

By _____

Title _____

Bidder's Signature Date

--- END OF SECTION ---

Section 00 33 10

Massachusetts State Wage Rates

The prevailing wage rates for this project are found
at www.city.waltham.ma.us/bids

SECTION 00600

AGREEMENT

CITY OF WALTHAM

ARTICLE 1. This agreement, made this _____ day of _____, 2019 by and between the CITY OF WALTHAM, party of the first part, hereinafter called the CITY, by its MAYOR, and

hereinafter called the CONTRACTOR.

ARTICLE 2. Witnesseth, that the parties to this agreement, each in consideration of the agreement on the part of the others herein contained, do hereby agree, the CITY OF WALTHAM for itself, and said contractor for his heirs, executors, administrators and assigns as follows:

To furnish all equipment, machinery, tools and labor, to furnish and deliver all materials required to be furnished (except as otherwise specified) and deliver in and about the project and to do and perform all work in strict conformity with the provisions of this Contract and of the Notice to Bidders, bid, Project Manual, and Drawings hereto annexed. The said Notice to Bidders, bid, Project Manual, and Drawings are hereby made a part of this contract as fully and to the same effect as if the same had been set forth at length and incorporated in the contracts.

ARTICLE 3. In consideration of the foregoing premises the CITY agrees to pay and the CONTRACTOR agrees to receive as full compensation for everything furnished and done by the CONTRACTOR under this contract, including all work required by not included in the items herein mentioned, and also for all loss or damage arising out of the nature of the work aforesaid, or from the action of the elements, or from any unforeseen obstruction or difficulty encountered in the prosecution of the work, and for all expenses incurred by or in consequence of the suspension or discontinuance of the work specified, and for well and faithfully completing the work, and the whole thereof, as herein provided, such prices as are set forth in the accompanying bid.

This Agreement entered into as of the day and year first written above.

CITY OF WALTHAM, MASSACHUSETTS

FOR THE CITY

Jeannette A. McCarthy, MAYOR,
City of Waltham
Date: _____

Luke Stanton, Asst. City Solicitor
Date: _____
APPROVED AS TO FORM ONLY

Michael Garvin, Traffic Engineer
Date: _____

Joseph Pedulla, Purchasing Agent
Date: _____

Paul Centofanti, Auditor
Date: _____

I CERTIFY THAT SUFFICIENT FUNDS
ARE AVAILABLE FOR THIS CONTRACT

FOR THE COMPANY

CONTRACTOR (Signature),
Date: _____

Company

Address

SECTION 00 50 10

PERFORMANCE BOND

CITY OF WALTHAM

KNOW ALL MEN BY THESE PRESENT THAT,

_____ as

principal and _____ as surety, are held and firmly bound unto the CITY OF WALTHAM and to such persons, firms, and corporations, who may furnish materials for or perform labor on the work, construction or improvements contemplated in the Contract hereinafter mentioned, or who may have any suits or claims for injury or damage to persons or property resulting from or arising out of the work done under this Contract, in the

SUM OF _____ DOLLARS (\$ _____)

(lawful money of the United States of America) for the payment whereof the Contractor and the Surety of Sureties bind themselves and their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, THAT for the above burden (the Contractor) its

_____ heirs, executors, administrators and assigns, shall faithfully perform the Contract, on his part and during the life of any guaranty or warranty, for defective materials and workmanship required under this Contract, and satisfy all claims and demands incurred for the same; and shall fully indemnify and save harmless the City from all cost and damage which it may suffer by reason of failure so to do, and shall fully reimburse and repay the City all outlay and expense which the City may incur in making good any such default, and shall promptly make payment to all persons supplying labor or materials for use in the prosecution of the work provided for in said Contract; and shall indemnify and save harmless the said City, its officers and agents from any and all suits or claims for injury or damage to persons or property resulting from or arising out of the work done under this Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

PROVIDED, HOWEVER, that (except as to the City) no suit, action or proceeding by reason of any default whatever shall be brought on this Bond after two years from the day on which the final payment under the Contract falls due.

AND PROVIDED, that any alterations which may be made in the terms of the Contract or in the work to be done under it, or any assignment, transfer or subletting of any part of the work, or the giving by the City of any extension of time for the performance of the Contract, or any other forbearance on the part of either the City or the Contractor to the other, shall not in any way release the Contractor and the Surety of Sureties, or either or any of them, their heirs, executors, administrators, successors or assigns from their liability hereunder, notice to the Surety or Sureties of any such alterations, assignment, transfer, subletting extension or forbearance being hereby waived.

This Bond is made for the use and benefit of all persons, firms, and corporations who may furnish materials, or perform any labor for or on account of said work, construction or improvements, or who may have any suits or claims for injury or damage to persons or property resulting from or arising out of the work done under this Contract, and they and each of them are hereby made obligees hereunder the same as if their own proper names were written herein as such, and they and each of them may sue hereon in their own names for their own use and benefit.

And the 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 the work to be performed hereunder, or the Specifications accompanying the same, shall in any way affect its obligations on this Bond, and it does hereby waive notice of any such changes, extension of time, alteration or addition to the terms of the Contract or to the work, or to the Specifications.

IN WITNESS WHEREOF, said Contractor and Surety have hereunto set their respective names this

_____ day of _____, 20_____.

WITNESSES:

(CONTRACTOR) (SEAL)

NAME _____ BY _____
(SIGNATURE AND TITLE)

ADDRESS _____
(SURETY) (SEAL)

NAME _____ BY _____
(SIGNATURE AND TITLE)

ADDRESS _____ BY _____
(ATTORNEY-IN-FACT)

POWER OF ATTORNEY

Attorneys-in-fact who sign bonds must file with each bond a certified copy of their power of attorney to sign said bonds.

SECTION 00 50 20

PAYMENT BOND

CITY OF WALTHAM

KNOW ALL MEN BY THESE PRESENT THAT,

_____ as

principal and _____ as
surety, are held and firmly bound unto the CITY OF WALTHAM and to such persons, firms, and corporations, who may furnish materials for or perform labor on the work, construction or improvements contemplated in the Contract hereinafter mentioned, or who may have any suits or claims for injury or damage to persons or property resulting from or arising out of the work done under this Contract, in the

SUM OF _____ DOLLARS (\$ _____)
(lawful money of the United States of America) for the payment whereof the Contractor and the Surety of Sureties bind themselves and their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, THAT for the above burden (the Contractor) its

_____ heirs, executors, administrators and assigns, shall faithfully perform the Contract, on his part and during the life of any guaranty or warranty, for defective materials and workmanship required under this Contract, and satisfy all claims and demands incurred for the same; and shall fully indemnify and save harmless the City from all cost and damage which it may suffer by reason of failure so to do, and shall fully reimburse and repay the City all outlay and expense which the City may incur in making good any such default, and shall promptly make payment to all persons supplying labor or materials for use in the prosecution of the work provided for in said Contract; and shall indemnify and save harmless the said City, its officers and agents from any and all suits or claims for injury or damage to persons or property resulting from or arising out of the work done under this Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

PROVIDED, HOWEVER, that (except as to the City) no suit, action or proceeding by reason of any default whatever shall be brought on this Bond after two years from the day on which the final payment under the Contract falls due.

AND PROVIDED, that any alterations which may be made in the terms of the Contract or in the work to be done under it, or any assignment, transfer or subletting of any part of the work, or the giving by the City of any extension of time for the payment of the Contract, or any other forbearance on the part of either the City or the Contractor to the other, shall not in any way release the Contractor and the Surety of Sureties, or either or any of them, their heirs, executors, administrators, successors or assigns from their liability hereunder, notice to the Surety or Sureties of any such alterations, assignment, transfer, subletting extension or forbearance being hereby waived.

This Bond is made for the use and benefit of all persons, firms, and corporations who may furnish materials, or perform any labor for or on account of said work, construction or improvements, or who

may have any suits or claims for injury or damage to persons or property resulting from or arising out of the work done under this Contract, and they and each of them are hereby made obligees hereunder the same as if their own proper names were written herein as such, and they and each of them may sue hereon in their own names for their own use and benefit.

And the 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 the work to be performed hereunder, or the Specifications accompanying the same, shall in any way affect its obligations on this Bond, and it does hereby waive notice of any such changes, extension of time, alteration or addition to the terms of the Contract or to the work, or to the Specifications.

IN WITNESS WHEREOF, said Contractor and Surety have hereunto set their respective names this

_____ day of _____, 20____.

WITNESSES:

(CONTRACTOR)

(SEAL)

NAME _____ BY _____
(SIGNATURE AND TITLE)

ADDRESS _____
(SURETY) (SEAL)

NAME _____ BY _____
(SIGNATURE AND TITLE)

ADDRESS _____ BY _____
(ATTORNEY-IN-FACT)

POWER OF ATTORNEY

Attorneys-in-fact who sign bonds must file with each bond a certified copy of their power of attorney to sign said bonds.

SECTION 005030
GENERAL CONDITIONS**1. INFORMATION**

All information shall come from the Office of the City Purchasing Agent. The Contractor shall inquire at this office for any information needed. Wherever the words “or equal as approved” are used, it is to be understood that the opinion of the City Purchasing Agent shall govern.

2. SUITS

The Contractor shall assume defense of and shall indemnify and hold the City and its agents harmless from all suits and claims against the City and its sub-contractors arising from the use of any invention, patent right labor or employment, or from any act of omission or neglect of the City, its agents, employees or any subcontractor in performing the work, under this contract.

3. LAWS AND REGULATIONS

The Contractor shall conform to all the applicable rules, regulations, laws and ordinances of the City of Waltham, the Commonwealth of Massachusetts, the United States of America and all agencies having jurisdiction over this contract.

4. PROTECTION OF PROPERTY

The Contractor shall take all proper precautions to protect the City’s property from damage and unnecessary inconvenience. Any City property damaged by the Contractor in carrying out the provisions of this contract shall be restored to its original condition, by and at the expense of the Contractor.

5. PROTECTION OF PERSONS

The Contractor shall take all proper precautions to protect persons from injury, unnecessary inconvenience, and shall be responsible for his failure to do so. The Contractor agrees to hold the City harmless from any and all liabilities of every nature and description, which may be suffered through bodily injury, including death, to any person, by reason of negligence of the Contractor, his agents or employees, or any subcontractor.

6. INSURANCE

A. **WORKMAN’S COMPENSATION:** The Contractor shall provide by insurance for the payment of compensation and furnishing of other benefits under Chapter 152 of the General Laws of the Commonwealth of Massachusetts to all persons to be employed under this contract, the premiums for which shall be paid by the Contractor.

B. COMPREHENSIVE GENERAL LIABILITY

Bodily Injury:	\$1,000,000 Each Occurrence
	\$2,000,000 Aggregate
Property Damage:	\$1,000,000 Each Occurrence
	\$2,000,000 Aggregate

C. AUTOMOBILE (VEHICLE) LIABILITY

Bodily Injury	\$2,000,000 Each Occurrence
Property Damage	\$1,000,000 Aggregate

D. UMBRELLA POLICY

General liability	\$2,000,000
-------------------	-------------

Your bid response must include a Certificate of Insurance with the above limits as a minimum. In addition, the Certificate of Insurance must have the following text contained in the bottom left box of the Certificate: [“The City of Waltham is a Named Additional Insured for all Insurance”](#). The Certificate of Insurance must be mailed directly to:

Office of the Purchasing Agent
Purchasing Department
City of Waltham
610 Main Street
Waltham, MA 02452

7. LABOR AND MATERIALS BOND

The Contractor agrees to execute and deliver to the City, a Performance Bond and a Labor and Materials Bond equal to 50% of the contract value. This contract shall not be in force until said bond has been delivered and accepted by the City. Bond to be issued by a company licensed by the Commonwealth of Massachusetts.

8. PERSONNEL:

The Contractor shall employ a competent supervisor and all properly licensed personnel necessary to perform the services required in this contract. The City Purchasing Agent shall have the right to require the Contractor to remove and/or replace any of the personnel for nonperformance or for unprofessional behavior. The City Purchasing Agent may require the Contractor to submit a weekly performance record of the areas and of the work performed, on forms approved by the City Purchasing Agent. The Contractor or his supervisor shall be available to inspect such work as required by the City Purchasing Agent.

9. PREVAILING WAGES

The Contractor is required to pay the prevailing wages as determined by the Federal Government and by Chapter 149, Sections 26 and 27D of the Massachusetts General Laws, including the submission of weekly payrolls to the awarding authority. Copies of the Prevailing Wage Schedule is found on line at www.city.waltham.ma.us/bids

10. MATERIALS

The City or its Agent reserves the right to approve or reject any supplies, material or equipment used by the Contractor. The Contractor agrees to replace any supplies, material or equipment used by the Contractor. The Contractor agrees to replace any rejected supplies, materials or equipment, to the satisfaction of the City or its Agents.

11. TERMINATION OF CONTRACT

This contract may be terminated by the City upon deliverance to the Contractor of a five-day written notice of said termination.

12. CONTRACT OBLIGATIONS

Contract obligations on behalf of the City are subject to an annual appropriation to cover the contract obligation and shall be in force until the date of Final acceptance excluding any guarantee period.

13. BIDDER EXPERIENCE EVALUATION

Each bidder shall submit with his bid, all the information relative to their experience and qualifications in performing the work required under this contract and shall have been in business for a minimum of five (5) years, in order for their bid to be considered.

14. NOT-TO-EXCEED AMOUNT

The bid amount proposed in your company's response is a "not-to- Exceed" amount unless the City makes changes, in writing, to the scope of work to be performed. The Change Order must be signed and approved by the City's Purchasing Agent, City Auditor, Law Department and the Mayor prior to the commencement of the change order work. No work is to begin until the proper approvals have been obtained. A change order will be priced at the unit price. Failure to comply with this procedure will result in the cancellation of the contract and the non-payment of services provided.

16. FINANCIAL STATEMENTS.

The City may require, within five (5) days after the bid opening, a complete and detailed Financial Statement prepared by a Certified Public Account, to determine a bidder's financial stability.

17. BREACH OF CONTRACT/ NON PERFORMANCE

If the Contractor shall provide services in a manner, which is not to the satisfaction of the City, the City may request that the Contractor refurnish services at no additional cost to the City until approved by the City. If the Contractor shall fail to provide services, which are satisfactory to the City, the City in the alternative may make any reasonable purchase or Contract to purchase services in substitution for those due from the Contractor. The City may deduct the cost of any substitute Contract for nonperformance of services together with incidental and consequential damages from the Contract price and shall withhold such damages from sums due or to become due to the Contractor. If the damages sustained by the City exceed sums due or to become due, the Contractor shall pay the difference to the City upon demand. The Contractor shall not be liable for any damages sustained by the City due to the Contractor's failure to furnish services under the terms of this Contract if such failure is in fact caused by the occurrence of a contingency the nonoccurrence of which was a basic assumption under which this Contract was made, including a state of war, embargoes, expropriation of labor strike or any unanticipated federal, state or municipal governmental regulation of order, provided that the Contractor has notified the City in writing of such cause within seven (7) days after its occurrence.

18. RIGHT TO AUDIT

The City of Waltham has the right to review and audit documents related to this contract. This right extends to any subcontractor, supplier or other entity used by the prime contractor to fulfill the obligations under this contract.

19. CITY ORDINANCE. APPROVAL OF CONTRACTS BY MAYOR, SEC. 3-12 OF THE CITY ORDINANCES.

All contract made by any department, board or commission where the amount involved is two thousand dollars (\$2,000) or more shall be in writing, and no such contract shall be deemed to have been made or executed until the approval of the Mayor is affixed thereto. Any construction contract shall, and all other contracts may, where the contract exceed five thousand dollars (\$5,000) be required to be accompanied by a bond with sureties satisfactory to the Mayor.

20. BID OPENING INCLEMENT WEATHER

If, at the time of the originally scheduled bid opening, City Hall is closed to inclement weather or another unforeseeable event, the bid opening will be extended until 2:00 PM on the next normal business day. Bids will be accepted until that date and time.

21. FUNDS APPROPRIATION.

THE CONTRACT OBLIGATION ON BEHALF OF THE CITY IS SUBJECT TO PRIOR APPROPRIATION OF MONIES FROM THE GOVERNMENTAL BODY AND AUTHORIZATION BY THE MAYOR.

22. THE AWARDING AUTHORITY RESERVES THE RIGHT TO REJECT ANY OR ALL BIDS, OR ANY PART OF ANY BID, WHICH IN THE OPINION OF THE AWARDING AUTHORITY, IS IN THE BEST INTERESTS OF THE CITY OF WALTHAM.

End of Section 00 50 30

Compliance

These documents must be signed and returned with your bid

Compliance

The compliance documents in this section must be completed, signed and returned **with your bid package.**

Purchasing Department

City of Waltham
610 Main Street
Waltham, MA 02452

Failure to submit the completed documents will cause the disqualification of the proposal.

Section Index

Check when Complete

- Non-collusion form and Tax Compliance form..... _____
- Corporation Identification Form..... _____
- Certificate of Vote Authorization..... _____
- Certificate of Insurance (showing all limits of WC &GL)..... _____
- Three (3) References..... _____
- 5% Bid Bond or Certified Check>..... _____
- Debarment Certificate _____
- Prevailing Wage Certificate..... _____
- Right-to-know Law..... _____
- OSHA 10 Certificate for all Assigned Employees (MGL ch30, §39M and Ch 149) _____

Before the commencement of the Job, the contractor must provide to the above office:

- Performance and Payment Bond for 50% of the contract value and naming the City of Waltham ***(Letter must be included with your response)***

Your Company's Name: _____

Service or Product Bid _____

NOTE: Failure to submit any of the required documents, in this or in other sections, with your bid response package may cause the disqualification of your proposal.

NON-COLLUSION FORM AND TAX COMPLIANCE FORM

CERTIFICATE OF NON-COLLUSION

The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity or group of individuals. The undersigned certifies that no representations made by any City officials, employees, entity, or group of individuals other than the Purchasing Agent of the City of Waltham was relied upon in the making of this bid

_____, _____
(Signature of person signing bid or proposal) Date

(Name of business)

TAX COMPLIANCE CERTIFICATION

Pursuant to M.G.L. c. 62C, & 49A, I certify under the penalties of perjury that, to the best of my knowledge and belief, I am in compliance with all laws of the Commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support.

_____, _____
Signature of person submitting bid or proposal Date

Name of business

CERTIFICATE OF VOTE OF AUTHORIZATION

Date:

I _____, Clerk of _____ hereby certify that at a meeting of the Board of Directors of said Corporation duly held on the _____ day of _____ at which time a quorum was present and voting throughout, the following vote was duly passed and is now in full force and effect:

VOTED: That _____ (*name*) is hereby authorized, directed and empowered for the name and on behalf of this Corporation to sign, seal with the corporate seat, execute, acknowledge and deliver all contracts and other obligations of this Corporation; the execution of any such contract to be valid and binding upon this Corporation for all purposes, and that this vote shall remain in full force and effect unless and until the same has been altered, amended or revoked by a subsequent vote of such directors and a certificate of such later vote attested by the Clerk of this Corporation.

I further certify that _____ is duly elected/appointed _____ of said corporation

SIGNED:

(Corporate Seal)

Clerk of the Corporation:

Print Name: _____

COMMONWEALTH OF MASSACHUSETTS

County of _____

Date:

Then personally appeared the above named and acknowledged the foregoing instrument to be their free act and deed before me, _____

Notary Public;

My Commission expires: _____

CORPORATION IDENTIFICATION

The bidder for the information of the Awarding Authority furnishes the following information.

If a Corporation:

Incorporated in what state _____

President _____

Treasurer _____

Secretary _____

Federal ID Number _____

If a foreign (out of State) Corporation – Are you registered to do business in Massachusetts?

Yes _____, No _____

If you are selected for this work you are required under M.G.L.ch. 30S, 39L to obtain from the Secretary of State, Foreign Corp. Section, State House, Boston, a certificate stating that you Corporation is registered, and furnish said certificate to the Awarding Authority prior to the award.

If a Partnership: (Name all partners)

Name of partner _____

Residence _____

Name of partner _____

Residence _____

If an Individual:

Name _____

Residence _____

If an Individual doing business under a firm's name:

Name of Firm _____

Name of Individual _____

Business Address _____

Residence _____

Date _____

Name of Bidder _____

By _____

Signature _____

Title _____

Business Address _____ (POST OFFICE BOX NUMBER NOT ACCEPTABLE)

State Telephone Number _____

Today's Date _____

PROVIDE THREE (3) SERVICE APPROPRIATE REFERENCES

1. Company Name:

Address:

Contact Name:

Phone #

Type of service/product provided to this Company:

Dollar value of service provided to this Company:

2. Company Name:

Address:

Contact Name:

Phone #

Type of service/product provided to this Company:

Dollar value of service provided to this Company:

3. Company Name:

Address:

Contact Name:

Phone #

Type of service/product provided to this Company:

Dollar value of service provided to this Company:

NOTE

Failure to submit any of the required documents, in this or in other sections, with your bid response package will be cause for the disqualification of your company.

**WEEKLY PAYROLL RECORDS REPORT &
STATEMENT OF COMPLIANCE**

In accordance with Massachusetts General Law c. 149, §27B, a true and accurate record must be kept of all persons employed on the public works project for which the enclosed rates have been provided, A Payroll Form has been printed on the reverse of this page and includes all the information required to be kept by law. Every contractor or subcontractor is required to keep these records and preserve them for a period of three years from the date of completion of the contract.

In addition, every contractor and subcontractor is required to submit, on a weekly basis, a copy of his or her weekly payroll records to the awarding authority. For every week in which an apprentice is employed, a photocopy of the apprentice's identification card must be attached to the payroll report. Once collected, the awarding authority is also required to preserve those reports for three years.

In addition, each such contractor, subcontractor, or public body shall furnish to the awarding authority directly, within fifteen days after completion of its portion of the work, a statement, executed by the contractor, subcontractor or public body who supervises the payment of wages, in the following form:

STATEMENT OF COMPLIANCE

_____, 200_____

I _____,
(Name of signatory party) (Title)

I do hereby state that I pay or supervise the payment of the persons employed by

_____ on the _____
(Contractor, subcontractor or public body) (Building or project)

and that all mechanics and apprentices, teamsters, chauffeurs and laborers employed on said project have been paid in accordance with wages determined under the provisions of sections twenty-six and twenty-seven of chapter one hundred and forty nine of the General Laws.

Signature _____, Title _____

Print _____

WEEKLY PAYROLL REPORT FORM

Company Name: _____
 Prime Contractor
 Project Name: _____
 Subcontractor
 Awarding Auth.: _____
 List Prime Contractor: _____
 Work Week Ending: _____
 Employer Signature: _____
 Final Report
 Print Name & Title: _____

Employee Name & Address	Work Classification	Hours Worked							(A) Tot. Hrs.	(B) Hourly Base Wage	Employer Contributions			(F) [B+C+D+E] Hourly Total Wage (prev. wage)	(G) [A*F] Weekly Total Amount
		S	M	T	W	T	F	S			(C) Health & Welfare	(D) Pension	(E) Supp. Unemp.		

NOTE: Every contractor and subcontractor is required to submit a copy of their weekly payroll records to the awarding authority.

RIGHT TO KNOW LAW

Any vendor who receives an order or orders resulting from this invitation agrees to submit a Material Safety Data Sheet (MSDS) for each toxic or hazardous substance or mixture containing such substance, pursuant to M.G.L. c. 111F, §§8,9 and 10 and the regulations contained in 441 CMR 21.06 when deliveries are made. The vendor agrees to deliver all containers properly labeled pursuant to M.G.L. c. 111F §7 and regulations contained in 441 CMR 21.05. Failure to furnish MSDS and/or labels on each container may result in civil or criminal penalties, including bid debarment and action to prevent the vendor from selling said substances, or mixtures containing said substances within the Commonwealth. All vendors furnishing substances or mixtures subject to Chapter 111F or M.G.L. are cautioned to obtain and read the laws, rules and regulations referenced above. Copies may be obtained from the State House Bookstore, Secretary of State, State House, Room 117, Boston, MA (617) 727-2834.

Authorized Signature Indicating Compliance with the Right-to-know laws:

Signature

Date

Print Name

NOTE

Failure to submit any of the required documents, in this or in other sections, with your bid response package may cause the disqualification of your proposal.

DEBARMENT CERTIFICATION

In connection with this bid and all procurement transactions, by signature thereon, the respondent certifies that neither the company nor its principals are suspended, debarred, proposed for debarment, declared ineligible, or voluntarily excluded from the award of contracts, procurement or non procurement programs from the Commonwealth of Massachusetts, the US Federal Government and /or the City of Waltham. "Principals" means officers, directors, owners, partners and persons having primary interest, management or supervisory responsibilities with the business entity. Vendors shall provide immediate written notification to the Purchasing Agent of the City of Waltham at any time during the period of the contract of prior to the contract award if the vendor learns of any changed condition with regards to the debarment of the company or its officers. This certification is a material representation of fact upon which reliance will be placed when making the business award. If at any time it is determined that the vendor knowingly misrepresented this certification, in addition to other legal remedies available to the city of Waltham, the contract will be cancelled and the award revoked.

Company Name _____

Address _____

City _____, State _____, Zip Code _____

Phone Number (____) _____

E-Mail Address _____

Signed by Authorized Company Representative:

Print name _____,

Date _____

10 HOURS OSHA TRAINING CONFIRMATION**Chapter 306 of the Acts of 2004****CONSTRUCTION PROJECTS****AN ACT RELATIVE TO THE HEALTH AND SAFETY ON PUBLIC**

The undersigned hereby certifies that all employees to be employed at a worksite for construction, reconstruction, alteration, remodeling, repair, installation, demolition, maintenance or repair of any public work or any public building estimated to cost more than \$10,000.00 have successfully completed a course in construction safety and health approved by the **United States Occupational Safety and Health Administration** that is at least **10 hours** in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first payroll report for each employee and will comply with all laws and regulations applicable to awards of subcontracts subject to section 44F.

Company Name: _____

Address: _____

Signature: _____

Title: _____

Print Name _____

Date _____

See Chapter 306 of the Acts of 2004**NOTE**

Failure to submit any of the required documents, in this or in other sections, with your bid response package will be cause for the disqualification of your company.

SECTION 00821

PERMITS

PART 1 GENERAL

1.01 CONTRACT DOCUMENTS

- A. The general provisions of the Contract, including General and Supplemental Conditions and General Requirements, apply to the work specified in this section.

1.02 PERMITS

- A. The Contractor shall be responsible for obtaining and complying with all permits required of his equipment, work force, or particular operations (such as blasting and fuel storage permits, etc.) in the performance of the Contract. All costs associated with obtaining permits will be included in the price of the work.
- B. If included as part of this project, The Contractor shall be responsible for complying with requirements of the Local Conservation Commission and the Cambridge Watershed Protection District. All costs associated with complying with the conditions will be included in the price of the work.
- C. The Contractor shall be responsible for obtaining and complying with the requirements of the Street Opening and Trench Permits required by the City Department of Public Works in the performance of the Contract. All costs associated with complying with the conditions of the permits will be included in the price of the work. All costs associated with obtaining permits will be waived by the City.

END OF SECTION

Technical Specifications

SECTION 011000

SUMMARY

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 00 01 through 31 which are hereby made a part of this Section of the Specifications.
- B. Equality of material, article, assembly or system other than those named or described in this Section shall be determined in accordance with the provisions of Article V of the CONTRACT AND GENERAL CONDITIONS.

1.2 DEFINITIONS

- A. The following terms shall be applicable to these Specifications:
 - 1. **“City of Waltham”**: Refers to the property owner, City of Waltham, 610 Main Street, Waltham, Massachusetts 02452. Mr. Joseph Pedulla, Chief Procurement Officer. Telephone: 781-314-3000.
 - 2. **“Designer and Environmental Consultant”**: Refers to EFI Global, Inc., 155 West Street, Suite 6, Wilmington, Massachusetts 01887. Project Designer: John Vaz. Telephone: 339-227-5424.
 - 3. **“Contractor”**: Refers to General Contractor or Demolition Contractor who has been awarded the overall contract for performance of the Demolition work outlined by these Contract Documents.
 - 4. **“Subcontractor”**: Refers to any contractor who is working under the direct supervision of the Contractor including but not limited to asbestos and hazardous materials remediation workers.
- B. The terms are provided to facilitate communication but do not supersede the legal definitions provided in the Contract.

1.3 REQUIREMENTS INCLUDED

- A. Work under this Contract.
- B. Examination of site and documents.
- C. Contractor Qualifications.

Piety Corner House Demolition 380 Lexington Street

- D. Contract method.
- E. Work sequence.
- F. Supervision of Work.
- G. Contractor use of premises.
- H. Coordination.
- I. Field engineering.
- J. Reference standards.
- K. Preconstruction conference.
- L. Project meetings.
- M. Permits, inspection, and testing required by governing authorities.
- N. Cutting, coring, patching, unless otherwise indicated.
- O. Debris removal.
- P. Field measurements.
- Q. Safety regulations.
- R. OSHA safety and health course documentation.
- S. Damage responsibility.
- T. User Agency occupancy.
- U. Asbestos and Hazardous Materials discovery.
- V. Special requirements.
- W. List of Drawings.

1.4 WORK UNDER THIS CONTRACT

- A. In general and without limitation, the work to be done under this Contract consists of the abatement, demolition and removal of all components of the Piety Corner House and the North Branch Library, located at 380 and 685 Lexington Street, respectively, in Waltham, Massachusetts.
- B. A general description of the work to be performed under this Contract shall include, but not be

limited to, the following operations:

1. Apply for, pay for, and secure any and all permits required from local, state, and federal agencies, and other authorities having jurisdiction over the work. All city permitting fees are waived. The work includes asbestos abatement, miscellaneous hazardous materials removal and disposal, and building demolition on the Site, including: submitting, revising, and re-submitting all required plans, permits, and notifications.
2. Preparation and submission of required project plans including the Contractor's Health and Safety Plan and project schedule.
3. Mobilization to the Site of all equipment, materials, labor, and required vehicles.
4. Provide a drawing for the installation of a truck wash station at each of the Site buildings.
5. Verification of existing conditions including but not limited to access constraints, availability of utilities for temporary connections, site constraints, review of existing documentation, etc.
6. Erect all staging, scaffolding, planking, etc. to access asbestos-containing materials, PCB-containing materials, and other hazardous materials for removal. Staging and scaffolding installation shall require a design stamped by a professional engineer registered in the Commonwealth of Massachusetts and shall be reviewed by the Designer.
7. Provide an electrical subcontractor to ensure lock-out tag-out procedures are observed and to connect electrical equipment required for designated material removal to the on-site electricity. The Contractor shall provide temporary power from existing electrical panels and transformers for all of its operations including tools, equipment, temporary lighting, smoke/heat detectors, fire protection, safety equipment, etc. Provide generator power, as necessary, for the portions of or for the entire duration of the project.
8. Removal, handling, transportation, and lawful disposal of all disposable personnel protection equipment and incidental materials.
9. Provide the City of Waltham and the Designer with required waste disposal documentation. Payment will be made only upon receipt of documentation from the disposal facility.
10. Removal of all interior and exterior asbestos-containing materials (ACMs), asbestos-contaminated materials, hazardous materials, containerized wastes, and proper packaging and off-site disposal.
11. Asbestos-containing debris is present throughout the North Branch Library. All non-porous (metal) items stored within the building must be thoroughly decontaminated and disposed off site. Porous items, such as furniture, wood, cardboard, paper products, etc. must be packaged and disposed as ACWM.
12. Complete removal and disposal of the North Branch Library and Piety Corner House building structures, foundations, footings, as outlined in these Specifications.
13. Excavation, site clearing, and site work as outlined in these Specifications.
14. Demobilization of all equipment and materials from the Site.

Piety Corner House Demolition 380 Lexington Street

- C. The Scope of Work, without limiting the generality thereof, includes all personnel, labor, materials, equipment, and services required to perform the work described fully in the Specifications.
- D. The Massachusetts Standard Labor Wage rates, as outlined in the exhibits, will be used in the construction of this project. The Prevailing Wages Schedule can be found at www.city.waltham.ma.us/bids

1.5 SPECIAL CONDITIONS

- A. Power as currently available at the Site will be made available to the Contractor for use on the Project. The Contractor is responsible to follow all applicable standards and codes and for performing lock-out, tag-out activities as required to perform the work safely (e.g. providing temporary lighting). The Contractor is responsible for supplying generator power, as required to complete the project.
- B. Domestic water is not available within the buildings. There are fire hydrants located sporadically along Lexington Street that may be used during the Project. The Contractor shall coordinate with the City of Waltham Fire Department to obtain access to hydrants. The Contractor shall obtain flow meters and backflow preventers from the City and shall be responsible for all costs associated with obtaining and installing the meters and preventers. The Contractor will be responsible for all costs associated with the water supply. The Contractor shall provide water trucks to supplement water available via fire hydrants if necessary.

1.6 EXAMINATION OF SITE AND DOCUMENTS

- A. A pre-bid conference will be held at the job site on the date and at the time indicated in the Invitation to Bid. This is the only opportunity for site inspection. An additional inspection time may be set up by the City.
- B. The bidders are expected to examine and to be thoroughly familiar with all contract documents and with the conditions under which the work is to be carried out. The City of Waltham will not be responsible for errors, omissions, and/or charges for extra work arising from the Contractor's, Demolition Contractor's, or Subcontractors failure to familiarize themselves with the contract documents, that he is familiar with the conditions and requirements of both where they require, in any part of the work a given result to be produced, that the contract documents are adequate and he will produce the required results.

1.7 CONTRACT METHOD

- A. Work under this contract shall be lump sum price, for the scopes of work as described in these specifications. Each building shall be priced singularly; however, the award shall be based on the total project price.
- B. The Contractor with the approval of the City may modify the sequence of these activities. The Work will be conducted in the following project sequence and as described in Section 1.4; some overlap of activities may occur, subject to the requirements in these specifications:

Piety Corner House Demolition 380 Lexington Street

1. Mobilization;
 2. Removal and demolition of un-regulated materials;
 3. Asbestos and hazardous materials removal;
 4. Building Demolition;
 5. Site work;
 6. Demobilization.
- C. The Contractor shall submit a construction schedule to the Designer for approval no later than ten (10) business days after issuance of Notice to Proceed.
- D. The City of Waltham reserves the right to request changes to the proposed sequence of work after review of the schedule and Work Plan.

1.8 SUPERVISION OF WORK

- A. The Contractor shall be held directly responsible for the correct installation of all work performed under this Contract. The Contractor must make good repair, without expense to the City of Waltham, of any part of the new work, or existing work to remain, which may become inoperative on account of leaving the work unprotected or unsupervised during construction of the system or which may break or give out in any manner by reason of poor workmanship, defective materials or any lack of space to allow for expansion and contraction of the work during the Contractor's warranty period, from the date of final acceptance of the work by the City of Waltham.
- B. The Contractor shall furnish a competent Massachusetts licensed superintendent satisfactory to the City of Waltham and to the Designer. The licensed superintendent shall supervise all work under this contract and who shall remain on duty at the site throughout the Contract period while work is in progress.
1. Submit the name and resume of the superintendent for approval to the City of Waltham. Include experience with projects of equal size and complexity.

1.10 CONTRACTOR USE OF PREMISES

- A. Use of the Site: Limit use of the premises to work in areas indicated within the construction fence to be erected around the Site buildings by the Contractor. Coordinate work of all trades required within the construction fence boundary. Confine operations to areas within contract limits indicated. Do not disturb portions of the site beyond the areas in which the Work is indicated.
1. Allow for City of Waltham occupancy and use by the public (if applicable).
 2. Driveways and Entrances: Keep driveways and entrances serving the premises clear and

available to the City of Waltham, their employees, and emergency vehicles at all times.

- B. Schedule and perform work to afford minimum of interruption to normal and continuous operation of utility systems. The Contractor shall submit to the City of Waltham and the Designer for approval, proposed schedule for performing work; including construction of new utilities, re-routing of existing utilities and final connection of new work to existing work. Schedule shall indicate shutdown time required for each operation.
- C. The Contractor shall notify the City of Waltham in writing, 72 hours in advance of the proposed time for shutting down or interrupting any utilities, services or facilities which may affect the operation of other buildings, services or facilities at the Site.
- D. Coordinate with City of Waltham and the Designer, work in connection with adjacent driveways, walks, or other facilities which would prevent access thereto or interrupt, restrict, or otherwise infringe upon the City of Waltham's use thereof.
- E. The Contractor shall be aware of the sensitivity of the neighborhood organizations to noise, dust, debris and site maintenance and take appropriate precautions to avoid conflict.
- F. Damage to existing work, if caused by the Contractor's operations under this Contract, shall be repaired at the Contractor's expense.
 - 1. An existing conditions survey shall be conducted, with the Designer, the City of Waltham representatives, at which existing conditions will be videotaped by the Contractor. A copy of the videotape will be provided to the City of Waltham.
- G. Trenching and other work outside construction limits shall be expedited to fullest extent and carried out with minimum of inconvenience to normal operation of traffic. Walks, paved or landscaped areas over which temporary driveways cross, shall upon completion of the work, be restored to their original condition. Temporary roadways shall be bridged over trenched areas.
- H. The Contractor can gain access to the premises during the hours specified below. In addition the Contractor and his personnel will limit themselves only within the working premises during working hours. If work needs to be scheduled during times other than those listed below, Contractor shall inform the City of Waltham one week prior to work.
 - 1. Deliveries: 7:00 am to 5:00 pm.
 - 2. General Access: 7:00 am to 5:00 pm.
- I. Confine operations at the site to areas permitted by:
 - 1. Laws
 - 2. Ordinances
 - 3. Permits
 - 4. Contract Documents

- J. Contractor shall supervise the use of the site related to construction and be responsible for correcting any damage identified by the City of Waltham to their satisfaction.
 - 1. An existing conditions survey shall be conducted, with the Designer and City of Waltham representatives, at which existing conditions will be videotaped by the Contractor. A copy of the videotape will be provided to the City of Waltham.
- K. All available existing utilities adjacent to the construction site will be available as described herein. Temporary connections to these utilities, all metering, transformers, removal, usage, and their associated costs will be the responsibility of the Contractor.

1.11 COORDINATION

- A. The Contractor shall be responsible for the proper fitting of all the work and for the coordination of the operations of all trades, Subcontractors or material and men engaged upon the work. The Contractor shall do, or cause his agents to do, all cutting, fitting, adjusting, and repair necessary in order to make the several parts of the work come together properly.
 - 1. Examine Contract Documents in advance of start of construction and identify in writing questions, irregularities or interference to the City of Waltham in writing. Failure to identify and address such issues in advance becomes the sole responsibility of the Contractor. A conflict that would cause the reduction of the normal ceiling height of any occupied space is considered to be an interference.
- B. The work sequence shall follow planning and schedule established by the Contractor as approved by the Designer and the City of Waltham. The work upon the site of the project shall commence promptly and be executed with full simultaneous progress. Work operations which require the interruption of utilities, service, and access shall be scheduled so as to involve minimum disruption and inconvenience, and to be expedited so as to insure minimum duration of any periods of disruption or inconvenience.
- C. The Contractor shall review the tolerances established in the specifications for each type of work and as established by trade organizations. The Contractor shall coordinate the various trades and resolve any conflicts that may exist between trade tolerances without additional cost to the City of Waltham. The Contractor shall provide any chipping, leveling, shoring or surveys to ensure that the various materials align as detailed by the Designer and as necessary for smooth transitions not noticeable in the finished work.

1.12 FIELD ENGINEERING

- A. Provide field engineering services; establish grades, lines and levels, by use of recognized engineering survey practices. All field engineering surveying shall be performed by a licensed Land Surveyor registered in the Commonwealth of Massachusetts.
- B. The Contractor shall survey and submit exact dimensional layouts as required. Engage and pay for the services of a Massachusetts Registered Surveyor acceptable to the City of Waltham to

locate and protect control and reference points.

1.13 REFERENCE STANDARDS

- A. For products specified by association or trade standards, comply with requirements for the standard, except where more rigid requirements are specified or are required by codes.
- B. Where reference is made in the Contractual Documents to Publications and Standards issued by Associations or Societies, the intent shall be understood to specify the current edition of such Publications or Standards (including tentative revision) in effect on the date of the contract advertisement notwithstanding any reference to a particular date.

1.14 PRE-CONSTRUCTION CONFERENCE

- A. In accordance with Article V of the CONTRACT AND GENERAL CONDITIONS, a pre-construction conference to review the work will be conducted by the City of Waltham.
- B. Representatives of the following shall be required to attend this conference:
 - 1. Designer
 - 2. Contractor
 - 3. All Subcontractors
 - 4. Applicable Municipal Agencies
- C. The Contractor shall have a responsible representative at the pre-construction conference to be called by the City of Waltham following the award of the contract, as well as representatives of field or office forces and major Trade contractors. All such representatives shall have authority to act for their respective firms. The pre-construction conference is to be held within five days of Notice to Proceed, or as otherwise determined by the City of Waltham.

1.15 PROJECT MEETINGS

- A. Project meetings shall be held on a weekly basis and as required subject to the discretion of the City of Waltham.
- B. As a prerequisite for monthly payments, ordering schedules, shop drawing submitted schedules, and coordination meeting schedules shall be prepared and maintained by the Contractor and shall be revised and updated on a monthly basis, and a copy shall be submitted to the City of Waltham and Designer.
- C. In order to expedite construction progress on this project, the Contractor shall order all materials immediately after the approval of shop drawings and shall obtain a fixed date of delivery to the project site for all materials ordered which shall not impede or otherwise interfere with construction progress. The Contractor shall present a list and written proof of all materials and

equipment ordered (through purchase orders). Such list shall be presented at the meetings and shall be continuously updated.

- D. Scheduling shall be discussed with all concerned parties, and methods shall be presented by the Contractor, which shall reflect construction completion not being deferred or foreshortened. Identify critical long-lead items and other special scheduling requirements. The project schedule is to include time for submission of shop drawing submittals, time for review, and allowance for resubmittal and review.
- E. Project meetings shall be chaired by the Designer.
- F. Minutes of the project meetings shall be prepared by the Designer and shall be distributed to all present. The Designer's meeting minutes shall be the only official meeting record.

1.16 PERMITS, INSPECTION, AND TESTING REQUIRED BY GOVERNING AUTHORITIES

- A. If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having any jurisdiction require any portion of the Work to be inspected, tested, or approved, the Contractor shall give the Designer, the City of Waltham or his/her designated representative, and such Authority timely notice (5 business days minimum) of its readiness so the Designer may observe such inspecting, testing, or approval.
- B. Prior to the start of construction, the Contractor shall complete application to the applicable Building Code enforcement authority for a Building Permit. Such Permit shall be displayed in a conspicuous location at the project site.
- C. Unless otherwise specified under the Sections of the Specifications, the Contractor shall pay such proper and legal fees to public officers and others as may be necessary for the due and faithful performance of the work and which may arise incidental to the fulfilling of this Contract. As such, all fees, charges, and assessments in connection with the above shall be paid by the Contractor.
- D. The Contractor shall maintain at the site, for the duration of construction operations, at least one (1) up-to-date copy of all relevant codes and standards listed in the Contract Documents or determined to be applicable to the work. One (1) copy of such codes shall be for the exclusive use of the City of Waltham and the Designer and its Consultants, and shall be kept in the Contractor's site office.
- E. The Contractor shall furnish and install all information required by the building official and shall secure the general building permit for the work promptly on award of the Contract. The Contractor shall conform to all conditions and requirements of the permit and code enforcement authority. The Contractor shall provide names and license numbers of its responsible representatives to complete the application for permit, and shall receive the permit and promptly distribute copies to the City of Waltham and the Designer.
- F. Contractor and specialized Subcontractors as applicable shall identify all permits (other than general building permit) required from Authorities having jurisdiction over the Project for the construction and occupancy of the work. The Contractor shall prepare the necessary applications

and submit required plans and documents to obtain such permits in a timely manner, and shall furnish the required information to the Building Official and obtain the required permits as early as practicable after award of the Contract.

1. The Contractor shall display all permit cards as required by the Authorities, and shall deliver legible photocopies of all permits to the City of Waltham and the Designer promptly upon their receipt.
2. The Contractor shall arrange for all inspections, testing and approvals required for all permits, and shall notify the Designer and the City of Waltham of such inspections at least three (3) business days in advance (longer if so required in the various Sections of the Specifications), so they may arrange to observe.
3. The Contractor shall comply with all conditions and provide all notices required by all permits.
4. The Contractor shall perform and/or arrange for and pay all testing and inspections required by the Governing Codes and Authorities, other than those provided by the City of Waltham, and shall notify the Designer and City of Waltham of such inspections at least three (3) business days in advance of all such testing or inspection, so they may arrange to observe. Fees are waived for all City required permits.
5. Where Inspecting Authorities require corrective work for conformance with applicable Codes and Authorities, the Contractor shall promptly comply with such requirements, except in cases where such requirements clearly exceed the requirements of the Contract Documents, in which case the Contractor shall proceed in accordance with the procedures for modifications or changes in the work established in the Contract Documents, as amended.

1.17 UTILITIES

A. Existing Utilities Services:

1. Interruptions to critical existing utility services will not be allowed.
 - a. All relocation of existing electrical, telephone, and gas services that are utility company owned shall be performed by the respective utility company, and the cost of any charges for such work shall be paid by the Contractor. All utility installations and relocation shall be the responsibility of the Contractor. Coordination of all of the aforesaid work is the responsibility of the Contractor in cooperation with the Contractor.
2. The Contractor, in cooperation with the City of Waltham shall locate and record on Drawings all existing utilities along the course of the work by such means as the Designer and the City of Waltham may approve, and shall preserve such marked locations until the work has progressed to the point where the encountered utility is fully exposed and protected as required. It shall be the Contractor's responsibility, to notify the proper authorities and/or utility company before interfering therewith.

3. Existing utilities that are indicated on available review drawings or whose locations are made known to the Contractor and Contractor prior to excavations, though accuracy and information as to grades and elevations may be lacking, shall be protected from damage during the excavation and backfilling operations and, if damaged by the Contractor, it shall be repaired by the Contractor at his/her own expense.
4. All exposed conduits, wires, and/or cables shall be provided with sufficient protection and support to prevent failure, fraying, or damage due to backfilling or other construction operations.
5. The Contractor shall not obstruct access to existing active utility system manholes and catch basins which continue to serve facilities other than the project construction site. The Contractor shall exercise measures as necessary to prevent the placement of impediments that limit continuous access by authorized utility company or City of Waltham maintenance personnel and shall be required to reimburse the utility company or City of Waltham for any expense incurred as a result of need to remove any such impediments to access.

B. Dig-Safe:

1. Within the Commonwealth, "Dig-Safe" (Dig Safe Systems, Inc.) is the name of the Utility Underground Plant Damage Prevention Authority. They are located at 331 Montvale Avenue; Woburn, MA 01801. The telephone number is 1-888-DIGSAFE (344-7233). Contractors must notify "Dig-Safe" of contemplated excavation, demolition, or explosive work in public or private ways, and any utility company right-of-way easement. Notification must be made at least seventy-two (72) hours prior to the work, but not more than sixty (60) days before the contemplated work.
2. "Dig-Safe" is required to respond to the notice within seventy-two (72) hours from the time said notice is received by designating at the locus the location of pipes, mains, wires, or conduits.
3. Contractors shall not commence with work until "Dig-Safe" has responded as noted above.
4. Prior to the "Dig-Safe" notification, the City of Waltham requires Contractors to provide their Superintendent with current "Dig-Safe" regulations, and a copy of Massachusetts General Laws, Chapter 82, Section 40.

1.18 DEBRIS REMOVAL

- A. **The Contractor shall coordinate the removal of all demolition and construction waste** from the job site on a daily basis. Waste shall be segregated for recycling. Comply with requirements of Section 017418 - DEMOLITION WASTE MANAGEMENT AND DISPOSAL.
- B. Debris shall be legally disposed of in a D.E.P. approved disposal site. The site to be used shall be submitted to and approved by the City of Waltham and the Designer prior to the start of construction. All required dumping permits shall be obtained prior to start of construction. Contractor shall submit receipts from the disposal site(s) as evidence of legal disposal. The Contractor shall pay the cost of any charges for debris removal.

- B. The Contractor shall bear responsibility for maintaining the building and site clean and free of debris, leaving all work in clean and proper condition satisfactory to the City of Waltham and the Designer. The Contractor shall ensure that each of the Subcontractors clean up during and immediately upon completion of their work. Clean up includes the following tasks:
 - 1. Remove all rubbish, waste, tools, equipment, appurtenances caused by and used in the execution of work.
- C. Prevent the accumulation of debris at the construction site, storage areas, parking areas, and along access roads and haul routes.
- D. Provide containers for deposit of debris and schedule periodic collection and disposal of debris.
- E. Prohibit overloading of trucks to prevent spillage on access and haul routes.
- F. The Contractor shall be responsible for proper disposal of all construction debris leaving the site.

1.19 FIELD MEASUREMENTS

- A. Although care has been taken to ensure their accuracy, the dimensions shown for existing items and structures are not guaranteed. It is the responsibility of the Contractor to verify these dimensions in the field before fabricating any construction component. No claims for extra payment due to incorrect dimensions will be considered by the Commonwealth.

1.20 SAFETY REGULATIONS

- A. This project is subject to compliance with Public Law 91-596 "Occupational Safety and Health Act" - latest edition (OSHA 29 CFR 1926), with respect to all rules and regulations pertaining to construction, including Volume 36, numbers 75 and 105, of the Federal Register, as amended, and as published by the U.S. Department of Labor.
- B. Submit the name of the Contractor's safety officer to the City of Waltham. Submit copies of safety reports to the City of Waltham monthly.
- C. All accident reports are to be transmitted to the City of Waltham within 24 hours of occurrence.

1.21 OSHA SAFETY AND HEALTH COURSE DOCUMENTATION

- A. OSHA Safety and Health Course Documentation Records: Chapter 306 of the Massachusetts Acts of 2004 requires that everyone employed at the jobsite must complete a minimum 10-hour long course in construction safety and health approved by the U.S. Occupational Safety and Health Administration (OSHA) prior to working at the jobsite. Compliance is required of Contractors' and Subcontractors' on-site employees at all levels whether stationed in the trailer or working in the field. Unless the Massachusetts Attorney General's office indicates otherwise, this requirement does not apply to home-office employees visiting the site or to suppliers'

employees who are making deliveries.

- B. Documentation records shall be initially compiled by the Contractor and Subcontractors as part of their certified payrolls, and the Contractor shall create and maintain a copy of the documentation on site at all times. On-site documentation shall be filed in alphabetical order and immediately available to the City of Waltham and OSHA inspectors. Fines imposed for non-compliance shall be promptly paid by the Contractor at no additional expense to the City of Waltham. Delays in the progress of the Work caused by such non-compliance will not be acceptable as the basis for an extension of contract time or change order request.

1.22 DAMAGE RESPONSIBILITY

- A. The Contractor shall repair, at no cost to the City of Waltham, any damage to building elements, site appurtenances, landscaping, utilities, etc. caused during demolition operation and work of this Contract.

1.23 ASBESTOS AND HAZARDOUS MATERIALS DISCOVERY

- A. If unanticipated asbestos-containing materials or other Hazardous Materials not included in Contract are discovered at any time during the course of work, the Contractor shall cease work in the affected areas only and continue work in other areas, at the same time notify the City of Waltham and the Designer of such discovery. Do not proceed with work in such affected areas until written instructions are received. If removal is required, payment will be made in accordance with the contract unit prices bid for each respective material. In the absence of unit prices, costs shall be negotiated or otherwise established prior to commencement of removal, in accordance with provisions of the Contract.

1.24 SPECIAL REQUIREMENTS

- A. The Contractor shall prepare a Health and Safety Plan that addresses protection of employee and public health and safety. The minimum contents of the Plan are specified in Section 028100 – MANAGEMENT AND DISPOSAL OF WASTE STREAMS.
- B. The Contractor shall be solely responsible for implementing the procedures specified in the Plan.
- C. The Contractor shall make available complete sets of personal protective equipment and clothing to the City of Waltham for use during site observations/inspections by the City of Waltham and the Designer. These shall be supplied and maintained at no cost to the City of Waltham and the Designer, and shall be returned to the Contractor upon the completion of work, except for disposable protective clothing.
 - 1. The Contractor shall provide a repository for collection and disposal of health and safety materials. Collection and disposal of contaminated disposable supplies shall be at no additional cost.

Piety Corner House Demolition 380 Lexington Street

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

SECTION 013543

ENVIRONMENTAL PROTECTION PROCEDURES

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 1 – GENERAL REQUIREMENTS that are hereby made a part of this Section of the Specifications.

1.2 SUMMARY

- A. Furnishing all labor, materials, and equipment and perform all work required for the prevention of environmental pollution in conformance with applicable laws and regulations, during and as the result of construction operation under this Contract. For the purpose of this Section, environmental pollution is defined as the presence of chemical, physical, or biological elements or agents that which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to man; or degrade the utility of the environment for aesthetic and/or recreational purposes.
- B. The control of environmental pollution requires consideration of air, water, and land, and involves management of runoff, dust, noise and solid waste, as well as other pollutants. Work shall include installing, maintaining, and removing sedimentation and erosion control components within the Limits of Work.
- C. Applicable Regulations
- D. Submissions
- E. Notifications
- F. Protection of Groundwater
- G. Protection of Streams And Wetlands
- H. Protection of Land Resources
- I. Protection of Air Quality
- J. Maintenance of Pollution Control Facilities During Construction
- K. Noise and Vibration Control
- L. Diesel Equipment Emission Controls
- M. Spill And Discharge Control

1.3 RELATED SECTIONS

- A. Section 015000 - TEMPORARY FACILITIES AND CONTROLS:
- B. Section 024100 - DEMOLITION:
- C. Section 310000 – EARTHWORK
- D. Section 311000 - SITE CLEARING:

1.5 APPLICABLE REGULATIONS

- A. The Contractor shall comply with all applicable Federal, State and local laws and regulations concerning environmental pollution control and abatement.
- B. Fines and related costs resulting from failure to provide adequate protection against any environmentally objectionable acts and corrective action to be taken are the obligations of the Contractor.
- C. No material from excavations, stockpiles, or site preparation activities shall be deposited in flood plains or within 100 feet of any body of water or within 100 feet of a wetland boundary or within any buffer zone without compliance under provisions of Chapter 131, Section 40 of the Massachusetts Wetlands Protection Act.
- D. All erosion and sedimentation control work shall comply with applicable requirements of governing authorities having jurisdiction. These Specifications are not comprehensive, but rather convey the intent to provide complete slope protection and erosion control for both the user agency and adjacent properties until final stabilization of all cover is achieved.

1.6 SUBMISSIONS

- A. Construction shall not proceed until the Contractor has submitted a certified list of the non-road diesel-powered construction equipment subject to this specification that either are or will be retrofitted with emission control devices. The list shall include (1) the equipment number, type, make, and Contractor/Sub-Contractor name; and the emission control device make, model, and EPA verification number. Contractors shall also submit a receipt or other documentation from a manufacturer or installer that verifies that appropriate equipment has been installed. The Contractor shall also identify any vehicles that will use Clean Fuels. Equipment that has been retrofitted with an emission control device shall be stenciled or otherwise clearly marked as "Low Emission Equipment".
- B. The Contractor shall submit monthly reports, updating the same information, stated in Paragraph A above, including the quantity of Clean Fuel utilized. The addition or deletion of non-road diesel equipment shall be indicated in the report.

1.7 NOTIFICATIONS

- A. The City of Waltham may notify the Contractor in writing of any non-compliance with the foregoing provisions or of any environmentally objectionable acts and corrective action to be taken. State or local agencies responsible for verification of certain aspects of the environmental protection requirements may notify the Contractor in writing, through the City of

Waltham, of any non-compliance with State or local requirements. After receipt of such notice from the City of Waltham or from the regulatory agency through the City of Waltham, the Contractor shall immediately take corrective action. Such notice, when delivered to the Contractor or his/her authorized representative at the site of the Work, shall be deemed sufficient for the purpose. If the Contractor fails or refuses to comply promptly, the City of Waltham may issue an order stopping all or part of the Work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be made the subject of a claim for extension of time or for excess costs or damages by the Contractor unless it is later determined that the Contractor was in compliance.

PART 2 - PRODUCTS

2.1 WATER

- A. Water used for dust control and equipment washes shall be clean and free of salt, oil, and other injurious materials. The Contractor shall provide all necessary water.

2.2 ONSITE SPILL KIT

- A. The Contractor shall provide the following minimum equipment to be kept onsite at all times during site work activities for any unexpected spills or discharges:
 1. Sand, clean fill and absorbent pillows,
 2. Four drums (55 gallon, U.S. DOT 17-E or 17-H),
 3. Shovels, and
 4. Steam cleaner for decontamination of tools and equipment.

PART 3 - EXECUTION

3.1 PROTECTION OF GROUNDWATER

- A. Care shall be taken to prevent, or reduce to a minimum, any discharges to the ground of liquids that may infiltrate to the underlying groundwater. Water that has been used for washing or processing, or that contains oils or sediments that will reduce the quality of the groundwater shall not be discharged from the Site. Such waters shall be collected and disposed of by the Contractor in accordance with all applicable Federal, State and local regulations.

3.2 PROTECTION OF STREAMS AND WETLANDS

- A. Care shall be taken to prevent, or reduce to a minimum, any damage to any wetland from pollution by debris, sediment or other material. Manipulation of equipment and/or materials in delineated wetland areas is prohibited. Water that has been used for washing or processing, or that contains oils or sediments that will reduce the quality of the water in downstream waters of the State, shall not be discharged from the Site. Such waters shall be collected and disposed of by the Contractor in accordance with all applicable Federal, State and local regulations.

3.3 PROTECTION OF LAND RESOURCES

- A. Land resources within the project boundaries and outside the limits of permanent work shall be restored to a condition, after completion of remediation activities that will appear to be natural and not detract from the appearance of the project. Confine all construction activities to Limits of Work areas shown on the Drawing.
- B. Outside of the Limits of Work as shown on the Drawings, do not deface, injure, or destroy trees or shrubs, nor remove or cut them without prior approval. Snow fence or other approved equal shall be wrapped around tree trunks if heavy equipment has the potential to damage the tree bark, to prevent damage to trees.
- C. The locations of storage and other facilities, required in the performance of the Work, shall not be within wetlands or resource areas.

3.4 PROTECTION OF AIR QUALITY

- A. Burning – The use of burning at the project site for the disposal of refuse and debris will not be permitted.
- B. Dust Control – Maintain all demolition excavations, stockpiles, waste areas, and all other work areas within or without the Limits of Work free from dust that could cause the standards for air pollution to be exceeded (MADEP 310 CMR 7.09.-7.10) and which would cause a hazard or nuisance to others.
- C. The Contractor shall provide adequate means for preventing dust caused by construction operations throughout the period of the construction contract. If the City of Waltham or the Designer indicates that the level of dust or odors is unacceptable, the Contractor shall employ measures necessary to reduce dust or odors to an acceptable level.
- D. The Contractor shall implement engineering controls (e.g. watering, misting) to control dust whenever required by the Designer or the City of Waltham.

3.5 MAINTENANCE OF POLLUTION CONTROL FACILITIES DURING CONSTRUCTION

- A. During the life of this Contract, maintain all facilities constructed for pollution, erosion, and sedimentation control as long as the operations creating the particular pollutant area being carried out.

3.6 NOISE AND VIBRATION CONTROL

- A. The Contractor shall develop and maintain a noise-abatement program and enforce strict discipline over all personnel to keep noise to a minimum. Local noise ordinances shall govern.
- B. The Contractor shall execute construction work by methods and by use of equipment that will reduce excess noise.
- C. Equipment shall be equipped with silencers or mufflers designed to operate with the least possible noise in compliance with Federal and State regulations.
- D. The Contractor shall manage vehicular traffic and scheduling to reduce noise.

3.7 DIESEL EQUIPMENT EMISSION CONTROLS

- A. All motor vehicles and construction equipment shall comply with all pertinent local, state, and federal regulations covering exhaust emission controls and safety.
- B. All Contractor and Sub-Contractor diesel-powered non-road construction equipment with engine horsepower (HP) ratings of 50HP and above, which are used on the Project Site for a period in excess of 30 calendar days over the course of the construction period on the Project Site, shall be retrofitted with Emission Control Devices in order to reduce diesel emissions.
- C. The reduction of emissions of volatile organic compounds (VOCs); carbon monoxide (CO) and particulate matter (PM) from diesel-powered equipment shall be accomplished by installing Retrofit Emission Control Devices.
- D. Acceptable Retrofit Emission Control Devices for the Project shall consist of oxidation catalysts or other comparable technologies that are (1) included on the US Environmental Protection Agency (EPA) *Verified Retrofit Technology List* and/or the California Air Resources Board (CARB) *Currently Verified Technologies List*; and (2) are verified by EPA or CARB, to provide a minimum emissions reduction of 50 percent for VOCs, 40 percent for CO and 20 percent for PM. Attainment of the required reduction in PM emissions can also be accomplished by using less polluting Clean Fuels. Verified technologies can be identified on the following websites:

EPA: <http://www.epa.gov/otaq/retrofit/retroverifiedlist.htm>

CARB: <http://www.arb.ca.gov/diesel/verdev/verifiedtechnologies/cvt.htm>

- E. The emission control equipment can be procured through the Statewide Contract #VEH71 that has fixed costs associated with retrofitting of diesel emission control devices. Pertinent information regarding available vendors, are presented on the following website:

OSD: <http://www.comm-pass.com>

- F. The Contractor shall use methods to control nuisance odors associated with diesel emissions from construction equipment including but not limited to the following: (1) turning off diesel combustion engines on construction equipment not in active use and on trucks that are idling for five minutes or more; and (2) locating diesel equipment away from the public and sensitive receptors.
- G. All costs associated with implementation of the diesel equipment emissions control shall be borne by the respective Contractor or subcontractor and included in their cost for performing the work of the Contract.

3.8 SPILL AND DISCHARGE CONTROL

- A. The Contractor shall provide equipment and personnel to perform emergency measures required to contain any spillage and to remove spilled materials and soils or liquids that become contaminated due to spillage. The collected spill material shall be properly disposed of at the Contractor's expense.
- B. Costs to provide the above spill and discharge control materials shall be included in the contract base bid price.

END OF SECTION

SECTION 015000

TEMPORARY FACILITIES AND CONTROLS

PART 1 – GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.

1.2 SUMMARY OF SECTION

- A. This Section outlines the Contractor's obligations to provide and maintain necessary utilities, security, cleaning, and safe working environment. Additional temporary facilities presented in the Specifications, on the Drawings, shall still apply.

- B. This Section addresses the following components of the Project:

1. Temporary Water
2. Weather Protection
3. Temporary Power
4. Heating During Construction
5. Hoisting Equipment and Machinery
6. Staging
7. Maintenance of Access
8. Enclosures
9. Cleaning During Construction
10. Field Offices
11. Sanitary Facilities
12. Construction Barriers
13. Parking
14. Debris Control and Removal
15. Safety Protection
16. Vehicle and Equipment Protection
17. Shoring
18. Construction Entrance

1.3 TEMPORARY WATER

- A. The Contractor shall provide all necessary water to the Site. All existing hydrants must remain accessible and in working order during the duration of the project unless the Contractor receives written approval from the local fire department. No connections to existing hydrants will be made, unless the Contractor receives written approval from the local fire department. If approval is granted, the Contractor shall be responsible for any applicable permits and shall

pay for all costs associated with water consumed by himself and by all of his subcontractors. Water usage shall be monitored through the use of meters.

- B. The Contractor shall provide an adequate supply of drinking water from approved sources of acceptable quality, satisfactorily cooled, for his employees and those of his Subcontractors.
- C. Temporary hoses and temporary pipe lines used for transporting water shall not be run unattended or unprotected across parking areas, parking area entrance, walkways, plazas, or steps. Temporary hoses and temporary pipelines shall not be permitted to be installed along, through or across corridor and occupied rooms or spaces.
- D. The Contractor shall provide an adequate supply of drinking water from approved sources of acceptable quality, satisfactorily cooled, for his employees and those of his Subcontractors.
- E. Use of the water may be discontinued if, in the opinion of the City of Waltham, it is wastefully used.

1.4 WEATHER PROTECTION

- A. It is the intent of these Specifications to require that the Contractor shall provide temporary enclosures and heat to permit construction work to be carried on during the months of November through March in compliance with M.G.L. Chapter 149, Section 44D(G). Under no circumstances shall the Contractor suspend any work during the months of November through March because of their reluctance to provide and pay for temporary weather protection. These Specifications are not to be construed as requiring enclosures or heat for operations that are not economically feasible to protect in the judgment of the Designer. Included in the preceding category, without limitation, are such items as site work, excavation, asbestos abatement, backfilling, and similar operations.
- B. Installation of weather protection and heating devices shall comply with all safety regulations including provisions for adequate ventilation and fire protection devices. Heating devices which may cause damage to finish surfaces shall not be used.

1.5 TEMPORARY POWER

- A. The utility company will provide electrical energy required for temporary light and power. The Contractor is required to provide temporary feeders of sufficient capacity from the local utility company, or from the institution power lines, at the point designated on the Drawings, to provide for the electric light and power requirements of the Project during the Project. Payment for energy consumed during construction shall be the responsibility of the Contractor until Final Acceptance has occurred.
- B. The Contractor shall pay for the cost of electric energy consumed by himself and by all of his subcontractors. Any temporary wiring of a special nature, shall be paid for by the Subcontractor requiring it, such as:
 - 1. Special circuits required by electric welders, elevators, lifts or other special equipment requiring high-amperage and/or special voltage service, etc.

2. Exterior lighting circuits for protection against vandalism, public warning lights and similar items.
- C. The Contractor and all Subcontractors, individually, shall furnish all extension cords, sockets, motors, and accessories required for their work. They shall also pay for all temporary wiring of construction offices and buildings used by them. The Contractor shall pay for the offices of the Contractor and the Resident Engineer specified in the Contract Form.
- D. All temporary wiring installed by the Electrical Subcontractor shall be removed after it has served its purpose. Use copper wire only.
- E. All relocations of temporary service to meet construction and/or phasing requirements shall be performed at no additional cost to the Commonwealth.

1.6 HOISTING EQUIPMENT AND MACHINERY

- A. All hoisting equipment and machinery required for the proper and expeditious prosecution and progress of the work shall be furnished, installed, operated and maintained in safe condition by the Contractor for the use of all Subcontractors' material and/or equipment delivered to the designated hoisting area except that which is specifically required to be provided by the Subcontractors themselves and is so stated in each appropriately related Section of the Specifications. All costs for hoisting operating services shall be borne by the Contractor unless specifically excepted in the Contract Documents.
- B. A licensed equipment manufacturer's representative shall be present at all times, to witness the erection and dismantling of all hoisting equipment and machinery, whenever such equipment is being erected or dismantled. No such work will be performed without the presence of such representative.
- C. Hoisting equipment and machinery erection and dismantling shall be performed only by trained, certified and experienced riggers qualified to perform such work.
- D. Copies of such licenses and/or certifications, clearly indicating qualifications, shall be provided to the City of Waltham prior to commencement of such erecting and dismantling work.
- E. Review Drawings for hoisting requirements and openness of traffic access routes to installed destinations of specified equipment and furnishings.

1.7 STAGING

- A. All staging, exterior and interior, required to be over eight feet in height, shall be furnished and erected by the Contractor and maintained in safe condition by him without charge to and for the use of all trades as needed by them for proper execution of their work, except where specified to the contrary in any filed sub-bid Section of the Specification.
 1. Erection and dismantling of staging shall be performed only by trained, certified, and experienced staging personnel qualified to perform such work.

2. Copies of such certifications, clearly indicating qualifications, shall be provided to the City of Waltham prior to commencement of such erecting and dismantling work.

- B. Any staging that is up to eight (8) feet in height shall be furnished and erected by the applicable sub-contractor.

1.8 MAINTENANCE OF ACCESS

- A. The Contractor shall provide and maintain for the duration of his contract, a means of access to, around and within the site, as indicated on the Drawings, for vehicular traffic and authorized personnel. This means of access shall be construed to sustain the weight of equipment customarily engaged for use in construction projects of this type and magnitude. The Contractor shall, without additional compensation from the Commonwealth, furnish labor and materials as may be required from time to time to maintain this means of access in an acceptable condition as determined by the Designer. Pedestrian access shall provide adequate protection against falling debris, slippage, adequate lighting, warning and directional signs, and protection against construction activities.
- B. Clear signage shall be provided directing pedestrians safely around the construction site.

1.9 ENCLOSURES

- A. Provide temporary, insulated, weather tight closures of openings in exterior surfaces for providing acceptable working conditions and protection for materials, allowing for heating during construction, and preventing entry of unauthorized persons. Provide doors with self-closing hardware and locks.
- B. All utilities including electric ducts, conduits, telephone lines, fire protection, and other utilities shall be protected against damage from construction activity. The Contractor shall be responsible for all damage to the utilities from construction and shall repair all such damage at no additional cost to the City of Waltham.

1.10 CLEANING DURING CONSTRUCTION

- A. Unless otherwise specified under the various trade Sections of the Specifications, the Contractor shall perform clean-up operations during construction as herein specified.
- B. Control accumulation of waste materials and rubbish; periodically dispose of off-site in a legal manner. The Contractor shall bear all costs, including fees resulting from such disposal.
- C. Maintain project in accordance with all local, Commonwealth of Massachusetts, and Federal Regulatory Requirements.
- D. Store volatile wastes in covered metal containers, and remove from premises.
- E. Prevent accumulation of wastes which create hazardous conditions.
- F. Provide adequate ventilation during use of volatile or noxious substances.

- G. Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.
 - 1. Do not burn or bury rubbish and waste materials on site.
 - 2. Do not dispose of volatile wastes such as mineral spirits, oil, or paint thinner in storm or sanitary drains.
 - 3. Do not dispose of wastes into streams or waterways.
 - 4. Identify potential sources of cleaning water runoff and propose abatement procedures.
- H. Use only those materials which will not create hazards to health or property and which will not damage surfaces.
- I. Execute cleaning to ensure that the buildings, the sites, and adjacent properties are maintained free from accumulations of waste materials and rubbish and windblown debris, resulting from construction operations.
- J. Provide on-site containers for collection of waste materials, debris and rubbish.
- K. Remove waste materials, debris and rubbish from the site periodically and dispose of at legal disposal dump site (DEP approved).
- L. Handle material in a controlled manner with as few handlings as possible. Do not drop or throw materials from heights.
- M. Schedule cleaning operations so that dust and other contaminants resulting from cleaning process will not damage surrounding surfaces.

1.11 FIELD OFFICES

- A. The Contractor shall provide and maintain temporary field offices.
- B. The Contractor shall provide a suitable field office on site for its own use. The location shall be at the discretion of the City of Waltham.
- C. The Contractor shall, on a daily basis, maintain the offices and conference space to be clean, orderly and air conditioned.
- I. Refer to paragraph 1.12 for sanitary facilities requirements.

1.12 SANITARY FACILITIES

- A. The Contractor shall provide suitable toilet facilities for its staff, the Resident Engineer and the Designer, and additional facilities for the workmen on the job, including personnel of Sub-contractors and Filed Sub-contractors.
- B. Provide chemical toilets where work is in progress and in quantity required by OSHA Code.
- C. Chemical toilets and their maintenance shall meet requirements of state and local health regulations and ordinances and shall be subject to the approval the Resident Engineer and Designer.

1.14 CONSTRUCTION BARRIERS

- A. Proper construction barriers shall be provided around the contract work areas as defined by the Contract Drawings or as directed by the City of Waltham.
- B. Construction barriers shall consist of traffic cones, ribbons, tapes, secure fencing, trench covers, wood barriers, warning signs, directional signs and other traffic materials to keep traffic and people from area of construction and maintain ongoing operation.
- C. Barriers shall be erected at such approved locations as are necessary, sufficiently cross-braced and supported adequately as required.

1.15 SAFETY PROTECTION

- A. At no time shall the work be left unattended without proper safety protection and shall not be left unprotected to the weather and accessible to the public. It is the responsibility of the Contractor to maintain proper safety protection for the public while work is in progress or unattended.
- B. No trench may be excavated unless the requirements of sections 40 through 40D of chapter 82, and any accompanying regulations, have been met and this permit is invalid unless and until said requirements have been complied with by the excavator applying for the permit including, but not limited to, the establishment of a valid excavation number with the underground plant damage prevention system as said system is defined in section 76D of chapter 164 (DIG SAFE).
- C. Trenches may pose a significant health and safety hazard. Pursuant to Section 1 of Chapter 82 of the General Laws, an excavator shall not leave any open trench unattended without first making every reasonable effort to eliminate any recognized safety hazard that may exist as a result of leaving said open trench unattended. Excavators should consult regulations promulgated by the Department of Public Safety in order to familiarize themselves with the recognized safety hazards associated with excavations and open trenches and the procedures required or recommended by said department in order to make every reasonable effort to eliminate said safety hazards which may include covering, barricading or otherwise protecting open trenches from accidental entry.
- D. Persons engaging in any in any trenching operation shall familiarize themselves with the federal safety standards promulgated by the Occupational Safety and Health Administration on excavations: 29 CFR 1926.650 et.seq., entitled Subpart P "Excavations".
- E. Excavators engaging in any trenching operation who utilize hoisting or other mechanical equipment subject to Chapter 146 shall only employ individuals licensed to operate said equipment by the Department of Public Safety pursuant to said chapter and this permit must be presented to said licensed operator before any excavation is commenced.
- F. A construction fence shall be provided along the entire perimeter of the contract limit lines, and shall be kept in good repair at all times, and shall be arranged to maintain ongoing operation's access and egress.

- G. Construction fences shall be six feet high and of chain link, or approved equal, erected in a substantial manner, straight, plumb and true.
- H. Gates shall be built into fence at such approved locations as are necessary, well cross-braced and hung on heavy strap hinges with proper post and hook for double gates. Provide heavy hasps and padlocks for each gate. Provide a set of three keys for each lock to the City of Waltham to facilitate emergency access.
- I. Fencing shall be removed by the Contractor at no cost to the Commonwealth at such time before final completion as the Designer directs. Restore site to acceptable condition after removing fence.

1.16 PARKING

- A. Only during contract working hours and to the extent available, existing parking facilities located at the construction area will be available for use by the Contractor, subcontractors and their employees. Such parking areas shall be designated by the City of Waltham. The Commonwealth shall not be responsible for cars, trucks, etc. or their contents and the Contractor and his Subcontractors and material suppliers will use the designated area with this understanding.

1.17 WASTE CONTROL AND REMOVAL

- A. Trash shall not be permitted to accumulate or migrate and the work shall at all times be kept satisfactorily clean. Facility trash receptors shall not be used for the disposal of trash. Dumpster shall be provided by the Contractor for removal of trash for all trades including subtrades.
- B. Remove trash from the work site on a daily basis and dispose of same at any (private or public) MassDEP approved dump that the Contractor may choose providing that the Contractor shall make all arrangements and obtain all approvals and permits necessary from the owner or officials in charge of such dumps. Proposed dump site shall be submitted to be approved by the City of Waltham prior to start of demolition. During disposal process, copies of daily receipts from dump site shall be submitted on a regular basis.
- C. The Contractor shall remove all debris from the Site on a weekly basis. Waste shall be segregated for recycling. Comply with requirements of Section 017418 - DEMOLITION WASTE MANAGEMENT AND DISPOSAL.
- D. Debris shall be legally disposed of in a MassDEP approved disposal site. The site to be used shall be submitted to and approved by the Designer and the City of Waltham prior to the start of construction. All required dumping permits shall be obtained prior to start of construction. Contractor shall submit receipts from the disposal site(s) to the Designer as evidence of legal disposal. Contractor shall pay the cost of any charges for debris removal.
- E. The Contractor shall bear responsibility for maintaining the Site clean and free of debris, leaving all work in clean and proper condition satisfactory to City of Waltham and the Designer. The Contractor shall ensure that each of the Subcontractors clean up during and

immediately upon completion of their work. Clean up includes the removal of all rubbish, waste, tools, equipment, appurtenances caused by and used in the execution of work.

- F. The Contractor shall prevent the accumulation of debris at the construction site, storage areas, parking areas, and along access roads and haul routes.
- G. The Contractor shall provide containers for deposit of debris and schedule periodic collection and disposal of debris.
- H. The Contractor shall prohibit overloading of trucks to prevent spillage on access and haul routes.
- I. The Contractor shall be responsible for proper disposal of all construction debris leaving the Site.

1.18 VEHICLE AND EQUIPMENT PROTECTION

- A. All construction activities shall be performed in such a manner so as not to dust, stain or damage any building elements, equipment, vehicles, etc. within general vicinity of the construction work area. Any damage to these items shall be cleaned and repaired at the expense of the Contractor.
 - 1. All construction vehicles and equipment on site shall be effectively disabled and secured when not in use.

1.19 SHORING

- A. Provide all temporary shoring and bracing as required for the proposed work. Comply with all applicable codes and standards.

1.20 CONSTRUCTION ENTRANCE

- A. The Contractor shall construct a construction entrance at a location to be determined by the City of Waltham. The Contractor shall remove and dispose the construction entrance at the completion of the Project.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION

SECTION 015716

TEMPORARY PEST CONTROL

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.

1.2 DESCRIPTION OF WORK

- A. This Section includes development and implementation of a Temporary Pest Control Plan to prevent rodents from being driven out of the project area and into surrounding buildings prior to building demolition under this Contract as designated by the Engineer. Work must be in accordance with Massachusetts Pesticide Control Act (MCPA, Chapter 132B of the Massachusetts General Laws).

1.3 APPLICABLE REGULATIONS

- A. The Contractor shall comply with all applicable Federal, State and local laws and regulations concerning environmental pollution control and abatement

1.4 SUBMITTALS

A. Pest Control Plan

- 1. A written plan, outlining sequence of activities, including control techniques to be used (by species), personnel, equipment and material, schedule, safety measures, and personal protective equipment. Plan shall be focused on rodent control. Specify mechanical traps to be used. Include proposed disposal methods and methods of protection for people and non-target species.

B. Licenses and Permits

- 1. Copy of all licenses and permits required to perform the described project using the proposed control techniques. Contractor is responsible for all required notifications.

C. Pesticide Information

- 1. Copy of most recent EPA labels for each rodenticide, fumigant or other pesticides to be used along with related safety data sheets (SDS).

- D. Manufacturer's printed application instructions for the approved rodenticide, fumigant or other pesticides.

1.5 LIABILITY

- A. The Contractor shall be liable for death or injury to persons or domestic animals in the use of the toxicants and shall determine the appropriate material from the materials list for each treatment.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Rodenticides, Fumigants and Pesticides

1. Rodenticides, fumigants and pesticides shall only be used in compliance with federal and state laws and regulations.
2. Rodenticides, fumigants and pesticides shall not be accessible to children, pets and non-target animals.
3. All spoiled and any unused bait shall be disposed of as specified on the product label.
4. Any area where rodenticides, fumigants and pesticides is used must be posted in accordance with 333. CMR 131.03 (19).

B. Mechanical Devices

1. Mechanical devices, such as traps, can be used where possible.
2. Lethal traps should be placed inside stations or other protective covering to prevent non-target birds and other animals from being injured or killed.

PART 3 - EXECUTION

3.1 APPLICATION

1. Implement approved rodent control plan and in accordance with the manufacturer's standard recommended practice
2. All spoiled and any unused bait shall be disposed of as specified on the product label.
3. Any area where rodenticide, fumigant or pesticide is used must be posted in accordance with 333 CMR 13.03 (19) and other applicable state or federal regulations.

Piety Corner House Demolition 380 Lexington Street

END OF SECTION

TEMPORARY PEST CONTROL
015716-3

SECTION 017418

DEMOLITION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS, which are hereby made a part of this Section of the Specifications.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for recycling and disposing of demolition waste.
- B. Definitions
- C. Performance Requirements
- D. Submittals
- E. Quality Assurance
- F. Demolition Waste Management Plan
- G. Demolition Waste Plan Implementation
- H. Salvaging Demolition Waste
- I. Recycling Demolition Waste
- J. Disposal of Waste

1.3 RELATED SECTIONS

- A. Section 013300 – SUBMITTAL REQUIREMENTS:
 - 1. Base requirements for submissions.
- B. Section 013543 - ENVIRONMENTAL PROTECTION PROCEDURES:
 - 1. Environmental-protection measures during demolition.
- C. Section 024000 – BUILDING AND ANCILLARY STRUCTURES DEMOLITION:
 - 1. Demolition activities.

1.4 DEFINITIONS

- A. Asphalt Pavement, Brick, and Concrete (ABC) Rubble: Rubble that contains only weathered (cured) asphalt pavement, clay bricks and attached mortar normally used in construction, or concrete that may contain rebar. The rubble shall not be mixed with, or contaminated by, another waster or debris.
- B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.
- C. Disposal: Removal off-site of demolition waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

1.5 PERFORMANCE REQUIREMENTS

- A. General: Develop waste management plan that results in end-of-Project rates for salvage/recycling of 75 percent by weight of total waste generated by the Work.
- B. Salvage/Recycle Requirements: Salvage and recycle as much non-hazardous demolition and construction waste as possible including, but not limited to the following materials:
 - 1. Asphaltic concrete paving.
 - 2. Concrete and concrete reinforcing steel.
 - 3. Brick and concrete masonry units.
 - 4. Coated brick, concrete, and concrete masonry units. Coatings shall include, but not be limited to: paint, stucco applications, plaster, etc..
 - 5. Wood studs, wood joists, plywood, oriented strand board, paneling and trim.
 - 6. Casework and cabinetry.
 - 7. Structural steel, miscellaneous steel and rough hardware.
 - 8. Roofing.
 - 9. Insulation.
 - 10. Doors, door frames and door hardware.
 - 11. Windows, glass, plastic, and glazing.
 - 12. Metal studs.
 - 13. Gypsum board.
 - 14. Acoustical tile and panels.
 - 15. Equipment.
 - 16. Plumbing fixtures, piping, supports, hangers, valves, and sprinklers.
 - 17. Mechanical equipment and refrigerants.
 - 18. Electrical conduit, copper wiring, lighting fixtures, lamps, and ballasts.
 - 19. Electrical devices, switchgear, panelboards, and transformers.

- C. In the event the Contractor encounters previously unidentified material that is reasonably believed to be hazardous, asbestos containing, coated with lead-based paint, or oily debris, the Contractor shall immediately stop work in the affected area and report the condition to the Designer and the City of Waltham. At no time shall such material be handled or disposed of by the Contractor. The Contractor agrees to cooperate with the City of Waltham and any consultants engaged by the City of Waltham to perform services with respect to the analysis, detection, removal, containment, treatment, and disposal of such regulated materials.

1.6 SUBMITTALS

- A. Demolition Waste Management Plan (DWMP): Submit for approval 3 copies of plan within 20 calendar days of date established for the Notice to Proceed, in a format acceptable to the City of Waltham.
- B. Waste Reduction Progress Reports: Concurrent with each Application for Payment, submit three copies of report. Include the following information:
 - 1. Material category.
 - 2. Generation point of waste.
 - 3. Total quantity of waste in tons.
 - 4. Quantity of waste salvaged, both estimated and actual in tons.
 - 5. Quantity of waste recycled, both estimated and actual in tons.
 - 6. Total quantity of waste recovered (salvaged plus recycled) in tons.
 - 7. Total quantity of waste recovered (salvaged plus recycled) as a percentage of total waste.
- C. Waste Reduction Calculations: Before submitting a request for Substantial Completion, submit three copies of calculated final rates for salvage, recycling, and disposal as a percentage of total waste generated by the Work.
- D. Facility Permitting Information: For disposal and incinerator facilities provide a copy of the facility's current solid waste management facility permit in accordance with 310 CMR 19.000, prior to the start of construction.
- E. Facility Permitting Information: For off-site ABC rubble crushing and/or recycling facilities, provide a statement, prior to construction, from the facility that references its specific exemption from the solid waste regulations (per 310 CMR 16.05 (3) (e)) or provide a copy of the facility's current solid waste management facility permit in accordance with 310 CMR 19.000.
- F. Record Keeping for Recycling and Landfill and/or Incinerator Disposal: Documentation to be submitted by the Contractor shall include the following as a condition of each payment:
 - 1. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, and/or receipts.
 - 2. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, and/or receipts.
- G. Records of Donations: Indicate receipt and acceptance of salvageable waste donated to individuals and organizations. Indicate whether organization is tax exempt.

- H. Records of Sales: Indicate receipt and acceptance of salvageable waste sold to individuals and organizations. Indicate whether organization is tax exempt.

1.7 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction, including but not limited to, Massachusetts solid waste regulations contained in 310 CMR 16.00 and 310 CMR 19.000.

1.8 DEMOLITION WASTE MANAGEMENT PLAN

- A. General: Develop and submit plan for approval, consisting of waste identification, and waste reduction, handling, transportation and recycling/disposal procedures. Include separate sections in plan for recycling and disposal of demolition waste. Indicate quantities by weight throughout waste management plan.
- B. Waste Identification: Indicate anticipated types and quantities of demolition and site-clearing waste generated by the Work. Include estimated quantities and assumptions for estimates.
- C. Waste Reduction Program: List each type of waste and whether it will be recycled or disposed of in landfill or incinerator. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.
 - 1. Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.
 - 2. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each landfill and incinerator facility.
 - 3. Salvaged Materials for Sale: For materials that will be sold to individuals and organizations, include list of their names, addresses and telephone numbers.
- D. Handling and Transportation Procedures: Include methods that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location(s) on Project site where materials separation will be located.
- E. Waste Management Coordinator: Identify Contractor employee who will be the Waste Management Coordinator for the project. The Waste Management Coordinator will be responsible for implementing, monitoring, and reporting status of waste management work plan.

PART 2- PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 DEMOLITION WASTE PLAN IMPLEMENTATION

- A. General: Implement Waste Management Plan as approved by the Designer. Provide containers, storage, signage, transportation, and other items as required to implement WMP for the entire duration of the Contract.
- B. The Contractor shall conduct a Waste Management Meeting at the Site. The Contractor shall review methods and procedures related to waste management including, but not limited to, the following:
 - 1. Distribute approved WMP to everyone concerned within three days of approved submittal return.
 - 2. Clearly identify the Waste Management Coordinator and explain the Coordinator's responsibilities.
 - 3. Review WMP with each trade when they first begin work on-site. Review plan procedures and locations established for recycling and disposal.
 - 4. Review and finalize procedures for material separation and verify availability of containers and bins needed to maintain production.
 - 5. Review procedures for periodic waste collection and transportation to recycling and disposal facilities.
 - 6. Provide recycling educational literature for all workers, subcontractors and suppliers engaged in on-site activities.
 - 7. Provide appropriate recycling signage for containers and workspaces.
- C. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walkways, and other adjacent occupied and used facilities.
 - 1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged, recycled, reused, donated, sold, and disposed.
 - 2. Comply with project requirements for controlling dust and dirt, environmental protection, and noise control.

3.2 SALVAGING DEMOLITION WASTE

- A. Salvaged Items for Sale and Donation: Sale activities are not permitted on Project site. Labor for loading donated items acceptable to local trade practices; union labor if applicable

3.3 RECYCLING DEMOLITION WASTE, GENERAL

- A. General: Recycle paper and beverage containers used by on-site workers.
- B. Recycling Receivers and Processors: Available recycling receivers and processors include, but are not limited to, those listed in the Massachusetts Recycling Directory, available from the

Massachusetts State Bookstore (617-727-2834) located in the Massachusetts State House, for recycling operations within the Commonwealth of Massachusetts.

- C. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical. For waste which cannot be separated at Project site, co-mingle only with waste which is to be separated later at a recycling facility. Contamination of recycling containers with trash or other contaminants will be addressed by the Contractor and who will be solely responsible for payment of all fines and penalties.
 - 1. Provide appropriately marked containers or bins for controlling recyclable waste until they are removed from Project site. Include list of acceptable and unacceptable materials at each container and bin. Inspect containers and bins for contamination and remove contaminated materials if found.
 - 2. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 - 3. Stockpile materials away from construction area. Do not store within drip line of remaining trees.
 - 4. Store components off the ground and protect from the weather.
 - 5. Remove recyclable waste off site property and transport to recycling receiver or processor.

- D. On-site crushing of non-coated asphalt pavement, brick, and concrete (ABC) rubble as described in 310 CMR 16.05, is allowed, provided performed in accordance with 310 CMR 16.05. On-site crushing of coated ABC waste is allowed provided performed in accordance with the BUD submission to the MA DEP. If on-site crushing of coated ABC waste is not performed then the waste must be transported off-site to an asphalt batching plant or to an ABC crushing or recycling operation that is either conditionally exempt from 310 CMR 16.00 or has been sited and permitted in accordance with 310 CMR 16.00 and 310 CMR 19.000, respectively.

3.4 RECYCLING DEMOLITION WASTE

- A. Asphaltic Concrete Paving: With the exception of paving debris to be crushed on-site, break up and transport paving to asphalt-recycling facility.
- B. Concrete: With the exception of concrete debris to be crushed on-site, deposit all debris in designated container to be transported to approved aggregate recycling facility to be crushed and screened for use as satisfactory soil for fill or sub-base.
- C. Masonry: With the exception of masonry debris to be crushed on-site, deposit all masonry debris in designated container to be transported to approved aggregate recycling facility to be crushed and screened for use as satisfactory soil for general fill or satisfactory soil for fill or sub-base. Clean and stack undamaged whole masonry units on wood pallets for reuse.
- D. Wood Materials: Sort and stack salvageable members according to size, type, and length. Separate lumber waste and deposit into appropriate container. Separate engineered wood products, panel products, and treated wood materials into designated containers.
- E. Metals: Separate metals by material type if practical. Stack salvageable structural steel members according to size, type of member, and length.

- F. Asphalt Shingle Roofing: Organic and glass-fiber asphalt shingles and felts shall be disposed of at a facility permitted by Massachusetts Department of Environmental Protection (DEP) to process post-consumer (used) asphalt shingles. Recycle nails, staples acceptable, flashing trim and accessories as metals.
- G. Glass: Deposit glass debris into designated containers to be transported to approved glass recycling facility.
- H. Plastics: Deposit plastic containers and debris into designated containers to be transported to approved plastic recycling facility.
- I. Gypsum Board: Deposit scraps of gypsum board into designated container protected from weather and transport to appropriate gypsum recycling facility to be processed into soil amendment.
- J. Acoustical Ceiling Panels and Tile: Deposit pulp able mineral fiber panels into designated container protected from weather and prepare for transport, as directed by manufacturer, to appropriate recycling facility to be processed into new acoustic ceiling panels. Separate suspension system, trim, and other metals from panels and tile and sort with other metals.
- K. Carpet and Pad: Roll large pieces tightly after removing debris, trash, adhesive, and tack strips. Store clean, dry carpet and pad in a closed container or trailer provided by carpet reclamation agency or carpet recycler.
- L. Equipment: Drain tanks, piping, and fixtures. Seal openings with caps or plugs. Protect equipment from exposure to weather.
- M. Plumbing Fixtures: Separate by type and size fixtures suitable for reuse. Deposit all other fixtures into designated containers by material type to be transported to approved recycling facility.
- N. Piping: Separate piping materials by material composition. Deposit in designated containers. Separate supports, hangers, valves, sprinklers, and other components by material type and deposit in designated containers for transport to approved recycling facility.
- O. Lighting Fixtures: Separate lamps by type and protect from breakage.
- P. Electrical Devices: Separate switches, receptacles, switchgear, transformers, meters, panelboards, circuit breakers, and other devices by type.
- Q. Conduit: Deposit conduit and fittings into designated container.

3.5 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
 - 1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.

Piety Corner House Demolition 380 Lexington Street

2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 3. For solid waste disposal facilities located in the Commonwealth of Massachusetts, dispose of materials only in facilities which currently comply with applicable state regulations, including requirements of 310 CMR 16.00 {Site Assignment for Solid Waste Facilities} and 310 CMR 19.000 {Solid Waste Management}, and local bylaws.
- B. Burning: Do not burn waste materials.
- C. Disposal: Transport waste materials off Owner's property and legally dispose of them.

END OF SECTION

SECTION 017700
CONTRACT CLOSEOUT

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.

1.2 DESCRIPTION OF THE WORK

- A. Final Cleaning
- B. Closeout Requirements and Submittals
- C. Guarantees and Warranties

1.3 RELATED SECTIONS

- A. The following items are not included in this Section and will be performed under the following designated Section:
 - 1. Section 013300 – SUBMITTAL REQUIREMENTS: for base requirements for submissions.
 - 2. Section 015000 – TEMPORARY FACILITIES: Management of debris from the Project.

1.4 FINAL CLEANING

- A. Unless otherwise specified under the various Sections of the Specifications, the Contractor shall perform final cleaning operations as herein specified prior to final inspection.
- B. Maintain project site free from accumulations of waste, debris, and rubbish, caused by operations. At completion of work, remove waste materials, rubbish, tools, equipment, machinery and surplus materials, and clean all sight-exposed surfaces and leave project clean.
- C. Use only those materials which will not create hazards to health or property and which will not damage surfaces.
- D. Exterior paved surfaces are to be cleaned by a mechanical sweeper (i.e. street sweeper) and rake clean other surfaces of the grounds.

SECTION 023000

SUMMARY OF EXISTING CONDITIONS

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 1 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.

1.2 SECTION INCLUDES

- A. Summary of Existing Conditions.

1.3 SUMMARY

- A. Each Bidder should visit the site of the proposed Work to fully acquaint him/herself with the existing conditions of the work to be performed and shall inform him/herself as to the facilities involved, the difficulties, and the restrictions attending the performance of the Contract. The Bidder shall thoroughly familiarize him/herself with the Contract including all Attachments attached to these Specifications. Bidders should visit the site and inspect the buildings and building construction materials. Bidders shall be thoroughly familiar with all existing buildings and site conditions under which work will be executed. Neither the City of Waltham nor the Designer shall be responsible for errors, omissions, and/or changes for extra work arising from the Contractor's failure to familiarize themselves with Contract documents and existing conditions.
- B. The Contractor acknowledges that he has satisfied himself as to the nature and location of the work, the general and local conditions, particularly those bearing upon transportation, disposal, handling, and storage of materials, availability of labor, water, electric power, roads, and uncertainties of weather, or similar physical conditions at the Site, the character of equipment and facilities needed prior to and during the prosecution of the work, and all other matters which can in any way affect the work or the cost thereof under this Contract. Any failure by the Contractor to acquaint himself with all available information concerning these conditions will not relieve him from responsibility for estimating properly the difficulty or cost of successfully performing the work.
- C. Asbestos and hazardous materials survey reports are available for review at Waltham City Hall. The bidder shall make arrangements directly with the City of Waltham to view these documents.
- D. Interior and exterior investigations of the building component composition have been performed including identifying and inventorying asbestos-containing material, mercury

containing materials, petroleum products, containerized wastes, and refrigerants. The Contractor is responsible for identification and removal of all regulated materials and wastes. All containerized wastes and building systems fluids may not be broken out in the inventory. Field verification is required for all containerized wastes and building systems fluids. The Contractor is responsible for removal and proper disposal of all containerized wastes, building systems fluids present within the buildings.

- A. The Contractor and all Subcontractors shall be advised that testing has been conducted of representative painted/coated materials existing at the Site and these materials may contain low concentrations lead. Paints/coatings containing lead concentrations of greater than 0.5 percent by weight or 1.0 mg/cm², are considered “lead based paints by US EPA. “Lead-based paint” was identified within the Shriver and CERC buildings on the metal ladder in the 4th floor mechanical room to the left of the rear elevator, on the vinyl baseboards along the staircase treads and risers, and on the basement boiler. The Contractor shall at all times be in compliance with OSHA regulation 29 CFR 1926.62 Lead in Construction: Interim Final Rule as well as other applicable regulatory requirements and other applicable portions of the contract documents.
- B. Interior and exterior investigations of building component composition have been performed for polychlorinated biphenyl (PCBs). Copies of reports and certified analytical data sheets will be made available for review by Bidders upon request. The quantities listed herein represent estimates only and are not guaranteed. It is the responsibility of the Bidders to review and confirm all field conditions, including: locations, substrate materials and conditions. Neither the City of Waltham nor the Designer will be responsible for errors or omissions and/or charges for extra work arising from any bidder’s failure to become familiar with the existing conditions of the Site. No claims for extra payment due to incorrect quantities will be considered. By submitting a bid, a Bidder agrees and warrants that he is familiar with the existing site conditions, requirements of the work and the results to be produced. By submitting a bid, the bidder further agrees that the descriptions contained herein (i.e., quantities, descriptions, locations, areas, thicknesses, etc.) are adequate and that the Bidder will produce the required results.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION

- E. At the end of the project, Contractor and each Subcontractor shall remove all his tools, equipment, machinery, and surplus materials from the job site. The Contractor shall remove all waste materials and rubbish from the project at this time. All temporary structures shall be removed and the project shall be left clean.

1.5 CLOSEOUT REQUIREMENTS AND SUBMITTALS

A. Procedural Requirements Prior to Substantial Completion: Punch List:

1. During the finishing stages of the project, the Contractor shall make frequent inspections with subcontractors, the Designer, and the City of Waltham, so as to progressively check for and correct faulty work.
2. During the course of construction of the project, the Contractor shall procure and maintain test records and certificates that will be required prior to substantial completion.
3. When the Contractor determines that he/she is Substantially Complete*, he/she shall prepare for submission to the Designer 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 contract Documents.
*NOTE: Substantially Complete means that less than one percent (1%) of all contract work, including change orders, remains to be done, and that none of the remaining work will affect health, safety, or function.
4. Upon receipt of the Contractor's list of items to be completed or corrected, the Designer will promptly make a thorough inspection, together with representatives of the City of Waltham and prepare a "punch list", setting forth in accurate detail any items on the Contractor's list and additional items that are not acceptable.
5. When the punch list has been prepared, the Designer will arrange a meeting with the Contractor and subcontractors, and the City of Waltham, to identify and explain all punch list items and answer questions on the Work that must be done before Final Acceptance.
6. The Contractor shall immediately correct all punch list items that affect health, safety or function, as determined by the Designer
7. Following the completion of punch list items noted in 1.7(A)(6), the Contractor shall cause the completion of all of the other punch list items within the timeframe required.
8. If the Contractor fails to pursue completion of the remaining monetized punch list work, on a continual basis, within the timeframe required by the certificate, the City of Waltham may, after seven (7) calendar days written notice, elect to complete the work with separate forces and charge the work against the Contractor.

1.6 GUARANTEES AND WARRANTIES

- A. Submit to the Designer all extended guarantees and warranties that have been specified in various, individual Sections of the Specifications. Guarantees shall be assembled by Specification No. and Section in accordance with Specifications Table of Contents.

1. Guarantees and warranties shall be enforceable in the Commonwealth of Massachusetts and subject to interpretation in accordance with the laws of the Commonwealth of Massachusetts.
- B. Unless more stringent requirements are otherwise specified, guarantee all work against defects of materials, equipment and workmanship for one year from the date of Completion.
- C. If, within any guarantee period, repairs or changes are required in connection with guaranteed work, Contractor shall promptly upon receipt of notice from the City of Waltham, and without additional expense to the City of Waltham, within ten days:
 1. Place in satisfactory condition in every particular all guaranteed work and correct all defects.
- D. If Contractor, after such notice, fails to proceed immediately to comply with terms of guarantee, the City of Waltham may correct defects and hold Contractor liable for all expenses incurred.
- E. Promptly after completion of the work, obtain from each subcontractor where a guarantee is required, a warranty addressed to and in favor of the City of Waltham or the User Agency if directed by the City of Waltham.
- F. Delivery of any warranty required does not relieve the Contractor from any obligation assumed under other provisions of the Contract.
- G. Deliver guarantees and warranties to the Designer before or with the application for Final Payment.
- H. The general warranty set forth in the General Conditions is in addition to, exclusive of, and not in substitution of such guarantees as may be required in the Specifications.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION

SECTION 024000

BUILDING AND ANCILLARY STRUCTURES DEMOLITION

PART 1 GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 1 - GENERAL REQUIREMENTS, which are hereby made a part of this Section of the Specifications.
- B. Equality of material, article, assembly or system other than those named or described in this Section shall be determined in accordance with the provisions of Article III, Paragraph 1 of the CONTRACT AND GENERAL CONDITIONS.

1.2 DESCRIPTION OF WORK

- A. The CONTRACTOR shall provide labor, materials and equipment to complete the work of this Section and as shown on the Drawings. Generally, the demolition work shall include, but not be limited to:
 - 1. File all necessary notices, obtain all permits and licenses, and pay all governmental taxes, fees, and other costs in connection with the work. Obtain all necessary approvals of all governmental departments having jurisdiction.
 - 2. The Contractor shall retain a Professional Engineer, registered in Massachusetts, to analyze the existing structures and determine:
 - a. The capacities of existing floors if the Contractor is going to operate equipment or store debris on these areas.
 - b. What equipment can be safely driven or placed on existing structures considering what is around the equipment when it is lifting its load.
 - c. Where equipment can be safely driven or placed on existing structures.
 - d. The limits for stockpiling of debris on existing structures.
 - e. Whether the structures have adequate strength to support demolition activities.
 - 3. The Contractor shall control access to areas that do not have the strength to support construction activities or where the strength has not been determined or verified by the Designer or by the Contractor's structural engineer.
 - 4. Demolition and removal of all designated buildings and structures including all contents, equipment, and systems within the buildings unless otherwise noted.
 - 5. Demolition and removal of all foundation walls, floor slabs, beams, girders, spandrels, columns, structural walls, partition walls, and footings.

6. Installation of temporary shoring and lateral bracing (if necessary) for stability during demolition and its removal once it is no longer necessary.
 7. Removal of all under-slab utilities.
 8. Cutting capping steam lines, wet-wrapping exposed ends of asbestos-containing piping, and sealing steam tunnels for abatement by others at a later date.
 9. Removal and legal disposal of demolished materials off site at the Contractor's expense. All existing removed materials, items, trash, and debris shall become the property of the Contractor and shall be completely removed from the site and legally disposed, recycled, or salvaged at his/her expense. On-site sale of material is not permitted.
 10. If work is performed in winter months, the Contractor shall be responsible for snow removal to access the Site and perform all work described herein.
 11. Protection of asphalt paving surrounding the buildings that are designated to remain.
 12. Scheduling and sequencing operations without interrupting utilities serving occupied areas in other buildings. If interruption is required, obtain written permission from the utility company and the City of Waltham. Provide temporary services as necessary to serve occupied and usable facilities when permanent utilities must be interrupted, or schedule interruption when the least amount of inconvenience will result.
- B. Related work: The following items are closely related to the demolition work but not included in this Section and will be performed under the designated Sections.
1. Section 015000 – TEMPORARY FACILITIES AND CONTROLS
 2. Section 017700 - CONTRACT CLOSEOUT
 3. Section 025000 - ASBESTOS REMOVAL AND RELATED WORK
 4. Section 028100 MANAGEMENT AND DISPOSAL OF WASTE STREAMS
 5. Section 310000 – EARTHWORK
 6. Section 311000 – SITE CLEARING

1.3 SCHEDULE

- A. The Contractor shall perform work in accordance with the schedule prepared by the City of Waltham.

1.4 REFERENCES

- A. 310 CMR 19.060 (Solid Waste Regulations – Beneficial Use Determination)

1.5 DEFINITIONS

- A. Remove: Remove and legally dispose of items except those indicated to be reinstalled, salvaged, or to remain the City of Waltham’s property.
- B. Dismantle: Controlled demolition procedure where segments of structure are temporarily shored, sawcut, and removed using a crane.

1.6 MATERIALS OWNERSHIP

- A. Demolished materials shall become the Contractor’s property and shall be removed from the site and all recyclable demolition material shall be recycled and non-recyclable material shall be disposed at approved legal landfills.

1.7 SUBMITTALS

- A. The Contractor shall submit each item in this Article according to the Conditions of the Contract and Section 013300 - SUBMITTAL REQUIREMENTS.
- B. Quality Control Submittals (prior to commencement of on-site demolition):
 - 1. Demolition Plan that specifies the approach and sequence of the demolition of the entire structure to be removed along with a list of equipment that will be used for the demolition. The demolition plan shall specifically address the demolition of portions of the structure that require dismantling as indicated herein, the need for temporary lateral bracing during demolition (if required), locations requiring shoring (if required), list and operating weights of equipment to be operated on the floors and restrictions as to where they may be operated, locations and limitations of stockpiling debris on concrete slab floors, and management of waste streams, including segregation and handling of asbestos-containing materials and other hazardous and non-hazardous materials.
 - 2. Waste Management Plan to indicate the types of wastes to be generated and the proposed disposal or recycling locations. Include back-up disposal facilities.
 - 3. Copies of any authorizations and permits required to perform the work, including disposal/recycling facility permits.
 - 4. Dust Control Plan to indicate the methods the Contractor will use to limit spreading of fugitive dust to neighboring private residences.
 - 6. Noise Abatement Program to indicate the methods the Contractor will use to keep noise to a minimum. Refer to Section 013543 – ENVIRONMENTAL PROTECTION PROCEDURES for more information.
 - 7. The qualifications of the Massachusetts Registered Professional Engineer analyzing

the existing structures.

8. Schedule of Demolition Activities. Indicate the following:
 - a. Detailed sequence of demolition and removal work, with early and late starting and finishing dates for each activity. Ensure on-site operations are uninterrupted.
 - b. Interruption of utility services. Indicate how long utility services will be interrupted.
 - c. Coordination for shutoff, capping, and continuation of utility services.
 9. Locations of proposed dust- and noise-control temporary partitions and means of egress.
- C. Contract Closeout Submittals (throughout project and prior to authorization of final payment):
1. Records of the amounts of waste generated, by waste type.
 2. Evidence of lawful disposal or recycling of all wastes generated.
 3. Documentation of underground structures and utilities to remain within the Limit of Work.
- D. Inventory: After demolition is complete, submit a list of items that have been removed and salvaged.
- E. Landfill Records: Provide trip tickets (receipts) indicating receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.
1. Comply with submittal requirements in Section 017418 – DEMOLITION WASTE MANAGEMENT AND DISPOSAL.

1.8 REGULATORY REQUIREMENTS

- A. The Contractor is solely responsible for obtaining permits or approvals which may be required to perform the work of this section and related sections, including all costs, fees and taxes required or levied. Notify and obtain such permits or approvals from all agencies having jurisdiction over demolition prior to starting work including, but not limited to Fire Departments of the City of Waltham and all other local, state and federal agencies.
- B. Obtain demolition permits from the Department of Public Safety (DPS) for the project. DPS requires (780 CMR 116.1) that the Contractor provide a letter from each impacted utility verifying termination of service prior to issuance of the demolition permit.
- C. Comply with all applicable federal, state, and local safety and health requirements regarding the demolition of structures and other site features as applicable including but not limited to 780 CMR Section 3307.0 “Protection of Adjoining Property.”

- D. Conform to procedures identified in Section 026000 MISCELLANEOUS HAZARDOUS MATERIAL REMOVAL when discovering hazardous or contaminated materials.
- E. Conform with the City of Waltham noise ordinance.

1.9 QUALITY ASSURANCE

- A. Examination of Existing Conditions: The Contractor shall examine the Specifications and other contract documents for demolition and removal requirements and provisions for new work. Verify all existing conditions and dimensions before commencing work. The Contractor shall visit the site and examine the existing conditions as he finds them and shall inform herself/himself of the character, extent and type of demolition and removal work to be performed. Submit any questions regarding the extent and character of the demolition and removal work in the manner and within the time period established for receipt of such questions during the bidding period.
- B. Demolition Firm Qualifications: An experienced firm that has specialized in demolition work similar in material and extent to that indicated for this Project.
- C. Massachusetts Registered Professional Engineer Qualifications for Engineer retained by the Contractor to analyze the existing structure: The Registered Professional Engineer shall have at least five (5) years' experience and three (3) projects in performing demolition support of projects similar to this project, including work in urban areas.
- D. Massachusetts Registered Professional Engineer Qualifications: The Registered Professional Engineer shall have at least five (5) years' experience and three (3) projects in performing pre- and post-construction surveys of projects similar to this project, including work in urban areas, and a record of performance in completing condition surveys of similar types of structures and buildings. The Professional Engineer shall have structural and demolition expertise.
- E. Regulatory Requirements: Comply with governing USEPA and MassDEP notification regulations before beginning demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- F. Standards: Comply with ANSI A10.6 "Safety Requirements for Demolition Operations" and NFPA 241 "Standard for Safeguarding Construction, Alteration, and Demolition Operations."
- G. Pre-demolition Conference: Conduct conference at the Site. Review methods and procedures related to demolition including, but not limited to, the following:
 - 1. Inspect and discuss condition of buildings to be demolished.
 - 2. Review structural load limitations of existing structures. The Contractor shall present their structural engineer's assessment of what equipment can be safely driven, operated, or placed on the existing structure; where the equipment can be safely driven, operated, or placed on the existing structure; how floor areas that cannot support the demolition equipment shall be identified and access to them shall be restricted, and limits for stockpiling of debris on the existing structure.
 - 3. Review and finalize demolition schedule, Demolition Plan, and verify availability of

materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.

4. Review Dust Control Plan
5. Review Noise Abatement Program

1.10 LEAD-BASED PAINT

- A. Lead-containing paint may be present on components located throughout the buildings to be demolished. However, lead abatement of these components shall not be required for performance of the demolition work outlined therein.
- B. Removal of lead paint will be performed at the Contractor's own expense in accordance with applicable OSHA requirements. No additional compensation shall be granted for any engineering control methods employed by the Contractor for compliance with this Section, OSHA or other applicable requirements.
- C. The CONTRACTOR shall be advised that testing has been conducted of representative painted/coated materials existing at the Site and these materials may contain lead. The CONTRACTOR and all subcontractor shall at all times be in compliance with OSHA regulation 29 CFR1926.62 Lead in Construction: Interim Final Rule as well as other applicable regulatory requirements and other applicable portions of the contract documents.

PART 2 – PRODUCTS

2.1 GENERAL

- A. All materials or equipment delivered to the Site shall be unloaded, temporarily stored, and transferred to the work area in a manner that shall not interfere with the operation of others at the Site or with employees' access and safety. The storage area(s) shall be proposed by the Contractor and approved by the Designer.
- B. All materials shall be delivered to the Site in the original packages, containers, or bundles bearing the name of the manufacturer, the brand name and product technical description. No damaged or deteriorating materials shall be used.
- C. Damaged or deteriorated materials shall not be used and shall be promptly removed from the Site.
- D. All materials and equipment shall comply, at a minimum, with all sections of these specifications, applicable federal and state regulations and policies.

2.2 MATERIALS

- A. Waste containers shall be suitable for loading, temporary storage, transport and unloading of selected demolition waste without risk of release to the Site and environment. Waste containers shall be suitable for transportation in conformance with all applicable Federal and State required laws, regulations, and policies.

2.3 SAFETY SUPPLIES AND EQUIPMENT

- A. All workers shall be provided with suitable personal protection equipment as specified in the Contractor's Health and Safety Plan. This equipment shall include disposal coveralls, head protection, foot coverings, gloves, and eye protection. Minimum respiratory protection shall be compliant with current OSHA regulations.
- B. Air monitoring equipment of the type and quantity required to monitor operations and conduct personnel exposure surveillance in accordance with OSHA requirements.

PART 3 - EXECUTION**3.1 GENERAL**

- A. Verify site conditions before proceeding with demolition work. Field-check and inspect structures and utilities prior to start of work and notify the Designer in writing of any hazardous conditions and/or discrepancies. Refer to Section 311000 – SITE CLEARING for additional requirements.
1. Unknown Site Conditions - The information provided in the Specifications is believed accurate, but the Contractor should field verify all information. The Contractor shall bear full responsibility for obtaining all locations of underground structures (utilizing the services of a utility locating subcontractor), utilities and their connections. Services to buildings outside the Limits of Work shall be maintained and all resulting costs or charges due to interruption of these utilities shall be the responsibility of the Contractor.
 2. Interior Elements - Interior features including but not necessarily limited to structural elements, walls, partitions, equipment, piping, finishes, and other building facilities must be visually inspected prior to submittal of bid, and again prior to initiation of on-site work. The Contractor shall be responsible for performing its own inspection and appraisal of all features and facilities to be demolished or removed for salvage. The Contractor shall also investigate to assure itself of the condition of the work to be demolished and shall take all precautions necessary to ensure safety of people and property.
- B. The demolition of the buildings, underground utilities and related appurtenances shall be accomplished by methods which will not cause damage to surrounding structures, underground and overhead utilities, or other existing items and structures that are to remain in place. In the event that damage occurs to surrounding structures, utilities, or any other items, the contractor shall promptly repair the damage at his own expense. All debris shall be promptly and properly managed as the demolition progresses. Construct and/or prepare material Staging/Stockpile areas as required at locations approved by the Designer and the City of Waltham.

3.2 WORK RESTRICTIONS

- A. The use of burning is not permitted.
- B. The use of explosives is not permitted.
- C. The contractor shall not “pancake” the floors as part of the demolition. That is, the Contractor shall not take down portions of the building by allowing upper floors to fall on lower floors in a manner that causes lower floors to collapse.
- D. Refer to Section 011000 – SUMMARY.

3.3 PREPARATION

- A. Site Access and Temporary Controls: Conduct demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities. Damage or impact to any public or private property including sidewalks, roadways, landscape areas, or buildings/structures will be immediately repaired at no cost to the City of Waltham.
 - 1. Comply with requirements for access and protection specified in Section 015000 - TEMPORARY FACILITIES AND CONTROLS.
 - 2. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from the City of Waltham. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.
 - 3. Protect existing site improvements and appurtenances to remain.
- B. Conduct demolition operations to prevent injury to people and damage to adjacent buildings and facilities to remain. Ensure safe passage of people around demolition area.
 - 1. Erect temporary protection, such as walks, fences, and barriers. Provide temporary barricades as required to limit access to demolition areas. Refer to Section 015000 - TEMPORARY FACILITIES AND CONTROLS for additional requirements for fencing and temporary barricades.
- C. Install OSHA compliant guardrails at all applicable areas.
- D. Drain, purge, or otherwise remove, collect, and legally dispose of chemicals, gases, explosives, acids, flammables, or other dangerous materials before proceeding with demolition operations.
- E. Pre-clean buildings of miscellaneous solid waste in preparation for asbestos abatement, PCB remediation, and hazardous materials removal.
- F. Demolition activities in the building shall not be initiated until the requirements of Section 311000 – SITE CLEARING, Section 025000 - ASBESTOS REMOVAL and RELATED WORK, and Section 026000 - MISCELLANEOUS HAZARDOUS MATERIAL REMOVAL have been satisfied.
- G. Utilities:
 - 1. Notify Dig Safe to request a utility mark-out for the Site prior to performing any demolition work. Retain a private utility marking contractor to locate and mark all utilities at the buildings to be demolished.
 - 2. Terminate utilities serving the buildings prior to commencing demolition. Refer to Section 311000 — SITE CLEARING for additional requirements.
- H. Wildlife Control
 - 1. The CONTRACTOR shall implement the requirements of Section 015716 –

TEMPORARY PEST CONTROL prior to starting demolition activities.

2. Remove from structures all rodents and other animals prior to demolition.
3. Removal methods shall prevent infestation of adjoining properties.

3.4 HAZARDOUS MATERIALS

A. Hazardous Materials

1. Prior to demolition, remove asbestos-containing materials, oil, and other hazardous materials in accordance with Section 013543, Section 025000, and Section 026000.

B. Biological

1. The Contractor is hereby notified that there are localized occurrences of mold, mildew and bird guano on the structures to be demolished. Inhalation of these materials could present a hazard to workers.
2. The Contractor shall perform abatement, debris removal, and demolition activities in a manner that prevents workers exposure to airborne pathogens and biological matter.
3. The Contractor is responsible for the lawful collection, characterization and disposal of all biological substances on surfaces in accordance with USEPA and MassDEP Regulations.

C. Lead Paint

1. A number of state, federal and local agencies regulate work that involves lead paint. The Contractor is hereby notified that there are paint coatings on the structures to be demolished that contain lead. This lead could present a hazard to workers and requires regulatory compliance with 29 CFR 1926.62 "Lead in Construction."
2. Of specific concern is the cutting of steel components using torch methods. If the Contractor intends to torch-cut painted steel, lead paint must be removed from the area to be cut with a chemical stripper or other means prior to cutting. Sufficient paint must be removed from the area to prevent volatilization of lead during the heating of the steel. Other methods of controlling worker exposure to lead will be acceptable provided that they are addressed in the Contractor's "Lead Exposure Plan" and that they meet the requirements of 29 CFR 1926.62.
3. The Contractor is responsible for the lawful collection, characterization and disposal of all paint chip debris and flaking paint on surfaces in accordance with USEPA and MassDEP Regulations.
4. Where activities may generate leaded dust or impact a leaded surface, regulate work area so that dust migration is contained properly within the regulated area. Once the work is complete, properly clean up and dispose of leaded dust and materials.

D. Oil and Hazardous Material Contamination

1. Contaminated soil may be encountered during foundation excavation or at other areas of the site. In the event that contaminated soil is encountered, handle such material in accordance with State and Federal Regulations.
2. The Contractor working in areas of the Site where contamination may be encountered shall be appropriately trained, as required in the Contractor's Health and Safety Plan.
3. When working in areas of the site where contamination is likely to be encountered, the Contractor's Site Safety Officer shall monitor the work area in accordance with the Contractor's Health and Safety Plan.

3.5 UNANTICIPATED ASBESTOS AND HAZARDOUS MATERIALS DISCOVERY

- A. If unanticipated asbestos-containing materials or other Hazardous Materials not included in Contract are discovered at any time during the course of work, the Contractor shall cease work in the affected areas only and continue work in other areas, and at the same time notify the City of Waltham and the Designer of such discovery. Do not proceed with work in such affected areas until written instructions are received. If removal is required, payment will be made in accordance with the contract unit prices bid for each respective material. In the absence of unit prices, costs shall be negotiated or otherwise established prior to commencement of removal, in accordance with provisions of the Contract.

3.6 DEMOLITION

A. General Requirements

1. Shut down and lock out electrical power, including all receptacles and light fixtures, when feasible. The use or isolation of electrical power will be coordinated with all other ongoing uses of electrical power at the Site.
2. Coordinate all power and fire alarm isolation with the appropriate representatives.
3. When necessary, provide temporary power and adequate lighting and ensure safe installation of electrical equipment, including ground fault protection and power cables, in compliance with applicable electrical codes and OSHA requirements. The Contractor is responsible for proper connection and installation of electrical wiring.
4. Conduct demolition operations to ensure minimum interference with roads, streets, walks, and other adjacent occupied and used facilities.
5. Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by the Designer, OSHA or other authorities having jurisdiction.
6. Protect existing site improvements and appurtenances to remain.
7. Strengthen or add new supports when required during progress of demolition.

8. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during flame-cutting operations.
9. Maintain adequate ventilation when using cutting torches. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
10. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
11. Locate demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
12. Dispose of demolished items and materials promptly. Comply with requirements in Section 017418 - DEMOLITION WASTE MANAGEMENT AND DISPOSAL and Section 028100 – MANAGEMENT AND DISPOSAL OF WASTE STREAMS.
13. Intentional collapse or explosive demolition practices are strictly forbidden on this project.
14. Ladders and/or scaffolds to be utilized throughout this project shall be in compliance with OSHA requirements, and of adequate length, strength and sufficient quantity to support the scope of work. Use of ladders/scaffolds shall be in conformance with OSHA 29 CFR 1926 Subpart L and X requirements.
15. Work performed at heights exceeding six feet (6') shall be performed in accordance with the OSHA Fall Protection Standard 29 CFR 1926 Subpart M including the use of fall arrest systems as applicable.

B. Structure Demolition

1. After completion of selective demolition, demolish and completely remove the existing building and structures within the Limit of Work unless otherwise noted on the Drawings. Structure demolition shall include the demolition of all structural and remaining non-structural building elements, including mechanical systems, equipment, other items within the building, all underslab utilities, and appurtenances and ancillary components within, and fixed to, the building. All remaining equipment and other items within the building shall be demolished as required and removed for reuse, recycling, or lawful disposal.
2. All building foundation components and related elements including floor slabs shall be completely removed unless other noted on the Drawings.
3. Ensure no unstable building elements are left unsupported. Place and secure bracing, shoring, or lateral supports as may be required as a result of any cutting, removal, or demolition work performed under this Contract. During demolition, the Contractor shall continuously evaluate the condition of the structure being demolished and take immediate action to protect all personnel working in and around the demolition site. No area, section, or component of floors, roofs, walls, columns, or other structural

element shall be left standing without sufficient bracing, shoring, or lateral support to prevent collapse or failure while workmen remove debris or perform other work in the immediate area.

4. Material Segregation

5. See Section 028100 – MANAGEMENT AND DISPOSAL OF WASTE STREAMS for material segregation requirements.

E. Concrete and Masonry

1. Rubble shall not be used as backfill on the site.
2. For additional requirements, See Section 3.2.

F. Miscellaneous Site Demolition

1. Remove and properly dispose of all miscellaneous debris, miscellaneous solid waste, garbage, abandoned supplies, brush, stumps, equipment, or other materials located within the Limit of Work, including the interior of the buildings to be demolished.

3.7 DISPOSAL

- A. See Section 028100 – MANAGEMENT AND DISPOSAL OF WASTE STREAMS for disposal requirements.

3.8 BACKFILLING

A. Backfill Material and Compaction:

1. Conform to Section 310000 EARTHWORK.

3.9 DOCUMENTATION

- A. Document the project as required under Section 310000 EARTHWORK.

3.10 DUST CONTROL

- A. The Contractor shall implement fugitive dust suppression to prevent unacceptable levels of dust resulting from demolition operations or other activities required by the Contract. It shall be the Contractor's responsibility to supervise fugitive dust control measures and to visually monitor airborne particulate matter. Comply with applicable provisions of Section 013543 - ENVIRONMENTAL PROTECTION PROCEDURES and Section 015000 - TEMPORARY FACILITIES AND CONTROLS.

- B. Refer to Section 015000 for requirements related to the source of water for dust control.

3.11 NOISE AND VIBRATION CONTROL

- A. Refer to Section 013543 – ENVIRONMENTAL PROTECTION PROCEDURES for more information.

3.12 PROTECTION

- A. Protect site features, vegetation and adjacent property as indicated in Section 311000 SITE CLEARING
- B. Protect grass and trees that are not in the immediate vicinity of structures, roads or utilities to be demolished. Only remove those grasses, trees, shrubs and other vegetation necessary to complete the work. The Contractor is responsible for proper disposal of all trees and other vegetation removed.

3.13 CLEANUP

- A. Remove all debris, residuals, and materials at the conclusion of demolition activities.
- B. Additional requirements are specified in Section 017700 — CONTRACT CLOSEOUT.

END OF SECTION

SECTION 028100

MANAGEMENT AND DISPOSAL OF WASTE STREAMS

PART 1- GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION I — GENERAL REQUIREMENTS which are hereby made a part of this Section of Specifications.
- B. Where in the performance of the work, workers, supervisory personnel, Subcontractors, or consultants may encounter, disturb or otherwise function in the immediate vicinity of PCB-containing caulking materials, where appropriate, continuous measures as necessary to protect the public and the environment from the hazard of exposure shall be taken. Such measures shall include the procedures and methods described herein, regulations of the U.S. Occupational Safety & Health Administration (OSHA) and U.S. Environmental Protection Agency (EPA), including the US EPA's PCB Bulk Product Waste Re-interpretation dated October 24, 2012.

1.2 DESCRIPTION OF WORK

- A. The Contractor shall furnish all labor, material, tools and equipment necessary for the on-site management, segregation, transportation and disposal of all waste associated with the project. This includes any disposal personal protective equipment and protective sheeting used in minimizing the spread of contamination.
- B. Related Work: The following items are not included in this Section and will be performed under the Designated Sections:
 - 1. Section 015000: TEMPORARY FACILITIES.

1.3 SECTION INCLUDES

- A. Regulatory Requirements
- B. Submittals
- C. Products
- D. Waste Characterization
- E. Waste Segregation
- F. Waste Profiles and Manifests
- G. Transport of Contaminated Materials

- H. Waste Disposal
- I. Waste Disposal Documentation

1.4 REGULATORY REQUIREMENTS

- A. The Work of this Section shall be performed in accordance with all applicable Federal, State, and local regulations, laws, codes and ordinances governing the handling, transportation, and disposal of hazardous materials, demolition debris, and solid waste.
- B. The Contractor shall obtain all Federal, State and local permits required for the transport and disposal of each waste stream. The Contractor shall adhere to all permit requirements or inference in any Submittal document, approval letter or other correspondence.
- C. The Contractor shall document that the disposal facilities proposed have all certifications and permits as required by Federal, State and local regulatory agencies to receive and dispose of the various waste streams. Specific receiving facilities are subject to approval by the Designer in accordance with the Contractor's Work Plan submitted under Section 013300.
- D. The Contractor shall not dispose of any waste stream at a landfill if a feasible alternative exists that involves the reuse, recycling, destruction, and/or detoxification of the material in accordance with 310 CMR 40.0032(5).

1.5 SUBMITTALS

- A. The Contractor shall submit each item in this Article according to the Conditions of the Contract and Section 013300.

1.6 HEALTH AND SAFETY PLAN

- A. The Contractor shall prepare a Health and Safety Plan that addresses all site activities and the plan for keeping personnel safe during these Activities. This plan also addresses safe working conditions relative to maintaining safe working conditions relative to chemical constituents in soil, sediment, groundwater and air.
- B. The Contractor shall provide the City of Waltham and the Designer with written notice of the existence of said Plan and of his/her communication of said Plan to all relevant workers. Work may not proceed at the Project Site until the Designer receives the written notice.
- C. The Contractor's Health and Safety Plan shall be communicated to the City of Waltham and the Designer for informational purposes.
- D. The Health and Safety Plan shall specifically address protection of the surrounding residential neighbors during all construction activities and meet applicable requirements.
- E. All Contractor's employees (including applicable subcontractors) who shall work or visit the Site, shall be informed of relevant Site procedures and policies by the Contractor and given a briefing on the site Health and Safety Plan before being allowed access to the site.

- F. Continuous monitoring shall be performed by the Contractor during all work involving unsafe activities within the active work area and at the Limits of Work.
- G. The Contractor shall be liable of any property damage or personal injury resulting from failure by the Contractor to take required or adequate safety precautions, and shall indemnify the City of Waltham, the Designer, and their employees and agents from such failure.
- H. Worker's Qualifications Data:
 - 1. Name of each person who will be performing the Work and their employer's name, business address and telephone number.
 - 2. Names and addresses of 3 similar projects that each person has worked on during the past 3 years and documentation of completion of appropriate Hazardous Waste training program and supervisors with appropriate Hazardous Waste supervisor training.
 - 3. Documentation of OSHA 40-Hour HAZWOPER Training for all employees and subcontractors to be used for the abatement work, and 8-Hour HAZWOPER Supervisor Training for the designated on-site Health and Safety Officer for the Abatement work.
 - 4. Workers must be trained as per OSHA and EPA requirements, have medical clearance and must have recently received pulmonary function test (PFT) and respirator fit tested by a trained professional.
 - 5. A personal air sampling program shall be in place as required by OSHA. The use of respirators must also follow a complete respiratory protection program as specified by OSHA.

1.7 EMERGENCY PLANNING

- A. Description: The Contractor shall prepare an emergency preparedness plan detailing at least the information required in this section and in any applicable federal, state or local regulations.
- B. Details of Plan:
 - 1. Emergency planning shall be developed prior to abatement initiation and submitted to the Director for review.
 - 2. Emergency procedures shall be in written form and prominently posted in the clean change area of the worker decontamination area.
 - 3. Emergency planning shall include written notification of police, fire and emergency medical personnel of planned abatement activities, work schedule and layout of work area, particularly barriers that may affect response capabilities.
 - 4. Emergency planning shall include considerations of fire, electrical hazards, slips, trips, and falls, spills or releases of hazardous materials and heat related injury. Written procedures shall be developed and employee training in procedures shall be provided.
 - 5. Employees shall be trained in evacuation procedures in the event of work place emergencies.

Piety Corner House Demolition 380 Lexington Street

- a) For Non-Life-Threatening Situations: Employees injured or otherwise incapacitated shall decontaminate following normal procedures with assistance from fellow workers, if necessary, before exiting the work place to obtain proper medical treatment.
 - b) For Life-Threatening Injury or Illness: Worker decontamination shall take least priority. After measures to stabilize the injured worker, the injured worker shall be removed from the work place and secure proper medical treatment.
- C. Telephone numbers of all emergency response personnel shall be prominently posted in the clean area and equipment room, along with the location of the nearest telephone.

PART 2- PRODUCTS

2.1 GENERAL

- A. All materials or equipment delivered to the Site shall be unloaded, temporarily stored, and transferred to the work area in a manner that shall not interfere with the operation of others at the Site or with employees' access and safety. The storage area shall be proposed by the Contractor and approved by the Designer.
- B. Damaged or deteriorated materials shall not be used and shall be promptly removed from the Site.
- C. All materials and equipment shall comply, at a minimum, with all sections of these specifications, applicable federal and state regulations and policies.

2.2 MATERIALS

- A. Warning labeling shall have waterproof print and permanent adhesive affixed to the lid and/or sides of the containers, whether or not these containers are further packaged. Warning labels shall be conspicuous and legible, and conform to the latest OSHA, EPA and DOT labeling requirements.
- B. Waste containers shall be suitable for loading, temporary storage, transport and unloading of waste streams without risk of ripping, rupture, or exposure to persons or emissions to the environment. Waste containers shall be pre-lined and suitable for transportation in conformance with all applicable Federal and state .required laws, regulations, and policies.
- C. Truck Liners shall be pre-formed polyethylene or equivalent with a minimum thickness of 10-mil for all applications.
- D. Tape shall be capable of sealing plastic joints. The bonding strength and resulting seal integrity shall not be affected by mist or water or any other materials used in the work area.
- E. Trucks placards shall be appropriate for the individual waste streams and shall confirm to US Department of Transportation (USDOT) requirements
- F. All forms shall conform to the applicable requirements specified by the appropriate regulation.

2.3 SAFETY SUPPLIES AND EQUIPMENT

- A. All workers shall be provided with suitable personal protection equipment as specified in the Contractor's Health and Safety Plan. This equipment shall include disposal coveralls, head protection, foot coverings, gloves, and eye protection. Minimum respiratory protection shall be compliant with current OSHA regulations.

2.4 EQUIPMENT

- A. Transportation equipment shall be suitable for loading and transportation of the waste streams without exposure to persons or property. The equipment shall be secured at all times and access restricted to unauthorized personnel.

PART 3- EXECUTION

3.1 GENERAL

- A. The Contractor is responsible to determine current waste packaging, labeling handling, transportation, disposal, and record-keeping requirements for each waste stream.
- B. The Contractor shall exercise care that no unauthorized persons have access to the waste streams either before or during transport.
- C. All temporary stored material must be removed from the Site in accordance with applicable regulatory deadlines however, no later than 90 days after the generation date or the completion date of this Contract whichever is sooner.

3.2 WASTE CHARACTERIZATION

- A. The Contractor shall be responsible for characterizing each waste stream to obtain approvals for final reuse or disposal of the waste stream. The Contractor shall collect waste samples in accordance with USEPA, MassDEP, and the disposal facility's methodologies, requirements, and procedures.
- B. The Contractor shall be required to submit a copy of all analytical results to the Designer within 2 days of receipt of the laboratory report. Analytical data shall be kept confidential, and distributed to the City of Waltham and the Designer.

3.3 MATERIAL SEGREGATION

- A. All asphalt and brick rubble shall be separated from wood, mechanical equipment, reinforced concrete and structural steel. Reinforcement in reinforced concrete shall be separated from the concrete offsite. Once the reinforcement and concrete are separated offsite, the reinforcement shall be recycled, and the concrete shall be crushed and recycled or disposed of in accordance with applicable regulations. Any oil-stained concrete shall be separated, characterized by the Contractor, and properly disposed of in accordance with applicable regulations. Wood shall be recycled or disposed of offsite by the Contractor. Structural steel, cast iron and other metals shall be removed from the Project Site and recycled unless otherwise required in these Specifications. Prior to demolition by heavy equipment, remove internal metal, wood and mechanical equipment. Reuse, salvage and recycle materials from the demolition to the greatest extent possible.
- B. Exterior grey and black caulk at the North Branch Library were tested for polychlorinated biphenyls (PCBs), and were found to contain PCB concentrations of between 2-5 parts per million (ppm), below the threshold to be characterized as a PCB bulk product waste. However, due to the fact the PCB concentrations are greater than 2 ppm in this caulk, waste generated from the management of this material cannot be disposed of in an in-state landfill per the Massachusetts Contingency Plan (MCP).

3.4 WASTE MANAGEMENT

- A. Conveyance equipment shall be suitable for on-site movement of the masonry and concrete debris to the on-site temporary storage area(s). The conveyance method shall minimize exposure to persons or property. The conveyance equipment shall be secured at all times and access restricted to unauthorized personnel.

- B. All waste containers shall indicate the date of generation. Open top containers are discouraged, but if they are used, they must be properly secured to prevent rain and/or snow from entering the container during storage and loading. The contractor must indicate in the Work Plan how he will manage this requirement. The containers must be properly labeled and secured at all times to prevent access by unauthorized personnel.
- E. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- F. Remove debris from elevated portions of the buildings by hoist, elevator, or other device that will convey debris to grade level.

3.5 WASTE PROFILES AND MANIFESTS

- A. The Contractor shall be responsible for preparing and submitting to the Designer for review all waste profile applications and questionnaires, and coordination with disposal facilities and all Federal and State Environmental Agencies. Waste profile applications and questionnaires shall include a summary of the analytical data and copies of the certified analytical data. All waste profile applications and questionnaires shall be submitted to the City of Waltham and the Designer seven (7) calendar days before the required submission date.
- B. The Contractor shall be responsible for preparing all hazardous and non-hazardous material manifests with all applicable analytical backup, notification, and control forms. Draft manifests shall be submitted to the City of Waltham and the Designer seven (7) calendar days before the required transport date.
- C. The City of Waltham will be the generator and will sign all hazardous and non-hazardous manifests and/or Waste Shipping Records and waste profile application or questionnaires.

3.6 TRANSPORT OF CONTAMINATED MATERIAL

- A. The Contractor shall not be permitted to transport contaminated materials off-site until all disposal or recycling facility documentation has been received, reviewed, and accepted by the City of Waltham and the Designer.
- B. The Contractor shall use licensed hazardous material transporters in conformance with the Massachusetts Hazardous Material Regulations as specified in 310 CMR 30.000 et. al. The hauler(s) shall be licensed in all states affected by transport.
- C. Waste Transporters are prohibited from “back hauling” any freight after disposition of the Commonwealth waste stream until decontamination of the vehicle and/or trailer is performed.
- D. The Contractor shall provide the Designer with the estimated total volume of each load or container shipment and provide an accurate count of each type of container and/or load before the waste is removed from the Site. The Contractor shall complete appropriate documentation for each load
- E. The Designer and/or Resident Engineer shall confirm the volume of each container or load removed from the Site.
- F. The Contractor shall remove waste containers from the work areas under observation of the Designer.

Piety Corner House Demolition 380 Lexington Street

- G. The Contractor shall transport contaminated materials from the Site to the disposal or recycling facility in accordance with all United States Department of Transportation (DOT), USEPA, and MassDEP regulations.
- H. The Contractor shall maintain proper follow up procedures to assure that waste materials have been received by the designated disposal facility in a timely manner and in accordance with all Federal, State, and local regulations.
- I. The Contractor shall be responsible for ensuring that free-liquid does not develop during transport. "Wet materials" shall not be loaded for transport. The Contractor shall be responsible to properly dispose of any free liquids that may result during transportation.

3.7 WASTE DISPOSAL

- A. Remove all remediation and demolition waste from the Site for disposal. Legally dispose of all materials from demolition (i.e. metals, wood, oil stained concrete, miscellaneous waste, etc.) as well as all equipment and other materials that are on the interior and exterior of the buildings. The disposal site shall be approved by the Designer and the City of Waltham. The loading of demolition materials for disposal shall be performed in a manner that prevents materials and activities from generating excessive dust and ensure minimum interference with roads, sidewalks and streets both onsite and offsite. The Contractor is encouraged to recycle the removed existing shoring towers.
- B. Waste disposal will be in accordance with applicable state and federal regulations, including 40 CFR 761.
- C. Exterior grey and black caulk and impacted masonry material at the North Branch Library that is not considered PCB Bulk Product Waste shall be considered PCB-Excluded Product if it contains PCBs in concentrations greater than 2ppm and thus cannot be disposed within the Commonwealth of Massachusetts. The masonry material shall be disposed at an out of state facility permitted to accept materials with the PCB concentrations present.

3.8 WASTE DISPOSAL DOCUMENTATION

- A. Provide evidence, on an on-going basis, that demolition materials have been received at a legal disposal, recycle, reuse or salvage location. Transport of all materials off-site shall be in accordance with applicable Department of Transportation Regulations. All materials leaving the site shall become the property of Contractor.
- B. The Contractor shall provide certified tare and gross weight slips for each load received at the designated facility, which shall be attached to each returned manifest. The submission of the manifests shall be within the 30-day time period specified by the USEPA.
- C. The Contractor shall submit to the City of Waltham and the Designer, prior to receiving progress payment, documentation certifying that all materials were transported to, accepted, and disposed, at the approved receiving facility. The documentation shall include the following, as a minimum.
 - 1. Documentation shall be provided for each load from the site to the disposal facility, including all manifests and any other transfer documentation as applicable.
 - 2. Original signed copies of generator copies of the hazardous and non-hazardous material

Piety Corner House Demolition 380 Lexington Street

manifest

3. All documentation for each load shall be tracked by the original manifest document number that was assigned.
- D. Payment for waste disposal is based on certified weight slips collected at the disposal facility. No payment for disposal will be made until this documentation is received by the City of Waltham.

END OF SECTION

SECTION 310000

EARTHWORK

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within SECTION 01 - GENERAL REQUIREMENTS, which are hereby, made a part of this Section of the Specifications.

1.2 SCOPE OF WORK

- A. Work covered by this specification includes:
 - 1. All labor and equipment required to excavate and grade the site due to building demolition
 - 2. Backfilling
 - 3. Erosion and sedimentation controls.

1.3 CONTRACT REFERENCE

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.4 DESCRIPTION

- A. The Contractor shall furnish all labor, material, tools and equipment necessary to excavate and perform demolition activities in accordance with SECTION 024000 – BUILDING AND ANCILLARY STRUCTURES DEMOLITION and re-grade as indicated on the Drawings.
- B. The Contractor shall use suitable on-site soils as fill.
- C. The Contractor shall make excavations in such a manner and to such widths that will give suitable room for performing the Work and shall furnish and place all sheeting, bracing, and supports, if necessary.
- D. The Contractor shall do all pumping and draining, if necessary; and shall render the bottom of excavation firm and dry. The Contractor shall collect and properly dispose of all discharge water from drainage systems in accordance with local and State requirements and permits.
- E. The Contractor shall raise the Site to final grades and compact the subgrade and intermediate layers to the required criteria set forth within the Section.

Piety Corner House Demolition 380 Lexington Street

- F. Routine monitoring of the in-place excavation support system shall be provided.
- G. Pavement Repairs

1.5 SECTION INCLUDES

- A. Excavating and backfilling for utility trenches and utilities to be abandoned.
- B. Excavating and shoring or bracing as necessary.
- C. Site grading.
- D. Required Engineering testing frequency and references.

1.6 RELATED SECTIONS

- A. Section – 31000 - SITE CLEARING

1.7 DEFINITIONS

- A. Compaction: The tamping and rolling of all backfill placed in uniform horizontal layers not exceeding a defined uncompacted lift thickness.
- B. “In-the-dry”: In-situ soil moisture content of no more than two percentage points above the optimum moisture content for that soil.
- C. Proof-rolling: The tamping and rolling of all subgrades and processed material not exceeding a defined uncompacted lift thickness.
- D. Unsuitable material: Material containing vegetation or organic material, such as mulch, peat, organic silt, topsoil, sod, deleterious material, and/or particles greater than four inches in diameter, that are not satisfactory for use as determined by the City of Waltham.
- E. Backfill: Soil material used to fill an excavation.
 - 1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
 - 2. Final Backfill: Backfill placed over initial backfill to fill a trench.
- F. Base Course: Course placed between the grade and hot-mix asphalt paving.
- G. Bedding Course: Course placed over the excavated subgrade in a trench before laying pipe.
- H. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.
- I. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated. Excavation is unclassified.

Piety Corner House Demolition 380 Lexington Street

1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by Consultant. Authorized additional excavation and replacement material will be paid for according to Contract provisions.
 2. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by City of Waltham. Unauthorized excavation, as well as remedial work directed by City of Waltham, shall be without additional compensation.
- J. Fill: Satisfactory Soil used to raise existing grades or meet proposed grades.
- K. Optimum Moisture Content: Determined by the ASTM standard specified to determine the maximum dry density for relative compaction.
- L. Prepared Ground Surface: The ground surface after clearing, grubbing, stripping, excavation, and scarification and/or compaction.
- M. Relative Density: As defined by ASTM D4253 or D4254.
- N. Relative Compaction: The ratio, in percent, of the as-compacted field dry density to the laboratory maximum dry density as determined by ASTM D1557. Corrections for oversize material may be applied to either the as-compacted field dry density or the maximum dry density, as determined by the Engineer.
- O. State Standards: Massachusetts Highway Department Standard Specifications for Highways and Bridges.
- P. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- Q. Sub-base Course: Course placed between the subgrade and base course for hot-mix asphalt pavement, or course placed between the subgrade and a cement concrete pavement or a cement concrete or hot-mix asphalt walk.
- R. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below sub-base, drainage fill, or topsoil materials.
- S. Unclassified Excavation: The nature of materials to be encountered has not been identified or described herein.
- T. Utilities: On-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

1.8 PROTECTION OF WORKERS

- A. This project is subject to the Safety and Health regulations of the U.S. Department of Labor set forth in 29 CFR, Part 1926. Contractors shall be familiar with the requirements of these regulations.

Piety Corner House Demolition 380 Lexington Street

- B. The Contractor is responsible for the adequacy of any excavation support systems and shall retain the services of a Professional Engineer registered in Massachusetts to design the required excavation support systems. The Contractor's Professional Engineer shall practice in a discipline applicable to excavation work, shall have experience in the design of excavation support systems and shall design in conformance with OSHA requirements. The Contractor's Professional Engineer shall provide sufficient on-site inspection and supervision to assure that any excavation support systems are installed and function in accordance with their design. Criteria listed herein defining the responsibilities of the Contractor's Professional Engineer are minimum requirements.

1.9 REFERENCES

- A. American Society of Testing and Materials Publications

1.10 SUBMITTALS

- A. Product data for geotextiles.
- B. Grain-size distribution analysis test data representative of existing on-site soils to be used as fill. The analysis shall be performed in accordance with ASTM D422 and all materials that are visibly classified to be different shall be tested.
- C. The Contractor shall submit to the City of Waltham, under provisions of Section 013300, manufacturer's literature and data on proposed compaction equipment.
- D. The Contractor shall provide the City of Waltham on a daily basis, the results of all compaction monitoring performed that day. The Contractor shall address the actions taken for areas and layers that did not achieve the required density criteria.
- E. The Contractor shall provide to the City of Waltham, on a daily basis, copies of field records documenting the location of stockpiled material, and stockpile identification data.
- F. Material Test Reports: From a qualified testing agency indicating and interpreting test results for compliance of the following with requirements indicated:
 - 1. Classification according to ASTM D 2487 of each onsite and borrow soil material proposed for fill and backfill.
 - 2. Laboratory compaction curve according to ASTM D 1557 for each on-site and borrow soil material proposed for fill and backfill.
- G. Pre-excavation Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including finish surfaces that might be misconstrued as damage caused by earthwork operations. Submit before earthwork begins.

1.11 REGULATORY REQUIREMENTS

- A. The Contractor shall comply with all excavation, trenching, and related sheeting and bracing requirements of Occupational Safety and Health Administration (OSHA) excavation safety standards, 29 CFR Part 1926.650 through 1926.652.
- B. The Work of this Section shall be performed in accordance with all applicable Federal, State, and local regulations, laws, codes, and ordinances governing the handling, transportation and disposal of on-site soils. Any contaminated materials encountered during construction may constitute a regulated material under applicable Massachusetts law. The contractor shall notify the City of Waltham and comply with the Massachusetts Contingency Plan (MCP) 310 CMR 40.0000 for any contaminated materials encountered during excavation work. All testing, containment, and disposal of buried contaminated soils based on the MCP will be paid at an additional cost. All handling, transportation and disposal of such materials shall be accomplished in accordance with applicable Massachusetts Solid and Hazardous Waste Regulations and the Massachusetts Contingency Plan.

1.12 QUALITY ASSURANCE

- A. Field inspection and testing will be performed by a geotechnical testing laboratory engaged by the Contractor.
- B. The Contractor shall be responsible for managing and tracking any and all materials excavated that appear contaminated and placed in stockpiles and protected for testing.
- C. The Contractor shall perform proof-rolling of all subgrades and processed material until the material is stable.
- D. The Contractor shall perform in-place density tests of on-site and off-site borrow materials as the Work progresses, to determine the degree of compaction being attained by the Contractor. Compaction tests shall be performed at the placement of each layer during embankment construction and at intervals of every 50 cubic yards of material compacted elsewhere. Any corrective work required as a result of such tests, such as additional compaction, or a decrease in the thickness of layers, shall be performed by the Contractor at no additional expense to the City of Waltham. In-place density testing shall be made at the Contractor's expense by the geotechnical laboratory.
- E. Do not commence earth moving operations until temporary erosion and sedimentation control measures are in place.
- F. The Designer's duties do not include the supervision or direction of the actual work by the Contractor, his employees or agents. Neither the presence of an engineer nor any observation and testing by the Engineer shall excuse the contractor from defects discovered in his Work at that time or subsequent to the testing.
- G. Notify Utility Locator Service: Call Dig-Safe prior to beginning any Earth moving operations.
- H. Subgrades shall be approved for compactness and material composition by the City of Waltham prior to placing subsequent lifts. If inspections indicate Work does not meet specified

Piety Corner House Demolition 380 Lexington Street

requirements, the Work shall be removed, replaced and compacted at no additional cost to the City of Waltham.

- I. Geotechnical Testing Agency Qualifications: The contractor shall engage an independent testing agency qualified according to ASTM E 329 to conduct soil materials as documented according to ASTM D 3740 and ASTM E 548.
- J. Pre-excavation Conference: Conduct conference at Project site.

1.14 PROJECT CONDITIONS

- A. Existing Utilities: Do not interrupt utilities serving facilities occupied by the User Agency or others unless permitted in writing by Engineer and then only after arranging to provide temporary utility services according to requirements indicated.
 - 1. Notify City of Waltham not less than two days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without City of Waltham's written permission.
 - 3. Contact utility-locator service for area where Project is located before excavating.
- B. Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with utility companies to shut off services if lines are active.
- C. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during earth moving operations.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
 - 2. Provide alternate routes around closed or obstructed traffic ways if required by the City of Waltham or Authorities having jurisdiction.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

- A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
- B. Satisfactory Soils: ASTM D 2487 Soil Classification Groups GW, GP, GM, SW, SP, and SM or a combination of these groups; free of rock or gravel larger than 3 inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.
- C. Unsatisfactory Soils: Soil Classification Groups GC, SC, CL, ML, OL, CH, MH, OH, and PT according to ASTM D 2487, or a combination of these groups.
 - 1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.
- D. Base Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; MassDot M2.01.4

Piety Corner House Demolition 380 Lexington Street

- E. ¾” Washed Stone: Double washed, naturally or artificially graded mixture of natural or crushed gravel, or crushed stone meeting the requirements of MHD M2.01.4.
- F. 1-1/2” Washed Stone: Double washed, naturally or artificially graded mixture of natural or crushed gravel, or crushed stone meeting the requirements of MHD M2.01.2.
- G. Embankment Fill: Clean, low permeability soil free of roots, woody vegetation, oversized stones, rocks, or other objectionable material.

2.2 GEOTEXTILE

- A. Non-woven Filter Fabric: Nonwoven needle-punched geotextile, manufactured for subsurface drainage applications, made from polyolefins or polyesters; with elongation greater than 50 percent; complying with AASHTO M 288 and the following, measured per test methods referenced:
 - 1. Survivability: Class 2; AASHTO M 288.
 - 2. Grab Tensile Strength: 157 lbf ; ASTM D 4632.
 - 3. Sewn Seam Strength: 142 lbf ; ASTM D 4632.
 - 4. Tear Strength: 56 lbf ; ASTM D 4533.
 - 5. Puncture Strength: 56 lbf ; ASTM D 4833.
 - 6. Apparent Opening Size: No. 40 sieve, maximum; ASTM D 4751.
 - 7. UV Stability: 50 percent after 500 hours' exposure; ASTM D 4355.
- B. Woven geotextile fabric, manufactured for separation applications from polyolefins or polyesters; with elongation less than 50 percent; complying with AASHTO M 288 and the following, measured per test method referenced:
 - 1. Survivability: Class 2; AASHTO M 288
 - 2. Grab Tensile Strength: 247 lbf ; ASTM D 4632
 - 3. Sewn Seam Strength: 222 lbf; ASTM D 4632
 - 4. Tear Strength: 90 lbf; ASTM D 4533
 - 5. Puncture Strength: 90 lbf; ASTM 4833
 - 6. Apparent Opening Size: No. 60 sieve, maximum; ASTM D4751
 - 7. Permittivity: 0.02 Per second, minimum; ASTM D 4491
 - 8. UV Stability: 50 Percent after 500 hours exposure; ASTM D 4355.

2.3 CRUSHED STONE

- A. Provide aggregate meeting MassDOT (formerly MassHighway Department) standard specifications for highways and bridges type M2.01.2 and M2.01.4 as indicated on the drawings.

2.4 PAVEMENT

- A. Provide bituminous asphalt meeting MassDOT (formerly MassHighway Department) standard specifications for highways and bridges Table A in M3.11 for modified top course.

PART 3 - EXECUTION

3.1 GENERAL

- A. Prior to commencing work, the Contractor shall establish property line locations and place construction control markers clearly visible and understandable to workers in the field. The Contractor shall exercise due care so as not to disturb adjacent structures and shall leave the Site in clean and orderly condition upon completion of the work.

3.2 PREPARATION

- A. The Contractor shall be deemed to have inspected the Site and satisfied himself/herself as to actual grades and levels and true conditions under which the Work will be performed.
- B. Areas required for execution of Work shall be cleared. The work area shall be free of standing water and shall be dry.
- C. All site health and safety controls shall be fully established and in operation prior to beginning any demolition, soil, and fill excavation. Site controls shall include but not be limited to work zones properly barricaded, wheel wash and decontamination facilities, and all support equipment and supplies including personal protective equipment. All site controls shall be reviewed by the Engineer in the field.
- D. The Contractor shall provide all layout field data, including ties, to the City of Waltham. The Contractor shall maintain all required field controls throughout the performance of the Work.
- E. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
- F. Preparation of subgrade for earthwork operations including removal of vegetation, topsoil, debris, obstructions, and deleterious materials from ground surface is specified in Section 031100 Site Clearing."
- G. Protect and maintain erosion and sedimentation controls, which are specified in on the drawings, during earthwork operations.
- H. Clear, grub, and strip any vegetation; scarify and excavate materials below embankment.

3.6 EXCAVATION, GENERAL

- A. The Contractor shall remain responsible for adequacy and safety of construction means, methods and techniques.
- B. The Contractor shall perform all excavation work in accordance with the Site Health and Safety Plan.

Piety Corner House Demolition 380 Lexington Street

- C. The Contractor shall complete all excavations regardless of the type, nature or condition of the material encountered. The Contractor shall be solely responsible for making all excavations in a safe manner.
- D. The City of Waltham shall be notified of unexpected subsurface conditions. Work shall be discontinued in affected areas until notified to resume work by the City of Waltham.
- E. Displaced or loose soil shall be prevented from falling into any excavation. The stability of soil slopes shall be maintained.
- F. All loose material shall be removed from the bottom of the excavation so that the bottom shall be in an undisturbed condition. If removal of the loose material results in excavation beyond the work limits and over excavation has not been approved by the City of Waltham; the restoration of the excavation to grade shall be done at no additional cost to City of Waltham.
- G. When the bottom of the excavation shall, by error of the Contractor, have been taken to a depth greater than the depth specified, or direct by the City of Waltham, said condition shall be corrected by refilling to the proper grade with crushed stone or the design shall be altered in a fashion acceptable to the City of Waltham to compensate for said error. All measures taken to rectify conditions caused by over excavation shall have the Engineer's approval, and any increase in cost resulting from such measures shall be borne by the Contractor.
- H. Excavation shall not be performed when weather conditions or the conditions of the materials are such that, in the opinion of the Engineer, work cannot be performed satisfactorily.
- I. Appropriate measures shall be provided to retain excavation sidewalls and to ensure that persons working in or near the excavation are protected. Barricades and fencing should be provided to protect all pedestrians. Sheeting shoring or bracing may be used to support the walls of excavations. Method, design, construction and adequacy of any required bracing shall meet the OSHA requirements of 29 CFR Part 1926 and are the responsibility of the Contractor.
- J. All damage related to or caused by the excavation shall be repaired at the expense of the Contractor.
- K. Unclassified Excavation: Excavate to subgrade elevations regardless of the character of surface and subsurface conditions encountered. Unclassified excavated materials may include rock, soil materials, and obstructions. .

3.7 SUBGRADE INSPECTION AND COMPACTION AT PAVEMENT PATCHES

- A. Notify Engineer when excavations have reached required subgrade.
- B. Compact subgrade below all pavement patches. Do not compact saturated subgrades.

3.8 HANDLING OF EXCAVATED MATERIAL

- A. The Contractor shall excavate soil and fill to the limits necessary to achieve the required grades and balance the excavation and fill volumes as requested by the City of Waltham. No fill

Piety Corner House Demolition 380 Lexington Street

materials are intended to be brought onto the site or removed and disposed unless specifically indicated as needed for work such as the or deemed as unsuitable fill.

- B. Contractor shall employ methods necessary to isolate potentially contaminated soil, from non-contaminated soils, including benching.
- C. The Contractor shall separate excavated fill and soil based on the determination that the contaminated soil could be composed of variable material (e.g. physical differences and contain varying degrees of contamination (i.e., potentially contaminated, visually contaminated) or as directed by the City of Waltham.

3.9 STORAGE OF SOIL MATERIALS - STOCKPILING

- A. Materials shall be stockpiled on site at locations proposed by the Contractor and approved by the City of Waltham. Stockpiled materials shall be of sufficient quantities to meet project schedule and requirements
- B. Tracking of the stockpiles shall be performed in accordance with the approved Work Plan submitted by the Contractor in accordance with Section 013300.
- C. The temporary stockpiled fill and proven contaminated soil must be removed from the Site in accordance with applicable regulatory deadlines however no later than the completion date of this contract or 90 days from the date the stockpile was created, whichever is encountered first.
- D. Stockpiles shall be securely barricaded and clearly labeled. Differing materials shall be separated with dividers or stockpiled apart to prevent mixing.
- E. The Contractor shall direct surface water away from stockpile site to prevent erosion or deterioration of materials. Soils shall be suitably dewatered prior to their relocation on Site or disposal off site.
- F. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.10 BACKFILL AND TEMPORARY EMBANKMENT CONSTRUCTION

- A. Place and compact backfill in excavations promptly, but not before completing the following:
 - 1. Removing trash and debris.
 - 2. Removing temporary shoring and bracing, and sheeting (if required).
- B. If, through failure or neglect of the Contractor to conduct the excavation work in a proper manner, the surface of the subgrade is in an unsuitable condition for proceeding with construction, the Contractor shall, at his own expense, remove the unsuitable material and replace it. Failure of the Contractor to control surface or ground water adequately, premature excavation at the work site, or other manifestations of the Contractor's neglect or improper conduct of the work, as determined by the Engineer, shall be grounds for requiring removal and replacement of unsuitable subgrade without additional compensation.

Piety Corner House Demolition 380 Lexington Street

- C. Grading in the vicinity of backfilling shall be properly pitched to prevent water from running into the backfilling. Work areas shall be kept free from water during performance of the work under this Contract at no expense to the City of Waltham. The Contractor shall build diversion berms and other devices necessary for this purpose.
- D. The Contractor shall not commence backfilling operations until the City of Waltham gives approval.
- E. After the subgrade has been prepared, fill material shall be placed and built-up in successive layers until the required elevations are reached. No fill shall be placed on a frozen surface, nor shall snow, ice, or other frozen material be included in fill. Wet materials containing moisture in excess of the amount necessary for satisfactory placement or compaction shall not be used.
- F. All fill shall be brought up in essentially level lifts and shall be placed in levels by standard methods. The method of placement shall not disturb or damage other work. Layers of fill shall not exceed ten inches of uncompacted thickness before compaction, unless otherwise specified or as required for proper subgrade stabilization.
- G. Place backfill on subgrades free of mud, frost, snow, or ice.
- H. Filling operations shall continue until the fill has been brought up to the finished slopes, lines, and grades making proper allowances for thickness of surface treatment.
- I. The entire surface of the work shall be maintained free from ruts and in a condition that will permit construction equipment to travel readily over any section. The top surface of each layer shall be made level or slightly sloped away from the center of the filled area. Fills should be graded to drain and compacted/sealed whenever precipitation is expected.
- J. Backfilling shall not be performed when weather conditions or the conditions of the material are such that, in the opinion of the Engineer, work cannot be performed satisfactorily.
- K. Place and compact embankment fill in 6" lifts to 95% maximum dry density. Stabilize with vegetation and erosion control mat immediately following construction.
- L. Stockpile and dispose of unsatisfactory fill. Contractor is to carry a quantity allowance of 20 cubic yards for stockpiling and disposing of unsatisfactory fill.

3.11 UTILITY TRENCH BACKFILL AT UTILITIES TO BE ABANDONED

- A. Place backfill on subgrades free of mud, frost, snow, or ice.
- B. Place and compact backfill material, free of particles larger than 1 inch in any dimension, to a height of 12 inches over the utility pipe or conduit.
 - 1. Carefully compact initial backfill under pipe haunches and compact evenly up on both sides and along the full length of exposed utility piping or conduit to be abandoned.
- C. Backfill voids with satisfactory soil while installing and removing shoring and bracing.
- D. Place and compact backfill of satisfactory soil to final subgrade elevation.

3.12 SOIL FILL

- A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.
 - 1. Sequentially place and compact fill material in layers to required elevations
- B. Place soil fill on subgrades free of mud, frost, snow, or ice.

3.13 SOIL MOISTURE CONTROL

- A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.
 - 1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
 - 2. Remove and replace, or scarify and air dry otherwise satisfactory soil material that exceeds optimum moisture content by +2 to -3 percent and is too wet to compact to specified dry unit weight.
 - 3. If in the opinion of the City of Waltham, additional moisture is required, water shall be applied by sprinkler tanks or other uniform distribution devices. If excessive amounts of water or if rain should cause excessive wetness, the area shall be allowed to dry as provided above.

3.14 GRADING

- A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated. Grading shall be done by standard methods. Areas adjacent to structures and other areas inaccessible to heavy grading equipment shall be graded by manual methods. Embankments shall be graded at all times to ensure runoff of water.
 - 1. Provide a smooth transition between adjacent existing grades and new grades.
 - 2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.
 - 3. Provide proper drainage from the site, no grading shall be done to direct water to damage or potentially damage adjacent property or work executed under this contract.
- B. Site Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to required elevations within the following tolerances:
 - 1. Lawn or Unpaved Areas: Plus or minus 1 inch

3.14 COMPACTION REQUIREMENTS

- B. The following table lists minimum compactive efforts, which are required for all, fill materials. Compaction of each lift shall be completed before placement and compaction of the next lift is started. The compaction equipment shall make an equal numbers of transverse and longitudinal coverages of each lift. The degree of compaction for fill placed in various areas shall be as follows:
 - 1. At patches in paved areas

Piety Corner House Demolition 380 Lexington Street

	Within aggregate base course	95%
2.	In landscaped areas	90%
3.	Embankment	95%

*Percentage of maximum dry density of the materials at optimum moisture content as determined by methods or tests for ASTM designation D1551 Method D.

- C. Compaction shall be accomplished by vibratory rollers, multiple wheel pneumatic tired rollers or other types of approved compacting equipment. Loaded trucks, low beds, water wagons and the like shall not be considered as acceptable compaction equipment unless specifically approved by the Engineer for a particular location. Equipment shall be of any such design that it will be able to compact the fill to the specified density in a reasonable length of time. All compaction equipment shall be subject to the approval of the Engineer.
- D. The Contractor shall compact all fills made during the day of work prior to leaving the project for the evening. The upper layer shall be pitched as necessary to provide positive drainage towards swales or interceptor ditches to minimize ponding and erosion should it rain.

3.15 COMPACTION TESTING & SIEVE ANALYSIS

- A. Testing Agency: The Contractor will engage a qualified independent Engineering testing agency to perform field quality-control testing.
- B. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earthwork only after test results for previously completed work comply with requirements.
- C. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil to depth required; recompact and retest until specified compaction is obtained.
- D. All sieve analyses for conformance of on-site materials to be used in the work shall be done by means of a mechanical wet sieve analysis and in accordance with ASTM D-422.
- E. The Contractor shall make all necessary excavations and preparations for testing. Excavations for density tests shall be backfilled with material similar to that excavated, and compacted to the specified density by the Contractor. Failure of the backfill material to achieve the specified density will be just cause for rejection of any or all portions of the excavation section tested. The Contractor will not be granted an extension of time or additional compensation for testing or repair of backfill ordered by the City of Waltham.
- F. Excavated material taken directly from on-site cuts that will meet Section 2.1 of these Specifications may be used as Common Borrow or Gravel Borrow provided the Contractor obtains written approval from the Engineer. No such fill material shall be put in place until approved for use by the Engineer in writing.
- G. Field density tests will be made by the Contractor's Inspection Agency in accordance with the Method of Test for ASTM Designation D1556 or D6938, to determine adequacy of compaction; the location and frequency of such field tests shall be at the City of Waltham's Inspection Agency's discretion.

Piety Corner House Demolition 380 Lexington Street

- H. The Contractor shall notify the Inspection Agency when an area is ready for compaction testing. This notification shall be 48 hours in advance of placing or final compaction so that the contractor's Inspection Agency has adequate time to take compaction tests.
- I. Cooperate with the City of Waltham in obtaining field samples of in-place materials after compaction. Furnish incidental field labor in connection with these tests. The Contractor will be informed by the City of Waltham of areas of unsatisfactory density which may require improvements by removal and replacement, or by scarifying, aerating, sprinkling (as needed), and recompaction prior to the placement of the new lift. No additional compensation shall be paid for work required to achieve proper compaction.
- J. The City of Waltham's Inspection Agency's presence does not include supervision or direction of the actual work by the Contractor, his employees, or agents. Neither the presence of the Engineer nor any observations and testing performed by him shall excuse the Contractor from defects discovered in his work.

3.16 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic, and erosion. Keep free of trash and debris.
 - 1. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.

3.17 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: Remove surplus waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off City of Waltham's property

END OF SECTION

SECTION 311000

SITE CLEARING

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.

1.2 DESCRIPTION OF WORK

- A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:
 - 1. Protecting existing trees and vegetation to remain both inside and outside limits of construction, including temporary fencing for trees in close proximity to construction operations.
 - 2. Removing above and below grade site improvements storing those designated for re-use as required and disposing of those not specifically noted for re-use.
- B. Alternates: Not Applicable.
- C. Items To Be Installed Only: Not Applicable.
- D. Items To Be Furnished Only: Not Applicable.
- E. Related Work: The following items are not included in this Section and will be performed under the designated Sections:
 - 1. Section 310000 – EARTHWORK for soil materials, excavating, backfilling, and site grading and removal of site utilities.

1.3 DEFINITIONS

- A. Topsoil: Natural or cultivated surface-soil layer containing organic matter and sand, silt, and clay particles; friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects more than 2 inches in diameter; and free of subsoil and weeds, roots, toxic materials, or other nonsoil materials.

Piety Corner House Demolition 380 Lexington Street

- B. Tree Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction, and defined by the drip line of individual trees or the perimeter drip line of groups of trees, unless otherwise indicated.

1.4 MATERIAL OWNERSHIP

- A. Except for stripped topsoil or other materials indicated to remain the City of Waltham's property, cleared materials shall become Contractor's property and shall be removed from Project site.

1.5 SUBMITTALS

- A. Photographs sufficiently detailed, of existing conditions of trees and plantings, adjoining construction, and site improvements that might be misconstrued as damage caused by site clearing.
- B. Record drawings, according to Section 017700 - CONTRACT CLOSEOUT identifying and accurately locating capped utilities and other subsurface structural, electrical, and mechanical conditions.

1.6 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from the City of Waltham and authorities having jurisdiction.
 - 2. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.
- B. Salvable Improvements: Carefully remove items indicated to be salvaged and store on User Agency's premises where indicated.
- C. Utility Locator Service: Notify utility locator service for area where Project is located before site clearing.
- D. Do not commence site clearing operations until erosion and sedimentation control measures are in place.
- E. Protection of Existing Improvements: Provide protection necessary to prevent damage to existing improvements indicated to remain in place or outside of the limit of work. Protect improvements on adjoining properties and on User Agency's property.
 - 1. Restore improvements damaged by Contractor's clearing activities to their original condition, at no additional expense to the Commonwealth.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect and maintain benchmarks and survey control points from disturbance during construction.
- B. Protect existing site improvements to remain from damage during construction.
 - 1. Restore damaged improvements to their original condition, as acceptable to the City of Waltham.

3.2 PROTECTION

- A. Protect all trees noted to remain within limits of construction, and all trees that are outside the limits of construction and within 25’.
- B. Erect and maintain temporary fencing around the Site buildings before starting site clearing and demolition operations. Remove fence when demolition and site work is complete.
 - 1. Store all construction materials, debris, and excavated material within fenced area.
 - 2. Do not permit vehicles, equipment, or foot traffic within fenced area.
 - 3. Maintain fenced area free of weeds and trash.
 - 4. Except as otherwise directed, cutting and trimming of existing trees will not be permitted.

3.3 UTILITIES

- A. Locate, identify, disconnect, and seal or cap utilities indicated to be removed.
 - 1. Arrange with the electrical utility to shut off temporary electric service prior to disconnection, cutting, and capping.
 - 2. Notify the City of Waltham of any active utilities in addition to the temporary electric service.
- B. Existing Utilities: Do not interrupt utilities serving facilities occupied by the City of Waltham or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify the City of Waltham not less than two days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without the City of Waltham’s written permission.
- C. Removal of underground utilities is included in Section 310000 – EARTHWORK.

- D. Removal of underground utilities is included in Division 2 Sections covering site utilities.

3.4 TOPSOIL STRIPPING

- A. Remove and dispose of sod and grass before stripping topsoil.
- B. Strip topsoil to the extent necessary to remove the building foundations to whatever depths are encountered in a manner to prevent intermingling with underlying subsoil or other waste materials.
 - 1. Remove subsoil and nonsoil materials from topsoil, including trash, debris, weeds, roots, and other waste materials.

3.5 EXCESS TOPSOIL

- A. Dispose of all excess topsoil offsite.

3.6 SITE IMPROVEMENTS

- A. Remove and dispose of existing above- and below-grade improvements as indicated and as necessary.
- B. Remove and dispose of slabs, paving, curbs, gutters, and aggregate base as indicated.

3.7 DISPOSAL

- A. Disposal: Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off site.
 - 1. Burning on site is prohibited.
 - 2. Separate recyclable materials produced during site clearing from other nonrecyclable materials. Store or stockpile without intermixing with other materials and transport them to recycling facilities.

END OF SECTION

SECTION 312500

EROSION AND SEDIMENTATION CONTROLS

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS, which are hereby made a part of this Section of the Specifications.
- B. Equality of material, article, assembly or system other than those named or described in this Section shall be determined in accordance with the provisions of Article III, Paragraph 1 of the CONTRACT AND GENERAL CONDITIONS.

1.2 DESCRIPTION OF WORK

- A. The Contractor shall provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:
 - 1. Control measures to prevent all erosion, siltation and sedimentation of wetlands, waterways, construction areas, adjacent areas and off-site areas. Control measures include:
 - a. Siltation control fencing
 - b. Construction Entrance/Exit station
 - c. Catch basin inserts
 - 2. Control measures shall be accomplished adjacent to or in the following work areas:
 - a. Soil stockpiles and on-site storage and staging areas.
 - b. Debris and recycling material stockpiles.
 - c. Cut and fill slopes and other stripped and graded areas.
 - 3. Additional means of protection shall be provided by the Contractor as required for continued or unforeseen erosion problems, at no additional cost to the City of Waltham.
 - 4. Periodic maintenance of all sediment control structures shall be provided to ensure intended purpose is accomplished. Sediment control measures shall be in working condition at the end of each day.
 - 5. After any significant precipitation, sediment control structures shall be inspected for integrity. Any damaged device shall be corrected immediately.

- B. The Contractor may select the type of siltation control fencing for installation. Material and installation procedures are provided for both hay bale/silt fence and filter socks. Both systems are acceptable

1.3 RELATED WORK

- A. The following items are not included in this Section and will be performed under the designated Sections:
 - 1. Section 310000 - EARTHWORK for soil materials, excavating, backfilling, and site grading and removal of site utilities.
 - 2. Section 311000 - SITE CLEARING for protection of existing trees and other vegetation to remain.

1.4 SCHEDULING AND SEQUENCING

- A. The proposed work shall be performed prior to the initiating any excavation and/or demolition activity.
- B. Erosion control measures shall be established at the beginning of construction and maintained during the entire period of construction. On-site areas that are subject to severe erosion and off-site areas that are especially vulnerable to damage from erosion and/or sedimentation shall be identified and receive special attention.
- C. All land-disturbing activities shall be planned and conducted to minimize the size of the area exposed at any one time and the length of the time of exposure.
- D. All land-disturbing activities shall be planned and conducted in a manner that minimizes off-site sedimentation damage.
- E. All erosion control measures shall be removed at the completion of the work. Proper disposal of erosion and sediment control materials shall be the responsibility of the Contractor.

1.5 SUBMITTALS

- A. The Contractor shall submit each item in this Article according to the Conditions of the Contract and Section 013300, for information only, unless otherwise indicated.
- B. Submit to the Designer, material specification for all materials and equipment furnished under this Section.

1.6 QUALITY ASSURANCE

- A. The Contractor shall comply with the requirements of the Stormwater Pollution Prevention Plan prepared for the USEPA NPDES General Construction Permit, which are incorporated herein by reference, and all other applicable requirements of governing authorities having jurisdiction. The Specifications and Drawings are not

represented as being comprehensive, but rather convey the intent to provide complete slope protection and erosion control for both the Commonwealth's and adjacent property.

- B. Erosion control measures shall be established at the beginning of construction and maintained during the entire period of construction. On-site areas which are subject to severe erosion, and off-site areas which are especially vulnerable to damage from erosion and/or sedimentation, are to be identified and receive special attention.
- C. All land-disturbing activities are to be planned and conducted to minimize the size of the area to be exposed at any one time, the length of time of exposure, and to minimize sedimentation damage outside of the Limits of Work.
- D. Surface water runoff originating upgrade of exposed areas should be controlled to reduce erosion and sediment loss during the period of exposure.
- E. When the increase in the peak rates and velocity of storm water runoff resulting from a land-disturbing activity is sufficient to cause accelerated erosion of the receiving stream bed, provide measures to control both the velocity and rate of release so as to minimize accelerated erosion and increased sedimentation of the stream.
- F. The Contractor is responsible for cleaning out and disposing of all sediment once the storage capacity of the sediment controls is reduced by one-half.
- G. The Contractor shall inspect, repair, and maintain erosion and sedimentation control measures during construction until completion of the project.
- H. Erosion and sedimentation control measures employed will be subject to approval and inspection by governing agencies having jurisdiction over such work. All erosion and sedimentation control work shall be conducted in accordance with the Erosion and Sedimentation Control Guidelines for Urban and Suburban Areas (DEP).
- I. Fines and related costs resulting from failure to provide adequate protection against any environmentally objectionable acts and corrective action to be taken are the obligations of the Contractor.

PART 2 - PRODUCTS

2.1 CATCH BASIN INSERTS:

- A. Siltsack® shall be manufactured from a specially designed woven polypropylene geotextile manufactured by SI® Geosolutions and sewn by a double needle machine, using a high strength nylon thread or equal. Siltsack® will be manufactured to fit the opening of the catch basin or drop inlet.

2.2 HAYBALES

- A. Bales of Hay fasten with wire and have a minimum size of 1 foot by 1.5 feet by 3 feet and conform to the applicable portions of Section 767 of The Commonwealth of

Massachusetts, MassHighway Standard Specifications for Highways and Bridges, latest edition.

2.3 SILTATION FENCE

- A. Filter fabric siltation fencing shall be a woven filter fabric having a permittivity of not less than 0.15 sec', a water flow rate of a minimum 12 gallons per minute per square foot, and a grab tensile strength of a minimum of 100 lbs. The material shall have a high sediment filtration capacity, high slurry flow and minimum clogging characteristics.

2.4 FILTER SOCKS

- A. Filter Socks are biodegradable sediment-trapping devices. Manufacturers include SiltSoxx, Corr Logs, Straw Wattles, or equal.

2.5 WOODEN STAKES

- A. Stakes: Oak wood, minimum 1-inch by 1-inch, by minimum 36 inches long.

2.6 CONSTRUCTION ENTRANCE/EXIT STATION

- A. Geotextile: A non-woven geotextile fabric that meets the requirements of Section 804.11 of the *Standard Specifications for Highway Construction* "Geotextile Fabric for Slope Protection".
- B. Aggregate: The proposed aggregate shall have the following gradation:

<u>Sieve Designation</u>	<u>Percentage by Weight Passing Square Mesh Sieves</u>
4 in.	100
3-1/2 in.	90 to 100
2-1/2 in.	25 to 60
1-1/2 in.	0 to 15
3/4 in.	0 to 5

PART 3 - EXECUTION

3.1 CATCHBASIN INSERTS

- A. The Contractor shall install Siltsacks in catch basins in accordance with manufacturer's instructions.
- B. Drawing D5.3 provides an inventory of catch basins requiring protection including the width, length, and approximate depth to inverts.

3.2 HAYBALES

- A. The Contractor will be responsible for two (2) separate items of construction under this item, namely:

1. The control of erosion and siltation during the construction. This is expected to require hay bales, siltation fencing, diversion and control of storm water run-off, ponding areas and similar methods.
 2. Restoration of the ground surface in all disturbed areas that as required on the Contract Documents and required under any environmental ruling.
- B. Haybales shall be installed in location as shown on the Drawings and as directed by the Designer.
- C. Hay bales shall be installed by anchoring bales butted together to existing ground with at least two (2) stakes per bale. Deteriorated hay bales shall be replaced. The haybales shall be removed and disposed of following the successful growth of vegetation in the areas disturbed by the construction. The removal of the hay bales will be subject to the approval of Designer. On embankment areas and on flat areas adjacent to wetland areas, the hay bales shall be installed continuously between the construction site and the wetland area as indicated on the Drawings.
- D. Haybales shall be installed around all catch basins to be protected as identified on the Drawings.

3.3 FILTER SOCKS

- A. Install in location as shown on the Drawings and as directed by the Designer. Installation shall be performed in accordance with the manufacturer's instructions.

3.4 SILTATION FENCE

- A. Install a filter fabric siltation fence prior to construction and remove after full surface restoration has been achieved. Install siltation fence as indicated on the Drawings. Install as follows:
1. Hand shovel excavate a small trench on the upstream side of the desired fence line location.
 2. Unroll the siltation fence system, position the post in the back of the trench (downhill side), and hammer the post at least 1½ feet into the ground.
 3. Lay the bottom 6 inches of the fabric into the trench to prevent undermining by storm water run-off.
 4. Backfill the trench and compact. Compaction is necessary to prevent the run-off from eroding the backfill.

3.5 CONSTRUCTION ENTRANCE

- A. The Contractor shall install the stabilized construction entrance at all points where traffic will be leaving the Site. The location of the stabilized construction entrance shall be proposed by the Contractor and approved by the Designer.

- B. The stabilized construction entrance shall be a minimum of 12 feet wide by 20 feet long with a minimum of 6 inches of aggregate.
- C. The Contractor shall remove all vegetation and any objectionable material from the proposed location. Divert all surface runoff and drainage from the aggregate to a sediment trap.
- D. Install the geotextile prior to placing any aggregate. The geotextile shall be placed in accordance with the manufacturer's instructions.
- E. Place a minimum of six inches of aggregate on top of the geotextile.

3.6 CLEANING AND MAINTENANCE

- A. The Contractor shall clean all catch basins at the beginning and end of the Project.
- B. The Contractor shall inspect the stabilized construction entrance every seven days. The Contractor shall check for mud and sediment buildup and pad integrity. The Contractor shall wash, replace, and/or add stone whenever the entrance fails to perform effectively or as directed by the Designer.
- C. The Contractor shall inspect the control system immediately after each rainfall and daily during prolonged rainfall. Make repairs immediately.
- D. Remove and dispose of accumulated sediments when they reach approximately one-half the height of the control system, and when directed by the Designer.
- E. Any catchbasin that collect sediments as a result of the Contractor shall be thoroughly cleaned out by the Contractor.
- F. Replace control system promptly if fabric decomposes or system becomes ineffective prior to the expected usable life.
- G. Maintain or replace system until no longer necessary for intended purposes.

3.7 REMOVAL AND RESTORATION

- A. The Contractor shall notify the Designer upon completion of the work but prior to the removal of control structures.
- B. The Contractor shall not remove the control structures until the Designer approves removal.
- C. The Contractor shall remove and dispose of all control system at completion of the work.
- D. The Contractor shall spread remaining sediment to conform to grade.

END OF SECTION

Attachments

PROPERTY LOCATION

No	Alt No	Direction/Street/City
380		LEXINGTON ST, WALTHAM
OWNERSHIP		
Owner 1: CITY OF WALTHAM		
Owner 2:		
Owner 3:		
Street 1: 610 MAIN ST		
Street 2:		
Twn/City: WALTHAM		
S/Prov: MA	Cnty:	Own Occ: Y
Postal: 02452-5552	Type:	

PREVIOUS OWNER

Owner 1: DERTSAKIAN, KHOREN & -
Owner 2: VOSHI SOMONIAN -
Street 1: 380 LEXINGTON STREET
Twn/City: WALTHAM
S/Prov: MA
Postal: 02452-4632

NARRATIVE DESCRIPTION

This Parcel contains 54,645 SQ. FT. of land mainly classified as MUNICIPAL with a(n) COLONIAL Building Built about 1815, Having Primarily VINYL Exterior and ASPHALT Roof Cover, with 1 Units, 5 Baths, 1 HalfBaths, 0 3/4 Baths, 9 Rooms Total, and 5 Bedrooms.

OTHER ASSESSMENTS

Code	Description	Amount	Com. Int

PROPERTY FACTORS

Item Code	Descp	%	Item Code	Descp
Z			U	1
o			t	2
n			l	
Census:				
Exempt				
Flood Haz:				
D	0		Topo	1
s			Street	41
t			Traffic	

LAND SECTION (First 7 lines only)

Code	Description	LUC	No of Units	Depth / PricedUnits	Unit Type	Land Type
903	MUNICIPAL		20000		ACRES	SITE
903	MUNICIPAL		0.79534		ACRES	SITE

IN PROCESS APPRAISAL SUMMARY

Use Code	Building Value	Yard Items	Land Size	Land Value	Total Value	Legal Description
903	404,200	400	54,645.012	380,600	785,200	Entered Lot Size
Total Parcel	404,200	400	1,254	380,600	785,200	Total Land:
Source: Market Adj Cost			Total Value per SQ unit (Card): 206.74			Parcel: 206.74
						Land Unit Type:

PREVIOUS ASSESSMENT

Tax Yr	Use	Cat	Bldg Value	Yrd Items	Land Size	Land Value	Total Value	Assesd Value	Notes
2019	903	EX	404,200	400	54,645.012	380,600	785,200	785,200	Year End Roll
2019	903	FV	404,200	400	54,645.012	380,600	785,200	785,200	Year End Roll
2019	903	NC	404,200	400	54,645.012	370,200	774,800	774,800	Year End Roll
2018	903	EX	366,800	400	54,645.012	353,000	720,200	720,200	Year End Roll
2018	903	FV	366,800	400	54,645.012	353,000	720,200	720,200	Year End Roll
2017	101	TEMP	366,800	400	54,645.012	323,000	690,200	690,200	Year End Roll
2017	101	EX	366,800	400	54,645.012	323,000	690,200	690,200	Year End Roll
2017	101	FV	366,800	400	54,645.012	323,000	690,200	690,200	Year End Roll

SALES INFORMATION

Grantor	Legal Ref	Type	Date	Sale Code	Sale Price	V	Tst	Verif	Assoc PCL Value	Notes
DERTSAKIAN, KHO	68173-174		10/7/2016	INVOLVED GVT	699,655	No	No			
DERTSAKIAN, KHO	31773-364		8/31/2000	FAMILY	1	No	No			
MORRISON, JOHN	31773-356		8/31/2000		330,000	No	No			
MORRISON, JOHN	15853-257		10/30/1984			Yes	No			
	15853-256		10/1/1984	OTHER		Yes	No			

BUILDING PERMITS

Date	Number	Descp	Amount	C/O	Last Visit	Fed Code	F. Descp	Comment
7/22/2002	5	RENOV/RE	116,000	O				

TAX DISTRICT

Parcel ID	R042 005 0001
-----------	---------------

PAT ACCT.

Date	Result	By	Name
3/5/2015	MEASURED	403	TODD L
6/24/2005	MEASURED	345	JAMES HALL

ACTIVITY INFORMATION

Date	Result	By	Name
3/5/2015	MEASURED	403	TODD L
6/24/2005	MEASURED	345	JAMES HALL

VERIFICATION OF VISIT/NOT DATA

Sign:	Alt	%	Spec	J	Fact	Use Value	Notes
						372,600	
						7,953	

Total ACH/A: 1.25448
 Total S/F/S/M: 64645.01
 Parcel LUC: 903
 MUNICIPAL
 Prime NB Desc: N4

Total: 380,553
 Spl Credit
 Total: 380,600

Appraised Value: 372,600
 Alt Class: 4.59
 Spec Land Code: 8.000

Database: AssessPro

Disclaimer: This Information is believed to be correct but is subject to change and is not warranted.



EXTERIOR INFORMATION

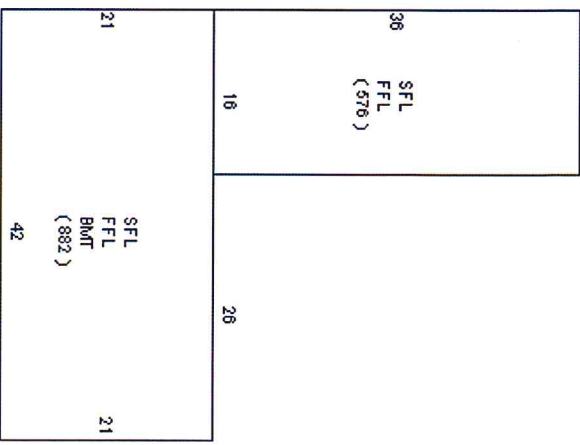
Type: 06 - COLONIAL	Full Bath: 5	Rating: Good
SV Ht: 2 - 2	A Bath: 1	Rating: 3/4 Bath
(Liv) Units: 1	Total: 1	Rating: A 3QBth
Foundation: 03 - BRKSTN	1/2 Bath: 1	Rating: Good
Frame: 01 - WOOD	A HBth: 1	Rating: 1/2 Bath: 1
Prime Wall: 04 - VINYL	Other Fx: 1	Rating: A HBth: 1
Sec Wall: 1	Other Features: 109529	Grade Factor: 1.10
Roof Struct: 02 - HIP	Neighborhood Inf: 1.00000000	Adj \$ / SQ: 110.648
Roof Cover: 01 - ASPHALT	LUC Factor: 1.00	Other Features: 109529
Color: LT BLUE	Adj Total: 526322	Grade Factor: 1.10
View / Desir:	Depreciation: 122107	Other Features: 109529
GENERAL INFORMATION	Depreciated Total: 404215	Other Features: 109529
Grade: C+ - AVERAGE+	Parcel ID: 404200	Other Features: 109529
Year Bilt: 1815	Final Total: 404200	Other Features: 109529
All LUC:	Final Total: 404200	Other Features: 109529
Jurisdic:	Final Total: 404200	Other Features: 109529
Const Mod:	Final Total: 404200	Other Features: 109529
Lump Sum Adj:	Final Total: 404200	Other Features: 109529

BATH FEATURES

COMMENTS

15% TRAFFIC 380 LEXINGTON STREET : 380 LEXINGTON STREET. BOTH GARAGE AND SHED COLLAPSED FROM SNOW.

SKETCH



DEPRECIATION

Phys Cond: GD - Good	23.2%
Functional:	
Economic:	
Special:	
Override:	
Total:	23.2%

REMODELING

Exterior:	Interior:	Additions:
Plumbing:	Electric:	Heating: OLD
Kitchen:	Baths:	General:
1	9	5
Totals		

RES BREAKDOWN

No Unit	RMS	BRS	FL
1	9	5	M
Totals			

CALC SUMMARY

COMPARABLE SALES

Basic \$ / SQ: 125.00	Rate	Parcel ID	Typ	Date	Sale Price
Size Adj.: 0.88518524					
Const Adj.: 1.00000000					
Adj \$ / SQ: 110.648					
Other Features: 109529					
Grade Factor: 1.10					
Neighborhood Inf: 1.00000000					
LUC Factor: 1.00					
Adj Total: 526322					
Depreciation: 122107					
Depreciated Total: 404215					

SPEC FEATURES/YARD ITEMS

Code	Description	A	Y/SI	Qty	Size/Dim	Qual	Con	Year	Unit Price	D/S	Dep	LUC	Fact	NB	Fa	Appr Value	JCod	JFact	Juris. Value
02	SHED/FR	D	Y	1	10X16	A	PR	1988	6.34	T	65	903				400			400

PARCEL ID

R042 005 0001

SUB AREA

Code	Description	Area - SQ	Rate - AV	Underpr Value
FFL	FIRST FLOOR	1,458	110.650	161,325
SFL	SECOND FLOOR	1,458	110.650	161,325
BMT	BASEMENT	882	52.490	46,295
Net Sketched Area: 3,798				
Total:				368,945
Size Adj		2916	Gross Area	3798
Total:				3798

SUB AREA DETAIL

Sub	%	Descrp	%	Qu	#
Area	Usbl	100	RMM	100	G
161,325	100	RMM	100	G	1

IMAGE



AssessPro Patriot Properties, Inc

More: N Total Yard Items: 400 Total Special Features: 400 Total: 400

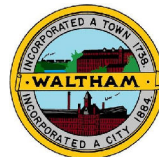
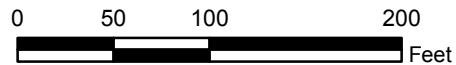


Legend

- × - × Fence
- - - Guard Rail
- - - Retaining Wall
- Stream
- ▭ Parcel Lines
- ▭ 380 Lexington Street
- ▭ Swimming Pools
- ▭ Building Footprints
- ▭ Paved Area
- ▭ Water Bodies
- ▭ Vegetated Area

DATA SOURCE:

The digital planimetric base map data was developed by Chas H Sells, Inc. and is based on spring 2015 1"= 40' scale color orthophotographs. Map prepared by City of Waltham GIS. Level 3 parcel data is current as of January 1, 2019.



380 Lexington Street - Locus Plan
City of Waltham
Massachusetts



BOSTON NORTH

March 29, 2019

Mr. Joseph Pedulla, MCCPO, CPM
Chief Procurement Officer
City of Waltham
610 Main Street
Waltham, MA 02452

**RE: Asbestos & Hazardous Materials Survey Report
Piety Corner House
380 Lexington Street
Waltham, Massachusetts
EFI Project No. 020.00401**

Dear Mr. Pedulla:

EFI Global Inc. (EFI) is pleased to provide this survey report to City of Waltham for a pre-demolition hazardous materials survey of the interior and exterior of the Piety Corner House located at 380 Lexington Street in Waltham, Massachusetts (Site). EFI performed the survey on March 15, 2019, using a fully trained and licensed building inspector. The pre-renovation survey included an inspection of the building for suspect asbestos-containing materials, sampling of representative coatings for lead-based paint, and an inventory of universal waste and other hazardous materials.

EFI is pleased to provide environmental consulting services to City of Waltham. If you have any questions regarding the contents of this report, or are in need of additional information, please do not hesitate to contact either of the undersigned at 800-659-1202. Thank you for this opportunity to serve your environmental needs.

Sincerely,

EFI Global, Inc.

Christopher Eustis
Assistant Project Manager

John Vaz
Project Manager

EFI Global, Inc.

155 West Street | Suite 6 | Wilmington, MA 01887 | PHONE 978.688.3736 | FAX 978.688.5494 | FREE 800.659.1202

ASBESTOS & HAZARDOUS MATERIALS SURVEY REPORT

**PIETY CORNER HOUSE
380 LEXINGTON STREET
WALTHAM, MA 02452**



Prepared for:

**Mr. Joseph Pedulla, MCCPO, CPM
Chief Procurement Officer
City of Waltham
610 Main Street
Waltham, MA 02452**

Prepared by:



**155 West Street, Suite 6
Wilmington, Massachusetts 01887
EFI Project Number 020.00401**

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY	4
2.0 ASBESTOS CONTAINING MATERIALS SURVEY	7
2.1 <i>Sampling Methodology.....</i>	7
2.2 <i>Asbestos-Containing Materials.....</i>	8
2.3 <i>Additional Considerations/ Specific Recommendations.....</i>	8
2.4 <i>General Recommendations.....</i>	9
3.0 LEAD-BASED PAINT INSPECTION AND METHODOLOGY.....	9
3.1 <i>Summary of Findings.....</i>	9
3.2 <i>Regulatory Implications and Recommendations</i>	9
4.0 PCB/MERCURY-CONTAINING LIGHT FIXTURES (UNIVERSAL WASTE)	10
4.1 <i>Summary of Findings.....</i>	11
5.0 OTHER HAZARDOUS MATERIALS	11

TABLES

TABLE 1 – UNIVERSAL WASTE & HAZARDOUS MATERIALS INVENTORY

ATTACHMENTS

ATTACHMENT A – PHOTOGRAPHS
ATTACHMENT B - ASBESTOS LABORATORY REPORT
ATTACHMENT C - LEAD PAINT LABORATORY REPORT
ATTACHMENT D – SAMPLE LOCATION DRAWINGS

1.0 EXECUTIVE SUMMARY

This report presents the results of the pre-renovation survey for asbestos-containing materials (ACM), lead-based paint (LBP), Universal Waste (e.g., PCB- and mercury-containing electrical equipment) and other hazardous materials (OHM) at Piety Corner House located at 380 Lexington Street in Waltham, Massachusetts (Site).

EFI's asbestos and hazardous materials survey of the Site building was conducted on March 15, 2019. The scope of work for EFI's limited survey was to perform a walkthrough of the building to identify the types, locations, and quantities of ACMs and perform laboratory testing of suspect ACMs. In addition, EFI performed a lead paint screening of representative painted/coated building components, and inventoried Universal Waste and OHMs present on the interior and exterior of the building. The purpose of EFI's limited survey was to identify and quantify ACMs, Universal Waste, and OHMs that may need to be removed prior to building renovation activities and to identify lead containing lead that may present on the interior and exterior of the site building.

The Piety Corner House is a two-story residence with a basement, totaling approximately 3,800 square feet in area. The building is constructed of a wooden frame with exterior vinyl siding. Interior finishes consist of gypsum wallboard, ceramic tiles, and wooden floor boards.

Asbestos

Section 2.0 outlines the procedures and results of the asbestos survey. The survey involved locating, quantifying, and evaluating the condition of accessible suspect ACMs using bulk sampling and visual inspection techniques.

The asbestos inspection was performed by Massachusetts-licensed asbestos inspector Mr. Christopher Eustis (License No.: AI900600). A total of 28 samples of suspect asbestos-containing materials (ACM) were analyzed for asbestos content during the survey. EFI's inspectors performed the visual inspection and bulk sampling of suspect ACMs on Site and submitted them under chain of custody protocol to EMSL Analytical, Inc. (EMSL) of Cinnaminson, New Jersey, a Massachusetts-licensed laboratory. Samples were analyzed with a standard 5-day turnaround time using polarized light microscopy (PLM) in accordance with United States Environmental Protection Agency (USEPA) Method 600/R-93/116. The findings of this report are based upon observations of accessible materials and the analysis of representative bulk samples collected.

All of the samples of suspect ACMs collected by EFI were reported by EMSL as containing no detectable asbestos.

If suspect ACMs other than the above-referenced materials are identified during renovation activities, EFI recommends that they be sampled by a Massachusetts-licensed asbestos inspector and analyzed by a Massachusetts-licensed asbestos analytical laboratory. EFI is available to assist with abatement contractor oversight and air monitoring as required by applicable state and federal asbestos regulations.

Lead-Based Paint

Section 3.0, outlines the procedures and results of the lead paint survey. During the survey, EFI performed limited testing for lead-based paint in accessible areas of the building, which involved the collection of paint chip samples from representative painted/coated surfaces. Lead analysis was conducted with a standard 5-day turnaround time by EMSL using atomic absorption spectrometry (AAS) in accordance with USEPA method SW846-7420.

EMSL reported that the white paint on the wooden door frame, and the yellow, teal, blue, green, and pink paint on the sheetrock walls were reported by EMSL as containing a lead concentration of below the laboratory detection limit of 0.0080 % by weight. These results are lower than the US EPA regulatory limit of 0.5% by weight for classification as a "lead based paint."

It is recommended that construction or demolition personnel conducting demolition work at the Site building comply with applicable OSHA Lead Construction Standard requirements during all construction activities at the Site. The analytical results of the testing performed by EFI, including location, building component, and percent lead for each interior/exterior building component tested are presented in Attachment C.

Universal Waste

Section 4.0 outlines the procedures and results of the Universal Waste survey. EFI conducted a visual inspection for the presence of PCB and/or mercury-containing fluorescent light fixture components within the interior of the building. EFI identified suspected PCB and di (2-ethylhexyl) phthalate (DEHP)-containing light ballasts, and mercury-containing fluorescent light bulbs throughout the building. It is recommended that identified Universal Waste at the Site building be properly removed, packaged, transported, and disposed by a qualified contractor.

Other Hazardous Materials

Section 5.0 outlines the procedures and results of the OHM survey/inventory. Other hazardous materials observed within the Site building included mercury thermostats/switches, lead acid batteries, fire extinguishers, and various containerized wastes. It is recommended that the identified Hazardous Materials at the Site building be properly removed, packaged, transported, and disposed by a qualified contractor. An inventory of OHMs identified during EFI's survey is presented in Table 1.

Limitations

This report is intended for the sole use of City of Waltham and is not to be used as a bidding document. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of other users, and use or re-use of this document or the findings, conclusions, or recommendations, is at risk of said user. This investigation was performed to identify readily accessible and visible hazardous materials, however, it should not be assumed that all hazardous materials in the building have been identified due to issues relating to accessibility of rooms, inaccessible building areas and wall/ceiling cavities.

Destructive Testing: When specifically requested as 'destructive testing', and in accordance with industry standards, EFI uses destructive investigation techniques to identify if suspect asbestos-containing materials exist within areas not immediately observable from interior building spaces, (termed 'hidden' or 'inaccessible' areas). EFI's destructive investigations are conducted with hand tools on representative interior wall and ceiling systems and pipe chases that appear to be homogenous in the judgment of the inspector and are not intended to impact the structural integrity or safety of the building. Therefore, not all hidden or inaccessible areas may be accessed during destructive testing. This process is a part of the investigation effort to establish homogenous building areas based upon observable, quantifiable construction materials used.

EFI does not perform destructive testing with the use of power tools and heavy equipment. This limitation extends to areas within the building envelope, exterior building cavity, below and behind concrete and masonry floors, walls and ceilings/roofs, unless specifically requested in writing by Client. For buildings or areas that are planned to undergo whole-scale demolition, EFI requires the Client or others to render these areas accessible to EFI or Client shall establish an allowance or contingency representing the potential presence of asbestos containing materials within these inaccessible areas.

Below Grade Exclusions: EFI's survey methods do not included an evaluation of underground asbestos cement water or sewage piping, underground steam lines, or subsurface foundation damp-proofing that may be present at Site unless specific access to the materials are provided to EFI.

EFI's professional services have been performed, our findings obtained and our recommendations prepared in accordance with customary principles and practices in the field of environmental science and engineering. This statement is in lieu of other statements either expressed or implied. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated.

2.0 ASBESTOS CONTAINING MATERIALS SURVEY

2.1 Sampling Methodology

The survey was performed by USEPA-accredited and Massachusetts-licensed asbestos inspectors. EFI conducted a thorough inspection of accessible areas of the Site. Limited exploratory demolition was performed on the interior and exterior of the buildings to evaluate the potential presence of hidden asbestos-containing materials using hand tools. Bulk samples representing individual homogenous areas of suspect materials were collected in a randomly distributed manner, in accordance with the methods outlined below.

Building materials exist in the form of thermal systems insulation (TSI), surfacing materials, and miscellaneous materials. The following illustrates the sampling strategy implemented by EFI:

- (a) Surfacing materials (e.g., wall and ceiling plaster) - In a randomly distributed manner, collect bulk samples of surfacing materials, representative of each homogeneous area, and not assumed to be ACM.
 - (1) Collect at least three bulk samples from each homogeneous area that is less than or equal to 1,000 ft².
 - (2) Collect at least five bulk samples from each homogeneous area that is greater than 1,000 ft², but less than or equal to 5,000 ft².
 - (3) Collect at least seven bulk samples from each homogeneous area that is greater than 5,000 ft².
- (b) Thermal systems insulation (e.g., pipe fitting insulation, tank insulation, etc.)
 - (1) In a randomly distributed manner, collect at a minimum, three (3) bulk samples of thermal systems insulation material, representative of each homogeneous area, and not assumed to be ACM.
 - (2) Collect, at a minimum, one (1) bulk sample of patched thermal systems insulation, representative of each homogenous area, and not assumed to be ACM, providing the section of patch was less than 6 linear or square feet.
 - (3) Collect, at a minimum, three (3) representative bulk samples of each insulated mechanical system not assumed to be ACM, including, but not limited to cementitious material used on pipe fittings such as tees, elbows, or valves. Representative sampling was conducted in a manner sufficient as to identify whether each homogenous area is either asbestos or non-asbestos containing.
 - (4) Bulk samples are not required to be collected from any homogeneous area where the accredited asbestos inspector has determined that the thermal systems insulation is a non-suspect material (i.e., fiberglass, foam glass, rubber, or any other non-ACM).
- (c) Miscellaneous materials (e.g., floor and ceiling tiles) - Collect, at a minimum, two (2) representative bulk sample of each miscellaneous material assumed to be ACM, including, but not limited to ceiling tiles, floor tiles, associated floor tile mastic, etc. Representative sampling was conducted in a manner sufficient as to identify whether each homogenous area is either asbestos or non-asbestos containing.

2.2 Asbestos-Containing Materials

The following suspect ACMs sampled by EFI were reported by EMSL as containing no detectable asbestos:

- White paper under siding
- White ceramic tile glue molding
- White ceramic tile grout
- Sheetrock
- Joint compound
- Textured paint
- White sink mastic
- Cement patch
- Grey glazing on vinyl windows
- Black asphalt roof shingles
- White paper under roof shingles

Samples of suspect asbestos-containing materials were submitted under chain of custody protocol to EMSL Analytical, Inc. (EMSL) of Cinnaminson, New Jersey, a Massachusetts-licensed laboratory. Samples were analyzed with a standard 5-day turnaround time using polarized light microscopy with dispersion staining (PLM/DS) in accordance with Method 600/R-93/116. EMSL is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for bulk asbestos fiber analysis, which is administered by the National Institute of Standards and Testing (NIST).

The PLM/DS analytical method is modeled after 40 CFR Part 763, Subpart F, Attachment A: "Interim Method for the Determination of Asbestos in Bulk Insulation Samples." By using the PLM/DS method, a trained microscopist is able to identify and distinguish between asbestos group minerals and other fibrous materials such as cellulose (paper), mineral (rock), wood, or glass fiber. The quantity of each of these substances is estimated on a visual basis and recorded as a percent. If a material contains greater than or equal one percent asbestos, it is considered to be an asbestos-containing material under Massachusetts Department of Environmental Protection (MassDEP) asbestos regulations.

Copies of the asbestos laboratory analytical reports are presented in Attachment B.

2.3 Additional Considerations/ Specific Recommendations

EFI evaluated areas of the building that were reasonably accessible at the time of the survey. EFI's survey scope of work included visual inspection and assessment of areas behind sheetrock ceilings and walls only in locations where exploratory demolition using hand tools was possible.

EFI performed roof sampling during the survey to determine whether asbestos-containing roofing materials are present.

EFI recommends that any hidden materials uncovered during future renovation activities, and not identified within this report, be assumed to be asbestos-containing until laboratory analysis proves otherwise. EFI's survey did not include an assessment for the presence of underground steam lines, and underground transite water/sewer lines that may be present at the Site.

2.4 General Recommendations

If suspect ACMs other than the above-referenced materials are identified during renovation activities, EFI recommends that they be sampled by a Massachusetts -licensed asbestos inspector and analyzed by a Massachusetts-licensed asbestos analytical laboratory. EFI is available to assist with abatement contractor oversight and air monitoring as required by applicable state and federal asbestos regulations.

3.0 LEAD-BASED PAINT INSPECTION AND METHODOLOGY

During the survey, EFI performed limited testing for lead-based paint in accessible areas of the interior and exterior of the Site building, which involved the collection of paint chip samples from representative painted/coated surfaces. Lead analysis was conducted by EMSL with a standard 5-day turnaround time by EMSL using atomic absorption spectrometry (AAS) in accordance with US EPA method SW846-7420.

3.1 Summary of Findings

The EPA defines “lead-based paint” as paints or coatings containing lead in concentrations of greater than 0.5 percent by weight or 1.0 mg/cm². EMSL reported that the white paint on the wooden door frame, and the yellow, teal, blue, green, and pink paint on the sheetrock walls were reported by EMSL as containing a lead concentration of below the laboratory detection limit of 0.0080 % by weight. These results are lower than the US EPA regulatory limit of 0.5% by weight for classification as a “lead based paint.”

A copy of the lead paint laboratory analytical report is presented in Attachment C.

3.2 Regulatory Implications and Recommendations

Regulatory Implications

OSHA defines any detectable concentration of lead in paint as a potential lead exposure hazard to workers performing construction or demolition work that disturbs these surfaces, as even small concentrations of lead can result in unacceptable employee exposures. The level of exposure varies based upon the lead concentration, method of removal, and other workplace conditions. Since these conditions can vary greatly, the OSHA Lead Construction Standard (29 CFR 1926.62) requires exposure monitoring or the use of historical or objective monitoring data to ensure that employee exposures do not exceed the OSHA action level of 30 micrograms per cubic meter of air ($\mu\text{g}/\text{m}^3$) and the OSHA permissible exposure limit (PEL) of 50 $\mu\text{g}/\text{m}^3$.

OSHA requires that contractors monitor employee exposures if coated surfaces with paint containing lead are impacted during construction or demolition. Contractors and employers of staff who may disturb these materials are obligated to perform a negative exposure assessment in accordance with OSHA regulations to document that exposure to lead does not exceed the OSHA action level and the PEL.

OSHA states that the employer must treat employees as if they would be exposed above the PEL until the employer 1) performs an exposure assessment that documents that employees are not exposed above the PEL or 2) can supply prior data regarding the same type of work which may exempt them from the standard.

The OSHA Lead Construction Standard applies to many construction activities including the following:

- manual demolition of structures, manual scraping, manual sanding, and use of heat gun where lead-containing coatings or paints are present;
- abrasive blasting enclosure movement and removal;
- power tool cleaning;
- lead burning;
- using lead-containing mortar or spray painting with lead-containing paint;
- abrasive blasting, rivet busting, or welding, cutting, or burning on any structure where lead-containing coatings or paint are present;
- cleanup activities where dry expendable abrasive are used; and
- any other task the employer believes may cause exposure in excess of the PEL.

The contractor must provide respiratory protection, protective work clothing and equipment, change areas, hand washing facilities, biological monitoring, and training until an exposure assessment has determined that the work activity will result in an exposure below the PEL. Additional requirements under the standard include a written compliance program, as well as, record keeping.

The contractor must also characterize and dispose of all dust, debris, and blast media (if applicable) in accordance with US EPA and RIDOH regulations. This includes waste characterization of dust, debris and blast media generated during paint removal activities via the toxicity characteristic leaching procedure (TCLP).

Waste Disposal Implications

Waste disposal is governed by the EPA's Resource Conservation and Recovery Act (RCRA) regulations, which distinguish between solid wastes and hazardous wastes. Solid wastes include general construction debris and are subject to minimum handling, transportation, and landfill disposal requirements under RCRA regulations. Hazardous wastes, including certain lead-containing materials, are subject to restrictions designed to prevent the hazardous materials from entering the environment. Lead waste is classified as hazardous or non-hazardous based on the results of the TCLP testing. The leachability test measures whether or not lead leaches from the waste in excess of the regulated level of 5.0 mg/L. If the results of the TCLP analysis exceed this level, the waste must be handled, transported and disposed as a hazardous waste in an approved waste site, reclamation facility or incinerator site. EPA's regulations require the TCLP test be performed so that it represents the matrix and material of the waste stream.

Recommendations

It is recommended that construction or demolition personnel conducting work at the facility comply with applicable OSHA Lead Construction Standard requirements during all construction activities at the Site.

4.0 PCB/MERCURY-CONTAINING LIGHT FIXTURES (UNIVERSAL WASTE)

The primary concern regarding the disposal of used light ballasts is the health risk associated with exposure to PCBs. Fluorescent light ballasts contain a small capacitor that may contain high concentrations of PCBs (greater than 90% pure PCBs or 900,000 ppm). These chemical compounds were widely used as insulators in electrical equipment such as capacitors, switches, and voltage regulators through the late

1970s. Fluorescent light ballasts manufactured prior to 1979 may contain small quantities of PCBs. Recently manufactured fluorescent light ballasts are required to have "No PCB" labels. Light ballasts that do not have "No PCB" labels should be treated as PCB-containing and handled/disposed of accordingly. In addition, if light ballasts do not have "No PCB" labels, the manufacturer should be contacted to ascertain the presence of PCBs. Following the ban of PCB production, in 1979 manufacturers began using di (2-ethylhexyl) phthalate (DEHP) as a replacement to PCBs. DEHP is listed as a hazardous substance under the USEPA's Superfund regulations. Generators discarding of light ballasts should take the same precautions with their DEHP ballasts as they do with their PCB ballasts to avoid any future liabilities.

The primary concern regarding the disposal of fluorescent light bulbs is the health risk associated with exposure to mercury. Fluorescent light bulbs contain a small quantity of mercury that can be harmful to the environment and to human health when improperly managed. Mercury is regulated under RCRA, which is administered by the USEPA. To prevent these toxic materials from contaminating the environment, EFI recommends that fluorescent light bulbs be disposed/recycled of in accordance with applicable regulations.

4.1 Summary of Findings

EFI conducted a survey to determine the estimated number of fluorescent light bulbs and ballasts located throughout the buildings. Investigative findings indicate that ballasts located within the building are either unlabeled or have labels that identify them as "No PCBs." It is recommended that all ballasts be removed from the building and disposed in accordance with applicable federal, state, and local regulations. EFI recommends recycling of fluorescent light bulbs in accordance with applicable state and federal regulations. A detailed inventory of fluorescent light tubes and ballasts is provided in Table 1.

5.0 OTHER HAZARDOUS MATERIALS

EFI performed an inventory of hazardous chemicals, petroleum and mechanical equipment located within the building that will require special handling and disposal prior to building renovation activities. During the survey, EFI identified mercury thermostats/switches, lead acid batteries, fire extinguishers, and various containerized wastes within the Site building. An inventory of the identified building-related hazardous materials is presented in Table 1.

It is recommended that identified Other Hazardous Materials at the Site building be properly removed and disposed by a qualified contractor.

TABLE 1

UNIVERSAL WASTE & HAZARDOUS MATERIALS INVENTORY

Material Description (Hazard)	Material Location	Estimated Quantity
Fluorescent Light Tubes	Basement	1 Unit
Fluorescent Light Ballasts	Basement	1 Unit
Smoke Alarms	Throughout Interior	10 Units
Fire Extinguisher	Throughout Interior	1 Unit
Mercury Thermostats	Throughout Interior	8 Units
Cans of Spray Paint	Kitchen	3 Units

ATTACHMENT A

PHOTOGRAPHS

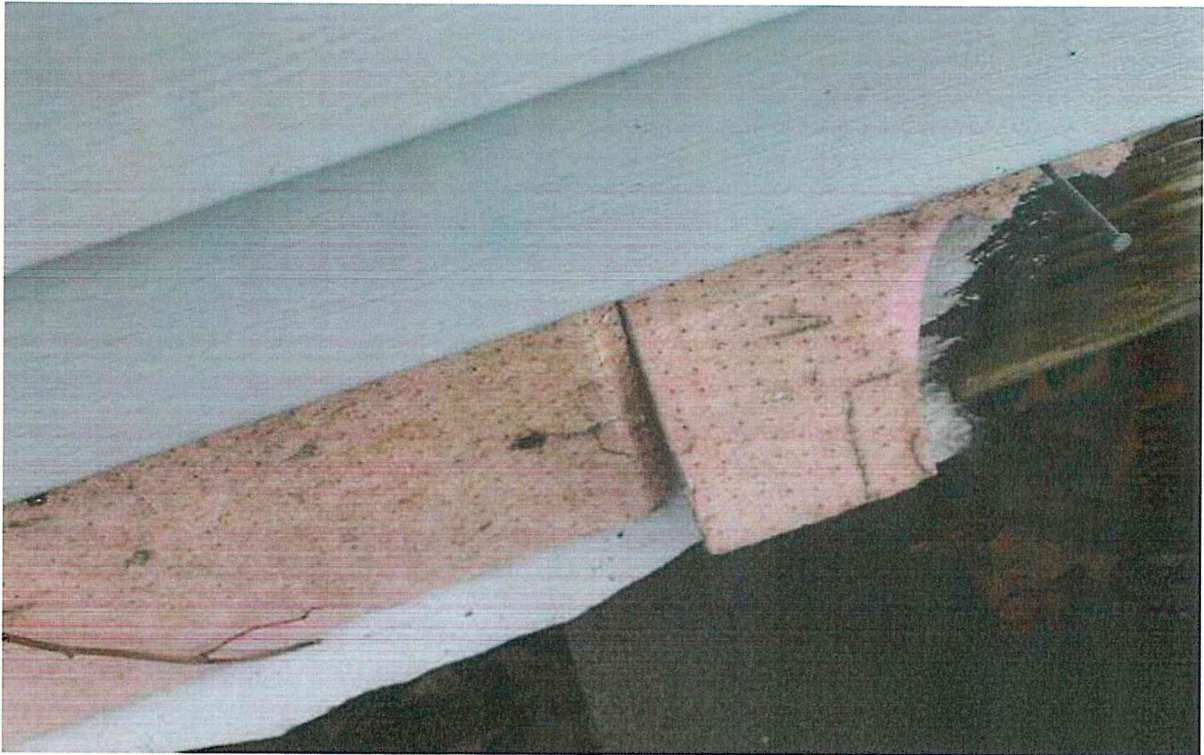


Figure 1: White paper under siding



Figure 2: Ceramic tiles



Figure 3: Ceramic tile molding

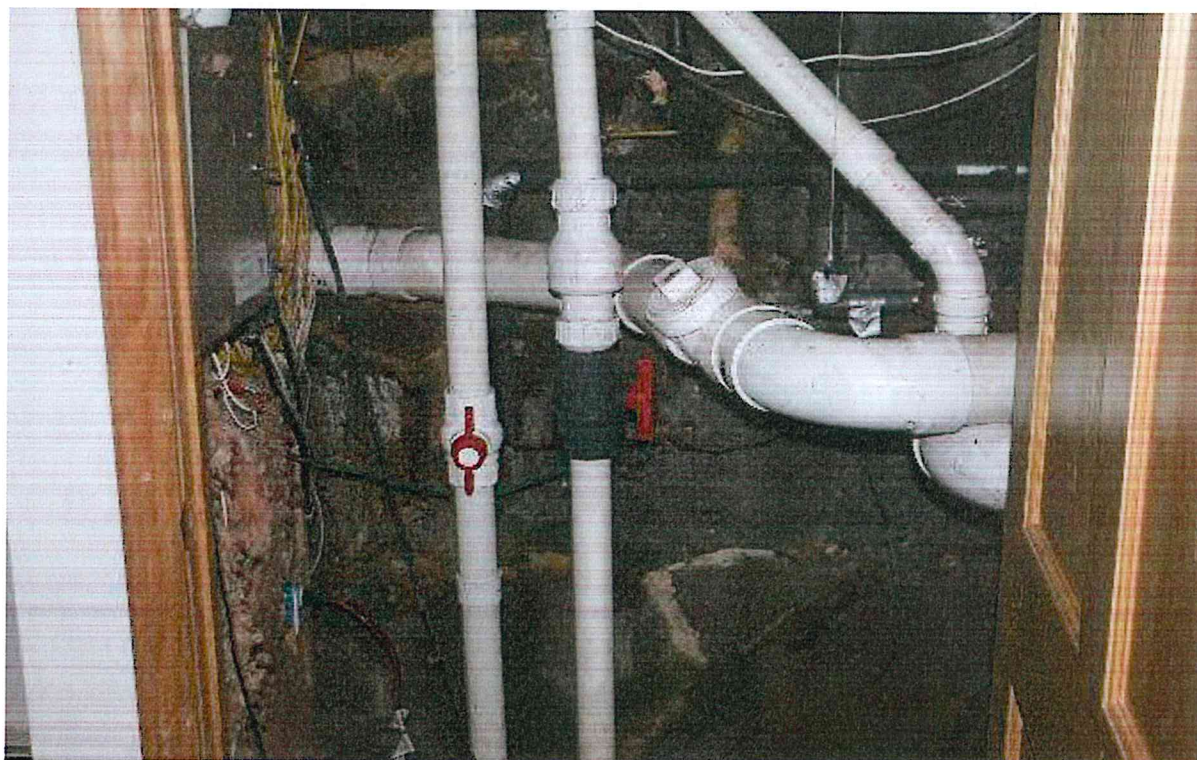


Figure 4: Basement closet



Figure 5: Textured paint



Figure 6: Basement



Figure 7: Ceramic tiles in bathroom



Figure 8: Furnace



Figure 9: Throw rugs on wooden floor

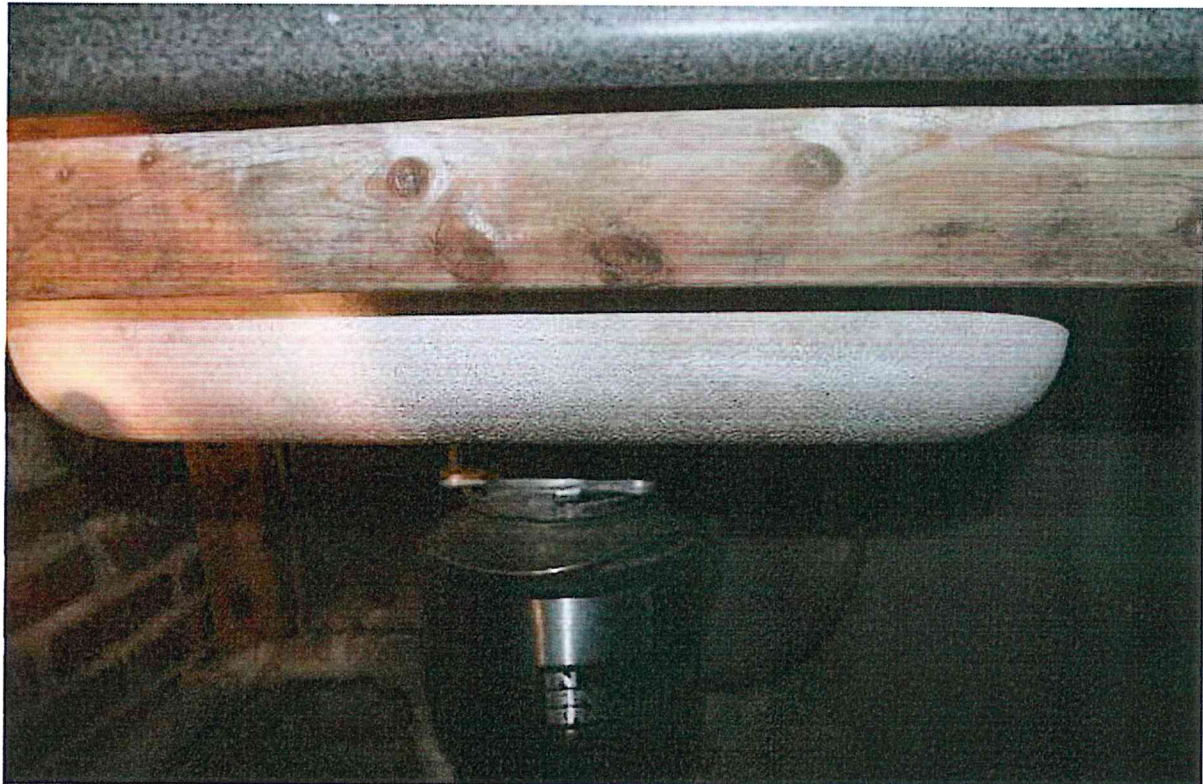


Figure 10: White sink mastic



Figure 11: Fiberglass insulation in attic

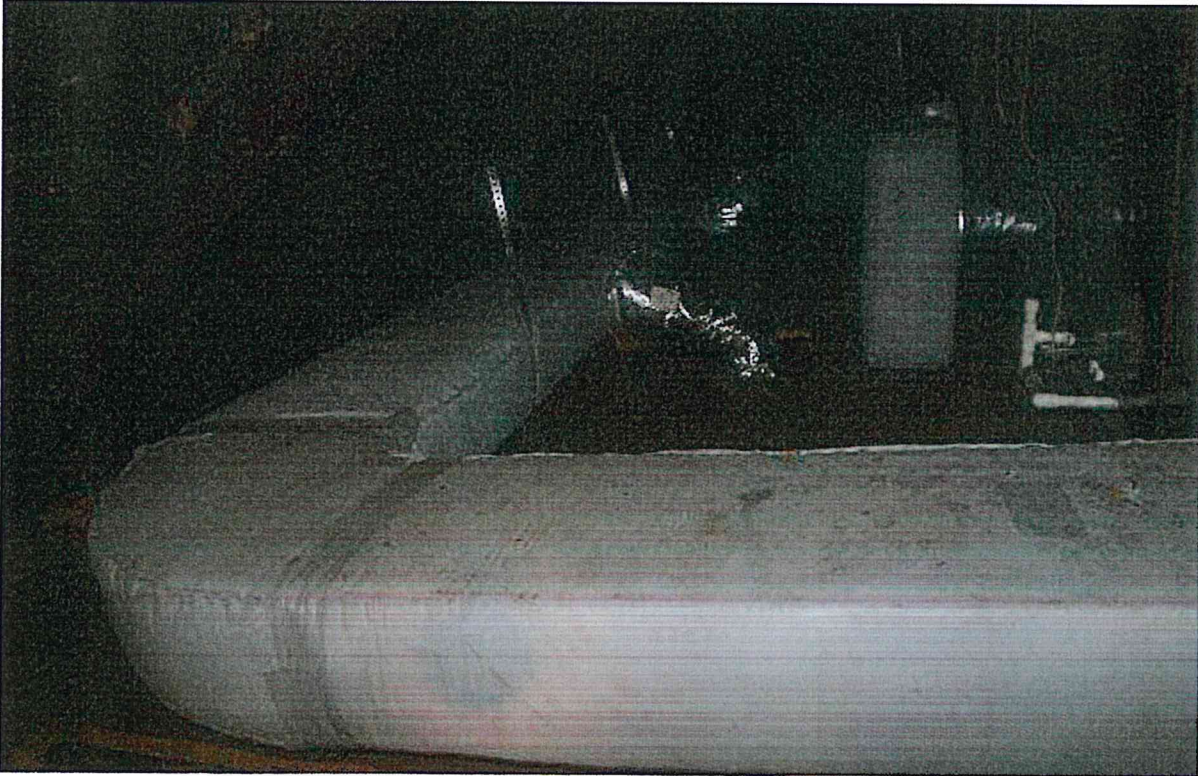


Figure 12: Fiberglass insulation in attic



Figure 13: Attic



Figure 14: Asphalt roof shingles



Figure 15: Grey glazing on vinyl windows

ATTACHMENT B
ASBESTOS LABORATORY REPORT



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 041907261
Customer ID: EAFI66
Customer PO:
Project ID:

Attention: Chris Eustis
EFI Global, Inc.
155 West Street
Suite 6
Wilmington, MA 01887
Project: 020.00401 / City of Haltham

Phone: (781) 801-7464
Fax: (978) 688-5494
Received Date: 03/18/2019 9:10 AM
Analysis Date: 03/24/2019 - 03/25/2019
Collected Date: 03/15/2019

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
01A 041907261-0001	Exterior - White Paper under Siding	White Fibrous Homogeneous	85% Synthetic	15% Non-fibrous (Other)	None Detected
01B 041907261-0002	Exterior - White Paper under Siding	White Fibrous Homogeneous	75% Synthetic	25% Non-fibrous (Other)	None Detected
02A 041907261-0003A	Kitchen - White Ceramic Tile Molding	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
02B 041907261-0004A	Kitchen - White Ceramic Tile Molding	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
03A 041907261-0005	Kitchen - White Ceramic Tile Grout	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
03B 041907261-0006	Kitchen - White Ceramic Tile Grout	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
04A 041907261-0007	Kitchen - Sheetrock	White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
04B 041907261-0008	Living Room - Sheetrock	White Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
05A 041907261-0009	Kitchen - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
05B 041907261-0010	Living Room - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
05C 041907261-0011	2nd Floor Bedroom 1 - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
05D 041907261-0012	2nd Floor Bedroom 2 - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
05E 041907261-0013	2nd Floor Bedroom 3 - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
05F 041907261-0014	Basement - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
05G 041907261-0015	Basement - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
06A 041907261-0016	Basement - Textured Paint	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Report amended: 03/29/2019 15:19:54 Replaces initial report from: 03/25/2019 16:21:05 Reason Code: Data Entry-Change to Appearance



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com / cinnaslab@EMSL.com>

EMSL Order: 041907261
Customer ID: EAFI66
Customer PO:
Project ID:

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
06B 041907261-0017	Basement - Textured Paint	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
06C 041907261-0018	Basement - Textured Paint	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
07A 041907261-0019	Basement - White Sink Mastic	White Fibrous Homogeneous	40% Cellulose	60% Non-fibrous (Other)	None Detected
07B 041907261-0020	Basement - White Sink Mastic	White Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
08A 041907261-0021	Basement - Cement Patch	Brown/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
08B 041907261-0022	Basement - Cement Patch	Brown/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
09A 041907261-0023	Exterior - Grey Glazing on Vinyl Windows	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
09B 041907261-0024	Exterior - Grey Glazing on Vinyl Windows	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10A 041907261-0025	Exterior - Black Asphalt Roof Shingles	Black Fibrous Homogeneous	10% Glass	90% Non-fibrous (Other)	None Detected
10B 041907261-0026	Exterior - Black Asphalt Roof Shingles	Black Fibrous Homogeneous	10% Glass	90% Non-fibrous (Other)	None Detected
11A 041907261-0027	Exterior - White Paper under Roof Shingles	White Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
11B 041907261-0028	Exterior - White Paper under Roof Shingles	White Fibrous Homogeneous	75% Cellulose	25% Non-fibrous (Other)	None Detected

Analyst(s)

John Flanagan (13)
Maxwell Taylor (15)


Benjamin Ellis, Laboratory Manager
or Other Approved Signatory

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

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367, LA #01427

Report amended: 03/29/2019 15:19:54 Replaces initial report from: 03/25/2019 16:21:05 Reason Code: Data Entry-Change to Appearance



BOSTON NORTH

041907261

BULK SAMPLE CHAIN OF CUSTODY FORM

Report to (Your Name):	Chris Eustis	Bill To:	Accounts Payable
Company:	EFI Global, Inc.	Address:	Same
Address:	155 West Street	City, State, Zip:	Same
	Suite 6	Telephone:	800-659-1202
City, State, Zip:	Wilmington, MA 01887	Fax:	978-688-5494
Project Information			
Project No. and Description:	020.00401 City of Hawthorn		
Email Report to:	Lynda.McDermott@efiglobal.com; Sean.Cassidy@efiglobal.com; Jessica.Rauseo@efiglobal.com		
Alternate (Your Email):			
Requested Turnaround Time:			
<input type="checkbox"/> 3hour	<input type="checkbox"/> 6 hour	<input type="checkbox"/> 1 day (24hr)	<input type="checkbox"/> 2 day (48hr)
		<input type="checkbox"/> 3 day (72 hr)	<input type="checkbox"/> 4 day (96 hr)
		<input checked="" type="checkbox"/> 1 week	<input type="checkbox"/> 2 week
Media and Methodology			
Type of Analysis:	PLM Bulk Visual		Check for Positive Stop: <input checked="" type="checkbox"/>
Notes:	Please analyze all plaster and joint compound samples.		

Sample ID	Type of Material	Location	2019 MAR 18 A 12:54	CHINA TOWN, NJ	RECEIVED
01 A, B	White paper under siding	Exterior			
02 A, B	White ceramic tile glue ^{molding}	Kitchen			
03 A, B	White ceramic tile ^{grout}	↓			
04 A	shoe track	Kitchen			
04 B	↓	Living room			
05 A	Joint Compound	Kitchen			
05 B		Living room			
05 C		2nd Floor bedroom 1			
05 D		2nd Floor bedroom 2			
05 E		2nd Floor bedroom 3			
05 F, G	↓	Basement			

Total Number of Samples Submitted: 28 Date Collected: 3/15/19

Samplers Name: Chris Eustis Samplers Signature: [Signature]

Relinquished By (EFI): [Signature] Date: 3/15/19 Time: _____

Received By (Lab): [Signature] Date: 3/18/19 Time: 9/10

28 total

ATTACHMENT C
LEAD PAINT LABORATORY REPORT



EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856) 303-2500 / (856) 786-5974
<http://www.EMSL.com> cinnaminsonleadlab@emsl.com

EMSL Order: 201902614
CustomerID: EAFI66
CustomerPO:
ProjectID:

Attn: **Chris Eustis**
EFI Global, Inc.
155 West Street
Suite 6
Wilmington, MA 01887

Phone: (978) 688-3736
Fax: (978) 688-5494
Received: 03/18/19 9:50 AM
Collected:

Project: 02080401 Haltham

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

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Weight</i>	<i>Lead Concentration</i>
Pb01 Site: White Paint on Wood Door Frame	201902614-0001		3/21/2019	0.2526 g	<0.0080 % wt
Pb02 Site: Yellow Paint on Sheetrock Wall (Living Room)	201902614-0002		3/21/2019	0.2592 g	<0.0080 % wt
Pb03 Site: Teal Paint on Sheetrock Wall (Kitchen)	201902614-0003		3/21/2019	0.2501 g	<0.0080 % wt
Pb04 Site: Blue Paint on Sheetrock Wall (Bedroom 5)	201902614-0004		3/21/2019	0.2594 g	<0.0080 % wt
Pb05 Site: Green Paint on Sheetrock Wall (Bedroom 1)	201902614-0005		3/21/2019	0.2565 g	<0.0080 % wt
Pb06 Site: Pink Paint on Sheetrock Wall (Bedroom 2)	201902614-0006		3/21/2019	0.2547 g	<0.0080 % wt

Phillip Worby, Lead Laboratory Manager
or other approved signatory

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

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

Initial report from 03/25/2019 08:21:28



Lead (Pb) Chain of Custody EMSL Order ID (Lab Use Only):

PHONE: ()
FAX: ()

201902614

Company: EFI Global		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>		
Street: 155 West St.		<i>Third Party Billing requires written authorization from third party</i>		
City: Wilmington	State/Province: MA	Zip/Postal Code: 01887	Country: US	
Report To (Name): Chris Eustis		Telephone #:		
Email Address: Christopher_Eustis@efiglobal.com		Fax #:	Purchase Order:	
Project Name/Number: <i>0209101 Waltham</i>		Please Provide Results: <input type="checkbox"/> Fax <input type="checkbox"/> Email		
U.S. State Samples Taken: <i>MA</i>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt		
Turnaround Time (TAT) Options* - Please Check				
<input type="checkbox"/> 3 Hour	<input type="checkbox"/> 6 Hour	<input type="checkbox"/> 24 Hour	<input type="checkbox"/> 48 Hour	
<input type="checkbox"/> 72 Hour	<input checked="" type="checkbox"/> 1 Week	<input type="checkbox"/> 2 Week		
<small>*Analysis completed in accordance with EMSL's Terms and Conditions located in the Price Guide</small>				
Matrix	Method	Instrument	Reporting Limit	Check
Chips <input checked="" type="checkbox"/> % by wt. <input type="checkbox"/> mg/cm ² <input type="checkbox"/> ppm (mg/kg)	SW846-7000B	Flame Atomic Absorption	0.01%	<input checked="" type="checkbox"/>
Air	NIOSH 7082	Flame Atomic Absorption	4 µg/filter	<input type="checkbox"/>
	NIOSH 7105	Graphite Furnace AA	0.03 µg/filter	<input type="checkbox"/>
	NIOSH 7300M/NIOSH 7303	ICP-OES	0.5 µg/filter	<input type="checkbox"/>
Wipe* <small>*if no box checked, non-ASTM Wipe assumed</small>	SW846-7000B	Flame Atomic Absorption	10 µg/wipe	<input type="checkbox"/>
	SW846-6010B or C	ICP-OES	1.0 µg/wipe	<input type="checkbox"/>
TCLP	SW846-1311/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	SW846-1311/SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)	<input type="checkbox"/>
SPLP	SW846-1312/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	SW846-1312/SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)	<input type="checkbox"/>
TTLC	22 CCR App. II, 7000B/7420	Flame Atomic Absorption	40 mg/kg (ppm)	<input type="checkbox"/>
	22 CCR App. II, SW846-6010B or C	ICP-OES	2 mg/kg (ppm)	<input type="checkbox"/>
STLC	22 CCR App. II, 7000B/7420	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	22 CCR App. II, SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)	<input type="checkbox"/>
Soil	SW846-7000B	Flame Atomic Absorption	40 mg/kg (ppm)	<input type="checkbox"/>
	SW846-6010B or C	ICP-OES	2 mg/kg (ppm)	<input type="checkbox"/>
Wastewater Unpreserved <input type="checkbox"/> Preserved with HNO ₃ pH < 2 <input type="checkbox"/>	SM3111B/SW846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.7	ICP-OES	0.020 mg/L (ppm)	<input type="checkbox"/>
Drinking Water Unpreserved <input type="checkbox"/> Preserved with HNO ₃ pH < 2 <input type="checkbox"/>	EPA 200.8	ICP-MS	0.001 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.5	ICP-OES	0.003 mg/L (ppm)	<input type="checkbox"/>
TSP/SPM Filter	40 CFR Part 50	ICP-OES	12 µg/filter	<input type="checkbox"/>
	40 CFR Part 50	Graphite Furnace AA	3.6 µg/filter	<input type="checkbox"/>
Other:				<input type="checkbox"/>
Name of Sampler: <i>Chris Eustis</i>		Signature of Sampler: <i>[Signature]</i>		
Sample #	Location	Volume/Area	Date/Time Sampled	
1 Pb01	<i>White Paint on wood door frame</i>			
2 Pb02	<i>Yellow Paint on Sheetrock wall (Living room)</i>			
Client Sample #s: -		Total # of Samples:		
Relinquished (Client): <i>[Signature]</i>	Date: <i>3/15/19</i>	Time:		
Received (Lab): <i>[Signature]</i>	Date: <i>3/18/19</i>	Time: <i>9:50 AM</i>	<i>EX</i>	
Comments:				



EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

LEAD (Pb) CHAIN OF CUSTODY
EMSL ORDER ID (Lab Use Only):

201902614

PHONE: ()
FAX: ()

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Location	Volume/Area	Date/Time Sampled
3 Pb03	Teal Paint on sheetrock wall (Kitchen)		
4 Pb04	Blue paint on sheetrock wall (bedroom 5)		
5 Pb05	Green Paint on sheetrock wall (bedroom 1)		
6 Pb06	Pink paint on sheetrock wall (bedroom 2)		
Comments/Special Instructions:			

5
8
5
5

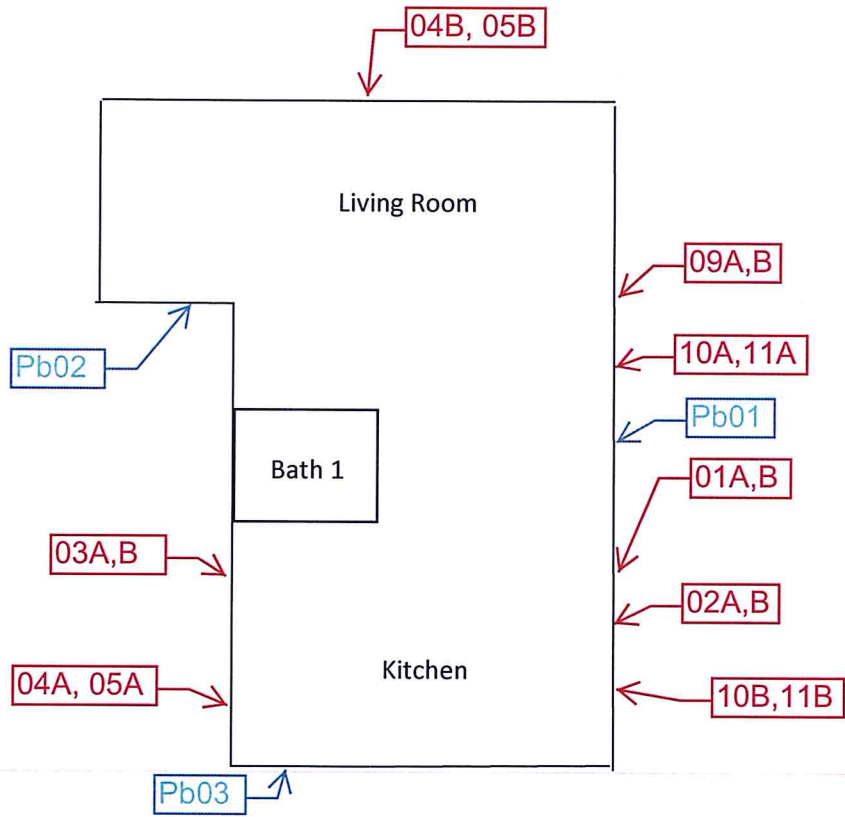
EFI Global, Inc.

March 29, 2019

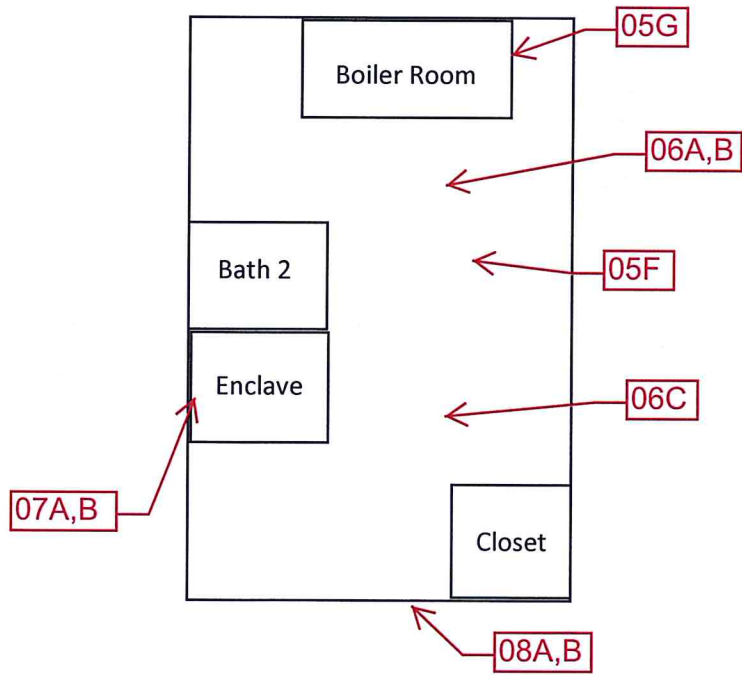
ATTACHMENT D
SAMPLE LOCATION DRAWINGS

Mr. Michael Garvin
EFI Project No.: 020.00401

Piety Corner House
380 Lexington Street, Waltham, MA



1st Floor



Basement

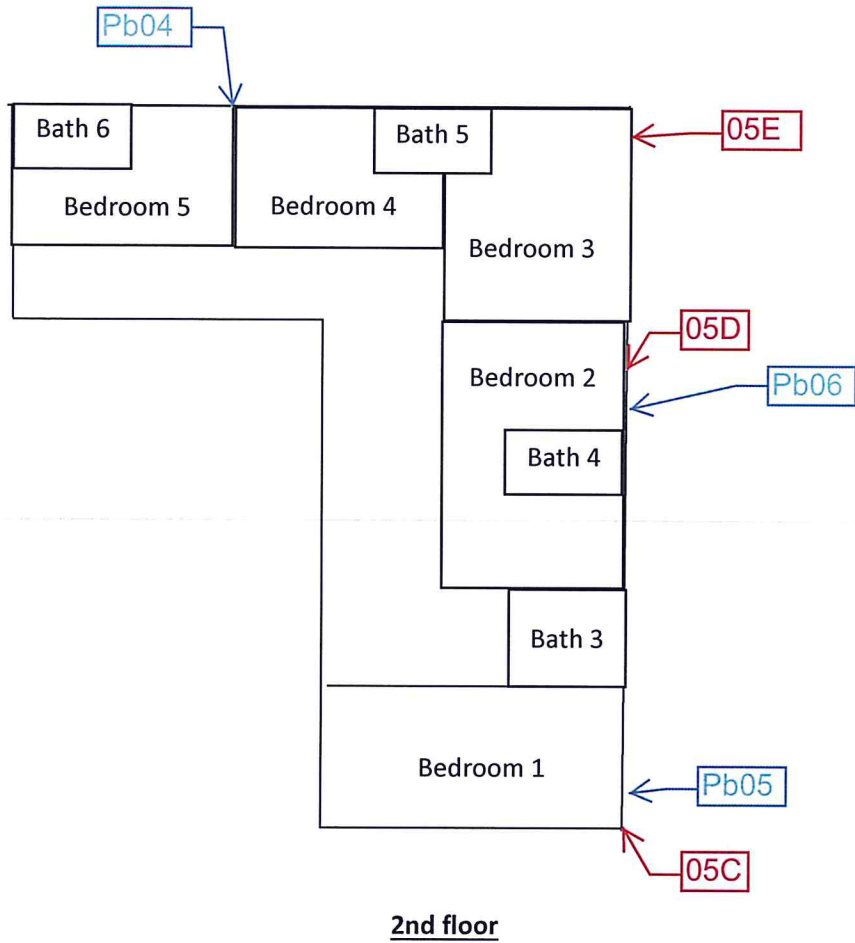
LEGEND

- XXX = Asbestos Samples
- XXX = Lead Paint Samples

Sample Location Plan
Piety Corner House
380 Lexington Street
Waltham, MA



PN: 020.00401	FIGURE
DT:	1
DB:	CB:



LEGEND

- XXX = Asbestos Samples
- XXX = Lead Paint Samples

Sample Location Plan
Piety Corner House
380 Lexington Street
Waltham, MA



PN:020.00401	FIGURE
DT:	2
DB: CB:	